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Edward J. Atkin



# THE ILLUSTRATED GUIDE

TO

heffield

AND

*The Surrounding District,*

COMPRISING

*ACCOUNTS OF THE EARLY HISTORY AND PROGRESS OF THE TOWN, ITS PUBLIC AND RELIGIOUS BODIES, EDIFICES AND INSTITUTIONS, DESCRIPTIONS OF ITS MANUFACTURES, AND OF THE SUBURBAN SCENERY AND PLACES OF INTEREST IN THE SURROUNDING DISTRICT, &c.*

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## INTRODUCTION.

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**T**HIS work, as explained in the introduction to the original edition published in 1862, is intended primarily to be a Guide for the visitor to whatever may be considered interesting in Sheffield and the neighbourhood. It is intended, also, as a book of reference and handbook to which residents can turn for leading facts on every subject connected with the history and progress of the town; its trade and manufactures; its public and religious bodies, buildings, and institutions; its public parks and monuments; its eminent men, interesting remains, &c. With this view, the work has been carefully rewritten in a fuller and more complete form than that in which it was first published. The deeply interesting results of recent research into the history of the town, and the pre-historic remains in and around it, have been summarised. The descriptions of institutions have been revised and completed to the present time. The sketches of eminent citizens have been extended and completed; brief accounts have been added of the Chartist Rising, the Inundation and other interesting events in the modern history of the town, and of the more interesting relics which remain to

us of "Old Sheffield." Detailed descriptions are given of the chief manufactures of the town; and to the descriptions of beautiful scenery and interesting objects in the immediate neighbourhood a Tourist's Guide to the chief scenes and places of interest in the surrounding district has been added.

No credit is claimed for original research. The Rev. Joseph Hunter's History of Hallamshire and Hunter's History of the Deanery of Doncaster, are necessarily the groundwork historically of this volume, as of every history of Sheffield and the adjacent parts of Yorkshire. Among other works from which information has been obtained, are "Wharncliffe," and other sketches by the late John Holland; "Reminiscences of Old Sheffield," by Mr. R. E. Leader; the Journal of the British Archæological Society, several interesting quotations from the contributions of members of that association being acknowledged; the Manufacture of Steel, by Mr. Henry Seebohm; Pilkington's History of North Derbyshire; Chatsworth and Haddon, by Mr. S. C. Hall and Mr. Llewellyn Jewitt, F.S.A.; Reminiscences of Rotherham and the neighbourhood, by Mr. John Guest; "Worksop and the Dukery," by Mr. Robert White, &c., &c. For facts embodied in the chapters on Ancient Earthworks and Manor Lodge, and for other valuable information personally communicated, the Editor is indebted to Mr. J. D. Leader. In these and other parts of the Guide many new facts will be found. All the facts within the range of personal enquiry have been carefully verified; and pains have been taken to render the volume accurate and trustworthy. The work has been arranged with a view to completeness of parts and facility of reference, and will prove, it is hoped, a convenient, interesting, and acceptable addition to local records.

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## ERRATA.

- Page 14, line 5 from bottom, for " party " read " part ."
- " 33, " 14, fo: " Edward " III. read " Henry " III.
- " 45, " 3, last paragraph, for " first " born read " just " born.
- " 50, " 7 from bottom, for " incorporated " read " enfranchised .".
- " 70, " 27, for " Edward " read " Henry " III.
- " 80, " 14, for " immediately adjoining " read " near ."
- " 133, " 9. Since this was written Ald. Grundy has died, and Ald. Tozer has  
been elected chairman of Botanical Gardens' Committee.
- " 190, " 5 from bottom, for " 1874 " read " 1873 ."
- " 196, " 27, for " £80,000 " read " £90,000 ."





VIEW OF SHEFFIELD FROM PARK HILL IN 1740.

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## The Guide to Sheffield.

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WE do not claim for Sheffield that the manufacturing parts are cleaner or less smoky than other similar centres of industry. The town has the reputation of being specially "black"—the railways which traverse the valleys where the large iron and steel works are concentrated, shewing travellers only its least attractive parts; but its extensive suburbs are remarkably beautiful, and perhaps no large town in the kingdom is situated in so charming and picturesque a district. In whatever direction we go beyond the outskirts of the town, a beautiful view is sure to meet the eye; and if the walk is extended four or five miles, delightful combinations of hill and valley, wood and stream, will be found, not to be surpassed except by the most lovely spots of Derbyshire or Cumberland. The town of Sheffield is situated in an amphitheatre of hills; many of the streets being steep, and some even precipitous. It used to be a boast that there was no street in the town from which the country could not be seen. This is no longer literally true; but large

as the town has grown of late years, there are still very few localities from which glimpses of green hill-sides may not be obtained. The very spot on which the town stands must, centuries ago, have been one of the most lovely parts of a very beautiful district. The town is remarkably rich in names redolent of far-past times. "Daisy-walk," "Pea-croft," "Bowerspring," "Balm-green," "Figtree-lane," and other such names are suggestive of the primitive days, when birds warbled and fruits and wild flowers grew on what are now the most densely populated parts of the town; the now inky Don being then a pellucid stream, in which the most prized of fish so abounded that fields on its banks, since become the sites of large manufactories, were known as the "Salmon Pastures."

Sheffield is situated in the south of the West Riding of Yorkshire, on the borders of Derbyshire, and is about equidistant from the eastern and western coasts. It is on the eastern side of the range of lofty hills running southward from Westmoreland into Staffordshire, and often called the back-bone of England. The town is intersected by rivers, which add greatly to the natural beauty of the place, and also assisted in its early development as the great seat of the cutlery manufacture. There are five rivers which unite at the town—the Don, the Loxley, the Rivelin, the Porter, and the Sheaf, not inaptly compared by the poet Elliott to the "five fingers of a hand." None of the rivers are large, the most considerable being the Don, of which the rest are tributaries; the Loxley and Rivelin uniting north-west of the town, and the Porter and Sheaf south-east, before their waters flow into the Don. It is generally supposed that the town derives its name from the Sheaf, which flows through some of the oldest parts of it; but a more recondite though less probable origin has been suggested.

### THE PARISH OF SHEFFIELD.

The parish of Sheffield is ten miles long, extending from the townships of Tinsley and Handsworth, by which it is bounded on the east, to the lofty moorlands of Stanedge, where it terminates on the west. The eastern and more populous part is four miles wide; the western part is about half that width, narrowing to a point at Stanedge. The parish comprises five townships. Brightside Bierlow, the only township north of the river Don, is an irregular semi-circle in shape, having the river

as its curved boundary, and extending beyond Grimesthorpe to the brow of Wincobank hill, where it joins the parish of Ecclesfield. The township of Sheffield is on the south side of the Don, and is flanked by Attercliffe-cum-Darnall on the north-east, and by Nether Hallam on the north-west. In addition to embracing the whole centre of the town—the site of “Old Sheffield”—the township of Sheffield stretches south-east over Park hill to Handsworth, and southwards to Bramall-lane and Heeley-bank. The township of Attercliffe is a triangle, of which Park-hill and the township of Tinsley form the two sides, with the Don as the base. Nether Hallam on the other side of the parish stretches southward from the Don to Crookes and Crosspool, having the Rivelin for its north-western boundary. Ecclesall Bierlow adjoins the township of Sheffield on the south, projecting into the town as far as the Crimean Monument at Moorhead, and the Union Inn at the top of Cambridge-street and Barker’s Pool. It extends thence south-east to Heeley, and south-west to Broomhill, Tapton, and Crosspool. Ecclesall embraces nearly the whole southern and western suburbs, except Heeley and a part of Endcliffe, which are detached portions of Nether Hallam. It also extends over a considerable rural district lying between the Sheaf and the Porter, and stretching south-west a distance of four or five miles to Whirlow Bridge, Whiteley Wood, and Ringinglow. Upper Hallam, the only remaining and largest township, is chiefly agricultural and moorland, but includes the beautiful suburbs of Ranmoor and Fulwood, and the hamlet of Ringinglow. It extends from its junction with Ecclesall and Nether Hallam about due west to Stanedge, having the Rivelin for its northern and the Derbyshire moors for its southern boundary.

The acreage of the townships is as follows:—

SHEFFIELD	-	-	-	3,436½	acres
ECCLESALL BIERLOW	-	-	-	4,180	„
BRIGHTSIDE BIERLOW	-	-	-	2,680	„
ATTERCLIFFE-CUM-DARNALL	-	-	-	1,336½	„
NETHER HALLAM	-	-	-	1,902	„
UPPER HALLAM	-	-	-	8,836	„
				<hr/>	
				22,371	

This brief sketch of the extent and divisions of the parish of Sheffield seems necessary as an introduction to a brief sketch of its early history. We may add that the borough of Sheffield is co-extensive with the parish.

## HALLAMSHIRE.

The town of Sheffield is the centre of a locality the name of which has no doubt puzzled the stranger, as furnishing a "shire" unknown to his early geographical studies. In the north of England "shire" (meaning "share") is not unfrequently applied loosely to designate tracts of country lying round some place of note, and formerly attached to it parochially or in some other way. The peculiarity about Hallamshire is the absence of a town, village, or even a distinct knot of houses to which the name belonged. The Hallam known to history was a Saxon manor of scattered population and of undefined limits (so far as is now known); but certainly comprising the three townships of Ecclesall Bierlow, Nether Hallam and Upper Hallam. It comprised also, there can be little doubt, a considerable tract of country north of the Rivelin, and now forming part of the chapelry of Bradfield, though still belonging to Sheffield Manor. The original manor of Hallam probably included also the townships of Sheffield and Attercliffe, which were subsequently separate manors. However that may be, both those townships, as also Brightside and the outlying parishes of Handsworth, Ecclesfield, and Bradfield, were all considered to be parts of Hallamshire in the time of Charles I., and are so described in the court rolls of that reign. The Act incorporating the Cutlers' Company (James I.) extended the ancient confines of Hallamshire to a circle of six miles from the Parish Church; but that was an arbitrary line drawn for the purpose of bringing the entire cutlery district under the operation of the Act. The fact that the name of Hallam, as applied to the whole district, overshadowed in those early days that of Sheffield, in spite of its castle and resident Lords, has led to the supposition that there was once a castle and city of Hallam. Tradition, indeed, asserts that the hall of a Saxon thane and a "flourishing and populous city of Hallam" stood on the sloping banks of the Rivelin, and that they were destroyed by the Norman Conqueror as an act of vengeance. Much ingenuity has been exercised in support of this tradition, to which some colour was given by the discovery, a century ago, in the neighbourhood of the Rivelin, of two plates of copper bearing an inscription supposed to signify the manumission of three Roman soldiers. It is conjectured that these plates were given to the soldiers as a token of their

admission into Roman citizenship, and (in pursuance of the known policy of some of the Emperors) to induce them to settle in the colony they had helped to conquer; that they betook themselves to the rising community which afterwards became the city of Hallam; and that the plates, which had of course been carefully preserved, were eventually buried in the ruins of the destroyed buildings. These are mere conjectures, and, unfortunately for the tradition they have been cited to support, not the slightest trace has been discovered either of the hall or the city. In the record of the manor of Hallam in Domesday Book, it is indeed asserted that "there Waltheof (the Saxon Lord) had his Aula." The value of this testimony in support of the theory of a Saxon hall and city on the banks of the Rivelin is, however, lessened by the fact that the manors of Sheffield and Attercliffe, though mentioned separately, are described as "inland of Hallam." There is no great stretch of probability, therefore, in assuming that a hall at Sheffield would be stated to be "in Hallam." Nor does there seem to be anything very outrageous in the supposition that the conjoined manors came to be called Hallamshire because of the far greater extent of the manor of Hallam, compared with which the area of the adjoining manors was insignificant. It would be of importance to the Saxon lords to place their "Aula" in a position to guard the main entrance to their domain from the great Roman roads crossing the valley of the Don, whence they would be in most danger of attack. The probability therefore is, that Waltheof's "Aula" occupied the commanding site at the junction of the Sheaf and the Don, where afterwards rose the more stately castle of the Norman Lords of Hallamshire, of which some account will be found in a subsequent page.

Mr. Hunter, who in his *History of Hallamshire* had expressed a strong leaning to the belief in a Saxon hall and city on the banks of the Rivelin, afterwards intimated, in his *history of the Deanery of Doncaster*, a change of opinion in favour of Castle-hill, Sheffield, as the site of Waltheof's "Aula."

The title Hallamshire is by some connected with a popular distich in a way which, though not very apparent at first sight, gives a distinct meaning to a saying otherwise not very intelligible. Hull, Hallamshire, and Halifax were, it is said, three of the districts which during the middle ages existed in this country as small independent States, something like the petty duchies of Germany in the present day. The lords, who had



arbitrary control in these districts, were some of them very rapacious and cruel—in Hull, Hallam, and Halifax peculiarly so, if we are to believe the interpretation put upon the “Hull, Hell (Hallam), and Halifax,” from which people prayed to be “delivered.”



OLD HOUSE IN TOWNHEAD-STREET, BUILT IN 1680.

## ANCIENT EARTHWORKS.

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### TEMPLEBOROUGH, WINCOBANK, &c.

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INTERESTING traces remain in and around Sheffield of the Ancient Britons and their successive conquerors the Romans, Saxons and Danes. Though the people of Hallamshire may now congratulate themselves on being far removed from war's alarms, they were not always so happily placed. At several remote periods the Don was the boundary line of hostile tribes. Before the Roman invasion it seems to have divided the territories of the Coritani and the Brigantes, two rival tribes of Britons; and when, having subdued the Coritani, the Romans advanced northwards, the Brigantes seem to have gathered in great force on its northern banks to resist the invaders.

The principal camp of the Brigantes in this neighbourhood was on the summit of Wincobank—a wooded hill two miles north-east of the town. The camp was elliptical in form, its vallum and ditch enclosing an area of several acres. The outline of the camp may still be traced. It was in the usual form of a British oppidum or town. Within its ample bounds the Brigantes clustered together in huts when the enemy threatened; but in time of comparative security they would make their dwellings on the slopes of the hills outside. Formidable lines of earthworks stretched from the camp east and west. The western rampart crossed the Grimesthorpe valley to the wood now called “Wilkinson Spring,” on the opposite hill, near which it took a sharp turn towards Sheffield, following the line of the hill, and thus commanding a complete view of the valley of the Don from Sheffield to Rotherham. It then followed the line of Occupation-road, behind Hallcarr, crossing Burngreave-road and extending along Tomcross-lane to the ford which crossed the Don at Bridgehouses. The visitor to the camp should turn up the old Grimesthorpe-road, at the Vestry Offices, where the rampart crossed Burngreave-road. This road—“Occupation-road” it was formerly called—was partly

formed in the ditch of the rampart ; the hill on the left, which served for the vallum, having evidently been excavated with the double object of raising the naturally sharp ridge and forming a covered way within the defensive works. Some traces still remain near Hallcarr. Instead of descending into the village of Grimesthorpe by the ordinary road, on passing Hallcarr the visitor should take the footpath on the left, reached by several steps. This footpath passes through Wilkinson Spring, and some remains of a vallum and ditch will be found on the brow of the hill within a few yards of the steps. Wilkinson Spring was a small plantation, and a few years ago the vallum and ditch there were almost as perfect as when they were first formed. The trees have lately been cut down, and a great part of the ditch and vallum have been obliterated in the course of building operations. The footpath is rough and steep, but has the recommendation of being the most direct way to the foot of Wincobank-hill, where the rampart may also be traced a little west of the small brook which runs through Grimesthorpe ; but these traces are being rapidly destroyed in the formation of new roads and the general levelling of the valley. Proceeding up Wincobank-hill from Grimesthorpe, and taking the footpath on a ridge of the wood, the visitor will strike the low bank of earth which constituted the vallum near the brow of the hill, and will have no difficulty in following it round. In some parts he will find it nearly perfect ; in other parts it has been partially destroyed. The views from the encampment are most extensive, including the whole valley of the Don to Templeborough and Rotherham, and the hills for some miles beyond. The eastern rampart forms the boundary of the parishes of Sheffield and Ecclesfield for about a mile, until, passing the Blackburn Brook, it enters the parish of Rotherham, near the works of Messrs. Crowley. This rampart is very distinctly seen from the Midland Railway to Rotherham. It is a rough, steep ridge on the hill-side, above the railway, and was formerly covered with trees, which have been recently cut down with a view to building. The works of Messrs. Crowley have been built on the site of the rampart in the Blackburn Valley, and its continuance on the hill-side is now threatened. Beyond Blackburn the rampart passed through Kimberworth, Greasbrough and Upper Haugh, near Rawmarsh, to Swinton and Mexbrough Common, where there was a camp, of which some slight traces remain. Though the

rampart is only traceable at intervals, no doubt is entertained that the line was continuous along the five or six miles from Wincobank to Mexbrough Common, as also along the shorter distance westward to Bridgehouses. The lines of defence in connection with Winco camp would thus be about eight miles in length, stretching from the marshy Don, at Sheffield, to the marshes which, eighteen hundred years ago, extended from Mexbrough Common to the foot of Conisbrough Cliffs. Winco-bank Hill was raised by a great throw in the coal formation; and the Brigantes, in constructing their formidable lines of earthworks, took advantage of the natural ridges thrown up on both sides by the same agency, raising artificial earthworks where additional strength was required, and excavating a deep ditch in front. The rampart was formerly known as the "Roman Rig" (ridge), but recent researches have shewn the error of ascribing to it a Roman origin. There was an outlying camp in Roe Wood, behind Pitsmoor, the outline of which may still be traced. Such were the camp and works thrown up by the Ancient Britons for the purpose of resisting the Roman invasion.

We now turn to the camp of the invaders, at Templeborough, on the opposite side of the Don, some two or three miles nearer Rotherham. It has long been matter of history that Templeborough was a Roman station; but it was believed to have been a mere earthwork, thrown up as the site for a summer camp. Recent explorations shew that it was much more than this. Some two years ago Mr. J. D. Leader, one of the most intelligent and best informed local antiquarians, having promised to read a paper to the Rotherham Literary Society on the subject of Templeborough, visited the site of the encampment, and found on the surface fragments of Roman pottery, bricks and other relics. This led to a regular exploration, which was begun in October, 1877. The Roman station at Templeborough is two miles west of Rotherham, and nearly opposite Ickles Hall—the "Brinxworth Priory" of *Ivanhoe*—a very fine old mansion, now, with some modern additions, the residence of Mrs. Wood. The station is between the Sheffield and Rotherham turnpike and the river Don, and is easily recognizable, being a square plateau a little over four acres in extent, with regular sloping sides, obviously artificial. The explorers early discovered the foundations of an important building, columned on the east and south fronts. Coins of the earlier Roman Emperors,

Titus, Trajan, Antonius Pius, and Hadrian, were also found. Still more important was the discovery of tiles marked C.III.G. (cohors quarta Gallorum). It was the custom of the Romans in building stations to mark the tiles; and these tiles indicate that the fourth Cohort of the Gauls had been stationed at Templeborough, and probably built the station. The thresholds of the columned building are very much worn by feet, shewing that the building must have been used for a considerable time by a numerous population. It had evidently been a public building, and, if not a temple, was probably a pretorium or court of justice. Tacitus records that Agricola, having subdued the Brigantes, taught them to build temples, places of public resort, and fine houses, and by degrees made them enjoy the comforts of civilization, and was able the more readily to keep them in subjection. The inference from the various evidences we have enumerated is that the station at Templeborough was formed at a very early period of the invasion, and that, like Doncaster, Buxton and Derby, Templeborough was an important permanent station. The columned building occupied a central position on the south side of the plateau, with the camp behind it. At the time we write, the explorations have been carried from the temple or pretorium up to and under the Sheffield and Rotherham road, and have revealed remains of suburban buildings, the exact character of which it is impossible to tell. Further excavations will, no doubt, disclose the foundations of other buildings on the low hills, south of the road, in the direction of Ickles Hall. We have thus the camp with its public buildings on the plateau, and south of it the dwellings of a considerable population flanking a main road leading from the camp southwards to Chesterfield, Derby and Birmingham.

The history of the camp does not however end here. There are evidences of the columned building, which was part of the first station, having been destroyed, and of a more roughly constructed building having been afterwards erected over it. This second building was apparently destroyed by fire, and over its remains the earthwork we now see was thrown up. As to the date of these occurrences it is at present impossible to speak with certainty, but probably the earthwork covering the Roman remains belongs to the periods of the Saxon or Danish invasions, when the camps on both sides the Don would probably be again used by the inhabitants and the invaders.

The people of Rotherham have long been ambitious to claim for their town a Roman origin. Hunter, the historian of Hallamshire, advised them to be satisfied with the Saxon antiquity to which they were undoubtedly entitled; but Hunter had not the benefit of the fuller knowledge since attained. Agricola, who landed in the year 78, and devoted his first campaign to the subjugation of the Welsh, attacked the Brigantes, whose territory extended from sea to sea, in 79, pushing forward to Solway Frith, planting stations as he went. Templeborough, it is now clear, would be one of the more important of these stations. As the Romans retained their hold of these conquests, it would remain a Roman station for two or three centuries, and there can hardly be a doubt that a considerable Roman town would grow up around it. The district between Templeborough and the Rother would be a swamp, protecting the station from attack on that side. There are no indications that the Roman town extended to the hills beyond this swamp, where the town of Rotherham now stands; the inference is that it did not. It is seldom found that the Post-Roman town sprang up on the site of the Roman town. There is said to have been a superstition against building on the exact site, and adjacent sites were usually selected. Derby and Glossop are instances of this, and many others might be named. Rotherham is, no doubt, another instance. In some old accounts of the Feoffees of Rotherham, items have been found for "Carting stones from Templeborough." From this we may infer that the ruins of the Roman station and town were for generations the quarry of the succeeding town, and that a large part of old Rotherham was built of the very stones first used by the Roman invaders.

"Templeborough" was not the ancient name of the station, and is not, in fact, a Roman name. "Borough" indicates fortifications, and the name "Templeborough" was, no doubt, given to the place after the Roman times, in the belief—possibly correct—that the columned building was a temple. No trace of the Roman name has been discovered.

We should mention that in the course of the explorations at Templeborough, a Roman well was found at the south-east corner of the station, and that portions of the columns of the supposed pretorium were found under the soil, near where they had stood. These remain on the ground, and, together with the foundations, may be seen by visitors. Roman bowls, jars,

tiles, coins, and other interesting relics are shewn at the rooms of the Rotherham Literary Society.

The Winco and Templeborough stations were not mere isolated defences, but parts of a general system of fortifications. The British western line of defences, for instance, extended across Derbyshire, including the fortifications known as "Carl's Wark," on the Hathersage Moor, a camp behind Hathersage Church, of which distinct traces remain, and camps on Mam Tor, near Castleton, and Coombs Moss, near Chapel-en-le-Frith; these not being however parts of a continuous line of defences, but a series of detached forts, from which the enemy could be watched and harassed in penetrating a wild and difficult country. Carl's Wark is remarkable for a wall built of large stones backed by earth. The Roman line of defences extended east from Templeborough to Doncaster, including, possibly, an intermediate camp at Conisbrough; and westward to Brough and Buxton. There is a tradition that the Parish Churchyard at Sheffield was one of the Roman camps. The name of the adjoining street—"Campo-lane,"—and the discovery of Roman coins, are mentioned as proofs of this, but the tradition is not authenticated. The encampment at Brough has not been excavated; but Doncaster and Buxton are well known Roman stations, remains having been found at both of them. At Buxton the Romans had hot baths, remains of these baths having been found during the excavations for the building of the crescent.

The ancient earthworks at Bradfield and at Laughton-en-le-Morthen, of which mention will be found in connection with those districts, were of a later date, being Saxon or Danish.

## Sheffield & its Lords after the Norman Conquest.

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THE history of Sheffield during the centuries that elapsed between the Roman and the Norman conquests is, to a large extent, legendary. We know from general history, and the earthworks they left behind them, that the Saxons and Danish invaders penetrated into these parts, and that during the Heptarchy Hallamshire was on the confines of the two Saxon kingdoms of Northumbria and Mercia, and was, therefore, as before the Roman conquest, exposed in an unusual degree to the ravages of war. We have reasons for believing that in those early days, probably as the fruit of Roman teaching, a portion of the inhabitants were smelters of iron, and engaged in the manufacture of weapons of war; but it is not until we reach the time of the Norman invasion we find any definite information of the state of the district. From the Domesday survey we learn that, although it was less prosperous than in the time of Edward the Confessor, there were considerable tracts of land under cultivation in Brightside Bierlow, Attercliffe, and Sheffield, in various occupations, and that there was a great manor of Hallam, in which were sixteen hamlets and several thousand acres of land under cultivation. Thus at the time of the Norman conquest Hallamshire was a comparatively rich and prosperous district, and Waltheof, its lord, was probably the last of a succession of Saxon lords who had an "Aula" there. Waltheof was undoubtedly a man of note in his time, and some interest attaches to him as the son of Siward, who commanded the English army sent to Scotland against Macbeth. He made a noble stand against the Normans, defending York with great bravery. The Conqueror, who knew how to respect bravery in a foe, confirmed Waltheof in his possessions and gave him his niece, the Countess Judith, to wife. In an unguarded moment Waltheof was afterwards drawn into a conspiracy against the Conqueror, and, though he repented and confessed, was executed at Winchester in 1075. The Saxons mourned his death, attributed to the treachery of his countess, as the destruction of their last hope.



The Countess retained her husband's lands until she offended the Conqueror by refusing to accept a lame knight for her second husband, whereupon the manor of Hallam came into the possession of Roger de Busli, the Norman Lord of Tickhill. During the reign of Henry I. Sheffield and other large estates in Yorkshire, formerly held by De Busli, came into possession of the De Lovetots; how, is not known. The De Lovetots were barons of Huntingdonshire, and a powerful family. They selected Sheffield as their Yorkshire residence, and their arms are now in the Parish Church, of which they are supposed to have been the founders. Their tenure was a brief one. As early as the reign of Henry II. the heiress of the family carried the estates to the Furnivals as her dowry. There is a tradition that King John visited Gerard de Furnival, at Sheffield Castle, in 1215. This is likely to be true, as the King, who spent much of his time at Sherwood forest, was at war with his barons, and Gerard de Furnival was one of his most powerful friends. According to another tradition, the same King subsequently stayed a night at Sheffield on his way to York, lodging at a house in High-street, pulled down only a few years ago, and was so pleased with his entertainment that he granted various privileges to the inhabitants; but the tradition is improbable. The Furnivals were lords of Hallamshire 180 years, the last male of the line dying in 1406, and the estates then passed by marriage to the Talbots, one of the most celebrated and powerful of our old noble families. From this time forward for a lengthened period the early history of Sheffield is intimately connected with that of the house of Talbot. It would be out of place here to give even an outline of the lives of the great Earls of Shrewsbury, seven of whom enjoyed the Hallamshire estates. There are, however, some facts connected with them which are especially interesting in regard to this locality.

John, the first Earl of Shrewsbury, immortalized in Shakespeare's Henry VI., was killed with his son gallantly fighting in the French wars in 1453. There is a very interesting legend connecting Sheffield with these wars. It is said that a large party of the Earl's army was composed of Hallamshire men, and that "so greatly did they suffer while fighting round the Earl as he lay bleeding on the field of battle, that there was not a family nor a house in all Hallamshire that did not lose a father, or a brother, or a husband, or a son, on that fatal day.

## CARDINAL WOLSEY AT SHEFFIELD.

George, the fourth Earl of Shrewsbury, was for a short time the custodian of the great Cardinal Wolsey in his disgrace, the Earl entertaining him with great courtesy at Sheffield Manor. Shrewsbury, as steward of the King's household, must have been on intimate terms with Wolsey, and was present at the interview in June, 1520, before the Kings of France and England, on the famous *Champ de Drap d'Or*. Wolsey's gentleman usher, Cavendish, has left us very minute details of his master's last days, from which we extract the following account of the sojourn at Sheffield, modernizing the spelling for the reader's convenience:—

“And the next day we removed and rode to Sheffield Park, where my Lord of Shrewsbury lay within the Lodge [the Manor], the people all the way thitherward lamenting him. And when we come into the Park of Sheffield, nigh to the Lodge, my Lord of Shrewsbury, with my Lady of Shrewsbury, and a train of gentlewomen, and all other his gentlemen and servants, stood without the gates to attend my Lord's coming to receive him. At whose alighting the Earl received him with much honour, and embraced my Lord, saying these words: ‘My Lord,’ quoth he, ‘your grace is most heartily welcome unto me, and I am glad to see you here in my poor Lodge, where I have long desired to see you, and much more gladder if ye had come after another sort.’ ‘Ah, my gentle Lord of Shrewsbury,’ quoth my Lord, ‘I heartily thank you. And although I have cause to lament, yet, as a faithful heart may, I do rejoice that my chance is to come into the custody of so noble a person, whose approved honour and wisdom hath always been right well known to all noble estates. And, sir, howsoever my accusers have used their accusations against me, this I know, and so before your Lordship and all the world I do protest, that my demeanour and proceeding have always been both just and loyal towards my sovereign and liege Lord, and of whose usage in his grace's affairs your Lordship hath had good experience. And even according to my truth, so I beseech God help me.’ ‘I doubt not,’ quoth my Lord of Shrewsbury, ‘of your truth; therefore, my Lord, be of good cheer and fear not, for I am nothing sorry, but yet I have not wherewith to entertain you according to my good will and to your honour; but such as I have you shall be welcome to it,

for I will not receive you as a prisoner but as my good Lord, and the King's true and faithful subject. And, sir, here is my wife come to salute you ;' whom my Lord kissed with his cap in his hand, bare-headed, and all the other gentlewomen, and took the Earl's servants by the hand, as well gentlemen as yeomen. This done, these two Lords went into the Lodge arm-in-arm, and so conducted my Lord to a fair gallery, where was in the further end thereof a goodly tower with lodging where my Lord was lodged. There was also in the midst of the same gallery a traverse of sarcenet drawn, so that the one end thereof was preserved for my Lord and the other for the Earl. Then departed from my Lord all the great number of gentlemen and others that conducted him thither. And my Lord, being thus with my Lord of Shrewsbury, continued there eighteen days after, upon whom my Lord of Shrewsbury appointed divers worthy gentlemen to attend continually to foresee that he should lack nothing that he should desire, being served in his own chamber at dinner and supper as honourably and with as many dainty dishes as he had in his own house commonly, being at liberty. And once every day my Lord of Shrewsbury would repair in to him, and commune with him, sitting upon a bench in a great window in the gallery. And although that my said Earl of Shrewsbury would right heartily comfort him, yet would he lament so piteously that it would make my Lord of Shrewsbury to be very heavy for his grief."

Wolsey remained at Sheffield Manor eighteen days. Shortly before he left a very severe attack of dysentery set in, which the physician said would be fatal; but he was hurried away on a mule to undergo his trial. On the third night after his departure from Sheffield he reached Leicester Abbey, to the abbot of which he exclaimed, "Father Abbot, I come hither to leave my bones among you." Two days afterwards he died.

## THE QUEEN OF SCOTS IN SHEFFIELD.



ONE of the most interesting events in the history of Sheffield is the imprisonment here, 300 years ago, of Mary Stuart, the beautiful but erring and unfortunate Queen of Scots and ex-Queen of France. Mary was the granddaughter of James IV. of Scotland, who married the sister of Henry VIII., was second cousin to Queen Elizabeth and heir-presumptive to the English throne, as well as Queen of Scotland. She was married at a very early age to the Dauphin of France, and, backed by the Catholic party, the Dauphin and Mary (afterwards King and Queen of France) disputed the legitimacy of Elizabeth, and assumed the arms and title of King and Queen of England. They would have seized the Crown if they could. The King died suddenly, leaving Mary a widow at the age of 19 years. Her second husband was Lord Darnley, eldest son of the Earl of Lennox, who was also related to Elizabeth, and one of the claimants to the English throne. Darnley was murdered. Mary was accused of complicity in the crime, and having married Lord Bothwell, the alleged murderer, was driven from the Scotch throne. Putting to sea in a fishing smack, she landed in May, 1568, at a place now called "Maryport," near Workington, in Cumberland. Mary was received with enthusiasm by the Catholic gentry of the North, and seems to have expected that she would be welcomed at Court as the future Sovereign, but in that she was grievously mistaken. The advisers of Elizabeth considered it equally undesirable to break with the Scotch Protestants by replacing Mary on her throne, or to let her go to France or Spain to head the Catholic party against England and the Protestant religion; they determined therefore to keep her prisoner.<sup>1</sup> She was detained on various pretences—first at Carlisle Castle, and afterwards under the friendly roof of Lord Scrope, at Bolton. She was subsequently consigned to the care of George Talbot, sixth Earl Shrewsbury, whose principal residence was at Sheffield, but who had a castle at Tutbury

and manor houses at Worksop and Wingfield, and who had married, as his second wife, the famous "Bess of Hardwick," widow of Sir William Cavendish, the founder of Chatsworth. In the autumn of 1569, Mary removed, unwillingly, from Bolton to Tutbury, spent the summer of 1570 at Chatsworth, and, during the autumn of that year was brought to Sheffield Castle, the strength and inland situation of which commended it as a residence for a captive for whose rescue there was continual plotting. At first Mary had thirty regular attendants (chiefly French and Scotch) and nine English supernumeraries; was allowed to see and correspond with her friends, and enjoyed considerable liberty in other respects. But Shrewsbury was held responsible for her safe-keeping, and he appointed forty of his most trusty dependants to guard her day and night. That these precautions were not unnecessary was proved by the subsequent discovery that the Duke of Norfolk was at this very time scheming for a secret marriage with the captive Queen, and that a plot of Sir Henry Percy to carry her off during the following Easter was frustrated only by an unexpected change of her apartments. The daring plot, known to history as the "Ridolphi conspiracy," was, moreover, already hatched. Elizabeth was to be assassinated, Mary placed on the English throne by the aid of a Spanish army from the Netherlands, under the ferocious Duke of Alva, and the Catholic religion restored. It is said that Mary tried hard to force a prompt issue, urging the Catholic peers who took part in the conspiracy to seize the Queen and Lord Burghley at the opening of the new Parliament on the 2nd April, 1571. In the event of success, it was arranged that Mary should feign illness for a few days, be afterwards taken to see dancing downstairs, faint, be carried to bed, and then escape from a postern in the disguise of a page, a maid taking her place in bed. Failing that, she would escape from the hunting-field as a page, or from the kitchen as a turnbroach. The scheme was considered so promising that one of Lord Shrewsbury's sons provided relays of horses for the flight, and had a boat ready at Liverpool to take Mary to the Isle of Man until the struggle with the invaders was over. Norfolk, however, lacked courage for so bold a stroke. While he was paltering Burghley got a hint of the conspiracy, and the opportunity was lost.

The way in which Mary's complicity in the conspiracy was brought home to her is characteristic of the times. By arrange-

ment with Burghley, George Fitzwilliam, an officer of Sir John Hawkins (the great naval captain), had an interview with her at Sheffield Castle to deliver letters and presents from the King of Spain and other leading conspirators abroad, whose confidence he had gained by pretended overtures from Sir John to desert Elizabeth and enter the Spanish service. Mary not only spoke freely to this trusted messenger, but gave him letters of reply to Philip and the rest. Copies of these letters were furnished to Burghley.

Norfolk was sent to the Tower; and Elizabeth despatched orders to Sheffield to reduce the number of Mary's servants and keep her closely imprisoned, adding a message to the effect that her practices deserved a "sharper dealing." Mary stormed. She was the Queen of England's equal, she said, and answerable neither to her nor any other person. She bade her secretary go tell the King of France how she was treated; wrote to the French Ambassador that his master must move for her then or never; and, taking leave of her attendants, asked for a priest "to prepare her for death, which she professed to expect." Anger and pathos were alike wasted on Shrewsbury.

The following regulations were immediately issued, and rigidly enforced:—

"To the Master of the Scotts Queene's household, Mr. Beton.

"First,—That all your people which appertayneth to the Queene shall depart from the Queen's chamber or chambers to their own lodging at ix. of the clock at night, winter and summer, whatsoever he or she; either to their lodging within the house or without in the towne, and there to remain till the next day at vi. of the clock.

"Item,—That none of the Queen's people shall at no time wear his sword neither within the house, nor when her Grace rydeth or goeth abroad: unless the Master of the Household himself to weare a sword and no more without my special license.

"Item,—That there shall none of the Queen's people carry any bow or shaftes, at no tyme, neither to the field nor to the butts, unless it be foure or fyve, and no more being in the Queen's companye.

"Item,—That none of the Queen's people shall ryde or go at no tyme abroad out of the house or towne without my special license; and if he or they so doth, they or he shall come no

more in at the gates, neither in the towne, whatsoever he or she or they may be."

"Item,—That you or some of the Queen's chamber, when her Grace will walke abroad, shall advertyse the officiar of my warde, who shall declare the messuage to me one houre before she goeth forth.

"Item,—That none of the Queen's people, whatsoever he or they be, not once offer at no tyme to come forth of their chamber or lodging when anie alarum is given by night or daie, whether they be in the Queen's chamber or in their chambers within the house or without in the towne. And yf he or they keepe not their chambers or lodgings wheresoever that be, he or they shall stande at their perill for deathe.

"At Shefeild the 26th daie of April 1571, per me

"SHREWSBURIE."

Much has been said about the severity of these regulations; but it must be admitted that the circumstances justified the utmost precaution, especially as members of Shrewsbury's own household were so ready to aid in the escape of the Queen.

If we may believe Mr. Froude, Mary's correspondence was effectually crushed for the time. A lad having been detected bringing dangerous letters to her concealed in a staff, she was confined, he says, to a single room; the inner bolts were taken off the doors, and she was watched day and night. Even the linen of herself and her ladies was passed to the wash through the hands of male inspectors; the women of the Castle being all devoted to her, and the observance of common decorum no longer safe or possible. Stout old Shrewsbury wrote to Lord Burghley that those should buy her dearly who should get her from his hands. If 5000 men tried to rescue her, he would give them such a banquet as they would repent they had come to Sheffield.

Mary was ignorant of the nature of the proofs against her, and continued to protest her innocence, until Shrewsbury put into her hands a letter from the Bishop of Ross, her own ambassador, telling her that all was known, and advising her to give up conspiracies and "trust in God and her good sister." "The hand," she said, "was Esau's, but the voice was Jacob's." She added "that the Bishop was a flayed and fearful priest, who had done as they would have him do, but they would find her to be a Queen; France and Spain would yet deliver her, and the turn of her enemies would come."

This was said in a burst of anger. Rigid seclusion and the darkness of her prospects soon changed the captive's mood. Writing to Burghley, a few months later, Shrewsbury says:— "This Queen made eftsones great complaynt unto me of her sickly estat, and that she loked verily to perishe thereby: and used divers melancholy words that yt is ment yt shuld so com to passe with out helpe of medicine \* \* \* I perseved her principall drifte was and is to have some libertie out of these gates, which in nowise I will consent unto, because I see no small perill therin. \* \* \* Truly I would be very lothe that any libertie or exercise should be granted unto her or of hers out of these gates, for fear of many dangers." \* \* \* "I do suffer her to walk upon the leads here in open ayre and in my large dining chamber, and also in this court yard, so as both I myself or my wife be alwaies in her company, for avoiding all others talk either to herself or any of hers." \* \* \* "I cannot perceyve that she is in any present perill of sickness."

After a time Mary wrote a coaxing letter to Elizabeth trying to save Norfolk, who, however, was brought to trial in January, 1572, Shrewsbury presiding as Lord High Steward and discharging the painful duty of passing sentence of death upon him. During the trial, says Sir Ralph Sadler, who was in temporary charge at Sheffield, the Queen of Scots "did not once look out of her chamber, being troubled in all likelihood with a guilty conscience and fear to hear of such news as now she hath heard."

The immediate peril having passed, Shrewsbury had permission on his return from London to relax the strictness of his captive's imprisonment, and we are told that when Mary got outside the Castle gates she plunged wildly into the snow; so little had peril and seclusion subdued her. According to Froude, she was soon busy again bribing servants and smuggling letters out of the house to her friends abroad. Three of her letters were found hidden under a stone, and one of them, addressed to Alva, imputed the discovery of the Ridolphi Conspiracy to others—a pretty plain indication, not only of her complicity in the plot, but also that her own want of care was blamed for the discovery which defeated it. The net was drawn tight again, so tight that a French Marshal, who visited her at this time as a special messenger from her brother-in-law, the King of France, was not allowed to speak with her except in Shrewsbury's presence. Parliament and Convocation,



which met in May of this year, petitioned for her attainer; but Elizabeth, who consented reluctantly to the execution of Norfolk, still shielded the captive Queen.

But dark days were in store for Mary. During the summer, news came from France of the horrible massacre of St. Bartholomew, and created intense alarm. The atrocities of the French Catholics were believed to be the first act in a conspiracy to extinguish, in blood, the Protestantism of all Europe, England and Scotland included. Shrewsbury doubled his guard, searched the neighbouring woods and other hiding places, closed his castle gates, and otherwise provided against the possibility of rescue or escape. Meanwhile, a great cry arose in the country for the head of the Queen of Scots; and Elizabeth, it may well be believed, would not have been sorry to yield, if the Scotch Protestants would have undertaken the office of executioners. But even in this extremity, she shrank from the odium of being her own avenger, doubtless feeling that not being an English subject, Mary was hardly amenable to English law, and that her enforced captivity ought to excuse much that could not otherwise have been overlooked. The Queen of Scots, on the other hand, had never before been so despondent. Even Shrewsbury seems to have pitied her. In writing to Burghley, he said:—"She (Mary) is, within a few days, become more malincholey than of long before, and complenes of hur wronges and imprisonments; I am sure her malyncholey and grefe is grattar than she in words uttars; rather than contynew this imprisonment, she styckes not to saye she wyll gyve hur boddy, her sonne and cuntry for lyberty."

Fresh alarm was soon afterwards caused by rumours of another attempted rescue, and Lord Shrewsbury wrote to assure the Queen of his vigilance and fidelity:—

"I have hur sure inoughe," he says, "and shall keep hur for the comyng at your Majesty's commandment, ether quyke or ded, whatsoever she or anny for hur inventes for the contrary; and as I have no doute at all of hur stelynge away from me, so if any forsabull attempts be gyven for hur, the gretest perell is sure to be hurs."

The country was not in a mood to be trifled with; and Shrewsbury, who seems to have shared the general alarm, was prepared even to cut Mary down, rather than let her escape. In the spring of 1573, the captive Queen spent some days at Sheffield Manor, while her rooms at the Castle were cleaned.

How carefully she was guarded there we are minutely informed by Gilbert Talbot, who, replying to the reproaches of Dr. Wilson, one of Elizabeth's secretaries, that such a change should have been ventured upon, stated that—

“ Good numbers of men, continually armed, watched day and nyght, both under hir windows, over hir chamber, and on every syde hir ; so that, unless she could transform herself to a flee or a mouse, it was impossible she should escape.”

This rigid restraint continued while the alarm lasted ; but brighter days followed. The Queen of Scots was neither executed nor declared to be incapable of the succession, and, as time wore on, people began to think that, after all, she would some day ascend the throne of England. Elizabeth's health, moreover, showed signs of giving way ; and no one knew how soon Mary's turn might come. Under such circumstances, the nobility were not unnaturally anxious to pave the way to a reconciliation with her, Shrewsbury amongst the rest. The captive was again treated more as a guest than a prisoner. She was allowed to ride and hunt ; corresponded freely with her friends ; and enjoyed many privileges before denied her. She spent some time at Buxton in the summer of 1573, and passed the autumn at Chatsworth, returning to Sheffield shortly before Christmas. By this time she was as confident and defiant as ever, and accused Shrewsbury of frustrating the gracious intentions of Elizabeth towards her, threatening significantly to “ *remember him another day.*”

There can hardly be a doubt that at this time Mary had gained considerable influence over Shrewsbury. Her hopes as to the future certainly ran very high. She wrote to her friends that her prospects were never fairer. To her ambassador at Paris she wrote in the early part of 1574 :—“ Send me, when occasion serves, some one with my accounts. He should also bring with him patterns of dresses, and samples of cloths, gold, silver and silver strip, the fittest and rarest now worn at Court. Order a couple of coifs, with gold and silver crowns, to be made for me at Poissy, such as have been made for me formerly. Remind Veratour of his promise to send me, from Italy, the newest kinds of head gear, veils and bands with gold and silver.”

While things were going on thus smoothly with Mary at Sheffield, an event occurred at Rufford Abbey (in Nottinghamshire), also belonging to Shrewsbury, which raised a storm

at Court. The Earl of Lennox, younger brother of Mary's murdered husband Darnley, and a competitor for the English throne, visited the Abbey, and was suddenly and secretly married to Elizabeth Cavendish, a daughter of the ambitious Countess of Shrewsbury. Elizabeth accused Shrewsbury of complicity; but he assured her that his Countess had helped her daughter to the match without his knowledge, adding that there were "few nobillmen's sonns in England she had not praid him to dele forre at one tyme or other." The marriage seems to have occasioned a painful revelation of the hollow hearts with which Queen Elizabeth was surrounded. Walsingham had instructions from the Queen to make a full inquiry, and we are assured by Mr. Froude that his investigation brought him "on the track of half the ladies of the palace, and of more than half the courtiers, as implicated, more or less, in seeking favour with the lady at Sheffield—paying assiduous court to the rising sun. Shrewsbury, it appears, had promised the Queen of Scots that on Elizabeth's death, he would himself place the crown upon her head. No longer complaining of her captivity, Mary was well satisfied to remain where she was, her party daily growing stronger by her mere presence in the realm. When opportunities of escape were thrown in her way, she declined to use them, saying that when she left Lord Shrewsbury's charge it should be as Queen of England."

The marriage was fraught with disagreeable consequences to all concerned. The Earl of Lennox and his bride, whom Queen Elizabeth never forgave, died young, leaving an only daughter, Lady Arabella Stuart, whose unhappy fate is matter of history.

To Elizabeth, the revelation of the court paid to her rival at Sheffield was the very gall of bitterness; and she vented her anger on all about her. Even the faithful Burghley, who chanced to be at Buxton, in 1575, for the benefit of the waters, during Mary's stay there, was "sharply reprov'd," and accused of favouring the Queen of Scots. Though Elizabeth still trusted Shrewsbury, her anger pursued him for years. She took the side of his refractory tenants at Glossop; she leased to others lands near his castle at Sheffield, which had been held by his ancestors for generations; and when he ventured to Buxton a few days for gout in his hand, he was driven back to Sheffield by false rumours from Court of the escape of

his captive. She even reduced the inadequate allowance previously made to him for the support of the Queen of Scots; and when he complained of the "infinite charges" the custody of the Queen entailed upon him, she angrily retorted that he had been buying land lately, and must, therefore, be rolling in wealth.

Mary Stuart became once more a close prisoner, and seems never to have regained the degree of liberty she had previously enjoyed. From this time Elizabeth's jealous watchfulness with regard to the custody of Mary never relaxed.

In February, 1575, one of Shrewsbury's daughters-in-law was confined of a son and heir at Sheffield Castle. The Queen immediately made known her "myslikings" on account of the repair it would occasion of women and strangers to the Castle. The Earl meekly replied that, excepting the midwife, "none such have, or doo, at any tyme, cum within hir (Mary's) syght; and, at the fyrst, to avoyd such resorte, I myself, with two of my cheldren, chrystened the chyld." He reported at the same time that, on "the XXV. February last there cam an erthequake, which so sunke chefely hur (Mary's) chamber that I doubted more hir faling than hur goinge away, she was so aferde. 'God be thanked,' he added, she is 'forthcumyng; and grante it may be a forwarnyng unto hur.'"

During the whole of 1575 Mary was kept a close prisoner at Sheffield, the only break in the monotony of her seclusion being a negotiation with commissioners from the Court of France for an exchange of territory. A friend of Caussin, the Jesuit, saw her, and was so charmed by her grace of manner that he declared it was impossible to see her "without rapture and celestial joy." In the spring of 1576 the Queen of Scots was allowed to visit Buxton; and a will she made in August of that year is dated at "Sheffield Manor." But from 1574 to 1580 her days were, for the most part, passed in monotonous seclusion at Sheffield, mostly in the Castle, but not unfrequently at the Manor. We get interesting glimpses in her letters of the means to which she resorted to wile away the weary days of her long captivity.

Thus, in 1574, she wrote her ambassador at Paris:—"I beg you procure me pigeons, red partridges and hens from Barbary. I intend to endeavour to rear them in this country, or to feed them in cages as I do all the small birds I can come by—a pastime for a prisoner." Later on in the same year she wrote:—

“Transmit to the Cardinal, my uncle, the two cushions of my work sent herewith. If he be gone to Lyons, I reckon upon his sending me a pair of beautiful small dogs, and you also might purchase me a pair, for, excepting reading and work, the only pleasure I have is in all the small animals I can procure.” In 1576 she sent some poodle dogs as a present for the King of France, pathetically remarking, “I can only answer to the beauty of the dog, it not being allowed me to ride and hunt.” She devoted a large part of her time to needlework, leaving behind her many specimens of rare skill. In the spring of 1580 Shrewsbury was anxious to remove for a time to Chatsworth with his prisoner, but Elizabeth would not give him permission, and the first six months of the year were passed at the Manor. Through the mediation of foreign ambassadors, however, Mary obtained leave to spend a week at Buxton, in July. But she was not allowed to leave her apartments except to go daily to the baths; nor were any strangers permitted to be there during her stay. In mounting her horse for the journey she had the misfortune to fall and injure her back in a way that caused her great suffering afterwards. During this year she was godmother to a child of Gilbert Talbot, making it a present worth four or five hundred crowns. In 1581 she spent some time at the Manor and at Chatsworth, and was also, it is believed, at Buxton. Her health had broken down; she had become so weak from want of fresh air and exercise that she had to be carried from one room to another. In November she was engaged in one of many fruitless negotiations, into which she was tempted by the hope of recovering her liberty and reaching at last the English throne, and was ready to assent in words to any conditions which would restore to her the freedom for which she had so long pined in vain. She had to transact business in bed, and entreated that Elizabeth would send physicians to consult, with those she had, about her ailments, pathetically remarking “that though young in years (she was 37) she was old in body, her hair was grey, and she should soon find another husband” (meaning, of course, in the grave). As usual nothing came of the negotiation. The royal captive spent June and part of July, 1582, at Buxton, to the healing waters of which this was probably her last visit. In the summer of 1583 she was taken to Worksop Manor. A letter, written by Lord Leicester to the Countess of Shrewsbury, in November, 1580, urging the removal from the house of one Marvyn, an

attendant, who had given Her Majesty the Queen special cause of suspicion, furnishes curious evidence of Elizabeth's anxiety for the safe keeping of Mary during these eventful years, and the constant vigilance she demanded from Shrewsbury in the execution of his trust, notwithstanding that she had thwarted him in his affairs and reduced his allowance. The same watchfulness continued to the end, for the only mention of Mary's visit to Worksop Manor in 1584 is contained in a letter of the Earl to Burghley, denying that he had allowed her, while there, to walk in Sherwood Forest.

The anxiety, it must be admitted, was not without occasion, for it was during the later years of Mary's detention in Sheffield that the "Jesuit invasion" of England and Scotland took place—that great priestly effort to prepare the public mind for the overthrow of Protestantism by a joint French and Spanish invasion led by the Duke of Guise. As usual, the assassination of Elizabeth was supposed to be a necessary preliminary; and instruments for the dark deed, carefully selected abroad, were stimulated by the blessing of his holiness the Pope, and the promise of a martyr's crown if they perished in the attempt. The army was ready; Guise waiting only for news of Elizabeth's death to put to sea in overwhelming force. But again the conspirators were foiled: Burghley succeeding in unravelling the plot before the assassins mustered courage to strike the fatal blow. It is asserted that the Queen of Scots, while negotiating with Elizabeth for her liberty, was urging on the conspiracy with her usual vehemence. Nevertheless her life was still spared.

The time for Lord Shrewsbury's release from the anxious duty which had cost him so much, and was fast wearing out his energies, was now near; yet it was not to the Jesuit invasion he owed his release, but to the fierce temper of his scheming Countess. For years the Countess of Shrewsbury "fawned upon Mary, flattered her, assisted her correspondence, and amused her with sarcastic gossip about Elizabeth and the Court." But the birth of her granddaughter, Arabella Stuart, opened a new avenue for her boundless ambition. The daughter of an obscure Derbyshire esquire, "Bess of Hardwick," had mated herself and her children with the first families in the land. She now aspired to place her youngest descendant upon the throne, and tried to engage the Earl in her daring schemes. When he refused to countenance them, she

was furious, and sought to destroy Mary by accusing her of being intimate with the Earl, and *enciente*. Mary haughtily demanded that the accuser should be required to prove her accusation or do penance, and the Countess had to confess the falsehood on her knees before the Privy Council. The Queen of Scots retaliated by reporting to Elizabeth the scandals the Countess had uttered against Her Majesty, offering to give proofs if the Queen would graciously grant her the interview she had so long prayed for, but died without obtaining. The fierce family ambitions and dissensions which had thus sprung from the marriage of Lennox and Elizabeth Cavendish made it undesirable that Mary Stuart should remain longer in Shrewsbury's care. Sir Ralph Sadler and Sir John Somers were therefore commissioned to take charge of her. Lord Shrewsbury hastened to pay his respects to the Queen, whom he had not seen for ten years. Elizabeth, after jestingly enquiring after the health of "his Queen" at Sheffield, expressed her high appreciation of his loyal services and gave him a command in Lancashire, which separated him from both Countess and captive. Shrewsbury, in kissing hands, thanked Her Majesty for delivering him from "two devils."

Mr. Hunter and other writers have made much of the "close and mysterious seclusion" in which Mary Stuart was kept during a large part of the time she was at Sheffield, and of the fact that for years the family of her keeper were not allowed to see her. The obvious explanation is that the Earl's family were devoted to Mary, and, as we have seen, were only too eager to assist her escape. The beauty of the captive Queen, moreover, and the fascination of her manners and conversation, which cast a spell over nearly all who came in contact with her, made freedom of association perilous.

Mary was removed from Sheffield, where she had passed more than twelve years of her captivity, to Wingfield Manor on the 3rd September, 1584; was afterwards taken again to Tutbury; and, engaging in yet another desperate conspiracy, was beheaded at Fotheringay on the 8th February, 1587.

It is impossible not to compassionate the fate of a young and beautiful woman, as intellectually brilliant as she was fascinating in manners, condemned to waste the best years of her life in a galling imprisonment, to see the most dazzling hopes blighted, and to perish at last ignominiously on the scaffold. That Mary Stuart plotted for life, liberty and a crown is not to

be wondered at ; and the desperate nature of the conspiracies, in which she took part, must be held to have been greatly palliated, if not wholly justified, by what she—herself a Queen—suffered at the hands of a Sovereign to whom she owed no allegiance. But, in justice to Elizabeth and her advisers, it must be remembered that self-preservation is the first law of nature ; and that the dawning light and liberty of the great nation whose destiny was confided to their care were more to them than the personal freedom of a hostile and ambitious woman whom a fate—hard, indeed, but not unprovoked—had thrown into their hands. Mary Stuart, moreover, with all her beauty and fascination of manners, was an unscrupulous and revengeful woman who, once free and triumphant, would have waded to the knees in Protestant blood in order to trample upon her enemies, or re-impose upon an unwilling nation the broken shackles of Rome.





## THE CIVIL WARS.

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**L**ORD SHREWSBURY, who had been her keeper for so long, survived the Queen of Scots only three years and nine months, dying at Sheffield, in November, 1590. Gilbert, the seventh Earl, died in London in 1616, leaving no son, and was succeeded by his younger brother Edward, who died childless a year later. The Hallamshire estates belonged for a time to the married daughters of Earl Gilbert jointly, but in 1654 they finally passed by marriage to the noble family of Howard, in whose possession they remain, enhanced in value enormously by the commercial prosperity of Sheffield, and yielding the Duke of Norfolk a very large and yearly increasing revenue.

The last Earls of Shrewsbury took a prominent part in several events which have become historical, but none of them directly connected with Sheffield. The next events of great local interest arose out of those commotions in the seventeenth century which left their destructive traces on so many parts of the country.

The first distinct movement at Sheffield in connection with the great conflict between Charles I. and his people was in 1642. There seems to have been a strong Parliamentary party in Sheffield; and in the summer of the above year they co-operated with Sir John Gell, who was in command of a force in the neighbourhood, and obtained possession of the Castle, which they garrisoned. They threw entrenchments round both the Castle and town, which at that time was not so large as to present much difficulty in the way of such an undertaking. The Earl of Newcastle, who had the command of the King's forces in the North, entered Yorkshire in the ensuing autumn with about 8,000 men. He found the people generally so much opposed to the King that most of the Royalists had retired for safety to York. Leeds and Wakefield surrendered to the Earl, who advanced with a large party of his troops to reduce Rotherham and Sheffield. This took place in April, 1643. The Rotherham people proved stout-hearted. The place was

garrisoned and fortified, and they refused to surrender. After a cannonade the Earl entered the town by storm. In the course of two or three days he followed up his success by marching to Sheffield. The Earl's prowess at Rotherham had struck a panic into the undisciplined forces at Sheffield Castle; and when they heard of Newcastle's approach they fled into Derbyshire and left the town to the mercy of the Earl. He thoroughly fortified the Castle, put a garrison in it, and left it under the command of Sir William Saville. Newcastle, moreover, made use of the iron and steel works which he found in the neighbourhood, by causing their proprietors to construct for his army cannon and other munitions of war. Sir William was shortly afterwards put in a higher command, and was replaced by Major Beaumont.

The Castle was attacked by the Parliamentarians on the 4th August, 1644. The commander of the attacking party, Major General Crawford, announced his intentions in the following courteous missive:—"Sir, I am sent by the Earl of Manchester to reduce this place you hold, and therefore send you yet a summons, though my trumpett was shott at, against the lawes of armes, the other day. You may easily perceive I desire not the effusion of blood, otherwise I should have spared myself this labour. If you think good to surrender it, you may expect all fair respects befitting a gentleman and souldiers: otherwise you must expect those extremities which they have that refuse mercy. I desire your answere within one houre, and rest your servant, L. CRAWFORD."

What answer the Royalist commander, Major Beaumont, sent, is not recorded; but he did not yield without a struggle. The shooting at the "trumpett," referred to by General Crawford, seems to have been a rather barbarous proceeding. Upon first coming up to the Castle, Crawford fired three shots into it, and then sent a trumpeter to sound a parley with the inmates. The defenders, irritated at the attack, instead of consenting to a parley, fired three times at the trumpeter, "two of which came very neer, and barely missed him," says the chronicler; "and they, flourishing their swords, cried out, 'they would have no further parley.'" The attacking party consisted of a regiment of cavalry and about twelve hundred foot soldiers. In the Castle there were only about two hundred infantry and a troop of horse. It was, however, pretty strongly fortified. There was around it a broad trench eighteen feet deep, filled with

water, a strong pallisaded breastwork, and a wall two yards thick. It also contained eight pieces of ordnance and two mortars.

Finding no chance of a surrender, Crawford proceeded to offensive operations. He constructed two batteries sixty yards from the outworks of the Castle, and from these he battered the walls with such guns as he possessed. He had but three, however, and these not large. After applying them for about twenty-four hours, he sent to Lord Fairfax for the "Queen's pocket pistoll, and a whole culverin." When this ordnance arrived, a practicable breach was soon made in the Castle walls, and the General prepared to enter by storm. However, he first tried the efficacy of another summons to surrender, and this time it was successful. It was agreed that the garrison should march out with all the honours of war, and without any of them becoming prisoners. A special provision was made for the protection of Lady Saville, widow of the former governor of the Castle. This lady, who was in the Castle during the siege, behaved with great heroism. Though the attacking party refused to allow a midwife, whom she had sent for, to pass into the Castle, she was far from begging the commander to surrender on her account. On the contrary, she declared she would rather perish than be the cause of the Castle being given up. It is said, however, that the soldiers, moved with pity for her, mutinied and compelled the governor to surrender. This noble-minded lady, in the midst of her sorrow and peril, had a child born to her the night after the Castle was given up.

The Parliamentarians took possession of the munitions of war in the Castle, comprising the cannon already mentioned, four hundred small arms, twelve barrels of powder, and twenty tons of iron shot. The estates surrounding the Castle were confiscated by Parliament; but in 1648 they were restored to their former owner, the Earl of Arundel, on his paying £6,000.

## SHEFFIELD CASTLE AND PARK.



WE have already mentioned the distinct assertion of Doomsday Book that Earl Waltheof, the last Saxon lord, had an "aula" in Hallam, and some grounds for the conjecture that it stood at the junction of the Sheaf and the Don. There is conclusive evidence that the De Lovetots—the Norman barons who seem to have become lords of Hallamshire on the death of Waltheof's widow, the Countess Judith—either occupied the hall of their Saxon predecessor or built a new stronghold for themselves, mention being made of their castle at Sheffield in documents of the reign of Henry II. The castle of the De Lovetots was destroyed in the time of their immediate successor, the first Lord Furnival. In 1266 a great battle was fought at Chesterfield, between Edward III. and his rebellious Barons, and Lord Furnival being a Royalist, John D'Eyville, a leader of the Barons, plundered and burned Sheffield Castle on his way to the battle. Four years later, Thomas, the second Lord Furnival, obtained a charter from Henry III., and built a great Norman Castle, around which such a romantic halo has been cast by the long captivity of Mary Stuart. Sheffield Castle continued to be the chief residence of the successive lords of Hallamshire until 1654, when the estates passed to the ancestors of the present noble owner. It was an occasional residence of the Howards until the Civil Wars, when it was demolished by order of Parliament. At the demolition, it is said, a large flat stone was found, attesting the building of the structure in the following quaint rhyme:—

" Lord Furnival,  
I built this Castle Hall.  
And under this wall  
Within this tomb was my burial."

The stone is assumed to have been the lid of Lord Furnival's tomb, and, at Manor Lodge, a stone trough is shown which is

said to have been the coffin itself. Of the lid, antiquarians have failed to discover any further trace.

When, after the Civil Wars, the estates were restored to the Earl of Arundel and Surrey, he gave an order to his agent to repair and make habitable the rooms of the Castle left standing, and rebuild the yard walls, &c.; but the work seems not to have been carried out, and no external remnant of the once proud Castle of Sheffield now remains. In the excavation of a main drain under Castle-hill, about six years ago, some remarkable specimens of bones, antlers of deer, and other remains were found in loose alluvial soil, immediately behind the Alexandra theatre. Far more interesting, however, was the discovery directly under Castle-hill of a passage, four feet high, excavated in the solid rock, and after so many ages still perfect. Nearer Waingate an underground well was found, built of dressed stone, and made, no doubt, for supplying the Castle with water during a siege. Unfortunately information of these discoveries did not ooze out until the drain had been completed. The opportunity for an antiquarian exploration was therefore missed.

Sheffield Castle was a stone structure, very spacious and very strong. It was "built about an inward court," and extended from the river Sheaf to Waingate. On the south side, occupying the whole space up to Dixon-lane, was an "outward court-yard or fould, builded round with divers houses and offices, as an armoury, barns, stables, and divers lodgings." The courts and buildings occupied an area of 4 acres and 30 perches, and on the opposite side of the Sheaf—reached from the Castle by a wooden bridge—were orchards, nursery, "hop-yard, and cock-pitt-yard," covering an additional 14 acres, and extending to the foot of Park-hill. The laundry was in the "Poandes." A relic of it is still standing at the bottom of Pond-hill.

Attached to the Castle was a noble Park of 2461 acres, within a ring fence of eight miles. Taking as its western limit a line from the Castle walls, near Old Haymarket to Porter-street—the boundary of the township of Ecclesall Bierlow—the Park comprised the whole eastern part of the township of Sheffield. It extended from Bramall-lane and Heeley-bank on one side, to the river Don and the township of Attercliffe-cum-Darnall on the other, and stretched over the hills by Gleadless moor and Intake to the parish of Handsworth on the east. The main entrance was near what is now Dixon-lane. Thence

was a broad carriage drive through the Park to Handsworth, where the sixth Earl of Shrewsbury built a handsome lodge, which is described as the boudoir of the family, and had an historical interest as the birth place of Wm. Cavendish, the first Duke of Newcastle—the able General who sustained for a time the falling fortunes of Charles I. The Handsworth Lodge has long since perished. From the main carriage drive a more private road branched southward to the Manor, of which some account will be found in another page. The Park was richly wooded ; stately avenues of oak and walnut shaded the winding roads, but in 1706 it was denuded of its fine timber, and divided into farms, having previously been invaded for mining purposes. Its western slopes are now one of the most populous parts of the town, but are still known as "The Park." Its northern extremity is disfigured by coal mines and manufactories, mining operations being carried on within the very area of the Manor, where Wolsey spent some of his last days, and Mary Stuart was an occasional prisoner. A ramble over those bold eastern hills even now, disfigured as they are by unsightly buildings, and not unfrequently enveloped in dust and smoke, can hardly fail to leave a vivid impression of the natural grandeur of the ancient Park—the haunt of graceful deer from times immediately succeeding the Norman Conquest to the beginning of the eighteenth century, and the scene of pastimes and pageantries as gorgeous as those of royalty itself.



## Interesting Remains of Sheffield Manor.

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### RESTORATION OF QUEEN MARY'S TOWER.

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THE Manor was a more modern structure than the Castle, having been built for a summer residence by the fourth Earl of Shrewsbury during the period of tranquility succeeding the Wars of the Roses. It was a comparatively new building when Cardinal Wolsey made his melancholy visit, and when, some forty years later, Mary Stuart gazed sadly from its widows over the green hills of Hallamshire.

“The Manor House was a stone, timber, and brick erection, with ‘an inward court and an outward court, two gardens and three yards.’ The chief entrance was on the west side, between two lofty octagonal towers of stone and brick, from which a flight of steps led to the great hall, and thence northwards to the long gallery which occupied the whole west front northwards of the entrance gates, and terminated at the north-west angle of the building in a ‘goodlie’ tower-chamber, probably the best lodging in the house. On the south front were the chief rooms of the mansion, the apartments being numerous but small; and from the east end of this front the buildings returned for a short distance towards the north. In the enclosure before the tower chamber on the north, the long gallery on the west, and the range of buildings on the south, lay the garden, the original wall of which, forming its eastern boundary, is still standing. Away to the east lay the stable yard, access to which was obtained by a gateway, which may still be seen nearly opposite the main entrance; and among the buildings still standing are interesting remains of a strongly timbered barn. Outside the south front lay a terrace garden, and opposite the main entrance a lodge or tower, believed to have been erected for the custody of Queen Mary.”\*

The Manor, with its courts and gardens, covered more than four acres of land. It stood near the centre of the Park, and

\* Vide paper by M<sup>r</sup> J. D. LEADER on the “Remains of Sheffield Manor.”

on the brow of its highest hill. It was screened from harsh winds by thick plantations, and, commanding a magnificent view of the surrounding country, was a summer retreat a prince might envy. It escaped injury during the Civil Wars, and continued to be an occasional residence until 1706, when, the Park being divided into farms and the "Lord's House" having been built in Fargate as a residence for the steward of the estate, it was dismantled and left to decay.

The extract given above will enable the visitor to trace the general outline of the Manor House in spite of the intrusion of a coalpit hill within its area and the erection of a beerhouse and hideous cottages in the more southern parts of the ruins. The long gallery where Wolsey walked, and the "goodlie" tower, remain in a mutilated form. The place of the great window, where he daily sat and communed with the Earl of Shrewsbury, may still be seen, and there are also remains of out-buildings, boundary walls, and the foundations of the octagonal towers which flanked the main entrance.

The Lodge is a small three-storied building about a hundred yards from the west front of the Manor. In his *History of Hallamshire*, Mr. Hunter describes this building as an "outer porter's lodge," treating it as an object of no interest. At the time he wrote, it was occupied as part of the Manor Farm, having a modern kitchen on one side and unsightly farm buildings on the other. Old windows and doorways had been built up and modern ones broken out, and the building was disfigured with plaster and colour-wash. Some years ago the question was raised whether we do not possess in this detached Lodge the identical building in which the Queen of Scots was confined during the many months she passed at the Manor at different times. The idea was thrown out by the Rev. J. Stacey; and further examination seems to leave little doubt on the subject.

This discovery—for such we think it may now fairly be called—having been made known to the Duke of Norfolk, his Grace visited the ruins in company with his architect, Mr. Hadfield, and after spending some time in examining the details, gave instructions for the removal of the unsightly adjuncts, and the careful restoration of the building, which was fast falling into decay. This work has been carried out; the old doors and windows have been reopened, the modern ones disappearing; and, as shown in our illustration, the building has been restored as nearly as possible to its original condition.





THE MANOR LODGE.

The fine old ceilings, and other evidences of the original character of the building, have been carefully preserved, no new work having been introduced, except where it was absolutely necessary. Thus restored, this interesting historical fragment has taken a new lease of life, and is occupied by a servant of his Grace, whose duty it is to shew the place to visitors bearing the authority of Mr. M. J. Ellison, the Duke's agent, for its inspection.

The Lodge is in reality a Tower. It has a turret staircase of stone communicating directly with all the three stories, and also with the flat lead-covered roof on which the captive Queen was allowed to take air and exercise during those periods of rigid confinement when she was not allowed to move beyond the walls of her prison. The ground floor—originally a guard-room, the opening into which every one entering or leaving the bedrooms or sitting-rooms above must pass—has been adapted as kitchen and parlour for the occupier's family. The upper stories have each two rooms, the first and smaller room on each story being plain, as for a servant, and opening into a larger room, richly ornamented, for the mistress.

The principal room on the upper story of which we give an illustration on page 39—the Queen's sitting and reception room—has a rich heraldic ceiling, fortunately preserved almost entire, and so beautiful that it has been copied for one of the rooms in the Duke's residence at the Farm. Over the fire-place is an elaborate plaster cast, also for the most part

original, of the arms of Talbot. It is obviously most improbable that decorations of this kind would have been placed in a mere porter's lodge, and we can, therefore, only assume that in this case Mr. Hunter adopted a conclusion without due examination into the details of the building, not in its occupied state very accessible. On the other hand it is difficult to suppose that such elaborate precautions would have been taken for security on any other supposition than that the occupant was a prisoner whose safe custody was of the utmost moment. The theory is that the Tower was built by the sixth Earl of Shrewsbury specially as a residence for the Scottish Queen during her occasional stay at the Manor; and it may well have been that the Manor House, being a summer residence, with no pretensions to the security of a castle, had not within itself accommodation for a prisoner, whom it was often deemed not only necessary to confine within the four walls of her prison, but to exclude from all communication with the servants and family of her custodian. What the Manor House was deficient in, this Tower supplied; and Gilbert Talbot's description of the careful guard set over the Queen could only be true on the assumption that it was in such a place as this Tower she was confined. That the Tower was built by Mary's custodian, seems to be absolutely proved; for the achievement



ROOM IN MANOR LODGE.

over the mantelpiece in Queen Mary's room agrees exactly with the garter plate of the sixth Earl of Shrewsbury. The Tower was obviously built some time after the Manor House itself; and the style of the windows, doors, and fire-places is such as was common in the early years of Elizabeth's reign. It would seem, then, that in this small building we possess a

veritable relic of the Queen of Scots—her only prison-house that has come down entire to modern times. Of the other places where she was confined Bolton, Wingfield, and Tutbury are ruins. The Chatsworth of her time has given place to the modern Palace of the Peak: Chartley and Worksop, where she also sojourned, were destroyed by fire, during the last century, and Fotheringay, where she died, was razed to the ground by her son, James I; while Sheffield, long forgotten in connection with her, though the place of her longest sojourn, possesses a most interesting relic of the unfortunate Queen.

We can only trust that the remains of the Manor House, especially those portions more intimately connected with the fate of the great Cardinal, may also be restored by their noble owner, and be equally preserved for the inspection of future ages. Sheffield will be proud of possessing, in a state fit for inspection, these interesting relics of two historic figures so remarkable and so unfortunate as the Queen of Scots and Cardinal Wolsey.

#### LADY'S BRIDGE.

One of the oldest structures in the town is Lady's Bridge—the connecting link between Waingate and the Wicker. The original bridge was, without doubt, in existence in the time of Henry II., and was, therefore, probably built at the same time as the castle of the De Lovetots, at the foot of which it stood. It was rebuilt in a very substantial way during the reign of Henry VII. It has been lately widened by the Town Council, but without any disturbance of the old structure. Its name was derived from a small chapel dedicated to "Our Lady," which formerly stood at the west end of the bridge under the castle wall. The chapel was not on the bridge as at Rotherham and Wakefield, but at its foot. "Chapels," says Hunter, "were usually erected on bridges perhaps to collect alms from passengers. Here daily service was performed; and it may be remembered that the fourth Earl of Shrewsbury directed by his will that a priest should celebrate masses for his soul for twenty years next after his decease. He died in 1541; so that before the twenty years were expired the statute of the 1st Edward VI. swept away both his priest and his masses. The chapel itself was converted to secular uses, and was used as a wool warehouse in 1572. It was afterwards inhabited as an almshouse, and was finally destroyed in one of the reparations of the bridge, about the middle of the last century."

## RISE AND PROGRESS OF THE TOWN.

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THE rise and progress of Sheffield are so intimately connected with its manufacturing success that our account of the one must be to a considerable extent a sketch of the other. There are fairly reliable traditions that the inhabitants of Sheffield manufactured arrows for some of the ancient British tribes who opposed the Roman invaders. The first specific information we have of the existence of the iron trade in the neighbourhood is in a grant made by Richard de Busli, in the reign of Henry II., to the monks of Kirkstead, the grant including four forges for smelting and working iron at Kimberworth. There can be no doubt however that, at the time when this grant was made, the inhabitants of Sheffield were busy with their steel wares. The beds of scoria scattered about the district, and other evidences, point to the conclusion that the mineral wealth of the district was explored by the Romans, and that a considerable part of the population of the sixteen hamlets or herewitæ, existing in Hallamshire at the time of the Norman Conquest, were employed in the digging and smelting of ore and in fabricating weapons and other implements. When the making of cutlery began here is not accurately known. The finer cutlery was at first made in London, and the manufacture was also carried on at Salisbury, Woodstock and Godalming; but we have proof that Sheffield cutlery found its way to Court as early as 1341. In an enumeration of articles issued from the Privy wardrobe at the Tower in the reign of King Edward III., who had visited the town for hunting, one of the articles mentioned is a "cultellum de Shefeld." Before the fifteenth century the town had become celebrated for its cutlery manufactures. The old poet Chaucer writes of one of the characters in the "Canterbury Tales"—

"A Shefeld thwytel bare he in his hose."

The Sheffield "thwytel" or "whittle" was a knife carried for purposes of defence in place of a sword. It answered in everything but shape to the American bowie-knife, which is still largely made here.

The progress of Sheffield as a town dates from a much earlier period than this incidental notice of its cutlery trade by Chaucer. It began with the De Lovetots, about the period (1160) when De Busli's grant was made to the monks of Kirkstead. The De Lovetots made Sheffield their chief residence, and, using their absolute feudal power mercifully, laboured to promote its prosperity. They erected, on what is still called "Spital-hill," a hospital for the sick, which continued to afford relief to the poor until the time of Henry VIII. They founded a church, and added to the conveniences of the inhabitants a bridge over the Don, where Lady's Bridge now is, and a mill near it, on the present Millsands. At this early period Sheffield had risen to the dignity of a town. But the more important towns of the 12th century compare indifferently with many modern villages. "Some idea of the extent of Sheffield at this time may," says Hunter, "be formed from the position of the churchyard. The site chosen for such an edifice would be close to the town, but not actually within it. A few straggling huts and smithies, forming an irregular street, extending from the Castle and bridge to the church gates, with a few houses lying towards the town mill, and a branch stretching in a south-west direction, called "Fargate," in respect of its distance from the Castle, seem to have formed the whole town of Sheffield."

The town continued to grow under the succeeding lords of the manor, the De Furnivals. A charter for a weekly cattle market, on Tuesdays, was obtained by Thomas de Furnival in 1296; and other privileges were granted to the inhabitants.

There are some incidental historical notices which show that the steel workers of Sheffield progressed with the times, even in the middle ages. There is a tradition to the effect that the English victories at Crecy and Agincourt were largely owing to the superiority of the arrow-heads made at Sheffield; and we have specific evidence that Sheffield arrows were purchased for the Government in the days of the early Shrewsburys, whose exploits in France form so interesting an episode in the history of our struggles for supremacy in that country. Johnson, the antiquarian, found a record of 130 gross of arrow shafts at 14d. and 5000 arrow-heads at 15d. per 100 having been sent from Sheffield for the use of the Government. At the battle of Bosworth, it is said, the Earl of Richmond's men used arrows from Sheffield, of a very superior make, being longer, sharper, better

ground, and more highly polished, than those previously manufactured; and the manufacture continued to flourish until about half a century later, when arrows were superseded by fire-arms.

We have numerous proofs of the celebrity of Sheffield cutlery about the time of Elizabeth.

In 1575, we find that the Earl of Shrewsbury presented to Lord Burghley a case of Hallamshire whittles, "being such fruictes as his poor country afforded with fame therefrom." Sheffield knives are often mentioned in plays of this date, and "3 gross de Hallamshire knyves" appear in the accounts of exports from Liverpool in 1589. Among directions about the choice of quills in the "Writing Schoolmaster," a book published in 1590, we find, with reference to the penknife, that a "right Sheffield knife is best."

It would seem that the trade of Sheffield benefited, indirectly, from the cruel persecution of the Netherlanders by the Duke of Alva. Many of the most skilled Dutch artizans left their country, and, very naturally, fled for refuge to Protestant England. They were kindly received by Queen Elizabeth, who settled them in various parts of the country, according to their trades. The workers in iron and steel were sent to Sheffield, where they were protected by the Earl of Shrewsbury, and greatly assisted in the development of the local trade.

Though Sheffield had thus early gained a reputation for its manufactures, the commercial prosperity of the town was not great according to modern notions. This is proved by the following curious document:—

"By a survaie of the towne of Sheffield made the second daie of Januarie, 1615, by twenty-four of the most sufficient inhabitants there, it appeareth that there are in the towne of Sheffield 2,207 people: of which there are 725 which are not able to live without the charity of their neighbours. These are all begging poore. 100 householders which relieve others. These (though the best sorte) are but poor artificers: among them there is not one which can keep a teame on his own land, and not above tenn who have grounds of their owne that will keep a cow. 160 householders, not able to relieve others. These are such (though they beg not) as are not able to abide the storme of one fortnight's sickness, but would thereby be driven to beggary. 1,222 children of the said householders, the greatest part of which are such as live of small wages, and are constrained to worke sore, to provide them necessaries."

In 1692 the town was assessed to raise money by a poll "for carrying on a vigorous war against France;" and the number taxed was 590 householders and 1725 persons; the tax producing £468. Twenty persons were charged at £4 4s. each, the Duke of Norfolk for two light horses £8, five others £1 each for the fourth part of a light horse, and 1690 persons at 4s. each. This was for the coalition war against Louis 14th, brought about by the Prince of Orange shortly after he ascended the English throne.

The comparative poverty of the town up to this time is partly explained by the fact that the forges and furnaces were the property of the lords of the manor, who acquired wealth at the expense of the community; and that the cutlers had not then expanded into merchants or manufacturers, employing labour. They were mere artizans, working individually or in families, and selling their commodities to chance customers or travelling peddlers.

Another great cause of the slow increase of the trade was the absurd restrictions imposed upon the cutlery workers in common with all other branches of manufacture. Juries of cutlers were periodically empanelled to manage the trade and carry out these restrictive regulations, some of which were so strange as to be scarcely credible. One of them, for instance, was that no person engaged in the cutlery manufacture—master, workman, or apprentice—should do any work appertaining to the "said scyence or mystere of cutlers" for twenty-eight days next following after the 8th of August in each year, nor from Christmas to the 23rd of January, under penalty of twenty shillings. A fine of forty shillings was inflicted upon any person allowing work to be done on his premises during the prohibited periods. There was a penalty of six shillings and eightpence for selling knife blades to any person not dwelling within the district, and many other regulations as stringent and unwise. The law of supply and demand had not been even dreamed of in those days. Wages, prices, and the extent of supply were all regulated by Government in the supposed interests of the people, and a rapid expansion of trade was impossible. The powers of the juries to enforce these mischievous regulations proving inadequate, an Act of Parliament was obtained in 1624 incorporating the Cutlers' Company, of which we treat elsewhere. The trade of the town did not expand rapidly under the new regime. Its progress continued to be miserably slow.

Early in the eighteenth century the town consisted of the following streets:—High-street, Fargate, Balm-green, Hollin-lane or Blind-lane, Red-croft, Townhead-street, Pinfold-lane, Church-lane, Ratten-row, Broad-lane, Westbar, Westbar-green, Scargill-croft, Figtree-lane, Campo-lane, Hartshead, Snig-hill, Irish-cross, Newhall-street, Millsands, The Under-water, The Isle, Water-lane, Castle-green, Castle Green-head, Castle-fold, Castle-hill, Waingate, Bull-stake (now Old-haymarket), Dixon-lane, Shude-hill, The Ponds, Jehu-lane, Pudding-lane (now King-street), and True Love's-gutter.

The number of persons at that time actually engaged in the cutlery trade is estimated at 6,000; and it is supposed that there were several thousands more in Sheffield and the neighbourhood employed as smiths, anvil makers, &c. The goods manufactured amounted yearly to about £100,000 in value.

The following extract from the History of Hallamshire describes the state of Sheffield in 1750:—

“‘To be as rich as a man of a hundred a year was proverbially to be in the highest rank,’ wrote one of our most intelligent citizens who, although only first born about the time named, was traditionally well acquainted with the town and its inhabitants. The same authority describes Sheffield as a poor, little, dirty mean-built town; the streets were badly pitched, the channel ran down the centre of them, and but few of the causeways were flagged. The houses had gable ends and gutters with protruding spouts, which, during a shower of rain, discharged what they received on the heads of the passers by; whilst the scavenger's cart was as yet an unknown luxury. At night the distant lamps dispensed but a feeble gleam; the best shops displayed their couple of tallow candles for illumination; and they who were abroad after dark had to creep along with lanterns, like glow-worms. The cutler himself had to rely for custom on the factor or chapman, who periodically visited the town, while some of the more affluent manufacturers carried their articles to the country fairs, and a few went to London. The goods were generally of a common kind. Fuller's penny knife was not yet superseded, and was sold in a sheath; and a knife worth a shilling was a rare and superior commodity. The apprentices lived with their masters, and were often roughly treated. The workshops had mud floors on the bottom rooms, and the chamber above was attained by a ladder, and was open to the slates. No glass was in the windows, but oiled paper



served its purpose during the winter. These buildings were in fact sheds like the file-cutters' shops of the present day in the villages around."

The position of the town is thus described by another writer at the end of the eighteenth century :—

" During a considerable part of this century the Sheffield manufacturers discovered more labour than ingenuity ; the workmen durst not exert themselves for fear of being overstocked with goods ; their trade was inconsiderable, confined, and precarious. None presumed to extend their limits beyond the bounds of the island. The chief produce of the manufactories was carried weekly by a few of Mr. Newsom's pack-horses to the Metropolis, the inhabitants viewing their passage up the Park-hill with much pleasure."

These extracts go far to justify the following description given of the town in Macaulay's History of England :—

" About a day's journey south of Leeds, on the verge of a wild moorland tract, lay an ancient manor—now rich in cultivation, then barren and unenclosed—which was known by the name of Hallamshire. Iron abounded there ; and from a very early period the rude whittles fabricated there had been sold all over the kingdom. They had, indeed, been mentioned by Geoffrey Chaucer in one of his Canterbury Tales. But the manufacture appears to have made little progress during the three centuries which followed his time. The langour may, perhaps, be explained by the fact that the trade was, during almost the whole of this long period, subject to such regulations as the lord and his Court had thought fit to impose. The more delicate kinds of cutlery were either made in the capital or brought from the Continent. Indeed it was not till the reign of George the First that the English surgeons ceased to import from France those exquisitely fine blades which are required for operations on the human frame. Most of the Hallamshire forges were collected in a market town which had sprung up near the castle of the proprietor, and which, in the reign of James the First, had been a singularly miserable place containing about two thousand inhabitants, of whom a third were half starved and half naked beggars. It seems certain from the parochial registers that the population did not amount to four thousand at the end of the reign of Charles the Second. The effects of a species of toil, singularly unfavourable to the health and vigour of the human frame, were at once discerned by

every traveller. A large proportion of the people had distorted limbs. This is that Sheffield which now (1848), with its dependencies, contains a hundred and twenty thousand souls, and sends forth its admirable knives, razors and lancets to the farthest ends of the world."

Slow as was the progress of trade, several events of great future importance occurred during the eighteenth century. The Don was made navigable up to Tinsley, thus opening easy communication with the coast, London, and the Continent; silver-plating was discovered by Bolsover; lead works were established on the Porter; the manufacture of Britannia metal ware was begun; steel melting was discovered by Huntsman; an important development of the coal trade, previously a monopoly of the lord of the manor, took place; the first steam grinding wheel was erected on the Sheaf, near Lady's Bridge; "some, whose fathers had been manufacturers, established themselves in the character of merchants or general dealers in the long list of articles made at Sheffield;" Continental trade was developed through the agency of London, Liverpool and German merchants; and though American merchants could scarcely be said to exist before the wars with Napoleon, a few Sheffield houses established agencies in New York, just before the close of the century.

These were considerable achievements, rich in future promise; though it was not until the present century that the marvellous increase of trade, of which we now see the results, fairly set in. That increase has been mainly due to three great causes: the discovery of steam power, free trade and unrestricted production, and the introduction of railways; and it has been immensely aided of late years by the wonderful development of machinery and by the introduction of new industries of great importance.

Formerly the great motive power in our manufactories was the water abounding in numerous streams, and this is still utilised. In the low grinding wheels on those streams we have picturesque and very interesting mementoes of Sheffield industries in the past. But the water power used in them is as nothing in comparison with the enormous steam power now employed in some of our larger factories.

From a mere inland traffic, the trade of Sheffield has become world-wide. Directly, or through the agency of merchants, the products of Sheffield are sent to all parts of the

civilized world, and to regions still dominated by the unlettered savage. The number of industries carried on has also greatly increased. Though Sheffield is still popularly known as the world's cutlery mart, the wares by which it has gained this celebrity are now only a considerable part of its staple industries. Of these manufactures and their expansion we treat in detail in another place, and can here only briefly allude to the results.

Among the most conspicuous of these results is the enormous expansion of the town—large districts which, fifty years ago, were fields being now among its most densely populated parts. They are equally conspicuous in the charming suburbs which have grown up, especially south and west of the town. In the old times, manufacturers and tradesmen lived unostentatiously on their business premises. The concerns were small; the owners thought themselves "passing rich" on a few hundreds a year; and the number of gentlemen driving their own carriages could be counted on the fingers. But during the present generation great fortunes have been made, and Sheffield is now a comparatively rich town. The "cotton lords" of Manchester, who were talked of with envy twenty-five years ago as men of almost fabulous wealth, are rivalled by the steel masters of Sheffield. Leading manufacturers and tradesmen now live in suburban mansions or elegant villas. Many of the small concerns of half a century ago have grown into huge factories, employing thousands of hands, and requiring for their management large staffs of highly paid officials, who swell the suburban population. There has been a proportionate increase of the mercantile and professional classes, and a single suburb is now almost as large as the whole town was at the beginning of this century.

In regard to its environs "smoke-crowned" Sheffield has much to be proud of. The visitor will be struck with the beauty of the dwellings, especially in the Sharrow, Broomhall, Tapton, Endcliffe and Ranmoor districts, the attractions of which are greatly enhanced by fine natural scenery, and are hardly surpassed by the suburbs of any town in the kingdom. Not less pleasing, in a moral point of view, is the spectacle presented at Walkley and some other outlying districts, where the hill sides are dotted with the houses of working men, obtained through the agency of freehold land and building societies,—houses which, standing for the most part in well-

cultivated gardens, have a pleasant aspect, and testify to the thrift of at least a considerable part of the Sheffield artizans. Sheffield workmen take great pride in their gardens, and are remarkably successful cultivators of flowers and vegetables.

The following figures shew the increase of the population of the borough during the present and previous century :—

YEAR.				TOTAL POPULATION.
1736	...	...	...	14,105
1801	...	...	...	45,755
1821	...	...	...	65,275
1841	...	...	...	110,891
1851	...	...	...	135,307
1861	...	...	...	185,157
1871	...	...	...	239,947
1877	...	...	...	282,130

The figures for 1877 are taken from the report of Dr. Griffiths, the late Medical Officer, who obtained returns of the number of occupied houses in the middle of 1877 as the basis of his calculation. The actual population of the borough will now be, in round numbers, 300,000. Sheffield is the largest town in Yorkshire, except Leeds, which it equals within a few thousands. It is the sixth largest town in England—London, Liverpool, Manchester, Birmingham and Leeds only exceeding it.

The wealth of the inhabitants and the rateable value of property in the town have increased in a proportionate degree. In old county rate books the four ancient divisions of the Parish of Sheffield were assessed in the following proportions :—

	s.		d.	
Sheffield...	...	...	5	3
Hallam-cum-Ecclesall	...	...	3	2½
Attercliffe-cum-Darnall	...	...	1	9
Brightside Bierlow	...	...	1	2

In 1849, the rateable value of property in the borough was £270,816.

At the present time (1878) the rateable value is as follows :

Township of Sheffield	...	...	£325,425
Brightside	...	...	210,588
Attercliffe	...	...	68,186
Ecclesall	...	...	188,437
Nether Hallam	...	...	101,239
Upper Hallam	...	...	22,009
Total	...	...	<u>£915,888</u>

Sheffield is far from being an unhealthy town. Although there are of course densely-populated districts where disease is rife, and which increase the general total of mortality in the borough, a comparison with other large towns is favourable to Sheffield. Its situation is highly salubrious. Though far from the sea—being nearly midway between the east and west coasts—it has the compensating advantage of being near to an immense tract of lofty moorlands, the west winds from which are deliciously pure and invigorating. Its hilly surface offers advantages for effective drainage, and it is abundantly supplied with good water. The town is generally well lighted and paved—considerable improvements having been made in that respect since the adoption of the Local Government Act.

The central streets of Sheffield are poor streets for so large a town, but this defect is in a fair way for being effectually remedied. The Corporation have obtained Parliamentary powers for carrying out an extensive system of street improvements at an estimated cost of £500,000 or £600,000. The actual cost, however, will probably not fall far short of £1,000,000, and important additional schemes are contemplated. The work of demolition has been already begun in Church-street, Fargate and other places; and in the course of a few years a great transformation will be effected in streets and street architecture in the centre of the town. There are already a few very splendid shops, banks and other commercial buildings, and the street improvements will lead to the erection of many more.

Sheffield has some fine public buildings—notably the Cutlers' Hall, which, though not externally very imposing, includes one of the best suites of banqueting rooms in the kingdom, and great improvements are taking place in the public buildings and offices generally. Of these, detailed descriptions will be found in subsequent pages.

The town was incorporated in 1832, and returns two representatives to the House of Commons. The present members are the Right Hon. J. A. Roebuck and Mr. A. J. Mundella.

It has a Municipal Corporation, and has adopted all the powers of the Local Government Acts; but its markets belong to the lord of the manor, and its gas and water supply are in the hands of private companies.

## GOVERNING AND PUBLIC BODIES, &c.

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### THE TOWN TRUST.

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HIS Trust seems to have originated about the close of the thirteenth or at an early period of the fourteenth century, for the administration of property given by the Lords Furnival and other benefactors for public uses—such as the building and repair of bridges, the maintenance of roads, &c. In later times the cleansing and keeping in order of “Barker-pool,” from which the town was supplied with water “for the common use and benefit of the inhabitants;” the repair and preservation of the town armour, the pillory, the “cuck stool,” &c., were among the uses to which its funds were applied. Before the Reformation the management of the Trust property fell into the hands of the vicar and churchwardens, who devoted a portion of it to the maintenance of three priests appointed to assist the vicar. The part so diverted was confiscated in the reign of Edward VI., the remainder continuing to be loosely administered by a body of principal inhabitants until 1681, when new Trustees were appointed, and the Trusts were definitely settled by a decree of the Court of Chancery. Under the name of the “Town Trustees” this body, twelve in number, still exists, and its usefulness has of late years been very greatly extended. The annual income of the Trust property gradually increased from £7 7s. a year in 1565 to about £1,870 in 1865. In 1871 it was more than doubled by a bequest of £90,000 in consols by the late Mr. Samuel Bailey, one of the Trustees. The annual income having reached £4,560 in 1873, the royal assent was obtained to an Act promoted by the Trustees for extending and defining the purposes of the Trust. This Act—in addition to incorporating, with some exceptions, the “Lands Clauses Consolidation Acts, 1845, 1860, and 1869,” and the “Commissioners Clauses Act, 1847,”—gives the Trustees full powers to purchase land and buildings within the Parish of Sheffield for the making or widening of streets; also to purchase and appropriate land for “public

recreation grounds," to lay out, plant and form such land into ornamental grounds; construct roads, lakes, ponds, &c.; apportion part as gardens and pleasure grounds, and part for sports; erect baths and other buildings and conveniences; employ servants and make bye-laws for the care, regulation and management of the recreation grounds, &c. Power is also taken to transfer such recreation grounds, in perpetuity or for a term of years, to the Corporation of Sheffield; together with all the powers of regulation conferred by the Act, either gratuitously or upon terms to be agreed upon. The Act also confers more extended powers for the general management of the Trust. The Trustees are elected for life. Under the new Act "the qualification for a Trustee, or for a person to vote in the election of a Trustee, is the possession, beneficially, of a freehold estate, or interest in lands or tenements, situate in the Township of Sheffield, and residence in or the occupation of a rateable tenement in the Parish of Sheffield." Mr. Samuel Roberts, as head of the Trust, is the "Town Collector;" Messrs. Henry Vickers & Son, of Bank-street, being the Law Clerks; and Mr. T. J. Flockton, of St. James'-row, Surveyor. The Trustees have a room at the Town Hall, where they meet for the transaction of business.

### THE CHURCH BURGESSES.

The Church Burgesses administer the funds confiscated by Edward VI. as mentioned in our account of the Town Trust, and subsequently restored by Queen Mary. It seems that for some time before the Reformation the inhabitants had maintained three priests to assist the vicar in his duties. The violent changes in the time of Henry VIII. caused a failure of the contributions by which these ministers were maintained. It was on this failure that part of the property left for public uses was applied to the support of the three ministers and subsequently confiscated by the Crown. On the accession of Mary, the inhabitants petitioned for the lands confiscated by Edward to be restored for the maintenance of the three priests, and the Queen granted the prayer by a charter issued in the year 1554. By this deed the inhabitants of Sheffield were constituted a corporate body, entitled the "Twelve Capital Burgesses and Commonalty of the town and parish of Sheffield." According to the terms of the charter, twelve resident gentlemen were

appointed as the executive body, with power to elect new members to fill up vacancies as they might occur; and under the name of "Church Burgesses," the twelve Capital Burgesses still constitute a local corporate body of considerable influence and utility. The objects of the Trust, as declared by the charter, were to maintain three ministers to assist the vicar; to repair the Parish Church, bridges, and common ways; and to assist the poor and needy inhabitants. In the time of Henry VIII. the estates realized £17 a year, which was divided amongst the three priests, one receiving £7 and the others £5 each. Now the estates are worth about £2,900 a year. The chaplains appointed to assist the vicar have of late been paid £400 a year each, and been, to a certain extent, independent of him. In 1854, the Court of Chancery sanctioned a new scheme for appropriating the funds. This scheme provides that the chaplaincies shall cease when and as they are vacated, the duties being afterwards performed by two curates to be appointed by the vicar. Two of the chaplaincies having been vacated, two curates have been appointed as provided; and the third chaplaincy will of course cease when vacated by the present holder, the Rev. S. Earnshaw. In regard to funds, the scheme provides that the "Capital Burgesses and Commonalty" shall apply five-sevenths of the income of the Trust to the following ecclesiastical purposes, viz. :—(1) The payment of £400 to the remaining chaplain during the continuance of his office. (2) The payment of £200 a year to the first curate and £150 to the second. (3) The support, repair, and insurance of the fabric of the Parish Church, and the ordinary expenses attending the celebration of divine worship,—these expenses to include the salaries of the organist, organ blower and sexton; the cost of warming, lighting, painting and cleaning the church, and keeping the clock and the bells and bell ropes in sufficient condition; the purchase of sacramental bread and wine, and other incidental expenses. (4) The payment of £100 a year to the chaplain of the Infirmary, provided his income from all sources does not exceed £150 a year. (5) Endowments of £150 a year to not more than four ecclesiastical districts, to be constituted out of the districts of Netherthorpe, Porter-street, Broomhall and Gilcar,—these endowments to be granted "in such order as the Twelve Capital Burgesses and Commonalty shall, with the approval of the Ecclesiastical Commissioners, determine." (6) The surplus, if any, to be applied at the discretion of the



Burgesses and Commonalty to increasing the salaries of districts, other than those of Netherthorpe, Porter-street, Broomhall and Gilcar, to a sum not exceeding £150 a year, exclusive of pew rents; or in aid of the building of additional churches or parsonages, or the endowment of additional districts within the parish of Sheffield. An order of the Charity Commissioners, made in 1874, authorizes an increase of the endowments of new districts to a sum not exceeding £200 a year. The endowments already given are £150 each to the incumbents of St. Silas' and St. Mark's, and £100 to the incumbent of St. Barnabas'. As the leases of the Trust property expire the income is largely augmented, and must ultimately become a valuable source of church endowment in the town. The remaining two-sevenths of the income is to be applied to the following secular purposes:—(1) A sum not exceeding £20 a year is to be contributed towards the repair of bridges and highways. (2) Three-eighths of the remainder is to be given to the Infirmary, Dispensary, and other medical charities. (3) The other five-eighths is to be distributed by the Twelve Capital Burgesses among the Boys' and Girls' Charity Schools and such other day schools for the education of the poor, and under Government inspection, or in connection with the National Society or the British and Foreign School Society, as shall from time to time apply in writing for such aid. The Law Clerk is Mr. J. J. Wheat, solicitor, Paradise-square. The Church Burgesses meet for the transaction of business in the vestry chamber of the Parish Church.

### THE CUTLERS' COMPANY.

This body was incorporated by Act of Parliament, passed in 1624, entitled "An Act for the good order and government of the makers of knives, sickles, shears, scissors, and other cutlery wares in Hallamshire, in the county of York, and parts near adjoining." The preamble of the Act declared that many of the cutlery workers refused to submit to the ordinances of the trade; that they persisted in taking as many apprentices, and for such a term of years, as they chose, whereby it was feared that the calling would be "overthrown;" and that the workmen, owing to the absence of proper authority, "are thereby emboldened and do make such deceitful, unworkmanlike wares, and sell the same in divers parts of the kingdom, to the great

deceit of his Majesty's subjects and scandal of the cutlers of Hallamshire, and disgrace and hindrance of the sale of cutlery and iron and steel wares there made, and to the great impoverishment, ruin, and overthrow of multitudes of poor people." The Act provided that the cutlery manufacturers of Hallamshire and six miles round should form a body corporate, to consist of a master, two wardens, six searchers, and twenty-four assistant searchers. These were the executive of the body, the rest of the manufacturers being included under the term "commonalty." Power was given to these officers to make such regulations as they thought proper for the management of the trade, and to inflict fines for the breaking of them. The Act directed that all persons engaged in the trade should make the edges of all their goods of steel, and that they should stamp them only with such marks as might be assigned by the Company. Such were some of the principal provisions of the Cutlers' Company, as originally constituted. It seems to have been popular, for 360 manufacturers at once joined it. The Company passed regulations more stringent in many respects than those the juries had previously enforced. The "searchers" were empowered to enter houses for the purpose of seizing the "deceitful, unworkmanlike wares" which were so bitterly complained of. Rules for the restriction of the trade, so as to prevent it from being "overthrown" by the multitude of workmen, were rigidly carried out. The privilege of working at the cutlery business was strictly confined to freemen, of whom for a long time an average of only about 30 new ones a year were admitted. Various modifications were afterwards made by Act of Parliament; but no radical change was effected till 1814 when, the system of freemen having been found to seriously check the progress of trade, an Act of Parliament was obtained for rescinding it. By that Act the trade was thrown open to every one who chose to engage in it; but the important privilege of granting and protecting marks was reserved to the Cutlers' Company. By an Act obtained in 1860 the charter was extended so as to embrace manufacturers of steel as well as manufacturers of saws, edge tools, and other articles having a cutting edge. Previous to that Act persons, not being sons or apprentices of freemen, were not admissible as members of the Company, though engaged in the incorporated trades. The new Act abolished that restriction, and now all persons carrying on the incorporated trades are eligible

as members of the Company. The fees of admission to persons not being the sons or apprentices of freemen amount to £23, including stamp duty.

In 1875 an Act was passed to extend the advantages of the registry and protection of trade marks to the country generally. The Act contains the following protective provisions in regard to the marks granted by the Cutlers' Company. Clause 9 enacts:—

1. That the Cutlers' Company shall deliver to the registrar under the Act, copies of all Sheffield marks in force:
2. That the Company shall give notice to the registrar of all new applications for marks, and delay to grant such applications for a prescribed period; the registrar in like manner to give notice to the Company of applications to him for registration of marks belonging to goods specified in the Companies Acts, and delay the registration for a fixed period:
3. The Company and the registrar are to give notice each to the other of the registration or assignment of such marks:

The Clause proceeds:—

4. The registrar under this Act, without the special leave of the court, to be given only in cases where the applicant proves his right, shall not in respect of any goods or classes of goods with respect to which a Sheffield corporate mark shall have been assigned and actually used, and of which mark a copy or description or notice of the assigning whereof shall have been delivered or given to the registrar as aforesaid, register a trade mark identical with such Sheffield corporate mark, or so nearly resembling the same as to be calculated to deceive:
5. The master, wardens, searchers, and assistants of the Cutlers' Company shall not assign to any person a mark or device identical with any trade mark registered under this Act, and notice of the registration whereof shall have been given to the Cutlers' Company as aforesaid, or so nearly resembling the same as to be calculated to deceive:
6. Any person to whom a Sheffield corporate mark legally belongs shall be entitled to have the same mark registered also as a trade mark under this Act, in respect of any particular goods or classes of goods, in the same

manner and upon the same terms and conditions in and upon which he might have registered the same if it were not a Sheffield corporate mark :

7. Nothing in this Act shall prejudice or affect the rights and privileges of the Cutlers' Company, nor, save as is otherwise in this Act expressly provided, shall any of the provisions of this Act apply to or in the case of any Sheffield corporate mark.

The effect of this Clause is to reserve to the Cutlers' Company the same powers, in regard to Sheffield corporate marks, as are conferred upon the National Registry in regard to the marks of the rest of the country ; and in proceedings for the protection of Sheffield marks, the action of the Company has been sustained by the Courts of Appeal.

The annual festival of the Cutlers' Company is noted throughout the country as an occasion on which members of the nobility and distinguished politicians find an opportunity of expressing a public opinion on current events. The "Cutlers' Feast" has long been an important social gathering, for in 1682 several peers attended, while in 1771 there were present the Dukes of Norfolk, Devonshire, and Leeds, the Marquis of Rockingham, and the Earls of Holderness, Scarborough, Effingham, Bute, and Stafford, with several other peers and baronets. The dinner is given by the Master Cutler upon his installation in office, and the Company provide him with £105 towards the cost, which greatly exceeds that sum, the banquet being in every respect of the most sumptuous and *recherché* description.

The following curious document of the "settling up" of the Feast in 1749 shows in a remarkable manner the change in the social habits of Sheffield, in common with the rest of the community, during the last hundred years :—"Expenses of the Cutlers' Feast : rump of beef, 3s. 4d. ; six fowls, 2s. 8d. ; ham, 3s. ; pies and puddings, 2s. 6d. ; hare, 1s. 6d. ; loin of veal, 1s. 10d. ; bread, 1s. ; butter, 2s. ; roots, 4d. ; ale and punch, 20s. 7d. ; dressing, 4s. ; total, £2 2s. 9d. Collected by the Company, 21s. ; paid out of stock, 21s. 9d. Received contents in full by WILLIAM DIXON."

Mr. W. H. Brittain, of Alma Works, is Master Cutler for the present year ; and Mr. C. Macro Wilson, of East-parade, is the Law Clerk to the Company.

## THE CUTLERS' HALL.

The Hall where the Cutlers' Company transact their business and give their great banquets is in Church-street. Originally the "Corporation of Cutlers" did their business and gave their modest entertainments at the "Cutlers' Inn," a respectable hostelry in Fargate, opposite the end of Norfolk-row. In 1726 they removed to a Hall of their own in Church-street. A century later—in 1832—the Company built a new Hall on the old site at a cost of £6,500; and in 1857 they added a magnificent new banqueting hall in the Italian style, at a cost, with other necessary additions and improvements, of over £9,000. The Cutlers' Hall now embraces one of the finest suites of festive rooms in the provinces. There are cloak and robing rooms on the ground floor, whence the guests ascend by a wide staircase to the vestibule, at one end of which is the coffee room—53 ft. by 25 ft., with front windows looking upon the Parish Church, and, at the other end, an elegant reception room, 80 ft. by 30 ft. The new banqueting hall is 100 ft. long by 50 ft. broad, and as lofty as it is broad. It has a convenient side orchestra and a ladies' gallery at the north end. Day-light is admitted by small lunette windows, immediately under the roof. Over the windows are the arms of the Company, coloured, and, in the coves of the ceiling above, the arms of De Busli and his successors, the Lovetots, Furnivals, Talbots and Howards—Lords of Hallamshire from the Conquest until now. In the centre ornament of the roof are medallions of Vulcan, Minerva, Apollo and Mercury, with appropriate emblems, and, in front of the ladies' gallery, medallion portraits of Chaucer (whose much-quoted line about the "Sheffield thwytel" marks the early fame of the town), and of King James I., by whom the original charter of the Company was granted. Two magnificent gas chandeliers of gilt scroll-work, each with 95 burners and 1500 large cut-glass prisms and drops, accord well with the artistic design and rich decorations of the room, and aid the general effect. They were manufactured in Paris, at a cost of over £400, one of them being the gift of Sir John Brown, to whose liberality and public spirit the enlargement was mainly due. The superb room, in which the far-famed "Cutlers' Feasts" are now annually held, is of ample size for 350 guests, and underneath is a large room for public meetings. In the front room on the ground floor are

engravings of the old "Cutlers' Inn," and the original Cutlers' Hall; in the entrance hall busts of the Right Hon. John Parker and Mr. James S. Buckingham, the first members for Sheffield; and on the staircase a portrait of Sir John Brown, as mayor, by Richd. Smith; and a bust of Mr. John Holland, by Theophilus Smith. In the coffee room are portraits of the Rev. Joseph Hunter, the historian; and Ebenezer Rhodes, author of "Peak Scenery," the latter by Poole. In the vestibule are plaster casts, from busts by Chantrey, of Sir Walter Scott, George Canning, James Watt, and Professor Lyon Playfair; busts of the late Earl Fitzwilliam, Mr. Wm. Jeffcock, (the first mayor of the borough), S. Hadfield, and Montgomery, by Edwin Smith; and of Mr. William Overend, Q.C., by J. E. Boehm; portraits of Mr. Thomas Hanbey, the founder of Hanbey's Charity; of the Rev. James Wilkinson, a former vicar; of Colonel R. A. Athorpe, and Mr. George Bennett; also of Mr. Wm. Bragge, by Richd. Smith. In the old banqueting hall (now the reception room) are portraits of Wellington; Bernard Edward, twelfth Duke of Norfolk, by Pickersgill; of the first Lord Wharncliffe, by Briggs; of the late Earl Fitzwilliam, by H. Thompson; of Mr. Hugh Parker, by Poole; of Mr. Wilson Overend, by Richd. Smith; of Dr. Sutton, a former vicar; and of Dr. Younge. There is also a bust of Sir W. Sterndale Bennett. In the corridor of the new hall is a statue of Montgomery. In the new banqueting hall are portraits of Lord Palmerston, by a London artist, and of Mr. Thomas Jessop, by Hugh Ford Crighton. Outside the Hall are the arms formerly used by the Cutlers' Company, but which are really those of the London Cutlers' Company, and were adopted by the Sheffield Corporation. In 1875, however, a proper grant was obtained from the Heralds' College, of which we give an illustration and description:—"Argent on a fesse, indented vert, between three pairs of swords in saltire proper, pimbels and hilts sable, eight arrows interlaced saltirewise, banded of the field between two garbs or; and for the crest, on a wreath of the colours in front of an elephant's head, coupé or, two swords in saltire as in arms." Motto—"Pour y parvenir a bonne foi."



## THE TOWN HALL AND THE ADMINISTRATION OF JUSTICE.

The Town Trustees erected the oldest portion of the present Town Hall, situate at the corner of Castle-street and Wain-gate, in 1808, when the Hall, which had stood at the corner of the Parish Churchyard, at its junction with High-street, for exactly 108 years, was taken down. They enlarged the new building in 1833, and it continued to be used for prison, police offices, Petty and Quarter Sessions, and for town meetings (held in the large court) until 1866. It was then leased by its owners, the Town Trustees, for 500 years, at a nominal rent, to the Corporation, who, having already built new police offices and prison on an adjacent site in Castle-green, proceeded to enlarge and internally remodel the old building. The Town Hall—still so called—now comprises a spacious entrance-hall on the ground floor, with offices for the Magistrates' Clerk and the occasional use of the Rate Collectors, on the Waingate side; and for the bar and witnesses, on the Castle-street side. The upper floor is divided by a broad central passage, on one side of which are rooms for the Town Trustees and the Warrant Officers, and for occasional business; and, on the other side, two well-ventilated, well-arranged courts, adapted specially to and used only for Petty and Quarter Sessions. The small, damp cells underneath the courts have been converted into two large cells, in which prisoners awaiting examination or trial are confined during Petty or Quarter Sessions. These cells communicate with the prisoners' docks by a private staircase. The cost of the alterations was over £10,000. The Town Hall is surmounted by a clock tower; and "under the clock" was formerly a common phrase for a night's lodging in the dismal cells below.

Petty Sessions are held at the Town Hall daily. There are usually two courts, the Stipendiary Magistrate (Mr. E. M. E. Welby) presiding in one, and the Borough Magistrates in the other. Mr. Henry Vickers is Clerk to the Borough Magistrates, and has offices on the ground floor at the Town Hall.

The West Riding Magistrates hold Petty Sessions at the Town Hall on Tuesdays and Fridays. Mr. Wm. Smith, of Campo-lane, is their Clerk.

Sheffield not possessing a Recorder and separate Quarter Sessions, its prisoners are tried at the West Riding Sessions,

which are held by rotation (about twice a quarter) at Sheffield, Rotherham, Doncaster, and other places in the division. The Court of Quarter Sessions is held in the Town Hall, at Sheffield, in the courts at other times used for Petty Sessions.

### THE COUNTY COURT.

The County Court possesses commodious buildings in Bank-street. The Judge is Mr. Thomas Ellison; the Registrars, Messrs. W. Wake and T. W. Rodgers; the Managing Clerk, Mr. J. Fairmaner; and the High Bailiff, Mr. Bedford, who has separate offices in Bank-street.

### THE MUNICIPAL CORPORATION.

Sheffield was incorporated in 1843, and is divided into nine wards, four of them—St. Peter's, St. George's, St. Philip's, and the Park—being divisions of the central township of Sheffield, and the others bearing the names of the five surrounding townships with which they are co-extensive—Brightside, Attercliffe, Ecclesall Bierlow, Nether Hallam, and Upper Hallam.

The Town Council is composed of sixteen aldermen and forty-eight councillors, each ward electing six councillors, excepting Attercliffe and Upper Hallam, which have three each. During the first twenty years of its existence the Town Council exercised only the restricted powers conferred by the Municipal Corporations Act; but by the adoption of the Local Government Act in 1864, and other measures, much more extensive powers have since been acquired. It has now control of the police force, of the lighting, cleansing, and maintenance of the highways, of drainage and sanitary measures, of the levels and sanitary arrangements of new buildings, of the free libraries, of the public baths, of the fire brigade, of the inspection of markets, weights and measures, and of the testing of gas meters. It has also considerable powers with reference to the making of new and widening of existing streets, the erection of public buildings, the providing of public parks, and the general improvement of the borough. It has lately obtained powers for and constructed tramways in some of the principal thoroughfares. The Council has made strenuous efforts to gain possession of the extensive works and powers of the private companies which supply the inhabitants with gas and water, but hitherto without success. Unlike many Corpora-



tions, the Town Council of Sheffield has no revenue except what is drawn directly from the pockets of the ratepayers; but by the aid of the Police Superannuation Fund, the accumulations of which exceed £40,000, it has been able to provide public courts and offices on easy terms. The annual expenditure of the Council, which ten years ago was about £14,000, exceeded £135,000 last year, and is rapidly increasing. Ald. David Ward is Mayor for the present year. Mr. John Yeomans is the Town Clerk.

A grant of arms and crest was made to the Corporation by the Heralds' College on July 26th, 1875.

They are described as follows:—"Per fesse  
 " azure and vert, in chief eight arrows inter-  
 " laced saltirewise, banded argent, and in  
 " base three garbs fessewise or; and for the  
 " crest, on a wreath of the colours, a lion  
 " rampant argent, gorged with a collar,  
 " and holding between the paws an antique  
 " shield, azure, charged with eight arrows as in the arms."



## THE COUNCIL HALL AND MUNICIPAL OFFICES.

The Council Hall, of which we give an illustration, is in Surrey-street, having a side frontage into Tudor-street. It was



THE COUNCIL HALL AND CENTRAL FREE LIBRARY.

erected in 1847-8, at a cost of about £7,000, for the Mechanics' Institution, which occupied the two upper storys, letting off the ground floor rooms for a gentlemen's club, known as the Lyceum. On the demise of the Club its rooms were taken by the Town Council for the Free Library. In 1864 the Council purchased the entire building for £4,600, and converted the middle story into a Council Hall, leaving the Mechanics' Institution in possession of the uppermost story, and continuing the Free Library on the ground floor. The accommodation is unsuitable and inadequate alike for the Free Library and Council Hall. In 1871 the Council purchased the adjoining property, with a view to the erection of additional and more suitable buildings and a general concentration of municipal offices—a project which has, however, been left in abeyance, though the various municipal offices are at present most inconveniently dispersed. The Health Offices are in Tudor-place, adjoining the Council Hall.

New offices for the Town Clerk have been erected in Hartshead, and were opened a few months ago. They include a large and handsomely furnished room for the meeting of committees and other such purposes, and an excellent suite of offices for the Town Clerk and his staff. They are centrally situated, but front upon a road which is little better than a back lane, the new street intended to be opened through Hartshead when the offices were begun not having been sanctioned by the town.

The Borough Surveyor's offices are in Bower-spring, still further removed from the Council Hall, those offices having been erected by the Sheffield Highway Board, which had charge of the streets before the Council put in force the powers of the Local Government Act.

Offices in Bridge-street, opposite the end of Newhall-street, have been taken for the Borough Accountant and his staff, including the District Rate Collectors.

In the Council Hall are portraits of the Right Hon. J. A. Roebuck, by Richd. Smith; of Mr. George Hadfield, late M.P., by J. G. Muddleton, of London; of the late Mr. Wm. Fisher and Sir John Brown, by Richd. Smith; and of Ald. Thomas Moore, by Hugh F. Crighton.

In the Mayor's parlour is a portrait of Sir Arnold Knight; and in the Mechanics' Institution rooms above portraits of Ebenezer Elliott and of Sir A. J. Knight.

In the committee room at the Town Clerk's offices are portraits of the late Mr. Wm. Jeffcock, J.P., the first mayor of Sheffield, and Major of the Sheffield Squadron of First West York Yeomanry Cavalry; of Alderman Moore and of Mr. Thomas Jessop, all by Hugh Ford Crighton, a local artist.

### THE POLICE OFFICES.

The Central Police Offices occupy a site immediately below Castle-street, and stretching from Castle-green to Water-lane. The principal buildings are in the shape of the letter L. The offices fronting Castle-green form the base of the letter, the cells and charge rooms (extending to Water-lane) the stem; the square space behind the offices being a glass-roofed parade ground large enough for parading 500 men. The offices, which are three stories high, stone-fronted, and in the Italian style of architecture, include large, airy rooms for the Watch Committee, Chief Constable, Inspectors, Clerks, Detectives, Warrant Officers, &c. There are also private rooms, baths, kitchens, Inspector's residence, and, in the top story, tailors' workshops and band room. The cells, seventeen in number, are built in tiers, and approached by stone passages strongly guarded. They are constructed on the best models, and, being all above the ground, are light and dry. Including the cells under the Town Hall, with which there is underground communication, there is accommodation for more than seventy prisoners. The Offices are among the most complete, commodious, and best-arranged buildings of the kind in the provinces. There are five branch police stations—at Highfield, Broomhill, Langsett - road, Burngreave and Attercliffe. These stations are square brick edifices, with stone tracings, substantially built, and comprise Inspector's residence, commodious offices, several good cells, parade ground, and shed for fire engine. The central offices cost over £16,000 (including £5,000 given for the site), and the branch stations have cost £800 to £1,100 each.

### THE POLICE FORCE.

Under the management of an able Chief Constable, the Police Force of the borough has become a well trained and efficient body. The force consists of four superintendents, nineteen inspectors, thirty sergeants, and 276 constables—330 in all.

The town has been divided for police purposes into six divisions, the central division being worked from the chief offices with about half the force. The outlying divisions are worked from the branch stations, which are their centres, by a force of one inspector, three sergeants, and about thirty-five men, who now report themselves and meet for ordinary parade at their respective stations, instead of wasting much of their time and energy as formerly in marching backwards and forwards from the extremities of the borough to the central offices. At the branch, as at the central offices, constables are in attendance night and day, and prisoners are lodged for the night at the stations of the divisions in which they are arrested. The branch offices have telegraphic communication with the central office. The central division has a branch station in Tenter-street, in which ten constables are lodged, but only in order that they may be always at hand to quell disturbances, which were formerly of almost constant occurrence in that unruly neighbourhood. Mr. John Jackson is the Chief Constable.

### FIRE BRIGADES.

The fire brigades are under the control of the Corporation. The central station is in Barker-pool, opposite the Albert Hall, Mr. John Pound being the superintendent. There are four fire engines (one worked by steam power), a hose reel, and two fire escapes there, and an engine is kept at each of the branch police stations. The fire brigades are composed of members of the police force living in the immediate neighbourhood of the stations.

### POOR LAW UNIONS AND WORKHOUSES.

Two Poor Law Unions have been formed in the borough, Sheffield Union and Ecclesall Bierlow Union. The former contains the townships of Sheffield, Brightside and Attercliffe, within the borough, and Handsworth without. The Workhouse and offices of the Sheffield Guardians have for many years been in Kelham-street, in the heart of the town; separate buildings having been provided for the children at Pitsmoor. The Guardians, several years ago, purchased a site for a new Workhouse at Fir Vale, in a very pleasant country district, close to the north-eastern boundary of the Union, and the foundation stone was laid on September 16th, 1878. The House,

when the plans have been fully carried out, will contain accommodation for over 1,800 paupers, in addition to a large staff of officers; but accommodation for only 1,162 inmates is being provided at present. The principal frontage, stretching from north to south, will be nearly 1,100 feet, and will have a tower 120 feet high in the centre, over the principal entrance. The buildings are to be of red brick, with courses of stone and black and white bricks. The Workhouse will be in six divisions. (1) The main building for general paupers; (2) lunatic asylums; (3) school; (4) hospitals; (5) fever hospitals; (6) vagrant wards. The arrangement of the building is as follows:—The main building, occupying the front and centre of the group, is in three blocks, connected by wide corridors. The centre block is administrative, and consists of committee room, offices, and officers' rooms, waiting hall (19 ft. by 71 ft. 6 in.), kitchen (64 ft. by 54 ft.), and dining hall for 700 inmates. Food for all the departments will be supplied from this kitchen, access being given by basement corridors. The north block, for the men, is sub-divided into four sections, each section having a separate yard, exercise ground, and entrance. At the back of this block are bakehouses, workrooms, &c. The south block, for women, similarly sub-divided and arranged, has washhouses, laundry, &c., at the back. This main building will accommodate 774 inmates, exclusive of officials. The asylum, south of the main building, will accommodate 200 inmates—the men's and women's parts being 170 feet apart—with dining room, washhouses, workrooms, &c., midway between them. The schools, for 300 children, are north of the main building and similarly arranged to the asylum. The hospitals, west of the main building, are on the block or parlour plan. They include surgeons' and officers' rooms, kitchens, washhouses, &c., in the centre, and accommodation for 366 patients. West of the general hospital will be fever hospitals. The entrance buildings are a quarter of a mile from the general group, and include porter's lodge, probationers' wards, and vagrants' wards for sixty men and twenty women, on the cellular system. The site of the new Workhouse contains 44½ acres, and has been purchased for £16,800. The contract for the buildings is £134,800. This is exclusive of boundary walls, furniture, &c., and the total cost is estimated at £180,000. The architect is Mr. James Hall. The Union offices remain at the old Workhouse for the present; but the sanction of the Local Government Board has been

obtained for the erection of new offices on the site of the old Surrey Music Hall, Westbar.

The Ecclesall Bierlow Union comprises the townships of Ecclesall Bierlow, Nether Hallam and Upper Hallam, within the borough, with Norton, Totley, Dore, and Beauchieff, in Derbyshire. The Workhouse is a handsome and well-arranged stone structure at Cherrytree-hill, about two miles south of the centre of the town, and has extensive gardens and grounds. It has cost altogether over £25,000, considerable sums having been expended from time to time in the erection of detached hospitals, schools, imbecile wards, &c., in connection with the main buildings, and on vagrant wards, &c., at the entrance.

Mr. J. Spencer is Clerk to the Sheffield, and Mr. T. W. Smith to the Ecclesall Guardians.

#### TOWNSHIP OFFICES.

The Overseers' Offices for the Sheffield township are at present in connection with the old Workhouse in Kelham-street. The erection of new Offices and Vestry Hall for township meetings is under consideration. The Overseers' Offices and Vestry Halls for Brightside are in Burngreave-road; Attercliffe, Church-street; Ecclesall Bierlow, Cemetery-road; Nether and Upper Hallam, Crookesmoor.



## RELIGIOUS EDIFICES.

## CHURCH OF ENGLAND.



THE great parish of Sheffield was provided with its first Christian church early in the 11th century, and the growth of the population was so slow that 600 years had elapsed before a second church was found to be necessary, if we except the Chapels-of-Ease at Attercliffe and Ecclesall, the chapel of "My Lady" at the foot of Lady's Bridge, and the Shrewsbury Hospital Chapel—all of them quite insignificant in point of accommodation. St. Paul's was built in 1719, and only two more were built in the same century—St. James's in the town, and the present Ecclesall Church for the rural inhabitants of that wide southern township. But the present century has witnessed remarkable progress in church building, as in everything else. Twenty-nine churches have been built in the fifty-six years since 1823, and several others are in course of erection or contemplated. Church extension this century began with the erection of four churches under the Million Act of Sir Robert Peel, passed in 1818. In 1845, the parish was divided into twenty-five parochial districts, for which churches have been gradually provided. A further stimulus was given in 1865 by the formation, under the auspices of the Archbishop of York and Dr. Sale, the vicar, of a Church Extension Society, which raised £31,252, and was instrumental in promoting the erection and completion of five additional churches, for which new districts were formed by severance from existing parishes. A second Church Extension Society was formed in January, 1877, under the auspices of the Archbishop of York and the Rev. Rowley Hill, then vicar, but now Bishop of Sodor and Man. The object was to build five more churches in five years. The five contemplated are to be erected in Netherthorpe, Langsett-road, Newhall, Attercliffe, and Ecclesall-road. Bishop Hill was so far successful that he was able to raise over £28,000 during his vicariate, which terminated August 24th in the same year.

The ancient parish of Sheffield is already divided into thirty-five parishes, and, as we have seen, the good work of forming

new districts and providing churches and incumbents is going on with unabated vigour.

**THE PARISH CHURCH.**—By far the most ancient and interesting building in Sheffield is the Parish Church, which seems to have been founded by the De Lovetots, in the reign of Henry I. It has borne several appellations, including “Holy Trinity Church,” but is now called St. Peter’s, which was doubtless its original designation, a document of the date of 1366 describing it as the “Church of the blessed St. Peter.” It was at one time called the Church of St. Peter and St. Paul. The change from St. Peter to “Holy Trinity” is attributed to the Puritans, similar changes having been made in other places. The church was given to the Priory of Worksop, together with one-third of the tithes of the parish; the other two-thirds being conferred by the Norman owners on their favourite Abbey of St. Wandrille, in Normandy, which enjoyed the revenues until they were transferred by Richard II. to the Carthusian Convent of St. Ann, near Coventry.

The Parish Church is rectangular in shape, with a crocketed tower and spire near the centre. Hunter gives the following



PARISH CHURCH, SHEFFIELD.

conjectures as to its present form and construction:—“Originally, like most of our churches that were erected for the use of a considerable population, it was in the form of a cross, the tower and spire rising at the intersection of the two limbs. In the original design were included side aisles, both on the north and south, above which rose the nave, with a range of clerestory windows.

Perhaps the first change in its form was produced by the erection of the Shrewsbury Chapel, which now forms the south-east angle of the building. Since that period there have been many changes and many re-edifications, till nothing remains of the original fabric except the massy pillars that support the tower, and the whole has assumed a form which never belonged to the ancient churches of this country—a parallelogram contained by walls of equal altitude.”

The dimensions of the church are—inside, nave 64 feet, tower 29 feet, and chancel 45 feet, giving a total length of 138



feet, while the width is 66 feet. Outside the length is 143 feet, and the width 72 feet. The great defect of the building, architecturally, is that there is no perfect style about it. Nevertheless, it is a handsome edifice. The most prominent style in the building is the Perpendicular. There is a north and a south aisle, and the nave is divided into five bays, with stone pillars and arches.

A good deal of speculation has been indulged in as to whether any part of the original church of the De Lovetots exists in the present edifice; and, until lately, antiquaries were not indisposed to believe that the original tower was still standing. In 1867 a discovery was made which seems to throw some light on this point. An excellent new clock, with chimes, was placed in the tower, and, in perforating the north side of the tower for the reception of one of the dials, the workmen discovered a carved stone among the rubble filling of the thick wall. In size the stone was 11 inches by 12, and 9 inches deep; it was carved with a simple variety of the indented chevron moulding, and had evidently formed part of an arch of the original Norman church. It is believed to have belonged to the chancel arch, the span of which, as ascertained from the size and shape of the stone, would be  $16\frac{1}{2}$  feet. The old Norman church, then, was a ruin when the tower—the oldest part of the present edifice—was built; and we are driven to the conclusion that the original church was burned down by D'Eyville at the same time as the original Castle, during the wars between Edward III. and the Barons; and that the tower does not date further back than the middle of the 13th century, when the church was rebuilt after the fire. The chancel and other older parts of the church would be built about the middle of the last century. The nave was entirely rebuilt by public subscription at the beginning of the present century.

There are some handsome ornamental windows. That at the west end is a fine work of art in the flamboyant style, given by the Rev. Dr. Sale in 1857. It contains the arms and seals of the Church Burgesses, the Town Trustees, and the Cutlers' Company, the Corporation, the Vicar, and the Archbishop of York. There is a handsome window on each side of the principal one. The central east window was erected in 1858 in memory of James Montgomery the Poet, being the gift of Mr. J. Newton Mappin. In 1862, Sir John Brown placed in the chancel a beautiful window in memory of his parents. The

subject is the History of Joseph. The other chancel window was presented by the family of the late Mr. Wm. Smith, in memory of their father. Additional windows have since been inserted in memory of Mr. George Hounsfeld, of High Hazles; Mrs. Rowley, of Derbyshire; and Mr. Edwin Unwin, of Leavygreave, Sheffield.

Under the clerestory windows there are eight coats-of-arms. Looking towards the west end of the church, the arms are in the following order:—On the right are those of four of the principal Lords of the Manor, viz., the De Lovetots, the De Furnivals, the Talbots, and the Howards. On the left are the arms of four of the proprietors of the advowson since the Reformation—namely, the Swyfts, the Jessops, the Gells, and the Lawsons.

In the south-east corner of the church is the Shrewsbury Chapel, which contains sepulchral monuments of great beauty.



THE SHREWSBURY CHAPEL.

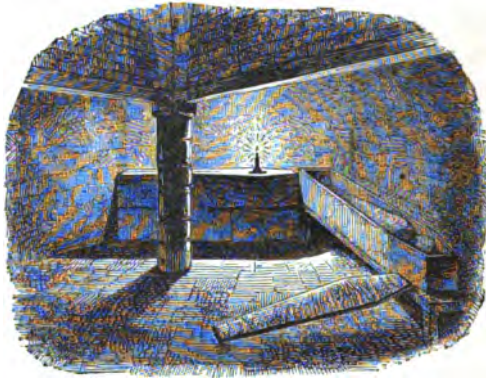
Hunter, a good judge, regarded them "as among the finest in the kingdom." This structure and its contents are sufficient of themselves to prove the high regard in which Sheffield was held by the house of Talbot, for it was evidently intended as the great resting place of the members of the family, and the spot on which were to be recorded, by the sculptor's art, the deeds of the succeeding inheritors of the title. The chapel was founded in the reign of Henry VIII., by George, the fourth Earl of Shrewsbury, and is about 25 feet long and 17 feet wide. On the north side there is a beautiful stone arch, beneath which stands the monument of the Earl who built this edifice. The monument consists of an altar tomb. At each corner is a spiral column, and on the sides were once the heraldic quarterings of the Earl. There were originally ten of these, but only two are now left. On the top of the tomb are recumbent marble figures of the Earl and his two Countesses, Ann and Elizabeth. The figure of the Earl is garbed in the robes of the Order of the Garter and has the peer's coronet, the feet resting on a talbot. On the vest underneath the robes are visible the principal quarterings of the Earl, the same as are on the sides of the tomb. The dresses of the Countesses are also decorated with heraldic devices. At the feet of each is the figure of an angel supporting a shield without device. The hands of the Earl and of his wives are joined in supplication, as is frequent in old sepulchral effigies. A ledge of brass running round the tomb contains a Latin inscription stating that the bodies of the Earl and of the Ladies Ann and Elizabeth lie below; but this is not entirely correct, for the latter lady had a choice of her own, and, surviving the Earl, was buried at Erith, in Kent.

About the centre of the chapel there is another altar tomb without figures or inscription. Hunter conjectures, from the shields of arms on the sides (which are still in good preservation), that this "might be the first design of the sixth Earl for a monument for himself, abandoned for one of an entirely different form and structure; or, perhaps intended by him as a memorial of his son and heir-apparent, Francis Lord Talbot, who was interred at Sheffield, in September, 1585." It is now believed to have been erected in memory of the Earl's first wife and her sons, probably by way of retaliation upon his self-willed second wife, Bess of Hardwick.

The monument of the sixth Earl above referred to is placed against the south wall, and was erected during his lifetime. The effigy of the Earl is represented in plate armour, lying on a sarcophagus, with the helmet placed above the head. There was formerly a truncheon in the hand, but it has been broken off. The features, before they were injured, were no doubt a good likeness; but the portraiture has been partially destroyed by the adding of new portions to the face where it had been mutilated. Still the features retain sufficient of their original outline to have enabled Miss Strickland, the historian, to recognize them as corresponding with those of an authentic likeness of the Earl. On a slab of marble above the effigy is a very long inscription in Latin, which has been restored and is in good preservation. Surrounding the inscription there is a border of military trophies and shields of arms. The long inscription derives some interest from its having been composed by worthy old Foxe, whose unctuous descriptions of the sufferings of the martyrs so terrified us all in our childish days. A copy of the inscription, in Foxe's own writing, is still preserved in the Harleian Library.

Amongst the other monuments in the church are two by Chantrey. One of these is peculiarly interesting, as being the first work executed in marble by the great sculptor. It is in the chancel, and is a simple bust representing the Rev. James Wilkinson, vicar, who died in 1805. A subscription was raised for the monument to his memory, and young Chantrey was entrusted with the commission. He undertook it, though at that time very diffident of his untried powers. He was thoroughly successful, however; and although of course this piece of sculpture will not bear comparison with Chantrey's more ambitious and matured conceptions, it is nevertheless an excellent work of art and an admirable likeness. The other monument, which is near to that already described, is a work of considerably greater pretension, and possesses many beauties. It is to the memory of Mr. Thomas Harrison, of Weston, and Elizabeth his wife, the former of whom died in 1818, and the latter in 1823. There is a sorrowing figure, life size, leaning over a tomb, on which are medallion portraits of the persons in whose memory the monument is raised. Near these is a bust, by Mr. Edwin Smith, of Dr. Sutton, for many years vicar of Sheffield.

Under the Shrewsbury Chapel are extensive vaults to which considerable interest attaches. Hunter makes out a list of eighteen persons buried there. He gives the following account of a visit he paid these vaults in 1809:—"By eight or nine steps from the chancel we descended to an upright door, which we



VAULT UNDER SHREWSBURY CHAPEL AS OPENED IN 1858.

found so decayed that it fell from its bolt and hinges on a very slight force being applied to it. We were then admitted into a room about 10 feet square and 6 feet in height, its stone roof supported by a rough hewn pillar, rising in the centre. We found only two coffins lying on tressels."

The vaults were again entered in May, 1858, for the purpose of making a search in connection with the celebrated Shrewsbury peerage case, then pending in the House of Lords. The following particulars were given in a local paper at the time:—A list had been made of seventeen members of the noble family buried in the vaults, beginning with Ann, Countess of Shrewsbury and daughter of Lord Hastings, early in the 16th century, and ending with Henry Howard, Esq., 1787. In the open part of the vault were found two coffins, one of Gilbert, Earl of Shrewsbury, who died in 1616, and the other of Mr. Henry Howard. The wooden coffin of the Earl has been several times renewed, and in 1774 a brass plate was put upon it, containing the inscription found upon the lead in which the body was enveloped. On opening the coffin it was found that the lead covering of the body was not in the form of a coffin, but was wrapped about it after the manner of the envelopes of an Egyptian mummy. The lead bore an inscription containing the full titles of the Earl. Mr. Hunter had supposed that

other coffins were walled up on the north side of the vault, under the tomb of George, the fourth Earl, and the founder of the chapel; and in order to find them an excavation was made in that direction. After this had been prosecuted for about four feet, it was found that it had reached the original foundation of the church. No trace of a vault or of any human remains was found. Search was then made under the floor of the vault. Here was found a body encased in lead. The lead could be torn like coarse paper, and, being removed from over the face, it disclosed the skull, evidently of a male person, on which there remained some reddish grey hair. There was, however, no inscription. Two coffins were found *under* this, one containing the body of John Sherburne, gentleman, and the other of Ruth, his widow. There were also the remains of an empty wooden coffin, without date or name. A great number of loose bones were found, with no traces of coffins. The conclusion was that at some period the vault had been ransacked, the lead stolen, and the contents buried here. After excavating the floor for about six feet, the labourers found themselves stopped by the solid rock.

Within the chancel of the Parish Church was buried a man named William Walker, who, if we may believe tradition, was the executioner of Charles I. There was formerly a brass on the south wall commemorating his burial in Nov., 1700. Walker was secretary to General Lambert, who held Sheffield Castle for the Parliament during the civil wars. He was a Republican of some note in London, and wrote a pamphlet against the King. Being a native of the neighbouring village of Darnall, Walker returned to spend his declining days there after the restoration of Charles II. He was a man of literary tastes, and led a secluded life. These circumstances, together with the singular fact that, in the trial of the persons who had condemned Charles, "Walker" was the name by which the executioner was called, not unreasonably gave rise to a suspicion among the villagers that he was the man. The evidence against William Walker was collected and published in the 37th and 38th volumes of the "Gentleman's Magazine," and had such an air of probability that the late Archdeacon Blackburn, of Attercliffe, declared there was a stronger case against him than against any one else who had been suspected. Walker is said to have confessed to the deed on his deathbed, but this allegation and the other evidence rest very much on hearsay, and the probabilities are strongly

against the tradition that Darnall furnished the executioner of the unfortunate King,—the name of “Walker” being probably assumed by the actual executioner to conceal his identity.

Amongst the monumental works in the church is an excellent one, on the north wall of the chancel, to the memory of various members of the Jessops—a local family of note. The artist is not known. Between the communion table and the vestry there is a fine marble bust by the late Edward Law (an able local sculptor), in memory of Mr. Thomas Watson. Over the chancel door there is a striking monument to a member of the Bamforth family. There are several other monuments to departed local worthies, and also various monumental brasses, very curious, and in a beautiful state of preservation.

An interesting relic of ancient times still remains in the church. This consists of the wooden stalls for three persons, in which the priest and his two assistants used to sit at the celebration of the mass, before the Reformation. These seats are in a state of perfect preservation, and are still used by the ministers of the church. There is a piscina in the Shrewsbury Chapel, and the old altar stone, with its crosses, forms one of the flags of the church floor.

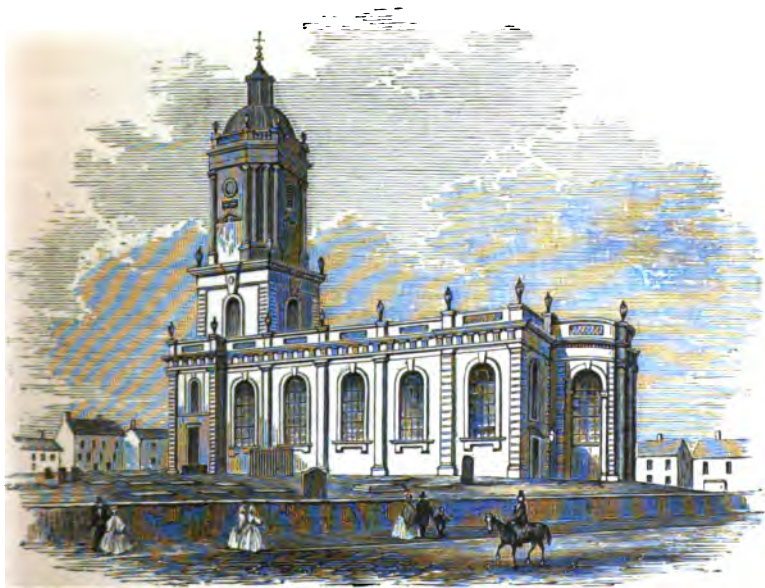
There was an organ in the church in the time of Elizabeth, but it was silenced by the Puritans in the middle of the 17th century. The present organ was built by Mr. G. P. England in the early part of the present century, the pedal organ being added by Messrs. Kirkland and Jardine, of Manchester, in 1858. Last year (1878), it was rebuilt and enlarged by Messrs. Brindley and Foster, of Sheffield, and has now 47 stops and three complete manuals (CC to A), 58 notes, and an independent pedal organ (CCC to F), 30 notes. The organ was rebuilt under the superintendence of Mr. T. Tallis Trimnell, the organist, and is a very complete and splendid instrument.

The church was first lighted with gas for evening service December 15th, 1822.

The Rev. Canon Blakeney, M.A., is vicar of the parish and rural dean, having been appointed by the Crown on the elevation of the Rev. Canon Hill to the bishopric of the Isle of Man in 1877. The vicarage was, until lately, valued at £500 a year, but is gradually increasing in value as the endowment leases expire and are renewed. It is in the alternate gift of Mr. Henry Wilson and the Rev. A. W. Hamilton-Gell. The number of seats is 2,000.

Important alterations are about to be made in the interior of the church, for which purpose the late Mrs. Thornhill Gell, of Stanton-in-the-Peak, Derbyshire, gave £10,000. The exact nature of the alterations has not yet been decided. Messrs. Flockton and Gibbs are the architects.

At the time, we write a transept on the south side of the church, and in a line with the tower, is being built. It will consist of a projection, the inside measurements being 22 feet 9 in. by 15 feet 6 in. The style is in harmony with that of the east end of the church, being of a somewhat earlier period than the main part of the structure. There will be a five-light window at the end of the transept and a three-light window on each side, all of stained glass,—the walls of the transept being built of dressed ashlar. It is to be called the "Parker transept," and will cost £2,500, which sum has been contributed by Mrs. Samuel Parker, Broomgrove, in memory of her late husband.



ST. PAUL'S CHURCH.

**ST. PAUL'S CHURCH.**—This church, which is in Norfolk-street, is in the Grecian style of architecture. Its erection by public subscription was commenced in 1719, but, owing to a dispute between the vicar of Sheffield and the principal donor as to the right of presentation, it was not actually opened till 1740, when it was made a chapel-of-ease to the Parish Church.



The dome was added in 1769. It is a spacious and handsome building. During the ministry of the Rev. Canon Blakeney (now vicar of Sheffield) extensive improvements were made, at a cost of about £3,500, which add greatly to the beauty of the interior of the edifice and comfort of the congregation. The organ, erected more than a century ago by the celebrated builder Snetzler, is one of his best productions. A few years ago the instrument was enlarged and repaired by Messrs. Brindley and Foster at a cost of over £500. Oratorios were performed in the church for many years. There is a mural monument by Chantrey in St. Paul's Church to the memory of the Rev. Alexander Mackenzie, one of the incumbents of the church, who died in 1816. The work is thus described by the late Mr. John Holland, in his *Life of Chantrey*:—"It consists of a plain square plinth, an entablature with sacerdotal emblems, and, between these, three slabs. That in the middle contains the inscription; the lateral ones, figures in low relief, of Faith with a cross, and Mourning with hands on the face; the whole surmounted by a marble bust, in which the sculptor has done justice to the fine head and face of the deceased." The living is in the gift of the Vicar of Sheffield; and the endowment is £152 a year, with a parsonage at Brookhill; number of sittings, 1,400; vicar, Rev. W. H. Falloon, B.A.

**ECCLESALL CHURCH** was built in 1788 in place of a small chapel which had stood for some centuries on an adjacent site.



**ECCLESALL CHURCH.**

The old chapel is believed to have been built in 1406, — the monks of Beauchieff conducting daily service there until the dissolution of the abbey. The service was then discontinued, not being revived until 1622, when the church was restored and re-opened for religious worship. The present church, of which we give an illustration, was built by subscription at a cost of about £1,550, the site being given by Earl Fitzwilliam. It was improved in 1843, and enlarged in 1864. It stands on an eminence, about two miles from the town;

and the churchyard, to which two acres, given by Earl Fitzwilliam, were added in 1860, is a favourite burial place of leading families living in the south-western suburbs. The Vicar of Sheffield is patron; and the endowment is about £200 a year, with a goodly parsonage; sittings, 700; vicar, Rev. Edward Newman.

ST. JAMES'S CHURCH was built on the parish glebe in 1789 as a chapel-of-ease to the Parish Church, to which it is near. The cost was about £3,000, raised in shares of £50, each of which entitled the holder to a pew as his freehold. The church was restored in 1877, during the vicariate of the Rev. H. H. Wright, at a cost of over £1,100. The living is in the gift of the Vicar of Sheffield; and the endowment from the Ecclesiastical Commissioners £300 a year, with vicarage; sittings, 750; vicar, the Rev. J. Battersby.



ST. GEORGE'S CHURCH,

ST. GEORGE'S CHURCH, Portobello, commenced in 1821 and consecrated in 1825, was built under the Million Act, at a cost

of about £19,000, of which £6,000 was spent upon the tower. Over the communion table there is a painting, by Paris, of Christ blessing little children. The living is in the gift of the Vicar of Sheffield; and the income over £400 a year, with a vicarage, although the actual endowment is only £5; sittings, 2,000; vicar, the Rev. H. A. Favell, M.A.

**CHRIST CHURCH**, Attercliffe, which is two miles east of the Parish Church, was consecrated in 1826. The old chapel-of-ease it superseded was built in 1629, at a cost (including the burial ground, which was afterwards enlarged), of £104, and endowed by Mr. Bright, of Carbrook Hall, and others, with £10 a year,—a chaplain from the Parish Church being appointed to officiate. The chapel is still standing. The new church was built on a site immediately adjoining, at a cost of £14,000, raised by subscription, aided by a grant under the Million Act. It is a Gothic building, with lancet windows and a handsome groined roof. The Vicar of Sheffield has the right of presentation; and the endowment, from various sources, is over £300 a year, with vicarage; sittings, 1,200; vicar, the Rev. G. Depledge, M.A.

**ST. PHILIP'S CHURCH**, Shalesmoor, was built under the Million Act, at a cost of £11,960 (exclusive of the site, given by Mr. P. Gell), and was consecrated in 1828. It is a fine building; and has a good organ by Hill & Son, of London. The Vicar of Sheffield is the patron; the endowment about £300 a year, with parsonage; sittings, 2,000; vicar, the Rev. James Russell, M.A.

**ST. MARY'S CHURCH**, Bramall-lane, was also built under the Million Act. The site was given by the Duke of Norfolk, and the first stone was laid by the Countess of Surrey, October 12, 1826; the church being consecrated in 1830. It is a large, handsome building in the Decorated style, and cost £12,645. The Vicar of Sheffield is the patron; the endowment is £300, with a vicarage house at Sharrow; sittings, 2,000; vicar, the Rev. A. R. Upcher, M.A.

**ST. JOHN'S CHURCH**, in the Park, was built by subscription in 1836, and cost £3,440—the Duke of Norfolk giving the site, and Lord Howard of Effingham, laying the first stone. The patronage is vested in five trustees; the endowment is £300 a year, with vicarage; sittings, 900; vicar, the Rev. J. Jackson, B.A.

**CHRIST CHURCH**, Fulwood, was built, at a cost of £2,200, in 1837-8, and endowed with £3,000 by Miss Silcock, late of

Whiteley Wood Hall. The patronage is vested in trustees ; sittings, 500 ; vicar, the Rev. J. H. Hewlett, M.A.

ST. THOMAS' CHURCH, Crookes, was built in 1840 by subscription, the cost being £1,350, and enlarged in 1857. The patronage is vested in trustees ; the endowment £202, with vicarage and glebe ; number of sittings, 700 ; vicar, the Rev. C. G. Coombe, M.A.

HOLY TRINITY CHURCH, Darnall, about three miles south-east of the Parish Church, was built in 1841, but could not be consecrated at the time for want of an endowment. On the passing of Sir Robert Peel's Act in 1843, it was constituted a new parish. The church was consecrated in 1845, and enlarged in 1875. The patronage is vested in trustees ; the endowment is £200 a year, with vicarage ; sittings, 500 ; vicar, the Rev. J. H. Littlewood.

HOLY TRINITY CHURCH, Heeley, was built by subscription, the cost being £3,000, and was opened in 1848. The patronage is vested in the Crown and the Archbishop of York alternately ; the endowment is £300 a year, with vicarage ; sittings, 450 ; vicar, the Rev. H. D. Jones, B.A.

HOLY TRINITY CHURCH, Wicker, was built by the late Misses Harrison, at a cost of £5,000, and consecrated in Oct., 1848. The living is in the gift of the Church Patronage Society ; the endowment is £150 a year, with vicarage ; sittings, 1,000 ; vicar, Rev. Thomas Rigby, B.A.

ST. JUDE'S CHURCH, Eldon-street, consecrated in 1849, was built by subscription and grant from the Ecclesiastical Commissioners, the cost being £2,400, including the tower added afterwards. The living is in the gift of the Crown and the Archbishop of York alternately ; the endowment is £290 a year, with parsonage at Brookhill ; sittings, 730 ; vicar, the Rev. G. Sandford, M.A.

CHRIST CHURCH, Pitsmoor, which is in the Early Decorated style, was built in 1855, at a cost of £2,500, towards which the Ecclesiastical Commissioners and the Incorporated Society gave £500, the rest being raised by subscription. The living is in the alternate gift of the Crown and the Archbishop of York ; the endowment is £150 a year ; sittings, 750 ; vicar, the Rev. S. Chorlton, M.A.

ST. THOMAS' CHURCH, Brightside, was opened in 1854, having been erected by subscription, at a cost of £1,600, on a site given by Earl Fitzwilliam. It is a neat Gothic building

with tower and spire, and there is a vicarage adjoining. The living is in the gift of the Crown and the Archbishop of York alternately; the endowment is £300 a year; sittings, 500; vicar, the Rev. T. Hulme.

ST. JUDE'S CHURCH, Moorfields, which is in the Early English style, was begun in 1849; but in 1852 the fabric fell, the foundation of the tower having given way, and the church was not completed and consecrated until 1855. The site was given by Mr. John Gaunt, of Darnall, who also contributed £1,000 towards the building, and left £500 by will as a repair fund. Mr. Gaunt, who had made a fortune as a grocer in Moorfields, left at his death the residue of his estate, amounting to about £10,000, to the Ecclesiastical Commissioners to be applied by them under the Act 6 and 7 Vict. to the relief of spiritual destitution in populous parishes. Grants have been made out of this fund for many of our newer churches and parsonages. The Ecclesiastical Commissioners gave £350, and the Incorporated Society £550, towards the subscription for building the church at Moorfields. Mr. Gaunt desired that the church should be dedicated to St. Jude, out of affection for his deceased sister Judith, and the first stone was laid on St. Simon's and St. Jude's Day, which has since been observed by a memorial service on the 28th October. The living is in the gift of the Crown and the Archbishop of York alternately; the endowment is £250 from the Commissioners, and £50 by Mr. Gaunt, £300 in all. All the seats are free and unappropriated: sittings, 950; vicar, Rev. J. E. Johnson, M.A.

ST. MATTHEW'S CHURCH, Carver-street, consecrated in 1855, was built by subscription, aided by grants of £450 from the Ecclesiastical Commissioners and Incorporated Society, Mr. Henry Wilson giving £1,000. The cost, including £600 given for the site, was £3,800. The Crown and the Archbishop of York present the living alternately; and the endowment, given by the Ecclesiastical Commissioners, is £300 with vicarage; sittings, 700; vicar, Rev. C. R. Job, M.A.

ST. LUKE'S CHURCH, Hollis-croft, was begun in 1854, and consecrated in 1860, the cost being £3,500, raised by subscription and public grants. The Crown and the Archbishop of York present the living alternately; the endowment by the Ecclesiastical Commissioners is £296 a year, and there is a vicarage adjoining; sittings, 625; vicar, the Rev. S. G. Potter, D.D.

**ST. STEPHEN'S CHURCH**, in Fawcett-street, St. Philip's-road, is a handsome edifice in the Early Decorated style. Mr. Henry Wilson built the church in 1857, at a cost, including the site, of £5,700, paying in addition £300 to the Incorporated Society to be invested as a repair fund. In 1865, the church was enlarged, at a cost of £856. The patronage is vested in Mr. Wilson; the endowment, also provided mainly by him (the Ecclesiastical Commissioners granting only £600), is £276 a year, and there is a vicarage; sittings, 725; vicar, the Rev. R. Douglas, M.A.

**ST. SIMON'S CHURCH**, at the corner of Matilda-street and Eyre-street, was purchased from the Baptists for £2,200 in 1857, and enlarged and improved by the Church Extension Society in 1866-7, at a cost of over £2,000. The presentation is vested in trustees; the endowment by the Ecclesiastical Commissioners is £200 a year; sittings, 900; incumbent, the Rev. Wm. Odom.

**SS. MICHAEL AND ALL ANGELS', Neepsend.** This church contains a beautiful stained glass window, the gift of the present vicar, as a memorial to his father and mother, by Thos. Baillie and Co., London. Subject, "The Crucifixion of Our Lord." All the seats are free and unappropriated for ever. This church has recently been internally decorated with great ecclesiastical taste, at considerable expense, from designs by J. R. Gough, Esq., a London architect. The vicarage fund amounts to £1,500 only; the nave, aisles, and chancel are built, but the original design contains a tower and spire, the erection of which is in contemplation. It was built in 1867-8 by the Church Extension Society, at a cost of £4,500, and is in the Early Decorated style. The patronage is vested in trustees; the endowment by the Ecclesiastical Commissioners is £200 a year, and a fund is being raised for a vicarage; sittings, 1,000; vicar, the Rev. T. Wilkins.

**ST. ANDREW'S CHURCH**, Sharrow, is in the Early Decorated style, and was built in 1867-8, at a cost of £5,600, of which £2,000 was subscribed in the neighbourhood, £3,200 given by the Church Extension Society, and £400 by the York Diocesan Building Society,—the site, on Sharrow-hill, being given by Sir John Brown. Handsome memorial windows have been put in by parishioners. The patronage is vested in trustees; and the endowment by the Ecclesiastical Commissioners is £250 a year, with vicarage. The number of sittings is 800; but the accommodation is inadequate.

**ST. SILAS' CHURCH**, Hanover-square, was built in 1867-8 by Mr. Henry Wilson, at a cost of about £8,000, from the designs of Mr. Mitchell-Withers. It is in the Simple Geometric style, with bold turreted tower, and has a very handsome chancel. The Church Burgesses are the patrons; the endowment is £340 a year—the Ecclesiastical Commissioners giving £190, and the Church Burgesses £150; there is a good vicarage in Broomhall Park; sittings, 800; vicar, the Rev. H. H. Wright.

**ALL SAINTS' CHURCH**, Burngreave, was built by Sir John Brown in 1868, from the designs of Messrs. Flockton and Abbott. It is near the great works where the generous founder acquired fame and fortune, and is in the style known as Geometric-English, of which it is a very good specimen. The church is cruciform, with elegant tower and spire 190 feet high, and stands conspicuously on the northern slope of the Don valley. The chancel is tastefully decorated, and has a handsome stained window, the gift of Lady Brown. The cost of the edifice was about £12,000. The patronage is vested in trustees; the endowment is £233 6s. 8d. (of which £200 was provided by the Ecclesiastical Commissioners), and vicarage; sittings, 1,000; vicar, the Rev. J. B. Draper.

**ST. MARY'S CHURCH**, Walkley, was consecrated in August, 1869. The nave was erected in 1862 as a chapel-of-ease to St. Philip's; the edifice being completed by the Church Extension Society at a cost of £4,500. It is in the Decorated style, with tower and spire. The patronage is vested in trustees; and the endowment by the Ecclesiastical Commissioners is £200, with vicarage; sittings, 640; vicar, the Rev. Thomas Smith.

**ST. BARTHOLOMEW'S CHURCH**, Carbrook, is an iron church which was removed from Broomfield on the completion of St. Mark's church in 1871, for the congregation of which it had been used for several years. The patronage is vested in Mr. Henry Wilson, who has given a parsonage and an endowment of £162 a year, the Ecclesiastical Commissioners having given £133, making £295; sittings, 700; vicar, the Rev. J. W. Merryweather, M.A.

**ST. BARNABAS' CHURCH**, Highfield, was consecrated in 1876. It is in the Early English style, boldly treated, and was built by subscription at a cost of £8,000. The patronage is vested in trustees; and the endowment £300 a year—£200 having been given by the Ecclesiastical Commissioners, and £100

by the Church Burgesses ; sittings, 780 ; vicar, the Rev. C. A. Goodhart, M.A.



ST. MARK'S CHURCH, BROOMFIELD.

ST. MARK'S CHURCH, Broomfield, of which we give an illustration, is a large, imposing edifice in the Decorated style. It was erected in 1868-9, at a cost of £11,000; an additional £2,000 having been recently expended in improvements and decorations. Standing on an elevated site in the western suburbs, its massive tower and well-proportioned spire are seen far and wide. Internally the church is lofty, the pillars and arches massive, the decoration simple but effective, and the fittings handsome and elegant. The chancel is very elaborately decorated. The patronage is vested in the Church Burgesses; the endowment of £200 a year is largely aided by pew rents; the number of sittings, all taken (except free sittings), being 900; vicar, the Rev. W. Milton, M.A.



THE CHURCH OF ST. JOHN THE BAPTIST, at Owlerton, was consecrated in 1864, having been built by subscription, aided by a legacy of £1,500 left by Miss Rawson, at a cost of £3,400; Mr. Montague G. Burgoyne giving the site. The building is simple in character and in the Early Gothic style. The living is in the gift of the incumbent of St. Philip's; the endowment by the Ecclesiastical Commissioners is £200 a year, and steps are being taken to provide a parsonage; sittings, 600; incumbent, the Rev. H. A. Goodwin, B.A.

THE SALE MEMORIAL CHURCH, situate between Granville and South-streets, in the Park, was consecrated on the 30th September, 1878. It has been built for Dyer's-hill, one of the twenty-five parochial districts formed in 1845. Commodious schools, in which service was conducted for the time, were built in 1858; and various efforts were afterwards made to provide a church, but without success, the early appointments to the district being unfortunate. Great spiritual destitution existed for many years, and it was a cherished object of the late Dr. Sale, vicar of Sheffield, to remedy this state of things. One of the latest acts of his life was to secure the appointment of a suitable incumbent by giving a pledge to undertake at once the erection of a church. Immediately after his sudden death in 1873, a subscription was opened, and a sum of over £9,000 was raised. The foundation stone of the church was laid by Mrs. Moorhouse, daughter of the deceased vicar, May 16, 1876, on the occasion of her last visit to Sheffield, before leaving with her husband, Bishop Moorhouse of Melbourne, for his distant diocese. The church, which has been built from the plans of Messrs. Flockton and Gibbs, consists of nave, aisles, transepts, chancel, with octagonal east-end porches, &c., one of the transepts being used for organ and vestry, and the other for the school children. The style of architecture is plain Early Pointed, with geometrical tracery in the chancel. The trustees of the living are the Archbishop of York, the Right Rev. Rowley Hill, D.D., Bishop of Sodor and Man; Rev. Canon Blakeney, vicar of Sheffield; Thos. Wilson, Esq., and C. Macro Wilson, Esq. The endowment by the Ecclesiastical Commissioners is £140 a year; sittings, 790; vicar, the Rev. Fred. Williams, B.A.

ST. THOMAS' CHURCH, Wincobank.—At the north-eastern extremity of Sheffield a new and populous district has sprung up during the past twelve years. This is due to the erection



ST. THOMAS' CHURCH, WINCOBANK.

at Wincobank of the extensive works of the Yorkshire Engine Company, and of Messrs. J. Crowley & Co. To meet the spiritual requirements of this new district, a model country church has been built at Wincobank; and a new parish, with a population of over 4,000, has been assigned thereto. The church, dedicated to St. Thomas, and consecrated on the 7th of October, 1876, was built under the direction of Messrs. Flockton & Abbott. It is a substantial stone fabric in the Early Pointed style, and consists of nave, north and south transepts, organ chamber and chancel. The exterior is plain and simple in treatment. The tower, the base of which forms the south transept, is massive, and accords well with the rest of the building. The interior is very striking. The church, including the organ chamber and vestry, contains twenty-four windows, all of stained glass—the seven lancet windows in the chancel being especially beautiful. The sittings, which are all free, accommodate over 400 persons. The fittings throughout are very complete and elegant. The organ is rich in tone, and, for its size, very powerful. The site of the church was given by and the building erected at the sole expense of Mr. Fredk.

Bardwell, J.P., of Sheffield, as a memorial to his parents and brother; and he vested the patronage in the Archbishop of York, the Archdeacon of the West-Riding, and the Vicars of Ecclesfield, Brightside, and Kimberworth. The cost of the church, &c., exceeded £5,000. The first and present vicar is the Rev. John Julian, F.R.S.L. Endowment £200 a year from the Ecclesiastical Commissioners. Mr. Bardwell has also erected, near to the church, schools which hold between 200 and 300 children.

THE CHURCH OF ST. JOHN THE EVANGELIST, Ranmoor, has been built from the designs of Mr. E. M. Gibbs, of the firm of Flockton and Gibbs, and is a very substantial and handsome Gothic edifice, admirably built in every respect. Internally the church is 130 feet long, 38 feet wide, and 53 feet high, and is so designed that there are no pillars to obstruct the sight; the windows are lofty, and the elaborate roof is very beautifully designed; the tower is massive, and is surmounted by a graceful spire, rising 190 feet above the floor and 220 feet above the level of the footpath in Ranmoor-road. The edifice forms a beautiful feature of a most attractive suburban landscape. The church is the gift of Mr. John Newton Mappin; Mr. J. W. Harrison giving the site and boundary walls, Mr. Wm. Smith, of Field Head House, the peal of bells; Mr. J. Y. Cowlshaw the pulpit, Mr. J. B. Jackson the lectern, and Mr. C. H. Firth the organ. The total cost is about £15,000. The trustees of the living are the Right Rev. Rowley Hill, D.D., bishop of Sodor and Man; John Newton Mappin, Esq., Fred. Thorpe Mappin, Esq., J. Y. Cowlshaw, Esq. There are 563 sittings. The Rev. E. B. Chalmer, M.A., is the incumbent.

ST. MATTHIAS' CHURCH, Soho-street, Ecclesall-road, is being erected by the Church Extension Society; Mr. Henry Wilson having given the site, and promised an endowment of £200 a year. There will be 720 sittings. The Rev. N. A. Holtum is the curate-in-charge.

LANGSETT-ROAD CHURCH.—The Church Extension Society have under consideration a site for the church of a new district, to be formed out of Walkley and St. Philip's parishes. The Rev. T. H. Howard and Mr. W. H. G. Bagshawe have already given £2,500 Midland Stock, the Ecclesiastical Commissioners promising a grant of £50 a year.

## THE METHODIST BODIES.

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### WESLEYAN METHODISTS.

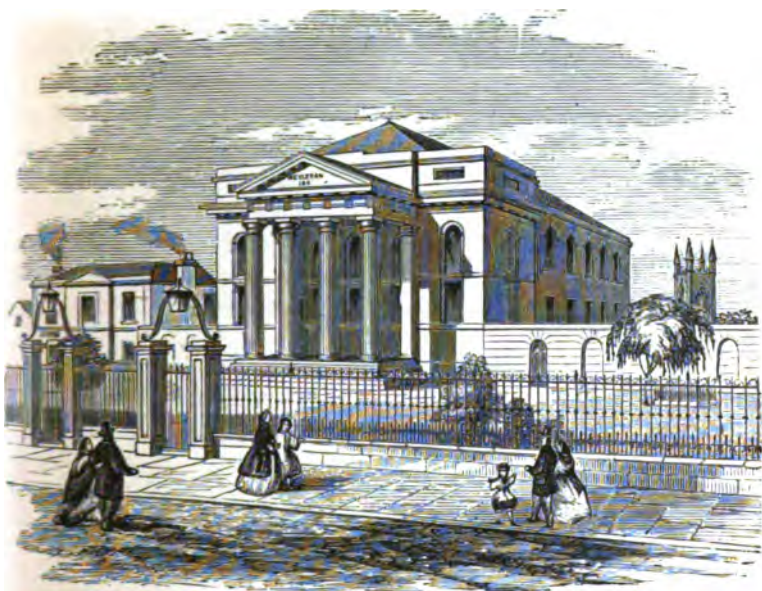
The Wesleyan Methodists are a numerous and influential body, and their early history in Sheffield is full of interest. It appears that David Taylor came to Sheffield in 1741 and began to preach. John Wesley himself visited the town during the following year, having (he says in his journal) "a great desire to see David Taylor, whom God had made an instrument of good to many souls." Yielding to the importunity of the people, Wesley also preached, converts were made, and a small chapel was built in Cheney-square, adjoining St. Paul's churchyard. The worshippers were much disturbed, and were pelted with stones, rotten eggs, and other missiles when they ventured outside. This mode of persecution failing, a mob gathered on the 25th May, 1743, and destroyed the chapel, undermining it in part, and then pulling down the walls with ropes and long poles. A more commodious chapel was soon afterwards erected nearer Union-street. It was several times attacked, but survived the fury of the rioters. The Wesleyans were obliged to leave it, however, and Mr. John Wilson, an optician, built them a third chapel, near Burgess-street. That edifice, during the six days ending the 14th February, 1746, was a scene of nightly tumult, and was destroyed. The new sect worshipped for a time in a chapel in West-street, belonging to the Calvinists, afterwards occupying an unplastered warehouse in Mulberry-street, measuring about twelve yards by ten, which it was soon found necessary to enlarge. The society gradually increased in numbers, and erected Norfolk-street Chapel in 1780. Shortly afterwards an old chapel of the Independents, in Garden-street, was purchased by the Wesleyans, who occupied it until the erection of Carver-street Chapel, the foundation stone of which was laid by the late Mr. Thomas Holy, and bore the following inscription:—"On March 1st, 1804, in the 44th year of the reign of George the Third, the father of his people and the protector of religious liberty—at a time when the nation was engaged in an expensive war, and threatened with extermination by a haughty usurper—here was laid the first stone of a Methodist Chapel, as an act of faith towards God."

The progress of Methodism in Sheffield was much aided by the preaching of the founder himself. After 1742, Wesley visited the town yearly. In 1745 he preached on the floor of the destroyed chapel in Pinstone-lane to "the largest and one of the quietest congregations he ever saw there." He continued his visits for many years, preaching on the evening of his arrival, and at five o'clock next morning, but seldom staying longer than a day or two. Though his coming was made known privately, the distinguished preacher himself did not at first escape the attentions of the persecutors; but after a few years the opposition gradually died away. Wesley records in his journal, July 28, 1757,—“About noon I preached at Wood-seats, and in the evening at Sheffield. How quiet is this country now, since the chief persecutors are no more seen.” Seventeen years later, July 25, 1774, he writes with a touch of melancholy,—“I went to Sheffield and met the select vestry, but it was reduced from sixty to twenty. What a grievous error to think that those who are saved from sin cannot lose what they have gained.” His own popularity was still growing, however. In July, 1779, he preached in Paradise-square to the “largest congregation he ever saw on a week day.” His last visit was in 1788. Though then in his 86th year, he preached to a crowded congregation, and was everywhere heard. “Here and at Hull,” he records, “were two of the largest morning congregations which I have seen in the kingdom.” Altogether Wesley visited Sheffield thirty-five times.

Long before his death, Methodism was an established sect with a recognized governing body. On the opening of Norfolk-street Chapel—eight years before his last visit—Conference appointed three preachers for the circuit. Then the Sheffield circuit included Doncaster, Worksop, Retford, Chesterfield, Mansfield, Bakewell, Bradwell, Barnsley and Rotherham, and the preachers went the circuit in succession, spending one week with their families before starting on each round. Sheffield is now divided into four circuits, in which and a few villages around there are twenty-four itinerant ministers, including supernumeraries, and over 120 local preachers. There are twenty-seven chapels within the borough.

Many of the older chapels are plain brick buildings, very convenient and comfortable within, but innocent of external ornamentation. Among the newer chapels are several very elegant and handsome structures. Norfolk-street Chapel—

which is the oldest—has been several times enlarged; but Carver-street is unchanged. Ebenezer Chapel, Shalesmoor, was opened in 1823. Brunswick Chapel, Sheffield-moor, of which we give an illustration, is a handsome stone building in



BRUNSWICK CHAPEL.

the Grecian style, and was opened in 1834; large schools, vestries, &c., having been added a few years ago. In 1866-7 three excellent chapels were built—Montgomery Chapel, Cherry-tree-hill, a very handsome Gothic edifice, at a cost of £4,000; Wesley Chapel, Fulwood-road, also Gothic, with tower and spire, at a cost of £6,000; and Ellesmere-road Chapel, in the Early English style, at a cost of £4,000. Ranmoor Chapel, in the Early Geometrical style, with tower and spire, was built in 1870, at a cost of £1,600, on the site of a small edifice which had been used for chapel and schools since 1784. A handsome chapel was built in 1876-7 on Burngreave-road to replace Bridgehouses Chapel, purchased by the Manchester, Sheffield, and Lincolnshire Railway Company. It is of stone, in the Geometrical style, with bold turreted tower, and was opened last year (1878), the cost being £12,000. On the 2nd July, 1877, the foundation stone of a handsome chapel was laid at Highfield, the estimated cost, including the site, being £9,000.

We append a list of the chapels within the borough, with the number of sittings in each.

**CARVER-STREET CIRCUIT.**

CHAPELS.	SEATS.	CHAPELS.	SEATS
Carver-street ...	1300	Crookes ...	255
Wesley College ...	540	Fulwood ...	70
Wesley, Fulwood-road	720	Ranmoor ...	296

**NORFOLK-STREET CIRCUIT.**

Norfolk-street ...	1204	Brightside ...	100
Park ...	870	Darnall ...	300
Ellesmere-road ...	1022	Manor ...	100
Princess-st. (Attercliffe-rd.)	360	Carbrook ...	150
Attercliffe ...	403	Don-road ...	500
Grimesthorpe ...	279	Blackburn ...	80

**BRUNSWICK CIRCUIT.**

Brunswick ...	1500	Wesley, Heeley ...	616
Montgomery, Cherrytree-hill	450	Trinity, Highfield ...	907

**EBENEZER CIRCUIT.**

Ebenezer, Shalesmoor	1111	Hillsbrough ...	302
Burngreave-road ...	1000	Walkley ...	212

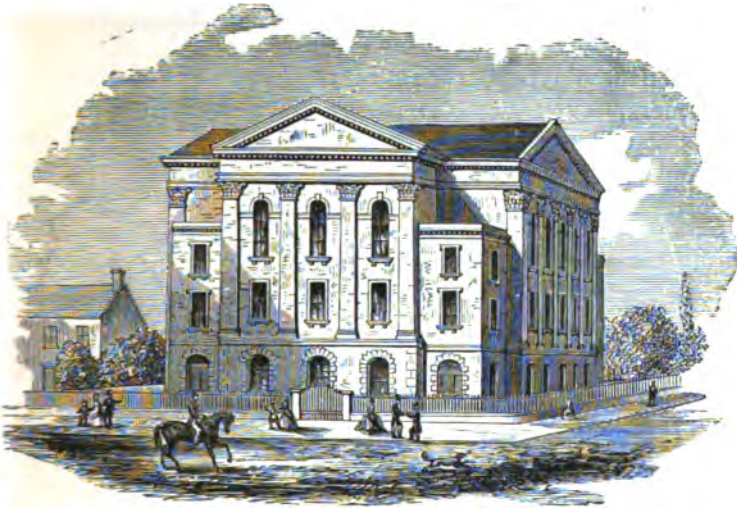
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Total sittings ... .. 14,647

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**UNITED METHODIST FREE CHURCH.**

This denomination has divided the town and immediate district into four circuits, having ten regular and 65 local preachers. The oldest chapel is Mount Tabor, a plain but commodious edifice, in Wellington-street. The handsomest is Hanover Chapel, a lofty and imposing stone edifice, of which we give an illustration, situated at the junction of Hanover-street and Broomspring-lane. The basement story, in which are schools, is in the rustic style. Above are pilasters, having Corinthian capitals, with bold and varied foliage; the façades, south and west, being each surmounted by an elegant pediment. Surrey-street Chapel, erected in 1832 and enlarged in 1862, has a handsome stone front, in the Grecian style. Pyebank Chapel, the foundation stone of which was laid in June, 1870, is built of red brick, on a rock-faced stone foundation. The style is Early



HANOVER-STREET CHAPEL.

English—towers at the four corners of the edifice giving it an appearance of great size and massiveness. The interior is oval in form, with a gallery all round, and is elaborately fitted and decorated. It is an order of ecclesiastical edifice quite unique in this district. The cost was £6,150. The other principal chapels are Shrewsbury-road, opened some fifteen years ago; Cherrytree-hill, opened in 1865; and Heeley, built in 1870-7; the two latter in the Italian style. A list of the chapels within the borough is appended:—

MOUNT TABOR CIRCUIT.

CHAPELS.		SEATS.
Mount Tabor, Wellington-street	...	... 850

HANOVER CIRCUIT.

Hanover, Hanover-street ..	1450	Pyebank ...	... 800
Oxford-street (Upperthorpe)	750	Cherrytree-hill	... 450
Heeley ...	... 636	Walkley (Cundy-street) ...	... 370
Grimesthorpe	... 200	Darnall ...	... 150

SURREY-STREET CIRCUIT.

Surrey-street	... 600	Carbrook...	... 250
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SHREWSBURY-ROAD CIRCUIT.

Shrewsbury-road	... 750	Brunswick-road	... 400
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Total sittings	...	... <u>7,656</u>
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## METHODIST REFORM UNION.

This denomination, more generally known as the "Wesleyan Reformers," or "Wesleyan Reform Union," has twenty-four places of worship in the Sheffield circuit, forty-five lay preachers, and twenty auxiliary preachers. The denomination is not opposed to a paid ministry. The employment of regular or "stated" ministers is quite optional with the circuits, and some circuits have such ministers. The pulpits of the Sheffield circuit are, however, entirely supplied by lay preachers; and the work both of the ministry and Sunday schools is carried on with much zeal. The denomination has not aimed at architectural display or great size in its chapels; but several of them (including the central chapel in Watery-street, are good stone edifices. The chapel at Sharrow-vale is an iron structure, the foundation stone of which was laid by Mr. Joseph Wilson, of Clifford, in March, 1875. The body has had an "interest" in the little suburban hamlet of Sharrow-vale for nearly thirty years, holding its services in a small building locally known as "Solomon's Temple," now used as the vestry of the new chapel. A list of the chapels within the borough is appended:—

METHODIST REFORM UNION.			
CHAPELS.	SEATS.	CHAPELS.	SEATS.
Watery-street	... 455	Mount Gerizim (Park)...	350
Philadelphia	... 400	Gower-street	... 275
Weston-street	... 320	Ebenezer (Bramall-lane)	225
Mount Olivet	... 90	Attercliffe ...	... 400
Grimesthorpe	... 250	Carbrook ...	... 155
Darnall ...	... 100	Sharrow-vale	... 150
Hampden-view	... 50	Fulwood ...	... 100
Owlerton...	... 455	Abbeydale...	... 80
		Total seats	... 3,855

## THE PRIMITIVE METHODISTS

Have divided the town and district into five circuits, in which nine regular ministers, two supernumeraries, and 132 local preachers are engaged, the number of chapels within the borough being seventeen. The oldest and most central is Bethel Chapel, in Cambridge-street, erected in 1835. The

denomination has made considerable progress of late years; and some of the newer chapels are handsome stone structures. We append a list of those in the borough:—

FIRST CIRCUIT.

CHAPELS.				SEATS.
Bethel, Cambridge-street	...	...	...	950

SECOND CIRCUIT.

Stanley-street, Wicker	850	Weigh-lane, Park	...	200
Carbrook	... 310	Crabtree	...	150
Darnall	... 200			

THIRD CIRCUIT.

Petre-street, Spital-hill	1,250	Carlisle-street East	...	300
Brightside	... 110	Newhall, Attercliffe	...	600
Grimesthorpe	... 300			

FOURTH CIRCUIT.

Hoyle-street	... 582	Langsett-road	...	600
Walkley	... 250	Woodland-view, <small>Parkwood Springs</small>	..	300

FIFTH CIRCUIT.

John-street, Highfields	622	Heeley	...	250
Total seats			...	7,824

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METHODIST NEW CONNEXION.

This body has divided the town and immediate district into three circuits, in which there are sixteen places of worship. Nine of the chapels are in the borough. There are ten regular ministers and three supernumeraries in the circuits, including Dr. W. Cocker, the governor, and Dr. Stacey, classical tutor, of Ranmoor College; and the Rev. B. Turnock, chaplain of the Almshouses. The number of local preachers is 39. Scotland-street Chapel, built in 1764 and rebuilt in 1829, and South-street, built in 1828, are plain brick edifices. Broomhill Chapel is a stone building, with a very handsome Italian front. The foundation stone was laid in May, 1862, by Mr. Mark Firth, the principal donor. The cost of the building was £4,300. The chapel in Andover-street is a neat Gothic structure, also

of stone, and was opened in 1865. A description of the beautiful little chapel forming part of the Almshouses at Hanging Water, also of the College at Ranmoor, will be found in connection with the charitable and educational institutions. The following chapels are in the borough :—

NORTH CIRCUIT.			
CHAPELS.	SEATS.	CHAPELS.	SEATS.
Scotland-street	... 650	Attercliffe ...	... 450
SOUTH CIRCUIT.			
South-street	... 900	Talbot-street	... 750
Franklin-street	... 200		
WEST CIRCUIT.			
Broomhill	... 800	Andover-street	... 600
Walkley ...	... 300	Parkwood Springs	... 200
		Total seats	... 4,850

## DISSENTING DENOMINATIONS.

### ORIGIN OF NONCONFORMITY IN SHEFFIELD.

Nonconformity in Sheffield, as in so many other places, was originated by the Act of Uniformity, to which Charles II. assented on the 19th May, 1662. During the Commonwealth, the liturgy of the Established Church was greatly modified, and a large number of Presbyterians were appointed ministers. The Act of Uniformity restored the old liturgy, and nearly 2,000 of the clergy—chiefly Presbyterians, “whose consciences did not suffer them to conform,”—were driven from their benefices. Among these was the Rev. James Fisher, vicar of Sheffield, and his three assistant ministers, Edwd. Prime, Matthew Bloom, and Rowland Hancock. A large number of their people followed the ejected ministers; and Mr. Fisher was appointed the first minister of the first society of Nonconformists in Sheffield. The Conventicle Act, passed in 1664, enacted that private meetings for religious worship (consisting of more than five persons in addition to the family) should be deemed seditious and unlawful conventicles, and imposed a fine of £5 or three months’ imprisonment for a first

offence, £10 or six months for a second offence, a fine of £100 or transportation for seven years being the punishment for a third offence and every repetition of it. The "Five Miles Act," passed in the following year, prohibited the ejected divines from coming within five miles of any incorporated town, or of any town in which they had resided as ministers. Severe persecution followed the passing of these Acts. Among the town records of this period the following entry occurs:—"Charges about Mr. Fisher, seeking and carrying to York, £1 17s. 6d." Mr. Fisher was imprisoned several times, and survived his ejection only four years, dying in January, 1666. Sheffield not being at that time an incorporated town, the Nonconformists here were well supplied with ministers from other parts. Mr. Fisher was succeeded, as the Nonconformist pastor of the district, by the Rev. Robert Durant, who was assisted by the Revs. Richard Taylor and Nathaniel Baxter. Mr. Durant remained in Sheffield about nine years, and was succeeded in 1677 by the Rev. Timothy Jollie, who had married Mr. Fisher's daughter, and was a young man of remarkable ability. Mr. Jollie was exceedingly zealous, and was several times imprisoned for considerable periods. Though from 1664 to nearly 1700—a period of over thirty-five years—the Conventicle Act made it impossible for the Nonconformists of Sheffield to have any regular place of public worship, they held firmly together as a church, going out among the hills and valleys of the neighbourhood to worship together in secrecy. "Lord's Seat" probably derived its name from being one of the places chosen for such gatherings. When the rigour of the persecution had somewhat abated, the Nonconformists purchased a house called "New Hall," on the site near Bridge-street, now occupied by Hollis's Hospital, and adapted it as a meeting-house, removing during 1700 to Upper Chapel, Norfolk-street, erected by subscription. In this—the first Nonconformist chapel in Sheffield—Mr. Jollie laboured successfully until his death in April, 1714. His successor, Mr. Wadsworth, avowed the principles of Arianism; and the chapel, which had been vested in trustees for the use of Protestant Dissenters, without any limitation as to their particular tenets, has belonged ever since to the Unitarians. Those members of the church and congregation who dissented from Mr. Wadsworth's views withdrew, and erected Nether Chapel on an adjacent site.

## THE INDEPENDENTS.

The "Congregationalists," as they are often called, have seventeen places of worship in the borough; most of them large, and several of them very handsome buildings.

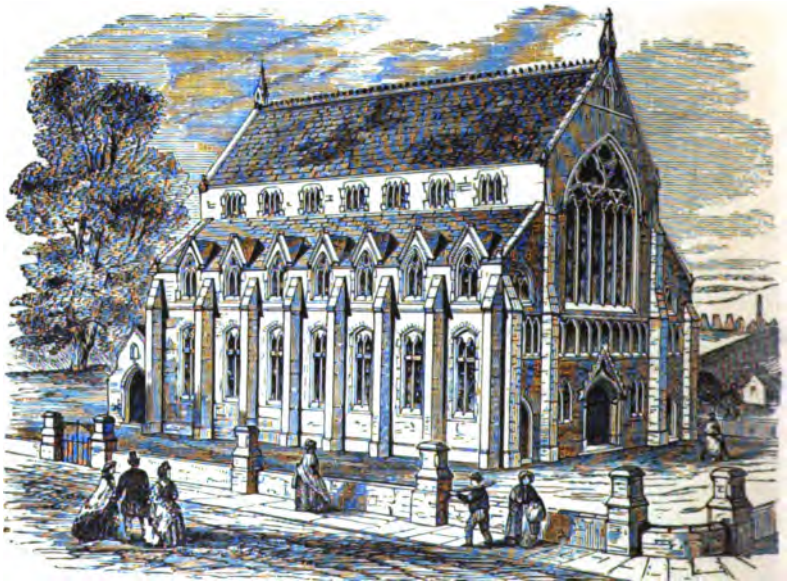
The oldest is **NETHER CHAPEL**, in Norfolk-street, erected in 1715, and, to a large extent, rebuilt in 1826.

**QUEEN-STREET CHAPEL** was opened in 1783 and enlarged in 1855.

The original **GARDEN-STREET CHAPEL** was built in 1780, the present structure being erected on the old site in 1867.

**HOWARD-STREET CHAPEL** was also built in the last century, having been opened in 1790, and subsequently enlarged.

**MOUNT ZION CHAPEL**, a handsome stone edifice, in West-field-terrace, was opened in 1835.

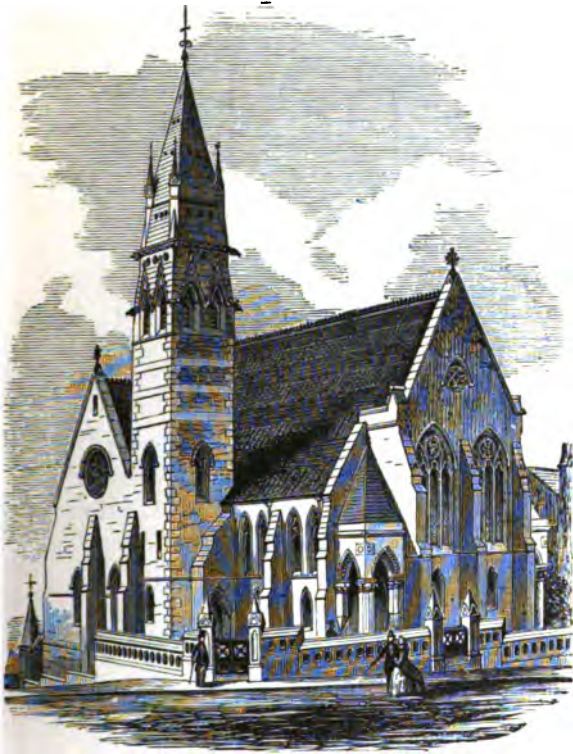


CONGREGATIONAL CHURCH, WICKER.

**THE WICKER CONGREGATIONAL CHURCH**, situated at the junction of the Barnsley and Grimesthorpe roads, is a good specimen of the Early English Decorated style, and was built in 1855 from designs of Mr. M. E. Hadfield, the cost being £4,500. Large schools have since been added.

**CEMETERY-ROAD CONGREGATIONAL CHURCH** is cruciform, and, as our illustration shows, is a good specimen of Gothic

architecture. It was opened in 1859, the funds having been obtained mainly through the instrumentality of the Rev. Brewin Grant, B.A., the Controversialist, now a minister of the Church of England. Mr. James, of London, was the architect, and the edifice cost about £4,350. It is still popularly known as "Brewin Grant's Church."



CONGREGATIONAL CHURCH, CEMETERY-ROAD.

**THE TABERNACLE**, adjoining Oxford-street, Uppertorpe, has a handsome portico in the Italian style. It was opened in 1863, having been built at a cost of £2,700 by the congregation previously worshipping at Lee-croft Chapel. In the same year a large, handsome church in the semi-Gothic style was built at Attercliffe.

**BROOM - PARK CONGREGATIONAL CHURCH**, in Newbould-lane, Glossop-road, is an elegant Gothic building. The nave was first built, and was opened in 1864; the transepts, apse, &c., being added in 1870; the total cost exceeding £3,000.

A tower and spire at the entrance formed part of the original design, but have still to be added. Messrs. Innocent and Brown were the architects.

THE BURNGREAVE CONGREGATIONAL CHURCH, Pitsmoor, was opened in 1870. A new stone chapel in the Italian style has been recently built on Langsett-road; and there are smaller chapels in the more remote parts of the borough. We append a list.

CHAPELS.	SEATS.	MINISTERS.
Nether	... 1200	... Rev. W. Lenwood, B.A., LL.D.
Queen-street.	... 800	... Rev. Peter Whyte
Garden-street	... 1020	... Rev. Isaac Hall
Howard-street	... 650	... Rev. R. Murray
Mount Zion	... 800	... Rev. H. Arnold
Wicker	... 1050	... Rev. A. Phillips
Cemetery-road	... 750	... Rev. T. S. King
Tabernacle	... 822	... Rev. T. W. Holmes
Attercliffe	... 850	... Rev. J. Calvert
Broom-park	... 456	... Rev. C. C. Tyte
Burngreave, Pitsmoor	640	... Vacant
Langsett-road	... 650	... Rev. E. Joyce
Brightside	... 600	... Rev. T. Warren
Darnall	... 210	... Rev. J. H. Stimpson
Tapton-hill	... 150	... Lay preachers
Ringinglow	... 85	... Do.
Total	... 10,733	

## UNITARIANS.

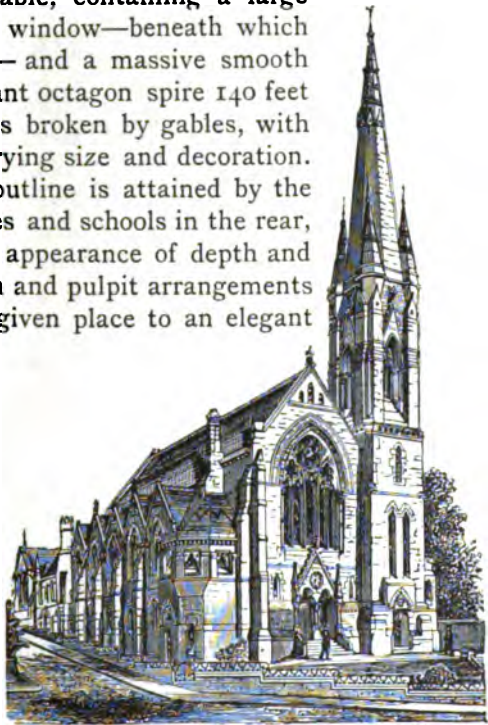
UPPER CHAPEL, Norfolk-street, as mentioned in our notice of the origin of Dissent in Sheffield, was erected in 1770, and was the first chapel built by the Nonconformists of the town. It was partly rebuilt 1848, and further improved and decorated in 1866. UPPERTHORPE CHAPEL is a neat Gothic structure, and was built in 1860-1, at a cost of about £1,500.

CHAPELS.	SEATS.	MINISTERS.
Upper Chapel	... 600	... Rev. Eli Fay
Uppertorpe Chapel	... 520	... Rev. G. Knight
Total	... 1120	

## BAPTISTS.

The Baptists have five chapels, a preaching room, and two missions in the town, and several chapels in the district.

The BAPTIST CHURCH, Glossop-road, of which we give an illustration, is one of the handsomest Nonconformist places of worship in the town. The memorial stone was laid in October, 1869, by Mr. Joseph Wilson, of Clifford, one of the most liberal contributors to the cost of the church, which was opened in May, 1871. The style is Gothic of the purest geometric character. The front, towards Glossop-road, comprises a well-proportioned gable, containing a large and handsome tracery window—beneath which is the main entrance—and a massive smooth stone tower, with elegant octagon spire 140 feet high. The side roof is broken by gables, with tracery windows of varying size and decoration. Effective diversity of outline is attained by the grouping of the vestries and schools in the rear, and also an imposing appearance of depth and size. The usual organ and pulpit arrangements at the west end have given place to an elegant chancel, with side stalls for the choir, and a beautiful open marble baptistry. The chancel is elegantly decorated and lighted by a handsome stained window, the gift of Mr. F. E. Smith. The church has been much visited and admired by strangers. The cost, including schools and church keeper's house, was nearly £9,000. Messrs. Innocent and Brown were the architects.



BAPTIST CHURCH, GLOSSOP-ROAD.

The oldest Baptist Chapel is in Townhead-street and was opened in 1804. Like all the early chapels, it is a plain brick building. PORTMAHON CHAPEL, a neat stone structure in St. Philip's-road, was opened in 1839. CEMETERY-ROAD CHAPEL was opened in 1859. The style is Romanesque.



The following is a list of Baptist chapels within the borough:—

CHAPELS, ETC.		SEATS.		MINISTERS.
Glossop-road ... ..	..	800	...	Rev. J. Bailey, B.A.
Townhead-street ... ..	...	750	...	Rev. R. Green
Portmahon ... ..	...	600	...	Rev. W. Turner
Cemetery-road ... ..	...	670	...	Rev. Giles Hester
Attercliffe ... ..	...	400	...	Rev. R. Ensoll
Doncaster-street (room)		200	...	Lay preachers
		<hr style="width: 100%; border: 0.5px solid black;"/>		
		3420		

### ROMAN CATHOLICS.

ST. MARIE'S CHURCH, Norfolk-row, is the principal Catholic church in Sheffield. It was commenced in 1846 and dedicated in 1850, the original cost being about £12,000. Its length internally is 145 feet, and the spire is 195 feet high. It contains a fine peal of eight bronze bells, erected in 1874 by Mears and Stainbank, of London, at the joint expense of the Duke of Norfolk and the congregation, at a cost of £1,200. A local historian describes this church as "the most striking and elaborate modern ecclesiastical structure in the town." We give an illustration. The church is elaborately decorated, containing many stained glass windows and rich fittings, the offerings of members of the congregation and others. Recently a beautiful statue of white marble, representing "Our Lady of Mercy," sculptured in Rome, was placed in the octagonal temple, shrine, or oratory, specially designed for its reception, which was finished last year, at the eastern end of the south transept. The oratory forms a striking and original feature of the church externally, and the interior is most beautifully finished in every part; a picturesque winding staircase leads to it from the floor of the church. The statue and oratory are the gift of Mr. Henry Munster, memorials of whose family are placed in the floor.

The Duke of Norfolk, in 1875, presented a fine organ, by Lewis, of London, at a cost of £1,000, which occupies the ancient position on the north side of the chancel, above the choir stalls. Near it is the tomb, with a finely sculptured recumbent effigy, of the founder of the church, the Rev. Chas. Pratt, who died in 1849. At the present time, spacious and



ST. MARIE'S CHURCH.

complete sacristies are being erected by his Grace which, with the rectory also about to be built, completes this noble group of ecclesiastical buildings, which are a pure example of Decorated Gothic architecture of the fourteenth century. Messrs. Hadfield and Son are the architects.

ST. WILLIAM'S, Lee-croft, is a chapel-of-ease to St. Marie's. It was built by the Independents in 1780, and purchased in 1862 by the Catholics, by whom it has been enlarged and decorated.

ST. VINCENT'S, in White-croft (together with spacious schools), was commenced in the year 1852 by subscription. It is served by the priests of the congregation of the Mission of St. Vincent of Paul, for whose use the Duke of Norfolk has recently erected in Solly-street a large and handsome clergy-house, in the style of the seventeenth century, at a cost, including the site, of £10,000. Last year a handsome and spacious chapel was completed at the Rivelin Glen Cemetery, belonging to St. Vincent's, the gift of a benefactor. It has a marble altar, with recumbent figure of the dead Christ, and rich stained glass window, and is dedicated to St. Michael the Archangel.

ST. CHARLES' CHURCH, Attercliffe, with the schools and rectory adjoining, are in the Gothic style, and form a very handsome group. The church was built in 1868—Mr. W. Wake, of Osgathorpe, having presented the site,—for the use of the Catholics in that extensive and thickly populated district. The cost of the group was £4,700.

In 1876, spacious schools, dedicated to St. Catherine, were erected by the Duke of Norfolk in Andover-street, Burngreave, and a presbytery has since been completed. A spacious church on the same site forms part of the design. At present the upper school is used for religious services.

A CATHOLIC REFORMATORY FOR GIRLS for the North of England has been erected at Howard-hill, and is a very complete establishment, under the charge of the Sisters of Charity. A church has been likewise erected; it is intended for the inmates, but there is a separate entrance for the public. The style of the church is Early English.

The CONVENT OF NOTRE DAME, near West-street, is intended for the Sisters who teach the schools of the town, and for training pupil teachers, who reside on the premises. There is also a boarding school for young ladies.

The new MISSION and CHURCH OF ST. WILFRID, Queen's-road, Lowfield, is now in progress. It is a large and handsome group of buildings, in the Late Perpendicular style, and is also due to the munificence of the Duke of Norfolk. A church forms part of the design.

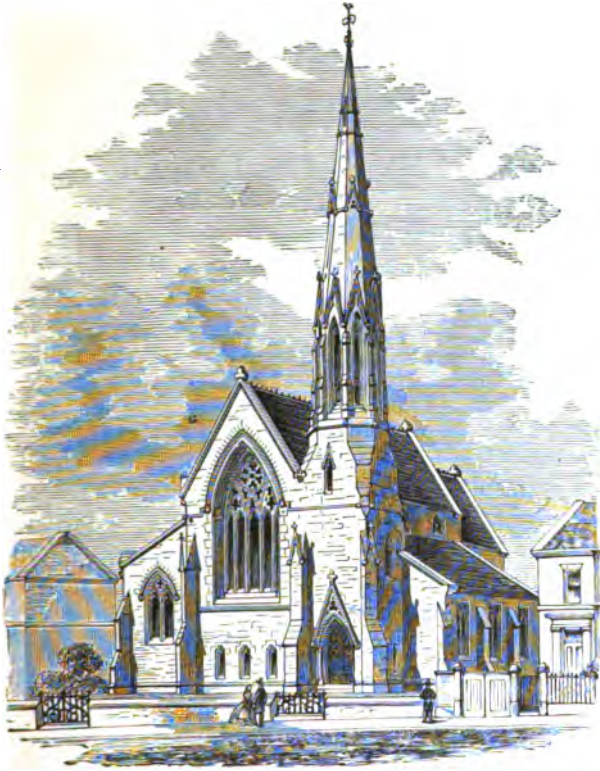
The SISTERS OF ST. VINCENT OF PAUL have a Convent at Red-hill, which is now being enlarged. They likewise are occupied in teaching and ministering to the wants of the poor in that district. Spacious and complete schools for the boys of St. Marie's parish have been erected at the joint expense of the Duke of Norfolk and the congregation, the cost being £6,000. They were opened last year, and will accommodate 400 scholars.

The following Roman Catholic churches are in the borough :

CHURCHES.	SEATS.	CLERGY.
St. Marie's ...	1200 ...	Very Rev. Canon Walshaw
St. William's ...	450 ...	Served from St. Marie's
St. Vincent's ...	800 ...	Rev. C. Hickey
St. Charles' (Attercliffe) ...	400 ...	Rev. J. Hurst
St. Catherine's ...	350 ...	Rev. L. Burke
Total ...	3,200	

**SOCIETY OF FRIENDS.**

The Meeting House of the Society of Friends is in Meeting House-lane, Bank-street. Accommodation about 500.



**ST. ANDREW'S CHURCH.**

**PRESBYTERIANS.**

**ST. ANDREW'S PRESBYTERIAN CHURCH** is in Hanover-street. It is a very beautiful edifice, in the Geometrical English style. It was erected in 1855, at a cost of about £3,000. We give an illustration. Seats, 480 ; Pastor, Rev. James Breakey.

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**CATHOLIC APOSTOLIC CHURCH.**

The church of this denomination is in Victoria-street, Glos-sop-road. Seats, 300 ; minister, Mr. Edward W. Rawson.

## PLYMOUTH BRETHREN.

This denomination has two Meeting Rooms. Cavendish-street—seats, 200; St. Mary's-road—seats, 300; total 500.

## JEWS.

The SYNAGOGUE, in North Church-street, has 242 seats.

## TOTAL CHURCH AND CHAPEL ACCOMMODATION.

The total number of sittings in the various Churches and Chapels of the borough is as follows:—

	SITTINGS.
Church of England ... ..	30,973
Wesleyans ... ..	14,647
Methodist Free Church ... ..	7,656
Methodist Reform Union ... ..	3,855
Primitive Methodists ... ..	7,824
Methodist New Connexion ... ..	4,850
Independents ... ..	10,733
Baptists ... ..	3,420
Roman Catholics ... ..	3,200
Unitarians ... ..	1,120
Presbyterians ... ..	480
Plymouth Brethern ... ..	500
Catholic Apostolic Church ... ..	300
Friends ... ..	500
Total ... ..	90,058

These sittings are exclusive of the special accommodation made in many of our places of worship for children. The figures bear strong testimony to the zeal and liberality of the religious denominations of the town. Apart from the considerable space devoted to children, the accommodation for public worship falls short of the adult population, numbering nearly 150,000, by about one-third, leaving out of the account 30,000 to 40,000 young people between the ages of 15 and 21 years.

## SUNDAY SCHOOLS.

### THE WHITSUNTIDE GATHERINGS.



IN very few towns are Sunday schools more largely and successfully carried on than in Sheffield. Such schools are conducted in connection with nearly all the churches and chapels of the different denominations; and in many instances the number of teachers and scholars is exceedingly large. One of the sights of the town on Whit-Monday, when the weather is propitious, is the gathering of teachers and children connected with the Sunday School Union. The Union is divided into four districts—the central schools assembling in Norfolk Park, those of the east branch in Firth Park, the west branch at Hillsbrough Park or some neighbouring place, and the Attercliffe branch at Attercliffe. The Union is composed of schools connected with the Congregational, Baptist, Presbyterian, Methodist New Connexion, Free Church, Primitive Methodist, and Wesleyan Reform denominations. The numbers at last year's gatherings were:—

		SCHOOLS.		TEACHERS.		SCHOLARS.
Norfolk Park	...	35	...	1,339	...	11,244
Firth Park	...	16	...	514	...	4,143
Hillsbrough	...	15	...	539	...	3,549
Attercliffe	...	12	...	341	...	3,316
Total	...	78	...	2731	...	22,252

The Wesleyan schools assembled at Wesley College and at Firth Park. The numbers last year were:—

		SCHOOLS.		TEACHERS.		SCHOLARS.
College	...	15	...	762	...	4,577
Park	...	9	...	334	...	2,719
Total	...	24	...	1,096	...	7,296

These gatherings take place about nine o'clock in the morning; the children having first assembled at their respective schools, had coffee and buns, and then walked in procession with banners flying to the general gathering places, where they form in circle and sing appropriate hymns. The number of spectators, is generally enormous, especially in Norfolk Park, where the spectacle is as gay as it is interesting and impressive—the children as a rule wearing their brand-new summer clothing for the first time.

A few of the Church schools meet in the Parish Church-yard. There is no general gathering of the rest. The usual mode of keeping Whit-Monday by the Sunday schools in connection with the Church of England is for the scholars to march round their respective parishes, with their banners, and then to attend a special service in their own parish church. There is also, in most cases, a treat given to the children in some private ground during the afternoon, and often a tea in the evening.

In the absence of any general census of Church Sunday schools it is impossible to give accurate figures, but the following estimate was made last year of the number of children and teachers belonging to Church schools within the Rural Deanery of Sheffield. Scholars, 16,930; teachers, 1,845.

The children of the Catholic schools, to the number of about 4,000, assemble to service at their respective churches in the morning, and spend the afternoon at Norfolk Park.



## PUBLIC HALLS, &c.

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THE CUTLERS' HALL, in Church-street, the splendid rooms of which are occasionally used for balls, dinners, and meetings of a more or less public character, we have already described on page 58. For township and district meetings, &c., the various Vestry Halls are let on easy terms.

THE ALBERT HALL, designed for musical entertainments and large public meetings, was opened on the 14th December, 1873, and is the property of a Joint Stock Company. It is centrally situated—but on a much too crowded site—at the junction of Barker's-pool and Burgess-street. The building is of red brick, relieved by granite pillars and carved stone cornice and tracings, but is remarkable rather for hugeness of appearance than for external beauty. The large concert room is 60 feet wide and 125 feet long. The organ, and an orchestra—arranged to hold 168 chorus singers, with band and soloists,—occupy one end. The saloon is the full width of the room and 103 feet long; and there is a two-tier balcony along the sides and across it, stalls behind the balcony at the west end, and a gallery above it. The saloon will seat 1,000 auditors, the balcony and stalls 700, and the gallery 500,—seats for a total of 2,200 persons, exclusive of the orchestra. The concert room is 50 feet high, the ceiling being hexagonal in shape, with a view to acoustic excellence, which has been most fully attained. Not the least attraction of the Albert Hall, in a musical sense, is the magnificent organ, erected by the celebrated French builder Mons. Cavallé Coll, at a cost of £5,000. The case—from a design by Mons. Semil, a Parisian architect of eminence in this class of work—is of oak and Canadian pine. The organ is of immense size, having 74 stops and 4,064 pipes, is constructed with all the latest pneumatic and other improvements, and is in every respect admirably made. The perfection of its mechanism has excited the admiration of the English builders who have examined it. Not less marvellous is the instrument in respect of its immense power, the variety and exquisite clearness of its tones, and the



grandeur of its combinations, which musical men agree in saying have seldom been equalled and probably never surpassed. It is unquestionably one of the best organs in the country. The Albert Hall was built at a cost (including the organ) of over £25,000. Alderman Fairburn is chairman of the Company. Mr. Joseph Peace, the secretary, has offices in the Hall.

**MUSIC HALL.**—The Music Hall, in Surrey-street, was erected in 1823, and belongs, like the Albert Hall, to a Company of Proprietors. The lower rooms are occupied by the Sheffield Library. Previous to the opening of the Albert Hall the large upper rooms were chiefly used for concerts, but are now occupied as a High School for Girls.

**TEMPERANCE HALLS.**—The Sheffield Temperance Society have a Hall in Townhead-street, which was built in 1855-6, at a cost of about £2,500. The principal room is 81 feet long by 51 feet wide, and, having a gallery at the end, will accommodate nearly 2,000 people. The Hall is let for lectures, political, trade, and other meetings and entertainments. There is a small Temperance Hall in Ellesmere-road.

**FREEMASONS' HALL.**—The Freemasons have a Hall at the corner of Surrey-street and Eyre-street, which, though not particularly handsome externally, is a building of which they have good reason to be proud. The Hall is the property of a Limited Liability Company, the shares in which are held exclusively by the several lodges and by individual members of the craft. The Freemasons purchased, in 1860, the building previously occupied by the Sheffield and Hallamshire Savings Bank, and some years later they also bought the adjoining house in Surrey-street. The new Hall was built upon the site of the old Savings Bank in 1876, and comprises banqueting room on the ground floor, and lodge room over it. The rooms are lofty, and are each 51 feet long and 26 feet wide. They are well built of stone, handsomely fitted and furnished, effectively warmed by hot water, and ventilated on the system recently patented by Mr. Tobin. The lodge room, which is particularly handsome, has an arched roof springing from a cornice, and ornamented with moulded ribs, panels, and carved bosses, the walls being relieved by columns with foliated capitals springing from ornamental corbels. There is a dais at the east end, reached by three steps; a raised platform at the sides for a double row of chairs, and a fine-toned organ at the west end, built by Messrs.

Brindley and Foster. The lodge and banqueting rooms are approached by broad passages from the adjoining building, which comprises steward's room, kitchens, and lavatory on the ground floor, cloak and robing rooms on the first floor, and rooms for a resident hall-keeper on the second floor. The plans of Messrs. Scargill and Clark, the architects, provide for the rebuilding of this part of the property uniformly with the new Hall; and, when this has been done, the craft will have a suite of Masonic rooms second to none in the provinces as regards comfort, convenience, and elegance. The new Hall was formally opened by Sir Henry Edwards, Bart., Provincial Grand Master of West Yorkshire, July 18, 1877. There are four craft lodges in Sheffield—the Britannia, Brunswick, Wentworth, and Ivanhoe; two Royal Arch Chapters; a Rose Croix and a Mark Masons' Lodge, a Preceptory of Knights of the Red Cross of Rome and Constantine, and a Sanctuary of Knights of the Holy Sepulchre and St. John the Evangelist, together with a Priory of Knights of Malta.

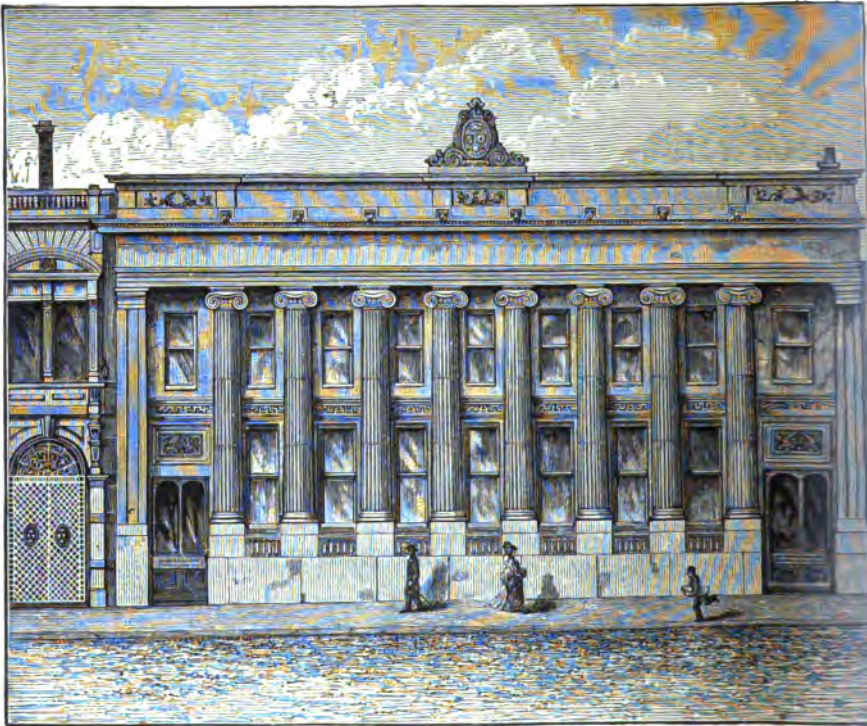
THE ARTILLERY DRILL HALL, in course of erection, in Clough-road, for the use of the Artillery Volunteers, and described elsewhere, will be a valuable addition to the large rooms available for public gatherings and entertainments.

### POST OFFICE, BANKS, NEWSPAPERS, PUBLIC COMPANIES, HOTELS, &c.

THE GENERAL POST OFFICE, at the top of Old Haymarket, was opened in 1872. It is a fairly handsome Doric structure, but inadequate to the requirements of the rapidly increasing postal and telegraphic business of so large a town. The building was intended for the accommodation of the Inland Revenue Department as well as postal business, but, in spite of the protests of the town, the Government declined to enlarge their plans, and had to rent offices in Norfolk-street, opposite the end of George-street, for the Inland Revenue Department, within a few months of the opening of the new building. A contribution towards the cost of the site was given by the town.

The town is well supplied with Branch Post Offices and Pillar Letter Boxes.

BANKS.—There are the following Banks in Sheffield:—SHEFFIELD BANKING COMPANY, George-street (draw on Smith, Payne, and Co.), Mr. J. H. Barber, managing director, and



THE SHEFFIELD AND HALLAMSHIRE BANK.

Mr. E. Birks, manager; SHEFFIELD AND ROTHERHAM BANKING COMPANY, Church-street (draw on London and Westminster Bank, and on Barclay and Co.), Mr. Wm. Wild, manager; SHEFFIELD AND HALLAMSHIRE BANKING COMPANY, Church-street (draw on Glyn and Co.), Mr. A. Holdsworth, manager; SHEFFIELD UNION BANKING COMPANY, Bank-street (draw on Prescott and Co.), Mr. F. Stacey, manager; MIDLAND BANKING COMPANY LIMITED, Old Haymarket (draw on London and County Bank), Mr. G. Dawson, manager; LONDON AND YORKSHIRE BANKING COMPANY LIMITED, 17, Old Haymarket (draw on Union Bank of London), Mr. A. C. Piggott, manager.

Several of the Banks have been greatly enlarged and improved, and are very handsome buildings. We give an illustration of the Hallamshire Bank, re-opened after its enlargement on the 1st of October, last year. It is a good specimen of Greek Ionic of the severest order, and is a very fine building. The length of the façade, exclusive of the porch—

which is in a different style, being intended as the entrance to other buildings—is 71 feet 6 inches. The banking-room, which has an entrance at each end, is 60 feet long, 40 feet wide, and 34 feet high, with large dome in the centre. The interior decorations are in the Corinthian order, and are very beautiful. Mr. H. D. Lomas was the architect.



THE HALLAMSHIRE SAVINGS BANK.

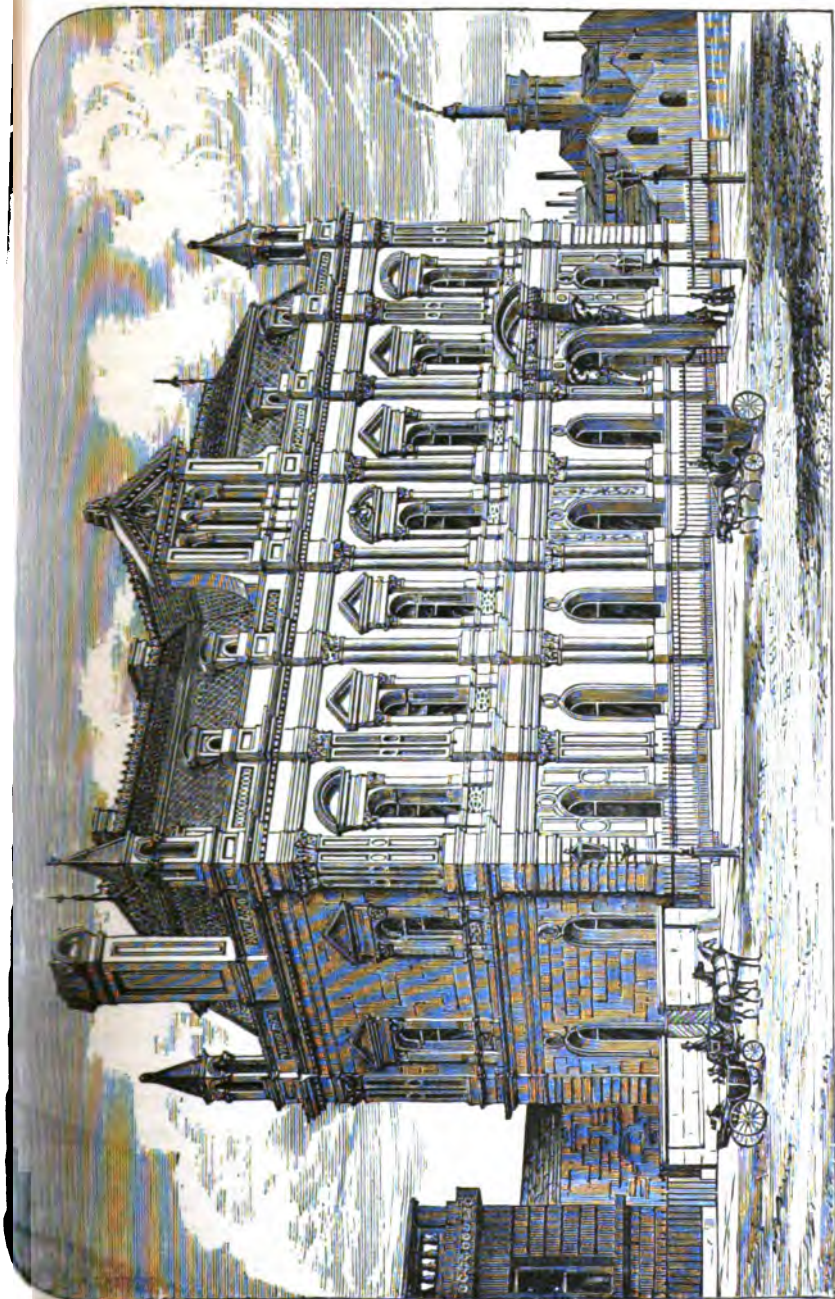
**THE SAVINGS BANK.**—The Sheffield and Hallamshire Savings Bank, of which we give an illustration, is in Norfolk-street. It was established by subscription in 1819, the business being carried on at the Cutlers' Hall until 1832, and afterwards in Surrey-street. The present very beautiful edifice, built out of the surplus funds of the Bank at a cost of £5,500, was opened in June, 1860. The Bank is carried on under the supervision of fifty governors, among whom are many of the leading gentlemen of the town and neighbourhood. Its progress is shewn by the fact that the number of accounts has gradually increased from 265 in 1820 to 28,801 at the close of 1877, when the amount due to depositors was the large sum of £758,793, the investments amounting to £768,918, and leaving a balance in favour of the Bank of £5,124, exclusive of premises and furniture.

The Bank is open from 10 a.m. to 2 p.m. daily, and on Saturday evenings from 5 to 7. The rate of interest allowed on deposits is 3 per cent., and the formation of a Supplementary Investment Department enables the Bank to pay  $3\frac{1}{2}$  per cent. on transferred deposits exceeding £50. Earl Wharncliffe is president of the Bank, and Mr. Frank Wever, actuary.

**NEWSPAPERS.** — There are three daily and three weekly newspapers published in Sheffield. The *Sheffield and Rotherham Independent* was established as a weekly newspaper in 1819, and since 1861 has been published daily, the weekly edition being also continued. Messrs. J. D. and R. E. Leader are the proprietors and editors of the *Independent* and of the *Star*, an evening newspaper. The *Sheffield Daily Telegraph* was established in 1855 as a daily morning journal; a weekly edition having also been published since 1861. Messrs. W. C. Leng and Co. are the proprietors and publishers, Mr. Leng being the resident manager and editor. The *Post*, a weekly paper, was established in 1872. Mr. Murphy is the proprietor and editor.

**THE WATER COMPANY.**—The Sheffield Waterworks Company have handsome offices in Division-street. Mr. Thomas Cockayne is chairman of the Company, and Mr. Walter Ashton, general manager. The extensive works of the Water Company are briefly described in a subsequent page, in connection with the disastrous flood caused by the bursting of the Dale Dyke reservoir.

**THE GAS COMPANY.**—The offices of the Sheffield United Gas Light Company are in Commercial-street, adjoining the General Post Office. They are most extensive, and admirably arranged, fitted, and furnished. The building is the handsomest and most imposing edifice of the kind in the town. The style is Early Renaissance. The harmony and extreme beauty of the design are so well shown in our illustration that a detailed description of the architectural features is unnecessary. Having a favourable site, the architects aimed to produce effect by grandeur of proportion and picturesqueness of outline, and in this aim, it must be admitted, they were eminently successful. The length of the façade is 131 feet. The stone used for facing is from Hallington, in Staffordshire, red Mansfield having been used for the pilasters. The pillars are granite monoliths, from the famous Ross of Mull. Messrs. Hadfield and Son were the architects. The Company carry on the business of gas fitting on a large scale, and have very extensive and hand-



THE GAS COMPANY'S OFFICES, COMMERCIAL-STREET.

some show rooms in connection with the offices. Mr. Fredk. Thorpe Mappin is chairman of the Company, and Mr. Thomas Roberts, general manager.

**RAILWAY COMPANIES.**—The main trunk line of the Midland Railway Company runs through Sheffield, connecting the town directly with the north and south of England, and with Scotland and South Wales. The Company are also the owners of the Rotherham Railway, and they have a special service to Doncaster, having running powers over the South Yorkshire Railway, from their Swinton station to that town. The Manchester, Sheffield, and Lincolnshire Railway furnishes ready access to Liverpool and other parts of the west coast, and to Grimsby, Hull, and the east coast. The alliance of the latter with the Great Northern Company secures to the town a second direct route to London and the South Eastern Counties. The South Yorkshire Railway—now leased to the Manchester, Sheffield, and Lincolnshire Company—gives the town a second important connection with Barnsley, Wakefield, &c., and with Goole, Hull, and the east coast, via Doncaster. The Midland Company have a commodious passenger station near Pond-street, on the site previously known as Sheaf Island. The three Companies have joint use of the equally large and commodious Victoria station.

**TRAMWAY AND OMNIBUS ROUTES.**—Tramways from the centre of the town to Attercliffe and Brightside were opened in 1876; and from Westbar to Hillsbrough and from Moorhead to Heeley and Nether Edge in 1878. On all these lines cars run every five or ten minutes. The Heeley and Nether Edge lines will eventually be continued to the centre of the town, and meantime an omnibus runs in connection with those tramcars from Moorhead to Old Haymarket. Omnibuses run at regular intervals between Old Haymarket and the Botanical Gardens, Broomhill, Ranmoor, Uppertorpe, and Pitsmoor suburbs, and also to Grenoside.

**HOTELS.**—In the olden days, when stage coaches were the great vehicles of travel, Sheffield was excellently provided for by the Tontine Hotel, erected in 1785, at a cost of £4,000 to £5,000. In 1850 the Tontine was sold to the Duke of Norfolk for £7,720, and taken down to make way for the Norfolk Market. The loss of this fine quadrangular hotel, with its large central yard and extensive accommodation, has never been thoroughly supplied, and is still spoken of with regret, in reference both

to accommodation, and the intimate associations of the Tontine with "Old Sheffield." Of late years, however, the hotel accommodation has been greatly improved. The Royal Victoria Hotel, adjoining the Victoria Station, was built by a private company in 1862, at cost of £15,000. It is a large and very handsome structure. Among other leading Commercial and General Hotels are the Wharncliffe, King-street, with a large Restaurant and Public Dining-room; the Royal, Old Haymarket; the King's Head, Change-alley; the Angel, Angel-street; the Black Swan, Snig-hill; the Star and Clarence Hotels, High-street; the George, Market-place; the Imperial, Castle-street; the Brunswick, Old Haymarket; and many others. The projected street improvements are likely to lead to the erection of other large hotels, several being already projected.

**COCOA AND COFFEE HOUSES.**—A Cocoa and Coffee House, at Highfields, erected and furnished by Mr. F. T. Mappin, at a cost of about £4,500, was opened April 9, 1877. There are two large rooms on the ground floor in which tea, coffee, cocoa, and plain food are supplied, at exceedingly moderate charges. Over these are rooms for billiards, bagatelle, cards, dominoes, chess, and draughts, a small charge being made for the use of the billiard tables, cards, &c. Gambling and swearing in the rooms are prohibited. Newspapers and periodicals are provided for the coffee rooms. Cigars and non-intoxicant beverages are supplied in the billiard and card rooms. The rooms are open from 5.30 a.m. to 11 p.m. The house is well managed and is largely attended, and though established from philanthropic motives, is in fact self-supporting.

In 1877 a Café Company was formed, under the Limited Liability Acts, and has opened Cocoa and Coffee Houses in Gower-street, in the Wicker, at Attercliffe, in Castle-folds, and Mowbray-street. These houses are similar in character to that of Mr. Mappin's, and are also proving commercially successful. There are "British Workman" public houses in several parts of the town; a "Home" in Pea-croft; and a "Workman's Rest" in Pond-street, for the parish of St. Paul.

## COMMERCIAL, LITERARY, AND OTHER PUBLIC INSTITUTIONS.

**CHAMBER OF COMMERCE.**—The Chamber of Commerce is a valuable institution, of which many of the principal manufacturers and merchants are members. It takes part in the



discussion and direction of all questions affecting the trade of the town. Mr. W. K. Peace is president for the year, Mr. J. Nixon, secretary ; the offices being in East-parade.

THE SHEFFIELD CLUB is an institution for social purposes, similar to the Clubs in London. It is supported by the *élite* of the town, and carried on with great spirit. The Club House, in Norfolk-street, was opened in 1862 ; the style of architecture



THE SHEFFIELD CLUB.

being Palladian freely treated. In its erection, stateliness of appearance has been combined with the best internal arrangements. Every provision has been made for substantial comfort and for the amusements usual in such institutions. The cost of the building and fittings exceeded £7,000.

THE ATHENÆUM, which was established in 1847, occupies commodious premises in George-street, which were purchased and remodelled in 1859, and further improved in 1873. The build-

ing belongs to a Company of Proprietors, and is let free of rent, the condition being that four £5 shares shall entitle the holder to membership in, and all the advantages of, the Athenæum free of charge; and one share, to the same privileges on payment of a yearly subscription of £1. The subscription for non-shareholders is £1 10s., and for ladies 10s. a year. The Athenæum combines the advantages of a Club with the addition of a commodious and well supplied newsroom and extensive library. The newsroom and library are on the ground floor, and also well furnished private rooms for the use of lady members. On the second floor is a large dining and coffee room and a club-room. Dr. M. Martin de Bartolomé is the president, and Mrs. Webster, librarian and secretary.

**WORKING MEN'S CLUBS.**—The movement for establishing Working Men's Clubs in Sheffield began in 1871. Ecclesall Club, adjoining South-street, Sheffield-moor, being opened in the early part of that year. Similar institutions were subsequently opened in other parts of the town. St. Peter's Club, held in the Old Council Hall, at the junction of Norfolk-street and Arundel-street, was opened in August, 1872. It has dining and coffee room, billiard rooms, reading, smoke, and club rooms, all of which are largely resorted to. Concerts and other entertainments are occasionally given on winter evenings. Refreshments of all kinds are supplied at the working men's clubs as at the more expensive clubs of the wealthier classes. Among the more successful suburban clubs are St. George's, Western-bank, and Highfield Club, London-road. The dinner is a much less important feature of these clubs than of St. Peter's, which has a crowded mid-day "ordinary," but members have the advantage of out-door recreation in the summer evenings. There are workmen's clubs at Attercliffe, Grimesthorpe, &c. Several of the clubs own the premises they occupy; they are all fairly prosperous.

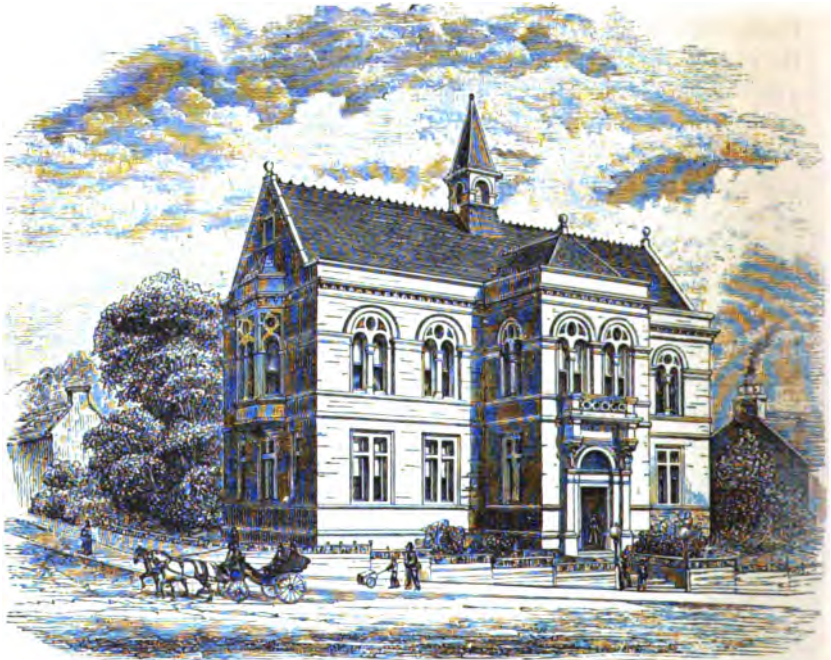
**MEDICAL INSTITUTION.**—The building belonging to this institution is situated at the end of Surrey-street, near Arundel-street. It was erected in 1829, and bears on the front the motto—"Ars longa, vita brevis." Dr. M. de Bartolomé is president, and Mr. A. Jackson, secretary.

**LITERARY AND PHILOSOPHICAL SOCIETY.**—This association was established in 1822, and numbers amongst its successive presidents many local men of distinction, socially or intellectually. Monthly meetings are held for the reading of papers,

chiefly on matters of local interest. Lectures of a high class are occasionally delivered, and a conversazione of a very attractive character is annually held. The rooms of the Society are at the School of Art, in Arundel-street. Mr. H. C. Sorby, F.R.S., is president for the year; Mr. D. Parkes, librarian, and Messrs. B. Bagshawe and Edward Birks, secretaries.

**CONSERVATIVE AND LIBERAL CLUBS.**—The Conservatives have a central club and reading rooms in Furnival Chambers, Norfolk-street. The Liberals have a club in Angel-street.

**SHEFFIELD LIBRARY.**—This valuable institution belongs to a body of shareholders, and the Library contains about 80,000 books. The rooms are at the Music Hall, in Surrey-street. The shares are £5 each, and the yearly subscription £1 10s. Miss Manlove is librarian.



HIGHFIELD BRANCH LIBRARY.

**FREE LIBRARY AND BRANCHES.**—This institution is maintained by the Town Council, under the powers of the Free Libraries Act. The central Library, in Surrey-street, was opened in January, 1856, and branch Libraries were opened at Upperthorpe in October, 1869; at Burngreave - road in Sep-

tember, 1872; and at Highfield in August, 1876. The lower rooms of the Council Hall are used for the central Library, and new buildings have been erected for the branch Libraries from designs of Mr. E. M. Gibbs, of the firm of Flockton and Gibbs. The style of the Highfield and Uppertorpe Libraries is an adaptation of Italian, and the buildings are of red and white brick, with stone facings. They are handsome buildings, carefully fitted and adapted for their purposes, and well warmed and ventilated. They include capacious rooms for the lending and reference departments, and a general and ladies' reading room, both well supplied with magazines and periodicals. They are open daily (Sundays excepted) from 10 a.m. to 9.30 p.m. The large extent to which the Libraries are used is shown by the issues of books during the year ended August 31st, 1878. The volumes issued during the year were: From the central Library, 123,150; Uppertorpe, 80,861; Brightside, 82,989; Highfield, 69,410; making a total of 356,410, being 1,290 per day during the 276 days the Libraries were open. The Reference Department was open 284 days, and the number of volumes consulted was 26,964. The number of books at the end of the year was:—Central Library, 35,498; Uppertorpe, 9,266; Brightside, 9,189; Highfield, 6,858; total, 60,811. More than half the books issued from the Lending Departments are works of fiction, but the analyzed returns show an increasing demand for more solid works. The Free Library Committee propose to largely increase the stock of books, and to open new branches on a cheap but useful plan, as their funds permit. The Free Libraries are supported by a rate of 1d. in the £, which yielded £3,701 last year, and increases yearly.

## THE ARMY AND THE VOLUNTEERS.

**THE SHEFFIELD BARRACKS.**—The Barracks at Sheffield are amongst the finest in the kingdom. They are situated on about 25½ acres of land, between the Penistone-road and the Langsett-road, in the outskirts of the town. They were finished in 1850. The front to Langsett-road is a handsome and imposing stone structure. There is a neat chapel at one end. The Barracks contain complete accommodation for a regiment of cavalry and an infantry regiment, and there are ample parade and drill grounds, &c.

**THE VOLUNTEERS.**—There are four different corps of Volunteers in the town, numbering altogether about 2,000 members. The several corps are maintained in a high state of efficiency, the Rifle, Engineer, and Artillery Volunteers having won distinction at several national gatherings of Volunteers for competition in drill and shooting.

**YEOMANRY CAVALRY.**—A local squadron of the First West York Yeomanry Cavalry has been in existence ever since the great French Revolution, at the close of the last century, and is still in a good state of efficiency. It consists of two troops, Mr. H. W. Verelst being captain of the A troop, and Mr. T. W. Jeffcock, of Shire House, of the B troop.

**ENGINEERS.**—The First West York Engineer Volunteers, established in 1859, in connection with the School of Art, has its head quarters in John-street, Highfield, and a bridging depôt near Hunter's-bar, Ecclesall-road. It consists of six companies, Lieut.-Colonel H. D. Lomas being the commanding officer.

**THE HALLAMSHIRE RIFLES.**—The Hallamshire Rifles (Second West York Rifle Volunteers) were established in May, 1859, the late Mr. Wilson Overend being the first commanding officer. The corps comprises a battalion of seven companies, the Earl of Wharnccliffe being hon. colonel. ; Mr. T. E. Vickers, lieut.-colonel ; and Mr. Wm. Prest, major. The depôt is in Eyre-street, and the drill ground in Matilda-street.

**ARTILLERY.—THE DRILL HALL.**—The Fourth West York Artillery Volunteers, also established in 1859, consists of eight batteries, including those of Chapeltown and Handsworth. The corps have received four guns from the Government, and have a battery and magazine on Wadsley Common. The Duke of Norfolk is hon. colonel ; Mr. N. Creswick, lieut.-colonel ; Mr. Gillam Moseley, major. The present head quarters are in Tudor-street, but will shortly be transferred to Clough-road, where a very handsome drill hall, for their accommodation, is in course of erection, the foundation stone having been laid by the Duchess of Norfolk on the 25th September last, on the occasion of her first visit to the town. The plans provide for a lofty drill room, 180 feet long and 90 feet wide ; and a gun shed of the same length but narrower—the entrance being a lofty gateway, surmounted by a massive tower, and flanked by rooms for the officers and the administrative work of the corps. The estimated cost of the buildings is £9,000. The Duke of Norfolk has given £3,000, and the remainder is being raised in shares

of £100 each under the Limited Liability Act, the promoters proposing to guarantee a dividend of  $4\frac{1}{2}$  per cent. The front buildings, chiefly of brick, will be in the Later Tudor style, the drill room having an iron roof in one span, on the model of St. Pancras station, London. It is proposed to let this room for dancing and other entertainments when not required for the purposes of the corps. Messrs. Hadfield and Son are the architects.



THE MONTGOMERY MONUMENT.

### PUBLIC MONUMENTS, CEMETERIES, &c.

**THE MONTGOMERY MONUMENT.**—The memorial to James Montgomery, the poet, stands over his grave at the General Cemetery. It is near to the Cemetery-road entrance, the site commanding a beautiful view of the surrounding scenery. It was finished in July, 1861. This interesting memorial was in a large measure the work of the Sunday school teachers and scholars of Sheffield, who thus testified in the most practical

way to the actively religious disposition of the departed bard as well as to his poetic fame. At the unveiling of the statue there was a public procession, in which the Town Council and all the local public bodies took part. The cost of the statue was £1,000. It was designed by Mr. John Bell, the eminent sculptor, and cast in bronze by the Coalbrook Dale Iron Company. It is a satisfactory work of art, and not unsuccessful as a likeness.

**THE ELLIOTT AND SYKES' MONUMENTS.**—The monuments to Ebenezer Elliott, "the Corn-Law Rhymer," and Godfrey Sykes, the artist, are described in our notice of Weston Park.

**THE CRIMEAN MONUMENT.**—A monument to the memory of the Sheffield soldiers and sailors who died in the service of their country in the Russian war in the Crimea has been erected at Moorhead. The foundation stone was laid by his Royal Highness the Duke of Cambridge. The monument is composed of Darley Dale stone and Aberdeen granite. The granite shaft is 18 feet long, the total height of the monument being about 58 feet. The Statue of Victoria, as "Honour," at the top, is nearly 10 feet high. From £1,300 to £1,400 was collected for the construction of the memorial, but a considerable portion was spent in preliminary expenses. Mr. G. Goldie, of London, was the architect, and Mr. Henry Lane, of Birmingham, the sculptor.

**THE CHOLERA MONUMENT.**—A neat and appropriate monument has been erected in Norfolk-road, opposite the Shrewsbury Hospitals, in memory of those who died in Sheffield from the ravages of the cholera in 1832, and who were buried on this spot. The disease raged from the beginning of July till the end of October. The numbers attacked were 1,347, of whom 402 died. Amongst the victims was Mr. John Blake, the master cutler. The monument was erected in 1834-5, the corner stone having been laid by Montgomery, the poet, in December of the former year.

**CEMETERIES.**—The burial grounds adjoining the churches having been most of them closed by the action of the Legislature, it has been necessary to construct Cemeteries outside the town. There was, however, one in existence previously to the closing of the old grave-yards, namely, the General Cemetery, opened in 1836, by a company of shareholders, who had at that time expended on it about £13,000. It then comprised about



THE CHOLERA MONUMENT.

six acres, but in 1848 about eight acres more were added, the total cost being about £25,000. It is situated at Sharrow, in the suburbs of the town, on a very beautiful spot. The Cemetery itself is most picturesque and tasteful in appearance, and contains monuments to many leading citizens, besides that of the poet Montgomery. There are two entrances, one in Ecclesall-road and the other in Cemetery-road. There is a handsome church in the Decorated style, with tower and spire, and also a chapel in the Doric order.

On the closing of St. Philip's Church-yard in 1857, a parochial burial ground was projected by the late incumbent, at the further extremity of the parish, on a dry and picturesque acclivity overlooking Birley Meadows and the vale of the Don. The Cemetery exceeds five acres in extent, and there is a neat mortuary chapel, vestry, and a lodge for the sexton. It is approached by the old road leading from Neepsend by the Club



Mill, and from Owlerton by a new road and bridge recently erected over the river Don. This burial ground was consecrated in 1859 by the late Archbishop of York. Riots occurred there in 1862, in consequence of an unfortunate exposure of dead bodies, improperly removed from their original resting places. The sexton's house, at Borough Lees, was fired by a mob, and the incumbent was afterwards prosecuted for some irregularity in the entries in the burial records. These events caused great excitement in the town during several weeks. The incumbent of St. Philip's officiates at the Cemetery, which, like the grave-yard round the church, is his freehold.

The Cemetery of the Brightside Bierlow district was constructed in 1859-60, on about 27 acres of land verging upon Burngreave-road, Pitsmoor, and the Occupation-road. The Cemetery was formed by the ratepayers, a Burial Board having been constituted for the purpose. The site cost £5,400, and about £11,600 has been expended in the laying out of the ground, the erection of mortuary chapels, and residences for the superintendent and head gravedigger, &c. The incumbents of Pitsmoor, the Wicker, Brightside, Neepsend, and All Saints' church conduct, in turns, the services in the consecrated part of the ground, and the Rev. J. Jefferson officiates on the unconsecrated side.

A Burial Board was also formed for the construction of the Attercliffe Cemetery, which is pleasantly situated, adjoining Christ Church, Attercliffe. It was consecrated in August, 1859; contains about six acres, and cost £1,332. The Board have spent a further sum of £968 in laying out the ground and building a neat chapel on the unconsecrated portion. The incumbent of Attercliffe is chaplain for the consecrated part, and the Rev. J. Calvert for the unconsecrated portion.

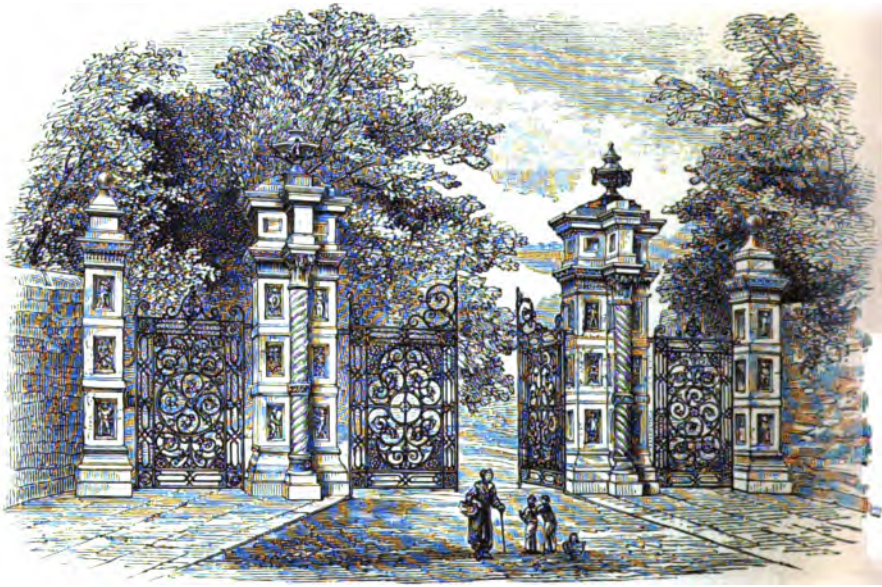
At Darnall a Burial Board has been formed and a Cemetery opened with an area of six acres. There are a church and chapel attached. The cost of land, buildings, &c., has been about £1,600. The vicar of Darnall is chaplain.

The Roman Catholics have a Cemetery at Rivelin Glen, a picturesque place on the north-western outskirts of the borough. It contains  $4\frac{1}{2}$  acres, and was opened in 1862, having been provided at a cost, including the erection of a neat Gothic church in the centre, of about £3,000. A new church was built last year, as mentioned in our account of the Catholic churches in the borough.

A public Cemetery for the township of Sheffield is in course of formation immediately beyond the Manor-lane, on the Intake-road. A Burial Board was elected in 1862, and proposed to provide a Cemetery near Darnall, making special arrangements with the Manchester, Sheffield, and Lincolnshire Railway Company for conveyance. The vestry rejected the proposal, and the project remained in abeyance for some years. In 1877 a new Board was elected, and purchased 50 acres of land from the Duke of Norfolk, at a cost of £13,625. The site extends from Intake-road, backwards up the hill towards Manor Lodge. It has been fenced round by a substantial stone wall, and contracts have been let for the erection of entrance lodge, board-room, offices, houses for the superintendent and sexton, and chapels for the Established Church and Nonconformists. The entrance to the Protestant part of the burial ground will be from Intake-road. A portion of the Cemetery—seven acres—nearest to the Manor will be appropriated to the Roman Catholics, the Duke of Norfolk providing the chapel and other requisite buildings for this part on plans to be approved by the Burial Board. The entrance to the Catholic burial ground will be from Manor-lane. The cost of the walling and of the offices, houses, and the Protestant chapels will be about £18,000, exclusive of roads, drains, and landscape work. The total cost, including the outlay of the Duke of Norfolk, will probably exceed £40,000. The Cemetery is within the township for which it is provided, the site being probably the best that could have been selected. The subsoil is dry and rocky, and there is an extensive view from the ground, of the south and west parts of the town and the moorlands beyond. There will be a chaplain for the unconsecrated part of the ground, the clergy of the various ecclesiastical parishes of the town providing for burial in the consecrated Protestant ground, and the Roman Catholic priesthood providing for burial in Catholic ground.

#### PUBLIC PARKS, GARDENS, &c.

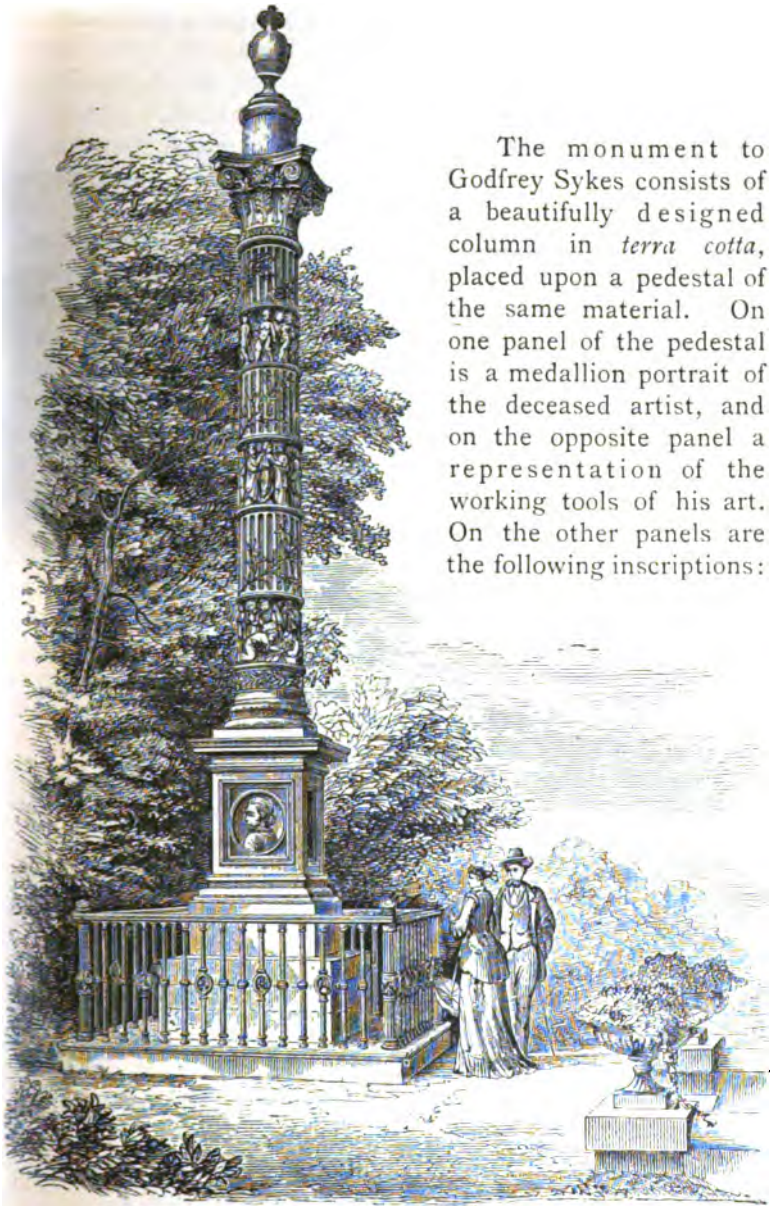
**WESTON PARK AND MUSEUM.**—This pleasant place of public resort is in the western suburbs of the town, and has entrances from Western-bank and Winter-street. In July, 1873, the Town Council purchased Weston Hall, with the gardens and grounds (12a. 1r. 30p. in extent), from the execu-



ENTRANCE GATES, WESTON PARK.

tors of the late Miss Harrison, for the purposes of a public Park and Museum ; the park being opened to the public May 4th, 1874, by the then mayor (Mr. Joseph Hallam). The grounds, which have been greatly improved in conformity with the designs of Mr. Marnock, landscape gardener, formerly of Sheffield, have a bordering of fine trees, are adorned with shrubberies, which improve every year, and are usually gay with flowers in the summer time. There is a fountain at the principal entrance ; and a small lake in which are fish and water-fowl under the trees on the north side.

There are interesting public monuments in Weston Park in memory of Ebenezer Elliott, the poet and corn-law rhymer, and of Godfrey Sykes, a local artist of reputation. Elliott's monument is a bronze figure on a granite pedestal, the poet being supposed to be seated on a rock in one of the spots so charmingly described in his works. Mr. Burnand, of London, was the artist. The monument was provided by public subscription in 1854, the cost being £600, and stood in the Market-place until 1875, when a far more suitable abiding place was found for it among the trees of Weston Park. The name "Elliott" only is inscribed upon it.



The monument to Godfrey Sykes consists of a beautifully designed column in *terra cotta*, placed upon a pedestal of the same material. On one panel of the pedestal is a medallion portrait of the deceased artist, and on the opposite panel a representation of the working tools of his art. On the other panels are the following inscriptions:

THE GODFREY SYKES MONUMENT.

“This monument was erected by the inhabitants of Sheffield in the year 1871, in memory of Godfrey Sykes. The column placed upon this pedestal is his work.”

“Born at Malton in the year 1824; a pupil and afterwards master of the School of Art in this town; he was called to London in the year 1859, to superintend the decorations of South Kensington Museum, and died there 1866.”

The terra-cotta posts of the entrance gates, shown in our illustration, were composed from models executed by Mr. Sykes at South Kensington.

Seats are placed under the trees and beside the walks for the accommodation of visitors, and the park is a favourite place of resort, especially in the summer months.

The Picture Gallery and Museum, into which Miss Harrison's house has been converted, are also much visited. The exterior of the house has been preserved, but the partition walls of the principal rooms have been removed to make two large rooms, one in each story, 52 feet long and an average of 20 feet wide. In immediate communication with these are several smaller rooms, also parts of the old building. At the back two good art galleries have been built, each about 80 feet long and 25 feet wide. The rooms altogether are well arranged and lighted, and afford space for a considerable collection of works of art, manufacture, and other objects of interest. We are indebted to Mr. Howarth, the intelligent curator, for the following summary of the contents of the Museum:—

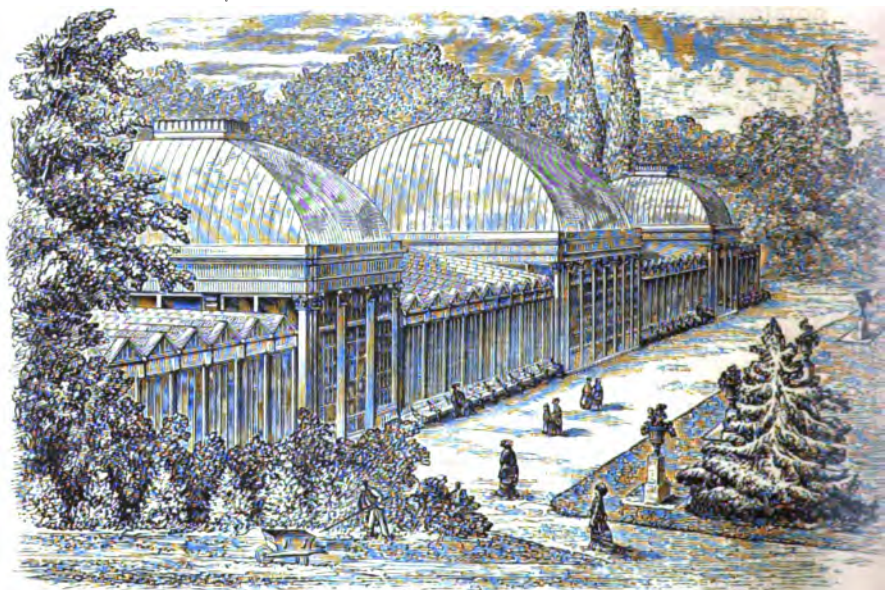
“The front room on the ground floor is devoted to the display of objects illustrating the processes connected with local manufactures. In the small room immediately adjoining this, and leading into the Natural History Gallery, are some very fine Greek and Etruscan antiquities, consisting of cinerary urns, vases, bronze vessels, personal ornaments, and various domestic utensils. In the room corresponding to this on the front side of the building is arranged a rich collection of Egyptian antiquities, including the Egyptian portion of the Bateman collection. These antiquities comprise mummies; numerous deities in bronze, wood, and porcelain; various ornaments and other objects. The Natural History Gallery contains collections illustrating zoology, geology, and mineralogy. Among the first is a very fine collection of Australian shells, numbering about 400 species, presented by Mr. J. Harris, per Mr. A. J. Mundella, M.P.; and a collection of European birds, formed by Mr. Henry Seebohm, F.R.S., and given by him to the Museum. The geological collection contains interesting remains

of animals from the bone-caves at Cresswell Crags, Notts, and Castleton, Derbyshire. Only one side of the picture gallery is devoted to the display of pictures, which, with the exception of some portraits of local men, including Mr. Roebuck, M.P., Lord Brougham, and a few others (the property of the Museum), are all lent by local gentlemen. The remainder of the gallery contains the extensive collection of British antiquities (chiefly collected in Yorkshire and Derbyshire) formed by the late William and Thomas Bateman, and known as the 'Bateman collection.' This has been deposited in the Museum by its present owner, Mr. T. W. Bateman, of Middleton Hall, Derbyshire. The entire collection numbers about 4,000 objects, and is especially rich in antiquities of the Early British or Celtic period. There is also a good collection of Romano-British pottery, glass, bronze weapons and implements, leaden coffins, numerous fibulæ, armillæ, and other ornaments, as well as Anglo-Saxon, mediæval, and old English antiquities. A collection of more recent pottery, belonging to the Bateman collection, and including examples of Mayer, Wedgwood, Derby, Staffordshire and other wares, is exhibited in one of the upstairs rooms. Some fine examples of mediæval hammered iron work are suspended on the walls of the staircase. The upper floor contains a good collection of cutlery of various countries and periods, examples of Persian, Indian, and Japanese bronzes, chiefly contributed by Mr. William Bragge, F.S.A., who has been a liberal benefactor to the Museum. There is also an orrery, and a small general collection of ethnological objects, exhibited in these rooms."

A valuable observatory, presented to the Town Council by Miss Barker, daughter of the late Mr. Thomas Rawson Barker, is, we believe, about to be erected in Weston Park.

A residence has been erected for the curator at the Winter-street entrance. The cost of the original purchase was £18,750, and £4,000 to £5,000 more has been expended in alterations and additions and in improving the grounds. The sale of refreshments in the Park is prevented by restrictions in the will of Miss Harrison.

**BOTANICAL GARDENS.**—These gardens form one of the most attractive resorts in the neighbourhood. They are in the western suburbs, occupying about 18 acres of land between Clarkehouse and Ecclesall Roads, with entrances from both, the principal entrance being from Clarkehouse-road. They



CONSERVATORIES—BOTANICAL GARDENS.

slope down towards the valley of the Porter, and command picturesque views of the southern suburbs and the hills beyond. Sheltered by the high north wall is a noble range of conservatories, 340 feet long, containing many rare flowering and other exotics. The gardens were designed by Mr. Marnock, of Regent's Park Gardens, who was curator here for several years, and has since obtained great repute as a landscape gardener. They are laid out with great taste, and the summer displays of flowers are often quite gorgeous. They were provided by a company, and opened in 1836. The undertaking was not prosperous, and the company, after an expenditure of £18,000, was wound up in 1844, the gardens being sold to a new company of £5 shareholders. The number of shares is 1,800. The shareholders pay an annual subscription, and receive for each share a family ticket, which entitles the holder and his family to enter the gardens at all times when they are open. A proprietor of more than one share has the right of nominating a non-proprietor to the privileges of a family ticket in respect of each additional share. The subscription was 10s. 6d. until last year, when it was increased to 15s. 6d. Non-proprietors' tickets are sold at prices varying from 10s. 6d. to 21s. each. The only persons entitled to frequent the gardens are proprietors and

nominees, including in all 1,800 families ; but persons residing more than seven miles from the town are admitted as visitors on presenting a recommendation from a proprietor and entering their names in the visitors' book. Forms of recommendation are printed and issued to proprietors yearly, and are therefore readily obtained. On four gala days each season the gardens are thrown open to the public at a small charge. These galas are a considerable source of revenue, attracting many thousands of visitors when the weather is favourable. Alderman Grundy is chairman of the committee of management, Mr. Thomas Marshall, solicitor, St. James'-street, is secretary, and Mr. John Ewing, who resides at the gardens, is the curator.



ENTRANCE TO FIRTH PARK.

**FIRTH PARK.**—This park is part of the estate belonging to Page Hall, well known for many years as the residence of Mr. James Dixon (the founder of the celebrated firm of James Dixon and Sons, silver plate manufacturers) and subsequently of his eldest son, the late Mr. William Frederick Dixon, J.P. It is on the north-east side of the town, between Fir Vale, the residence of the late Mr. Edward Smith, and the village of Shiregreen. After the death of Mr. W. F. Dixon, Page Hall and the estate, consisting of 136 acres, were purchased by Mr. Mark Firth, who presented 36 acres of the estate to the town as a public park for ever. Two new approaches—one from the



direction of Grimesthorpe, and the other from the Barnsley-road at Canon Hall, opposite the entrance to the new Sheffield Workhouse—unite near the old entrance to the hall, and are continued in one road through the estate to the lane leading from the Barnsley-road, immediately beyond Brush House, to Shiregreen. The park comprises a large part of the beautiful wood, 14 acres in extent, which formed the eastern boundary of the estate, and is on the right of the new road—also the open ground and smaller wood on the left beyond Page Hall. This latter part extends over the hill to the boundary of the Bolsover and Brush House estates. One portion of the park is appropriated for games; the other portion, which is more undulating, being intersected with winding walks and diversified with shrubberies and flower beds. Along the edge of the small wood is a pleasantly-shaded ridge from which there is a wide view of a charming landscape, with a glimpse between the Wincobank and Osgathorpe hills of the tall chimneys of the Don valley as a background. Walks have also been made through the larger wood, and no restraint is put on visitors, who may wander over the park and through the woods at will. Mr. Firth made the new approaches to the park and the excellent carriage-drive through it at his own cost, erecting a handsome lodge and refreshment rooms at the entrance. The park is some two miles north of the central parts of the town, and the roads over the Pitsmoor and Osgathorpe hills are steep; but it is near the increasing population of the Don and Grimesthorpe valleys, to whom, as the town extends, it must become an immense boon. The park was publicly opened August 16th, 1875, by the Prince and Princess of Wales, who were guests of Mr. Firth, at Oakbrook, for several days. Some account of the royal visit will be found elsewhere. We may add that there is a footpath across the fields from Firth Park to the old British camp at the summit of Wincobank hill. The distance is less than half-a-mile; and the camp, of which some notice will be found in our account of ancient earthworks, is worth a visit for its own sake as well as for the view from its vallum of the Don valley to Rotherham and the wide expanse of country beyond.

**NORFOLK PARK.**—This park, situated on the estate of the Duke of Norfolk, the town owes to the munificence of the grandfather of the present inheritor of the title. The park comprises altogether more than 60 acres. It has been laid out in

ornamental walks, carriage drives, &c., and is well planted with shrubs and trees. In the centre there is a large open space covered with grass, which is used for cricket matches, &c. Very beautiful views of the surrounding scenery may be obtained from various spots in Norfolk Park. The park was commenced in 1841 by Duke Bernard Edward, and completed by his successors. Though dedicated to public use, it remains the property of the Duke of Norfolk, and is kept in order at his expense. There are two entrances—one of them from Norfolk-road, a short distance beyond the cholera monument, and the other from Belle Vue-road, which divides the park from the Farm, the Sheffield residence of his Grace. A new approach to the Norfolk-road entrance has recently been made from Suffolk-road, near the Midland railway station.

**ST. GEORGE'S MUSEUM.**—This unique and interesting museum, founded by Mr. John Ruskin, the eminent writer and art critic, is at Upper Walkley, in the north-western suburbs of the town—close to the district where, through the instrumentality of freehold land societies, so many of the more thrifty artizans have provided themselves with homes on their own freeholds. Mr. Ruskin purchased an acre of land with a good stone cottage upon it several years ago, and uses the principal room in the cottage for the museum. This, however, is a temporary arrangement. New buildings are to be erected, and are to include a picture gallery, library, and reading room. The contents of the museum at present are: 1. A small but rich and rare mineral collection, containing some of the finest specimens of precious stones the country possesses. Probably nowhere else in Europe can so valuable a collection be found in so small a space as is contained in Mr. Ruskin's cabinet at Walkley. 2. A natural history section, composed not of stuffed specimens out of which all the life has gone, but of the best illustrated works published, many of them containing original drawings of great beauty and value. 3. A botany section, composed of carefully executed drawings, some of the most beautiful being Mr. Ruskin's own work. 4. A small collection of paintings and drawings, chiefly from the old masters; a few of them originals of great value, the rest careful copies and studies of the best works. 5. A small collection of classical literature, Greek, Latin and English, all valuable, and some of them rare old works and splendid specimens of typography. There are also a few busts and other studies. The St. George's

Museum is not intended for the recreation of mere sight-seers—though visitors are freely admitted—but as an educational institution for art students. The collections are carefully arranged with a view to progressive study; clear and exact instructions in drawing from Mr. Ruskin's own pen being supplied for the guidance of elementary students. The number of students is from forty to fifty, some of them living at a distance, and coming to the town for a few weeks at intervals. An exceedingly valuable museum will ultimately be formed. It will not be large but choice, the aim of the founder being to provide at Walkley a perfect type of museums to be established in various parts of the country, for the cultivation of art in its truest and best forms. Mr. Ruskin and a number of gentlemen associated with him, desire to place within the reach of the humblest artizan, with a taste and capacity for art, as perfect an educational museum as the wealthiest student can command. As the result of the opportunities opened to him at Walkley, one youthful Sheffield grinder is already on the high road to artistic eminence, and others of the most laborious students are artizans. The museum is on the slope of the hill overlooking the Rivelin valley, and commanding extensive and beautiful views of the country beyond. The easiest access from the centre of the town is by the Hillsbrough tramway car to the foot of Graves-street, or the Walkley omnibus to Spring-vale, the walk from either point being less than half-a-mile. The nearest way from the west end of the town is by the new road immediately below Cobden-view to the old lane from the village of Crookes to Heavygate-road. A field-path from this lane over Bole-hill, from which there are very fine views, terminates in Walkley-lane, within 100 yards of the museum. The museum is open to students daily (Thursdays excepted) free of charge. Visitors may obtain tickets from Mr. Thomas Rodgers, Market-place, or by letter from Mr. Swann, the curator.

**RECREATION GROUNDS.**—The Duke of Norfolk has presented to the town plots of land in three populous neighbourhoods—Parkwood-springs, Carlisle-street east, and Bacon-lane, Attercliffe—for permanent Recreation Grounds. The plots, amounting altogether to 26 acres, are being levelled and fenced at the joint expense of his Grace and the Town Council.

**BOWLING GREENS.**—There are seven bowling greens in the town, most of them the property of shareholders and maintained

by annual subscriptions. The oldest of these greens is in Broomgrove, and was established in 1851. It is exclusively proprietary, and numbers among its one hundred members some of the leading magistrates and other gentlemen of the town. The Norfolk Bowling Green adjoins the Bramall-lane cricket ground, and is large and well-formed. There are good bowling greens very pleasantly situated at Pitsmoor, Steel-bank, Nether-edge, East-bank and Heeley.

**CRICKET AND FOOTBALL.**—The public Cricket Ground is in Bramall-lane, the land being leased from the Duke of Norfolk. It was opened in 1855, at a cost of nearly £3,000. The ground is under the management of a committee of proprietors. This committee have organized a large county club for the promotion of cricket, the annual subscription to which is a guinea a year, which, however, is called for only when required. The subscribers are chiefly gentlemen living in Sheffield and the neighbourhood. As the result of this organization, a number of leading county and other interesting matches are played every season on the Bramall-lane ground, and attract many thousands of spectators; and Sheffield has become the real centre of county cricket in Yorkshire. The affairs are managed with judgment and spirit. The ground has been freed from heavy responsibilities during the last few years, enlarged and improved, and the committee have now (1879) a considerable fund in hand to meet future contingencies. The area of the ground, since the enlargement in 1875, exceeds ten acres. Many of the cricket clubs of the town practise on the Bramall-lane ground; others have private grounds in the suburbs.

**FOOTBALL CLUBS.**—Football is a popular game in Sheffield, most of the clubs renting fields for practice. These clubs have annual sports and athletic games, some of which are largely attended, the sports of the Sheffield and other leading clubs attracting the *élite* of the town.

**BICYCLE CLUBS.**—During the last few years bicycle riding has become a favourite amusement, and several clubs have been formed. Some of the principal clubs have a practice ground at Sharrow-vale. The members have occasional excursions, often riding great distances over the hills which hem in the town on all sides.

**RACES AT SHEFFIELD.**—There were races at Sheffield as far back as 1713, when, it is recorded, the Town Trustees were "At charges to get horses to the races." At what date they

were established is not known. The race-ground was at Broom-hill, the grand stand being on the site now occupied by Stand House, Fulwood-road. The site was part of Crookesmoor, the enclosure of which, under the Act of 1779, put an end to the races. Repeated attempts have been made of late years to re-establish races at Sheffield. In 1875, a Limited Company was formed for the purpose, with a capital of £15,000, subscribed chiefly by professional sporting men. The Company purchased a freehold site of about 100 acres, adjoining the road to Redmires and about  $4\frac{1}{2}$  miles from the town. This, having been enclosed and provided with suitable buildings, was opened as a race ground, and several meetings took place. The races did not attract the attention of leading sportsmen to any considerable extent, and have been discontinued. There are several foot-racing grounds in connection with public-houses: they attract the working-classes and promote betting and neglect of work to an extent which makes them a serious evil.

**THEATRE ROYAL.**—The Theatre Royal is at the corner of Arundel-street and Tudor-street, and belongs to a Company of Proprietors. It was erected in 1773, and was rebuilt in 1854-5, with the exception of the outer walls, at a cost of £3,000.

**ALEXANDRA THEATRE.**—The Alexandra Theatre is in Blonk-street. It was originally built for equestrian performances, but on the destruction of the Surrey Music Hall, Westbar, by fire in 1865, it was opened as a theatre and concert room by the late Mr. Thomas Youdan. Mr. William Brittlebank is the lessee.

**THE SOUTH YORKSHIRE LUNATIC ASYLUM.**—At Wadsley Park, a short distance beyond the northern boundary of the borough of Sheffield, a very large Lunatic Asylum has been erected for the West-Riding. The extent of the grounds is 163 acres. The original buildings consist of three large blocks. The administrative block is in the centre, and comprises Visiting Justices' and general rooms, kitchens, dining hall, store rooms, officers' quarters, &c. Springing out of the central building is an elegant clock-tower of stone 96 feet high, and elaborately ornamented. Communicating with the central block by wide corridors, are large east and west wings; the former are for the male lunatics, and the latter for the women,—the two wings containing accommodation for 800 patients. Behind the centre block are brewery, corn mill, bakehouse, &c., all on a large scale, fitted with steam machinery. Behind the women's

quarters is an extensive laundry, also fitted up with machinery, and having large drying ovens heated by steam. South of the main buildings, but at some distance, is the church, a considerable and very handsome stone edifice. These buildings constituted the Asylum as opened in 1872. Two additional wings have since been built, and the Asylum now contains accommodation for 1,600 patients. The material used in the building is red pressed brick, made on the ground, with stone facings. The institution at Wadsley is considered to be one of the finest Pauper Lunatic Asylums in the country. It certainly comprises a very imposing group of buildings, in the construction and fitting up of which no necessary expense has been spared. The machinery and fittings in every department are of the most improved kind. The capacious kitchens are models in regard both to general construction and apparatus. There are extensive farm buildings on the estate, and the lunatics, principally the men, are largely employed in farm and garden work, the land being kept in a high state of cultivation, and supplying the needs of the institution in fruits, vegetables, and cereals. Much of the general work of the institution is also performed by the lunatics—the men being employed in brewing, grinding, baking, &c., and the women doing the laundry and other such work. The men have, moreover, done much of the brick-making and other work in connection with the newer buildings. In front of the buildings are extensive lawns, flower gardens, and shrubberies, in which lunatic labour is also largely utilized. Copious springs on the estate supply the huge institution with water. In the course of the excavations for the buildings a very interesting geological discovery was made. The stumps and roots of several large trees petrified by long exposure to undercurrents of water into hard mineral stones were found. They are preserved under cover and shown to privileged visitors. Dr. S. Mitchell is the resident medical superintendent of the Asylum, and Mr. Pigott is the steward.

**FEVER HOSPITAL.**—A Fever Hospital is in course of erection by the Town Council on an elevated site adjoining Winter-street. The site contains 6,695 square yards, and the Hospital is in blocks, on what is known as the "Pavilion" plan. There are two detached blocks on each side of a parallelogram; the administrative block, also detached, being at the further end of the square. The buildings, which are of brick with stone dressings, have two stories, with windows on both sides. In each block

there are two rooms, one on the ground floor and one above, each large enough to contain eight beds, with adjoining rooms for nurses, the latter having projecting octagonal ends, with a view to complete external ventilation. The Hospital will contain accommodation for 64 patients, sixteen in each block. The architect is Mr. S. L. Swann, of George-street, the plans having been selected by the Health Committee, under the advice of Captain Galton, C.B., in an open competition. The cost of the buildings, exclusive of furnishing, will be about £15,000, and the cost of the site was £1,750.

**BATHS.**—The Town Council erected public Baths in Corporation-street in 1870, at a cost of about £3,000, and they are largely patronized. They are now providing commodious Baths near the junction of the Tinsley and Newhall-roads, at Attercliffe, from designs prepared in the Borough Surveyor's Office.

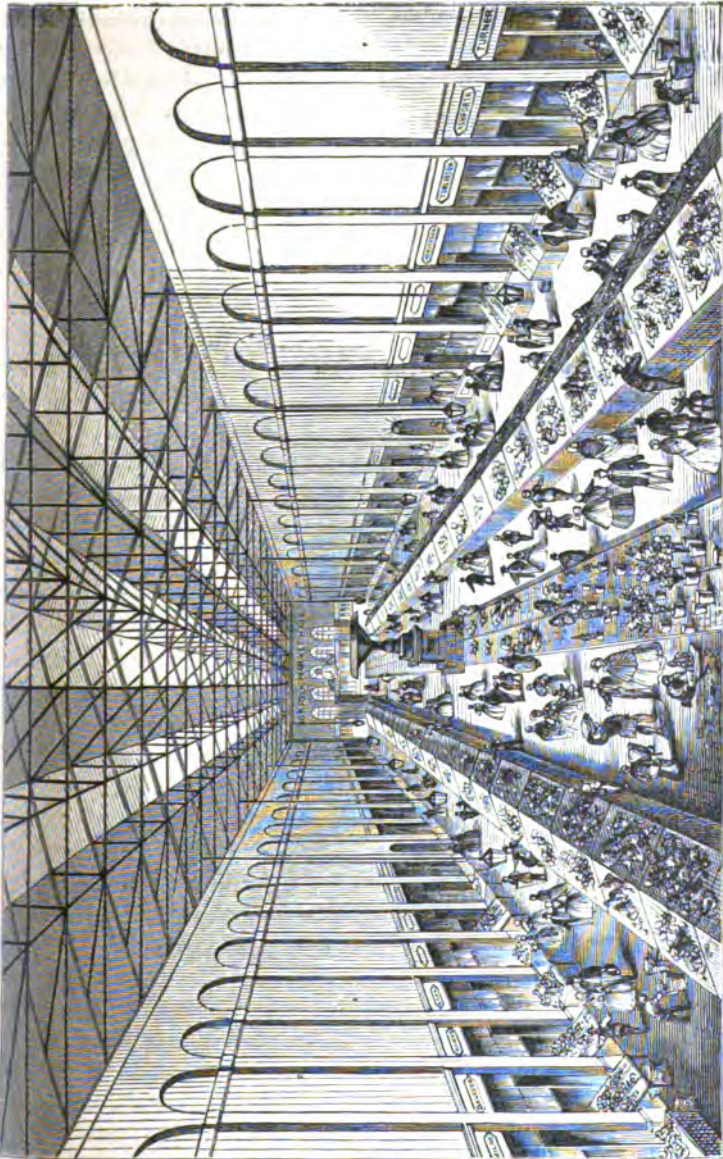
**THE SHEFFIELD BATH COMPANY** Limited have established swimming, Turkish and other Baths in Convent-walk, Glossop-road. The buildings, from designs of Mr. E. M. Gibbs, are lined throughout with glazed bricks, and embrace two swimming Baths, the largest of which is 70 feet by 30 feet, Turkish Baths, reputed to be the best arranged and most luxurious in the kingdom, and many other descriptions of Baths.

**THE NORFOLK BATHS** are situated in Bramall-lane. The large swimming Bath measures 75 feet by 39 feet.

**THE SHEFFIELD TURKISH AND PUBLIC BATH COMPANY** Limited have commodious Turkish and other varieties of Baths in Union-street.

**THE PUBLIC MARKETS.**—The Markets of the town are under the control of, and the buildings in which they are held belong to, his Grace the Duke of Norfolk, as Lord of the Manor. Of late years the town has outgrown its Market accommodation. Negotiations have taken place between the Council and the Duke with a view to the purchase of the Markets for the town. The negotiations failed on the question of price, and a large and much-needed extension of Market accommodation is being made at the expense of his Grace.

**NORFOLK MARKET HALL.**—The Norfolk Market Hall, of which we give an illustration, was opened at Christmas, 1851, occupying the site of the old Tontine Hotel. The entire cost of the erection, inclusive of site, was something approaching £40,000. It is built in the Tuscan style, of brick, with stone basements, quoins and dressings. It is 296 feet long, 115 feet



INTERIOR OF THE NORFOLK MARKET HALL.

wide, and 45 feet high in the centre. The building, which contains a large fountain, is divided into stalls and shops for the sale of fruits, vegetables, confectionery, and a great variety of wares.



**THE NEW CORN EXCHANGE.**—There is a weekly corn market at Sheffield, held on Tuesday. For many years the corn factors who frequented the Sheffield market assembled at the upper end of the Shambles and transacted their business in the open air. A corn exchange was built in 1830, but has become much too small for the requirements of the trade since the town became an important railway centre. It has been felt for some time that if adequate accommodation were provided, Sheffield, from its central situation, must soon become one of the most important corn markets in the kingdom. Several schemes for that purpose were proposed during the minority of the present Duke of Norfolk, but it was not until the Duke came into possession of the estates that the work was actually undertaken. Acting upon the advice of his agent, Mr. Ellison, that an alteration of the present buildings was inexpedient, his Grace gave instructions for the erection of a new exchange on the further side of the market; being, in fact, the site on which the original Shrewsbury Hospital formerly stood. Designs have been prepared by Messrs. M. E. Hadfield and Son, and the work is already in progress. The new structure will comprise the Corn Exchange, which will occupy the centre of the pile of buildings, being, really, a covered court with four entrances, one in each façade. It will be 150 feet long by 75 feet wide, having the open roof so arranged as to admit a north light. It will be in five spans, supported by pillars of Hopton Wood-stone, and having arched principals. There will be a series of five three-light windows to the east, and the settling rooms, retiring rooms, &c., are all conveniently placed. The principal façade of the building fronting the old Corn Exchange will be 224 feet in length, and the fronts to Broad-street and the Canal Warehouse 135 feet. On the ground floor on each side of the entrances will be an arcade, in which there will be sale shops. At the north-west corner will be a commercial hotel and restaurant on a large scale. The Norfolk estate offices will occupy the chamber floor of the south and west wings, and on the east front will be shops and offices for wharfingers, &c. The whole structure will be cellared. The design of the exterior of the building, as seen in our illustration, is of the Late Pointed or Tudor type, the materials being thin red bricks of the best description, and stone facings from the Bole Hill quarry, near Treeton; the roofs being covered with Broseley tiles. In the centre of the



NEW CORN EXCHANGE.

principal front will be a massive tower, through which the great hall will be approached by a flight of ten steps; the ceiling will be vaulted in stone; and there will be right and left entrances to the estate offices and suites of chambers. Above this vaulted gateway will be constructed a spacious fire-proof muniment-room, approached from the estate offices, for preserving the deeds and records of the Norfolk estate at Sheffield. It is expected that the whole will be completed in about two years from the present time. It will be a very noble and commodious building.

A wholesale fruit and vegetable market is held daily on the covered space between Norfolk Market and the old Corn Exchange.

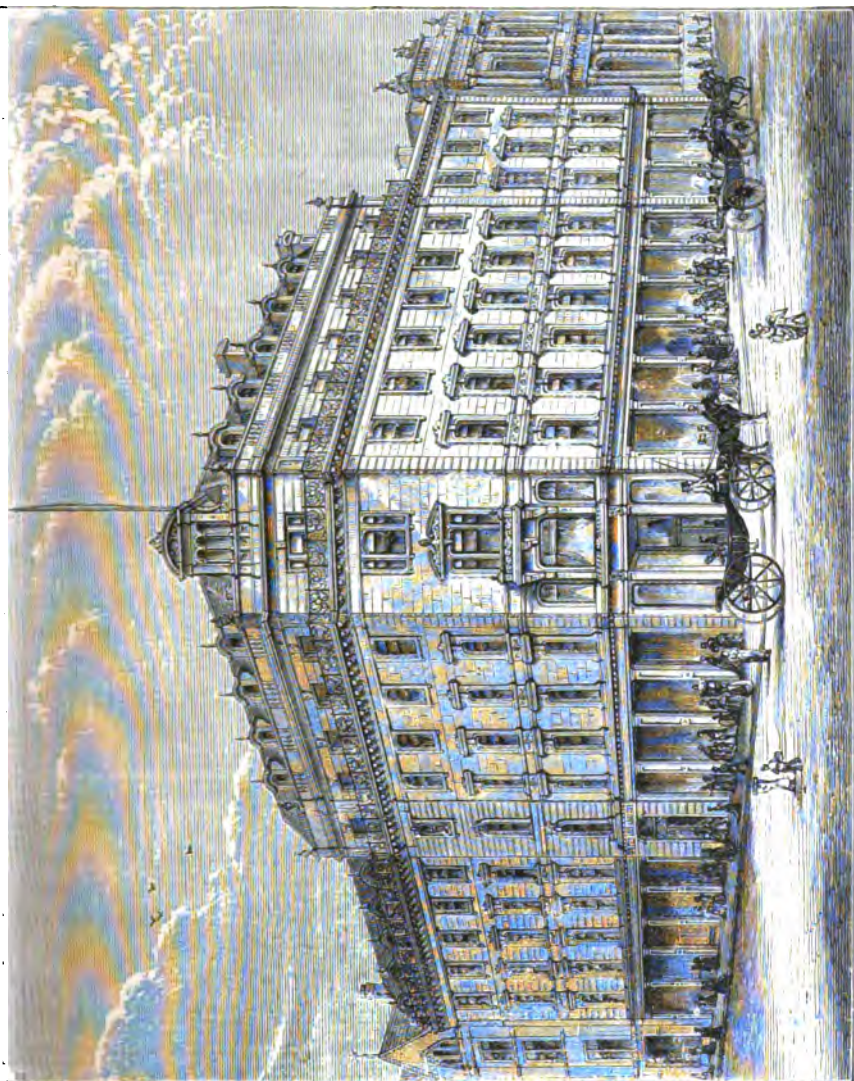
The Norfolk estate offices are at present in the old Corn Exchange, where they will remain until the opening of the new Exchange. Mr. M. J. Ellison is the agent of his Grace.

A fat cattle market is held on Mondays, and a general cattle market on Tuesdays, on the open ground between the approach to the Victoria Station and the River Don.

There are two fairs annually—one in Whit-week and the other at Christmas. These are held on the usual market grounds. They are now chiefly pleasure fairs.

The Fitzalan Market extends from Market-place to Old Haymarket. The building includes butchers' shops, poultry and fish market.

During the last few years vast improvements have been made in the shop architecture of the town as in public and commercial buildings generally. Many large and handsome buildings have already been erected. As the comprehensive schemes of street improvement undertaken by the Corporation and the Town Trustees are carried out, the number of such buildings will rapidly increase, and Sheffield will possess central streets rivalling in width and in the beauty of their architecture those of the best towns in the provinces. As a specimen of this class of buildings we give an illustration of the large establishment of Messrs. Cole Brothers, which occupies a commanding position opposite the Parish Church. The building, which is being greatly enlarged, is an irregular square, having a frontage of 86 feet to Church-street, 94 feet to Fargate, and a corner frontage of 20 feet, in which is a main entrance, towards High-street. It is built in the Modern French style of architecture,



MESSRS. COLE BROTHERS, CHURCH-STREET AND FARGATE.

and has five stories. Sir Gilbert Scott, when visiting the town a few years ago, spoke of it as "the best example of shop architecture" he knew. Messrs. Flockton and Gibbs are the architects.

## EDUCATIONAL INSTITUTIONS.



THE GRAMMAR SCHOOL.—Thomas Smith, an attorney at Crowland in Lincolnshire, a native of Sheffield, may be looked upon as the founder of the Grammar School. The wording of the early documents is curious. In 1603, the founder bequeathed to the town of Sheffield £30 a year, “so long as the world should endure, for the finding of two sufficiently learned men to teach and bring up the young children there in godliness and learning, that is to say, a schoolmaster and usher, the former of whom was to receive £20 per annum and the latter £10, to be elected by the minister and twelve of the best and most sufficient parishioners of Sheffield, and by them to be removed at pleasure.” In 1604, King James, on the application of the inhabitants, granted letters patent for the establishment of the School. The letters patent declare that the King erects, creates, founds and establishes a school in the town of Sheffield for the education of the youth of that town and parts adjacent, to be called “The Free Grammar School of King James of England, within the town of Sheffield, in the County of York,” and to consist of one pedagogue or master, and one sub-pedagogue or usher, and of the children and youth therein taught and instructed. They incorporate the vicar and twelve principal inhabitants as governors, vesting the Trust property in them and also the election of master and usher, with a power of removal at pleasure; require that the master shall be an M.A. or B.A. at least, and that he and the usher must instruct the scholars in Latin and Greek letters; and they direct the governors to apply the profits of the lands, &c., settled on the School, “to the relief, sustentation and maintenance of the master, usher, and scholars, and the “sustentation and reparation” of the School house and other messuages on the School estates. The Church Burgesses granted the governors a school house, with garden and croft, at a nominal rent, and in 1648 a new school house was built “with materials from the Sheffield Castle.” That School was in Townhead-street. The present School is a good stone structure in St. George’s-square, and was erected by public subscription in 1824. Property was left to the School by other benefactors from time to time, and the income now amounts to about £200 a year; but this is in-

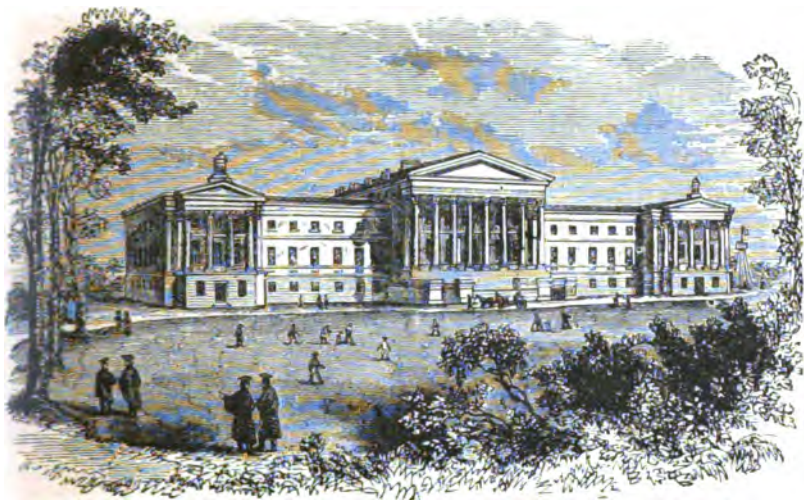


COLLEGIATE SCHOOL.

sufficient to constitute a "Free Grammar School" according to the terms of the original charter, and the only advantage to the town is that the masters are required to teach about thirty boys at half the ordinary charge. The School is open to all religious denominations. Mr. J. E. Jackson, M.A., D.C.L., is head master, and Mr. W. Doig, M.A., second master.

THE COLLEGIATE SCHOOL.—This institution is situated at Collegiate-crescent, Broomhall Park, and was established to provide a thoroughly sound education for the youth of the upper classes, preparatory to a University course or to commercial pursuits. It cost nearly £10,000; the school house, which is a handsome building in the Tudor style, having been erected in 1835, Lord Wharnccliffe laying the first stone. There are 3½ acres of pleasure grounds, tastefully laid out, and a commodious residence for the principal and for the reception of boarders. The building is situated in a picturesque part of the suburbs, outside the smoke and bustle of the town. The Rev. James Cardwell, M.A., is the principal. The house contains accommodation for forty boarders. In connection with the School are scholarships amounting to £300 a year.

WESLEY COLLEGE.—Wesley College is a large and handsome stone building, situated in Glossop-road, belonging to the Wesleyans, and occupied as a high-class school. It has ample grounds, a southern aspect, and commands extensive views of picturesque scenery. The site contains 5a. 2r. 26p., and was purchased in 1836 for £4,218. The centre part of the College was built first, and opened August 8th, 1838. The large school-room, forming the eastern portion, was added in 1839; and the chapel, at the west end, in 1840. The original cost of the site, buildings, and furniture was £27,696. The late Mr. W. Flockton was the architect. The building was suggested by the late Rev. S. D. Waddy, one of the Wesleyan ministers stationed in Sheffield in 1835. The funds were raised by the issue of £50 shares to leading Wesleyans in Sheffield and other places, and the institution, intended to supply a classical and superior general education, was at first called the Wesleyan Proprietary Grammar School. In 1844, Dr. Waddy, the original promoter, was appointed governor and chaplain—a position he held until 1862. Soon after his appointment, an application was made to Sir James Graham, and a Royal Warrant was issued, constituting the School a College of the University of London, and empowering it to issue certificates to candidates for examination for the several degrees of Bachelor and Master of Arts, and Bachelor and Doctor of Laws. The College contains accommodation for 225 inmates. It is not restricted to sons of Wesleyans, and has been from the first a prosperous institution. The Rev. W. Jessop is governor and chaplain, and Mr. Henry M. Shera, LL.D., head master.



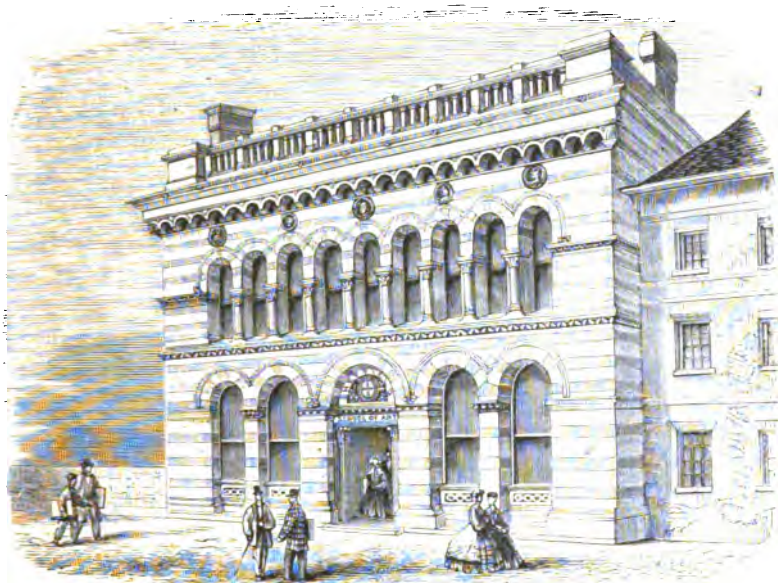
WESLEY COLLEGE.

**THE GIRLS' HIGH SCHOOL.**—In 1876, a committee of ladies and gentlemen interested in education was formed for the purpose of establishing a good high-class school for girls in Sheffield. This committee having entered into negotiations with the London Public Day School Company, secured the old Surrey-street Music Hall, as suitable premises for a school. The building, having been thoroughly renovated and adapted to school purposes, was opened as a Girls' High School in March, 1878. The head mistress is Mrs. Woodhouse (late of Clapham High School), who is assisted by a large staff of assistant mistresses and masters. The number of girls at the school in January, 1879, was 113. There is ample accommodation for 300 pupils. There are several scholarships open to pupils of this school, in common with those of the other schools in connection with the London Girls' Public Day School Company. The secretaries of the local committee are Mrs. W. Smith and the Rev. W. Moore Ede, M.A.

**MECHANICS' INSTITUTION.**—This Institution is carried on in a suite of rooms over the Council Hall and Free Library, in Surrey-street. Classes in the elementary branches of learning, and in French, chemistry, drawing, &c., are in operation. Students are prepared for examination under the Education Department, Whitehall; the Science and Art Department, South Kensington; and the Society of Arts. The Institution is managed by a committee of twenty members, Alderman Moore being president, and Mr. W. Armitage, secretary.



SCHOOL OF ART.—The history of the Sheffield School of Art is peculiarly interesting. The idea of establishing a "School of Design" (as these institutions were then entitled) was first mooted in Sheffield in 1841. A public meeting was called, but it was attended only by three individuals. Of this meeting, humble as it was, a record remains not to be surpassed for interest in the history of modern art in this country. Everybody remembers poor Haydon, the historical painter; his disgust at the success of Barnum's Tom Thumb, while his own historical paintings next door were almost unvisited; his growing despair; and his ultimate suicide. It happened that when the meeting was called in 1841, Haydon was in Sheffield, and, having a deep desire for the spread of his beloved art, he was one of the three persons who attended for the purpose of establishing the School. The other two were Dr. Harwood and Mr. H. P. Parker. During the progress of the "meeting" Haydon amused himself by drawing a pen-and-ink sketch of the persons present. This drawing has been framed, and may be seen at the Institution. Underneath the sketch are the following words in Haydon's writing, showing a latent humour in the painter's mind, the existence of which would hardly have been suspected:—"Public meeting at Sheffield, to establish a School of Design, October 13, 1841. Symptoms of great enthusiasm. Sketched by B. R. Haydon." Accompanying the sketch, also in Haydon's handwriting, is a transcript of the resolutions passed. An extract from these we give, on account of its proving so remarkably prophetic of the future of the institution:—"That, notwithstanding the neglect of the leading men of the town in not meeting, it is the duty of those who are assembled, amounting to *three*, to persevere till the great object be accomplished, aware from history that much greater revolutions have been begun and accomplished by much more incompetent means." Discouraging as this first attempt was, subsequent efforts were successful, and a School was opened in 1843, in Victoria-street, Glossop-road. The School was conducted with great success by Mr. Young Mitchell, who was appointed head master in 1846, and held the office until 1863, when failing health compelled him to resign. The foundation stone of the present building was laid by Dr. Branson on the 24th October, 1855, and it was opened in January, 1857. It is in Arundel-street, opposite the end of Surrey-street, is one of the most handsome and commodious educational structures in the town, and is

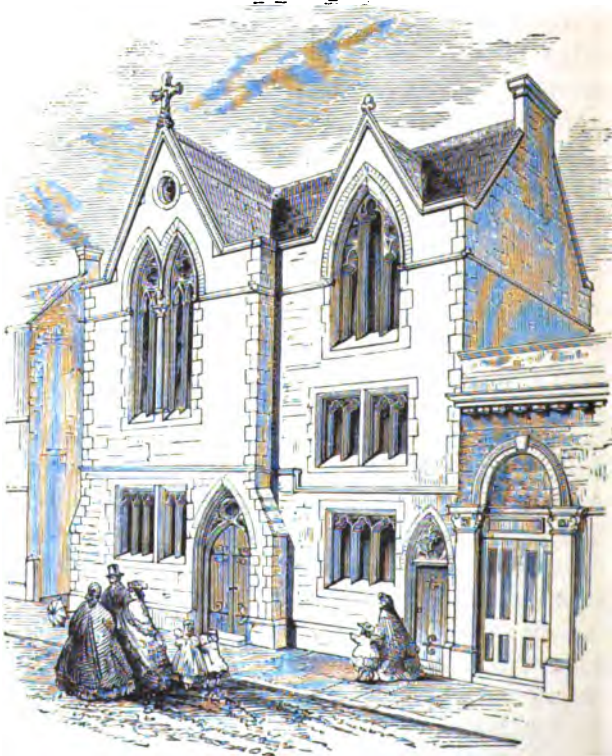


THE SCHOOL OF ART.

scarcely equalled by any other School of Art in the kingdom. The architects were Messrs. Manning and Mew, of London, and the total cost was about £7,000. The building covers about 900 yards of land. It was erected in a most enterprising spirit, being adapted not merely to supply the existing wants of the town, but to afford room for every possible expansion during many years to come. The exterior appearance is striking and handsomè. It is a mixture of the Byzantine and Romanesque styles. There are alternate layers of red and black brick, with columns, &c., of stone. A debt of £1,500 was cleared off in 1868, through the exertions of Mr. Henry Wilson, of Sharrow, and the building is now free from incumbrance. The condition of the School as an educational institution fully corresponds with the structure. The general position of the institution is in the very first rank of the Schools of Art throughout the kingdom. In 1869, it was placed at the head of our Art Schools by the Department of Science and Art—the highest bonus of £50 being awarded to the late Mr. Sounes, the then head master. Many artists of great ability have been pupils at the School, including the late Mr. Godfrey Sykes. Numerous valuable local prizes are offered for competition by the pupils, including the Duke of Norfolk's prize of twenty guineas, the Mayor's prize of ten

guineas, the Master Cutler's prize of five guineas, and two prizes of five guineas by Sir John Brown, &c. Mr. Wm. Cox is head master, and Mr. Arthur Wightman, hon. sec.

**CHURCH OF ENGLAND EDUCATIONAL INSTITUTE.**—This Institution, conducted as its name indicates on Church principles, takes high rank among evening educational institutions for the working classes. It was set on foot in 1840, but was carried on with comparatively little success until 1856, when it took a new start under the auspices of the Rev. James Moorhouse, now Bishop of Melbourne, and others of the clergy and laity, who came forward to assist the unpaid teachers who had borne the burden for so many years. The handsome building, in St. James'-street, of which we give an illustration, was opened in 1860, having been erected by public subscription. The Institution is still carried on with gratifying success. The subjects taught comprehend the Latin, German and French languages; natural theology; English literature; Euclid; book-



**CHURCH OF ENGLAND EDUCATIONAL INSTITUTE.**

keeping; singing, geography, English grammar and composition; reading, writing, arithmetic, &c. Classes for mathematics, chemistry, physical geography and applied mechanics are conducted in connection with the Department of Science and Art. The Rev. Canon Blakeney is president. There is a library in connection with the Institution.

**YOUNG MEN'S CHRISTIAN ASSOCIATION.**—This Society has rooms in Church-street, its object being to bring young men together for the purpose of imparting to them education of a religious tone. There are reading and class-rooms, and popular lectures are given during the winter in the Temperance Hall.

**THE BOYS' AND GIRLS' CHARITY SCHOOLS.**—The Boys' Charity School is at the north-east corner of the Parish Churchyard. It was founded in 1706 by Mr. Drake, the then vicar. The original School-house was built in 1710; the present School was erected in 1825. The principal benefactor of the School was Mr. Thos. Hanbey, the founder of Hanbey's Charity, whose portrait is preserved in the School. The income of the School is now considerable, and 100 poor boys are maintained and educated there. The Girls' Charity School is a kindred institution, and was formerly on the opposite side of the Churchyard, but in March, 1874, was removed to "Mount Pleasant," a large mansion at Highfield, built by Sir Francis Hart Sitwell towards the close of the last century; this house, with several acres of freehold land, were purchased and adapted by the trustees at a cost of about £5,500. The School was founded in 1786. Sixty girls are maintained, clothed, educated, and trained for domestic service. The School is mainly supported by subscriptions, the endowments being much smaller than those of the Boys' Charity School.

**ROMAN CATHOLIC REFORMATORY.**—The Roman Catholics have a Reformatory at Howard Hill, Steel-bank, for the reclamation of girls in the North of England who have fallen into crime. It was opened in August, 1861, and enlarged at a cost of about £1,700 in 1864. The institution is under the management of the Sisters of Charity of the Order of St. Joseph, and has accommodation for about 100 girls. There is a Roman Catholic Chapel in connection with the institution.

**RANMOOR COLLEGE.**—This institution was established for training young men for the ministry of the Methodist New Connexion. It is a handsome and imposing building in the Collegiate Gothic style of the fourteenth century, has a south



RANMOOR COLLEGE.

frontage of 212 feet, and stands conspicuously on the hill-side, to the right of Fulwood-road, a little beyond Ranmoor. The foundation stone of the College was laid September 25, 1862, by Mr. Mark Firth, and the College was opened in April, 1864. The building comprises a large centre hall, in which is the library, two lecture rooms, sixteen studios on the ground floor, with the same number of dormitories over them, bath rooms and other conveniences. At the western end is the house for the governor and resident tutor. There is accommodation for sixteen students, and the building is arranged with a view to adding rooms for fourteen more, by an enlargement at the back. The site comprises about two acres of land, laid out in terraces and ornamental grounds. The College originated in this way. Mr. Thos. Firth, the father of Mr. Mark Firth, and the founder of the firm of Thomas Firth and Sons, left £5,000 towards the endowment of a College, on the condition that a further sum of £8,000 was raised. This was done; £3,000 being added to the endowment, leaving £5,000 for the land and buildings. A further sum had to be raised, however, the expenditure on the land and buildings being nearly £8,000. The Rev. W. Cocker, D.D., is principal, and the Rev. J. Stacey, D.D., classical tutor.

**SURREY STREET EDUCATIONAL INSTITUTE.**—This Institution, of which the late Mr. Chas. Wardlow was an indefatigable supporter, was established in 1844, its present premises in Surrey-

street having been erected in 1862. It is carried on in connection with the United Methodist Free Churches, but is open to the general public. There are evening classes for instruction in elementary subjects, French, German, Drawing, &c.

**ELEMENTARY EDUCATION IN SHEFFIELD.**

**THE SCHOOL BOARD.**—The first School Board for Sheffield was elected on the 28th November, 1870. Special enquiries made shortly afterwards showed that there were nearly 40,000 children of school age in the borough and school accommodation for 28,000, but that only 12,000 children were actually attending school. The Board promptly adopted compulsory bye-laws, and, having hired temporary schools, proceeded to enforce attendance there and at the denominational schools. They also set themselves resolutely to the work of building new schools, being the first School Board in the kingdom to begin. The following table gives the number of schools completed to the end of last year, and the cost in round figures :—

SCHOOL.	Accommodation.	Size of Site in Square Yards.	Cost of Site.	Cost of Buildings and Fittings, including Caretakers' Houses where provided.	TOTAL COST.
			£	£	£
NEWHALL ... ..	664	2409	1546	5057	6603
BROOMHILL ... ..	326	2277	1151	3804	4956
NETHERTHORPE...!	1015	3450	3016	8608	11624
PHILADELPHIA ...	1009	3895	3744	6661	10406
WALKLEY ... ..	773	3000	1080	7286	8366
CROOKESMOOR ...	835	2560	1790	8084	9870
LOWFIELD... ..	793	3055	2473	7225	9699
ATTERCLIFFE ...!	794	2600	1254	7123	8377
CARBROOK ... ..	791	3000	1487	7578	9065
PYE BANK ... ..	902	3000	1139	8560	9699
PARK ... ..	787	2227	2561	7200	9761
DARNALL ... ..	753	2500	600	6195	6795
GRIMSTHORPE ...	813	3000	857	7508	8365
SPRINGFIELD ...	833	2782	5047	10639	15686
MANOR ... ..	241	3000	602	5961	6564
FULWOOD ... ..	132	2722	262	1622	1885
	11461		28615*	109119*	137734*

\* Shillings and pence omitted in the details are included in the totals.

The Board have purchased for £8,200 the Ragged and Industrial Schools, in Pea-croft, affording accommodation for 673 children, and have in progress five additional schools at Langsett-road, Heeley-bank, Brightside, Woodside, and Doctor's-fields; to accommodate 3,960, making a total of twenty-two sets of schools, with accommodation for 16,094 children, exclusive of temporary schools. At the close of last year, the Board had fifty-four school departments under its control and 320 paid teachers in its employ; they had 17,031 children, including half-timers, on the register, and the average attendance was 12,721. Through the action of the Board a very marked improvement had moreover been made in the attendance at voluntary schools. The total number on the rolls of Board and other efficient Elementary Schools was 45,727, the average attendance being 32,463, as compared with 12,000 when the Board began its work. In addition to ordinary subjects, girls are taught practical cookery and household work in the Board Schools; and in several of the infant schools Kindergarten instruction is carried on. Among other improvements in general education, the phonic system of teaching reading has been introduced. In connection with many of the schools penny banks have been opened, and night schools are conducted. The Board are establishing a "Truants' Industrial School" at Hollow Meadows, on the edge of the moors, a few miles from the town. The Board are erecting Central Schools, in which it is proposed to give higher instruction than can be given at the Elementary Schools to exceptionally clever scholars, to be selected by examination from the Elementary Schools, the education probably to include technical instruction bearing upon local industries. This is the first Board School of the kind projected, the Education Department having sanctioned it simply as an experiment in the direction of a more advanced education. It will provide accommodation for 240 senior boys, 244 senior girls, 230 junior boys and girls, and departments for 193 infants and forty-eight deaf and dumb children; total, 960.

### BOARD SCHOOLS.

**THE CENTRAL SCHOOLS AND OFFICES.**—Avoiding a parsimonious economy, the School Board have erected substantial stone buildings on the best models, with distinctive architectural features. The schools are well arranged and are provided

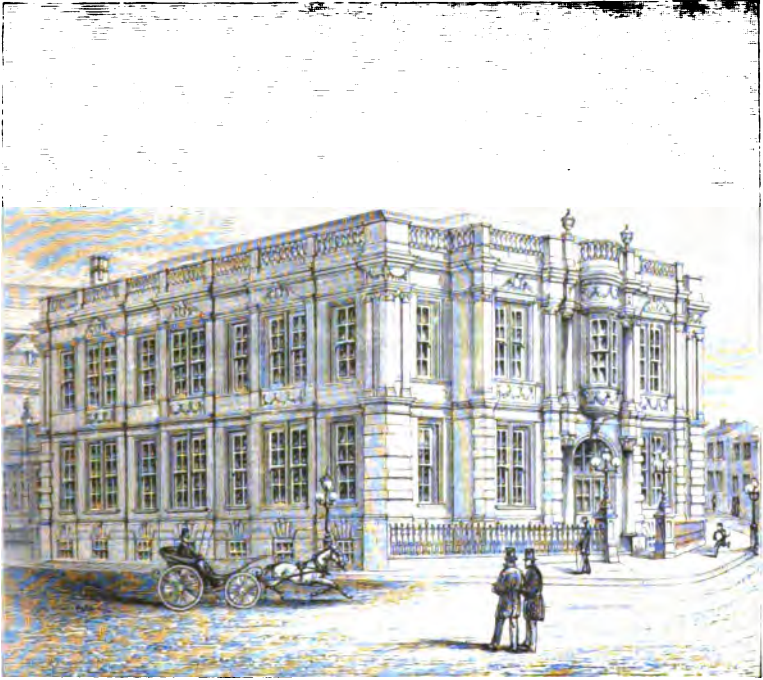


CENTRAL BOARD SCHOOLS AND OFFICES.



with the best appliances. There is a playground, partly covered, to each school, and a caretaker's house. The Central Schools and Offices, of which we give an illustration, front upon the new street which is being made from Bow-street to Barker's-pool. The schools are arranged on the class-room system, with a large assembly hall in the centre for examinations and other such purposes. The offices comprise a large and handsome Board room and adequate accommodation for a numerous and increasing staff of officers. The style of architecture of the offices and schools is the Renaissance, and, with the Firth College, they will be one of the finest ranges of buildings in the town. Sir John Brown has been chairman, and Mr. Firth, vice-chairman, of the Board from its constitution; clerk, Mr. John F. Moss; solicitor, Mr. Wm. Smith. The architects of the Central Schools and Offices are Mr. Robson, of London, and Mr. Flockton (Flockton and Gibbs). A majority of the district schools have been built from the designs of Messrs. Innocent and Brown.

**THE FIRTH COLLEGE.**—In close proximity to the Central Board Schools and Offices, and forming part of the same range of buildings, Mr. Mark Firth is erecting a very handsome block of buildings for lectures and classes, somewhat after the plan of those hitherto carried on in connection with the Cambridge University Extension movement. The University buildings are at the junction of the new street with Bow-street, and comprise large hall for lectures, and spacious class and other rooms. They will be vested in trustees; the institution being managed by a council elected chiefly by the public bodies of the town. Provision is made in the scheme for the representation of the Universities of Oxford, Cambridge, and London upon the Council, and it is probable that special privileges will be offered to successful students in the College by one or more of these Universities. The Council is to appoint a principal or rector in addition to such other professors as may be required to carry out a system of higher education, both literary and scientific. It will also be empowered to accept gifts for the endowment of special chairs or professorships, or for the establishment of scholarships, under such arrangements as may be in harmony with the general design of the founder. Towards the endowment fund Mr. Samuel Roberts, M.A., J.P., of the Tower, Sheffield, has already offered a contribution of £1,000, and the Earnshaw Scholarships and the Firth Scholar-



THE FIRTH COLLEGE.

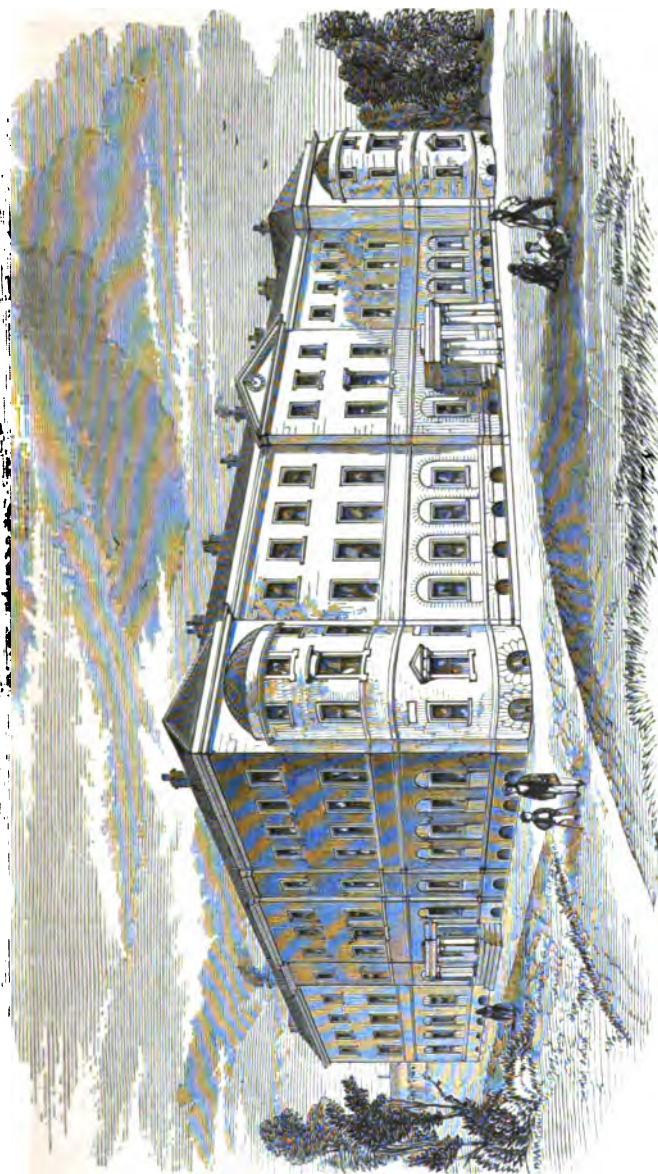
ships will also be at once available in connection with the scheme. The estimated cost of the buildings is £20,000, and Mr. Firth has in addition offered a munificent sum towards an endowment fund to provide scholarships and exhibitions. The Firth College, as our illustration shows, is an exceedingly handsome building, in the same style of architecture as the Central Board Schools and Offices—namely, the Renaissance,—Messrs. Flockton and Robson being also the architects.



## CHARITABLE INSTITUTIONS.



**THE GENERAL INFIRMARY.**—This noble institution, which is situated at the end of Shalesmoor, has been built and is sustained by public subscriptions and private bequests. The project of building an Infirmary was launched in April, 1792, at a public meeting called anonymously by Dr. Younge, a local physician. At first, owing to the magnitude of the effort required, it was languidly received; but some enthusiasm having been roused by the offer of £1,000 from Mrs. Fell, of Newhall, a sum of £15,000 was raised in a short time—£2,500 more being added before the building was finished. Thirty-one acres of land were purchased, “half-a-mile north-west of the town,” as a suitable site; the first stone was laid in 1793, and the institution was opened October 4, 1797. Nearly the whole of the £17,500 having been expended on the land and buildings, the annual expenses had to be provided for by fresh subscriptions. Happily the institution had many benefactors; one anonymous contributor—afterwards found to be the Rev. Francis Gisborne, of Staveley—bequeathing £5,696 13s. 4d. A wing was added in 1840, at a cost of £6,000, for a fever ward; but doubts arising as to the wisdom of congregating infectious diseases within the building, it was ultimately appropriated to the general purposes of the institution. To meet the increased annual expenses much of the land, originally purchased in order to secure the institution “from the annoyance of manufactures and the too near approach of other buildings,” was leased for building purposes, experience having shown that a town atmosphere was not unfavourable to town patients. In 1872-3, a detached wing, with rooms for forty beds, was erected and fitted up, at a cost of £12,000, for the treatment of offensive surgical cases and contagious diseases arising in the house. The General Infirmary is now a most efficient charity, accommodating and providing for 200 in-patients, and giving medicine and medical attendance to a much larger number of out-patients. Patients are admitted from the surrounding district, as well as from the town, on the recommendation of a subscriber. No recommendation is required in case of accident. In the Board room are busts of Dr. John Brown (the first chairman) by Chantrey; of



SHEFFIELD GENERAL INFIRMARY.

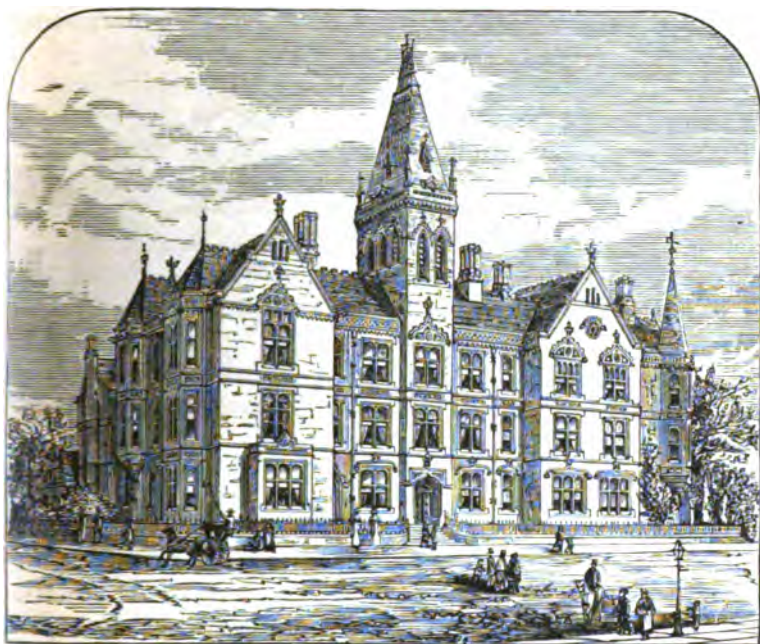
the Rev. James Wilkinson, by E. Smith (being a copy of the bust by Chantrey in the Parish Church); of Montgomery and Mr. Henry Jackson, by Ellis; of Mr. Thomas Rawson, by Law; and of Mr. Thomas Watson, of Broomfield. There are also portraits of several other persons of local celebrity.



PUBLIC HOSPITAL AND DISPENSARY.

**PUBLIC HOSPITAL AND DISPENSARY.**—This institution was originally opened in Tudor-street in 1832 as a Medical Dispensary, and was removed to its present situation in West-street in 1833. In July, 1858, Earl Fitzwilliam laid the first stone of a new building on the old site, by which accommodation was provided for about fifty in-patients. In 1868 a front enlargement of the building was undertaken, and last year some much-needed structural improvements were effected, particularly in the culinary department. The Hospital has accommodation for 100 in-patients, and the Dispensary is carried on as vigorously and beneficially as when it was a separate institution. The Hospital and Dispensary has been erected and is supported by public subscription. The Rev. Henry H. Wright is chairman of the weekly board, and Mr. George F. Lockwood, honorary secretary.

**THE JESSOP HOSPITAL FOR WOMEN.**—A Hospital for Women was established in 1864 and carried on with success in Figtree-lane, but it has now been transferred to a splendid building in Upper Gell-street, near Brookhill, erected and furnished for the charity by Mr. Thomas Jessop, J.P. The new hospital was formally opened by Mr. Jessop in July of last year (1878). It is divided into two parts—one for the treatment of disease, and the other for midwifery. Practically there are two institutions under one roof, with distinct staffs and no internal communication. The entrance to the Hospital for Diseases is from Leavygreave-road, and in connection with it is a commodious department for out-patients, who enter from



THE JESSOP HOSPITAL FOR WOMEN.

Gell-street and pass out into Leavygreave-road. The entrance to the Midwifery Department is from Victoria-street. There is provision in the two departments for sixty in-patients, and for very complete medical and general staffs. The Hospital is a three-storied building. The style is Tudor freely treated, the architect, Mr. J. D. Webster, having introduced with very good effect certain Burgundian features. The Hospital has fine bay windows and a lofty tower, and is architecturally one of the most successful public buildings in the town. It is altogether a very noble structure, with spacious corridors, and broad staircases. The rooms are large, airy and cheerful, and are fitted and furnished in the best style without regard to cost, the wards having beds and furniture of special designs and quality, and floors of polished wainscot oak to avoid the damp attendant on frequent washings. The institution, upon which Mr. Jessop has generously expended over £26,000, has been appropriately named the Jessop Hospital for Women. The Hospital is supported by public subscriptions and donations. Mr. Jarvis W. Barber, of George-street, is honorary secretary; and Mr. Charles Warner, collector.

**THE CHILDREN'S HOSPITAL.**—This institution, which has been recently formed, has premises in Brookhill. It is for the special purpose of treating children under thirteen years of age suffering from accident or non-infectious diseases. The Hospital has accommodation for sixteen in-patients, and the medical officers already attend 120 to 130 out-patients daily. The charity is supported by subscriptions. The Rev. Canon Blakeney, vicar of Sheffield, is Chairman of the Board of Management, a committee of ladies investigating the circumstances of applicants. Dr. Cleaver is honorary secretary.

**SHREWSBURY HOSPITAL.**—This Hospital, which is opposite the Cholera Monument in Norfolk-road, was founded by direction of Gilbert, the seventh Earl of Shrewsbury, who died in 1616. The words of the will are:—"I will and appointe an hospitall to be founded at Sheffielde for a perpetual maintenaunce of twentie poore personnes, and to be called 'The Hospital of Gilbert Erle of Shrewsbury,' and the same to be endowed with such revenues and possessions as my executors shall thincke fitt, not beinge under two hundred poundes a year." This direction was carried out by the Marquis of Newcastle as acting executor of the earl, notwithstanding some legal difficulties, and in 1665 the foundations of a hospital were laid on ground which had formerly been part of the orchard of the castle, and is now devoted to the new Corn Exchange. In 1673 the buildings were inhabited by ten men and ten women, and Mr. Henry Howard, who was great-grandson of Earl Gilbert, and in that year became Earl of Norwich and afterwards Duke of Norfolk, directed that the persons eligible to the charity should be poor "persons of good character of the town and parish of Sheffield, and if none such could be found there, of any other place or parish where he had estates that had descended to him from Gilbert, Earl of Shrewsbury, chosen by himself and his heirs." The inmates were to receive 2s. 6d. a week each, coals, and certain articles of dress; and it was directed that they "should wear blue gowns and the master one of scarlet," and that they should "attend prayers read by the governor, and should be mutually assistant, pious, sober, and orderly in their conduct." The original hospital, standing near the Sheaf, was partially destroyed by a flood in 1768, four of the inmates being drowned. Edward, Duke of Norfolk, endowed the charity with a further sum of £1,000, which was applied in



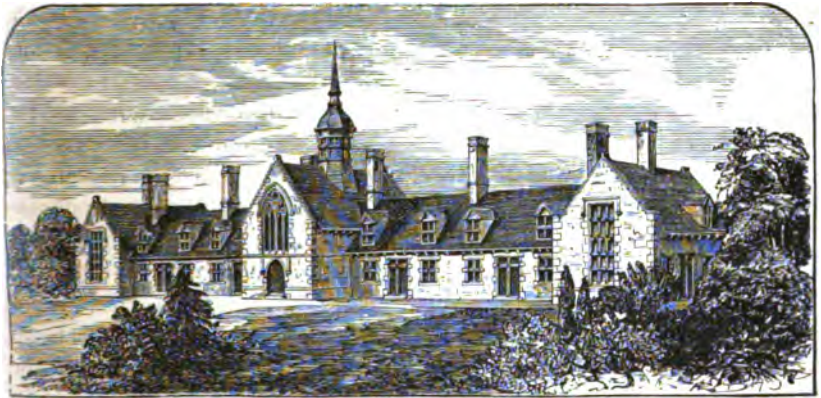
SHREWSBURY HOSPITAL.



repairing the breach and enlarging the chapel. An Act having been obtained in 1823 for changing the site of the hospital, the present handsome buildings were erected in 1827 under the direction of Bernard Edward, Duke of Norfolk, who contributed £1,000 towards the cost. They include forty dwellings for the pensioners, a chaplain's house, and a chapel, on a site of 6a. 3r. 10p. The hospital accommodates twenty men and twenty women; the men receiving 14s., and the women 10s. 6d. a week each. The inmates have a load of coal each every three months, and an allowance of clothing every two years. The income of the charity is derived from property in Sheffield, Handsworth, Rotherham, Ecclesfield, Royston, Darfield, Penistone, and other places. The property has greatly increased in value. According to returns made to the Charity Commissioners, the accumulations in 1874 exceeded £50,000 and the revenue was over £11,000, while the amount expended upon the pensioners was less than £2,000. The allowances and list of out-pensioners have since been considerably increased. The Rev. John Stacey, M.A., is governor and chaplain, having been appointed in 1850. By his will, made in 1715, William Birley, of Throgmorton-street, London, left an endowment of £300 a year and a share of an estate at Neepsend to the governor of the hospital. The patronage of the hospital is vested in the Duke of Norfolk. An Act of Parliament obtained in 1725 provides that the governor of the hospital shall for ever be a clergyman of the Church of England.

MR. FIRTH'S ALMSHOUSES.—Among the best and noblest charities of the town are the Almshouses at Hanging-water, near Ranmoor, erected and endowed by Mr. Mark Firth, of Oakbrook, at a cost of £30,000. The first stone was laid by the Earl of Shaftesbury on the 4th March, 1869, and the Almshouses were opened during the following year. There are thirty-six houses, occupied by married couples or single persons, according to circumstances. They are in the form of a double quadrangle, the style being Early Gothic. In the centre is a chapel, with tower and spire, in the Early Decorated style. The chapel is pleasantly lighted by traceried windows of stained glass, the principal window being *in memoriam* of a daughter of the generous donor, who died in childhood. Each house has a living room and bedroom, with larder and coal cellar, and is supplied with gas and water. The allowance is 10s. a week to

married couples and 7s. to single persons. The beneficiaries must be natives of Sheffield, of well-attested good character, and members of a Protestant church or congregation. Beside the chapel is a residence for the governor and chaplain. The property and endowments are vested in trustees for the benefit of the poor of Sheffield for ever. The Almshouses, with their lawn, flower beds and shrubberies, form a very handsome group, and are a most agreeable retreat for the aged and infirm who have been unfortunate in the battle of life.



THE LICENSED VICTUALLERS' ASYLUM.

**THE LICENSED VICTUALLERS' ASYLUM.**—The asylum for aged and decayed members of the Licensed Victuallers' Association and their wives or widows is opposite Dore station, in Abbeydale, about four miles from the town. The original Asylum was built at New Grimesthorpe in 1848, and for some years stood pleasantly among green fields; but after a time it was surrounded by manufactories, and became anything but a desirable retreat for the aged and the infirm. For the new asylum a very pleasant and salubrious situation has been selected. Having purchased five-and-a-half acres of land, with two houses upon it, at a cost of £6,000, the Association erected Asylum buildings at a cost of about £6,000 in 1878, the contract for the buildings, exclusive of boundary walls, &c., being £5,700. The Asylum consists of twelve houses, with a central hall for association meetings, library, &c. Each house comprises a living room, pantry, small bedroom for occasional

use on the ground floor, and large bedroom upstairs. There is a broad lawn, with flower beds, in front of the building, and a separate kitchen garden for each house behind. The allowances to inmates are £32 10s. a year for married couples, and £22 2s. for single inmates. The Association do not restrict their benevolence to the support of inmates of the Asylum. They have numerous out-pensioners, to whom they make allowances of from 5s. to 10s. a week. The funds for the Asylum and out-pensioners are raised by annual subscriptions of members and honorary members of the Association, in addition to which there is an annual income of £150 from the two houses purchased as part of the estate. Mr. George Skinner, of Fitzwilliam-street, is secretary of the Association.

**DEAKIN INSTITUTION.**—This valuable charity was founded by Mr. Thomas Deakin, a Sheffield merchant, who died in 1849. Mr. Deakin bequeathed a sum of £3,000, the annual income to be applied for the benefit of unmarried women of good character, who should be “members of the Church of England or Protestant Dissenters acknowledging the Eternal Godhead of our Saviour as taught in the Church of England.” He stipulated as a condition of the bequest that a further sum of £3,000 should be raised within two years from his decease. That sum having been subscribed, the charity was established in 1852 upon a scheme approved by the Master of the Rolls. The capital fund now amounts to nearly £30,000, and is yearly increasing. Donors of £50 become life governors, and subscribers of £5 5s. a year are governors after the third payment as long as the subscription is continued. The income is dispensed in annuities of £20 or £25, according to circumstances. Protestant women of straitened means, living in any part of England, who are at least forty years of age and have not been married, are eligible. Annuitants are elected at the annual meeting of the governors. Two admirable features in the management of the charity are these—privacy is observed in regard to annuitants, whose names are known only to the governors; and the Institution having neither offices nor paid officers, the whole of the income goes to the annuitants. The Archbishop of York is the president; Mr. J. H. Barber, of the Sheffield Banking Company, treasurer; and Mr. Arthur Thomas is the honorary secretary.



SCHOOL FOR THE BLIND.

**SCHOOL AND MANUFACTORY FOR THE BLIND.**—A Manufactory for the Blind was originated some years ago by the late Miss Harrison, of Weston. The premises are in West-street, and consist of a series of workshops at the back and a front shop for the sale of the goods made by the blind. About thirty blind persons, men and women, are constantly employed, receiving £600 to £700 a year in wages. The Manufactory is as nearly as possible self-supporting, the annual sales exceeding £2,300. Mat, rug, and brush making and chair caning are the chief employments. A missionary is employed to visit the blind in different parts of the town, and teach them to read and sew; and relief is given to the necessitous. By means of public subscriptions and donations the premises in West-street, which are freehold and have an area of 400 yards, have been purchased for the institution, and a sum of nearly £3,000 has been gradually accumulated for the rebuilding of the manufactory. A very handsome School for the Blind has been erected at Manchester-road, Broomhill, in the western suburbs. Mr. Daniel Holy, formerly of Burntstones, near Sheffield, who died in 1870, bequeathed the residue of his personal estate, amounting to about £20,000, to the Town Trustees upon trust (on the death of his sister, Mrs. Caroline Davenport), to pay the annual income to the treasurer for the support of a Blind

**Institution.** Mr. Holy attached to his bequest the condition that within five years after Mrs. Davenport's death a suitable building should be provided and furnished from other sources, and a request that the Institution should be conducted on the same plan as the Institution for the Blind at Edgbaston, near Birmingham. Mrs. Davenport died in 1875, and a public subscription for providing and furnishing the necessary buildings was begun shortly afterwards. The school is substantially built of stone. The principal entrance is in the centre, and divides the building into two wings—the right wing for boys and the left for girls. The wings have separate staircases in the centre, and side entrances to separate playgrounds. On the ground floor are dining and school-rooms, each 40 feet by 20 feet, work-rooms 30 feet by 20 feet, lavatories, committee rooms, matron's room, kitchens, pantries, &c. On the chamber floor are bedrooms, bath, lavatory, and sick rooms for each wing, and a nurses' room common to both; and there are attics in the roof for the servants. The grounds are about two acres in extent, mostly at the back of the buildings, and are laid out as playgrounds. The building is intended for the accommodation—to begin with—of twenty-five boys and twenty-five girls, but is capable of accommodating a greater number. It has been erected from the designs of Messrs. Flockton and Gibbs, and is a very handsome structure. It is well arranged, and the situation is all that could be desired. The cost of the building and site will be about £15,000, exclusive of furniture. The Earl of Wharnccliffe is president, and Mr. W. R. Carter honorary secretary of the double institution.

**HOLLIS' HOSPITAL.**—This institution was founded by Thos. Hollis, who was apprenticed as a Sheffield cutler, but became a large hardware merchant in the Minories, London. Mr. Hollis was an earnest Dissenter of the Baptist persuasion and a liberal contributor to the first Dissenting meeting-house in Sheffield, opened in 1678, and called New Hall. After the erection of Upper Chapel, Norfolk-street, in 1700, Mr. Hollis purchased the disused New Hall Chapel, together with a small house adjoining, and converted them into dwelling-houses for sixteen elderly women, widows of cutlers and others employed in the peculiar manufactures of Sheffield. He supported the inmates during his life; and in 1726 his son Thomas vested Whirlow Hall estate, the fields through which Hollis-street was soon after-

wards made, and other property in trustees for the benefit of the Hospital and assistance to Dissenting chapels and schools. The funds largely increasing, the Hospital, which is in Newhall-street, in the centre of the town, was rebuilt on the old site. The occupants receive 7s. a week each and an allowance of coals, &c. Connected with the Hospital is a day school attended by several hundred children, who pay 3d., 4d., or 6d. a week, according to the class they are in, the trustees providing school books. The governor, who is also schoolmaster, has a house and £60 a year, in addition to the school pence. The following annual payments are also made out of the trust:—To the minister of Upper Chapel, £30; of Nether Chapel, £10; of Fulwood Chapel, £20; of Rotherham Unitarian Chapel, £20; of Doncaster Chapel, £20; to a Doncaster schoolmaster, £20; and to the master of the schools in connection with the Rotherham Unitarian Chapel, £40. Mr. W. J. Sole is governor and schoolmaster at Sheffield, and Mr. Frederick Fowler is the receiver under the trust.

**HANBEY'S CHARITY.**—Mr. Thomas Hanbey, who died on Christmas Day, 1766, left £8,000 to the Cutlers' Company, upon trust, to apply the income of £3,000 to the maintenance and education of children in the Boys' Charity School, and to distribute the income of the remaining £5,000 among poor housekeepers in the parish, fifty years of age, of sober life and conversation, and members of the Church of England,—two-thirds of the recipients to be men,—the doles to be given yearly on the testator's birthday (July 29), and to consist of 20s. in money, a black hat, and a blue cloth coat or cloak. The kindred of the testator are always to have the preference in the selection of recipients, which is vested in the Cutlers' Company, the Church Burgesses, and the vicar and churchwardens of the Parish Church for the time being. Mr. Charles Younge (his nephew), the late Mr. Robert Younge, and the late Mrs. Matilda Ward have supplemented Mr. Hanbey's Charity by giving smaller sums to be distributed in a similar manner.

**HADFIELD'S CHARITY.**—Complying with the wishes of his deceased brother Samuel Hadfield, expressed shortly before his death, but not included in the provisions of his will, Mr. George Hadfield, of Manchester, by deed of gift dated May 23, 1850, vested £3,000 in the Cutlers' Company and the Mayor and Corporation, upon trust, to distribute the income among the

poor of the town (not members of the Church of England), on the 28th of June each year, the object being to provide a similar Charity for those excluded from Hanbey's by reason of not being members of the Church of England.

**WITHERS' PENSIONS.**—Miss Sarah Withers, by her will dated November 15th, 1856, left £10,000, the income, after such deductions as might be required for keeping certain family monuments in St. Paul's church in repair, to be given in sums of £10 each to "widows or single women resident in the parish of Sheffield, in reduced, needy, or poor circumstances, of good character, sober life and conversation, members of the Church of England, incapacitated by illness or infirmity from earning their livelihood, or of the age of fifty years and never having received parochial relief." The pensioners are elected annually on the 26th October, being the birthday of Mr. Benjamin Withers, the testatrix's brother, in memory of whom the charity was established, the trustees having the option of electing the same pensioners from year to year. There are forty-six pensioners. The trustees are—the Incumbent of St. Paul's, Messrs. T. W. Rodgers, Charles Elliott, J. B. Mitchell-Withers, H. E. Watson, and H. I. Dixon. The trustees are to have an annual dinner after the election.

**CHERRYTREE ORPHANAGE.**—This charity derived its name from Cherrytree-hill, the suburban district where it originated. It has now eligible premises at Brook-hall, near Totley, about five miles from the town. There is a good stone house and several acres of land, which cost about £3,000. Orphan children are admitted from five to ten years of age, and a certificated teacher is employed to instruct them. Boys are apprenticed at the age of fourteen, and girls are trained for domestic service. The property is vested in trustees, and managed by a committee of Sheffield gentlemen, the household arrangements being under the charge of a ladies' committee. The institution is largely supported by voluntary contributions. Mr. David Ward, the mayor, is chairman; Mr. Wm. Howson, treasurer; Mr. W. K. Marples, honorary secretary; and Mr. William Hobbs, of Fitzwilliam-street, is assistant secretary and collector. This institution is open to orphans from all parts of the country.

**SHEFFIELD ORPHANAGE.**—A small Orphanage is carried on in Peacroft, in rooms formerly attached to the Ragged Schools,

recently purchased by the School Board. A project is under consideration for establishing an Orphanage on the cottage plan, for Sheffield children exclusively, the sum of £8,200 given for the Ragged Schools to be applied to this purpose.

**AGED FEMALE SOCIETY.**—The object of this charity is to distribute money and clothing among poor and infirm women sixty-five years of age and upwards. A committee of ladies visit the poor and collect subscriptions. From £400 to £500 a year are distributed in sums of about 20s. Mr. Samuel Roberts, J.P., of Queen's Tower, is chairman of the society, and Mr. J. H. Barber, treasurer.

**THE NURSES' HOME.**—In 1871 a Nurses' Home was opened at 264, Glossop-road, for the purpose of training nurses to attend families in case of sickness. The institution is a very valuable one, and there is a constant demand for the very excellent nurses kept there. The institution is supported by donations and subscriptions. Mr. J. H. Barber is treasurer, and Mr. Jarvis W. Barber honorary secretary.

**THE HOUNSFIELD PENSIONS.**—Mr. George Hounsfeld, who died at High Hazles in 1870, expressed a wish in his will that upon the death of his wife £20,000 should be vested in the Church Burgesses, the interest to be given yearly in pensions of £30 each, the pensioners to be men, unmarried women, or widows resident in England or Wales, members of the Established Church, in "reduced, needy, or poor circumstances," and not having received parish relief. Mrs. Hounsfeld (now Mrs. Overend) directed that her deceased husband's wishes should be carried out at once, and the first election of pensioners took place on the 1st of July, 1870. There are nearly thirty pensioners, who are eligible for re-election from year to year.

**OTHER CHARITIES.**—The Overseers of Sheffield, Brightside, Ecclesall, and Nether Hallam are the trustees of small charities left from time to time, the income from which they distribute on St. Thomas' Day to aged widows and other poor people, but the amount altogether does not exceed £50 or £60, and it is mostly given away in small sums of 2s. 6d. to 5s. to each recipient.

The Church Burgesses distribute a small charity left by Mr. William Birley in 1715, one-third being paid, as already mentioned, to the Rev. John Stacye, M.A., chaplain of the



Shrewsbury Hospital; one-third to the master of the Free Writing School, who instructs 400 poor children, as free scholars, in writing and arithmetic, in a school belonging to the Church Burgesses; and the remaining one-third is distributed among the poor at Christmas, at the discretion of the same body.

\* There are two Schools in Ecclesall with small endowments, one at Sharrow-moor, and the other at Broad Oak-green. A sum of £5 a year, charged on land at Neepsend, is paid to the master of the former, who teaches twelve free scholars. In 1729, Thomas Marshall left the school-house at Broad Oak-green and 40s. a year for teaching six poor children to read English, and this is supplemented by the interest of £40 left by Robert Turie, clerk, for teaching six other poor children to read English and write. The Overseers of Ecclesall are trustees of these school charities.



## INTERESTING

## Events in the Modern History of Sheffield.

## THE CHARTIST RISING IN SHEFFIELD.



HE rising in Sheffield claims a brief notice as the most remarkable effort made by the Chartists to carry out their purposes by violence. The agitation lasted some ten years, and disturbances were not unfrequent, but it was not until 1839 that the conspiracy assumed a menacing aspect. Meetings and processions were frequent, and on the 13th of August that year a street riot occurred, and was quelled by the police and the First Royal Dragoons, who were quartered at Sheffield, under the command of Colonel Marten; numerous arrests being made. On the 12th of September a "silent" meeting was held in Paradise-square. Dispersed by the soldiers and police, the Chartists re-assembled in "Doctor's-field," and 36 of them were arrested. At this period the Chartists, who were accustomed to meet in "classes" at the houses of their "leaders," occasionally visited the Parish Church in large numbers on Sundays, interrupting the service, and making themselves publicly obnoxious in other ways. They also held night meetings at Sky Edge, on the top of Park-hill, and other conspicuous places, using torchlights. The soldiers and police were much harassed by these torchlight meetings, the lights being extinguished as they approached one meeting and flaming up at a similar meeting in another direction immediately afterwards. Sir Charles Napier, who was general in command of the northern district, frequently visited Sheffield at this time, and was personally in command on one or two occasions. During all this time the Chartist leaders were collecting bombshells, guns, cartridges, daggers, pikes, hand-grenades, and also spiked "cats" for throwing into the streets to lame the cavalry horses. At a secret meeting of the executive council held early in January, 1840, a rising was fixed for the 12th of that month. The conspirators were to meet at their class-rooms during the night of the 11th, and having armed, as far as their means allowed, were to proceed

under the command of their respective leaders, to general meeting places in the outskirts of the town, and then march to the attack in considerable bodies, pillaging the gun shops on their way for additional arms. Their plans were to seize the Town Hall and the Tontine Hotel as head quarters in the first instance. The more daring spirits were selected for the attack on these places, and smaller parties were detailed to fire the barracks immediately the soldiers were called out, and to burn other obnoxious places in the town. The rest were to fire the houses of the magistrates, their clerk, and other gentlemen of position living in the outskirts; the object being to occupy the authorities with their own affairs. It was supposed that the town thus deserted would fall an easy prey to the conspirators, aided by contingents from Rotherham, Huddersfield, Barnsley, and other towns, and that a general rising in the country would immediately follow. The conspiracy was bold and formidable, but was happily frustrated without much mischief being done. During the evening of the 11th of January, definite information of the plans and designs of the conspirators reached the authorities, and arrangements were immediately made for seizing the leaders. Holberry, the principal leader, was suddenly and unexpectedly arrested at his house, No. 19, Eyre-lane, about midnight, by Mr. Raynor, the chief constable. Thomas Booker, Thompson, and other leaders were taken in the streets or at their own homes. Paralyzed by the arrest of their leaders, the central classes were easily dispersed as they mustered. Classes in the outskirts assembled in ignorance of what was going on, but were met by the soldiers and police, and fled in confusion, throwing away their arms, quantities of which were found near the Water Company's dams at Crookes-moor and in other places. Thus ended, with the wounding of a few policemen and two or three innocent persons who were in the streets by chance, a conspiracy which, but for its timely discovery, would probably have resulted in serious mischief.

Holberry and Thomas Booker were sent to York under military escort, and indicted for high treason, Holberry being sentenced to four and Booker to three years' imprisonment. Others were prosecuted for conspiracy only, and imprisoned for shorter periods. Holberry, who was an enthusiast, pined away in prison, and died at York Castle two years afterwards. His body was brought to Sheffield and buried in the General

Cemetery, with much ceremony, and in the presence of great crowds of people.

For his exertions in the frustration of the plot, Mr. Raynor, the chief constable, was rewarded by a handsome increase of salary; the yeomanry, police, and constables were thanked, and a piece of plate was presented to Colonel Marten. Owing to peculiar circumstances the services of the able officer who had played the most important part in the discovery of the dangerous plot were unrecognised and unrewarded. This officer was Mr. John Bland, the chief constable of Rotherham. Mr. Bland early found that James Allen, the keeper of the Station Inn (a beerhouse), in Westgate, Rotherham, was the leader of the Rotherham contingent, and that the Sheffield leaders, to avoid suspicion, occasionally met at his house. Working on Allen's fears, Mr. Bland succeeded in turning him into an instrument for the discovery of the plot, and learned from him immediately after the final meeting of the council the full details which enabled the Sheffield authorities to act with so much promptitude and effect. The Chartists were not without suspicion of Allen's connection with Mr. Bland, and it was necessary to find some other messenger to bring the information to Sheffield. Lord Howard (now Earl of Effingham) undertook the duty, taking the precaution to pledge Mr. Bland and his officers to secrecy for the time. The pledge deprived them of the credit and rewards of a great public service, but was inviolably kept until Chartism had died out and Lord Howard had left the neighbourhood. Allen, who was a stove-grate fitter, at the works of Messrs. Yates, Haywood and Co. (and must not be confounded with the "James Allan" who was landlord of the Station Inn at a later period) was kept under the care of an armed guard, at Rotherham, for some days, and then removed, at the expense of the Government, to a distant part of the country, where he lived under an assumed name.

Chartism lasted for some years longer as a political creed, but died as a rebellion with the suppression of the rising in Sheffield, which had the concurrence and support of the leaders in other towns, and was, if successful, to be the signal for a general call to arms.

## SHEFFIELD WATERWORKS.

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### THE GREAT FLOOD.

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SHEFFIELD was visited by a most appalling calamity in 1864, from the bursting of one of the large reservoirs constructed for the supply of the town with water.

The Sheffield Waterworks are the property of a joint-stock company, bound under heavy penalties to provide adequately for the constantly increasing wants of the inhabitants, on terms regulated by Act of Parliament. Up to the early part of the fifteenth century the infant community was supplied mainly from a spring in the Ponds, and another near Westbar called "Bower Spring." In 1434 "Barker's Pool" was formed in Balm Green, then a pleasant suburb, and sufficed for more than two centuries. In 1713 pipes were laid to ponds and springs in Whitehouse-lane. Thirty years later artificial dams were made in the lower part of Crookesmoor valley, now let off in gardens. About 1782 the existing Dam-house reservoir was made, additional dams being constructed above it from time to time during the succeeding half-century. A Water Company was constituted in 1830 by Act of Parliament, with a capital of £100,000 and power to borrow £30,000. Having purchased the existing dams from Messrs. Matthewman and Battie, the previous owners, for £28,000, and the freehold of the land from the Duke of Norfolk for £4,000, the Company engaged Mr. J. Towlerton Leather as their engineer, and proceeded to extend their supplies. They completed the large service dam at Crookes in 1833, and soon afterwards constructed the middle and lower storage dams at Redmires. They also substituted iron mains for the primitive wood pipes,—made by boring through stems of young oak trees—hitherto used for the distribution of water. The compensation reservoirs in the Rivelin valley were next made, and in 1854 the large dam at Redmires was completed. Turning their attention to the Bradfield district, the Company next proceeded to construct a reservoir there for collecting the waters of a moorland stream known as Dale Dyke, completing it in the

winter of 1863-4. The town having by this time become clamorous for the constant supply of water which the Company were bound by their last Act to give, the directors, in an evil hour, resolved to fill the new reservoir soon after it was finished. The Dale Dyke Reservoir, which covered 78 acres and contained nearly 700,000,000 cubic feet of water, was formed by throwing an embankment 1,200 feet long across the steep gorge of the stream. The embankment was nearly 100 feet high in the centre—a perilous height—and only 12 feet wide at the top; but it broadened to 500 feet in width at the base, and had the support of a central puddle-wall 19 feet thick. The engineers had, as they thought, demonstrated that it would resist ten times the pressure required of it, and no thought of danger was entertained. The large outlet pipes under the centre of the embankment having been closed, a heavy rainfall filled the dam rapidly, and a high wind, blowing down the gorge, hurled the water against the embankment in heavy waves. This was on the 11th March, 1864. During the afternoon Mr. Gunson, the resident engineer, made a careful inspection of the dam, and returned to Sheffield in the firm belief that all was safe. An hour later a labourer crossing the embankment noticed a horizontal crack in the outer slope and reported it to the contractor, who, as no water came through, thought it was a mere frost crack, but nevertheless opened the outlet pipes and sent his son on horseback for Mr. Gunson. The saddle-girth breaking, the youth pulled up for repairs at the little hamlet of Damflask, two miles below, and told of the crack. Labourers and villagers hurried up, and in the darkness anxiously examined the crack with lanterns. At first they made light of it; but by the time Mr. Gunson arrived—(10 o'clock)—the appearances had become alarming, and he attempted to let off the water by blowing up the waste weir with gunpowder. The first attempt failed. Before a second could be made the centre of the embankment yielded, and the liberated waters, descending the steep and narrow gorge of Dale Dyke in a cataract to Low Bradfield, swept like an avalanche down the course of the river Loxley to Hillsborough, and down the Don through the town, deluging the valleys on both sides to the depth of many feet. In the higher parts of the Loxley valley the depth of water must have been from twenty to thirty feet, and it swept all before it. In the wider valley of the Don, at Owlerton and Neepsend, it was high

enough to cover many of the lower houses, and float beds and furniture in the upper rooms of others, and to tear up and carry away huge boilers, beams, and wreck of all kinds. Even in the Wicker, it was sufficiently high to run over the parapet of Lady's Bridge and flood the streets and houses to the depth of four or five feet.

It was midnight when the flood broke its barriers. At Low Bradfield the people were astir and escaped up the hill-side on hearing the distant roar. They saw with horror their strong stone bridge, flour mill, schools and other buildings disappear like sand-hills before the advancing tide. The destruction at Damflask, the next hamlet, was similar. The bridge, the inn, and other houses were swept away, but the occupants, having also been forewarned, were astir and escaped. At each hamlet, however, the flood claimed one victim. At Bradfield the fringe of the flood struck the village tailor as he hurried away with his helpless wife and newly-born infant, washing the child out of its mother's arms. At Damflask the victim was an excavator, who, having examined the crack, went to bed scoffing at the idea of danger. He was found buried in debris far down the valley next day. Below Damflask no hint of danger had penetrated, and the few scores of men and boys on "night shift" at the works were almost the only persons astir. Upon them in the darkness the deluge came as a terrible surprise, sweeping away many of the works, and overwhelming the workers in their bewildered attempts to escape. In the populous district below "Little Matlock" the destruction and loss of life was awful, whole families being swept away, either unconsciously in their beds or clinging convulsively together in groups, shrieking for help which none could give. Farmer Trickett, with his wife, children, servants, father-in-law, and a gentleman lodger, occupied a substantial stone house at the junction of the Loxley and the Rivelin. A neighbour on the hill-side saw the foaming torrent approach "like a mountain of snow" and strike the house so heavily that it rocked like a cradle. Lights flickered in the windows, and shrieks were heard, as the house sank beneath the flood, not a wreck remaining nor a soul escaping. Fifteen adjacent cottages—two whole rows—were similarly swept away. Only three of their seventy inhabitants survived—two young men who drifted safely across the torrent in their bed and landed in a neighbouring field, and William Watson, who, having been carried

away with his wife and family, was tossed upon a heap of debris against the house of a neighbour, who drew him naked and exhausted through the bedroom window. Other houses were struck obliquely and only half destroyed, all the inmates being taken in some cases, and a few being left in others. Here and there a courageous father, like Thomas Chapman at Little Matlock, and William Whittles at Hillbridge, succeeded in rescuing all, or nearly all their family from the very jaws of death by huddling them together in a corner and clinging tenaciously to the fragment of their ruined homes until the danger was past. Scenes of death and destruction, of which these are but examples, occurred all along the Loxley valley from Bradfield and Damflask to Malin Bridge and Hillsborough, and the scenes in the valley of the Don at Owlerton and Sheffield were scarcely less harrowing. At Bacon Island for instance, William Wright, his wife and a little visitor were carried away with the gable of the house, their own child being found after the flood had passed softly sleeping in its bed, the candle lighted by its lost parents still burning near. At Neepsend, widow Bright, with a son, two grand-children and a lodger perished in a group after part of the house had gone; a grandson who scrambled up the chimney alone escaping. Near them was a low white-washed cottage occupied by an Irish labourer named Gannon, his wife and six young children. They all got upon the slates, but the flood rose relentlessly and lifted off the roof, carrying them all away. Among those who perished in the town were many occupants of ground floor rooms and one-story houses. Some of these, including two aged invalids and three children whose parents were away at a funeral, were drowned in their sleep; but others had evidently been roused and battled agonizingly with the flood as it gradually filled the room and smothered them in its cold embrace. Those whose houses were in the fringe of the flood escaped half naked to the Town Hall and other places of refuge, some few perishing in the attempt; but to thousands flight was impossible, and their alarm was terrible. The torrent came suddenly: its cause and limits were unknown; loaded with wreck of all kinds, it thundered against doors and walls like a battering ram, and it rose rapidly. Happily it passed in a brief half-hour, carrying many of its victims miles down the valley towards Doncaster, and leaving behind it a scene of death and wreck and desolation almost unparalleled in the



annals of English towns, though vastly exceeded by the recent disaster in Hungary. The number of dwellings flooded was 4,511, of which 39 were wholly and 376 partially destroyed. Many persons were injured, and though the hair-breadth escapes were numerous and in many cases almost miraculous, 240 lives were sacrificed. The destruction of manufactories and property of all kinds was enormous.

In response to the appeal of Mr. Thomas Jessop, J.P., the mayor, a sum of £55,214 was promptly subscribed, being more than sufficient to meet urgent claims. The liability of the Water Company was established, and the amount they ultimately paid was—For loss of life, £9,080 7s. 11d.; personal injury, £4,993 4s. 5d.; damage to property and trade, £262,844 19s. 3½d., making a total of £276,918 11s. 7¼d., exclusive of an enormous sum in law and other expenses, and the heavy cost of new dams. The Company were fortunate in the parliamentary campaign which necessarily followed the calamity. They were authorised to add 25 per cent. to their water rents for twenty-five years, and to borrow £400,000, in order to meet their liabilities and complete their system of works.

The cause of the disaster was the subject of much contention, and was never satisfactorily ascertained. The coroner's jury,\* after hearing much scientific evidence, were of opinion that "there had not been that engineering skill in the construction of the works which their magnitude and importance demanded." Five eminent engineers, subsequently employed by the Company to report, attributed the calamity to a landslip on the east side of the embankment, extending under a portion of the outer slope.

Since the flood the Company have completed the Agden dam, then in course of construction, near Bradfield. They have constructed a new Dale Dyke reservoir near the site of the broken one, and higher up the same valley have made the Strines reservoir. In the Loxley valley, nearer Sheffield, on the site of the destroyed village of Damflask, they have made their largest reservoir.

\* The members of the jury were:—Mr. John Webster, coroner; Mr. W. W. Woodhead, deputy coroner; Mr. Henry Pawson, foreman; Messrs. T. Prideaux, J. B. Fordham, J. Walker, C. G. Porter, Hy. Pearce, T. Appleyard, Thos. Howson, John Bland, R. Booth, S. Dawson, F. W. Colley, Thos. W. Cole, Fredk. J. Mercer, E. Bennett, and Wm. Marples. The Town Clerk, Mr. John Yeomans, was also present during the inquest.

The following is a list of reservoirs, with the number of acres they cover, and the cubic feet of water they will hold :—


	ACRES.		CUBIC FEET OF WATER.
Old Dam, Crookesmoor ...	13	...	8,000,000
Crookes Dam ...	4 $\frac{3}{4}$	...	3,500,000
Middle Redmires ...	48	...	30,000,000
Lower do. ...	28 $\frac{3}{4}$	...	22,000,000
Upper do. ...	56	...	55,000,000
Lower Rivelin ...	29 $\frac{1}{2}$	...	28,750,000
Upper do. ...	10 $\frac{3}{4}$	...	8,000,000
Agden ...	65	...	91,000,000
Dale Dyke ...	75	...	114,000,000
Strines ...	50	...	67,000,000
Damflask ...	112	...	128,000,000
	<hr/>		<hr/>
	492 $\frac{3}{4}$		554,250,000

This enormous storage is rendered necessary by the Company being under an obligation to send seven cubic feet per second down the Rivelin, and ten cubic feet per second down the Loxley—1,020 cubic feet per hour—during the longest drought of a dry summer as compensation to the millowners on those streams. With this large deduction, the storage is in excess of all possible wants of the town for some time to come, and the Damflask reservoir has not yet been filled.

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## THE TRADE OUTRAGES COMMISSION.

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 IN 1867, Sheffield honourably wiped a very ugly stain off its reputation by putting an end to the trade outrages for which the town had obtained an unenviable notoriety. During several centuries the trade of the town was rigidly restricted by Act of Parliament, in the supposed interest of employers and employed and of honest trade. After the cutlery and other trades were thrown open in 1814 by the repeal of the old Act under which the Cutlers' Company was incorporated, the labour market became overstocked, and the workmen sought to regulate work and wages

by combination. In the absence of legal power to enforce restrictions, a practice sprung up of applying compulsion by the removal or destruction of wheel-bands and tools. Secret offences of this kind, attributed in jest to "rats," acquired in time the designation of "rattening." When rattening failed, hot-headed men resorted to more violent measures — incendiarism and even murder becoming ultimately the means by which persistent non-unionists and their employers were at times terrified into conformity with the edicts of the secret committees which undertook to regulate labour and wages. Alarminglly rife in 1859, these offences culminated in 1866 in an attempt to blow up the house, in New Hereford-street, of Thomas Fearnough, an obnoxious saw-grinder. Rewards to the amount of £1,100 were offered for information of the perpetrator of the outrage, but in vain. Employers and trades union leaders thereupon joined in begging the Government to appoint a Commission, with special powers to investigate the trade outrages. The Government assented; and in order to remove every obstacle in the way of successful enquiry into hitherto impenetrable mysteries, authorized the Commissioners to grant certificates of indemnity, even to the actual criminals themselves, provided they made a clean breast of it. The Commissioners—Messrs. William Overend, Q.C. (chairman), T. J. Barstow, and G. Chance—were appointed in May, 1867, and opened the enquiry on June 3rd. At first the promise of success was slight. The partial confessions of a saw grinder named Hallam, who had been an accomplice in several diabolical outrages, were chiefly relied upon to bring the guilt home to the trades unions. But Hallam repudiated in open court the statements he had made in private, declaring them to be false. His evidence being thus discredited, the hopes of success were all but gone. Fortunately for the ends of justice, Hallam was bold enough to refuse point-blank the name of an accomplice he had previously alluded to by the name of "Sam," and was committed for contempt of court. In the ordinary course he would have been sent to the House of Correction, at Wakefield, but the Chief Constable obtained authority from the Commissioners to detain him at the Police Office, and kept him there in solitary confinement, attending upon the prisoner himself, and allowing no one else to see him under any pretence whatever. Tormented with fears on the one hand that his own life might be perilled by the confessions of confederates, and on

the other with terror of their vengeance if he confessed ; starting with occasional horror at the thought of his young wife, to whom he was much attached, knowing that he had been the accomplice of a murderer, Hallam passed in solitude a week of agony. Fears for his own safety prevailing, he agreed in the end to make his confession in open court, on condition that the Chief Constable would sit beside him to shield him from the bullets of confederates who, he fully believed, would there and then attempt his life. He shrank from the ordeal at the last moment and made a desperate attempt to strangle himself in a room adjoining the court, but was prevented. Suddenly he appeared again in court, pallid and trembling, and crouched behind the Chief Constable while solemnly confessing on oath to participation in the murder of James Linley and in several other atrocious crimes, implicating William Broadhead, the secretary of the Saw Grinders' Union, as the instigator of the crimes, and Samuel Crookes as the actual perpetrator. Linley, as many of our readers will remember, after having been literally hunted down for some years, and several times attacked, was ultimately shot at through a back window while sitting in a crowded room at the Crown Inn, Scotland-street, the bullet lodging in the back of the head and inflicting injuries which he survived only a few months. Immediately on Hallam's confession, police officers were sent for Crookes, who was hurried from the grinding wheel to the court before a hint of the confession could be communicated to him. He entered with firm step and undismayed demeanour. He and Broadhead had but to agree in denying the assertions of Hallam, already discredited by his own repudiation, to destroy the case, at all events in a legal sense. But the scene in court had been dramatic in the extreme : the Commissioners had happily permitted no interval for deliberation or intercommunication : peril stared the accomplices in the face : and as Crookes entered, Broadhead, whose extraordinary coolness had failed him at last, called out excitedly, "Tell all, Sam!" Crookes looked at him for a moment with incredulous surprise, and then quietly sitting down proceeded with unflinching voice and unruffled composure to admit enough to hang both himself and Broadhead, if either stopped short of the full disclosure necessary to obtain a certificate of indemnity. Brought thus to bay, Broadhead, who had denounced outrage after outrage, and even offered rewards for the discovery of the perpetrators, sur-

rendered at discretion, and admitted having, in the supposed interest of the Union, instigated a series of outrages on recusant saw grinders, from the shooting of Elijah Parker, at Dore, in 1853, to the blowing up of Fearnough's house in 1866, and having paid nearly £200 out of the Union funds for the commission of the crimes. Crookes, who was an adept in the use of an air-gun, as well as in the management of explosive canisters,—a man with a still tongue, a resolute temper, and imperturbable coolness,—had been the hired instrument of most of the crimes; but his industry, steadiness and respectable exterior effectually shielded him from suspicion. And strangely enough, though he was usually attended by an accomplice selected from the dregs of the trade, and considerable rewards were offered for the discovery of the perpetrator of successive outrages, no hint of his complicity leaked out until Hallam quarrelled with Broadhead, and confessed. Twelve other unions were found to have been guilty of promoting or encouraging outrages of a more or less aggravated kind. Of these the fender grinders and brickmakers at Sheffield, the sickle grinders at Dronfield, and the nail makers at Thorpe Hesley, had been guilty of "blowing up," with fatal effects in the case of the fender grinders, to a poor old woman—Mrs. Rourke, Acorn-street—and terrible injuries to Wastnedge, the offending fender grinder, and his wife. The misdeeds of these and other unions were few in comparison with the terrible catalogue brought home to the saw grinders and their secretary. It was proved, however, that officers of other branches of the saw trade had been more or less implicated in some of the crimes admitted by Broadhead and Crookes,—notably in the blowing up of Fearnough, whose particular offence at the time was that he persisted in grinding for a firm whose saw-handle makers were on strike. They had in fact contributed towards the cost. Against the remaining forty-seven Sheffield unions no charge of complicity in such offences was made. The Commission elicited a full exposure of trades union complicity in the fearful crimes which had so long disgraced the town, but granted complete personal immunity to the criminals who, one after another, sought indemnity at the expense of a painful exposure, fatal to the happiness and prospects of several who had been supposed previously to be above suspicion. Much was said at the time of the failure of justice involved in the granting of indemnity, but the Commissioners were firmly of opinion that success

would have been impossible without the promise of such protection—an opinion in which all must concur, who, like the writer, knew how narrowly failure was avoided even with the indemnity. Similar Commissions in Manchester and other places were unsuccessful. The Commissioners, in their report, admitted that they were “in no small degree indebted” to the Chief Constable for the success which had attended the enquiry, and this opinion was cordially endorsed by the leading manufacturers and other inhabitants, who immediately presented him with a silver salver and a sum of £700 in recognition of his services. A portrait, purchased by a more general public subscription, was subsequently presented to Mr. W. C. Leng, the editor of the *Sheffield Daily Telegraph*, in acknowledgment of his resolute and successful advocacy of the Commission at considerable personal risk.



## The Prince and Princess of Wales in Sheffield.



ROYAL visits to Sheffield have been few and far between. The present Sovereign, we believe, has never visited the Metropolis of cutlery and steel, though as the Princess Victoria, she visited Wentworth with her mother, the Duchess of Kent, in 1835, and Chatsworth in 1843 in company with the Prince Consort. In August, 1875, the people of Sheffield had a very unusual opportunity of testifying their attachment to the throne and the royal family. On Monday, the 15th of that month, the Prince and Princess of Wales visited the town on the occasion of opening Firth Park. The royal visitors arrived at two o'clock, and after a brief rest at the Victoria Station Hotel (now the “Royal Victoria Hotel”), proceeded to the park, attended by an immense procession composed of the members of the Town Council, Cutlers’ Company and other public bodies and societies, the Duke of Norfolk, Earl Fitzwilliam, the Earl of Wharncliffe and other neighbouring nobility and gentry, and large numbers of the general inhabitants in carriages and on horseback; the 7th Hussars and the local Volunteers acting as the escort. Having opened the park with all due ceremony, the royal visitors were

conducted back to the town and through the principal streets to Oakbrook, the residence of Mr. Mark Firth, the mayor for the time being and the generous donor of the park, whose hospitality their Royal Highnesses had graciously consented to accept during their visit. In the evening the Prince and Princess attended a ball at the Cutlers' Hall given by the Mayor. On Tuesday morning they visited the works of Messrs. Thomas Firth and Sons and Charles Cammell and Company, witnessing the pouring and hammering of steel, the rolling of plates and other interesting manufacturing processes. From Cyclops Works the royal visitors proceeded to the splendid show rooms of Messrs. Joseph Rodgers and Sons, cutlery manufacturers, lunching afterwards with the Master Cutler (Mr. Geo. Wilson) and the Cutlers' Company at the Cutlers' Hall. Thence they proceeded to the Farm to take part in a garden party given by the Duke of Norfolk in honour of their visit. At the Farm the Princess presented new colours to Her Majesty's 19th Regiment, which she desired might thenceforth be known as the "Princess's Own." From the Farm their Royal Highnesses returned to Oakbrook, where a select party had the honour of dining with them in the evening. At Eleven o'clock on Wednesday morning the Prince left Oakbrook with the gentlemen of his suite for Longshawe, the Derbyshire shooting box of the Duke of Rutland, driving direct to the moors at Leech Fen, the Princess leaving with Miss Knollys for Longshawe some hours later.

The visit of the Prince and Princess was the occasion of a great outburst of loyal enthusiasm on the part of the townspeople and a vast number of visitors from the surrounding districts. The Reception Committee, composed of members of the Town Council, Cutlers' Company and other principal inhabitants spent nearly £9,000 on the occasion, exclusive of a liberal outlay in barricades, &c., legitimately taken out of the public funds, and of very large sums expended by committees of the residents in decorating the principal thoroughfares through which the procession passed. The extraordinary unanimity and heartiness of the welcome given to the heir-apparent and his consort by democratic Sheffield exceeded the anticipations of the royal visitors, who expressed their gratification in the frankest way. It was moreover the subject of general congratulation in the newspaper press of the country.

## INTERESTING RELICS OF OLD SHEFFIELD.



SEVERAL interesting relics of far-past times claim a passing notice. "THE HAWLE IN THE POANDES."—With the single exception of a portion of the Parish Church, this is probably the oldest building in the town. It is in Pond-hill, about half-way between Pond-street and the foot-bridge over the Sheaf to the Midland Station-road. Originally the "Hawle" was a beautiful building constructed of stout blocks of oak filled in with masonry, the upper windows projecting and the wood-work being richly carved. The back is now hidden by a brick building, occupied as a public-house; the details of the front and the north gable are covered by a coat of plaster, and modern windows have been inserted. The moulded beam of black oak overhanging the lower front windows, and the supporting corbels, are still exposed. There are interesting remains of carving on the beam, and a representation of a crowned head on one of the corbels and a face between uplifted hands on another. There are, also, finely-carved faces on the ends of the upper cross-beams, projecting through the gable. The interior has been modernized, and shows no feature of interest. The building is supposed to have been the laundry of the old Castle of the Furnivals and Talbots: that is only conjecture, but it was certainly an appanage of the Castle. In an inventory taken in the time of Elizabeth it is described as the "Hawle at the Poandes." It is the only visible relic of the Castle, and, having been built as early as the time of Richard III., if not before, has stood more than four centuries. It is an interesting relic, but the surroundings are the reverse of attractive.

**CARBROOK HALL.**—A little beyond the School Board schools at Carbrook, and adjoining the main road to Rotherham, is an interesting remnant of Carbrook Hall, now forming part of the "Carbrook Hall" Hotel. In this hotel are two old wainscoted rooms, on the oak panels of which there is some good antique carving. The parlour has a fine ceiling and a carved chimney-piece, the design of which is Wisdom trampling on Ignorance. The wainscoting and chimney-piece of the upper room are also interesting. Carbrook Hall was the residence of Sir John Bright (usually called Colonel Bright), who distinguished him-



self as a Parliamentary leader at the battle of Marston Moor and in other events, and died in 1688. The paneled room at the Hall was in all probability the scene of many a council during the wars of the Commonwealth, in which Sir John Bright played a prominent part. The Hall, which was built by Stephen Bright in the time of James I., had a quaint timbered exterior, but this portion has been pulled down. It was deserted by its owners more than 150 years ago, but the wainscoting has been very carefully preserved. We give an illustration. In 1792, Spence Broughton was executed for robbing the mail, and gibbeted on Attercliffe Common, not far from Carbrook Hall.



UPPER ROOM IN CARBROOK HALL.

**BROOM HALL.**—The central portion of this fine old mansion in the western suburbs dates back to the reign of Henry VIII.—probably earlier—and is therefore nearly 400 years old. Unfortunately the front gable to the south has long been covered by modern masonry, and is chiefly remarkable for an unusually large sundial; but the upper portion of the north gable has been preserved in its original state, and is one of the most beautiful specimens of a timbered building in the West Riding. It was thus described by the late Mr. R. N. Philipps, its then owner, in a paper read before the members of the British Archæological Association, in 1874. “The large front upper cross-beam, upwards of two feet in diameter, presents a beautiful specimen of carved scroll work, and the sides of the triangular portion of the gable have very broad ‘barge’ or ‘verge’ boards, with beautifully carved edges. The upper

window projects, an elegant incurvature of seven brackets supporting it. The lower ends of these brackets spring from a battlemented moulding, throwing forward about 18 inches the window frame, which thus rises to a level with the upper cross-beam. Another small battlemented wood-work, stretching across the gable itself, half way up the sides of the window, forms the foundation of another bracketed incurvature to sustain the projecting cross-beam, while to give a finish, a carved figure-head is placed immediately under the apex, and a carved wooden terminal or spike two feet long completes the point of the gable itself, the whole height of the gable being forty feet from the ground by twenty feet in breadth." This portion of Broom Hall is now occupied by Mrs. Butterworth. We may mention that Broom Hall descended about two centuries ago to the Jessops, the last of whom, Lord Darcy, resided there. On his death in 1733 it passed by marriage to the Wilkinsons, and was the residence of the Rev. James Wilkinson, who was vicar of Sheffield from 1754 to 1805. The Jessops erected the west wing, the modern part on the east being added by Mr. Wilkinson. In 1791, Broom Hall was attacked by a mob, who set fire to the house, doing much damage to Mr. Wilkinson's very valuable library. What Mr. Wilkinson's particular offence was is not clearly made out, but according to an old rhyme,

"They burnt his books,  
They scared his rooks,  
And set his stacks on fire."

Mr. Wilkinson, whose portrait hangs in the Cutlers' Hall, was a magistrate, and administered justice at Broom Hall, "around which in those days lay a beautiful estate, richly cultivated, well watered and well wooded," but now broken up and occupied with villa residences.

**NORTON LEES.**—There is a small but picturesque timbered house at Norton Lees, half-a-mile beyond the southern boundary of the borough. It is of later date than Broom Hall, and was built by and long the residence of a family of the name of Blythe, one of whom became Bishop of Lichfield, and another Bishop of Salisbury. The former erected a monument in Norton Church in memory of his parents. The visitor passes Norton Lees by the field path to Norton Church, the resting place of Chantrey.

**THE MONTGOMERY OAKS.**—In the older times the hills and dales of Hallamshire were richly timbered, considerable forests existing around the town. The Park was famous for its fine avenues of walnut and oaks of enormous growth. One of the



MONTGOMERY OAKS.

oaks was so large that when it was felled two men on horseback "could not see one another's hat crowns" over the prostrate trunk. The forests have gradually been cleared to make way for cultivation; but a few of the old oaks, which have braved the storms of a thousand years, remain. Two of the finest of these are at Nether-edge, in the immediate suburbs of the town. They stand near the junction of Oakhill and Oakdale-roads, and, being on the estate purchased some years ago by the Montgomery Land Society and divided into building lots, are known as the Montgomery Oaks. Our illustration shows them in the open fields, but the land is now dotted with villa residences.

**QUEEN MARY'S WINDOW.**—At Queen's Tower, the residence of Mr. Samuel Roberts, J.P., there is an interesting relic of the Manor. Tradition asserts that when the Queen of Scots was first taken to the Manor she nearly escaped from the window of her room. The late Mr. Roberts, who was a devoted admirer of the Queen, obtained permission to remove the stone-work of this mullioned window, and erected it at Queen's Tower, where it is still carefully preserved.

## SHEFFIELD CELEBRITIES.



UR notice of eminent Sheffield men, whose names stand prominently out in connection with history, literature, science and art, must be confined to a few lines.

James Montgomery, the poet, was born at Irvine, in Ayrshire, in November, 1770, and educated at Fulneck school. He was the son of a Moravian minister, and intended for the same calling, but the idea was abandoned, and he was placed in a retail shop at Mirfield, near Wakefield. Running away from Mirfield eighteen months afterwards, he took a similar situation at Wath, near Rotherham. In 1790, he tried his fortune in London, but without success, and returned to Wath, remaining there until 1792, when he obtained employment as literary assistant to Mr. Gales, the proprietor of the *Sheffield Register*, afterwards named the *Iris*. Two years later Mr. Gales quitted the country for political reasons, leaving Montgomery to manage the newspaper for his sisters. This was in the troublous times which succeeded the French Revolution, and Montgomery was twice fined and imprisoned. In 1794 he was fined £20 and imprisoned three months for printing a harmless ballad, declared to be seditious. In 1795, when he had become proprietor of the paper, he was prosecuted by Colonel Athorpe for libel, fined £30 and imprisoned six months. The volunteers of that day having been called out to quell a riot, fired upon the crowd in obedience to the orders of Colonel Athorpe, killing two men and wounding others. In describing what followed in the *Iris*, Montgomery said:—"A person, who shall be nameless, plunged with his horse among the unarmed, defenceless people, and wounded with his sword men, women and children promiscuously." This was the libel for which, though substantially true, Montgomery was so severely punished. His paper afterwards prospered, yielding him a handsome competence and leisure for the poetic pursuits for which he had shown a taste as a youth. The Government of Sir R. Peel moreover gave him a pension for



THE HARTSHEAD—FROM A SKETCH IN 1862,  
SHOWING THE SHOP AND OFFICE AT WHICH THE POET MONTGOMERY WROTE AND  
PUBLISHED "THE IRIS" AND MOST OF HIS POETICAL WORKS.

life of £200 a year. Montgomery's principal poems were "The Wanderer of Switzerland," published in 1806; "The West Indies," "The World before the Flood," and "The Pelican Island;" but he was the author of many smaller pieces and many beautiful hymns. He died at The Mount, April 30th, 1854; his interment at the General Cemetery being the occasion of a great public demonstration. To the monument erected over his grave we have already alluded; and we give an illustration of the house in Hartshead, in the centre of the town, where he published his newspaper and wrote the greater part of his poems. The house is still standing, though much of the old property surrounding it has disappeared. It is opposite to the new offices erected for the Town Clerk.



DARFIELD CHURCH.

Ebenezer Elliott, the "Corn-Law Rhymer" and poet, was born at Masbrough, near Rotherham, in 1781, his father being employed at the Masbrough Iron Works. Elliott worked with his father up to manhood; afterwards started in business at Rotherham and failed, and then came to Sheffield and began in the steel trade with £100, his house and place of business being at the corner of Burgess-street and Barker's-pool, where the Albert Hall now stands. In 1833, Elliott took a more commodious steel warehouse in Gibraltar-street, between the bottom of Trinity-street and Snow-hill, building himself a house at Upperthorpe. Speaking of his years of struggle, the poet said—"I had to rock the cradle and stir the melted butter while I wrote my poetry. The poetry was spoilt and the melted butter was burnt." Eventually Elliott made his way to independence, retiring with £6,000. The trenchant "Corn-Law Rhymes" which first made him famous are now little read, but some of his descriptive and lyrical poems are among the finest in the language, and are enduring monuments of his poetic genius. Elliott passed the closing years of his life at the village of Great Houghton, near Barnsley. He died on the 1st December, 1849, and was buried in Darfield churchyard. This fine old village church, of which we give an illustra-

tion, is beautifully situated on the brow of a gentle acclivity immediately beyond Darfield station, on the Midland railway, fourteen miles north of Sheffield. Its burial ground is a fitting resting place for so passionate a lover of nature. Elliott's monument, previously described, is in Weston Park; and there is a good portrait of him at the Mechanics' Institution, in Surrey-street.

The Rev. Joseph Hunter, the learned historian of "Hallamshire" and of the "Deanery of Doncaster," was born in Sheffield in 1783. He was a Unitarian Minister in early life, but was afterwards appointed one of the Vice-keepers of the National Records. He died in 1861, and was buried at Ecclesfield. Ebenezer Rhodes, the author of "Peak Scenery," a beautiful work, illustrated with engravings from drawings by Sir Francis Chantrey, was a Sheffield manufacturer, and Master Cutler in 1808. There are portraits of both these writers in the Cutlers' Hall. Mr. John Holland, of whom there is a bust in the Cutlers' Hall, was curator of the Literary and Philosophical Society for many years, and a voluminous writer in prose and verse. He was a native of Sheffield, and the friend and biographer of Montgomery. He also published a life of Chantrey. Mr. Holland died on the 28th December, 1872, aged 78 years. Mr. Samuel Bailey, whom Elliott styles "The Bentham of Hallamshire," had an almost European reputation as a philosophic writer. He amassed a fortune in early life in manufacturing pursuits, and died on the 18th January, 1870, leaving £80,000 to the Town Trustees for public uses. He also was a native of the town, and lived to an advanced age. Neither Montgomery nor Holland, nor Bailey married. Contemporary with these were Mr. Samuel Roberts, of Queen's Tower, Mrs. Hofland, Dr. Geo. C. Holland and others of literary fame, whose writings helped to give a tone to Sheffield society during the first half of the present century.

Of Sir Francis Chantrey, R.A., the greatest English sculptor, Sheffield has especial reason to be proud. He was born on the 7th April, 1781, at the village of Norton, where his father had a small farm. In his boyhood, Chantrey for a time brought milk to Sheffield daily, and is thus described by Elliott:—

"Calmly seated on his panniered ass,  
Where travellers hear the steel hiss as they pass,  
A milkboy, sheltering from the transient storm,  
Chalked on the grinder's walls an infant form."



THE BIRTHPLACE OF CHANTREY.

Showing a taste for art, Chantrey was apprenticed at an early age to Mr. Robert Ramsay, a carver and gilder in High-street, Sheffield. His indentures were cancelled after a few years, and he went to London for study. During a short stay in Sheffield, in 1802, he very modestly advertised in the *Iris* for employment, "in taking portraits in crayons and miniatures." During the recess of the Royal Academy in 1804, he "solicited the patronage of the ladies and gentlemen of Sheffield and its environs," in "sculpture and portrait painting." His first work in marble, executed in 1806, was a bust of the Rev. James Wilkinson, a late vicar of Sheffield, and the remarkable success he achieved in this first effort determined his career. Chantrey, who was knighted by William IV., died in London on the 25th Nov., 1841. He was buried in accordance with his own wishes, in the churchyard at Norton, where are memorials of him, described in our account of the place. Chantrey left directions in his will that, so long as his tomb was preserved, £50 a year should be paid out of his estate for the education of ten poor boys at Norton, and £10 a year each to ten poor old people, five of each sex. Among the works of the great sculptor preserved in the town are the following: in the Parish Church, the bust of the Rev. James Wilkinson, and a memorial of Mr. and Mrs. Harrison, of Weston; in St. Paul's Church, a memorial of the Rev. A. Mackenzie; at the Infirmary, two stone figures, being his first essay with the chisel, and a bust of Dr. Browne; at the Cutlers' Hall, four casts. These works are referred to in detail in our descriptions of the buildings.



There are memorials by Chantrey of Mrs. Cooke, in Owston Church, near Doncaster; and of the late Sir Richard Arkwright, in Cromford Church; and a monumental group in Ilam Church, Dovedale, rivals in interest his "Sleeping Beauties" in Lichfield Cathedral and other great works. Sheffield can boast of several other sculptors of more than local reputation, and is worthily represented in painting by the late Thomas Creswick, R.A., and by Hawksworth, McIntyre, Poole, Pigott, Richard Smith, &c.

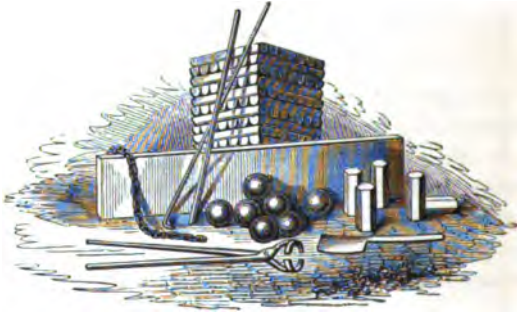
Sheffield can also boast of numbering among her departed sons a great composer. Sir William Sterndale Bennett was born in 1816; his father, who was organist of the Parish Church, died a few years afterwards, and the infant musician was educated by his grandfather, who lived at Cambridge. His musical career was an uninterrupted success. He was appointed Principal of the Royal Academy of Music in 1868. He was knighted on the 24th of March, 1874, but did not long live to enjoy this distinction. The marble bust of the deceased in the old dining room at the Cutlers' Hall was provided by public subscription, and unveiled in December, 1875. It was executed by Mr. L. A. Malamprié, of London, and bears the following inscription:—"Sir William Sterndale Bennett, M.A., Mus. Doc., D.C.L., Professor of Music in the University of Cambridge, and Principal of the Royal Academy of Music, born at Sheffield, April 13th, 1816; died February 1st, 1875. Interred at Westminster Abbey."

In science Sheffield is not less worthily represented by Mr. Henry Clifton Sorby, who is happily still living and active. Mr. Sorby was born at Woodburn, Attercliffe, on the 10th May, 1826, his father, Mr. Henry Sorby, who married Miss Lambert, of London, being a member of the old and well-known firm of J. and H. Sorby, of Spital-hill, edge tool manufacturers. Mr. H. C. Sorby was educated at the Collegiate School, Sheffield, and by private masters, and showed a taste for scientific pursuits as a youth. Enjoying a happy immunity from the cares of business, Mr. Sorby was impressed with the importance of making his life a useful one, and devoted himself to the study of geology and other branches of science, with an ardour which has made him as eminent in the scientific world as Sir Francis Chantrey was in the world of art. More than a hundred memoirs on various subjects from his pen have

appeared from time to time in leading scientific journals. The four subjects on which he has chiefly written are: the application of the microscope to the study of the structure of rocks; the application of spectrum analysis to investigations with the microscope; the structures produced by currents in stratified rocks; and a new optical method of identifying minerals. Mr. Sorby was the first to apply the microscope to the examination of rock structure. It was a new method of investigation, and is throwing a flood of light on the science of geology. Not less important is the application of the spectrum microscope to the examination of animal and vegetable colouring matter, and to the detection of blood stains found in criminal investigations. Pursuing his new methods, Mr. Sorby was the first to prove the direct correlation between mechanical forces and chemical action in the Bakerian lecture for 1863. He first gave a satisfactory explanation of the origin of the cleavage of slate rocks. His presidential address to the Geological Society of London this year was on the "Structure and Origin of Limestone"—a subject upon which he had been engaged more than thirty years. The great value of Mr. Sorby's discoveries is not unrecognized by the scientific world. The Wollaston Medal of the Geographical Society was awarded to him in 1869 for the application of the microscope to the structure of rocks and minerals. In 1872 he received the Boerhaave Medal of the Dutch Society of Sciences—a large gold medal given once in twenty years to the investigator who is judged to have done the most to advance our knowledge of mineralogy and geology during the preceding twenty years. In 1874 Mr. Sorby received the large gold medal given by Her Majesty, awarded by the Royal Society—the most ancient and eminent scientific Society in the world—in recognition of the great importance of his discoveries in the application of the microscope to mineralogy and geology, and of the spectrum microscope to the investigation of animal and vegetable colouring matter. Mr. Sorby is a Fellow of the Royal Society, and President of the Geological Society of London, of the Mineralogical Society, of the Yorkshire Naturalists' Union, and of the Sheffield Literary and Philosophical Society. He has been elected honorary or corresponding member of various other scientific societies—not only in this country but on the continent and in the United States of America. His authority among scientific men is

world-wide, and Sheffield never had a son of whom she was more justly proud. The medals awarded to Mr. Sorby are deposited in the Weston Museum.

The Rev. Samuel Earnshaw, M.A., of Sheffield, is also well known in the educational and scientific world. He was the Senior Wrangler of the his year at Cambridge, and has published a considerable number of original mathematical works, showing his investigations in dynamics, optics, and acoustics.



IRON AND STEEL—CRUDE AND MANUFACTURED.

## MANUFACTURES OF SHEFFIELD.



**E** now come to the manufacturing processes of the town, which are, after all, the most interesting objects in a busy hive of industry like Sheffield. The number of trades carried on in Sheffield has increased very greatly during the present century. They now include the manufacture of iron, steel, Bessemer and Siemens-Martin steel; armour plates, heavy ordnance, rifle barrels, shot and shell; railway engines, rails, buffers, springs, tyres, axles, carriages and wagons; large steel castings for marine engines and heavy machinery generally; steel bells; iron and steel foundry work of all kinds; iron and steel wire for ropes, cables, needles, &c.; sheet steel, for pens and other such purposes; ship plates, bolts, &c.; boilers, engines, lathes; planing, drilling, boring, slotting and other machines, and engineers' tools of all kinds; scythes, sickles, reaping machine and other knives; rakes, forks, and agricultural implements generally; garden tools; saws, files, axes, adzes, hatchets, hammers; joiners', engravers' and other edge tools; spades, shovels, mattocks, and other excavators' tools; table and pocket cutlery, scissors and cutlery of all other kinds; sheep shears, garden shears, and lawn mowers; silver, silver-plated, and Britannia metal wares; stove grates, fenders; cooking, hot-air and other stoves; brass and other chandeliers; optical instruments; combs; powder flasks; wire and iron fencing; bicycles; surgical instruments of all kinds; portmanteaus, cabinet cases, and other such articles; tape and other measures; skates, &c., &c.

### IRON MAKING.

The smelting of iron is one of the oldest Sheffield industries. The Romans are believed to have begun here the manufacture of iron, found in many places near the surface, their example being followed by their successors the Danes and Saxons. It is said that Lord Waltheof, who made so gallant a stand against the Norman invaders, armed his followers with weapons procured from the iron foundries and forges on his Sheffield estates. That iron was made

in Hallamshire in the middle ages is proved by a charter granted by Richard de Busli, one of its earliest Norman lords, to the Monks of Kirkstead, to erect forges at Kimberworth for the smelting and fabricating of iron. Foreign iron began to be used in Sheffield more than 300 years ago, entries appearing in the accounts of the Church Burgesses of the purchase of Danish and Spanish iron in 1557, the latter being at that time the dearer. As foreign irons came more into use for purposes of manufacturing, the smelting of iron ceased to be carried on in the town, though it flourished in the neighbourhood. Messrs. John Brown and Co. were the first to re-introduce the manufacture, adding it to their other industries about twenty years ago. The process is so well known that no detailed description is necessary. Iron is chiefly made now in huge round furnaces constructed of iron plates, and lined with ganister, or other heat-resisting substances. A furnace is filled with iron ore and coke in alternate layers, lime being added as a flux; and the fire having been lighted, a strong current or blast is applied by means of steam power to get up the requisite heat; hence the name "blast" furnace. On a level with the bottom of the furnace are beds of sand, in which indentations ("moulds" they are called) are made with pieces of wood, three or four feet long and several inches thick. When sufficiently melted, the ore is run from the furnace into the moulds, where it is left to cool and harden. The blocks of rough iron made in the sand moulds are called "pigs"—a name which is said to have originated from the resemblance, in old times, of these iron castings in their sand gutters to a sow and her sucking pigs.

The process of manufacturing pig into bar iron is simple. The pigs are put into a reverberating furnace and melted to a soft, spongy substance, then stirred about to burn out the carbon, silica, and other impurities. The process is called puddling, and is done by machinery in the iron districts. The iron is taken from the puddling furnaces in soft, spongy balls, and beaten into bars under the steam hammer. The iron made in Sheffield is of the medium quality, known as forge iron. Spiegeleisen is also made in considerable quantities. The latter iron contains from 10 to 30 per cent. of manganese, according to the purposes for which it is required, and is largely used in the manufacture of crucible and Bessemer steel. In making spiegeleisen, manganiferous ores imported from Spain are chiefly used.

Messrs. John Brown and Co. commenced the making of spiegeleisen some four years ago. Up to that time spiegeleisen was imported in large quantities from Germany, but the home product is much superior, and is now generally preferred.

Among leading houses in the iron trade are Charles Cammell and Co., William Cooke and Co., Thomas Andrew and Co. (Wortley), Burrows and Co., and other considerable firms.

## THE PROCESSES OF STEEL MAKING.

The use of steel dates back to a very remote period. It was made in smelting iron with wood, but was of much inferior quality to the best steel now made. The following brief outline of the present process of steel making, taken from a paper read before the members of the Literary and Philosophical Society some years ago by Mr. Henry Seebohm, will serve as an introduction to the more detailed descriptions which follow:—"The iron is received by the Sheffield steel manufacturer in the form of bars about three inches wide, five-eighths of an inch thick, and from six to twelve feet long. The iron ore has been melted in a blast furnace and run into pigs of cast metal, an average sample of which may roughly be stated to consist of 95 per cent. of iron and 5 per cent. of carbon. The pig metal has been melted and deprived of nearly the whole of its carbon in a furnace constructed either on the Walloon or Lancashire system, which in Sweden takes the place of the puddling furnace in this country, and the spongy mass or ball of pure iron left has been hammered into the bars of wrought iron of the dimensions described, and sent to Sheffield to have about a third as much carbon as it originally contained restored to it to make it steel. This process is performed in the converting furnace, from which it issues in the same shape as it went in; it is then sent into the melting furnace, is there broken into small pieces, and melted into an ingot of cast steel, which is afterwards sent to the forge or rolling mill to be hammered or rolled into a bar of the shape and dimensions required."

This outline description it will be observed assumes that Swedish iron is used in making cast steel; and, in fact, this is largely so. The best iron for steel purposes is produced from the Dannemora mines of Sweden. Swedish iron generally, and Russian iron, have long been in high repute for the best steel; but iron made from native hematite and other ores, or from imported Spanish ores, is now mixed with the foreign iron for some qualities of steel.

The series of processes described above by which carbon is taken out of the cast iron and a portion of it returned again, is (Mr. Seebohm observes) sufficiently complicated and expensive, and attended with serious loss by diminution in weight, but until the invention of a better and cheaper mode of arriving at the desired result, it must be accepted as the only known way of making best cast steel.

## STEEL CONVERTING.

The process is thus described in Mr. Seebohm's very interesting paper:—

“The process of converting, or as it is generally called in the Encyclopædias, cementing iron into steel, is carried on in a converting furnace.

“The converting furnace consists of two stone troughs, technically called converting pots, about four feet wide, four feet deep, and twelve feet long each, placed side by side with a fire underneath them, the flues of which conduct the heat all round each pot. Over the pot is a vault of brick, and the whole is enclosed in a brick dome to prevent the heat from escaping.

“A layer of charcoal broken up into pieces from a quarter to half-inch square, is placed at the bottom of a pot, a row of bars of iron is then laid over it, this is covered with charcoal, another row of bars of iron follow, and so on until the pot is filled with alternate layers of charcoal and iron; it is then carefully closed with a thick cover of ‘wheel swarf,’ a species of mud or clay which accumulates at the trough of the grinding wheel, and is of course the material of the grindstone worn away in the process of grinding, a substance which will resist long exposure to great heat, and keep the top of the pot as near as possible air-tight.

“These pots, full of iron and charcoal, are raised to nearly a white heat, and the fire is kept burning for about a week or rather more after the furnace is ‘fired,’ according to the amount of carbonization required. After the fire is allowed to go out, the furnace takes a week or rather more to cool, when the cover is removed, and the bars of iron which were placed in the furnace are taken out of it bars of ‘blister steel,’ so called from the bubbles or blisters which have arisen on the surface during the process of conversion.

“A chemical change in the composition of the bars has taken place. They were originally pure iron, or nearly so, containing perhaps one quarter per cent. of carbon, were fibrous in their structure, and would bend double without breaking. After the process of conversion, they are carburet of iron or steel, containing from half to one-and-a-half per cent. of carbon, according to the length of time they have been in the furnace, and the degree of heat to which they have been subjected. They are now more or less crystallized in their structure, and can be broken by a slight blow of a hammer.

“The process by which iron becomes steel is known to chemists as an example of the occlusion of gases. As soon as the interior of the converting pot is hot enough to ignite the charcoal, a fractional part is consumed, and what little air there is in the pot becomes

carbonic oxide. As the iron becomes hot it absorbs this carbonic oxide. The carbon having a greater affinity for iron than oxygen, unites with the iron and liberates the oxygen, which is immediately seized upon by the carbon of the charcoal and becomes again carbonic oxide. The oxygen thus becomes a sort of messenger, continually carrying the carbon or the charcoal into the iron.

"The outside of the bars becomes carbonized first, and finally, if the iron remain long enough in the furnace, the centre of bars as thick as  $1\frac{1}{2}$  inch will become completely crystallized."

The converting furnaces in use in Sheffield vary in size, some holding only 15 tons, and others as much as 30 tons. Three bars, called "tap" bars, are allowed to project through a hole in the end of one of the pots, called the "tap hole," which is kept air-tight by ramming sand round the tap bars, and these bars are drawn out of the furnace at intervals so as to guide the converter in ascertaining the exact point of time at which his fire may be let out.

### SHEAR STEEL.

In the early days when Sheffield first acquired a reputation for the quality of its cutlery, "shear steel" was universally used for cutlery and edge tools. Shear steel is made from blister steel. Bars of medium temper are selected, and having been cut into short lengths are heated to a high temperature, and then beaten together under a tilt or forge hammer until they are as completely welded as if they had originally formed one block. When a specially good quality is required, the welded bars are cut in short lengths, heated, and thoroughly welded together a second time. After one welding the steel is called "single shear," after a second welding it is called "double shear." The chief purpose for which shear steel is now used is for table cutlery and tools of several kinds.

### CRUCIBLE OR REFINED STEEL.

The manufacture of cast steel was discovered in 1740 by Mr. Benjamin Huntsman, of Handsworth, near Sheffield. The process is known as steel refining. The secret was kept for some years, Mr. Huntsman making steel by his new process at works near Attercliffe, still used by his descendants. The premises being rigidly closed against all persons but regular workmen, a trade rival disguised himself in the commonest wayfaring attire, and presented himself during a stormy night, craving shelter and rest. The commiseration of one of the workman overcame his prudence. The stranger was admitted, in the belief, from his appearance, that a trade process would be the last thing he would be likely to understand. He was allowed to lie on the cinder heap, and, pretend-



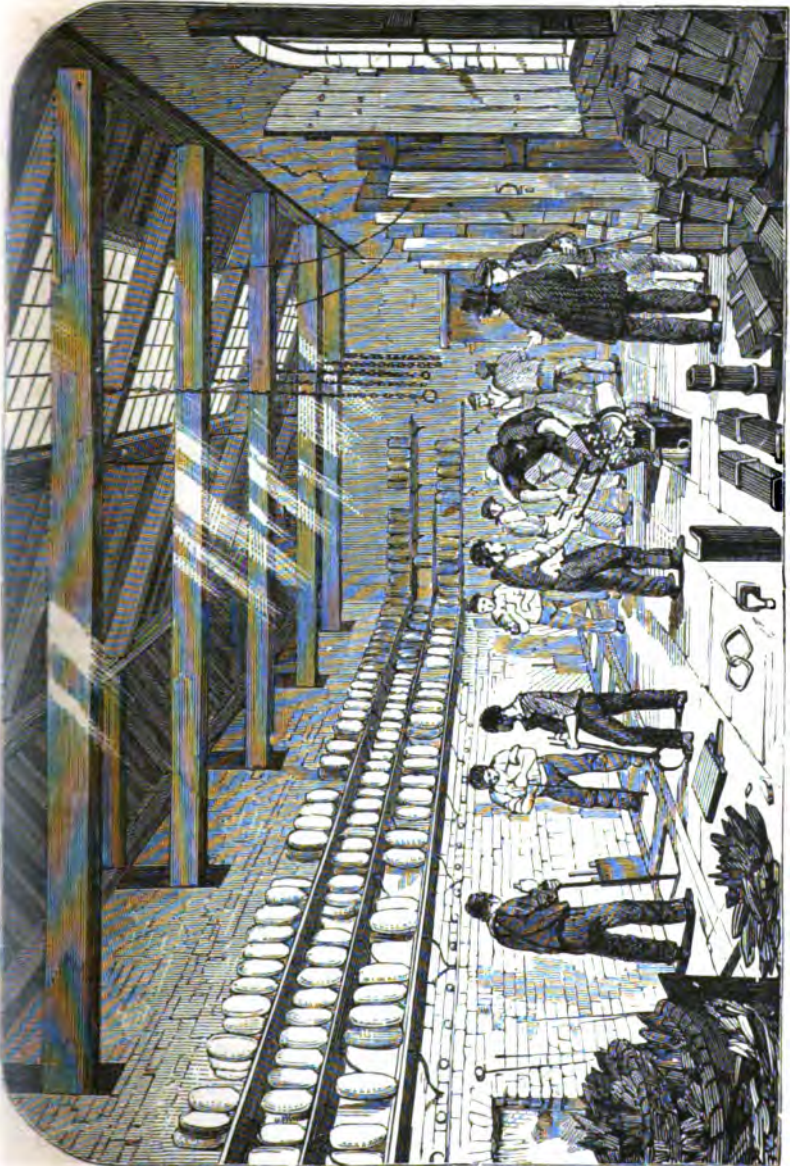
ing to sleep, watched the operations with a vigilance which put him in possession of the invaluable secret. This *ruse* is attributed to one of the Walkers of Grenoside, who were afterwards large iron and steel makers at Masbrough, and who seem to have erected steel furnaces as early as 1749. The process is thus described by Mr. Seebohm :—

“ In the manufacture of cast steel, the process of melting is of the utmost importance. The melting furnace consists of a flat stack, containing a flue in each three feet, or rather less. To each flue there is a melting ‘hole’ wide enough to contain two melting pots, and deep enough to allow of sufficient cokes to cover the lids. The top of the melting holes is on a level with the floor of the furnace, the grate bars below being accessible from the cellar. The pots are usually made of a mixture of Burton or Derby clay, and sometimes Stourbridge clay, Stannington clay, and Devonshire or China clay, with a small addition of ground cokes and old pots ground. Each pot lasts one day, and is used three times, containing severally, about 50, 44 and 38 lbs. of steel each ‘round.’

“ The bar steel is first carefully selected of the exact temper required, broken up into small pieces, and conveyed to the pot (which has already been placed in the melting hole) through a kind of iron funnel, called a ‘charger.’ The degree of heat to which the furnace is allowed to go is carefully watched by the ‘puller out,’ who is technically said to ‘work’ the holes, and the exact period at which the steel is ready to be ‘teemed’ or poured into the mould is noted by the melter. The pots are lifted out of the holes by means of a pair of iron ‘pulling-out’ tongs. As soon as the lid is removed with the lid tongs, the scum or flux is removed from the surface of the molten steel, which is then poured into a cast-iron ingot mould, formed of two halves, tightly ringed and wedged together. The interior of the mould has been previously ‘reeked’ or covered with a coat of coal tar soot to prevent the ingot from adhering to the mould.

“ The melting of steel is a process requiring the greatest skill. If the molten steel does not remain long enough in the fire, it will ‘teem’ or pour ‘fiery,’ or like boiling water full of vapour or gas, and the ingot will, when cold, be more or less full of bubbles or holes, technically called ‘honeycombs.’ When the ingot is hammered down into a bar, these honeycombs will appear as cracks or seams, technically called ‘roaks.’ If the steel remain too long in the fire it will teem ‘dead,’ as if all the gas had escaped, and when used afterwards in the bar will be of inferior quality. Should a piece of coke accidentally find its way into the pot, the ingot will show a bright sparkling fracture: technically speaking, it will be said to ‘stare.’ This ingot will be ‘hot short,’ and will crumble to pieces when red

hot under the hammer. If the molten steel becomes chilled before it is poured into the mould, which may be detected by the stream 'skimming over' as it is teemed, the fracture of the ingot will appear dull in colour and full of small holes or honeycombs."



STEEL MELTING.

The melting of the steel occupies about three hours. The lid of the furnace, often lifted during that time to see how the melting goes on, is at length removed. A stranger's dazzled eye will fall with a wavering glance on the white glowing mass within ; but the workman—his legs protected by wet sacking—goes to the hole and looks down with unshrinking gaze as he seizes the crucible with his tongs to carry it to the moulds. When the crucible is turned, the steel runs out in a thin white stream and throws out brilliant coruscations, very beautiful to look upon when the operation is performed at night. Our illustration shows the melter in the act of pouring the steel into the mould, which, to a stranger, is the most interesting part of the process.

In the floor on his left are seen the tops of the holes or furnaces in which the melting takes place, and on the shelves round the room are crucibles ready for use. Manganese, wolfram, titanium, and other ingredients are put into the crucible in the belief that they improve the steel. Nearly every manufacturer has a different specific. A good deal of secrecy is often maintained as to the exact nature and quantity of the "physic" (so it is called) put into the melting pot, but its value is doubted by many engaged in the trade, workmen telling stories of the physic having been thrown aside without any perceptible difference in the quality or temper of the steel. Of the value of spiegeleisen, which has come into general use of late years, no doubt is entertained. Its tendency is to harden the temper of the steel and make the ingot sound by preventing the formation of honey-combs.

Great variety is necessary in the quality and temper of steel, according to the purpose for which it is required. These depend mainly on the quality and temper of the bar steel used in its manufacture, but both depend very greatly also upon the skill of the melter. Half the secret of making good cast steel lies, practical men assert, in knowing the exact moment for taking it out of the fire. The same skill is required in hardening and tempering, which is declared to be one of the fine arts, so much nicety is necessary in the degree of heat applied and in the manipulation of the steel. The difficulties of manufacture successfully overcome, the difficulties of selection follow. The practised eye judges of the quality and temper of steel according as the grain of the newly fractured end is coarse or fine, dull or bright ; and the varieties of quality and temper being very great indeed, the shades of difference in the appearance of the grain are proportionately minute and difficult to distinguish. Only the practised eye can tell the full meaning of the different textures either of cast or blister steel.

## EXTENSION OF THE STEEL TRADE.

The extension of the steel trade already alluded to claims a more than passing notice. Thirty years ago steel was used chiefly for cutlery, files, saws, and for the edges of joiners' and other cutting tools made principally of iron. The great development which has since taken place in the manufacture of machinery and tools of all kinds has increased a hundred-fold the purposes for which steel of the old description is required. Iron and steel, in forgings and castings of all sizes and shapes—from the hundred-ton gun and the enormous armour plate, down to the smallest bolt and screw—have to be cut, planed, shaved, slotted, bored, or sawn; and the cutting edge of the tools used for all such purposes, however different in appearance from the fine edge of a penknife, must be of the same high-class steel to stand the work. That, however, is not all. The greater strength, hardness, and tenacity of steel, has led to its being largely used as a substitute for iron in general manufactures as well as in cutting tools, a development which has worked great changes already, and threatens to revolutionize the iron trade in a few years. In the steel trade, as now carried on, there are four pretty clearly defined, though not quite distinct, divisions. (1) The old trade in shear and crucible steel, for cutlery, edge tools, &c. (2) Crucible steel in large castings. (3) Bessemer and Siemens-Martin steel. (4) Steel founding.

The multifarious purposes for which steel of the first class is used have already been indicated. The products of the second division are cranks, cylinders and other large castings for marine and other engines, tyres, steel bells, and various other articles. To some of these purposes, and to rails, axles, rollers, and many other purposes, Bessemer steel is also applied. The fourth division indicates the most recent development of the steel trade—the application of steel to the thousand small castings hitherto made by the ironfounder—a branch of growing importance. It will be obvious that the purpose of the last three divisions of the steel trade is, for the most part, one and the same,—the substitution of steel for iron. The one impediment in the way of this change is the greater first-cost of steel. In regard to Bessemer steel this impediment can scarcely be said to exist now, so little do the prices exceed those of good iron. In regard to crucible steel, the difference in price is more serious, but is counterbalanced by the vastly increased wear and strength attained. A great future awaits the steel trade in the new as in the old departments.

For steel, Sheffield is still the world's great workshop. It is true that of late years France, Germany, Belgium, and the United States have entered the lists as rival manufacturers, and we hear

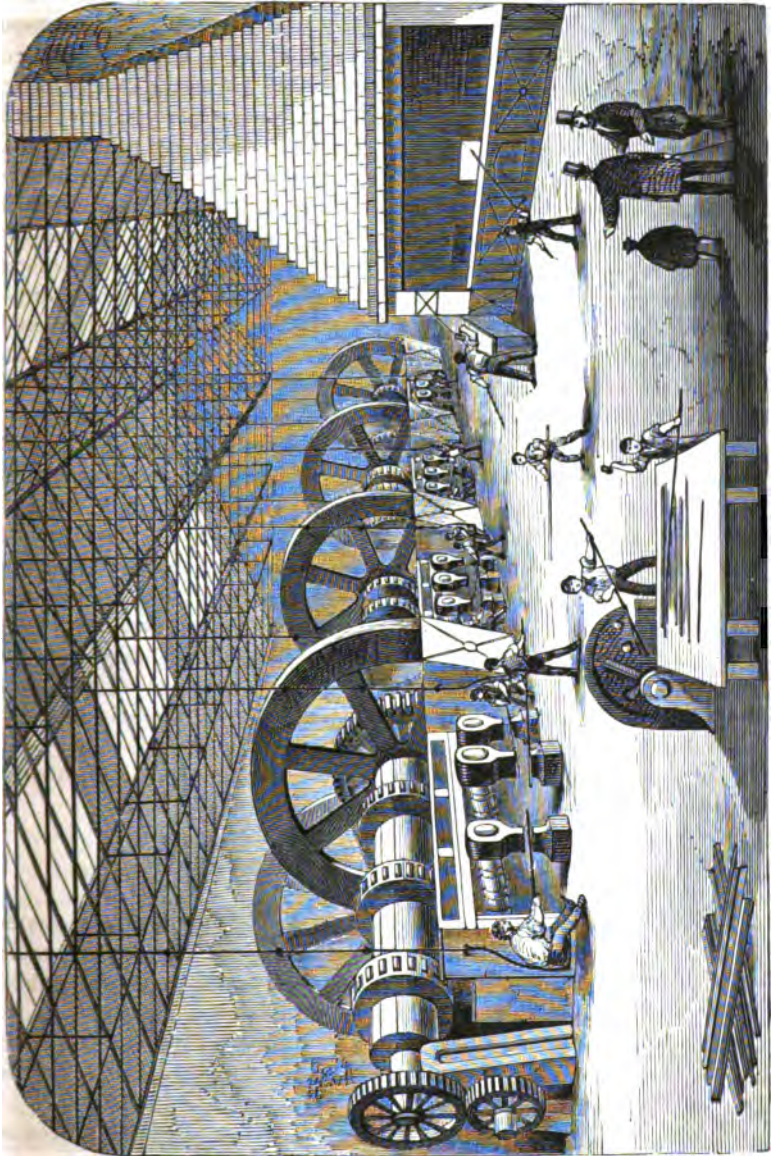
much from time to time of the success of foreign steel makers ; but Sheffield steel, especially the best cast steel, has still an unrivalled reputation for quality throughout the world. This is sufficiently evidenced in the fact that for their best tools foreign manufacturers use Sheffield steel, and parade the fact before consumers as indisputable proof of the excellence of their goods. The quantity produced in Sheffield is, moreover, vastly in excess of that made in any foreign country. Important improvements have been made in the manufacture of steel here of late years, and it is becoming much more of a science than formerly. The conditions of success in producing specific qualities and tempers are better known, and the best Sheffield makers are now able to make a given temper and quality of steel with an accuracy and certainty to which the chief foreign manufacturers are far from having attained. Krupp, of Essen, the great German manufacturer, took the lead some years ago in the production of great masses of cast steel—a branch to which attention had not then been directed in Sheffield: but several of our leading manufacturers have entered upon his special field, with an energy equal to his own, and now produce enormous castings of crucible as well as of Bessemer steel with unvarying success. In the manufacture of Bessemer steel Sheffield has no monopoly. It is made in most of the iron districts at home, as well as on the Continent of Europe and in the United States of America; but nowhere is it made more successfully than at Sheffield, where the manufacture was first developed. The application of steel to foundry purposes is another development of the steel trade in which Sheffield is the pioneer, and the new branch has already attained considerable dimensions. The extension of the steel trade in Sheffield has been enormous. It was estimated that the steel made here twenty years ago amounted in value to nearly £2,000,000 a year, and since that time the production has more than doubled.

### STEEL FORGING, TILTING AND ROLLING.

After leaving the converting furnace or the mould of the caster, steel is forged, tilted, or rolled before being made into cutlery, tools, and the various other forms in which it reaches the general public. Tilts and rolling mills are considered necessary adjuncts of the larger steel works, and give manufacturers more complete control of the operations of their trade, but tilting and rolling are also carried on as separate businesses.

Forging or tilting is the older process, and, where both processes are applied to the same material, takes the precedence. Before the discovery of steam power, forge and tilt hammers, like grinding wheels, were built on the rivers that run through the town, and

worked by means of water-wheels. Many such forges and tilts still exist, and in them the process is both interesting and picturesque. The hammers, as will be seen from the illustration,

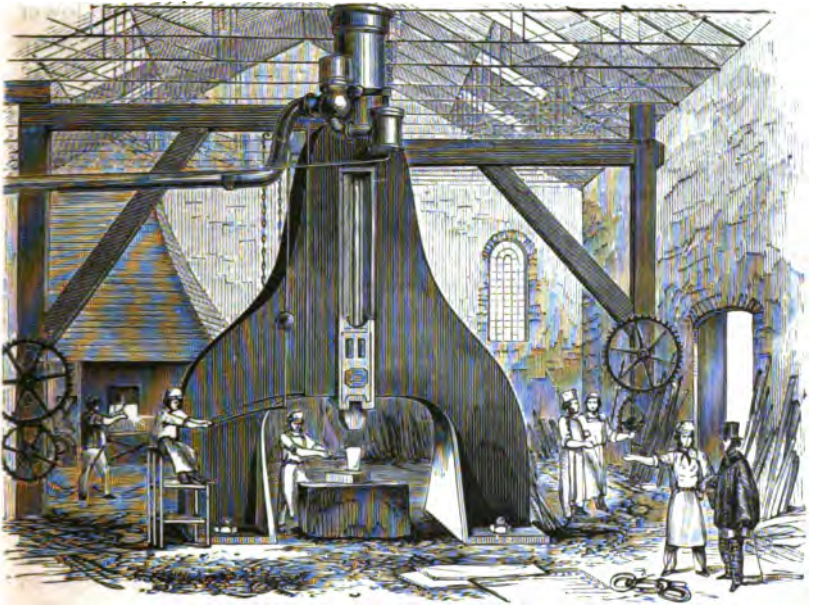


STEEL TILTING.

are very peculiar objects. The staff or "heave" is a huge length of rough timber, with a block of hard composite metal bound

to one end for a head, and works on a pivot fixed near the lower end. The hammers, arranged in a row, are raised by the pressure of an irregular revolving drum on the pivot end, and fall in succession with a great thud on the hot, yielding steel. To the visitor, at first sight, they look like the heads of antediluvian monsters, nodding, some deliberately, others with frantic energy. Tilt hammers work the more rapidly, and with an incessant, deafening noise, quite irritating to unaccustomed ears. They are used for light work. The forge hammer, which is longer and heavier, is worked at a slower rate, but delivers a more crushing blow. It is used for the manipulation of larger masses of steel. The tilter sits in front on a suspended seat, which swings to and fro to accommodate his action, as he moves and turns the steel dexterously on the anvil, so that the blows are distributed evenly, until the desired size is obtained. Tilt hammers vary in weight of blow from  $2\frac{1}{2}$  to 5 cwt. A forge hammer, driven by water power, delivers about 150; a tilt hammer about 300 strokes a minute; driven by steam, they deliver nearly twice this number of strokes. Forge and tilt hammers are being rapidly superseded by the more tractable steam hammer, invented some 25 years ago by Nasmyth, and now made in great variety and of all sizes. The steam hammer, as will be seen from the illustration on next page, moves up and down in a heavy iron frame, requiring neither water-wheel nor revolving drum; it can be placed in any part of the shop, and can be so regulated, by the motion of a handle, as to strike with terrific force, or gently crack a nut. For the welding of shear steel, and for some other purposes, some practical men still prefer the more ponderous and less rebounding stroke of the tilt and forge hammer, but for the great majority of purposes the steam hammer is now universally used.

In point of construction, a rolling mill is a large, square shed, well lighted from the roof, and with wide openings in the side walls for ingress and egress. The rolls, often consisting of three or four "trains," form a long row in the centre. A train consists of two or three rolls, fixed one above another, in strong iron frames, the former being called a "two-high," and the latter a "three-high" train. The rolls are turned by-steam power, very ponderous engines being required for the heavier mills. A "two-high" or "three-high" train is used very much as a matter of convenience or economy of time. For short lengths, a two-high train is generally used; the ingot being put through the rolls and returned over them. For medium lengths, a three-high train is preferred, because it is easier and safer to return the ingot between the two upper rolls of a three-high train than over the rolls of a two-high train. Long lengths, whether rods, bars or sheets, are rolled both



STEAM HAMMER.

ways to save time. This is accomplished by the use of reversing engines to a two-high train, for rails and other heavy work, and by a three-high train, rolling in each interstice for the lighter kinds of work. One of the rolls in each train—the middle roll of three, and the lower of two—is fixed; the others being adjustable by means of screws, so as to continue the pressure notwithstanding the gradual thinning of the steel. Rolls vary in length from one to ten feet, and in diameter from a few inches to two or three feet, according to the purposes for which they are required. Smooth rolls are used for plates and sheets, grooved rolls being necessary for the shaping of bars, rods, and other such articles.

Rolling on a large scale is a business requiring a considerable outlay of capital, owing to the great variety of sizes and shapes which steel has to be reduced for the multifarious purposes of the general manufacturer. It is important to minimise the work of the forger, by supplying him with steel of the most convenient size and shape for the implements he has to make. There is obviously a wide difference between the most convenient size and shape of steel for an axe head and a lancet blade, and the variety between these two extremes is very great. Each ingot, moreover, must pass through a graduated succession of grooves before it can enter the groove which has to fix its final shape and size. It is generally passed through two trains of rolls—the “cogging” train, by which it is



drawn out and roughly shaped, and the finishing train, in the successive grooves of which it is reduced to the exact size and shape required.

Wire rolling is an extremely interesting process. A short thick ingot, varying in size and weight according to the length and gauge of rod required, is first put through a cogging mill and rolled into a square bar 18 feet long; the bar is re-heated in a furnace of unusual length and then put through the wire mill. This mill comprises seven sets of rolls in a line, with carefully graduated grooves. Put through the largest set first, the "rod"—so it is called whatever the length or gauge—is quickly threaded backwards and forwards through the remaining sets. Entering the last set before it is well out of the second, the wire is seen passing through five or six sets of rolls at the same time, throwing out great loops on each side. The rod grows smaller by degrees and correspondingly longer as the rolling proceeds. It is coiled on an iron "swift" as it emerges from the finishing groove, tied, and thrown on a heap—a perfect wire "rod" ready for consignment when sufficiently cool to be handled. On each side of the rolls are youths whose business it is to seize the end of the rod with iron tongs as it comes through one groove and turn it into the next, and to regulate the loops so as to prevent entanglement. Their occupation is a dangerous one, and makes the on-looker nervous, red-hot steel in rapid motion not being a thing to trifle with; but the lads soon learn to do their work with coolness and tact, and accidents seldom happen.

But the shaping of steel is only one of the objects of hammering and rolling. A main and essential object is to close the pores, and give the steel a closer and more perfect grain, and thereby greater strength and tenacity. For these purposes, hammering is the more effective process, and, though for all ordinary purposes rolling is sufficient, much of the steel used for the highest quality of cutlery, and for the steeling of edge-tools and some other purposes, is forged to size and shape.

The skill and rapidity with which the forger draws out a short, thick, steel casting, into a long, thin, straight rod, perfectly smooth and even, for the making of such small articles as pen knives, by dexterously moving and turning it under the hammer, is remarkable, and is the result of long and careful training. With steam hammers, a further point is gained. By the insertion of dies in the face of the hammer or the anvil, or both, the steel is shaped and fashioned as in the more elaborate grooves of the rolling mill; but this is done chiefly in the subsequent forging of implements, not in the original tilting and forging of the steel itself.

It will be understood that steel is heated to a high temperature for hammering and rolling, as for subsequent manipulation by the

tool and cutlery forger. For this purpose, furnaces are built along the sides of the mills and forges, as near as practicable to the rolls or hammers as the case may be. In both forges and rolling mills, the workmen drag the red-hot steel about with tongs or on bogies, in a way which creates an uncomfortable feeling in the stranger's mind ; but they are dexterous, and accidents rarely occur.

## THE GROWTH OF SHEFFIELD MANUFACTURES.

We have already alluded to the expansion of the steel trade. The growth of general manufactures during the last quarter of a century has also been enormous. Owing to trades union restrictions and other causes there has probably been no great increase of the number of hands employed in the cutlery, saw, file, edge tool, and other old staple trades ; but production has been augmented by improved appliances ; and in some of these trades—the edge tool trade for instance—new branches of some importance have been introduced. There has been a gradual extension of the silver and white metal trades generally—the cheapening of production by improved processes, the increase of wages, and the general diffusion of wealth, having brought these goods within the reach of a much larger proportion of the community than formerly. The manufacture of surgical instruments has grown from small beginnings to a considerable industry. But the chief expansion has taken place in the heavy trades. The introduction of railways gave a great impetus to Sheffield manufactures, directly as well as indirectly. One of the new industries we owe to railways—the manufacture of buffers and springs—was early established here. The invention of Bessemer steel led to the substitution of steel for iron rails and tyres. In these important trades Sheffield manufacturers have also embarked ; and the building of railway carriages and wagons has more recently been added to the new industries resulting directly from railways. The adoption of armour plates for ships of war opened up another great industry to the enterprise of Sheffield manufacturers—an industry of which they have now practically a monopoly. They also secured a share of the manufacture of heavy ordnance to which the rivalry between plates and guns gave rise, and now make steel cores for the monstre one-hundred-ton guns which are the latest emanation of this rivalry. Sheffield has equally benefited by the substitution of iron for wood in general ship building, producing plates and bolts in large quantities. All this time a rapid development of mechanical engineering has been going on, and Sheffield manufacturers have thrown themselves into this great branch with their wonted energy. Locomotive works on a large scale have been established. Boiler works of long standing have expanded into great engineer-

ing establishments, and large new works for the manufacture of lathes, planing, drilling and slotting machines, and other engineering machinery and tools, have sprung up in various parts of the town. In the agricultural implement department our trade has also largely increased. Scythes, hooks and sickles are made here as of old in large quantities; the manufacture of knives, &c., for reapers, choppers, and the hundred other farm and garden implements which have come into use of late years, is another of our new trades; and in spite of the much vaunted success of the American makers, one or two large leading houses have established a great and growing trade in the manufacture of steel hayforks and other such implements. Some of our ironfounders have ventured still further afield, and entered vigorously and successfully upon the manufacture of lawn mowers and other varieties of garden tools. The manufacture of bicycles, wire and other iron fencing, and many other industries which it would be tedious to mention in detail have been introduced or largely developed, the expansion of the general trades of Sheffield during the last twenty-five years being out of all proportion to that of any former period.

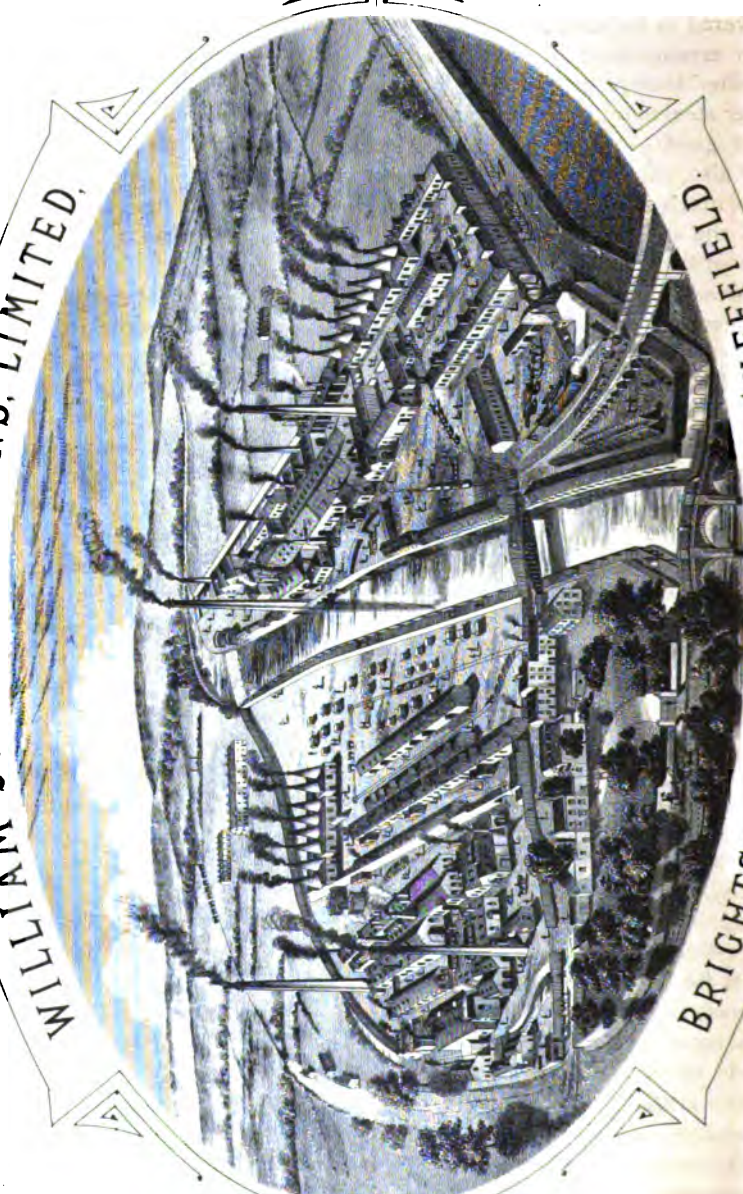
#### MANUFACTURERS OF STEEL.

Before proceeding to notice some of the leading works where the interesting and important processes we have described are carried on, a few words are necessary with reference to the general features of the vast establishments which have grown up during the last quarter of a century.

The advantage of having works for the heavier descriptions of manufacture in close proximity to the railways was early recognized by Sheffield manufacturers. It was seen that the railway siding was almost as much a necessity to the steel manufacturer of the present day as the dam and the goit were to the grinder and tilter before the days of steam power. The main extensions of late years have consequently followed the lines of railway, and the once beautiful valley of the Don, from Owlerton above the town to Tinsley and Brightside below it—a distance of four or five miles—has been turned by the prosperity of the town into a pandemonium, the glare and sulphurous smoke of which horrify strangers, while rejoicing the hearts of those to whom they are the sure sign of good wages and growing wealth. Factories are beginning to invade the still charming Abbeydale now that the Midland Company have carried their main line through it. Many of the largest works are intersected from end to end by lines of rails, working on which the locomotive engine and the steam crane do all the internal carrying of fuel, material, and manufactured goods, effecting thereby a great saving of cost in labour. For the most part the larger works are so



WILLIAM JESSOP & SONS, LIMITED,



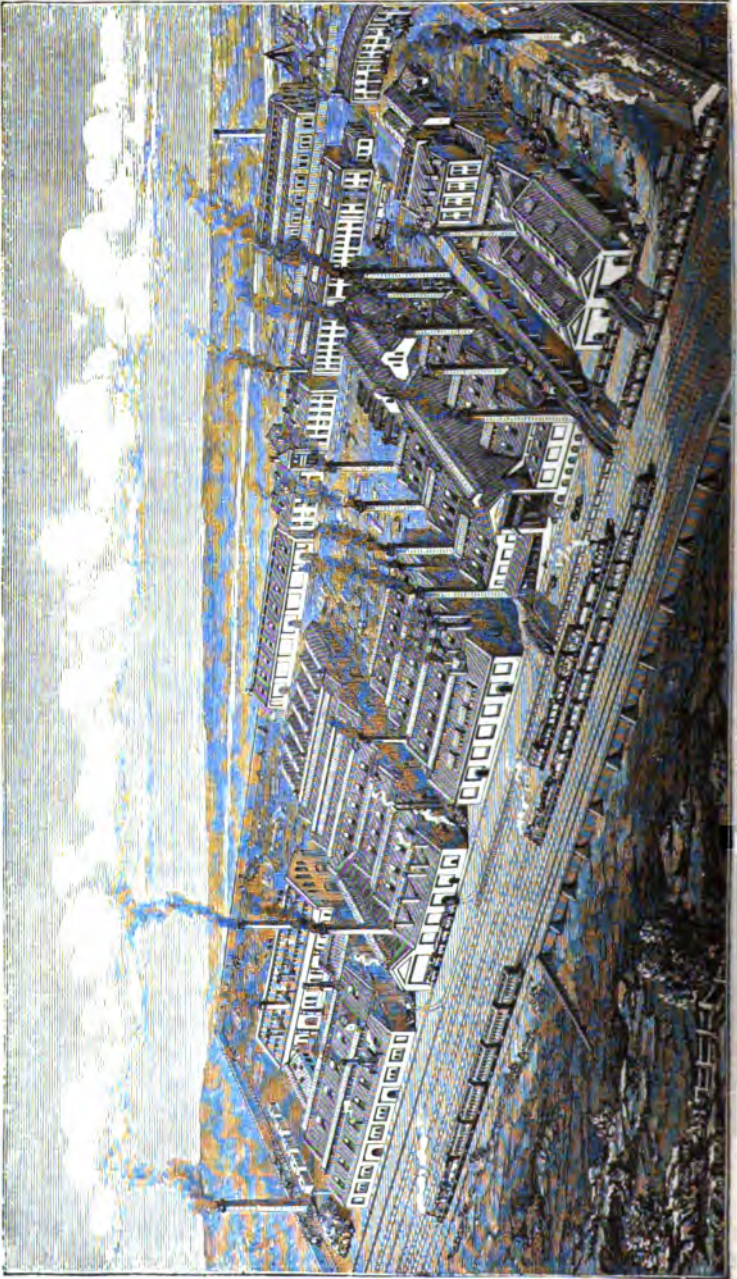
BRIGHTSIDE STEEL WORKS, SHEFFIELD.

arranged that the raw material is received at one extremity, and is delivered in the shape of finished merchandise at the other extremity—an arrangement by which labour is saved and work facilitated. Another feature of Sheffield factories is their completeness. The larger steel manufacturers—many of whom also make files, tools, and other goods—have not only tilts and rolling mills in their works; they also consider engineering shops an indispensable adjunct, and make much of the machinery they use, doing all the repairs; attaining thus the most complete control over all the departments and operations of their trade.

**Messrs. WILLIAM JESSOP AND SONS Limited.**—The largest works engaged exclusively in the manufacture of steel are those of Messrs. William Jessop and Sons Limited, of Brightside. Their extent may be judged from the fact that they cover an area of over thirty acres; they are intersected by lines of rails exceeding three miles in length, and in addition to six water wheels, no less than twenty-eight steam boilers are required to drive the numerous engines, hammers and machines. It will be seen from our illustration that the River Don flows through the works, the two parts being connected by an iron bridge. The premises are of the most complete character, including extensive converting and melting furnaces, forges, rolling mills, wire mills, steel foundry, gas works, engineering shops and all the necessary appliances for the successful manufacture of steel in its various forms, from the heaviest forgings to the smallest bars, and from the largest plates to the thinnest sheets. The firm, since their establishment in 1793, have confined their attention chiefly to the production of the highest classes of steel, for which they have obtained a world-wide reputation. They make the finest qualities of steel for engineering and machinery purposes, for edge tools, cutlery, hammers, mill picks, shear blades, needles, fish hooks, watch and clock springs and other most delicate purposes. The rolling of sheet steel is carried on to great perfection, and is very interesting to witness. The company also make large quantities of sheets for circular and other saws, and an important branch of their business is the manufacture of sheet steel for making steel pens. They have long been the sole importers of several of the most noted brands of Swedish bar iron, amongst which may be named the famous brand (L) LEUFSTA, every bar of which comes into their possession, and, if genuine, bears their name. The company have establishments in the principal cities on the Continent and in the United States, where they have always large stocks of steel on hand. It may be mentioned that the "gold medal" was awarded to the firm at the Paris Exhibition of 1878.

**Messrs. VICKERS, SONS AND Co. Limited.**—The striking development which has taken place in the steel trade of late years is well

illustrated by the processes carried on at the River Don Works, Brightside, (Messrs. Vickers, Sons and Co. Limited,) of which we



RIVER DON WORKS—MESSRS. VICKERS, SONS AND CO. LIMITED.

present an illustration. The Company are the successors to Messrs. Naylor, Vickers and Co., one of the oldest steel manufacturers in the town, and the first to introduce some of the more important branches



STEEL BELL CASTING—RIVER DON WORKS.

of that trade. They were the first to commence in England the manufacture of castings in steel to shape, and the first to introduce



the manufacture of cast steel tyres and heavy forgings in steel. In 1854, they acquired the patent of E. Riese (which up to that time had been used in Germany) for making cast steel bells, and, working under this patent, Naylor, Vickers and Co. gradually developed the art of steel casting which has now become a most important branch of the Sheffield trade. In our previous issue we described the casting of a steel bell by this firm for the Exhibition of 1862, which required the contents of 176 crucibles and weighed about  $4\frac{1}{2}$  tons. At that time this was the largest steel casting that had been made in England. The trade since then developed so rapidly that, having erected their new works in 1866, this firm was able soon after to make a cast steel marine shaft that weighed nearly 22 tons in the rough and required 672 crucibles, and was used (without forging) in the steamer "Wisconsin," belonging to the Guion Co. The present firm is now making ingots up to 30 tons weight for heavy forgings, and could produce them of any size required.

Messrs. BURYS AND Co. Limited.—Like the firms already mentioned, Messrs. Burys and Co. Limited, of Regent Works, Penistone-road, are large manufacturers of steel, but they carry on other branches which those firms do not. Regent Works were founded over forty years ago by Mr. John Bedford, and passed some twenty years afterwards into the hands of Messrs. Burys, by whom they were transferred to a Limited Company, in August, 1865. They are now carried on under the management of Mr. Brown. The Company have made large additions to their premises, which cover an area of over six acres, and, as an examination of our illustration will show, are among the most compact and complete works of their kind in the town, comprising converting and casting furnaces, ranges of workshops of many kinds, forges, rolling mill, grinding wheel, &c. The works include interesting specimens of the old forges and tilts worked by water power. Messrs. Burys make blister, shear, crucible and spring steel in large quantities for the general trade, as well as for their own manufactures. Among the goods they manufacture are files, saws, edge and engineers' tools of all kinds, hammers, miners' picks, steel plough plates, knives for reapers, choppers, and other agricultural implements, &c. The best evidence of the completeness of Regent Works is found in the fact that they provide for all the various processes of so many branches of trade. Buying in only fuel and raw material, Messrs. Burys are able to send out steel and manufactured goods of the most varied character without extraneous assistance of any kind. They do everything on their own premises, even to the making and repair, in the engineers' shops, of the tools and much of the machinery with which they work elsewhere. In this respect Regent Works are but examples of many factories in the town, though

among the best of those factories. The advantage of such works is that the manufacturers know exactly the quality of the steel they



REGENT WORKS—MESSRS. BURY AND CO. LIMITED.

use, and having complete control of all the operations of their trade, can regulate production in every way to the demands of their customers. Messrs. Bury and Co. moreover keep very large stocks of the goods they manufacture, and are usually able to consign assortments of the most varied character within a few days of the receipt of orders. They do a large business in France, Russia, Poland and other continental states, in addition to a considerable home trade, and their goods have long had a high reputation in these markets both for quality and finish. They received a silver medal at the Paris Exhibition of 1855; gold medals at Paris in 1867 and 1875; a gold medal at the Cape in 1877; and at the Paris Exhibition last year they have been awarded a gold medal.

Messrs. THOMAS JOWITT AND SONS.—Messrs. Thomas Jowitt and Sons, of the Scotia Steel Works, Attercliffe-road, are well-known manufacturers of steel, files, engineers' tools, railway plant, heavy forgings, &c. The business was founded, in 1848, by Mr. Thomas Jowitt, the father of the present members of the firm, at Saville Works, Saville-street, and was afterwards removed to Royds Works. These proving inadequate to the requirements of a rapidly extending business, the firm erected Scotia Works in 1864. It will be seen from our illustration that the works are large and complete, including converting and crucible furnaces, tilt and forge hammers, rolling mill and extensive ranges of general workshops. Mr. Thomas Jowitt's first market was Scotland, where his name continues to be one of the best known Sheffield names. The firm have now extensive connections in Canada, India, Australia, Africa, America and on the continent of Europe, in addition to a good home trade. They import large quantities of Swedish and Russian iron, which they convert into fine steel of all kinds. Their trade mark is a beam engine, and "beam engine steel" is known far and wide for its uniform temper and excellent quality. Their files, made of the best steel, are all hand-cut, and in other branches of manufacture they have made quality a first consideration. First-class medals were awarded to the firm at the London Exhibitions of 1851 and 1862, and the Paris Exhibition of 1855, and they received a prize medal at the Paris Exhibition of last year.

Messrs. THOMAS TURTON AND SONS.—Messrs. Thomas Turton and Sons are large manufacturers of steel, railway springs, files, saws and edge tools, Sheaf Works, their place of business, being near the ticket platform at the Victoria Station of the Manchester, Sheffield and Lincolnshire Railway, for trains from the south and east. It will be seen from our engraving that these far-famed works are of large extent, flanking the railway on both sides, and having free communication through its open arches, some of which are used as workshops. The works are also intersected by the canal which



SCOTIA STEEL WORKS—MESSRS. THOMAS JOWITT AND SONS.

runs to Thorne and Hull. Messrs. Turton and Sons are among the oldest firms in the town, and have a very high reputation. In edge

tools they succeeded the old and eminent firm of William Greaves and Sons of Sheaf Works, whose reputation they have greatly enhanced. They are at the head of the file and railway spring

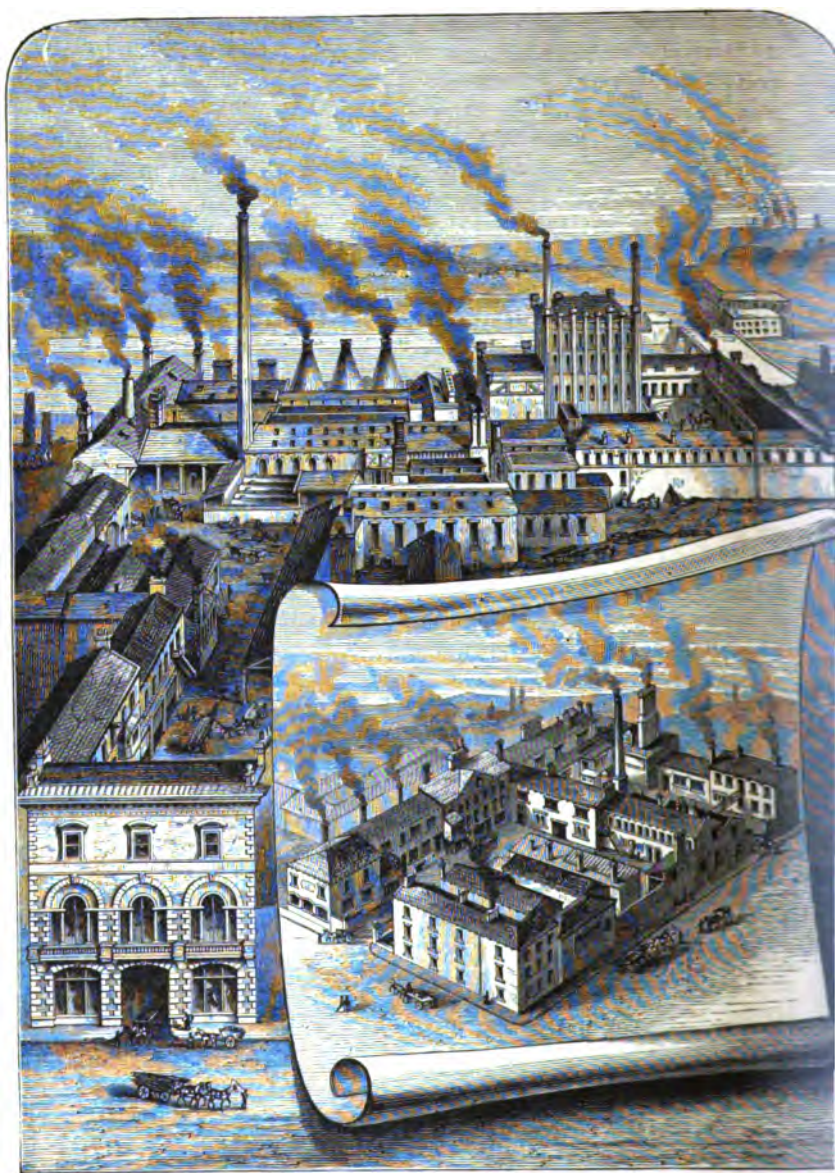


SHEAF WORKS—MESSRS. THOMAS TURTON AND SONS.

trades. They make shear and refined steel for all purposes, and their steel is known in all markets for its excellent quality. Messrs.

Turton and Sons do an enormous business in high-class goods. The quality of their productions has been acknowledged by awards of the highest honours at the International Exhibitions at which they have competed.

**Messrs. SAMUEL OSBORN AND Co.**—Messrs. Samuel Osborn and Co., of the Clyde Steel and Iron Works, are large manufacturers of steel and steel castings, railway springs, files, saws, reaping machine knives, tools, &c. The works at which the steel and heavier industries are carried on are in the Wicker, extending backwards to the river Don, and include converting and melting furnaces, forge hammer and spring shops, rolling mills, grinding wheel, and all the other adjuncts of large and complete premises. The firm have branch works at Brookhill, for the manufacture of files, saws and tools. Our illustration shows the extent of the works. The firm have spared no expense in adapting their works to the improvement and cheapening of production, and in applying the best labour-saving machinery to all operations in which it can be advantageously used. Their steel, tools, files, and springs have long been well known in the American and continental as well as in the home markets. Of late years they have devoted much attention to the production of steel castings for engine and other purposes, and also to the manufacture of the great variety of knives and castings used by the large agricultural implement makers in the construction of reapers and other machines—the manufacture of these knives and castings being a considerable and important branch of Sheffield industry. Messrs. Osborn and Co. are also manufacturers of two important specialties—Mushet's special and Titanic steels. Mr. Robert F. Mushet is well known as one of the most skilled English metallurgists. In 1875, the Iron and Steel Institute awarded to him the Bessemer gold medal, in recognition of his great improvements in the manufacture of iron and steel. The name of Mr. Mushet is well known in commercial circles in connection with Bessemer steel. When Mr. Bessemer had invented his very remarkable apparatus for converting cast iron into steel by blowing air through it, his work was but half done. The steel when re-heated was found to lack cohesiveness. It broke into small particles under the hammer, acquiring the name of "red-short." To Mr. Mushet is due the credit of completing the invention by the discovery of a remedy for this want of cohesiveness, in the addition of a triple compound of iron, manganese and carbon, in the form of spiegeleisen—a Prussian iron not commercially used in England or known up to that time. We mention this as a very interesting fact in the history of one of the most valuable metallurgical inventions. Mr. Mushet has since discovered a new process of making hard cast steel, which requires neither hardening nor tempering. This pro-



CLYDE STEEL AND IRON WORKS—MESSRS. SAMUEL OSBORN AND CO.

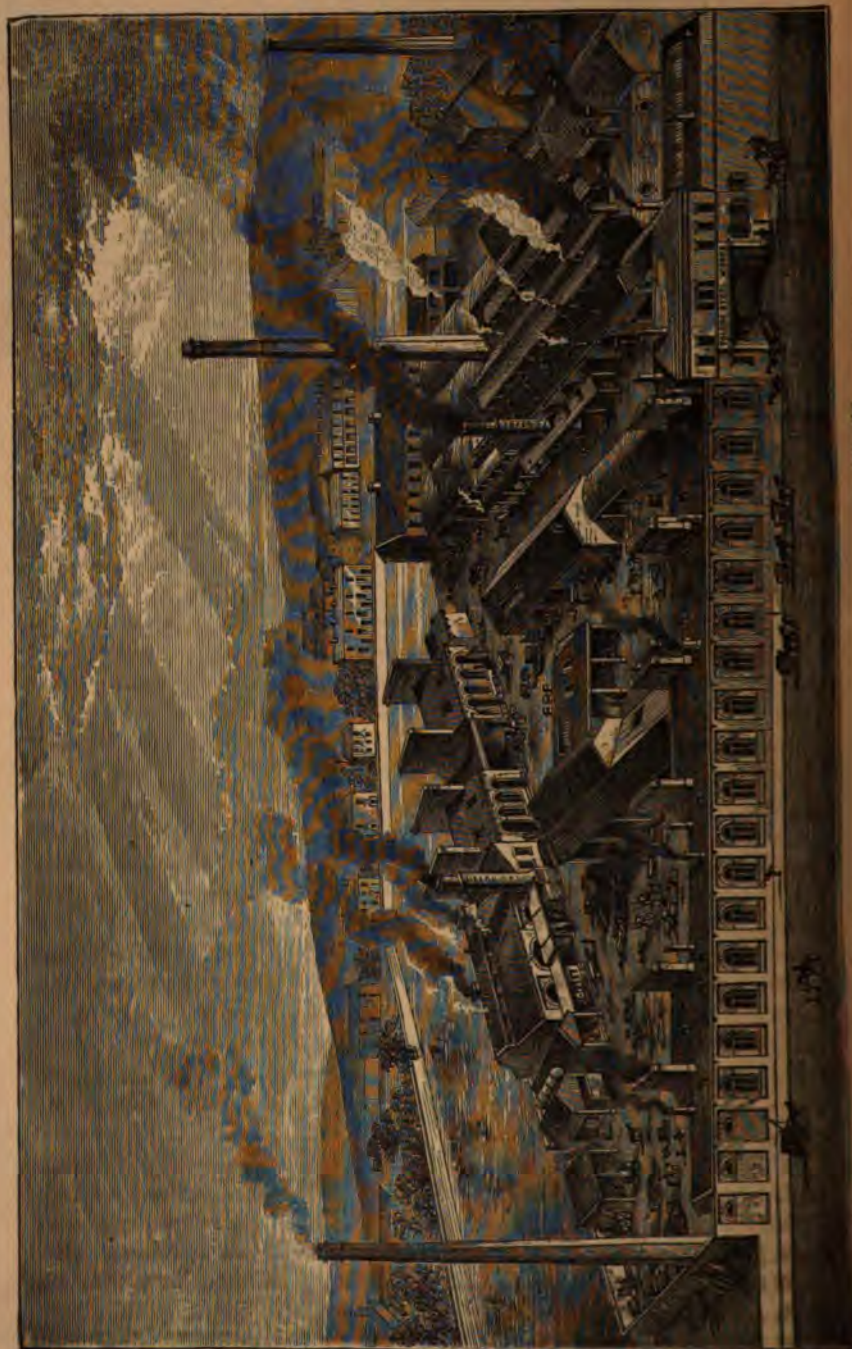
duct is now well-known in the engineering world, and although the price of it—about £140 a ton—is high, its hardness and great durability make it indispensable for the best lathe and planing tools. Titanic steel, also an invention of Mr. Mushet, is cast steel manu-

factured with Titanium, found chiefly in Norway, in an iron ore known as ilmenite—the effect of the Titanium being to increase greatly the cohesive strength and cutting properties of steel. Messrs. S. Osborn and Co. are the sole manufacturers of these special steels.

Messrs. J. H. ANDREW AND CO., of the Toledo Steel Works, Neepsend, are manufacturers of best crucible steel for tools and general purposes. One of their specialties is the forging of octagon rods of unusual length for rock drills; and they roll sheet, spindle and rod steel for a variety of purposes, employing the best machinery for straightening and finishing it. Their great specialty is the rolling of wire rods for cable, rope and other such purposes. Wire rolling, as carried on at Toledo Works, is an exceedingly striking and interesting process. The rods are rolled of various gauges down to about three-sixteenths of an inch and up to two inches diameter, and of extraordinary length. Perhaps the best test of the superiority of a wire mill is the length of rod that can be rolled. This depends much upon the speed at which a mill can be worked, the heat passing off so quickly as to prevent the operation being continued more than a few minutes. For the Paris Exhibition, at which they received a prize medal, Messrs. Andrew rolled an ingot of 270 lbs. into an unbroken rod of over 750 yards, being nearly half-a-mile in length. The rapidity with which coil after coil of wire rods is produced is one of the marvels of the rolling trade, and shows the perfection to which this class of machinery has been brought. In addition to every convenience in shape of the most improved and modern machinery, Messrs. Andrew and Co. have their own collieries at Dronfield. They do a large trade in the home, American, continental and other markets, in wire rods and general goods. We give an illustration of Messrs. Andrew and Co.'s works on the next page.

Among other leading steel manufacturers are Messrs. Sanderson Brothers and Co. Limited, Ibbotson Brothers Limited, Spear and Jackson, Seebohm and Dieckstahl, Wilson Hawksworth, Ellison and Co., the Hallamshire Steel and File Co., John Kenyon and Co., Jonas and Colver, Wingfield, Rowbotham and Co., S. and C. Wardlow, Bedford and Sons, Crookes, Roberts and Co., J. R. Wright, jun., Turton Brothers and Matthews, William Cooke and Co. Limited, Makin and Son, Beardshaw and Sons, Howell and Co., Leadbeater and Scott, S. S. Brittain and Co., Edgar Allen and Co., H. Rossell and Co., W. Jackson and Sons, J. and R. Dodge Limited, Moss and Gamble Brothers, W. K. and C. Peace, Austin and Dodson, Walter Spencer and Co., J. R. Spencer and Son, Gregory and Bramall, W. Spencer and Son, Cocker Brothers, Jabez Vernon and Co., Marriott and Atkinson, Flockton, Tompkin and Co., D. H. Coupe, jun. and Co., Fenton and Sons, J. C. Clarke and Co., Vessey and Friend.





**BESSEMER STEEL.**

The manufacture of Bessemer steel is a recent invention, but is one of the largest and most important branches of local manufacture. The process was discovered about twenty years ago by Mr. Henry Bessemer; and though the inventor was not a native of this district, we must claim for Sheffield the honour of being the place where his valuable and interesting process of steel-making was first practically and commercially developed. We well remember the sensation produced by the announcement of the invention. Sheffield steel manufacturers, whose processes occupied altogether nearly thirty days, read with some astonishment the descriptions published in the *Times* of the new and simple process by which steel could be produced in thirty minutes. It was at first supposed that the new steel was as suitable as the old for cutlery, edge tools, and the thousand delicate cutting and other instruments manufactured here, and that the old trades of the town were about to be revolutionized. Mr. Bessemer was invited to the Cutlers' Feast, at which he received an ovation. Knives and tools were made of the new steel, and the experiments were at first stated to be successful, but subsequent experiments were less satisfactory. Much was said and written for and against the invention, and many manufacturers fell into the error of regarding it as a failure. Finding that his invention was not likely to be brought into use until its commercial value was proved, Mr. Bessemer sought the assistance of partners, and founded works in Sheffield for the manufacture of his steel. At these pioneer works, which adjoin the Midland railway in Carlisle-street, and have now grown into an important establishment, the new process was carried on and developed. For railway and heavy iron work the new steel came rapidly into favour, superseding iron for rails, tires, axles, machine castings and many other purposes.

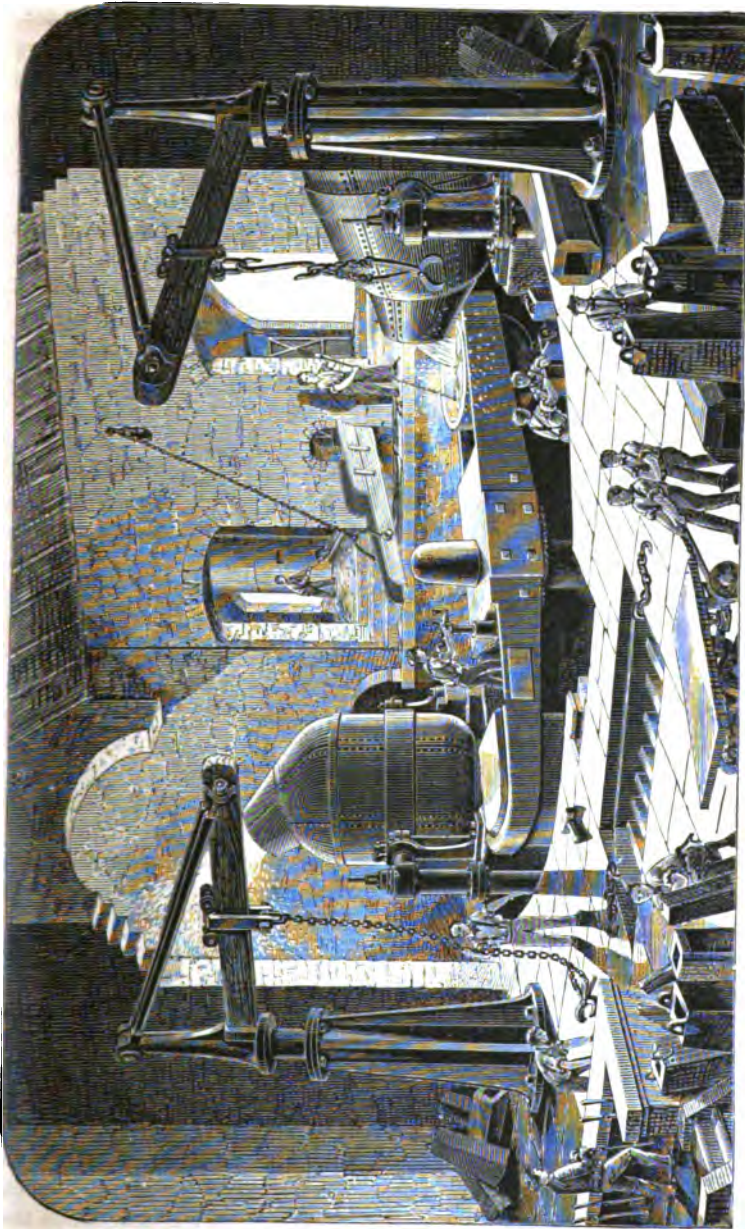
As the value of the new process was demonstrated it was adopted by one large firm after another, the works of Messrs. Bessemer and Co., in Carlisle-street, becoming the school to which these firms went for their first lesson. Mr. Bessemer seems to have understood from the first in what the chief value of his steel consisted, and in a paper read before a meeting of the Mechanical Engineers in Sheffield in 1860, he predicted that, "as the age of iron superseded the age of bronze, so surely would the age of steel supersede the age of iron." He has risen to fame and affluence, and his prophecy is being rapidly fulfilled. In Sheffield alone 10,000 to 12,000 tons of Bessemer steel are produced weekly. The total production in England is over 50,000 tons a week, and the production in the United States of America and on the continent of Europe is also great. Produced at little more than the cost of iron, Bessemer steel

is applied to nearly all purposes for which iron was formerly used, having come into extensive use for small as well as large castings and forgings. But its value does not end there. Experience has enabled Messrs. Bessemer and Company and other leading makers to regulate the temper of the new steel with certainty and accuracy, and it is fast supplanting the old steel as well as iron for tools, springs and many other purposes.

We give an illustration of the process as carried on at the works of Messrs. Henry Bessemer and Co., in Carlisle-street, Sheffield.

Bessemer steel is made direct from crude pig iron, the essential part of the process consisting in clearing the iron from its various impurities by subjecting it, while in a liquid state, to the action of small streams of air; an infusion of spiegeleisen being made at the end of the purifying operation in order to give to the steel temper, ductility and certain other necessary properties. The proportion of spiegeleisen used varies according to the temper of steel required, but is much less than the quantity of ordinary pig. The two kinds of pig iron are separately melted in round blast furnaces or cupolas, coke being used for combustion and lime as a flux. A charge varies from four to eight tons, according to the size of the cupola, and is melted in about an hour. In our illustration the cupolas will be seen in the back-ground. In front of them, but on a lower level, is the Bessemer shop, in which is a half-circular pit about four feet deep, with converters at each end. A converter is a large oval vessel, with a curved nozzle or spout at the top for pouring the metal in and out, and an air chamber at the bottom. It is composed of iron plates, and lined with a fire-resisting plaster made of powdered stone—a hard local stone called “ganister” being used for the purpose. The air chamber is divided from the caldron of the converter by a thick ganister plate, in which are fire-clay tuyeres full of holes, three-eighths of an inch in diameter, the number of holes in the plate varying from 49 to 185, according to the size of the converter. The air chamber is connected by tubes with powerful blowing engines. The converters rest on strong iron frames, and can be moved at pleasure by hydraulic power.

We enter the Bessemer shop while the pig iron is melting in the cupolas, and note that one of the converters is being heated to a red glow by a fire inside. Suddenly the converter capsizes, the embers falling out, and then rises into a horizontal position, turning its spout to the side of the pit to receive the glowing liquid iron, which streams placidly down an open channel, lined with sand, from the larger cupola. This done, the blast from the blowing engines is turned on, and we are startled with a sudden roar and a splutter of flame and sparks, as the blast is forced in strong currents through the apertures of the air chamber into the molten metal. Immediately



BESSEMER STEEL SHOP—MESSRS. BESSEMER AND CO. LIMITED.

the converter rises into a vertical position, and we see that the process of converting crude iron into steel of very wonderful qualities has begun in earnest. The blast is turned on before the converter

is raised, and is continued without intermission until it falls again, to prevent the metal percolating into the air chamber. Strong pressure is needed to force the air through the liquid metal. Intense combustion immediately follows, the flames from the converter throwing up thousands of explosive sparks, which would form at night a very beautiful pyrotechnic display, if instead of being enclosed by high walls the sparks were thrown into the open air. The blowing goes on until the red glare passes away, and the place is illuminated by a beautiful white light. When the practised eye of the workman in charge sees that the metal is ripe for his purpose, the converter is lowered, and receives the charge from the spiegeleisen cupola. A rapid combination takes place, and the molten iron becomes Bessemer steel. The process of conversion occupies 20 minutes.

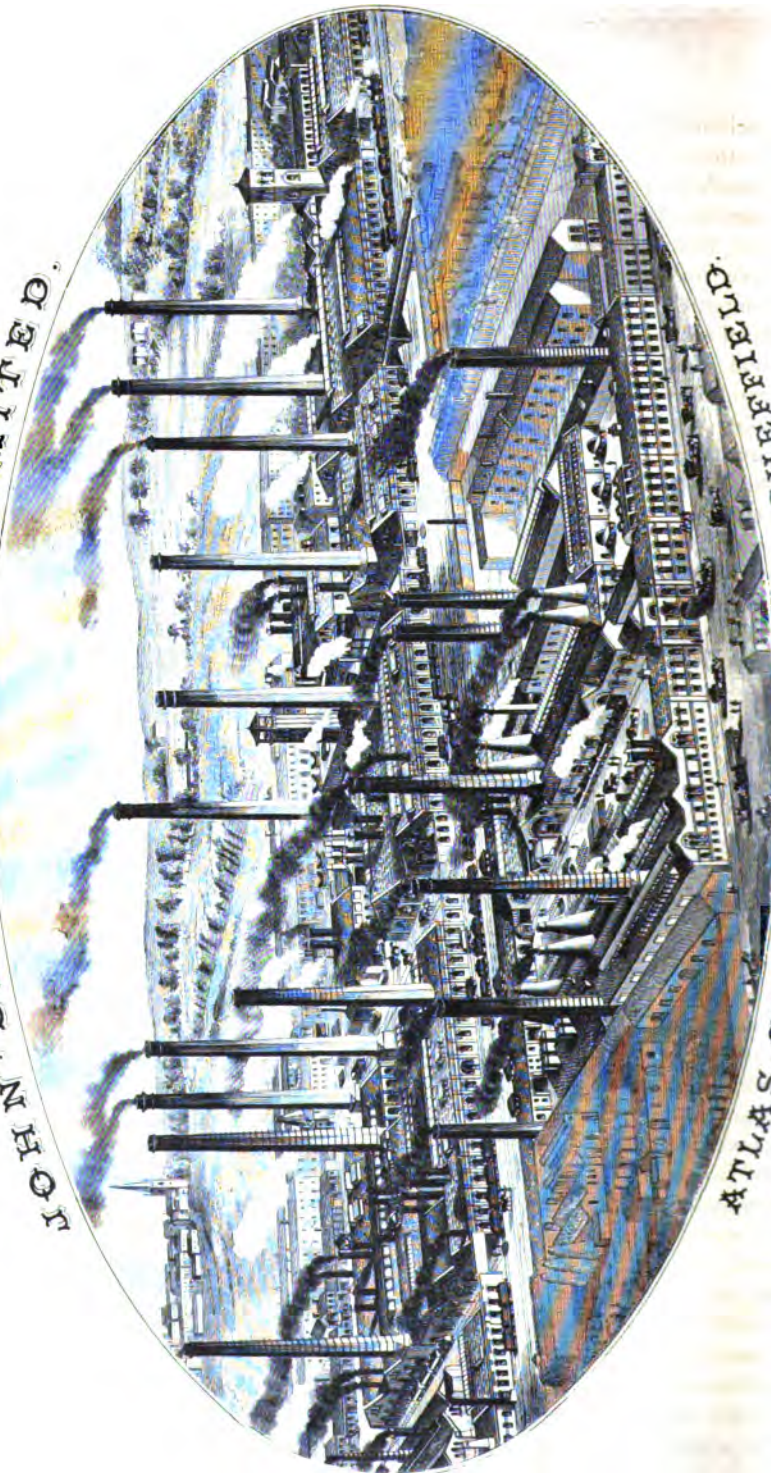
Then follows the casting. Between the converters is a hydraulic lift with round stem and oblong top, in one end of which is a vessel called "the ladle." The steel is poured from the converter into the ladle, the latter is swung round, and from it the steel descends into a series of moulds in the curve of the pit. To ensure the soundness of the ingots, the moulds are now usually filled from the bottom. The steel solidifies in a few minutes, and the ingots are then removed by means of hydraulic cranes and conveyed, while still red hot, to the rolling mills or hammer shops, where they are made into rails, tyres, axles, piston-rods, or other articles, according to circumstances.

Messrs. Bessemer and Co. have large forges, tyre mills, &c., and manufacture tyres, axles, spindles, piston-rods, and Bessemer steel forgings of all kinds, in which they carry on a large trade.

Messrs. JOHN BROWN AND CO. Limited.—The Atlas Works of Messrs. John Brown and Co. Limited are among the largest iron and steel works in the world. As will be seen from our illustration, they form one of the immense ranges of buildings flanking the Midland railway between Sheffield and Rotherham. The business was established by Sir John Brown many years ago, and transferred by him and his partners (Mr. J. D. Ellis and Mr. W. Bragge) to the Company on the 22nd of February, 1864. The works at Sheffield cover an area of twenty-five acres, in addition to which the Company have extensive iron works joining the Midland railway at Swinton, two collieries near Rotherham, ganister and brick works near Hazlehead, and iron mines in Spain. Messrs. John Brown and Co. Limited are manufacturers of iron and steel of every variety and shape, which may be required for railways, ship building, and engineering, and they have always been foremost in developing new branches of both these important industries. They were the first Company to recognise the value of Mr. Bessemer's



THE HOT BROWN & CO., LIMITED.



ATLAS STEEL & IRON WORKS, SHEFFIELD.

celebrated invention for making steel, and the first to agree with him for the working of his process. In armour plates likewise, when manufacturers in different parts of the country were striving to meet the new requirements of the Admiralty for armour-clad ships, they, from the first, took a leading position. This position they have maintained, one firm after another withdrawing from the competition, until the trade was left one of the specialities of the Sheffield manufacturers. More recently the production of special mild steel, or as it is called by some authorities, homogeneous iron, used for the construction of ships, boilers, and bridges, was taken up by them from the first, and for some time past they have been supplying this material to the Admiralty, as well as to the leading engineering and ship-building firms of this and other countries. Their manufactures are altogether too numerous to mention here, passing through every stage, from the ore to the finished article. We may mention, however, more particularly in the first stage, pig iron for all purposes, spiegeleisen for the manufacture of steel, ganister and bricks; in the second stage, steel ingots and blooms of every variety of size, shape, quality, and temper, made by crucible, Bessemer, and Siemen's processes; and finally, in the way of finished articles, armour plates, iron and steel boiler, ship, bridge, beam, and frame plates, angles, channels, tees and bars, rails, tyres, axles, springs, buffers, every variety of steel forgings and castings, tool steel of usual qualities, and special chrome steel, railway wheels with paper centres, &c. The last-named novelty has attracted much attention, and many railway companies are now engaged in testing the advantages claimed for these wheels over the ordinary ones. The centre of the wheel is composed of a solid mass of compressed paper, which is forced into the tire by hydraulic pressure. Perhaps the most interesting process in the manufactures of Sheffield is that of the huge plates now used for the armour of ships and forts. This manufacture is a stupendous one, requiring vast expenditure in plant and machinery for the rolling, bending, planing and finishing, as well as great knowledge and skill in meeting the incessant demand for larger and more impregnable plates as the power of artillery increases. Plates have been made at these works up to 40 tons each in weight, 24 inches in thickness, 10 feet 6 inches in width, and 40 feet long. Ten or twelve years ago, the rolling of an armour plate 6½ inches thick, 20 feet long and 4 feet wide, was thought to be a wonderful achievement; but owing to the continuous contest between heavy ordnance and armour, even the above-mentioned gigantic dimensions of iron plates do not suffice to withstand such a weapon as the 100-ton gun, the last achievement of the artillerists, the material for which is likewise supplied by Sheffield. At the time we write

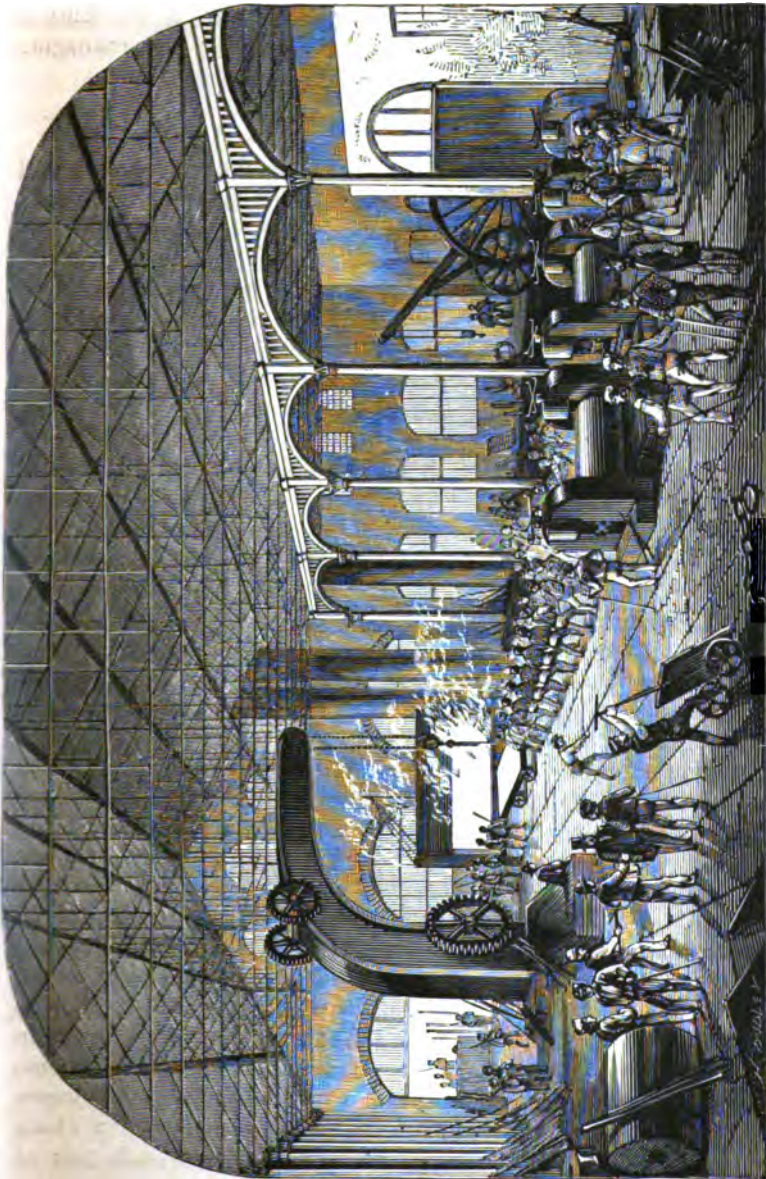


Messrs. John Brown and Co. Limited are making important experiments, with a view to use steel by itself or combined with iron, in the manufacture of the armour of the future, entertaining no doubt of the ultimate success of their experiments. Mr. J. D. Ellis is chairman of the Company, and Mr. S. Burridge the managing director.

### ARMOUR PLATES.

One of the most interesting processes in the manufactures of Sheffield is the rolling of armour plates. The process, technically described, is as follows:—The puddled iron is first rolled into bars 1 inch thick, and cut whilst hot into 12-inch squares or plates. Nine of these squares are piled in the furnace, and after being brought to a welding heat, are hammered and rolled into bars 2 feet 6 inches long, 12 inches wide, and 1 inch thick. Six of these bars are then piled, brought to a welding heat, and rolled into a slab about  $1\frac{1}{2}$  inch thick, which, whilst still hot, is returned to the heating furnace. Two other slabs made in the same way are placed upon it, and when sufficiently heated the three slabs are rolled into a small mould  $1\frac{3}{8}$  of an inch thick. Eight or ten of these slabs, after being shorn to the size required, are piled, heated, and rolled into a large mould about 4 inches thick. Several of these large moulds (the number varying with the thickness of the armour plate to be made) are afterwards piled and put in the large furnace for the final heating, which occupies from eight to thirty hours, according to the size of the plate. When sufficiently heated, the pile of moulds is drawn out of the furnace, and rolled to the required thickness, the plate being straightened or bent to any shape required by a hydraulic press. Afterwards, the edges are planed, and bolt holes are drilled to suit the position it is to occupy upon the ship or fort for which it has been made. In the early days of armour plate manufacture the rolling of a plate  $6\frac{1}{2}$  inches thick, 20 feet long, and 4 feet wide, was thought to be a prodigious achievement; but plates many times that bulk are now rolled. It is the final rolling which is the really wonderful operation, and, as may well be imagined, peculiar machinery and gigantic appliances are needed to deal with such masses of metal. The first part of the task is to get the metal from the furnace to the huge rollers some twenty yards in front of it—an operation in which many hands are employed. The door of the furnace opens, and an iron carriage is pushed up to its mouth, for the conveyance of the red-hot mass. It is drawn out partly by means of a chain passed round the rolls and partly with huge pincers, each pair of which is so heavy that the strength of three men is necessary to lift it. These two forces are brought into action, and the vast mass of metal slowly moves out and rests on the carriage. The chain is detached,

and the men run the carriage up to the rollers, the huge mass of red-hot iron sending out a stream of heat which is felt far and near. The



ARMOUR PLATE ROLLING.

pliable mass passes between the rollers, under the pressure of which it thins and broadens. The action of the rollers is reversed, and

the iron passes through backwards. This is repeated several times, and upon each occasion of the plate coming from between the rollers the surface is swept with brooms dipped in water. At intervals buckets of water are also thrown upon the mass of metal, to remove the impurities on the surface. The water goes hissing and bubbling over the iron, but is powerless to make any perceptible diminution in the heat. There is another operation which has to be occasionally performed with great care. Whenever there is the appearance of a blister, or raised lump of metal, on the surface, it has to be removed. This is effected by placing a sharp punch, at the end of a long shaft, on the blistered spot, and striking it into the blister with a heavy hammer, so as to let out the air. The rolling completed, the plate is removed by means of a crane to the hydraulic press, for straightening and bending. After about twelve hours the plate is sufficiently cool for planing, which is an interesting process—the machinery cutting away the surface in thin curling shavings as if it were soft wood instead of hard fibrous iron.

**Messrs. THOMAS FIRTH AND SONS.**—This well known firm, at the head of which is Mr. Mark Firth, have extensive premises in Saville-street East, known as Norfolk Works, and a very high reputation as steel manufacturers. Among their specialties are ordnance steel, steel shot and shell, steel for rifle barrels, and large castings for marine and other engines. They also manufacture files, saws and edge tools on a large scale.

**Messrs. CHARLES CAMELL AND Co. Limited,** of the Cyclops Steel and Iron Works, Saville-street, have also extensive works, not only there, but at Grimesthorpe and Penistone, and do an enormous business. They manufacture armour plates of the largest size, steel rails, tyres, axles and railway springs, large steel castings and forgings of all kinds, crucible steel for a great variety of purposes, steel boiler and ship plates, files, and many other classes of goods.

### STEEL RAILS, TYRES, &c.

**Messrs. BROWN, BAYLEY AND DIXON.**—Among the largest and most successful manufacturers of railway rails, tyres, axles and springs, are Messrs. Brown, Bayley and Dixon Limited, whose works adjoin the South Yorkshire branch of the Manchester, Sheffield and Lincolnshire Railway, at Attercliffe. The works, of which we give an illustration, are second to no works of the kind in general proportions or completeness of arrangement. They are admirably laid out on the modern plan of taking in raw material from the railway siding at one end and sending it out in finished goods at the other. Their capacity is indicated by the fact that the Bessemer department comprises ten large cupolas and four six-ton converters,



SHEFFIELD STEEL AND IRON WORKS—MESSRS. BROWN, BAYLEY AND DIXON LIMITED.

producing weekly 1,800 tons of ingot steel for rails and tyres, 90 tons for springs, and a large out-put for axles, and that these ingots are weekly turned into finished goods. The rail mill is 130 feet long and of proportionate width. Along the sides are the heating furnaces, each capable of holding seven ingots in one charge, and heating five charges during one turn. The mill is near the centre, and consists of two trains standing in a line—a three-high roughing or cogging mill and a two-high finishing mill. The process of manufacture is as follows. The short thick ingot of

Bessemer steel is taken from the mould in which it has been cast, while still red hot, by a hydraulic crane, and placed upon an iron "bogie"—a sort of rude cart with two wheels and a long shaft—run into the rail mill, and "tipped" into the nearest furnace. When sufficiently re-heated, the ingot is drawn from the furnace with long iron tongs or pincers, taken on a bogie to the roughing train, through which, by the aid of very ingenious mechanical appliances, it is passed several times. Having been roughly shaped and considerably elongated in the roughing mill, the embryo rail has now to be passed through the grooves of the finishing mill. On the floor on each side of this mill are a number of loose rollers a few feet apart; resting on these the rail is moved easily to and fro, and is passed quickly backwards and forwards through the grooves of the finishing mill which is worked by a reversing engine. The workmen direct the end of the rail to the groove: once within the groove, it is irresistibly drawn through by the action of the rolls, and compressed into shape as it goes. Rails are rolled to different lengths according to the requirements of customers. The usual length now rolled is a little over sixty feet, the rail being afterwards cut into three sections of twenty or two sections of thirty feet each. Formerly rails were rolled in single lengths, and there was great waste of material in cutting two ends from each rail. Now the waste ends are less than one per rail, and two or three rails are rolled in the time previously occupied in rolling one. One of the most interesting processes in the rail mill is the cutting of the rails. On finally leaving the finishing train, the rail rests upon a series of fixed rollers ten feet apart. These rollers, turned by power, immediately carry the rail to an iron saw fixed on the floor about sixty feet beyond the rolls. There is a harsh whizzing sound and a splutter of sparks for a moment, as the saw turns round at the rate of 700 revolutions per minute, and the rail end falls into the shallow pit below. The rail again moving forward, the sections are cut, and then the other end. Immediately a section is cut, a square plate in the floor previously unnoticed starts into sudden activity, and seizing the section by hooks, draws it sideways upon a series of cross rails fixed in the floor and called the "hot bank," where it is left to cool ready for the next process. The rails are straightened, punched, drilled and notched by machinery, these operations occupying only a few moments, and they are ready for consignment to customers; the whole process, from the melting of pig iron to the turning out of the finished rails, occupying only a few hours. Operations in the tyre mill are equally interesting. Tyre ingots are round and about the size of a large cheese. Some makers cast them with a hole in the centre, but Messrs. Brown, Bayley and Dixon cast them in a solid mass as the simpler mode. The ingot, taken

from the mould red-hot, is transferred to a tyre mill furnace, and being afterwards put under an eight-ton steam hammer is well hammered on the edges and sides, in order to secure tenacity and soundness. A thick wedge is then driven through the centre. The round flat block, now become a ring, is taken to a second steam hammer and roughly shaped—this process being known as “beaking” and “flanging.” It is again consigned to the furnace and then rolled. The tyre mill is an exceedingly ingenious piece of mechanism. The engine and boilers are underground. On the surface are three wheels, which being fixed on perpendicular axles, turn horizontally on a large iron disc. The relative position of these wheels, which are really the rollers, will be best understood if we describe their axles as marking the points of a regular triangle, the two rollers forming the base being in a line, and the apex roller working partly between them. The surface of the two base rollers is tyre shaped; the apex roller has a smooth surface. The embryo tyre is put on the apex roller and crushed into shape by contact with the two base rolls in the course of a few rapid revolutions. It will be obvious that as the tyre thins in the process the rollers must gradually be brought nearer together to operate upon it. This is done by the turning of a screw at the end of two converging rods, so fixed as to press upon the axles of the base rollers. It will be equally obvious that the tyre is in contact with the rolls at two points only, and that as the substance decreases the diameter must increase. The diameter is regulated by actual measurement, applied by a simple but ingenious process as the rolling proceeds. Watching the process, and noting the necessity for the three rollers to remain in contact, one is startled to learn that tyres of any size from three to eight feet in diameter can be rolled on the same mill; but one soon finds on examination that a great deal of expansiveness is involved in that lateral motion of the base rollers, so simply and effectively controlled by the turn of the screw already mentioned. On being removed from the mill the tyre is left to cool for a short time, and is then “fettled” and weighed. What impresses the stranger most in watching the manufacture of rails and tyres, is the ease, smoothness and rapidity with which the work is done. The number of men required in the operations is by no means large, and their duties are in many respects far lighter than would be supposed. In these, as in all our large works, systems of rails are laid down, and steam is the great carrier. Wherever lifting has to be done, the strong arm of the crane reaches forward to the task. The workmen guide and direct; little else is required of them. An unseen power, obedient to the turn of a wheel or the motion of a handle, does the real work, dealing with huge masses as if they were toys. Seeing the apparent ease and simplicity of the processes, one fails to realise the enormous

powers which have been called into existence to carry them on. In a working week of 99 hours (including night turns), Messrs. Brown, Bayley and Dixon have turned out 6,154 rails, weighing 1,571 tons, being over a rail per minute for the whole time the machinery was in motion. The production of tyres is almost equally rapid. They manufacture springs and buffers on a large scale, their spring-fitting shops alone containing twelve furnaces and forty benches. The Company manufacture axles also, and have engineering shops fitted with all the best modern appliances.

Among other manufacturers of rails, tyres, &c., are Messrs. Chas. Cammell and Company Limited, of Cyclops Works; Steel, Tozer and Hampton, of the Phoenix Bessemer Works, near Rotherham; and Wilson, Cammell and Co., of Dronfield.

**HADFIELD'S STEEL FOUNDRY COMPANY.**—We have already alluded to steel founding as one of the newer developments of the steel trade. Hadfield's Steel Foundry Company are exclusively engaged in this industry, for which their extensive works at Attercliffe have been specially constructed. A chief desideratum in castings for engineering and other such purposes is to combine lightness with strength and durability. This is especially important in regard to those parts of machinery upon which the strain is most severe and the wear and tear are great. It is precisely in these respects that the great advantage of steel lies over the best malleable iron. Crucible steel castings will bear fully five times the tensile strain of iron castings, enabling the engineer to attain the requisite strength in cylinders, cog and spur wheels, and other parts of steam and hydraulic machinery, with a very great diminution of weight and bulk. The advantage of steel over iron for stationary machinery and apparatus of various kinds is sufficiently important to create a rapidly growing demand. It is likewise important, in locomotive machinery and vehicles generally, where the expenditure of power depends to a large extent upon the weight to be propelled, that the various parts should combine great strength and lightness. This is now so generally recognised, that steel wheels are coming into almost universal use for colliery corves, tramway cars and other such vehicles. The combination of strength and lightness is, however, not the only advantage of steel for these and a great variety of other purposes: the advantage in point of durability is also great. The remarkable tenacity of carefully tempered steel diminishes enormously the liability to breakage from rough usage, while the closeness of texture and hardness increase the wearing power at least four-fold. It was the vastly greater durability of steel rails under heavy traffic, which originally brought them into general use on leading railways, notwithstanding their greater cost. The superiority of crucible steel for wheels, engineering and

other purposes is even more decisive, and steel is rapidly superseding iron, brass, phosphor-bronze and other metals for a great variety of purposes. At the commodious works of the Hadfield Steel Foundry Company, castings are made of all sizes from a few pounds to five tons in weight, and for the most varied purposes. The Company exhibited a great variety of castings at the International Exhibition at Paris last year, and received the only gold medal awarded for crucible steel castings. The illustration given below is of a casting taken in steel by this Company. We believe this is the first time such a work has been accomplished, and, although the art may in this direction not be of great commercial value, still it shows the great progress made in applying steel to artistic purposes.



Messrs. Vickers, Sons and Co. Limited, John Brown and Co. Limited, William Jessop and Sons Limited, whose extensive works we have already described, are steel founders on a most extensive scale. We may also mention Messrs. Henry Lawrence and Co. and Fenton and Sons.

### STEEL WIRE.

The manufacture of steel wire is a considerable and growing industry in Sheffield. The quality of steel used for wire is of primary importance, and in this respect Sheffield manufacturers have an advantage over competitors in Manchester and other places. They make their own steel, adapting it to the special requirements



of the trade, and nowhere is the manufacture and manipulation of crucible steel so thoroughly understood and so successfully practised as at Sheffield. The finest crucible steel is used for the best wire. The steel is cast in ingots of about 60 lbs., and these are rolled into thin "rods," as described in our notice of steel rolling, the rods being wound in coils. The next business is to soften the steel, and this is done by putting the coils into pots or ovens, keeping them there until the steel is red-hot, and well "soaked" or heated through, and then letting it cool gradually. The coils are next put into stone troughs, and washed with acids to remove dirt and the scale produced by heating. They are afterwards heated until the steel is blue, in "blueing" ovens, to remove the acid absorbed in scouring. When cool the coils are ready for the drawer. The machinery for drawing is very simple, consisting of a "swift," a perforated steel plate fixed in an iron frame, and a small cylinder or drum, called a "drawing block." The coil is put upon the swift; and the end of the wire, having been filed down for the purpose, is put through one of the holes in the steel plate, and fastened to the drum. The drum turns, and as the wire is unwound from the swift and wound on the drum, it is drawn through the steel plate, and reduced in thickness according to the size of the hole through which it passes. The holes taper so as to graduate the pressure upon the wire as it is drawn through, and are round, square, grooved, or otherwise shaped, according to circumstances, the wire, of course, taking the shape of the perforation through which it passes. Wire cannot be reduced in thickness more than about 50 per cent. in one drawing, so that the thinner it is required to be the more frequently it has to be drawn. For the finest wire, especially when it has to be grooved, carefully cut dies are substituted for the perforated steel plates used in ordinary drawing. The fineness to which wire is drawn for some purposes is one of the most wonderful parts of the manufacture. Much of the wire used for watches and clocks, including pinion wire used for the cog wheels of watches, is drawn in Sheffield. Being employed for mechanism so delicate, pinion wire must necessarily be most exact in size, and though in many instances exceedingly small, it has often as many as twelve grooves. Watch motion wire, also made here, is exquisitely fine—finer in fact than hair. Its price in weight is equal to that of gold—one pound weight producing a length of 552,960 inches. It is obvious that the dies through which the very fine wires have to be drawn must be cut with exceeding care and accuracy; everything, indeed, must depend upon their precision of finish, especially in the pinion wire, in which the minutest irregularity would destroy the value of the finished article. Fine wire for watch springs, needles, and many other purposes, is manufactured largely in Sheffield; and immense

quantities are made for ropes, umbrella-frames, and similar objects. Great care and judgment are required in the manipulation of wire generally, and especially in heating for the purpose of softening it for drawing. It must be heated evenly and thoroughly on the one hand, and burning must be avoided on the other hand, as in either case the steel would break in drawing, and be valueless. Great care is also necessary in afterwards hardening and tempering the wire, which is minutely examined and subjected to severe tests before it is sent out.

Messrs. FAIRBROTHER AND Co.—The Crown Steel and Wire Mills of Messrs. Fairbrother and Co. Limited, of which we give an illustration, are in Bessemer-road, Attercliffe. The Company's principal branches are the manufacture of crucible cast-steel wire for steam plough, pit, hauling and other ropes, paragon and solid wire for umbrellas and parasols. For the rope classes of wire the Company have a patent process which increases the toughness and hardness of the wire, thus adding materially to its tensile strength. They also manufacture cast-steel wire for springs and general purposes. These works, which cover a large area, are newly erected on the most approved plans to meet the demand of an expanding business, and are complete, well arranged, and fitted with the most modern and best machinery. The works include furnaces for melting and refining the cast steel used for the various kinds of wire manufactured by the Company, brick ovens for annealing the cast-steel wire, and large metal pots for annealing the homogeneous and charcoal wire, all of which are constructed on the best principles for securing an even temper in the wire prior to drawing. The arrangement of the wire mill is somewhat peculiar, the engines being placed in the centre of the mill, and the large driving shafts working from opposite sides. It is a large room, with a long metal frame like a shop counter running its entire length. Along the middle of this counter is a row of drawing blocks or drums, about 6 feet apart. Between the drums, but at the edge of the counter, are fixed the whortles or drawing plates, through which the wire is drawn, half on one side and half on the other. The swifts, which resemble the wooden standards used in winding yarn, are of iron, and arranged in rows, a few yards from the counter, on either side. Under the counter runs the massive shafting, working direct from the engine. The drawing blocks are geared by spur wheels to the shafting, and are thrown into or out of gear at the will of the operator by the pressure of his foot on a treadle. When the machinery is in full work, the mill has a busy and animated appearance, the work going on with great regularity and with comparatively little attention the part of the workmen, the great art of the wire drawer being to keep the whortles or plates exact, so as to ensure the wire being drawn



to the exact size required. In the paragon mill, where the umbrella wire is manufactured, a different but equally simple process is applied. It is first drawn flat through the plates, then rolled thin under exceedingly hard polished cast steel rolls, then curved by passing between concave and convex wheels working together, and finally reduced to the hollow, three-sided paragon shape by being drawn through a die of the exact shape required; after which, by another equally effective machine, the wire is straightened by simply passing between a number of small and rapidly revolving horizontal wheels fixed on a table, the second wheel revolving partly between the first and third, and so on, so as to curve the wire in passing. By being thus bent in a contrary direction, the wire is most effectively straightened,—every curve and twist caused in the process of manufacture disappearing. The wire is then cut up into the required lengths, hardened and tempered, ready for the umbrella manufacturer.

Messrs. JOHN HARTLEY and Co., Newhall Wire Mills, manufacture wire for pit and other ropes, umbrellas, and various other purposes. On the next page we give an illustration of their works, which have been carefully arranged with a view to the requirements of the business, and are fitted with modern machinery and appliances.

Messrs. Cocker Brothers Limited are large and old-established manufacturers of wire for ropes, needles, pins, fish hooks, music, &c. Among other eminent firms in the wire trade are Messrs. J. R. Wright, jun., Worrall Brothers, James Cocker, Shipman and Co., Worrall, Hallam and Co., Wilson Hawksworth and Co., D. H. Coupe, jun. and Co., Hallam Brothers, George Hallam and Co., &c.

## FURNACE LININGS AND GANISTER BRICKS.

In our description of iron and steel making, we have had frequent occasion to allude to the intense heat required in many of the processes, and our readers may well ask what material has been found sufficiently fire-resisting to assure the safety of such processes? Fortunately, our own district supplies the best fire-resisting material known. Fire-bricks and stone were formerly used, but the necessity for a more durable substance was felt, and now ganister is almost universally used for crucible as well as Bessemer furnaces. "Ganister" is a familiar word at Sheffield, and is known to metallurgists who have any acquaintance with South Yorkshire, but has not yet found its way into dictionaries. The only reference to it in Dr. Percy's "Fuel," &c., is in a foot-note, in which he says that "Dinas rock is believed to be the millstone grit of the carboniferous system, and the geological equivalent of the bed termed ganister at Sheffield." Ganister is a silicious rock found in the coal

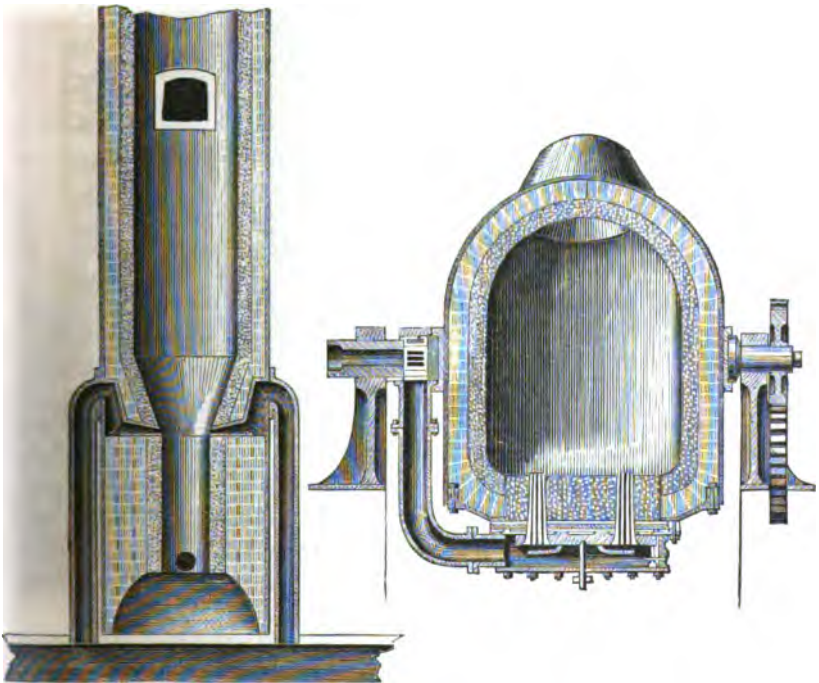


NEW HALL WIRE MILLS.—MESSRS. JOHN HARTLEY AND CO.

measures of the neighbourhood. The colour varies from light to dark grey, oxide of iron or other material occasionally giving a red or brown tinge. Ganister has a very close, hard texture.

The principal manufacturers of powdered ganister in this district are Messrs. J. Grayson Lowood and Co., who have works in Attercliffe-road, and large mines and works adjoining the Manchester, Sheffield and Lincolnshire Railway at Deepcar. A more powerful fire-resistant is required for steel than for iron castings, and Messrs. Lowood supply this want by their "Steel Moulders' Composition." They also make ganister bricks, which not only resist the most intense flame, but are practically non-expansive, and are coming into general use in this country and on the continent, as also in the United States. The black ganister, which is usually the lower strata of the rock, is the most valuable, and the beds of Messrs. Lowood and Co. contain large quantities of this quality. The veins run up to the unusual thickness of eight feet, and are over 300 yards below the surface.

The ganister is sent to the surface in large pieces, which are first broken up by heavy machinery and then ground to powder by huge edge runners worked by steam power. The powder is made into a stiff paste or mortar, Bessemer and other furnaces being lined by placing a mould inside and ramming paste between the sides of the furnace and the mould, which is removed in sections as the



SECTION SHOWING LINING OF CONVERTER AND FURNACE.

ganister hardens. In this way a close, thick lining is obtained, and the size and shape of the furnace is preserved. At Dowlais and Ebbw Vale, in South Wales, furnace linings are made from the Dinas rocks, but are much inferior to those made of Sheffield ganister.

### STEEL MELTERS' POTS.

One word as to the crucibles in which, as shown in our illustrations, steel is melted, and for which also a powerful fire-resisting material is needed. They are made of Stannington clay, trodden first into a powerfully adhesive paste with the naked feet, after the manner of the old potters, and afterwards tossed and kneaded with the hands. Owing to the adhesiveness of the clay, treading with the feet is an exceedingly exhausting labour, and is usually performed in the scantiest modicum of attire. In the manipulation of the clay, two points have to be attended to with the utmost care—the detection and removal of fragments of stone or other hard substances, and of air-cells, either of which would be fatal to the crucible by causing it to blow or leak. The air-cells show on the surface in the shape of small pimples during hand-kneading, and are carefully opened. The pots are afterwards made in moulds called “flasks,” by the simple expedient of throwing into the flask the weight of clay required, and then driving in a “plug” of the exact size the crucible is required to be. The crucibles are taken out of the moulds as they are made, and slowly dried on the shelves of the furnace. The crucible maker is as indispensable to the steel melter as the steel itself, and is usually found at his wearisome task in a cellar or shed adjoining the melting holes.

### CUTLERY MANUFACTURES.

The early reputation of Sheffield was for its cutlery wares; and this reputation it still maintains. In spite of all that has been done to damage the character of the town, it is well known to those who are conversant with the facts, that Sheffield produces the best cutlery that is made. A Sheffield knife or razor, with the mark of a good firm upon it, will hold its ground against the world. The superiority of the goods sent out by the leading manufacturers must indeed be decided, to enable them to maintain the supremacy which they unquestionably hold; for both on the Continent and in America a dishonest system of piracy was pursued for many years, in such a way as not only to obtain the benefit of the marks of Sheffield firms but to injure their reputation. A Prussian manufacturer, for instance, made some very bad cutlery or edge tools, and also some as good as he could send out. On the good articles

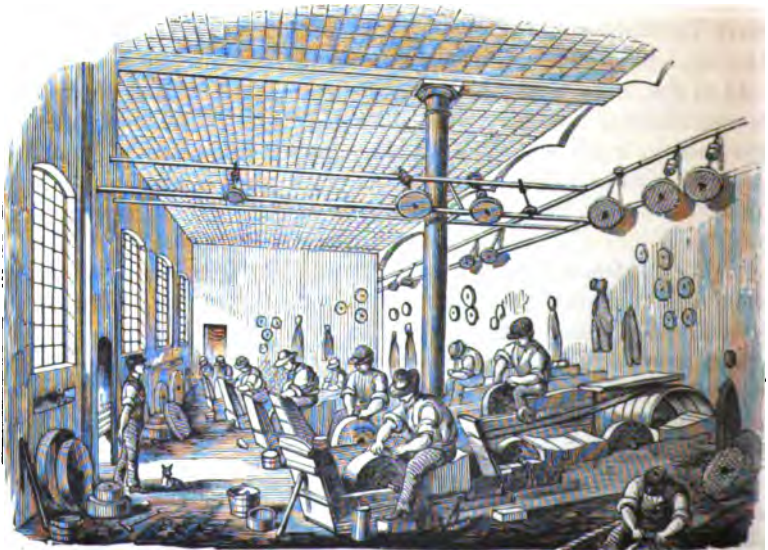
he stamped his own name, and thus obtained a reputation as the maker of respectable goods; but upon the worthless trash he affixed the well-known name and mark of some eminent Sheffield firm, effecting thus the double object of selling his rubbish and bringing the name of the English house into bad odour. These piracies were carried out in a most systematic manner. In some instances firms in Prussia sent out circulars offering to imitate the labels and packages of any particular house required. The law of that country formerly gave no redress to the English manufacturer in such cases; and in France the state of things was at one time almost as bad as in Prussia. But in both countries the same protection has of late years been given to English as to native manufacturers, and the piracies have been checked. In Sheffield and the district, the piracy of trade marks is rarely ventured upon, and when it is done, the fraud is, as a rule, promptly repressed if the mark is worth protecting. The Cutlers' Company have long had special powers by which summary proceedings can be taken before the Magistrates; while they have a registry of all the marks granted, so that infringements can be readily proved. Under the protection afforded by the Cutlers' Company, many Sheffield firms have built up a reputation for their marks which it would be difficult to measure by a money value. A few years ago an Act was passed giving similar protection to manufacturers generally, and establishing a national registry of trade marks; the special powers and privileges the Cutlers' Company have so long exercised being reserved to them. Attempts have been made from time to time to decry Sheffield cutlery as inferior to that manufactured in London. To those who are aware of the facts, this is nothing better than a joke, for it is well known that most of the first-class cutlery passed off by the Metropolitan shopkeepers as "London made" is produced in Sheffield. The purchaser never can get wrong so long as he obtains articles bearing the name or mark of one of the many eminent firms in Sheffield which have earned a reputation for their goods.

We now proceed to give a description of the various processes of cutlery manufacture. Before doing so, we may explain that the principle of sub-division of labour is very fully carried out in the cutlery trades. Not only is each department, as forging, grinding, &c., performed by separate workmen, but the man who grinds or forges one particular class of blades, penknife blades for instance, does not work at table-knife blades. Some who make, forge or grind pen blades do not make or grind the larger blades for the same knife. Hence there are penknife forgers and grinders as distinguished from pocket-knife forgers and grinders; and so on throughout all the different branches.



## SPRING KNIVES.

The "thwytel," or whittle, which seems to have been the first product of the Sheffield cutlery maker, was a rough kind of spear or table knife with wooden haft. It was used for all purposes, and carried as a weapon by persons whose rank did not entitle them to carry a sword. The "jack knife"—the first knife made to shut—was a subsequent invention; but as a matter of convenience, we commence with spring cutlery, or knives that shut with a spring so as to be carried in the pocket. The ingot of steel, rolled or hammered to the required size, is first placed in the hands of the "forger" or "blade maker." The forger works in a small room containing a fire-place or hearth, a trough to hold water, and another for the small and specially-prepared coke for the fire, an anvil weighing from two to four hundredweight, and other tools. The forger buries the end of the bar of steel in his fire, then working his bellows, he soon raises the steel to the proper heat. This has to be done very carefully, for if over-heated the steel becomes what is called "burnt"—that is, it is changed from steel, which is a carburet, into a sulphuret of iron, which is useless for cutlery purposes. Again, if not adequately heated, it is not sufficiently soft to take the shape which the forger intends. Duly heated, the end of the bar is brought to the anvil, and is there fashioned with very few strokes by an expert hand into a blade of the required shape, and is cut off the bar, which is again heated for the renewal of the process.



A SHEFFIELD GRINDERS' "HULL."

The end of the blade where it is attached to the handle is called the "tang," and the next stage in the knife's history is the grinding of this part. The building in which the grinder works is commonly called a "wheel," and each separate shop in it is denominated a "hull." The preceding engraving gives a very faithful delineation of a grinder's "hull." The grinding wheels are amongst the most curious and characteristic of the manufacturing sights of Sheffield. The stranger looks in through the open door or window, and, after he has grown accustomed to the confused hubbub caused by the whirling and rattling of the machinery, the hiss of the steam engine and the noise of the grinding, he examines with lively interest the "wheel" and its occupants. The whole place is tinged with a peculiar brownish yellow hue, caused by the particles thrown off from the stones on which the blades are ground. These stones are revolving rapidly, and at each of them sits a workman, his hand grasping the steel, which, held dexterously to the surface of the stone, sends forth a continuous shower of sparks. In this way the tangs before described are ground, together with one side of the blade, preparatory to its being marked. This process is technically termed "laying on."

The next process the blades undergo is that of "marking." The marker's shop is the counterpart of the forger's. On a coke fire a narrow iron tray is laid, on which the blades to be marked are arranged. The fire is intensified by the application of the bellows until the blades assume a dull red heat, called "worm red." Then, the blades being sufficiently soft, the marker takes up six or eight of them with his tongs, lays them upon the anvil, and, lifting his mark and hammer, cuts the manufacturer's name and corporate or distinguishing mark into the tang, and in many instances on the side of the blade as well. The mark resembles a broad punch, and is made of the best hard steel. In the bottom (or what would be the point of a punch) is carved the name or design of the firm, and this is transferred sufficiently deep into the tang or blade by a single blow.

The blades thus marked are returned to the forger for the purpose of being hardened and tempered. The hardening is done by laying them again upon a small iron tray and heating them to a dull red colour, when they are plunged into cold water. The sudden abstraction of the heat renders the blade hard and brittle. To overcome this brittleness, what is called the tempering process must be carried out. The blades are first rubbed with some finely-powdered sand, to remove any scaling or unevenness of surface produced by the hardening; they are then placed on an oblong tray made of steel, which is put on the fire, where it remains until the blades assume a straw colour or bright blue tint, when they are removed and allowed to cool. All that the blades now require is giving an

edge to them. For this purpose they are again taken to the grinders' "hull," before described, and are there ground. The blades pass thence to the "cutler," accompanied by the other portions necessary to make up the complete knife. First there is the "spring." This constitutes the back of a pocket knife, and is made of steel. The springs used in a knife vary according to the number of blades. There are also the outer and inner "scales." The outer scale is in reality the covering of the knife, and consists of pearl, ivory, horn, shell, wood or other suitable material. The inner scale is composed of iron, brass, or German silver, and forms the small chambers into which the various blades fit within the outer covering. These materials, with bolsters, rivets, &c., for fastening the whole together, are carried to the cutlers' shop, where, besides the tools required for this purpose, there are what are called "buffs" and "glazers." These are necessary for polishing portions of the knife. The process of fitting the materials together and properly securing them is a delicate one, and requires careful and experienced manipulation. The knives, being so far finished, are protected by paper wrapping and returned once more to the grinder for the purpose of being polished. They are brought back to the warehouse, where they are whetted or sharpened, by the edge of each blade being skilfully and rapidly passed over a very hard and peculiar stone, the surface of which is lubricated with olive oil. The knife may now be considered absolutely finished, and only requires to be cleaned before it is ready to be sent away.

#### TABLE KNIVES.

The ample description we have given of making spring knives will furnish a general idea of the way in which table knives are made, the operation varying only in detail. The spring knife forger works alone, but the table knife forger has the assistance of a "striker," who wields a heavy two-hand hammer. The forger has charge of the steel, turning it about on the anvil, and indicating with the blow of his own smaller hammer where the striker's blow is to fall, and aiding in the work. The blade is first roughly forged from the end of a thin bar of rolled or hammered steel, then cut off and welded to a small piece of iron, of which the "bolster" and "tang" are formed. The bolster is the raised part between the blade and haft, and is formed by crushing the hot iron between a pair of dies hollowed to the size and shape required; one side of the die being fixed in the anvil, and the other side held over the metal by the forger while the striker crushes them together by a smart blow. The "tang" is the part of a table knife on which the haft is fitted, and is drawn out by a few rapid strokes of the hammer. The tang is made round and tapering for ivory and other solid

hafts, and flat for hafts composed of thin scales requiring to be rivetted like those of the spring knife. "Bolster" and "tang" are names with which we shall frequently meet in the descriptions of other manufactures. The "dies" are sometimes called "prints" and sometimes "bosses"—all varieties of the same thing and used in various trades. This is the process of hand forging by which all blades were formerly made.

Some manufacturers now forge common table knife blades by machinery, making the bolster and tang of steel as well as the blade. As in hand forging, the end of a rod of steel is first heated, the blade is then roughly shaped by a few strokes of the steam hammer—"mooding," the operation is called—and afterwards cut off, with a small additional length for the bolster and tang. The bolster is shaped without re-heating, but the steel is heated afresh for drawing out the flat tang. The blade is next re-heated and "plated," *i.e.*, hammered thin and broad. Blade and tang are afterwards "flyed," that is, they are successively pressed into hollow prints or dies, by which the edges are cut off, and they are reduced to the exact size and shape required. Still cheaper knives are made by dispensing with the bolster, and flying the blade and tang out of a cold sheet of steel at one operation, saving entirely the processes of forging, bolstering, tanging and plating, and overcoming defects of appearance by ingenious devices in hafting. Sheffield manufacturers, however, adhere to the employment of the most intelligent hand-labour that can be procured in the production of best cutlery. They freely use machinery for drilling, boring and other operations in which its uniformity and exactness make it superior to hand labour, but have far too much regard for the quality and reputation of their best goods to substitute machine work in departments where the highest excellence can be attained only by the employment of intelligent hand labour.

After the forging is completed the blade undergoes the processes of grinding, hardening, tempering, &c. It is then passed to the cutler, and after being hafted again finds its way to the grinders' room to be "buffed" or finished. Hardening and tempering are processes upon the effectual performance of which the value of all cutting articles must very greatly depend; and it is by the peculiar skill of the workmen in these difficult departments that the reputation of Sheffield cutlery has been in a large measure created and kept up.

Besides the trade in table knives with steel blades, there is a large demand for dessert cutlery, which is made of a more elaborate and ornamental character, the handles being commonly of pearl, silver-plated, &c., and the blades of silver or of steel or German silver plated with silver. Much taste is shown in the ornamentation of the handles and blades.

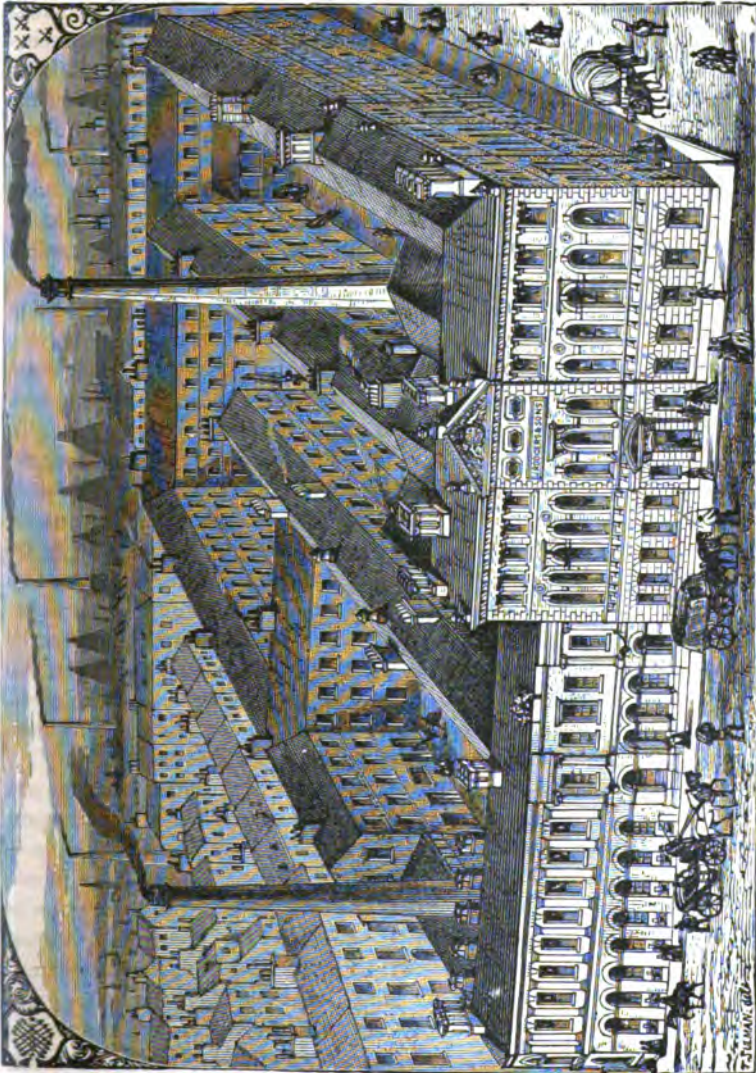
## RAZORS AND SCISSORS.

It is notorious that nothing varies in quality more than razors, and in no kind of cutlery is finish of workmanship so perceptibly valuable. Razors of the highest excellence are forged from the very best qualities of cast steel, and are made with the utmost finish and care in every stage of their progress through the manufactory. The bars from which they are formed are about half-an-inch in breadth and no thicker than suffices for the back of the razor. The blade having been forged, the concave surface which is seen on the sides of the razor is made by dexterously working it on the rounded edge of the anvil. It is then cut off, and the tang is formed either by drawing out the steel or welding on a piece of iron. The blade after this undergoes the processes of hardening, tempering, &c.

There are great varieties of scissors, and they vary very much in quality. We may mention, amongst the different kinds, button-hole, cutting-out, tailors', drapers', flower, garden, grape, hair, nail, pocket scissors, &c., &c. In making scissors a single blade is forged, with enough steel at the end for the shank and bow. To shape the bow a hole is punched through, and in this aperture the projecting point of a small anvil is placed, the bow being worked upon it with the hammer. After being softened in the fire, the shank is shaped and the bow is more perfectly rounded with the file. The joint is also squared, and the hole is bored and fitted for the rivet. The blades are next ground, and the bows and ornamental work are smooth-filed, &c. The separate blades are then screwed together so as to form the complete scissors. When it is seen that they work properly they are unfastened and hardened and tempered, after which the whetting, polishing, and other finishing processes are performed.

Messrs. JOSEPH RODGERS AND SONS.—In spring knives and every other description of cutlery, the name and mark of Messrs. Joseph Rodgers and Sons are universally known as indicative of goods of the very highest quality and finish. Their show-rooms, in Norfolk-street, have for many years been a great attraction to strangers visiting Sheffield who desire to see some of the most elegant productions of the town, or to make purchases of cutlery, plate, articles for presentation, &c., &c., which are here displayed in great profusion and variety. The engraving on next page gives a good idea of the spacious pile of buildings now occupied by Messrs. Rodgers and Sons, which are amongst the most handsome business structures in the kingdom, their large show-rooms being very elegantly fitted up and furnished. It is impossible for the visitor to get a better idea of what is accomplished in the finish and elaboration of cutlery, and other Sheffield manufactures, than

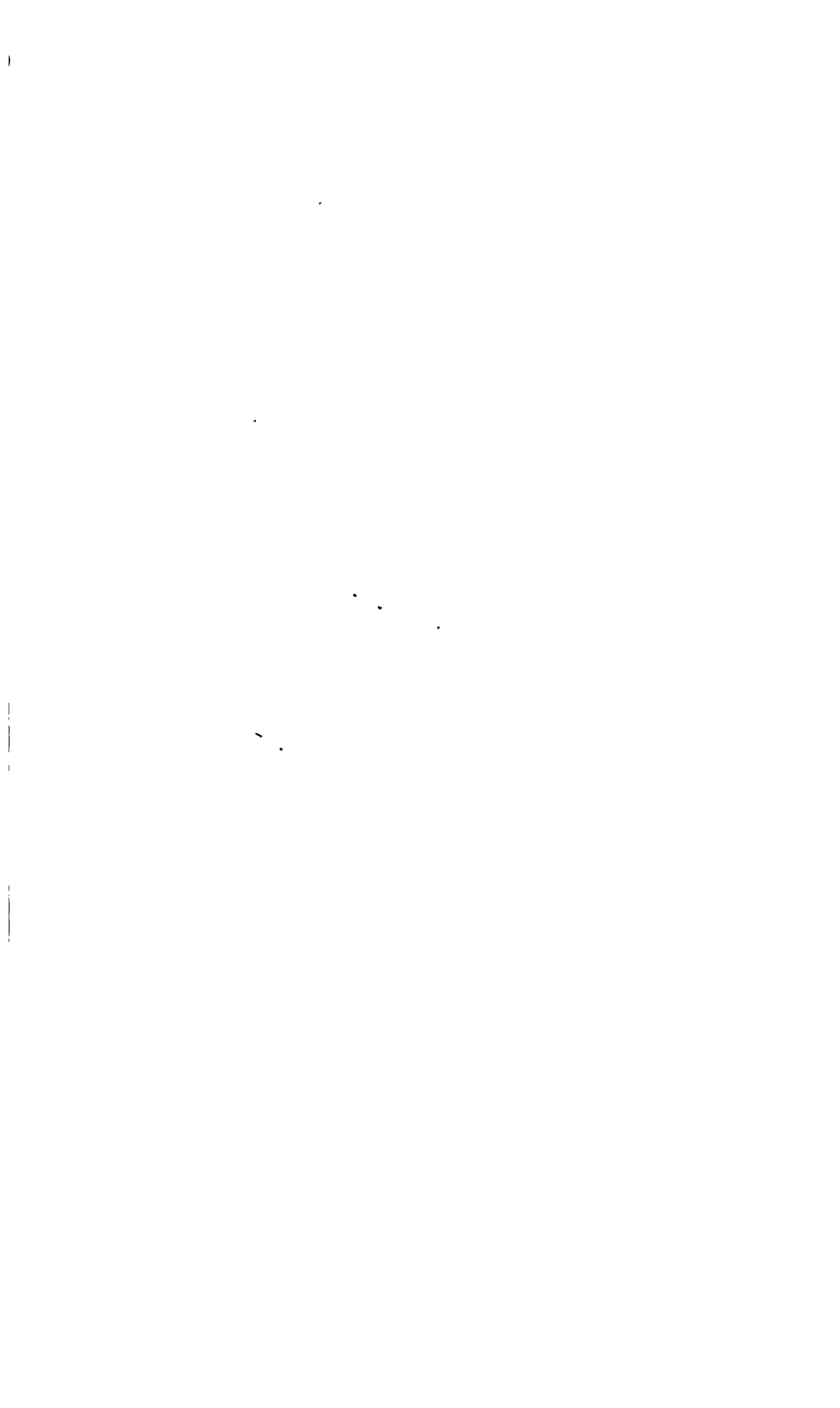
by an inspection of these show-rooms; and nothing can furnish a more striking example of the industry and skill of man, acting upon the raw products of nature. One of the most pressing wants of the



MESSRS. JOSEPH RODGERS AND SONS, NORFOLK-STREET.

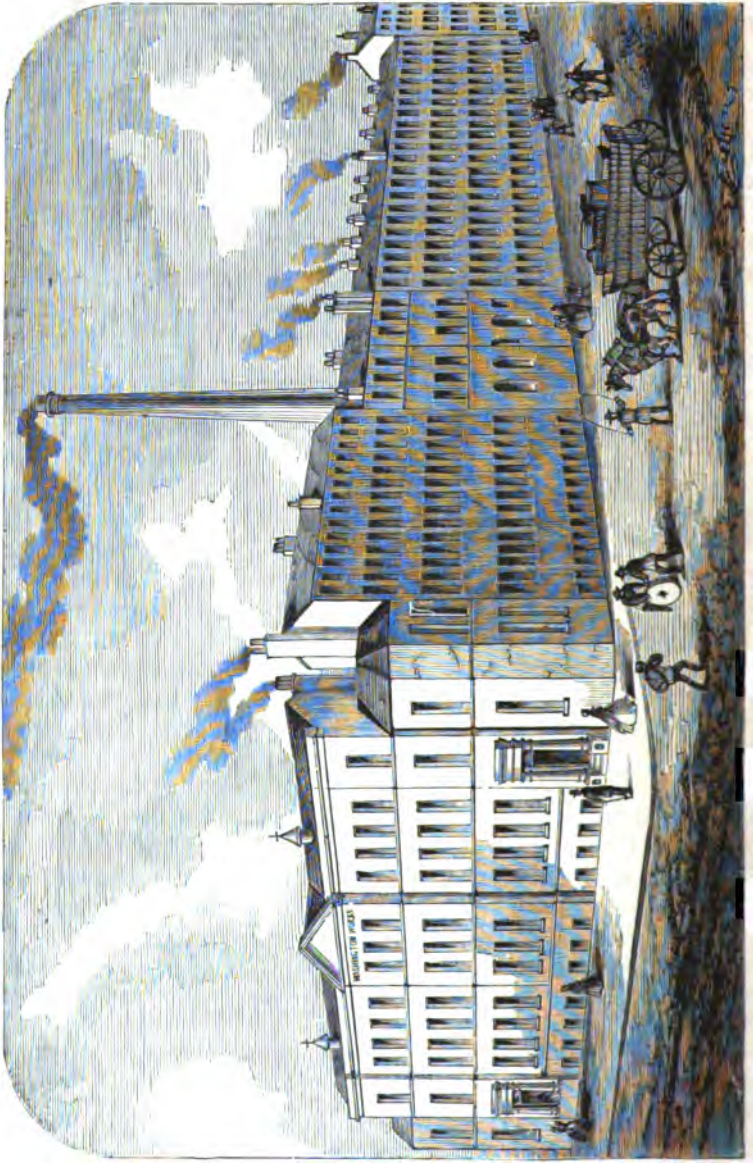
cutlery trade for some years has been the want of a new and satisfactory material for hafting. The growing scarcity of pearl and ivory has made those materials for the best cutlery more expensive from year to year, and much of the other material used

is more or less unsatisfactory. Messrs. Rodgers and Sons have recently introduced, for table cutlery, a substance which is entirely new to the trade, but has already come into extensive use, and from its remarkable properties must soon supplant much of the raw material hitherto used. Some hafting material, such as the various kinds of horn and wood, are spoiled if immersed in hot water, and soon lose their original gloss and finish in ordinary use, presenting a shabby, worn appearance. Other kinds of material, including ivory and bone, frequently crack in warm climates. These difficulties are surmounted by the new substance, which is neither injured by boiling water, nor is it cracked by heat—a matter of great importance to residents in hot climates, for economical as well as for other reasons. The handles of ordinary table cutlery are not only liable to damage in this way; they are also liable to become loose. Messrs. Rodgers and Sons claim for their cutlery that the handle is perfectly secure, and cannot be separated from the blade. Bearing in mind the severe strain to which knives are subjected, especially in hotels and other large establishments, from powerful knife-cleaning machines, and in other ways, this is a matter of considerable importance. The new material introduced by Messrs. Rodgers is much lighter in weight than other material, and the cutlery is consequently more pleasant to use. Moreover, the handles are always smooth and retain their polish. They are made in a variety of elegant designs, and have come so much into favour that until recently, we understand, the Company have not been able to produce them in sufficient quantities to supply the demand. They are known to the trade as the “*ebonite secure handle table cutlery*,” and have been protected by registration. The introduction of so great a novelty must be considered as an era in the Sheffield cutlery trade. We have already alluded to the employment of machinery, which Sheffield manufacturers have hitherto been disinclined to adopt. Our Transatlantic relations boast of the almighty power of their machinery, as of their dollar; but Messrs. Rodgers and Sons, like other leading manufacturers here, know that for many processes in the manufacture of cutlery the human hand cannot be superseded by the most dexterous mechanical arrangements. Special allusion may be made to the hardening and tempering of the blade, grinding, and welding, where great handicraft intelligence is necessary. A reckless employment of machinery may be made, and in fact is made, for even these processes; but those who value a reliable knife will be careful to avoid such goods. It has been the endeavour of Messrs. Rodgers and Sons to combine the use of machinery with hand work, and in the exact fitting of the constructive parts of the knife they make a liberal use of the most suitable appliances, but for the intelligent





*Illustrated Guide to Sheffield.*



WARRINGTON WORKS.—MESSRS. GEORGE WORTENHOLM AND SON LIMITED.

processes where thought and care are essential they still rely upon manipulative skill. For many years they made only the finest quality of goods, but they now make large quantities of medium and cheaper wares, which are a great improvement upon American designs, and intended for use in that country. The fact of their large exportation of this class of goods, in spite of a most hostile tariff, is sufficient proof of the value of their combination of manual and machine work, and of the vastly superior quality of these goods in cutting and lasting properties over those of foreign rivals. On the 1st January, 1871, the old-established firm of Joseph Rodgers and Sons merged into a private "limited" company, and since that time the success of the firm has been even greater than under the old régime.

**Messrs. GEORGE WOSTENHOLM AND SON Limited.**—The largest establishment for the manufacture of spring knives is that of Messrs. George Wostenholm and Son Limited, whose cutlery takes the highest rank in the United States of America. Their commodious premises are appropriately named "Washington Works"—the business of the firm having been formerly almost exclusively American. The business was established by the late Mr. George Wostenholm, who did a limited trade at Rockingham Works, Rockingham-street, and afterwards removed to Washington Works, which, as his business attained large dimensions, he from time to time greatly extended. In 1875 the business was transferred to a limited company with a capital of £100,000, Mr. Wostenholm being the chairman until his death in August, 1876, when Mr. Bernard Wake accepted the position. Messrs. Wostenholm and Son are manufacturers of all kinds of spring knives and of table cutlery, scissors, and razors. Their corporate marks are I-XL, a design of a Pipe, "Tally-ho!" and "Congruent," all well-known and valuable marks in different markets. The mark of the Pipe was granted as far back as 1694, by the Cutlers' Company, and is the oldest mark upon the Government Register for articles with a cutting edge. It was purchased many years ago from the previous owners by Mr. Wostenholm. The trade of Messrs. Wostenholm and Son is chiefly foreign; they export largely to the United States, and have also considerable markets in Canada, Australia, the West Indies, and several European countries. They have deservedly been among our most successful exhibitors. Mr. Wostenholm received a prize medal at the International Exhibition of 1851; a large gold medal (the only one presented for English cutlery) at the Paris Exhibition of 1855; and a large gold medal at London in 1862. At the Paris Exhibition of 1867 Mr. Wostenholm was a juror, and therefore excluded from competition. At the Philadelphia Exhibition of 1876 a medal and diploma were awarded to the Company.

**Messrs. M. HUNTER AND SON.**—Another well-known house in the cutlery trade is that of Messrs. M. Hunter and Son, of Talbot Works. The family of Messrs. Hunter have been engaged in the Sheffield trade for more than a century. The business conducted at Talbot Works was founded more than a century ago by the father of Mr. Michael Hunter, senior, and is now carried on by his son, Mr. Michael Hunter, junior. Father and son have severally occupied the honourable and dignified position of Master Cutler. The firm have been remarkable for the energy and enterprise they have thrown into the trade. Some thirty years ago, when cutlery was forged entirely by hand, the table blade forgers carried their restrictive measures for forcing up wages so far that they did not do work enough to more than half employ the grinders and cutlers, who suffered severely, and much trade was driven to other places. Messrs. Hunter were the first to take the bull by the horns. They applied the tilt hammer, of which we give an illustration, to the

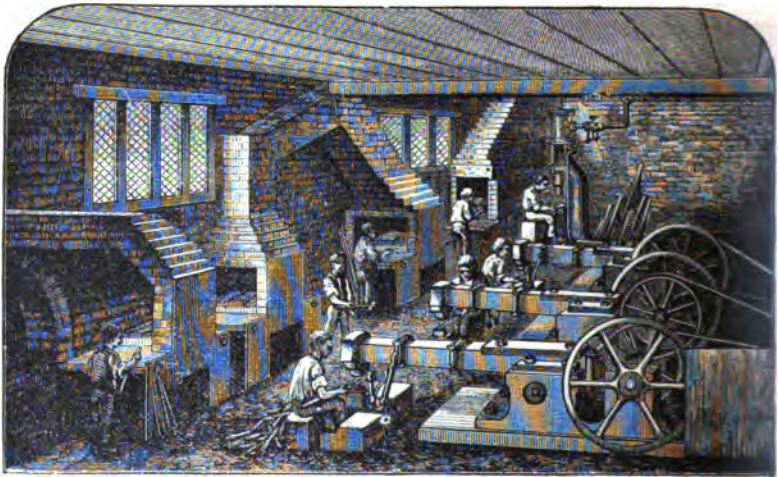


TABLE BLADE FORGING—MESSRS. M. HUNTER AND SON.

forging of table blades, using steel instead of iron for the bolster and tang, and so saving welding. This bold application of machinery to table blade forging greatly reduced the dependence of the manufacturers on the work of the forgers, and led to important modifications of the union restrictions. Messrs. Hunter were also the first to use circular saws in the cutting of horn and other hafting material. We mention these facts as illustrations of the energy and enterprise they have shown, and still evince, in dealing with difficulties and meeting the requirements of the market. Messrs. Hunter manufacture all kinds of cutlery, their trade marks, "the Horn and the Bull," having a world-wide reputation, the value of

which is indicated by the fact that their spear-pointed knife, bearing the latter mark, will fetch a much higher price in the markets of South America than any similar knife. Messrs. Hunter have not confined their operations to cutlery : they have entered largely into the skate trade of late years, and are owners of patents of high repute and great value. They have also an extensive business as general merchants.

Messrs. LOCKWOOD BROTHERS, of Arundel Street, manufacture cutlery of all kinds, using machinery for drilling, boring, polishing, and other operations for which it can be used with advantage, but employing skilled hand-labour for all the delicate operations affecting quality, beauty of design, and perfection of finish. For table, butchers', and other such knives, they use shear steel, but make their spring cutlery of refined crucible steel. A notice of the other manufactures of Messrs. Lockwood Brothers will be found in subsequent pages.

Messrs. HARRISON BROTHERS AND HOWSON, of Norfolk-street, are among the most eminent cutlery manufacturers of the town. The business has been established many years, and the firm, whose goods have a high reputation, do a large business in the home markets, and in America and other foreign markets.

It is impossible in a work of this description to give anything like a complete list, even of the principal manufacturers of cutlery. The following is a selection :—Messrs. Joseph Haywood and Co., Wingfield, Rowbotham and Co., George Butler and Co. Limited, Needham Bros., F. Newton and Sons, W. and S. Butcher, C. Johnson and Co., Wilson Hawksworth, Ellison and Co., J. Nowill and Sons, J. and R. Dodge Limited, Brookes and Crookes, S. and J. Kitchin, J. Wilson and Sons, Needham and Veall, J. Wain, J. Mearbeck, T. Renshaw and Son, Clarke, Shirley and Co., A. Field and Co., J. Askham, Atkinson Bros., H. C. Booth and Co., Brumby and Middleton, John Coe and Co., Joseph Fenton and Sons, L. and C. Glauert, S. Hawcroft and Sons, Long, Hawksley and Co., Mappin Bros., Nixon and Winterbottom, Steer and Webster, Southern and Richardson, Unwin and Rodgers, E. Blyde and Co., J. Crookes and Son, Maleham and Yeomans, Wheatley Bros., T. Hardy and Sons. Scissors—R. Gorrill and Son, G. Wilkins, John Blyde, Laycock Bros., &c.

#### IVORY CUTTING, ETC.

In conjunction with the cutlery trades a large business is done in material for hafting. Some of the principal houses buy pearl, ivory, horn, ebony and other material, and cut it up on their own premises, but the manipulation of hafting material is also a separate trade. Pearl, ivory, horn, bone and wood merchants and cutters are numerous, manufacturers dealing with them for hafting material. It is no uncommon practice for the manager, in supplying

blades, &c. to the cutler for knives, to give him an order on the dealer for hafting material, instead of supplying the material itself. The making of springs and the thin brass and iron scales forming the inner portion of the spring knife haft, is also to some small extent a separate trade, hence the term scale and spring manufacturers. Circular saws are now chiefly used for "knife cutting." Scale pressers are a kindred class of workmen to scale cutters. They press horn and other material into ornamental shapes for hafting.

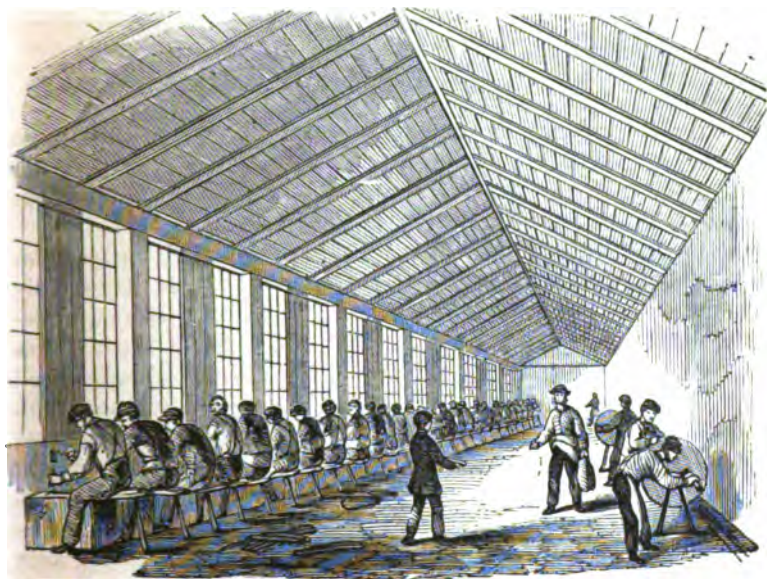
## FILES, EDGE TOOLS, SHEEP SHEARS, AND SAWS.

Sheffield is popularly known principally as the world's great steel and cutlery mart, but an enormous trade has been done for many years in files, edge tools, sheep shears, and saws, these goods being in most cases produced by firms who also make steel.

The manufacture of files is very interesting, from the peculiar skill manifested in one department—file cutting. Files vary greatly in shape and size. They are made flat, round, half-round, three-square, and square; and range in length from two or three inches to the same number of feet, differing proportionately in weight and strength. In teething, there are the single and double cut, made with the broad chisel, and the rasp cut, with the pointed chisel; the smallest teeth—those of watchmakers' files for instance—being so fine that a good naked eye is required to see them, while the teeth of the largest rasp files are half an inch apart and a sixteenth long. The work is greatly subdivided, especially in cutting, the men being kept as far as practicable to one class of work, in which they necessarily acquire very great skill.

Files to be of any value must obviously be made of the best steel, or the file would wear away instead of the metal upon which it is used. The steel is hammered or rolled in long bars of various sizes and shapes. The forger selects his bar with reference to the size of the file to be made, and forges it in the usual way, on anvils usually fixed for the sake of firmness on large blocks of stone. There are single and double-hand forging, the forger of all sizes up to ten inches in length working alone, and a "striker" being employed for the larger sizes. The bar of steel is cut into lengths, and as files are usually tapered at one end and have a tapering tang at the other, they are cut obliquely to facilitate this part of the forging. Flat files are shaped entirely with the hammer, and it is interesting to the on-looker to note the ease and rapidity with which the long tapering tang is drawn out, and the blade of the file is shaped and cut to measure. For other kinds, "swages" or bosses fixed in the face of the anvil are used to secure exactness of shape and size.

The next process is annealing, the object being to soften the steel for the operations of the grinder and cutter. This is done by putting the forgings over a fire or in an oven, in piles, heating them evenly through, and cooling them gradually by letting the fire die out. Having been ground, the smooth file, if it may be so called, is taken to the cutters' shop to be roughened in that way which gives the characteristic property to the tool. File cutting is done chiefly by



FILE CUTTERS' SHOP—MR. WILLIAM HALL, ALMA WORKS.

hand, and the process furnishes one of the most remarkable instances of manual dexterity which is to be seen in the whole round of human industry. The accompanying engraving gives a representation of a row of file-cutters at work. Under the windows there are a number of low stone benches, and close to them the seats for the workmen. The hammer which the cutter uses weighs from one to six pounds, according to the size of the file to be operated upon; and it is constructed so as to allow the metal which composes its head to be pulled towards the workman while he is making the blows on the file. The chisel is formed of very strong, tough steel, and, like the hammer, varies with the size of the file it is used upon. When the workman proceeds to cut, the chisel is held in the left hand, somewhat in the same way as a pen, and so that the hollow of the hand is turned towards the workman. But this is only a general description: the method of working varies with the different kinds of files. The file is held in its place by means of a leather strap passing over each end, and going round the feet of the workman

like stirrups. At each blow of the chisel a tooth is cut, and the blows are repeated in rapid succession until the whole surface of the file is covered, the file being moved as required by loosening the tread on the straps. When one side of the file is finished the workman deals with the other in the same manner; but as the finished part would be liable to injury if unprotected while the second side is cut, a flat piece of metal, being a mixture of lead and tin, is placed under it during the process. It is quite impossible to obtain an adequate notion of the skill of the workmen in cutting the various kinds of files, without an inspection of their labours. Some idea, however, of the dexterity required, may be gathered from the fact that in fine round files as many as from ten to twenty rows of cuts are required to cover the surface with teeth, that there are sometimes more than a hundred teeth within the space of an inch, and that they are cut with the most perfect regularity. Single-cut files are cut only one way—obliquely across the steel. “Double-cuts” have a second row of oblique cuts crossing the first, and forming an immense number of small diamond-shaped teeth. The rasp is cut by striking the pointed chisel more deeply into the steel, and producing a rough, pointed tooth, with a broad, rounded base. The cutting finished, hardness has to be restored to the file; and this is done by heating it well in a smithy, and then dipping it in a cistern of water strongly impregnated with salt, to increase the coldness. The formation of scale which usually follows the heating of steel having to be avoided on account of the teeth, the file is dipped in a tub of thick brewers’ grounds before putting it into the fire. Some makers harden in lead, but the mode we have described is generally preferred. After hardening, the files are scoured with sand and water, and then put in lime and water for the night to take out the salt. When taken out of the lime they are dried quickly to prevent rust, oiled and cleaned; the tangs being afterwards dipped in molten lead and cooled slowly to soften them and prevent snapping in use. In the warehouse files are submitted to the final operation of a most searching examination, which not only takes into account size, shape, regularity of cutting and truth in setting, but the still more important point of temper, upon which the value of the file mainly depends. To test the temper of files, a piece of finely-tempered blade steel is carefully drawn over the whole surface of the file by a skilled hand capable of detecting in a moment the least softness. Every file is separately examined, those which prove to be defective being thrown to the waste heap.

Of late years steam hammers have come largely into use for the forging of the larger sizes of files. We give an illustration on page 274 from the works of Messrs. Lockwood Brothers, of Arundel-street. On the left the workman is forging the red-hot end of a bar

of steel under the hammer, his assistant attending to the heating of other bars at the hearth. On the right, work at the hammer has been done, and the file having been cut off the bar and re-heated, the forger and striker are drawing out the tang and completing the forging on the anvil. The grinding of files by machinery has been several times attempted. During a protracted wages dispute some years ago, a file grinding association was formed and erected several machines. The association lasted a very short time, and file grinding in private hands has not been more successful. The work is still done almost entirely by hand. The question of file-cutting machinery is a much more interesting one owing to the far larger number of hands employed in that branch, and the peculiarly delicate character of the work. File-cutting machines were invented many years ago, and companies were formed in Manchester, Birmingham and other towns for working them. The machines were pronounced to be a great success, but the companies one after another failed, and the workmen learned to despise the machinery they had at first feared. The difficulties of cutting files by machinery have, however, been gradually surmounted to a considerable extent, and large quantities of files cut by machines are now in constant use. Many manufacturers use machines, cutting some of the files wholly by the machine; cutting others partially, and completing the work by hand. The superiority of hand-cutting is, however, stoutly maintained, and some of the best makers employ hand labour almost exclusively.

MR. WILLIAM HALL, of the Alma Works, Barker-pool, has been extensively known as a large manufacturer of steel, files, edge tools, saws, &c., for nearly a century. The firm had premises originally in Porter-street, but was compelled by the extension of their business to provide a factory on a much larger scale. In erecting the present buildings great attention was paid to sanitary requirements, which in the construction of such works were formerly altogether overlooked. The forging and other shops, instead of being each a small separate building, as used to be the case, are open to each other for the purpose of ventilation through the whole length of the building, without anything to break the free current of air. The accompanying sketch gives an idea of the extent of the works, and the illustrations of grinding and file cutting accompanying the descriptions of those processes are taken from the manufactory, which embraces furnaces for the conversion and casting of best steel, and long ranges of workshops for carrying on the manufacture of finished goods. The files and other manufactures of Mr. William Hall have had a high reputation at home and abroad for many years, and the present members of the firm are scrupulously careful to preserve their good name by using the best material and employing highly skilled labour. Their manufactures





ALMA WORKS—MR. WILLIAM HALL.

are all hand-forged; their files are hand-cut; and every article is rigidly tested before it is sent out. Mr. Wm. H. Brittain, the present Master Cutler, is the senior partner of the firm.

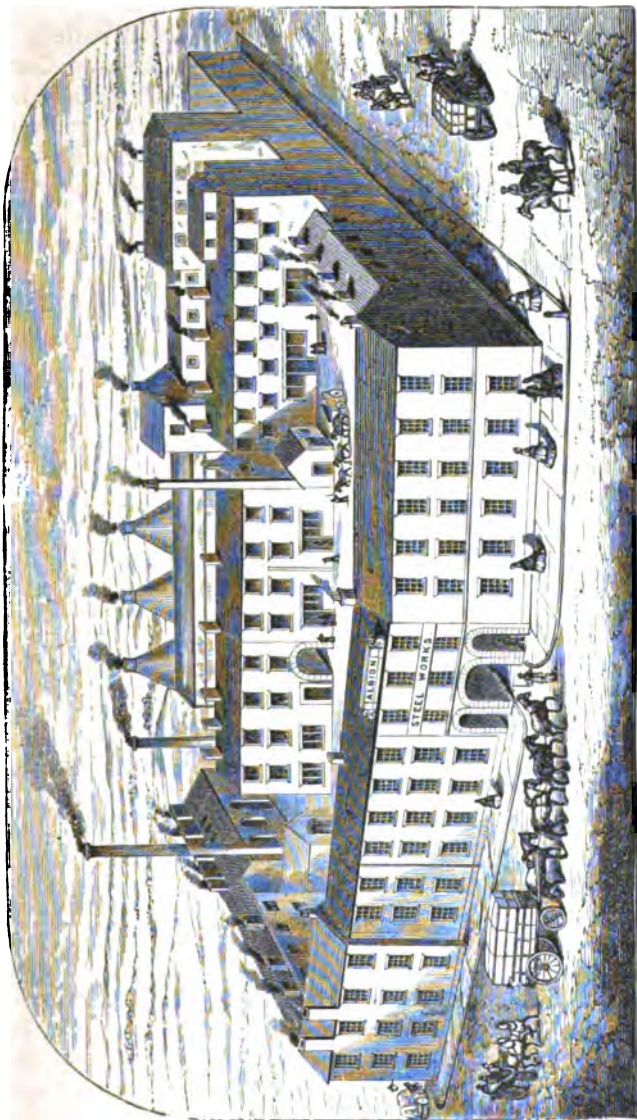
Messrs. THOMAS TURNER AND Co.—The business of Messrs. Thomas Turner and Co., of Suffolk Works, was founded more than



SUFFOLK WORKS—MESSRS. THOMAS TURNER AND CO.

seventy years ago by the father of the present senior partner, and includes the manufacture of steel, saws, files and cutlery. The works adjoin the new station of the Midland Railway Company, and, as will be seen from our illustration, include extensive melting furnaces, grinding wheel, and other adjuncts of large and complete manufacturing premises. Like other leading Sheffield houses Messrs. Thomas Turner and Co. have gradually established a wide reputation by the unvarying excellence of their goods. The first essential in the character of Sheffield goods is the quality of the steel employed in making them. Messrs. Turner make their steel from the best Swedish brands of iron, using Dannemora iron for the finer work. They trade chiefly in the home markets, in some of which—South Wales and West of England for instance—their cutlery is so well known and so highly appreciated that it is sold almost exclusively, and is found in nearly every ironmonger's stock. Their files are almost entirely hand-made, machinery being used in the minor operations only, whilst their cutlery is entirely made by hand workmanship. In the hafting of table cutlery with pointed tangs, the handle is drilled by a small borer. Into the hole thus made resin is poured, and the tang is then inserted. It is one of the approbriums of table cutlery that, owing to the carelessness of servants in putting the knives into hot water, the handles become loose, and many precautions are taken against this negligence. In the "Suffolk knife," patented by Messrs. Thomas Turner and Co., the difficulty is, we are assured, effectually overcome by a groove in the handle to which the tang is adjusted.

Messrs. J. R. SPENCER AND SON, of the Albion Steel Works, Pea-croft, is another old firm doing an extensive business in several of the staple trades we are describing. An illustration of their works will be found on the following page. The chief manufactures of the firm are steel, files, cutlery, and shovels; but they are also general merchants, doing a very extensive business with home and continental customers in all kinds of hardware, as well as in their own manufactures. The business of Messrs. J. R. Spencer and Son is one of the oldest in Sheffield, having been founded in the year 1749. They have had a high reputation for several generations, especially as manufacturers of files. There have been for years, and still are, markets on the Continent in which "Spencer's" is the only file storekeepers will buy or consumers use. The firm has won high honours at several of the great international exhibitions of past years, and at Paris this year they have been awarded a silver medal for the excellence of their files and steel.



ALBION STEEL WORKS—MESSRS. J. R. SPENCER AND SON

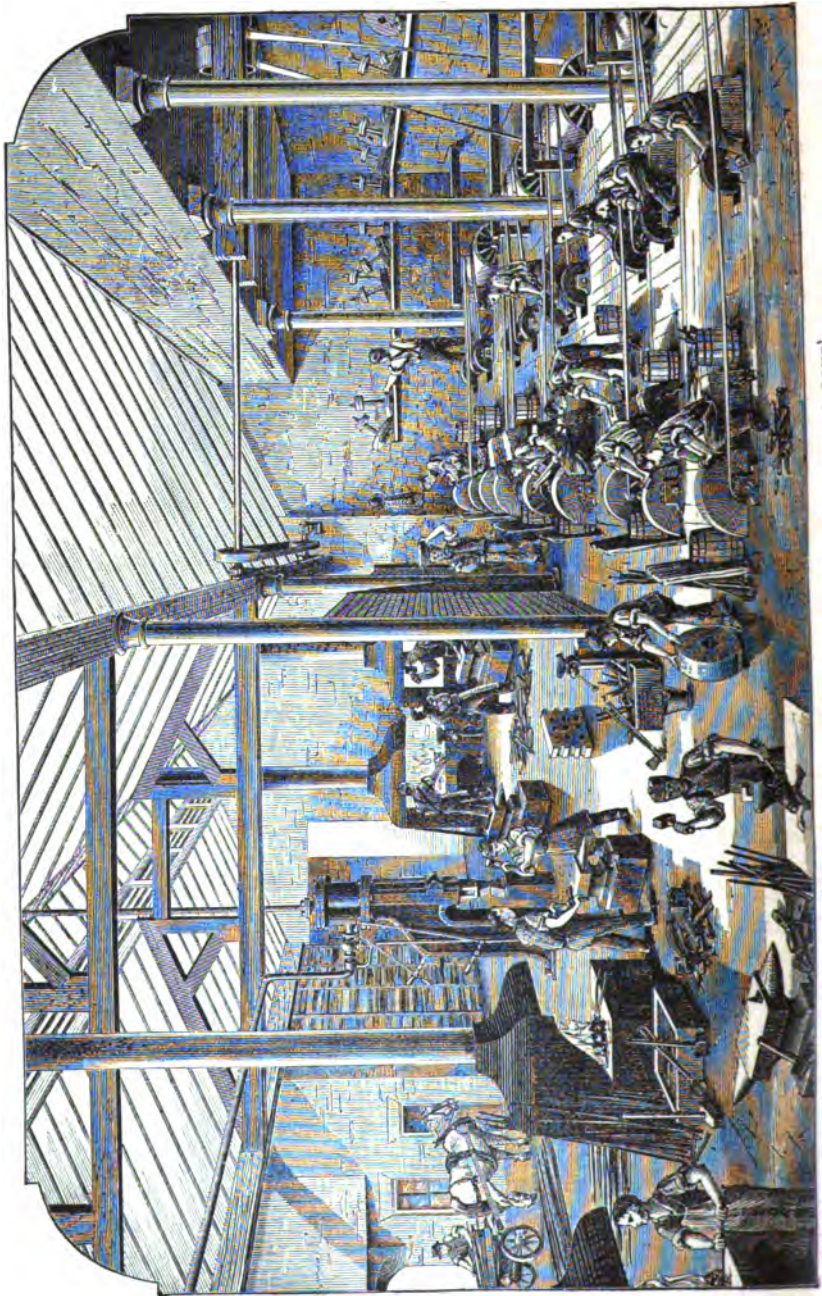
**EDGE TOOLS.**

The manufacture of light and heavy edge tools, and other joiners' tools, is also a considerable industry in Sheffield. The variety of these tools is very great, including chisels, gouges, augers, gimlets, plane irons, braces and bits, squares, levels, spoke-shaves, hammers, axes, adzes, hedging and other bills, hatchets,

&c., &c. Some of the tools, moreover, are made of many sizes and shapes. In gouges, for instance, there are no less than seven different "sweeps" or bends, and each bend is made of twenty different sizes, making 140 varieties of one simple tool. The amount of detail in the trade is consequently enormous, and the sub-division of labour is proportionately great. The forgers work in pairs, as in the table knife and the heavier branches of the file trade—a forger and striker in each shop—and the two are kept as far as practicable to one class of work—often to a few sizes of one tool—in which they acquire great skill. In the shaping of tools, "prints" and "bosses" are much more largely used than for table cutlery or files, and in much greater variety of size and shape. These articles are, in fact, moulds, into the recesses of which the pliant metal is crushed by the hammer while red hot, instead of being poured while in a liquid state, as in the making of castings; and the process is called "mooding" (moulding). As previously mentioned, one side of the dies or moulds, known as "prints" or "bosses," consists of a small square block of metal, and fits into the anvil; but the other side, which is held in the hand during use, is hammer-shaped, and has a very primitive handle, formed by twisting a twig of hazel round it, and fastening the two ends together with a ring. Special dies being required for every variety in the size or shape of the tool to be made, prints and bosses form an important part of the furniture of an edge tool forger's workshop. The walls of workshops in which the smaller tools are made are often almost concealed by rows of these implements, carefully arranged according to size and pattern, the set for a single shop costing £40 to £50. To this explanation of the simple means by which apparently difficult ends are attained, we must add that though the forging of edge tools does not differ in principle from the forging of cutlery and files, the greater number and complication of the processes occasions a much larger amount of labour. Take, for instance, a common joiner's chisel, which is one of the most simple of edge tools. The forger heats the end of a rod of steel selected to size; roughly shapes the blade; cuts it off with sufficient for the bolster and tang; re-heats; shapes the bolster with prints, and draws out the tapering tang with the hammer. The blade is then re-heated, and carefully "plated" (hammered out) to the size and shape required, water being thrown on at intervals during the brief process to remove the scale. Gouges are forged in the same way, the blades being afterwards rounded in "hollowing bosses." The forgings then pass into other hands to be hardened, tempered, ground, glazed, and "finished," ready for packing. The more complicated socket chisel passes through the forger's hands no less than six times; is then hardened, tempered, set, ground, glazed.

japanned, and finished, passing three times through the hands of the grinder in the course of these operations. The processes of axe forging are also numerous, the body of the axe being iron, to which steel is welded for the pole or hammer as well as for the blade. The first operation is to weld a small piece of the end of a flat steel rod across the middle of a short length of bar iron. The ends of the iron are then plated out, lapped over, and welded together to form the eye, the centre of the bar with the adhering steel becoming the pole, or hammer, of the axe. The eye is afterwards smithed on a tapering wedge, put in first on one side and then on the other, the effect being not only to secure uniformity of size, but to leave the eye narrower in the middle than at the sides, so that the handle, when properly wedged at the end, cannot loosen with use. Steel for the blade is next inserted between two laps of iron, left open for the purpose in forming the eye, and is welded to them. The mooding and plating of the blade follow, after which the axe is ready for hardening, tempering, grinding, &c.

These examples sufficiently illustrate the general processes of edge tool forging, though far from exhausting their almost endless variety. The forging of edge tools at Sheffield is done chiefly by hand, the great difficulty in the way of the general application of machinery being the immense variety of size and shape required—a variety which is not, as in table cutlery, a mere matter of taste, but is a necessity of the varied work for which the tools are used. There is also the undoubted fact of the superiority of hand labour in the manipulation of the fine steel used for the blades of the best edge tools. Boring, drilling, and other such operations are, however, done by machinery, while steam hammers and other machinery are being more and more applied to the rougher and heavier operations of the forger. One feature in the edge tool trade is the quickness and dexterity with which the forger performs the more minute and delicate operations by a few rapid strokes. The observant visitor will note also the extreme care with which he watches the heating of the steel, lest it should be rendered worthless by overheating. Another operation requiring the greatest care is the setting of many of the more important tools—a part of the work which is very carefully scrutinized by the employer or his managers before the tools are allowed to leave the premises. The grinding and glazing are also very carefully examined. The more extensive edge tool manufactories include grinding wheels. The accompanying illustration shows the grinding wheel at the works of Messrs. James Howarth and Sons, of Bath-street. Hardening and tempering are essentially the same processes in the edge tool as in the cutlery trades. The tools are hardened by being drawn through a cistern of cold water when red hot; and the extreme



FORGING AND GRINDING AT MESSRS. JAMES HOWARTH AND SONS'.

brittleness produced by hardening is removed by heating the tools slowly on a furnace plate, and allowing them to cool gradually. Many of the tools have afterwards to be taken back to the grinding wheel to be glazed or polished.

The framing and hafting of edge tools is for the most part a subsequent process, though some few tools are roughly hafted before they are ground. For many tools ebony and other expensive woods are used. These are cut up in lengths, and stored for periods of five to ten years before they are used, in order to ensure dryness, without which the handles would rust the steel. The preparation of handles and the wood framework of tools is a separate department, in which the use of steam machinery is very fully developed, and many of the operations are very interesting to strangers.

**Messrs. HOWARTH AND SONS.**—Among leading manufacturers of edge tools and joiners' tools are Messrs. James Howarth and Sons, of Broomspring Works, Bath-street. The business was commenced in 1835, by the present senior partner, who was joined by his sons in 1863. Messrs. Howarth manufacture light and heavy edge tools of all kinds, including every variety of joiners' tools, hammers, skates, augers, &c. Restricted in the first instance to the home markets, the trade of the firm has rapidly extended, and they have now direct business connections with leading continental states, Canada, Australia, China and other distant markets, as well as with home consumers. They were exhibitors at the London Exhibitions of 1851 and 1862, and at Paris in 1855, receiving on each occasion prize medals of the first class. The Universal Society for the encouragement of Arts and Industry, founded in London in 1851, reported on the goods exhibited at Paris four years later. This society, awarded its first-class prize medal to Mr. Howarth for the excellence of his tools—an honour paid to no other British manufacturer—and elected him an honorary Vice-President of the Society. Messrs. Howarth are all practical men, and personally superintend all the departments of their manufactory, giving the closest attention to the general workmanship as well as to setting and finishing. Edge and joiners' tools, though made for the use of the same class of workmen, are separate and distinct trades. The edge tool, which is mostly a cutting tool, is made of iron and steel combined, or of solid steel as already described; while joiners' tools, such as squares, bevels, spokeshaves, gauges, &c., are made chiefly of ebony and other expensive woods combined with brass or steel. The manufacture of skates is also one of the special features of Messrs. Howarth's business. They make hammers from one ounce to 25 lbs. each in weight, and of almost infinite variety of shape to suit the most varied requirements. They also manufacture large quantities of steel "toys," including

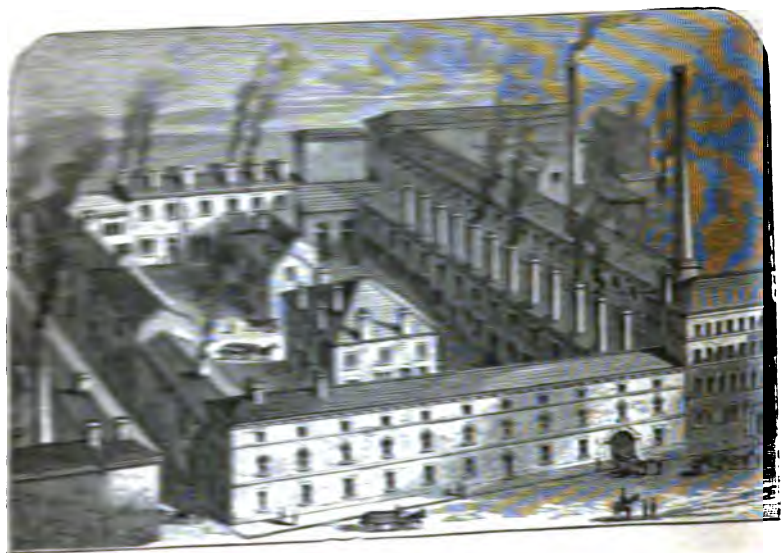


pincers, pliers, &c.—a branch in which they are almost the only Sheffield house engaged. Using the best material and employing the most skilled labour, Messrs. Howarth produce goods of a very high class, and have made a reputation in the most distant markets. They are also largely engaged in the steel, file, saw and other kindred trades. Our illustration shows the processes of forging and grinding at their works.

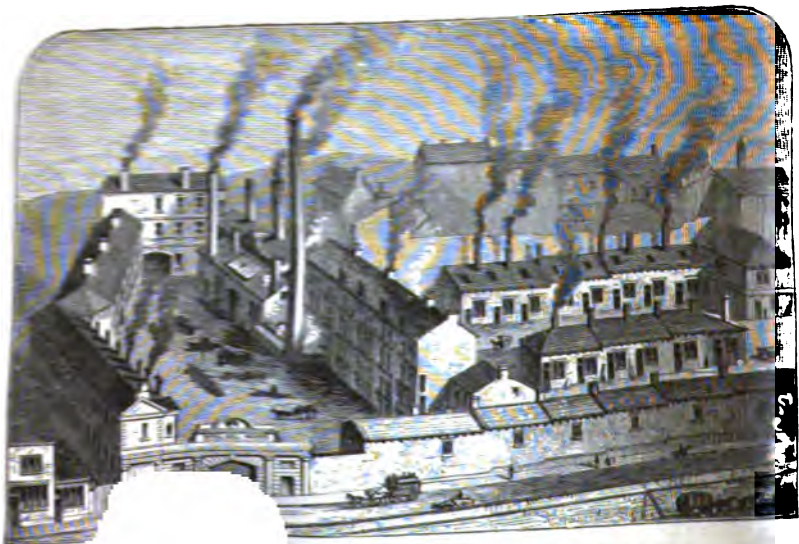
Messrs. JOHN SORBY AND SONS.—Among the best known and most celebrated manufacturers of edge tools in Sheffield are Messrs. Lockwood Brothers, of Arundel-street, and John Sorby and Sons, of Spital-hill. These two names have long represented one and the same firm, and the two factories, though in distant parts of the town, are in immediate communication by telephone. The firm now consists of Mr. Joseph Lockwood, his son, and nephews. The ancestors of the firm began business at Ecclesfield at a date not precisely known, but more than a century ago, records of business they did in 1767 being still in existence. Nor is the time of the removal to Sheffield precisely known; but apparatus was discovered at a recent stock-taking, showing that the old firm carried on a considerable business here in those early days when retail shops were few, and manufacturers provided in a much more general way than is now permitted or necessary for the multifarious wants of their workpeople. We have already referred to the firm in connection with the manufacture of cutlery. They are also considerable manufacturers of steel, files and saws as well as edge tools. Our illustrations of steel melting, page 275, and file forging on page 275, are both taken from their works in Arundel-street. From the latter it will be seen that the enterprize of the firm had led them to adopt steam machinery in the forging of files. While availing themselves of the latest appliances of machinery so far as they can be used with advantage, they adhere rigidly to hand labour in all operations affecting the quality of the goods. The chief markets of the firm are Scotland, Australia, New Zealand, South America, Canada and the continent of Europe. In France and neighbouring States their tools have a specially high reputation. Messrs. Lockwood have not greatly cultivated international exhibitions, but their important continental connections induced them to compete at Paris in 1855, when they received a first-class medal for excellence. The great speciality of the firm is the manufacture of sheep shears, which they carry on at the works on Spital-hill. The manufacture is long and complicated, but some of the numerous operations are very interesting. The forger is supplied with flat rods of iron cut into lengths of about fifteen inches; this he “moods” by broadening the two ends for the blades, and then laying the centre edgewise on anvil and flattening it transversely for the bow and shanks.

The blades are then "tagged," *i.e.*, strips of steel are welded on for the cutting edge. These preliminaries involve five successive heatings and beatings, the blades being mooded and steeled or tagged separately. The work thus roughly begun is completed by a still more elaborate series of operations on the anvil. The blades are successively plated. The shanks are plated and then rounded with boss and punch. The bow is plated and afterwards hammered at a low heat to impart spring. The next process is "kneeing," as the formation of the slight bend at the junction of the bow and shanks is called. The blades are then "smithed" and stamped with the mark and name of the firm. This long succession of processes, during which the forging has to be repeatedly heated, completes the work of the forger. The shear is next passed to the hardening and tempering rooms, and then to the wheel to be ground and glazed. Two important operations remain—bending and setting. The shear reaches the bending and setting room in the shape of a long dagger with a tapering blade at each end, curved shanks, and a straight flat centre. The business of the workman is now to bring the two blades and shanks together, and this is done by bending the shear in the middle. The process is shown in one of our illustrations on page 275. The tools used are a "break" and pair of tongs. The break consists of a flat piece of iron fixed upright on a wooden frame, and terminating at the top in two round blunt prongs nearly an inch apart. The tongs have round fingers similar to the prongs of the break. The flat centre of the shear is put between the prongs of the break, and the bender then seizes it with his tongs, and draws it round, producing a perfect bow in a few moments. All that remains is to adjust the shears so that in use the edges of the blades close together perfectly from shank to point—an operation requiring much care—and the shear is ready for rubbing and packing. The old firm of John Sorby and Sons were the first manufacturers of sheep shears in Sheffield, and, we suppose, have exported more of those very useful articles to the sheep farmer than any other house in the trade. They still export largely to all quarters of the world, especially to the Australian and South African colonies and to South America.

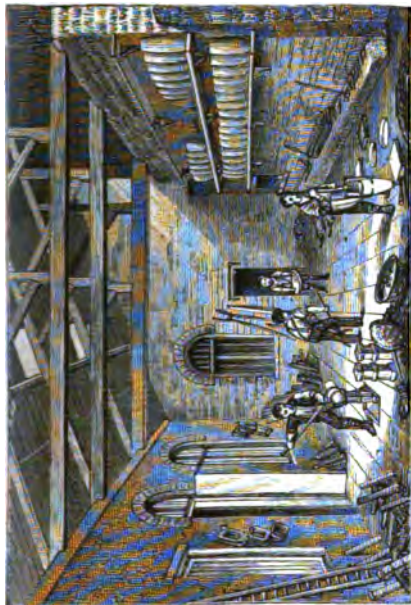
**Messrs. WARD AND PAYNE.**—Mr. David Ward, the present mayor of Sheffield, is a leading manufacturer of edge tools and sheep shears, and has works in West-street. The business was established in 1803 by Mr. Edward Ward, with whom Mr. Henry Payne was afterwards associated. The edge tools of Ward and Payne acquired a very wide reputation, and the business is still carried on in the name of the old firm. Mr. David Ward, the present proprietor, succeeded to the business on attaining his majority, and though still



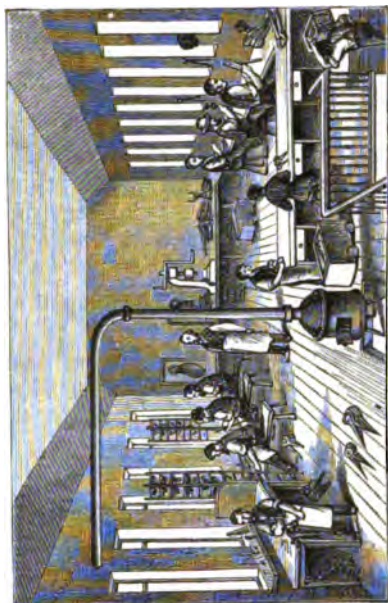
WATER-POWER FACTORIES, MANCHESTER



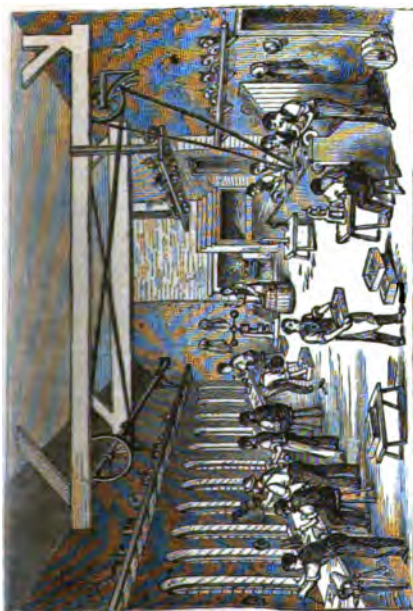
SORBY AND SONS—SPITAL-HILL WORKS.



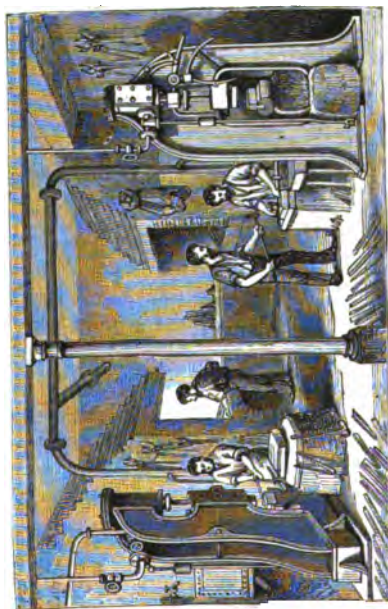
STEEL MELTING FURNACE.



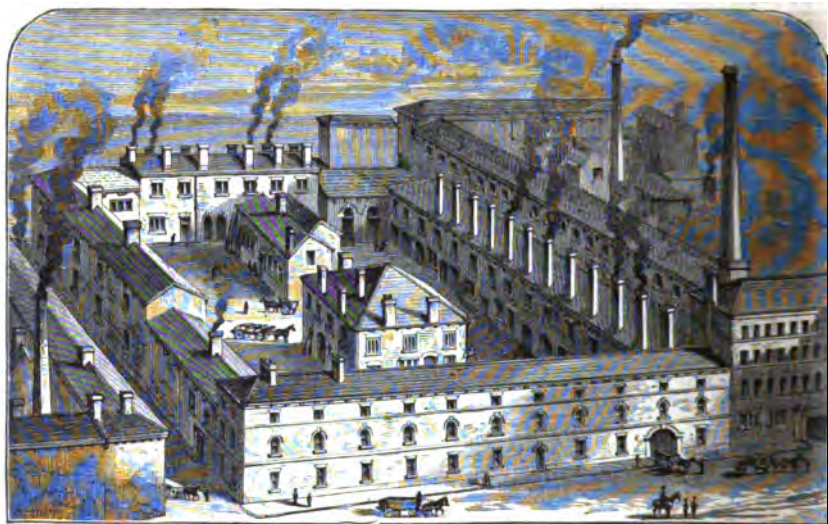
SHEAR BENDING AND FINISHING ROOM.



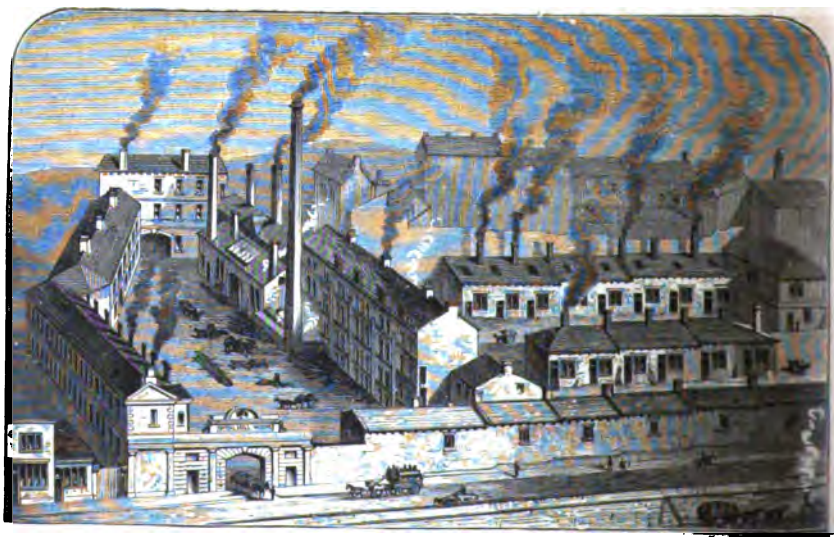
CUTLERS' SHOP.



FILE FORGING SHOP.



MESSRS. LOCKWOOD BROTHERS, ARUNDEL-STREET



MESSRS. JOHN SORBY AND SONS—SPITAL-HILL WORKS.



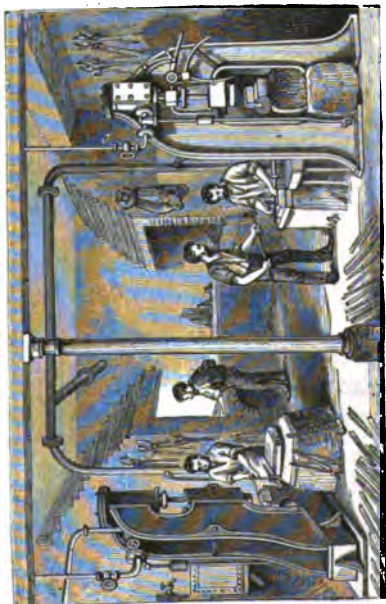
STEEL MELTING FURNACE.



SHEAR BENDING AND FINISHING ROOM.



CUTLERS' SHOP.



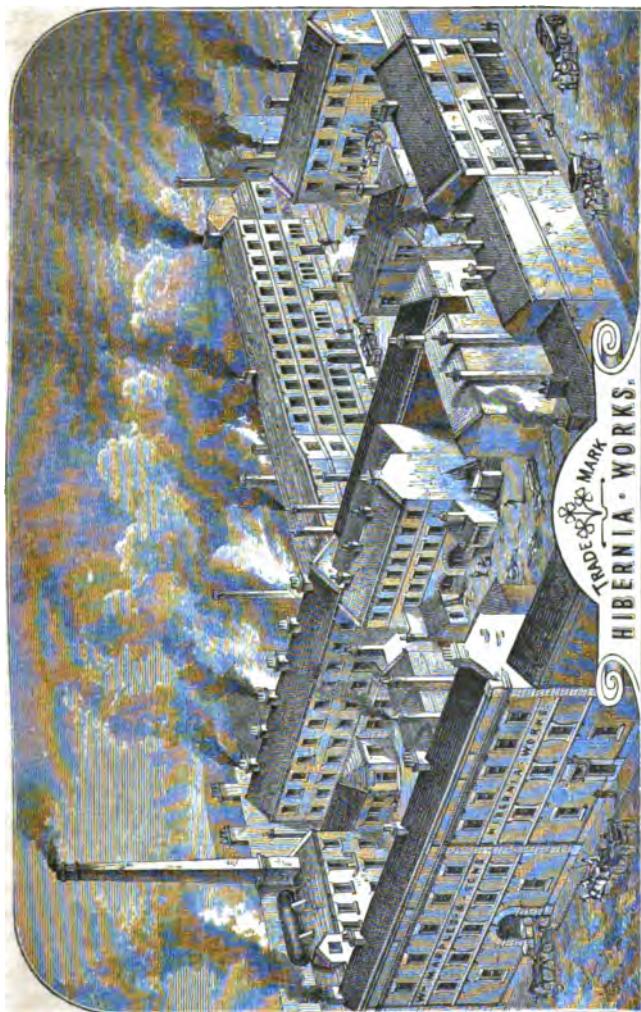
FILE FORGING SHOP.

Sketches from the Works of Messrs. Lockwood Brothers and John Sorby and Sons.

a young man, has added two important branches to the old trade—the manufacture of carving tools and sheep shears. Mr. Ward purchased the carving tool business of Mr. S. J. Addis, of London, and succeeded in transplanting the trade in Sheffield, in spite of many difficulties thrown in the way by the regulations of the edge tool unions. Abandoning old, worn-out designs, and adopting styles and designs more acceptable to the taste of a somewhat fastidious class of customers, Mr. Ward has made a reputation as a manufacturer of carving tools, which he exports largely to the protected markets of America, as well as to European, colonial, and other markets. He displayed equal enterprise in entering upon the manufacture of sheep shears. The scarcity of cotton caused by the American civil war brought wool greatly into favour, and led to the investment of large capital in the rearing of sheep in Australia, the Cape, New Zealand, and South America. The demand for shears became so great that leading manufacturers had orders on their books to last them for two or three years. It was under these circumstances Mr. Ward entered upon the manufacture of sheep shears. The high reputation of the old makers, and the excellence of the goods they supplied, were a great difficulty; but by going direct to the consumers, and supplying a first-class article, Mr. Ward created a demand for his goods, which compelled factors and dealers to stock them. His success in Australia was decisive, and he is now successfully cultivating valuable markets at the Cape, &c. Messrs. Ward and Payne hold many distinguished honours, including the London Exhibition Prize Medal, the Vienna Medal of Progress, the Philadelphia Medal, and the Diploma of Merit and Gold Medal of the recent Cape Exhibition, having been successful wherever they have exhibited. We have seen how numerous and complicated are the operations of shear-forging by hand. Mr. Ward believes that these operations may be performed to a large extent by machinery—which has already been introduced to a limited extent—and he has erected machinery by which they can be manufactured at a minimum of cost without any deterioration of quality.

Messrs. WILLIAM MARPLES AND SONS. — Hibernia Works, the factory of Messrs. William Marples and Sons, edge tool manufacturers and merchants, is in Westfield-terrace, extending backwards to Rockingham-street. The business was founded nearly fifty years ago by the father of the present proprietors, who early established a reputation for excellence of quality and superiority of finish which enabled him to build up a large business. The business has continued to increase under the energetic management of his sons, who have now one of the most extensive edge and general tool trades in Sheffield. The large extent of their manufactory in Sheffield is shown in our illustration. They have branch

**establishments** in London, Liverpool, Germany, Canada, and the United States of America, and their goods are well known in all our colonies and in most other countries. The speciality of the firm is the very large stock of goods they have always on hand. Their



HIBERNIA WORKS—MESSRS. WILLIAM MARPLES AND SONS.

**warehouses** are filled with an assortment of tools of every known description, cutlery and general hardware of all kinds. They have, probably, the largest stock of tools of any house in the world, it being the endeavour of the firm to supply tools for every purpose for which they can be required. Their enormous stock enables



them to execute the largest orders at a few hours' notice—this special feature of the business having contributed materially to the wide extension of their connections. In addition to the stock of goods of their own manufacture, and of general English hardware, the firm import tools and hardware of all kinds from the United States, Germany, France, and other manufacturing countries, supplying from their extensive stores every diversity of tools and hardware that customers can possibly require.

#### SAWS, &c.

The manufacture of saws is one of the oldest of the staple trades. Steel of the best quality for saws being cast into ingots of proper weight, and reduced by rolling into sheets, is then cut into the shape required by a paring machine worked by steam power, which cuts steel plates with the ease and rapidity with which silk is cut with ordinary scissors. It is then taken to the toother, who places the sawplate on a bed. A punch is forced down by steam power and cuts out a piece of steel, leaving the edge standing of the exact size and form required for the tooth. The saw is then moved a space, and a similar process is performed until the whole saw is toothed. The movement of the saw under the tothing machine is regulated with great simplicity and accuracy by means of a cog wheel working in a plate similarly toothed. It is then marked and filed, after which it is submitted to the hardening process, which is peculiar. The saw is placed in a furnace heated to a high and uniform temperature, after which it is taken out and immersed in oil, resin, &c., which have the property of hardening the saw to the proper degree. This process requires great care and experience; for, heated too highly, the saw becomes brittle, and if the heat does not reach a certain temperature it will be too soft. It is then carefully tempered, after which it is straightened. This is now partly done by machinery, the saw being subjected to pressure between large flat plates, and completed by hammering on the anvil. Great skill and judgment are required on the part of the workmen in reducing the face of the saw into a perfectly level surface. It is now prepared for the grinder, under whose hands it undergoes very elaborate manipulations. The stones at which saws are ground are much larger than those previously described. The grinder, after shaping the back, places the saw on a "scorching" board, and brings it then across the grindstone. Unlike the grinder of cutlery or edge tools, he does not sit at his work, but, placing his knees on one edge of the scorching board and his hands at the other, works the saw across the stone from the tooth edge to the back, moving it transversely from heel to point. Having thus ground it on both sides crossway, which is

called "scorching," he then grinds it lengthway, which is called "drawing," the grinder bringing the whole weight of his body to bear upon the saw as it moves along the surface of the rapidly-revolving stone. Straight saws are usually ground thinner towards the back. The circular saw in the process of grinding used to be secured to a vertical circular-faced plate, opposite to which is a "lap," which reduced the surface to a smooth face, sliding backwards and forwards, slightly reducing it from the circumference to the centre. This is the old process of saw grinding by hand, of which we give an illustration. We should add that first-class work



SAW GRINDING.

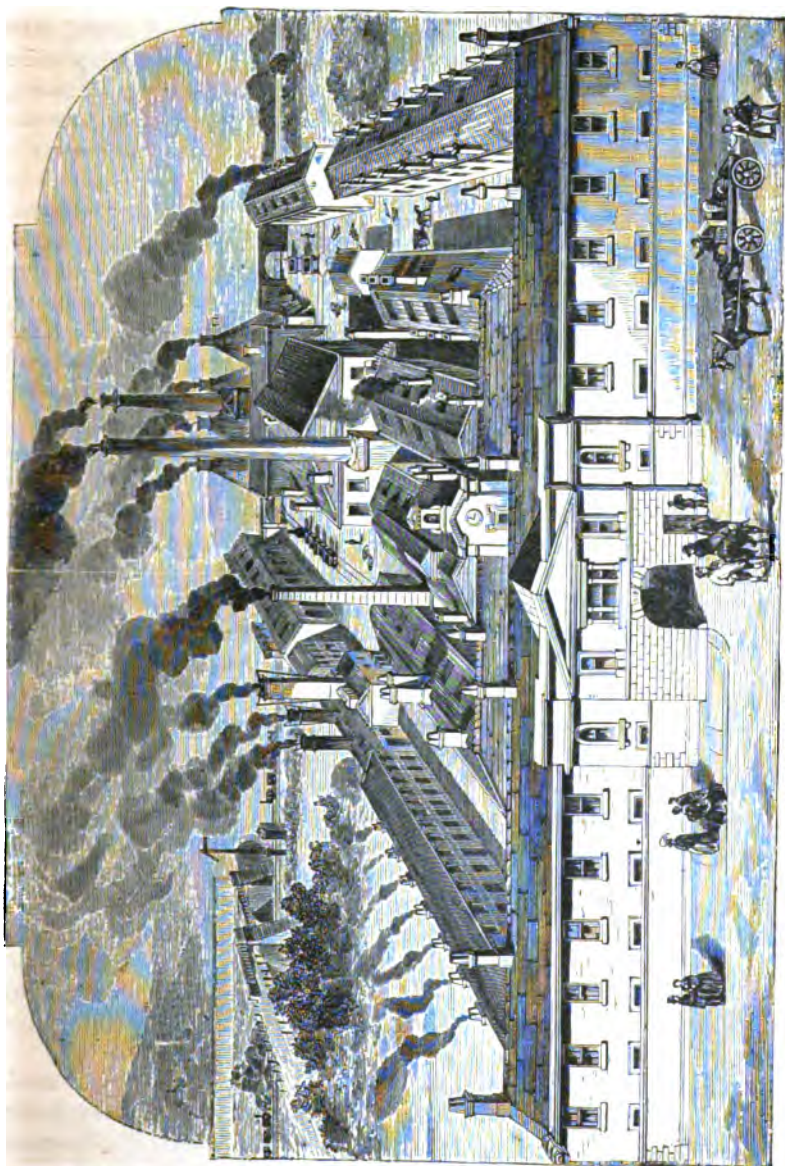
in saw grinding is now done chiefly by machinery; costly but very admirably contrived machinery for the purpose having been recently put down by leading houses. The next process is hammering, which corrects any irregularity that has arisen from the friction caused by grinding. This is an operation requiring the greatest care, as upon it depends greatly the straight and satisfactory working of the saw. Long saws are then stiffened or tempered by being placed over a coke fire until they assume a straw colour. The saw is next polished, and then rubbed by machinery. If a short saw, it goes to the setter and sharpener, who sets or bends the teeth alternately with a hammer, so as to enable it in actual work to cut with little friction. After setting, the teeth are made sharp by filing, and the saw is ready for the handle or frame, as the case may be.

**Messrs. SPEAR AND JACKSON.**—The firm of Spear and Jackson, of Etna Works, is one of the oldest as well as one of the leading Sheffield firms, having been established more than a hundred years ago in Gibraltar-street. The works have been twice removed, however, to meet the increase of business, and are now situated in Saville-street, between those of Messrs. Charles Cammell and Co. Limited and Messrs. Thomas Firth and Sons. The firm is engaged

in the manufacture of steel and steel goods of every description, including saws, files, edge tools, machine knives, hay and manure forks, spades, shovels, &c. Of these the saw department may be considered the most important, and here have been turned out the largest finished circular saws ever yet made. Hand saws, mill saws, &c., are also made in immense quantities. By the adaptation of special machinery, not only is the cost of production reduced, but the articles are more perfectly finished than was possible before; and it is thus that the firm has continued to maintain during the keen competition of prolonged periods of depression the lead acquired years ago. The garden and field tool department, though a comparatively recent addition, has developed to an extraordinary extent, and is now one of the most important departments of the business. Many thousands of dozens of steel hay, manure, and digging forks, spades, shovels, hoes, &c., are manufactured annually, whilst improvements in shape, temper, and finish are continually taking place. The most striking improvement, however, comparing the present goods with those of a few years ago, is shown in the steel hayforks, the highly-finished prongs of which are so light that they weigh only a few ounces, and are yet so finely tempered that it is considered almost impossible to break them. Messrs. Spear and Jackson are also large manufacturers of edge tools, files, &c., their mark being well known and in much repute in this country and in colonial and continental markets. Very ingenious machinery has been adapted by the firm to this as to other branches of their trade—machinery which does its work with far greater accuracy and precision than would be possible by hand labour, and this is one chief cause of the remarkable success they have attained in a branch of manufacture in which it has been erroneously supposed the Americans “licked creation.” No better or more handy and beautiful garden and farming tools are made than those of Messrs. Spear and Jackson. Very distinguished honours have been awarded to the firm for the excellence of their goods—the Council Medal of the Great Exhibition of 1851, the Cross of the Legion of Honour and the Gold Medal of Honour at the Paris Exhibition of 1855, the Order of Francis Joseph and the Medal for Progress at the Vienna Exhibition of 1873—decorations not held by any other house engaged in the same branches of the staple industries of the town.

Messrs. MOSES EADON AND SONS are large manufacturers of steel, saws and other goods, their manufactory, President Works, being in Saville-street East, adjoining the Midland Railway. The business was established by the late Mr. Moses Eadon. The saws made by the firm have long had a very high reputation, and are largely sold in distant foreign markets as well as at home. The firm also manufacture steel, files, tools, machine knives, &c.

*Illustrated Guide to Sheffield.*



ETNA WORKS.—MESSRS. SPEAR AND JACKSON.



The pre-eminence of Sheffield in the file, edge tool and saw trades was shown by the number of prize medals awarded at the International Exhibition of 1871, and has been repeatedly demonstrated since. The number of eminent firms engaged in these industries is so large that we can only give a selection. Among the principal houses, exclusive of those already mentioned, are:—**FILES**—Messrs. C. Cammell and Co. Limited, Thos. Firth and Sons, John Brown and Co. Limited, Ibbotson Bros. and Co. Limited, J. Kenyon and Co., John Bedford and Sons, W. K. and C. Peace, Howell and Co., Wm. Spencer and Sons, The Hallamshire Steel and File Co., Limited, S. S. Brittain and Co., Walter Spencer and Co., Fredk. Brittain, H. Rossell and Co., M. & J. Wing, Leadbeater and Scott, Camm, Bagshaw and Co., Wm. A. Tyzack and Co., J. Beardshaw and Son, Tyzack, Sons and Turner, S. Newbould and Co. Limited, Askham Bros. and Co., J. Baker and Sons, A. Beckett and Sons, J. and Riley Carr, Edgar Allen and Co., W. Jackson and Sons, G. Fisher and Co., Turton Bros. and Matthews, W. Makin and Sons, J. Thompson and Sons, G. Barnsley and Sons, Deakin, Reuss and Co. D. Flather and Sons, T. L. Green and Co., Gregory and Bramall, Hoole, Staniforth and Co., J. and R. Dodge Limited, J. and F. C. Wild, Moss and Gamble Bros., Marsh Bros. and Co., Bromley and Fisher, W. Turner and Son, H. Ecroyd and Co., Dickson Bros. and Co. **EDGE AND JOINERS' TOOLS**—Messrs. Robt. Sorby and Sons, David Flather and Sons, Marsden Bros., Turner, Naylor and Marples, F. G. Pearson and Co., Moulson Bros., T. Ibbotson and Co., Josh. Cam and Sons, W. Burkinshaw and Sons, F. Harris, A. Jinkinson. **SAWS, MACHINE KNIVES, &c.**—Messrs. Slack, Sellars and Co., Taylor Bros., Crownshaw, Chapman and Co., Drabble and Sanderson, Colver Bros., Wheatman and Smith Limited, Crookes, Roberts and Co. **SHEEP SHEARS**—Robt. Sorby and Sons, Wm. Wilkinson and Sons, Burgon and Ball, T. Ibbotson and Co., J. Linley and Sons, &c.

In the list given above we have made an attempt at classification, but as some of the firms manufacture goods in all the classes, and many in two or three, it can only be taken as a rough indication of the leading department.

### SPADES, SHOVELS, &c.

Scythes, sickles and reaping knives of various kinds are manufactured in Sheffield and the neighbourhood in large quantities. Among the principal manufacturers in these branches are Messrs. S. and R. Linley, Wm. A. Tyzack and Co., Tyzack, Sons and Turner, Thomas Staniforth and Co. (Hackenthorpe), Hutton and Co. (Ridgeway), Garfit and Sons, R. and J. Linacre (Norton Woodseats), Wm. Fox and Son (Ridgeway).

Amongst the manufacturers of spades and shovels are Messrs. Skelton, of Heeley; E. Lucas and Sons, of Dronfield; Bedford and Sons, Burys and Co. Limited, Spear and Jackson, F. G. Pearson and Co., Morton Brothers, &c.

### ENGINEERS' TOOLS, HAMMERS, VICES, &c.

This class of tools is largely manufactured in the district. Amongst the principal makers are Messrs. Ibbotson Bros. and Co. Limited, Edgar Allen and Co., Askham Bros. and Co, Robt. Renton, Wm. M. Macbrair, Easterbrook, Allcard and Wild, Crampton Bros., Robert F. Drury, Turner, Naylor and Marples, Senior and Swift, Thomas Linley and Sons, Turton Bros. and Matthews, Benjamin Nicholson, &c.

### STOVE GRATES AND FENDERS.

The manufacture of stove grates and fenders is a local industry of large extent and growing importance. Stoves of every variety are made in Sheffield, from the cheapest "Register" to the works of high art which adorn the palaces of the nobility. The choice goods of the great show-rooms of London, Edinburgh, and other leading cities, though supposed to be made there, are mainly the products of Sheffield skill and taste. The manufacture gives wide scope for novelty of design and ornamentation, and is an industry in which the employment of high artistic skill is a necessity. During the last few years encaustic and other tiles have come into general use in the ornamentation of stoves. Tile hearths have also come into favour, and with them the use of loose standards for fire-irons. Sheffield manufacturers have taken the lead in the introduction of these novelties, and have also shown great skill in the adaptation of mediæval art to the ornamentation of their productions.

Messrs. CARR BROTHERS AND WEBSTER, of the Chantrey Works, Sylvester-street, are large manufacturers of stove grates, &c. The old firm of Robertson and Carr had a reputation years ago for a class of goods of high artistic merit, from which porcelain, glass, tiles, and other such ornamentation were excluded, striking effects being produced by the contrast of burnished steel with jet black surfaces, and with bronze, ormolu, and other rich metals. The present firm have entered largely and successfully into the manufacture of tiled and other stoves, which they make in great variety. "Dog" stoves are one of the leading articles at the Chantrey Works. These stoves—placed in bricked or tiled recesses, without fastenings, like the grates under the capacious chimneys of old halls and manor houses, and therefore removable at pleasure—are con-

structed in all styles of architecture—Gothic, Italian, Elizabethan, Queen Anne, Early English, &c.—and are often exceedingly beautiful and effective. The firm were among the first to introduce loose standards for tiled hearths, now in such general favour in better-class houses. All classes of stoves, fenders, fire-irons, &c., are manufactured at Chantrey Works, the needs of the palace and the cottage being alike studied. Messrs. Carr Brothers and Webster are noted for the care they take in securing consistency of design and accuracy of detail. For this purpose they model in clay, and take plaster casts, which are afterwards transferred to wax, and then to brass or other metal, each preliminary casting being carefully manipulated, in order to secure perfect moulds for the final castings. They use, moreover, an ingenious system of coring, in order to combine lightness and strength with completeness of structure. Their designs are all registered and protected; many of them are admirable works of art. Their bronze stove, of which we give an illustration, is a fine specimen of careful modelling, and a highly-

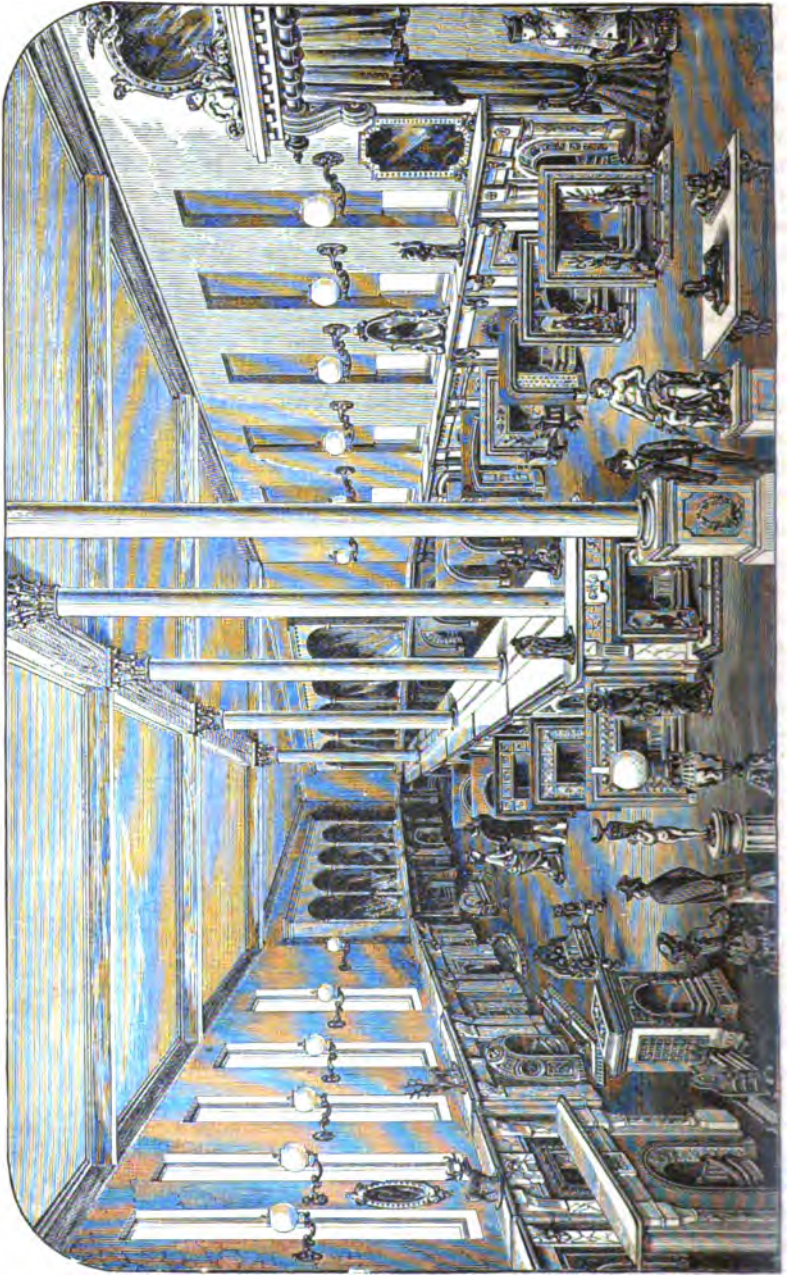


BRONZE STOVE—MESSRS. CARR BROS. AND WEBSTER.

finished work of art. The firm have extensive connections in Australia, America, Canada, France, Germany, and Russia, as well as in the United Kingdom.

Messrs. STEEL AND GARLAND, of Wharncliffe Works, Green-lane, and 45, Holborn Viaduct, London, though established so late as 1855, have attained a leading position in the trade. In addition to extensive show rooms (of which we give an illustration), warehouses





SHOW ROOMS- MESSRS. STEEL AND GARLAND.

and offices, their works, comprise drawing offices ; shops for modelling in wood, lead, and other materials ; smelting furnaces ; separate foundries for steel, iron, brass, ormolu, and other metals ; rows of shops for plating, bronzing, burnishing, and polishing these various metals ; blacking and japanning rooms and ovens ; grinding and glazing wheels ; extensive fitting shops, &c. This enumeration of departments shows how numerous and varied are the processes involved in the manufacture of stove grates on a large and general scale. The materials used are scarcely less numerous : iron, steel, and brass—blackened, burnished, bronzed, or nickel-plated, according to design ; ormolu, and other rich metals ; mosaic, and other tiles, with their marvellous variety of colour and pattern, being all laid under contribution in designs which embody beautiful forms of animate and inanimate nature, and many of the most pleasing conceptions of antique English and classic art. The best stoves of Steel and Garland are works of art of a very high order, and there is a compactness of design and a finish in their less expensive stoves which have won great favour among purchasers. The firm have entered largely into the manufacture of standards or fire-iron rests for tile hearths, which they produce in many beautiful designs. When, some years ago, coal was dear, an outcry was made for economical stoves, and to meet this want Messrs. Steel and Garland patented their “Wharncliffe” stove. The “Wharncliffe” is a handsome stove, with projecting front, and chambers in which the external air is warmed as it is drawn into the room, the effect being that a large room is abundantly heated by a very small expenditure of fuel, and cold draughts from doors and windows are obviated. The “Wharncliffe” was a decided success, adding considerably to the business and reputation of the firm. Messrs. Steel and Garland have been successful exhibitors at several of the world’s great shows, and at the International Exposition at Philadelphia (United States), in 1876, carried off the large medal and diploma. They also exhibited at the Paris Exhibition of 1878, and were awarded no less than three medals for their artistic works. They have spacious show rooms at 45, Holborn Viaduct, London, as well as at their works, and have always on hand a large assortment of very beautiful stoves, fenders, standards, fire-irons, and mantelpieces, in all of which they have a large and increasing trade.

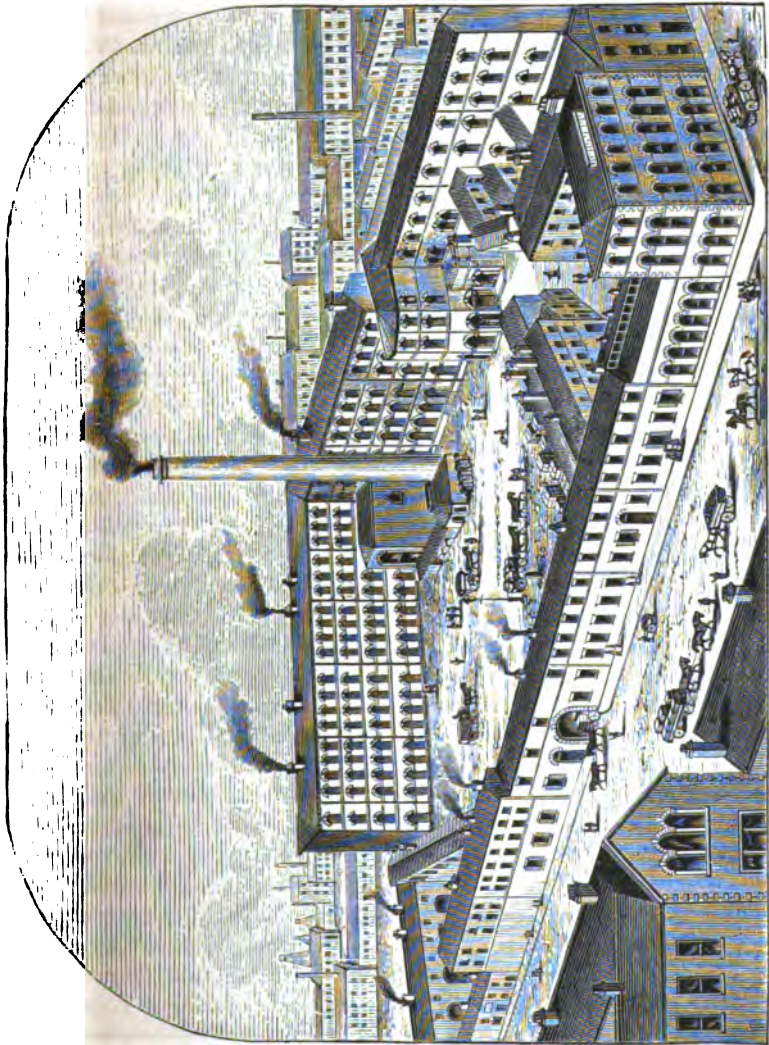
**MESSRS. STUART AND SMITH.**—Among the manufacturers of stove grates Messrs. Stuart and Smith (now Messrs. Barker, Barber and Sylvester) have long held a leading position. Besides the general run of useful goods, they produce grates which are models of high art, and their hot-air stoves for public buildings and places of worship are known far and wide.

Among other leading firms are Messrs. Longden and Co., Phoenix Foundry; Marshall, Watson, and Moorwood, Harlestone Works, whose patent "Harlestone Stove" has a considerable reputation; Yates, Haywood and Co., Rotherham; Newton, Chambers and Co., W. Corbitt, Rotherham; Hattersley Brothers and Co., Swinton; Wm. Owen, Rotherham; Morgan, Macauley and Waide, Rotherham; W. G. Skelton and Co., J. C. and I. S. Ellis, W. Green and Co., H. E. Hoole and Co., Jenkins and Co., boiler stove makers, Rotherham; Hague and Co., fire-iron makers, Sheffield; &c.

### SILVER-PLATING, BRITANNIA METAL, &c.

**Messrs. JAMES DIXON AND SONS.**—These manufactures may be well illustrated in connection with the firm of Messrs. James Dixon and Sons, Cornish-place. The extent of their productions may be judged of by the fact that the works, of which we give an illustration, cover about four acres of land, and that more than 700 workpeople are employed in them. The art of silver-plating is purely a Sheffield invention. The process was first discovered by Mr. Thomas Bolsover, in 1742. He was employed to repair the handle of a knife composed partly of silver and partly of copper, and was struck by the possibility of combining the two metals so as to present the appearance of silver. He began the manufacture, but did not carry it out to any very considerable extent. It was developed and brought into general use by Mr. Joseph Hancock. The original silver-plating process is carried out in the following manner:—An ingot of copper is cast, and is filed so as to give a perfect surface. A plate of silver is then fastened on it with wire, and the ingot is put into a heated furnace until the silver is sufficiently melted to unite with the copper. The ingot is then rolled into sheets such as are required for the articles to be manufactured, the silver adhering to the copper so as to give a beautiful surface to the metal. Such was the method of silver-plating which for many years exclusively prevailed; but it was materially interfered with by the discovery of the electro-plating process. This was invented by Mr. Wright, of Norton, near Sheffield. The process was purchased from him by a Birmingham firm, and has been carried out in that town to a large extent. Sheffield, however, is competing very successfully with Birmingham in electro-plating. The electro process is as follows:—A quantity of fine silver is dissolved in water with cyadine of potassium. In the vat containing this liquid are inserted sheets of silver, and the articles to be plated are suspended between these sheets. The silver is deposited by means of an electric machine containing a rotary magnet which performs two thousand revolutions a minute. The machine is worked by a horizontal steam engine of about five-

horse power, the silver being deposited by this method much more quickly than by the batteries formerly in use. This process is very interesting to witness. Another process is in use by Messrs. Dixon, who for the last twenty years have abandoned copper as a basis



CORNISH WORKS—MESSRS. JAMES DIXON AND SONS.

for plating, using instead the modern metal, nickel silver. This is a composition of nickel, copper and zinc. Nickel possesses the property of whitening the copper when mixed with it in proper proportions. The compound called *nickel silver* proves to be very

valuable in use. It is employed not only as a substitute for copper in the old plating process, but also as a basis for electro-plating. Sheffield has never lost its reputation as the seat of the manufacture of first-class plated ware; and "Sheffield plate" is still used as a term to designate first-class goods of this description. Another industrial process which is largely carried on at Cornish-place is the manufacture of Britannia metal wares. This useful compound was first begun to be used to a considerable extent about 1770, by Messrs. Jessop and Hancock. Britannia metal is composed of block tin, copper, brass and martial regulus of antimony. The tin is melted and raised to a red heat in a cast-iron trough. Into the liquid metal is poured the regulus of antimony, the copper and brass, each of these having also been reduced to a melted state. While they are poured in, the compound is carefully stirred by the workman who has the management of it. When they are thoroughly mixed, the compound is transferred either to iron boxes, in which it cools in the shape of slabs, or into moulds, in which it takes the form of ingots. Britannia metal is most tractable to work, and has a very beautiful appearance when well finished. It is, indeed, so like silver that there was considerable difficulty, in the case of some of the articles exhibited in the Great Exhibition of 1851, in distinguishing the difference. So marked was this, for instance, in the case of the goods shown by Messrs. Dixon and Sons, that the authorities recommended them to inscribe the words "Britannia metal" on the cases, that the goods might not be mistaken for silver. Britannia metal has almost entirely thrown pewter wares into disuse. It is sometimes called "Prince's metal," and is commonly styled by the workmen "white metal." In addition to its ordinary use it is employed as a basis for electro-plating, for which it makes a cheap and durable material. There has been no material improvement or change in the composition of Britannia metal for the last forty years. Messrs. Dixon and Sons also carry on a very extensive trade in powder flasks and other shooting apparatus. A great deal of valuable machinery has lately been added to the various departments of their works, with a view to cheapening the production and improving the style and finish of the goods. Their show-rooms at Cornish-place and 37, Ludgate-hill, London, contain numerous beautifully-finished specimens of all their different branches of manufacture. The sight is a most interesting one to the stranger, the beauty of design and finished make of the plated goods being of the very highest kind. A large collection of powder flasks and other shooting apparatus, with Britannia metal wares, are shown in one room, and silver and silver-plated goods in another. An immense number of powder flasks are manufactured by the firm. For these and other conveniences for sporting, "Messrs. Dixon and

Sons, of Sheffield, are a hundred to one against the world," says Frank Forrester, the author of "Field Sports in the United States." The house does a large business in silver goods, and has a special reputation for its presentation plate. Mr. Alderman Fawcett, one of the members of the firm, had the honour of receiving, in 1855, as Mayor of Sheffield, from the Emperor of the French, the gold medal awarded to the town for its position in the Paris Exhibition of that year. This mark of distinction is in the care of the Cutlers' Company. It has been placed in a case, with the names of all the exhibitors engraved on a silver plate accompanying it. At the Exhibition of 1851, two medals were awarded to Messrs. Dixon and Sons, one for their Britannia metal and one for sporting articles. The firm also received a first-class medal at the Paris Exhibition of 1855, two at the London Exhibition of 1862, one in 1868, at Akola, Central India, one in 1875, at Chili, and one at Sydney, 1878. The business was established in 1806, and has gradually grown to its present magnitude.

The manufacture of silver-plated and Britannia metal ware is a very extensive industry in Sheffield, and the firms engaged in it are numerous. Among the leading firms are Messrs. Walker and Hall, Martin Hall and Co. Limited, William Hutton and Sons, Roberts and Belk, Lee and Wigfull, W. Sissons and Sons, Roger Broadhead and Co., John Round and Son Limited, Mappin and Webb, Atkin Brothers, W. W. Harrison and Co., John Harrison and Co. Limited, Creswick and Co., R. Richardson, Briddon Brothers, R. M. Johnson and Co., Philip Ashberry and Sons, Bradbury and Sons, White and Sons, Henry Wilkinson and Co. Limited, Shaw and Fisher, Thomas Oxley and Sons, Boardman and Glossop, Francis Howard, Jas. Deakin and Sons, William Batt and Sons, W. and H. Stratford, and many other houses.

## ENGINEERING.

Boiler making and the manufacture of engineers' tools are comparatively old Sheffield trades, but only of late years has general engineering risen into prominence as a local industry. Now the building of locomotive and stationary engines and the manufacture of machinery of all kinds is carried on here on a large scale. We need hardly note in connection with engineering works the employment of a large staff of draughtsmen, whose business it is to carefully consider and work out the details of every machine, however massive or diminutive, before a single part of it is put into the hands of the workman, in order to ensure the perfect accuracy of the whole. The designs of the draughtsmen are carefully embodied in wood and then cast. From the foundry the castings are taken to the machine

shops, where they are planed, turned, bored, slotted and otherwise fitted. Having been thus prepared with a care and attention which extends to the minutest detail, the separate parts are taken to the erecting shops, where they are finally put together, and the complete machine is put into operation and carefully tested. In no branch of manufacture is machinery more largely used than in the production of machinery. Dealing with immense blocks of iron and steel, the makers of heavy machinery necessarily provide themselves with powerful steam cranes and other lifting and carrying apparatus, without which many of their operations would be impossible. They also use labour-saving machinery for every other operation to which it can be advantageously applied. The aggregate of machinery employed at the larger works, ranging from small lathes to ponderous steam hammers and engines, is enormous, and illustrates in a striking way the vast development of productive power in manufactures during the present century.

**Messrs. DAVY BROTHERS LIMITED.**—This Company carry on a very large business as engineers and boiler makers at the Park Iron Works, of which we give an illustration. The character of the works may be judged from the fact that Messrs. Davy manufacture steam engines and boilers, steam hammers, cranes and shears, rail mills, Bessemer plant and all other kinds of machinery required in connection with iron and steel works, from the lightest to the heaviest kind—engines, for instance, ranging from two-horse to two thousand-horse power, and steam hammers from one hundredweight to twenty-five tons. Among the most recent productions of the Company are the large new rail mills of Messrs. Wilson, Cammell and Company, at Dronfield, said to be the finest mills and engines of the kind in the world, and capable of rolling three thousand tons of Bessemer rails per week. The works include pattern and turning shops, iron foundries, machine and erecting shops, blacksmiths' shops, boiler works and rolling mills, all on a large scale, the principal erecting shop being 260 feet long, 46 feet wide and 30 feet high. The various departments are fitted with the best steam machinery and other appliances for turning out the most perfect work at the lowest prices. One of the specialties of the firm is the manufacture of steam hammers, in connection with which they hold valuable patents. The Company also manufacture fans and other colliery plant. The machinery of Messrs. Davy Brothers has long had a high reputation in the market, and the Company do an extensive business.

Among other engineers of the town are Messrs. Walker, Eaton and Co., The Yorkshire Engine Co. Limited, Glossop, Tingle and Co., The Savile Street Foundry Co., &c.



PARK IRON WORKS—MESSRS. DAVY BROTHERS LIMITED.



**BOILER MAKING.**

The manufacture of boilers is a considerable local industry: the boilers of some Sheffield makers having a reputation second to none in the United Kingdom.

Messrs. HAWKSLEY, WILD AND Co.—Brightside Boiler Works, the extensive premises of this firm, which adjoin the Midland railway in Saville-street East, were opened twenty years ago for the manufacture of stationary, portable and marine boilers and mountings of every description. The works have been specially constructed for this branch of manufacture, and are fitted with the best machinery and appliances for the work. Boiler making is another of the large local industries in which steel is rapidly superseding iron. The English Government, after careful enquiries, some years ago adopted steel in preference to iron. The vastly greater tenacity of steel gives the requisite strength with a much thinner plate than the best iron, and the lighter material of course expedites the production of steam; also the serious dangers attendant upon lamination are, with steel plates, avoided. Messrs. Hawksley, Wild and Co. were the pioneers in this district of steel boilers, having put one down in their own works twenty years ago, and having manufactured them for many customers since with great success. The firm some years ago introduced their "Patent Fanged-flued Boiler," and subsequently patented the "Safety High Pressure Boiler." Other specialties of the firm are—a new boiler arrangement for utilizing waste heat for furnaces, coke ovens, &c.; an improved feed-water heater; improved dead weight and low water safety valves, &c., &c.

Amongst other manufacturers are Messrs. Davy Brothers, whose works we have previously described; Messrs. Pigott and Farrar, Barnsley; The Yorkshire Engine Co. Limited; Messrs. Robert Jenkins and Co., of Rotherham, who manufacture specially Boiler Stoves for heating purposes.

**SURGICAL INSTRUMENTS.**

For its trade in the manufacture of surgical instruments, the town is indebted to Alderman W. Hutchinson—a fact not generally known. The circumstances are interesting. Mr. Hutchinson was a scissors manufacturer in Norfolk-street, and in the course of his London journey in 1827, when times at Sheffield were bad, he called as usual upon Mr. Millikin, a well known dealer in the Strand. While the two were chatting, a shopman who had been sent out with money in his hand for a supply of scarificators, brought back the gold, saying there were none to be had, and that the reply of the makers to his enquiry when he could have some, was the saucy one "when you can catch them." Failing to get an order for scissors,

Mr. Hutchinson suggested that his customer should give him one for scarificators. Mr. Millikin treated this suggestion as a jest at first; but finding Mr. Hutchinson was in earnest, gave him an order, remarking, however, that he never expected to see the goods, for nobody in Sheffield could make them. He had, he said, been trying to make them himself for twenty-five years and had failed, Furnished with a pattern, Mr. Hutchinson returned to Sheffield to make scarificators. The task was far from an easy one. The scarificator—used for the then common operation known as “cupping”—is a delicate and complicated instrument, in the action of which the utmost nicety is required. It was the product of a closely restricted London trade, the fortunate artificers in which having high wages, would work only when it pleased them, and did not half supply the demand. Mr. Hutchinson had neither tools nor skilled labour to fall back upon, but having fitted up a private room, he took a trusty servant into his confidence and set to work. At the end of a month he had succeeded in making one fairly satisfactory instrument, and next month five more were made. These were taken to London. They were rough in comparison with the London article, but the make and quality were right, and they sold readily. Delighted with the result of the experiment, Mr. Millikin agreed to take all the new producer could make, and there was incessant activity in Norfolk-street for a considerable period. Improved tools and methods were devised, the Sheffield instrument gradually rivalled its London prototype in finish as well as quality, and thousands were supplied. When at length the London customer was compelled to cry “hold, enough,” Mr. Hutchinson opened up a general connection. Disposing of their scissors trade to Mr. George Wostenholm, of Washington Works, Mr. Hutchinson and his brother devoted their attention exclusively to the manufacture of surgical instruments, and in the course of a few years laid the foundation of a prosperous business. Improving old instruments and designing many ingenious new ones, for some of which he received the medal of the Society of Arts, Alderman Hutchinson acquired a high reputation as a surgical instrument manufacturer, and was consulted by the profession far and wide as the need for new or better instruments was felt. It was under these circumstances the manufacture of surgical instruments was transplanted from London to Sheffield. For many years Messrs. Hutchinson had no competitors, but as the business expanded one workman after another set up on his own account, and the manufacture has become an important industry. Alderman Hutchinson has long ceased to be a member of the firm, but the business is carried on by his brother and nephews. Among other principal

firms in the trade are Mr. Wm. Skidmore, of Cemetery-road; Messrs. Joseph Gray and Son, of New George-street; Mr. John Blyde, of Milton-street, &c. The London shopkeepers still affect to be the manufacturers of the surgical instruments, as of the cutlery and plate they sell, but in fact the instruments are made in Sheffield.

## OTHER MANUFACTURES.

We may mention, amongst other important Sheffield manufactures, general ironfounding, of which there are several large works, including those of Messrs. John Crowley and Co., of Kelham Island and Wincobank, who are also manufacturers of lawn mowers, and other such implements.

Silver refining is a very old Sheffield industry, and is still carried on. The principal firms are the Sheffield Smelting Co. (H. J. and J. W. Wilson), Royds Smelting Works; and Messrs. E. W. Oakes and Co. Limited, Washford Smelting Works, Attercliffe-road.

Brass founding and the manufacture of chandeliers are among the industries carried on here. The leading firms are Messrs. Wm. Emery and Co., H. Morton and Co., and Magnus Sanderson. Messrs. Guest and Chrimes have large brass and chandelier works at Rotherham.

The manufacture of hair seating and curled hair is a very old Sheffield industry, the principal firm being Messrs. Saml. Laycock and Sons, who have extensive works in Portobello-street.

A large trade is done in ivory, tortoise shell, and horn combs, and in brush making.

The trade in optical and mathematical instruments is a large and growing one. The leading firms are Messrs. Chadburn Brothers, who have show-rooms in the Nursery, and Messrs. Cutts, Sutton and Co., of Division-street.

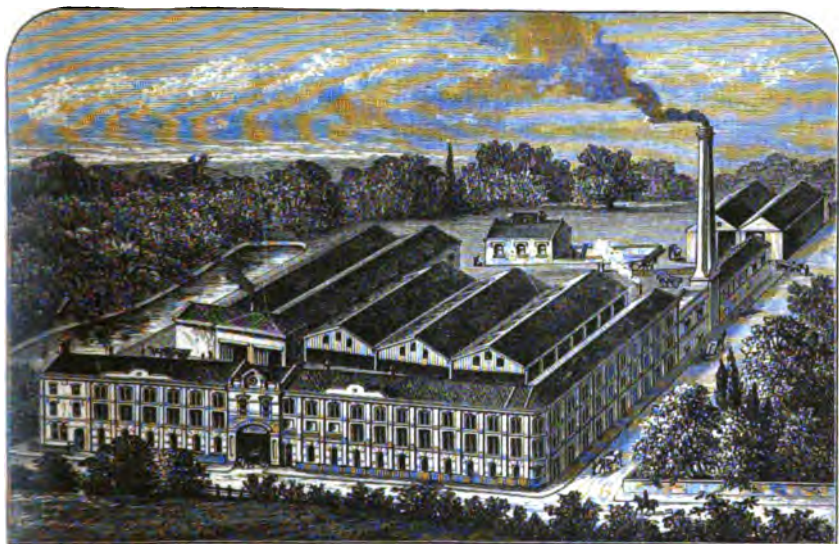
Cabinet case making is extensively carried on in this town, including writing-desks, portmanteaus, travelling bags, &c. Mr. J. Dewsnap, of St. Thomas-street, has long had a large business in all the various departments of this trade, and his goods have a high reputation in the market. Among other principal firms are Messrs. Russell and Jackson and Dewsnap and Cooper, &c.

The manufacture of cases for table cutlery, scissors, razors, strops, &c., finds employment for many hands, and articles of great beauty are produced.

Bicycle making, quite a new industry, is spiritedly carried on in Sheffield. The principal makers are Messrs. Hydes and Wigfull Limited, whose "Stanley" and "Chester" machines are among the best bicycles made. This company are also manufacturers of

iron and wire fencing and tin ware, which are Sheffield industries of some importance. Bicycles are also manufactured by The North of England Bicycle Co., T. C. Hill and Co., W. F. Bagshaw, &c.

Tape and steel measures are fabricated here in great variety by Messrs. James Chesterman and Co., who have very large works entirely devoted to this important branch of business.



MEERSBROOK TANNERY.—MESSRS. F. COLLEY AND SON.

Another important local trade is the manufacture of leather. Meersbrook Tannery, of which we give a bird's-eye view, has been recently erected near the Heeley Station of the Midland Railway by Messrs. Francis Colley and Sons, who have been established in Sheffield more than half-a-century as curriers, leather merchants, and mill-strap manufacturers. The site occupies about two-and-a-half acres, and for completeness of arrangement and adaptation of the newest machinery to the process of tanning and currying is second to none in the country, every care having been taken to obtain efficiency in every process, so as to render this a model tannery. This tanyard has been planted principally for the tanning of heavy hides for the manufacture of driving belts for machinery, a branch of business in which the eminence of the proprietors is widely recognised both at home and abroad. Here may be seen leather in every process of manufacture, from its raw hide state till ready for the saddler, shoe manufacturers, or for making up into

driving belts. The tannery is built in the most substantial manner, and is capable of turning out more than 500 heavy hides per week. The cleanliness of its arrangements will be an agreeable surprise to those who may hitherto have regarded tanneries as annoyances to the neighbourhood in which they are placed; while its handsome style and elevation render it an ornament to the neighbourhood.

The wholesale confectionery works of Messrs. George Bassett and Co., in Portland-street, Infirmary-road, are the only works of the kind in the district, and among the largest in the kingdom. Nearly 200 hands are employed, and the various processes are peculiarly interesting. The business is divided into six or seven distinct branches, and very costly machinery is employed, by which the various descriptions of confectionery are not only manufactured in the most economical manner, but with greater neatness than hand-made goods can possibly be made. The manufacture of peppermint, rose, musk, and other kinds of lozenges is carried on upon a large scale, more than a ton per day being made. To accomplish this the loaf sugar is ground into a very fine powder, and mixed with gum arabic and different flavours (as indicated by the name of the lozenge) until the paste is one consistency. It is then placed at the end of a large machine, and rolled into sheets about nine feet long. The same machine also cuts the lozenges out of the sheets and spreads them on a board. The process is so rapid that many thousands of lozenges can be cut in a few minutes. Another important branch with the firm is the manufacture of pan goods, including comfits of all sizes and shapes. A sketch of this room is here given. In this department there are about thirty revolving copper pans, some of them of immense size, and all constructed so as to be heated by steam process. Here are made carraway comfits, almonds, &c., &c. The process is to put the seeds or almonds into the pan and pour liquid sugar upon them, keeping the pan revolving to prevent any of the seeds sticking together. By this means each centre receives its due proportion of sugar, the process continuing until the comfits are the proper size. More than a ton of sweetmeats per day is produced in this department. The manufacture of candied peel is also interesting, and is conducted on a gigantic scale. Many thousands of cases of lemons are imported annually from Messina, besides oranges and citrons. The process is first to extract the juice from the lemons, then pickle the skins or rinds in salt water. The skins are afterwards boiled and the pulp extracted. They are then passed into fresh water, and afterwards put into large square tanks or vats, into which liquid sugar is poured. When the saccharine has been



**CONFIT ROOM—MESSRS. GEORGE BASSETT AND CO.** rooms above, and while the mass is soft, portions are weighed off and rolled into Spanish-juice sticks, moulded into Pontefract cakes, propelled through a brass cylinder by steam power into pipes, or transformed into the other shapes in which it appears in the windows of confectioners' shops. Another important branch is the making of jujubes, gum pastilles, liqueur goods, and all descriptions of piped medals, resembling the fancy confectionery produced on the Continent. In these rooms may be seen babies in cradles, animals, figures of all descriptions, Victoria crosses, bird cages, and about one hundred varieties of fancy confectionery such as delight the juvenile purchasers. The manufacture of acid drops is very interesting. Over an intensely hot furnace at one end of a large room, and slightly elevated above the ground, are four copper pans, which

absorbed into the rind, more syrup is added, until the skins become fattened with sugar—literally preserved. When taken out of the vats they are dried in stoves, and subsequently candied. They are sent to the various grocery establishments in the United Kingdom, also to the Colonial markets, where the firm enjoy a high reputation for this branch of their industry. The manufacture of liquorice into various confectionery is carried on extensively. The extract reaches the works in large black masses. After boiling and purifying in steam pans on the ground floor, it is hoisted by a crane to the



are carefully watched. Each pan contains from 30 to 50 lbs. of sugar and a proportion of water. When the sugar has been boiled the requisite period, the workman carries the pan to a large stone table, previously prepared with butter, and on this he pours the seething liquid. The contact with the cold stone causes it gradually to set, and when it has slightly set another man turns it into a heap. A quantity of tartaric acid and essence of lemon is then added, and this, as it melts, is gradually worked into the mass, which is, while soft,

**CONFECTIONERY WAREHOUSE—MESSRS. BASSETT AND CO.** cut into large slices and passed over to boys. Each boy in turn takes a slice weighing six or seven lbs., places it between a pair of brass rollers revolving by steam power, and indented with holes the size and shape of the required drops. As the machine is turned, there issues from the other side of the roller a long string of drops, the process being continued until the whole of the soft mass is converted into drops. In the course of a few minutes the drops, which fall upon iron trays, are sufficiently hardened or set to allow of their being separated from each other. In the case of barley-sugar drops the only difference is that the tartaric acid is omitted. Jargonelle pear, orange, rose, raspberry, or other drops, are obtained by an admixture of some chemical flavouring matter in lieu of the tartaric acid, and with the addition of a little cochineal

or saffron for colouring. Every article manufactured by the firm is guaranteed to be pure. Plaster of Paris, and other most injurious ingredients, which some unscrupulous manufacturers formerly used, they entirely discard, all the ingredients they use, and the colouring matter also, being perfectly wholesome, and such as the most delicate might eat with safety. To this very important fact the firm attribute a great deal of their success.



DEVONSHIRE CABINET WORKS — MESSRS. JOHN MANUEL AND SON.



In Sheffield, as in other large towns, the expansion of trade and the general increase of wealth have been followed by a corresponding development of the industries which minister in a special way to the taste for luxury and adornment wealth usually creates. This development is specially marked in cabinet and upholstery work. Not only have small concerns grown into large establishments in which scores of hands are employed, but a refinement of taste and a degree of artistic skill are now brought to bear on the work quite beyond the experience of a quarter of a century ago. Better cabinet work than is now made at Sheffield is, we imagine, difficult to find. Local talent has been employed in our largest mansions with most satisfactory results, a high degree of taste being shown in the cabinet and upholstery work of leading makers.

Among the largest and most successful cabinet makers of the town are Messrs. Manuel and Son, of whose show-rooms and principal manufactory in Division-street we give an illustration on preceding page. At these works the best appliances are used for doing work well and economically, and high manual and artistic skill are employed. It is one of the advantages of the cultivation of art in these domestic industries that competent decorators now bring the same ruling principles of taste to bear on the furnishing and decorating of the middle-class house as of the noblest mansion, and the customer is protected against the incongruities and absurdities which have too long disfigured house decorations in all but the most exceptional cases.

Messrs. Johnson and Sons, Thos. B. and W. Cockayne, and Woollen and Fordham are also leading houses in this branch of trade.

## THE SURROUNDING DISTRICT.

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**I**T now only remains for us to invite the attention of our readers generally, and of strangers visiting Sheffield particularly, to the scenery and the many places of historic and antiquarian interest in the surrounding district. An adequate description of the many delightful scenes within a day's drive of Sheffield would fill volumes. The space at our command will not permit us to do more than briefly indicate the more remarkable places and the routes by which they may be most readily reached. We shall deal first with the immediate neighbourhood, taking a wider circuit afterwards into the adjoining counties of Derby and Nottingham.

### ENDCLIFFE WOOD.

A charming walk, in the immediate vicinity of the town, is to be found in Endcliffe Wood. The River Porter winds through the Wood, and serves to keep seven or eight grinding wheels at work. We give several sketches by Mr. Walter



ENDCLIFFE WOOD AND DAM.

Nicholson of spots in this locality. The first represents one of the dams where the water is kept for turning the machinery ; on the further side the gable of the " wheel " is seen peeping up over the water. In order to increase the flow of the stream, there are weirs in connection with most of the dams, and some of the little waterfalls thus created have a very beautiful effect amongst the trees. There are also shuttles to stop the water and turn it in another direction when there is too much. These, together with a variety of bridges, glens, dingles, &c., form a very delightful walk, though the old beauty of the place has been to some extent impaired by recent changes. As the Wood is very narrow in many places, peeps of cottages, churches, and green fields in the distance are gained, which give a pleasing variety. Endcliffe Wood is a favourite resort with artists, and sketches from its precincts enrich many a portfolio.



VIEW IN ENDCLIFFE WOOD.

Endcliffe Wood is at the foot of the beautiful western suburb of Ranmoor, which, with its handsome mansions, and, graceful new church, built at the cost of Mr. J. Newton Mappin, come conspicuously into view at many points in the walk through the Wood. We present a view of the church as seen from the Endcliffe valley. Some account of the edifice will be found at page 88. We may add here that at the time we write the internal

fittings are being completed in the most handsome style. The pulpit, which is the gift of Mr. J. Y. Cowlshaw, especially is a



THE CHURCH OF ST. JOHN THE EVANGELIST, RANMOOR.

work of very high art. It is made of Italian walnut, with bronze enrichments and ornaments, and is the work of Mr. C. Green, of Sheffield. Octagonal in form, it is supported by eight fluted pillars, with decorated caps and bases. There is quite a wealth of panels, figures and ornaments in the same metal—the panels illustrating the career of the “beloved disciple,” and the figures

typifying the Christian virtues, Faith, Hope, Charity, Justice, Fortitude, Meekness and Temperance. The font, of Acaster stone, with marble columns, has been given by Mr. W. H. Brittain, the Master Cutler; and the communion service, &c., by other parishioners.

Extending the walk still further, to the source of the Porter, the visitor will be well repaid for the trouble. The Porter takes its rise in a small ravine between two hills, about three miles from the town, near the straggling little village of Fulwood.



THE PORTER FALLS.

After flowing a short distance, it makes one of the most perfect cascades that a lover of nature could wish to see. The cascade is in a small glen, a little way from the road, and unknown even to many who live very near. The annexed sketch gives a representation of this beautiful fall when there is a heavy shower.

## WHITELEY WOOD, RINGINGLOW AND WHIRLOW BROOK.

At the Porter falls, we are within a short distance of Whiteley Wood and Ringinglow. From the latter place, which is on the edge of the moors, pedestrians occasionally ramble down the side of the little brook which divides Yorkshire and Derbyshire, to Whirlow Bridge. The scenery is very beautiful, but bogs and underwood make the path difficult.

## THE RIVELIN, RIBBLEDIN, AND WYMING BROOK.

The Rivelin is a considerable moorland stream which, after coursing for some miles through the open valley to which it has given a name, turns sharply to the east at "Bellhag," and pursues its way between precipitous hills to the river Loxley, with which it unites near Hillsborough. The Ribbledin and Wyming Brook are tributaries of the Rivelin, towards which they flow through romantic ravines in the western hills. The pedestrian who visits the Rivelin from the centre of the town may advantageously go through Walkley, and descend into the lower and wilder part of the valley near the Catholic Cemetery. The usual and best-known route is by Broomhill and Crosspool to Bellhag, where the old coaching road to Manchester enters the Rivelin valley. From this point charming views may be obtained of the course of the river below and of the hills far beyond. In the afternoon, when the western sun shines upon it, Keppel's column at Scholes may be seen "towering like a line of light over Wentworth's halls." Following the Manchester road from Bellhag, we have the precipitous and wood-crowned Coppice rocks on our left, while between us and the Stannington hills on the right flows the Rivelin, its course broken here and there by grey, mossy grinding wheels, and the placid little lakes or dams in which water is stored for turning the wheels. The accompanying engraving of one of the most beautiful and picturesque spots on the river will enable the stranger to appreciate more fully the language in which Ebenezer Elliott in one of his sweetest

lyrical poems ("Farewell to Rivelin") addressed his favourite river:—

"Beautiful river! goldenly shining  
Where, with the cistus, woodbines are twining,  
(Birklands around thee, mountains above thee,  
Rivelin wildest! Do I not love thee?"



VIEW ON THE RIVELIN.

A little beyond the third milestone from Sheffield—about three-quarters of a mile beyond Bellhag—is the bridge under which Ribbledin pours its blood to wed with Rivelin. The local name is "Black Brook," but Elliott, after listening to the sweet cadence of the stream, gave it the name by which it has since been best known, in the following stanza:—

"No name hast thou, lone streamlet,  
That marriest Rivelin;  
Here if a bard may christen thee,  
I'll call thee Ribbledin.  
Here, where first murmuring from thine urn,  
Thy voice deep joy expresses,  
And down the rocks like music flows  
The wildness of thy tresses."

At the point where the road crosses there is little indication of the wild and glen-like character of the spot higher up. We go up the course of the river, picking our way now over

moist, green rank grass, intermingled with mosses and purple foxgloves, now skipping from stone to stone, and now over masses of fallen rock, and under arches of time-twisted and tempest-riven trees that literally join shore to shore. It is a—

“ Dim world of weeping mosses !  
A hundred years ago  
Yon hoary-headed holly tree  
Beheld thy streamlet flow ;  
See, now he bends him down to hear  
The tune that ceases never !  
Old as the rock, wild stream, he seems,  
While thou art young for ever.”

Still onward until we come to where this old, yet ever-young, streamlet is issuing from its “urn.” There we may climb the

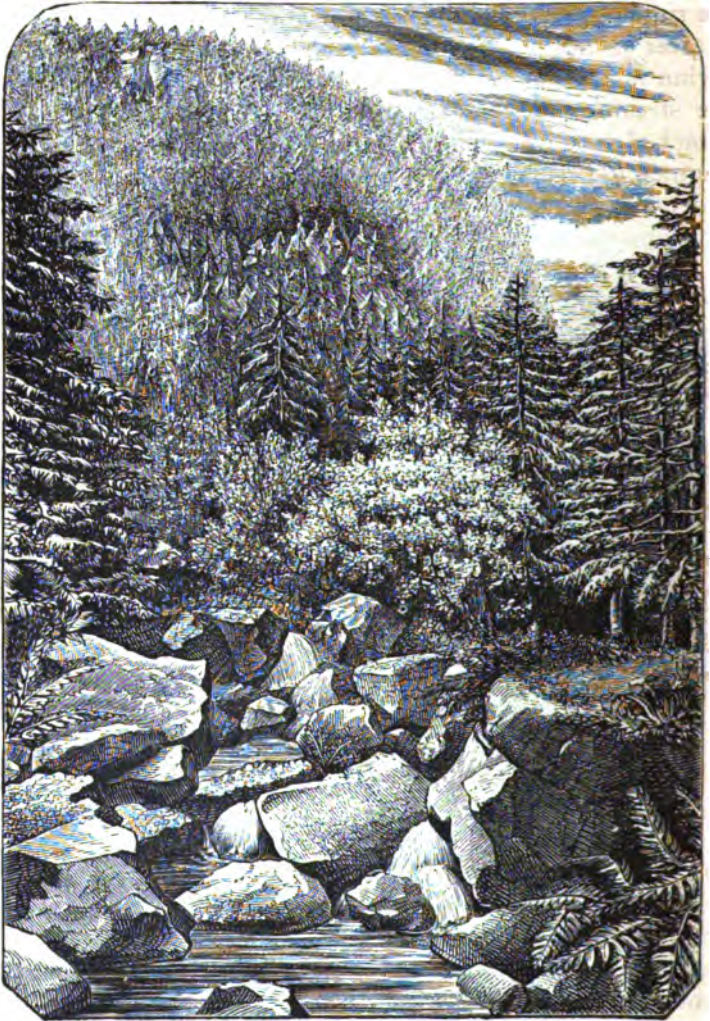


VIEW ON THE RIBBLEDIN.

rocky side and sit. A more lovely spot for sweet contemplation of nature is hardly to be found than that depicted by our engraving.



There was formerly a footpath leading from this spot over Coppice rocks to Sandygate. It was a favourite walk in returning from the top of Ribbledin to Sheffield, but is now practically



WYMING BROOK.

closed by a thick growth of larch trees and underwood. There are magnificent views from the Coppice rocks of the country through which the Rivelin, the Loxley and the Don meander towards the town, and of the hills beyond.

A mile beyond the Ribbledin is the wild gorge of "headlong Wyming." If we enter by the little Gothic lodge which is situated on the left hand of the Manchester road, and cross the head of the Water Company's Reservoir, then turn again to the right hand, keeping along the edge of the water for about a quarter of a mile, we shall reach the foot of the brook. This ravine is parallel with the Ribbledin. To go up the course of the stream is easier than to come down it. The masses of detached rock are often large, and they are interspersed with fragments of granite, which in dry weather are very slippery, and often make the descent dangerous as well as laborious.



WYMING BROOK.

The tourist may, by the aid of fallen branches, twigs of trees, and the long grasses and brackens, make the ascent with comparative ease in dry weather. For the student of nature, or the seeker after health and mental improvement, this wild glen teems with sermons. Ladies occasionally make the ascent without much difficulty in dry weather; when the stream is at all swollen by rains gentlemen find the task a trying one. The accompanying engravings will give some idea of the beauty of the stream.

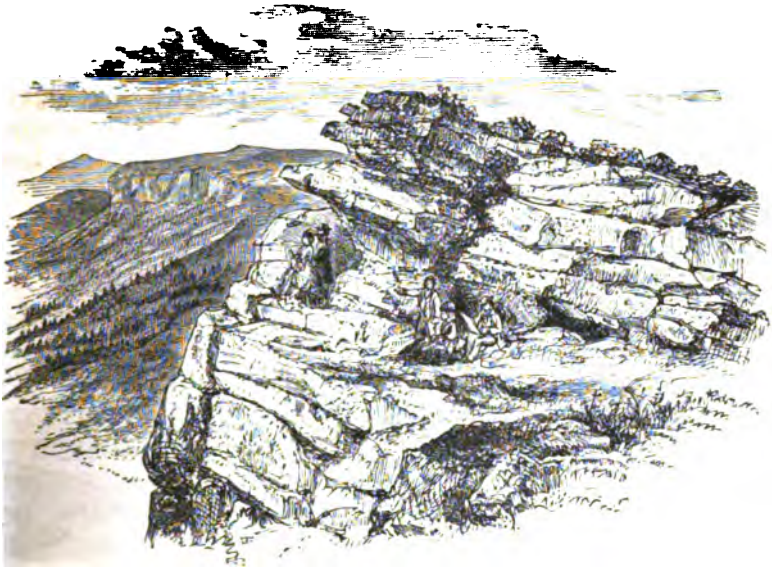
On reaching the road at the top of Wyming Brook glen, we are within a short distance of—

**REDMIRE'S AND STANEDGE.**

At the former place, amid a magnificent stretch of country, are three of the large reservoirs from which the town is supplied with water. We give a sketch of the place by the late Mr. William Ibbitt.

**REDMIRE'S RESERVOIRS.**

A little beyond them is an old causeway, from which may be obtained a fine view of the reservoirs, of Wincobank-hill, and of the country extending from Sheffield to the Humber in the distance. The causeway passes up to Stanedge-pole—which marks the boundary of the borough of Sheffield—and thence to Castleton. Stanedge is part of that extensive range of rocks called the “backbone of England,” which runs through the centre of the country, and, at this spot, is most picturesque. There are in the rocks three interesting caves, which are well worth a visit. The prospect from the rocks is extensive and grand. In one direction, looking into Derbyshire, may be seen Hope-dale, Winhill, Losehill, Mam Tor, the Wynnats, the hill on which Peveril's Castle stands, and beyond them the great Kinder range of mountains, described on the ordnance maps as “The Peak.” Stanedge, of which we present an engraving, is six miles from Sheffield.



STANEDGE.

We should explain that in going direct to Redmires and Stanedge the visitor, instead of descending into Rivelin valley, leaves the old Manchester road at Crosspool, turning to the left through Sandygate, and so keeping on the high ground between the village of Fulwood on his left and the Rivelin valley on the right.

#### PRE-HISTORIC EARTHWORKS AT BRADFIELD.

##### LITTLE MATLOCK, AND ROBIN HOOD.

**THE BRADFIELD RESERVOIRS.** — These interesting places may all be visited in the course of a summer afternoon, and afford a pleasant drive through scenery of great wildness and beauty. Taking the old Manchester road through the Rivelin valley and past Hollow Meadows, we turn to the right near the shooting box of Mr. Mark Firth, at Moscar, for the Strines Inn — a famous resort of sportsmen in the shooting season. The views from the neighbourhood of the inn are very fine. In the valley immediately below is the Strines Reservoir, and a little lower down the new Dale Dyke Reservoir. The embankment which yielded with such disastrous effects on the night of March 11, 1864, was at the point where the valley contracts, below the new dam. It has been entirely removed, the material being used in the construction of the new dam, and nothing

is left to indicate the exact site, which, however, those who visited the dam immediately after the catastrophe will easily recognise. The Dale Dyke, running between high banks, indicates the course of the flood to Lower Bradfield, and we note with interest the site of the bridge, school-house, mill, and other buildings which were the first to perish beneath the fury of the torrent. Higher up the Loxley valley, into which we emerge at Lower Bradfield, is the Agden Reservoir; the quaint old church at Bradfield, and some pre-historic earthworks—all of which are well worth a visit. For some account of the reservoirs here and at Redmires we must refer our readers to the general account of the Waterworks, page 178. For the following account of the earthworks we are indebted to the Reports of the Congress of the British Archæological Association, held at Sheffield in 1873:—

“The fort called the Bailey Hill has a conical mound surrounded by a trench, and is placed on a spur of the hill close to the edge of a lofty precipice of rock. From the mound a ditch and bank extend in a crescent form to the precipice, enclosing an irregular triangle of small extent, with the precipice forming an impregnable side to it, the crescent, bank, and ditch forming another side, having apparently an entry at the end of the bank, between it and the conical mound, whilst the mound blocks the third side, and there is another entry to the fortified place between it and the precipice. The Bailey Hill is to the north-west of Bradfield church; to the south-east of the church, at about a third of a mile from the Bailey Hill on the same side of the Loxley valley, is another fortification called Castle Hill, at about an equal elevation and on another commanding spur, though much less aided by nature in a military sense. The fortification has probably been occupied down to much later times than the Bailey Hill; there are some remains of masonry, thought to have been a keep or tower, within it, and the spur is partly fortified with an entrenchment. Taking these two works as forts dependent upon each other, there is a flanking outpost at about a quarter of a mile beyond each of them, at which points some entrenchments, as of posts of observation on spurs of the hillsides, are clearly visible. All these fortifications look upon the western valley towards Thornsett, and seem to have been made with special reference to the command of approach from it. A walk along the same side of the hill, towards the north, after about two miles, will bring the explorer to the

**Bardyke**, a considerable ditch and vallum, which traverses the country in a nearly direct line north-east and south-west, now crossing the high ridge of hill—the Kirkedge—and then dipping down into the valley transversely and mounting the steep hill-side beyond, it is visible at a considerable distance. Some two miles west of Bradfield, conspicuous on the edge of a rocky precipice, where is the south boundary of Broomhead Moor, there stands a remarkable mass of rock, evidently artificially placed. It is a single stone, four or five feet thick, seven or eight long, and six or seven wide, of irregular shape, and quite unwrought. It is known as the Hurkeling Stone. Attention was called by Mr. Gordon Hills to the striking position the works at and near Bradfield held with respect to the great mound on Winhill, in Derbyshire. It is visible some seven or eight miles in a direct line from Bradfield, much more elevated than it, and crowning a lofty peak of mountain. Admitting as unquestionable the application of the works at Bradfield to purposes of defence, he suggested that such mounds as the Winhill, the Bailey Hill at Bradfield, and such a landmark as the Hurkeling Stone, had their origin perhaps with ancient geometicians, the Bardyke being, he thought, a boundary laid down and marked out by means of these or such stations."

Hunter held that the Bradfield earthworks were a permanent military post, probably one of the frontier barriers of the kingdom of Northumbria in the time of the Heptarchy. Bradfield church, which has been lately restored, is an interesting edifice, and contains a memorial window of the victims of the flood—the only memorial erected. Retracing our steps to Low Bradfield, we take the road on the south slope of the Loxley valley, through much beautiful scenery, to Damflask, where is the new and largest of the Water Company's storage lakes. Crossing the valley by the high road over the embankment, we follow the course of the river on the opposite slope, noting as we proceed the scenes of the more remarkable ravages of the inundation. Of these ravages comparatively few traces now remain.

As we approach the confluence of the Loxley and Rivelin at Malin Bridge, we notice precipitous cliffs on our right at a bend of the river, and above them a richly-wooded hollow in the face of the hill. This is Cliffe Rocher, better known as "Little Matlock," from its resemblance to Matlock, in Derbyshire. It is supposed to be in the "Locksley Chase," celebrated in the Robin Hood ballads, and is reputed to have been the

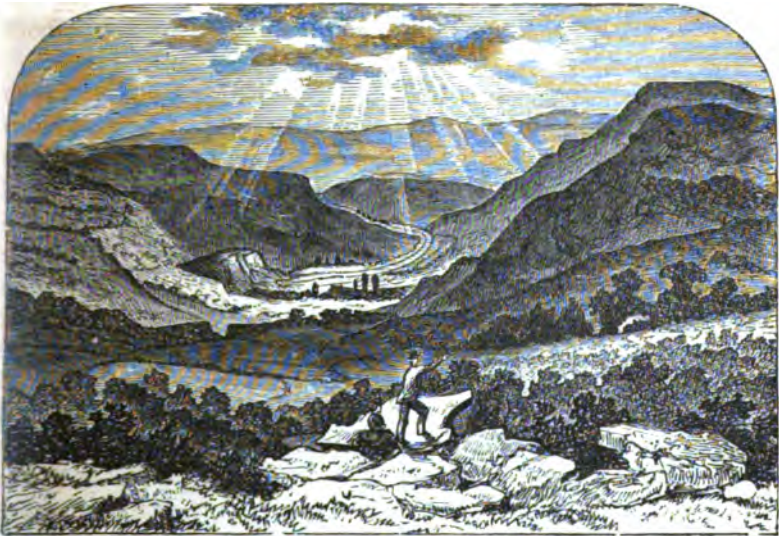
birthplace of the famous outlaw, several wells in the neighbourhood competing for the honour of having been "Robin Hood's well." The scenery is romantic, and the prospect from the hill is extensive and beautiful. Close to the river, at the foot of these cliffs, still stands a row of cottages commemorating one of the most melancholy incidents of the flood. Two of these cottages were occupied by the brothers Henry and Daniel Chapman, the former of whom perished with all his family, while the latter escaped almost miraculously, losing an infant only. Near them are the remains of Denton's wheel, also destroyed by the flood. Pedestrians can cross the river at this point to explore Little Matlock, but the carriage road is by Malin Bridge, about half-a-mile below.

"Sweet Locksley town," where "bold Robin Hood was born and bred," is described in the ballads as in "merry Nottinghamshire," and its identity with our Hallamshire "Loxley" is by no means clear. But to look for strict geographical accuracy in such compositions would probably be unreasonable, and the forests of Hallamshire were not so remote from Sherwood as to require us to treat the tradition with absolute indifference. About half a century ago, an eccentric person of the name of Halliday attempted to make "Little Matlock" a place of public resort. He built a substantial house of entertainment, made walks and cut terraces and grottos in the rugged hill-sides, and succeeded for a time in attracting many pleasure parties from Sheffield. The "Robin Hood" Hotel is not now a house of entertainment in the sense intended by the founder, but the romantic glen still attracts visitors in the summer months. Returning from Little Matlock, we follow the course of the Loxley, though excluded from its banks, through a populous district, in which the ravages of the flood were terrible, but are now obliterated, to Hillsborough, whence there are tramcars to Sheffield. Little Matlock is barely half-an-hour's walk from Hillsborough.

Some visitors prefer to ascend the Loxley valley from Hillsborough, returning by Moscar and Rivelin valley, the sunset views from which are often remarkably beautiful; but the road is much heavier than the other way, both for pedestrians and horses. During the summer months an omnibus runs to Ashopton, passing Moscar, and is available for going one way or returning the other. The distance from Moscar to Hillsborough is about ten miles.



**HARNCLIFFE** is a favourite place of excursion from Sheffield, and very easy of access by means of the Manchester, Sheffield and Lincolnshire Railway. Wortley Hall, the seat of Earl of Wharnccliffe, is situated here. There is a magnificent range of forest, hill, and dale; and a day may be most delightfully spent in exploring the beauties of the neighbourhood. The railway passes directly



WHARNCLIFFE—FROM THE TABLE ROCK.

through the wood, which is open to the public on Mondays, Wednesdays and Saturdays. Wharnccliffe Crags are a series of rocks which are remarkably fine. Elliott, describing the wild and rugged scene, with the river at its base, says :—

“ Where Don’s dark waters bathe the rugged feet  
Of billowy mountains—silent, motionless,  
As if the Almighty’s hand had stilled and fixed  
The waves of chaos in their wildest swell.”

The engravings show a point at the summit, called the Table Rock, situated over what is known as “the Dragon’s Den.” From this spot a commanding view may be obtained, including, it is said, on a very clear day, the dim outlines of the cathedrals of York and Lincoln. “The Dragon’s Den”



is a cavity in the face of the rock, about four yards long and two yards wide. It is so called from the legend which is preserved in the old ballad of "The Dragon of Wantley." The ballad begins—

" In Yorkshire, near fair Rotherham,  
The place, I know it well,  
Some two or three miles, or thereabouts,  
I vow I cannot tell ;  
But there is a hedge, just on the hill side,  
And Matthew's house hard by it,  
O there and then was the dragon's den,  
You could not choose but spy it."

The song proceeds to describe "More, of More Hall," as the champion who undertakes to encounter the monster. The Table Rock mentioned is directly opposite the Yewden valley,



WHARNCLIFFE CRAGS AND DRAGON'S DEN.

where stands More Hall, which was formerly the residence of the More family. The ballad, after describing the hero, relates how he went to Sheffield for a suit of armour:—

" But first he went new armour to  
Bespeak at Sheffield town ;  
The spikes all about, not within but without,  
Of steel so sharp and strong,  
Both behind and before, arms, legs, and all o'er.  
Some five or six inches long."

Of course the brave More, with the help of his Sheffield armour, destroyed the dragon. There have been many attempts to explain the allusions in the ballad, which is universally believed to be a caricature of some local occurrence. Dr. Percy suggests that it "alludes to a contest at law between an overgrown Yorkshire attorney and a neighbouring gentleman. The former, it seems, had stripped three orphans of their inheritance, and by his encroachments and rapaciousness was become a nuisance to the whole country, when the latter generously espoused the cause of the oppressed, and gained a complete victory over his antagonist, who from mere spite and vexation broke his heart." Another conjecture is that the song referred to some local dispute about tithes. A more satisfactory explanation of the ballad has been discovered of late years in an allusion made to it about two hundred years ago in the works of the Rev. Oliver Heywood, of Coley. Mr. Heywood wrote—"Sir Francis Wortley's great grandfather being a man of great estate, was owner of a town near unto him, only there were some freeholders within it with whom he wrangled and sued until he had beggared them and cast them out of their inheritance, and so the town was wholly his, which he pulled quite down, and laid the buildings and town fields even as a common, wherein his main design was to keep deer and make a lodge, to which he came at the time of the yeere and lay there, taking great delight to hear the deer bell. But it came to pass that before he dyed he belled like a deer, and was distracted. Some rubbish there may be seen of the town: it is upon a great moor between Penistone and Sheffield." A tradition to the same effect gives the name of Stanfield to the town, and fixes the site at the top of Wharncliffe Moor near the pond—this being "the highest ground in the neighbourhood, and commanding a view of marvellous extent, embracing the cathedral of York on the one hand and that of Lincoln on the other." Some remains of a building on the moor near the road from the Haystack Coppice to the Lodge are supposed to mark the site of Whitley church and town, also destroyed for the purpose of enlarging the limits of the chase, the freeholders being violently disfranchised. In a paper read before the Archæological Society in 1874, Mr. Llewellyn Jewitt, F.S.A., remarks:—How well this tradition of the destruction of these towns is carried out in the ballad!—

“ Houses and churches  
 Were to him geese and turkies ;  
 He ate all and left none behind,  
 But some stones, dear Jack,  
 Which he could not crack,  
 Which on the hills you will find.”

The *stones* on the hills being, without doubt, the remains of the houses of Stan or *Stone* field. Then again, the violent disfranchisement of ancient freeholders is aptly allegorised in the lines—

“ Devour did he  
 Poor children three  
 That could not with him grapple.  
 And at one sup  
 He ate them up,  
 As one should eat an apple.”

And then the breaking up of the pastures around the home-steads, and the felling of the trees for the purposes of the chase, are clearly meant in these words :—

“ All sorts of cattle the dragon did eat,  
 Some say he did eat up trees,  
 And that the forest sure he would  
 Devour up by degrees.

the popular expectation being, that in his greed he would not stop at destroying the villages and seizing the land, but would ultimately take violently to himself Loxley Chase and Sherwood Forest.”

Mr. Jewitt remarks upon the analogy between the ballad of the “ Dragon of Wantley ” and that of the national ballad of St. George and the Dragon, the idea of the national ballad having clearly been worked up in connection with the local event. He adds that the dragon has in all ages been the symbol of the devil, of tyranny, of oppression, of cruelty and of wrong; hence it is that this monster has been chosen as the embodiment of wrong in the dragon of Wantley and other popular legends.

The “ great grandfather of Sir Francis Wortley ” alluded to by Mr. Heywood was Sir Thomas Wortley, who was knight of the body to four successive kings, Edward VI., Richard III., Henry VII. and Henry VIII., and “ did serve them with great credit in their warres, having great government in this Commonwealthe.” Sir Thomas built his lodge on one of the highest of the rocky eminences at Wharncliffe, and a small residence called The Lodge still stands there, the occupier, a servant of Earl Wharncliffe, providing tea and accommodation.

for pic-nic parties. In connection with this lodge is a curious memento known as the "Inscription Rock." On a lofty rock with a flat surface, Sir Thomas caused the following inscription to be engraved:—

Pray for the soule of  
 Thomas Wortteley knygght  
 for the Kyngys hode to Edward  
 the forth Richard therd Hare vii. and Hare viiii.  
 Hows faults God perdon-Whycche  
 Thomas causyd a lode to be made  
 Hon this crag in mydst of  
 Merclyfy for his plesor to her the  
 hartes bel, in the yere of our  
 Lord a thousand cccccc

The inscription is in Gothic letters  $3\frac{1}{2}$  inches high, cut on a surface of about 8 feet by 5 feet. It has suffered considerably by exposure to the weather, but is now protected by walls and a roof. John Holland, alluding to the fact of the original lodge having been built in the time of Henry VIII., remarks that the present building shows no traces of such antiquity, unless it be in the chimney-piece and inner walls. Nor is it more than a relic of the lodge which existed in the last century, and was successively occupied as a residence by members of the Wortley family, including the celebrated Lady Mary Wortley Montagu, and Mr. Sidney Wortley Montagu, the friend of Addison, and

a contributor to *The Spectator*. Lady Mary's admiration of the scenery at Wharncliffe is shown in a letter she wrote from Avignon, where she afterwards resided. Speaking of a delightful spot near that place, she describes it as "the most beautiful land prospect I ever saw, *except Wharncliffe*."

At the Lodge are preserved the boots worn by Sir Francis Wortley—a devoted adherent of King Charles—at the battles of Marston Moor and Naseby.

Sir Francis, who was a scholar as well as a cavalier, was taken prisoner and died in the Tower of London before the Restoration.



BOOTS IN WHARNCLIFFE LODGE.



TWIN TREE NEAR WHARNCLIFFE LODGE.

Near the lodge is a curious "twin tree," of which we give an illustration. It is a large hollow, decaying oak tree, with a flourishing birch tree apparently grafted upon it. On examination it will be found that the birch is sustained by a healthy tap root or sucker descending into the ground through the hollow trunk of the oak. Whether the birch sprang from a seed or was planted designedly is not known.

### WORTLEY IRON WORKS.

Visitors who take an interest in such objects may see at Wortley some of the oldest iron works in this part of the country. They are those of Messrs. Thomas Andrews and Co., and are on the estate of the Earl of Wharncliffe. The extensive beds of scoria found in the woods show that iron making was carried on at Wortley at a very remote period—not improbably by the Romans themselves. Whether these operations were continuous may be doubtful, but there is evidence of the existence of the present works more than two centuries ago. A rude representation of a tilt hammer and initials cut in the wall of the old forge bears the date 1713 (we give an illustration)



that being the date at which the works were enlarged and improved. A gravestone in Wortley Churchyard records that "Francis Askew, of the Upper Forge, hammerman," died in 1669. Clearly, therefore, more than one forge existed at Wortley in the middle of the sixteenth

century, and it is probable the works were established long before. They were extended from time to time, and a century ago stretched along the romantic course of the Don a distance of nearly three miles. Steam power had not then been discovered,

and the different sections of the works were built half a mile apart, with dams for the storage of water between them. There were six different tilts, wire mills and forges, and seven dams covering an area of about twelve acres. This long and extensive series of dams was necessary in those days to secure the very moderate working force of 186 horse-power. At the beginning of the present century the Wortley Iron Works belonged to Mr. James Cockshutt, F.R.S., civil engineer, a well-known pioneer in the iron trade, and one of the first to erect grooved rolling mills. They were extended in 1825 and 1855 and in 1868 further enlarged, and in fact thoroughly remodelled by the present proprietors, Messrs. Thos. Andrews and Co., who are manufacturers of railway axles, the best wrought scrap iron and chains. In the early railway times the manufacture of two or three railway axles a day was thought to be a great achievement. By way of contrast with this early period in the history of the iron trade, and in illustration of modern progress, it may be stated that these works now possess the necessary capabilities for turning out from 250 to 350 railway axles per week.

### SHIRECLIFFE.

Shirecliffe is peculiarly interesting to the admirers of Elliott, as the spot where was situated the "Gospel Tree," under which "the Ranter," in the poem of that title, went on Sundays to preach. Elliott stated that he drew this picture from life; and it seems probable that the actual spot described in the poem was once used as a place for preaching. The tree was an ash, and Elliott drove a nail into it that his friends might be able to recognise it; but unfortunately the tree no longer exists. We will conduct the visitor as nearly as possible to the place where it stood. There is an omnibus from Old Haymarket through the Wicker—which in old times was the Town Green where the maypole was erected and the men practised archery—to the disused Pitsmoor toll-bar, from which the spot is not more than ten minutes' walk. On reaching the toll-bar house we turn up Shirecliffe-lane, at the top of which, on the left, are the gates of Shirecliffe Hall, once the seat of the ancient family of the Mounteneys, but now the residence of the Watsons. A little beyond the gates there is a fine view of the adjoining country, reaching out as far as the villages of Handsworth and Laughton-en-le-Morthen. Still higher up we reach a point

from which, overlooking the Osgathorpe and Wincobank hills, Norwood, Page Hall and Firth Park, in the near foreground, we see a fine expanse of country east of Sheffield, prominent objects in which are Keppel's Column and Hooper Stand, described in our account of Wentworth Woodhouse, the seat of the Fitzwilliams. A little further on, to the left, we turn off into a quarry, and a pretty steep ascent leads us to the scene we have set out to visit, an outline of which is given in the accompanying illustration.



SHIRECLIFFE.

It is scarcely possible to imagine a more magnificent sight than is presented in the stretch of country when, turning our backs on Wincobank and Wentworth, we gaze over the Old Park Wood and the valley of the Don, to the hills north and west of the town. Our sketch gives only a general outline of the leading features of the scene, for the obvious reason that it is impossible to represent in so limited a space the crowd of objects before us. Three distinct ranges of hills undulate in the midst of the landscape; the Walkley hill on the left, covered with freehold land allotments, and the residences of thrifty working-men. Shelving down on the one side to the valley of the Don, and on the other side to the Rivelin, are the Stannington hills in the middle; north of these are the Loxley hills. Between

the undulations of these hills we see the Bradfield moors, clad in purple heather, filling up the hazy background; while the broad valley in which the Loxley and the Don unite as they flow towards the town, and where ravages of the flood were so terrible, lies before us like a map. Elliott gives a vigorous sketch of the scene in "The Ranter":—

"Up! sluggards, up! the mountains, one by one  
Ascend in light, and slow the mists retire  
From vale and plain. The cloud on Stannington  
Beholds a rocket.—No, 'tis Morthen spire.  
The sun is risen cries Stanedge, tipped with fire.  
On Norwood's flowers the dew-drops shine and shake;  
Up! sluggards, up! and drink the morning breeze!  
The birds on cloud-left Osgathorpe awake,  
And Wincobank is waving all his trees  
O'er subject towns, and farms and villages,  
And gleaming streams and woods, and waterfalls.  
"Up! climb the oak-crowned summit! Hooper Stand  
And Keppel's Pillar gaze on Wentworth's halls  
And misty lakes that brighten and expand,  
And distant hills that watch the western strand.  
Up! trace God's footprints where they paint the mould  
With heavenly green, and hues that blush and glow  
Like angel's wings, while skies of blue and gold  
Stoop to Miles Gordon on the mountain's brow.  
Behold the Great Unpaid! the prophet. Lo!  
Sublime he stands beneath the Gospel tree,  
And Edmund stands on Shirecliffe at his side!  
Behind him sinks, and swells, and spreads a sea  
Of hills and vales and groves. Before him glide  
Don, Rivelin, Loxley, wandering in their pride  
From heights that mix their azure with the cloud."

At Shirecliffe we are not far from Firth Park, which may be reached either by returning to Pitsmoor toll-bar and following the Barnsley Road, or, by a more circuitous but pleasant path, across the fields to Norwood.

### ECCLESFIELD.

Ecclesfield, a large village about five miles from Sheffield, is worthy of mention here on account of its fine church. The original church is supposed to have been built about the end of the eleventh century. The present church was built, externally, in the fourteenth century; but there are evidences in the interior of Early English, if not of Norman work. It is in the Perpendicular style, with nave, aisles, transept and chancel, and a square tower in the middle, opening from four massive piers where the transept crosses the body of the church.



Two hundred years ago Dodsworth wrote of this edifice, "This church is called (and that deservedly) by the vulgar the Mynster of the Moores, being the fairest church for stone, wood, glasse, and neat keeping that ever I came in of country church."

The beautiful painted windows, of which Dodsworth left a description, were afterwards destroyed. In 1823, side galleries were erected, and the nave and chancel were separated by an organ gallery. The latter was removed in 1858, and the church generally has since been restored. The church is rich in monumental memorials of much interest, and memorial windows of stained glass have taken the places of the painted windows destroyed at, or soon after, the Civil Wars. A Priory was founded at Ecclesfield, soon after the Norman Conquest, by the Countess Judith, by her successor, Roger de Busli, or by the Lovetots, Lords of Hallamshire. We have mentioned in our notice of Sheffield and its early Lords, that it is not known how the Sheffield estates passed from De Busli to the Lovetots in the reign of Henry I., and may here note the suggestion recently made by Mr. Stephen I. Tucker, Rouge Croix, that William de Lovetot married Emma, the widow of Roger de Busli, whose dowry, he supposes, they were, and whose name figures conspicuously in the foundation charter of Worksop Priory, certainly founded by William de Lovetot. The Priory of Ecclesfield was given to the Monastery of St. Wandrille, in Normandy, and afterwards to the Carthusian Convent of St. Ann, at Coventry. It was destroyed at the Reformation. There are some remains of the Priory, near the church. The Rev. Alfred Gatty, D.D., is vicar of Ecclesfield.

In the churchyard at Ecclesfield lie the remains of the Rev. Joseph Hunter, the author of the "History of Hallamshire;" and a monument, with a suitable inscription in Latin, has been erected to his memory. At Ecclesfield the visitor is within a few miles of Wentworth Woodhouse.

### STAINBOROUGH HALL AND PARK.

This beautiful mansion and park are within a few miles of Barnsley on one side and Wortley on the other. The nearest railway station, Westwood, on the South Yorkshire Railway, is some two miles distant. The road by carriage is through Wadsley Bridge and Grenoside. There is a valuable collection of pictures and other objects of interest in the hall.

## DERBYSHIRE.

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DERBYSHIRE is known far and wide as one of the most beautiful counties in England. The scenery is less bold than that of Scotland or North Wales, and lacks the lakes which add so great a charm to the scenery of Westmoreland and Cumberland. But Derbyshire abounds in clear, sparkling streams, threading their silvery way now through romantic glens shadowed by overhanging rocks, anon through rich pastoral valleys,—the glens and valleys flanked here by lofty moorlands edged by precipitous rocks, there by steep wood-crowned hills, yonder by wild, grey mountains, peak rising above peak far as the eye can reach. The beauty of many of the ravines and dales is exquisite, and few scenes in the country surpass in grandeur the vast amphitheatre of mountain, hill, and valley and winding stream seen from points of vantage like Froggatt Edge and the lofty peaks, near Hathersage. We propose to accompany our readers first to the more remarkable places in Derbyshire usually visited from Sheffield on foot or by the aid of carriages, and then to embrace, in a wider circuit, those more accessible by railway. We begin with

### NORTON.

This village is four miles from Sheffield. The visitor who takes the footpath by Meersbrook will observe, in crossing the lane at Norton Lees from one field-path to another, the beautiful old timbered house which is referred to among the "Relics of old Sheffield." Norton is interesting as the birth-place and burial-place of Chantrey. The tomb of Chantrey is in the churchyard, and is quite plain, there being merely a large slab of stone covering the grave. A marble tablet to his memory in the church is also very simple, but it contains a good medallion likeness of the sculptor, executed by Mr. Heffernan. A handsome granite obelisk in honour of the sculptor has been erected by public subscription. This, with the exterior of the church, is shown in the annexed engraving. There are some other monuments of interest in the church, including those of the Blythes, of Norton Lees, already referred



NORTON CHURCH AND CHANTREY'S MONUMENT.

to. Near to the church is Norton Hall, a fine mansion with a spacious park, the residence of the late Mr. Charles Cammell, of the Cyclops Steel and Iron Works. For an illustration of Chantrey's birth-place, at Jordanthorpe, near Norton, see page 197.



ALTAR-PIECE FROM BEAUCHIEF ABBEY, NOW AT OSBERTON.

## BEAUCHIEF.

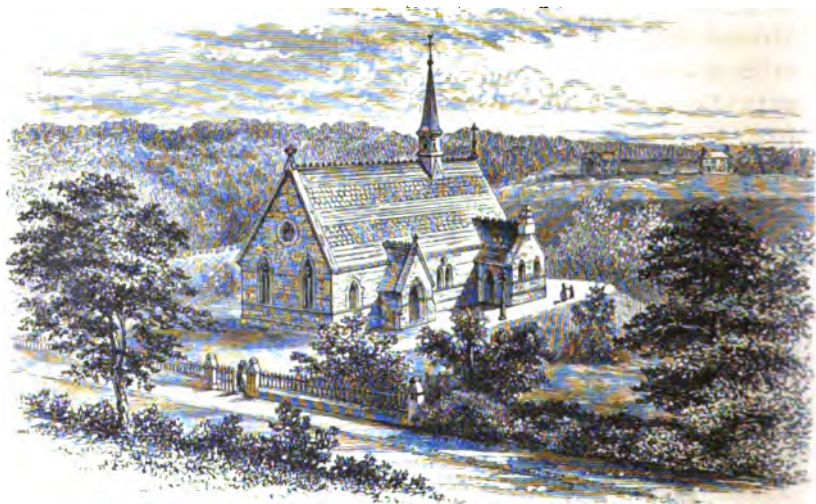
Beauchief is a most interesting and beautiful spot, about three miles from Sheffield, and some two miles west of Norton. Beauchief is principally noted on account of its having been the

site of a fine old abbey. The Abbey was founded about the year 1183, by Robert Fitz-Ranulph, the church being dedicated to Thomas à Becket, who was murdered in 1170. There is a legend to the effect that the founder was an accomplice of the four knights who murdered the archbishop, and that, feeling remorse for his share in the crime, he strove to expiate it by building and endowing this Abbey; but there is no allusion to this in the Charters, and it is improbable. The alabaster altar-piece, of which we give an illustration, was removed from the Abbey, and is in the possession of Mr. Foljambe, of Osberton, near Worksop. It represents the archbishop as kneeling, his chaplain standing beside him, when he was murdered. The tower and a small part of the nave, sufficiently restored in 1662 to be used for service, are all that remain of the original building, which was a large church without aisles. The tower, which had originally a low belfry story above what now remains, is a very fine massive structure. The handsome west window is blocked up and the tracery much destroyed. On the south side of the nave is a large Norman doorway, partly blocked up and used as a window. The doorway now standing at the south-west angle of the tower was formerly the northern entrance to the nave, while the door at the north-west angle formerly stood in the cellarge of the west wing of the monastery. The domestic buildings were on the south side of the church. A short distance beyond the Abbey is Beauchief Hall and Park, both well worth seeing. The Hall is a very fine old mansion, and though so near, is comparatively little known to Sheffield people.

A direct and favourite road from Sheffield to Chatsworth and other places of interest in Derbyshire is through Abbeydale. The mill, founded by the monks of Beauchief, adjoining the road at Millhouses, and the Abbey, being near to Beauchief station and within five minutes' walk of the main road. The landscape along Abbeydale is richly wooded and very beautiful, the old works—with the large dams constructed to give water-power before the days of steam engines—scarcely detracting from its beauty. Abbeydale has been a favourite place of residence for many years; and, since the Midland Railway Company brought their main line through the valley, a pleasant suburb has sprung up between Beauchief and Dore, partly within the borough of Sheffield and partly over the Derbyshire border. The new asylum of the Licensed Victuallers' Association (see

our illustration on page 167) is on the right of the road, opposite Dore station, and on the left, a little beyond, is—

**ST. JOHN THE EVANGELIST'S CHURCH, ABBEYDALE.**—This handsome little church, recently built at the expense of Mr. John Roberts, of Abbeydale Park, for residents in the districts of Totley, Abbeydale and Beauchief, is picturesquely situated near to the beautiful residence of the generous donor, and is not far from the Dore and Totley Station of the Midland Railway. The church was consecrated on the 11th of January, 1876, by the late Right Rev. George Augustus Selwyn, Bishop of Lichfield. It is in the Early English order of architecture and built of stone. The pulpit, reading-desk, reredos and choir



THE CHURCH OF ST. JOHN THE EVANGELIST, ABBEYDALE.

stalls are richly carved, and there is a massive brass lectern. All the windows are of Munich stained glass, the work of Messrs. Mayer and Co., of London. The window on the right-hand side of the pulpit is dedicated as a memorial to Mrs. Roberts, who in the design is represented as feeding the hungry and instructing the young. On the right of the chancel, in an alcove, is a very fine organ, built by Mr. G. Fenton Heald, of Sheffield. The total cost was about £5,000. Mr. Roberts, in addition to building the church, gave £1,150 towards the endowment fund, his Grace the Duke of Devonshire, £300, and Mr. Ebenezer Hall, £550. The Rev. T. Spratt is the incumbent.

On the hill-side, left of the road as we approach the village of Totley, is the Cherrytree Orphanage (as called from the place of its original foundation) described on page 172.

### BASLOW.

Baslow is a pleasant village on the banks of the Derwent, at the western extremity of Chatsworth Park. All through the summer months it is crowded with visitors to Chatsworth, and many families stay there for weeks in the spring and summer-time at the hotels or with the villagers, many of whom derive an important part of their income from letting apartments. Chatsworth Park is open to visitors, and there are most beautiful and interesting walks in other directions. Haddon Hall, Bakewell, Monsal Dale, Stoney Middleton, Eyam, Froggatt Edge, and other places, of which some notice will be found in subsequent pages, are all within easy reach and often visited by parties from Baslow. Pedestrians find pleasant paths across the fields to these and other places. Baslow is twelve miles from Sheffield by the Abbeydale, Totley and Owlser Bar route. The Dore and Totley station, on the Midland railway, is within eight miles. The road by Whirlow, Fox House and Froggatt Edge is fourteen miles. A broad stretch of lofty moorland has to be crossed whichever route is taken, and the scenery is very beautiful. The descent to Baslow by the Owlser Bar route is through a narrow gorge, with high rocks on each side. On the rocks to the right is the Wellington Cross; on the rocks to the left, but less conspicuous from the road, is a pillar to the memory of the illustrious Lord Nelson, erected by the patriotic villagers of Baslow on the news being received of the battle of Trafalgar and the fall of England's greatest naval hero; and the names of Nelson's ships, the Victory, the Defiance, and the Belerophon, are chiselled in deep, enduring characters upon three immense blocks of primeval stone which rise some feet above the ground close by. In front of those modest, national memorials, and on the edge of the cliff, there is a range of three columns, of only local interest, called "the three men." These conspicuous objects, which have existed from time immemorial, were placed there—so says tradition—to mark the spot where three wayfarers journeying along an ancient pack-horse road, which is still discernible, perished in a wintry storm. The Wellington Cross was erected, with some cere-

mony, at a later period. Both are occasionally visited. The road to the Wellington Pillar is through Upper Baslow. The way is steep, but pleasant; and near it, on the moors, is the Eagle Stone, one of those huge blocks of time-worn rock frequently found standing alone on a level plateau on the Derbyshire moors, puzzling the curious to know how they came there.

### CHATSWORTH.

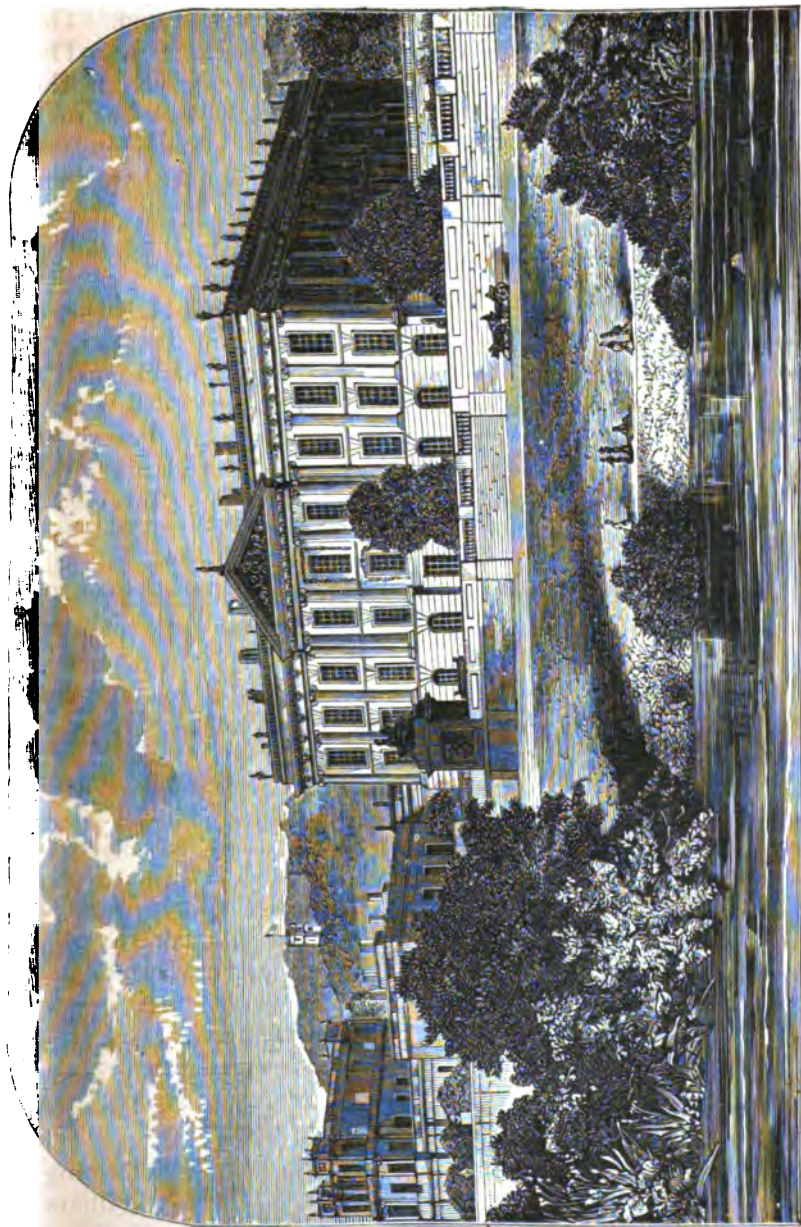
In his "Stately Homes of England," Mr. S. C. Hall places Chatsworth "foremost among the finest and most charming seats in the kingdom." The name, originally "Chetelsuorde," was derived from Chetel, an early Saxon owner. The estate belonged to the Crown, and was held by Sir Wm. Peveril at the time of the Domesday Survey. It passed afterwards to the Leches, from whom it was purchased, in the time of Henry VI., by Sir William Cavendish, a descendant of Robert de Gernon, who came over with the Norman Conqueror, and one branch of whose family assumed the name of Cavendish in 1334 in honour of their mother, the heiress of the Manor of Cavendish, in Suffolk. Sir William pulled down the old hall of the Leches and began the original Chatsworth House. He died, and the building was completed by his widow, the famous "Bess of Hardwick," afterwards Countess of Shrewsbury.

Mary Queen of Scots passed the summer and autumn of 1570 there before her removal to Sheffield, and spent some time there at intervals afterwards. The unfortunate Lady Arabella Stuart, the only child of Darnley's brother, Lord Lennox, was born at Chatsworth.

During the Civil Wars, Chatsworth was alternately occupied for King and Parliament, but being a palace, not a castle, it was not damaged.

Sir William Cavendish's son and successor was made a baron by Mary Stuart's son, King James I., and his great grandson was created Duke of Devonshire by William of Orange, whom he helped to seat on the throne.

The old house was taken down, and the quadrangle forming the principal part of the present palace was built by William Cavendish, the fourth Earl and first Duke of Devonshire, from designs of Talmon, drawn in consultation with Sir Christopher Wren, the architect of St. Paul's. The north wing, containing the domestic and business offices, dining and sculpture rooms,



CHATSWORTH HOUSE.

orangery, banqueting room, pavilion, &c., was added by the late owner of the estates—the sixth Duke—from designs of Sir Jeffrey Wyattville; the grounds and gardens being at the



same time remodelled under the direction of the head gardener, the late Sir Joseph Paxton. These additions were begun in 1820. A Latin inscription over the mantel-piece of the great hall records that these well-loved ancestral halls, begun by the first Duke "in the year of English freedom, 1688," and inherited by William Spencer, the late Duke, in 1811, were "completed in the year of sorrow, 1840." In 1688, William of Orange ascended the English throne; and in 1840, the "year of sorrow" so touchingly alluded to, died the gifted Countess of Burlington, wife of the present Duke.

Chatsworth Park is ten miles in circumference and 1,200 acres in extent. The grand carriage entrance to the Park from Baslow is closed to the public, but there is an open footpath. Visitors may either walk to the House through the Park from Baslow, passing the House with its Chinese lodge, built by the



HOUSE IN CHATSWORTH PARK.

late Duke for Sir Joseph Paxton, and the walled and moated "Bower" in which the Queen of Scots passed the warm summer days when at Chatsworth; or they may drive round by Edensor, where there is a good hotel and a carriage entrance always open to them. Standing at the foot of a steep, richly-wooded eastern hill, most effectually sheltered from harsh winds, Chatsworth House commands views of much charming scenery,—westward, across the Park, to the rugged moorlands, and southward, far beyond the wood-crowned hills of Haddon,—the silver Derwent rolling in front. But beautiful as are the surroundings, the chief attractions are within. The Dukes who built Chatsworth spared neither effort nor expense to make the House not merely a

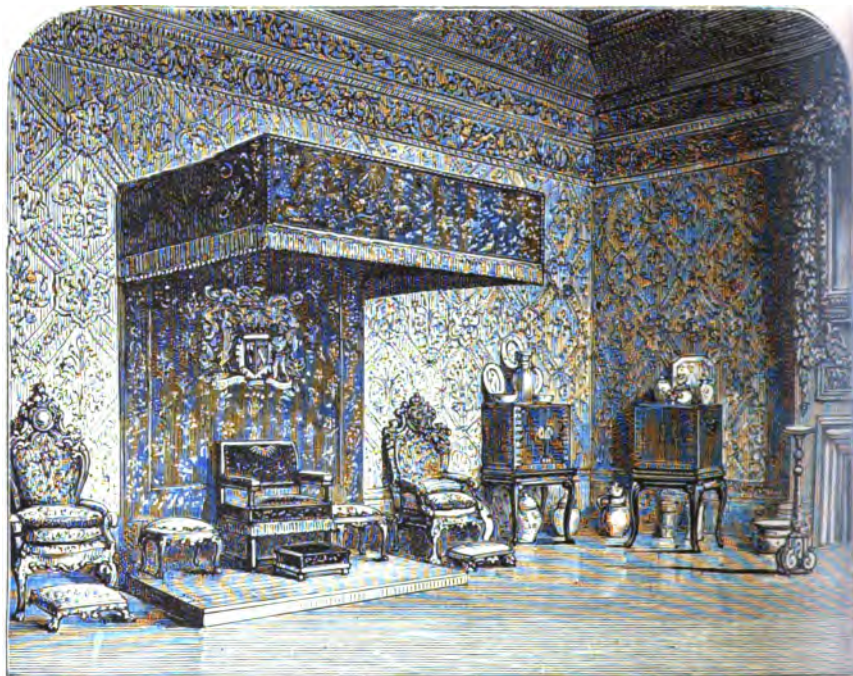
late Duke for Sir Joseph Paxton, and the walled and moated "Bower" in which the Queen of Scots passed the warm summer days when at Chatsworth; or they may drive round by Edensor, where there is a good hotel and a carriage entrance always open to them. Standing at the foot of a steep, richly-wooded eastern hill, most effectually sheltered from harsh winds, Chatsworth House commands views of much charming scenery,—westward, across the Park, to the rugged moorlands, and southward, far beyond the wood-crowned hills of Haddon,—the silver Derwent rolling in front. But beautiful as are the surroundings, the chief attractions are within. The Dukes who built Chatsworth spared neither effort nor expense to make the House not merely a

superb dwelling, but a great palace of art. The best artists of the day, English and foreign, were employed to decorate its noble suites of rooms after the fashion of the time. The ceilings of the rooms built by the first Duke are exquisitely painted, the subjects being historical, mythological, or allegorical. Not less exquisite is the wood carving found in all the state rooms in more or less profusion, much of it done by a local artist of great skill, but much also, it is believed, by the celebrated Grinley Gibbons. There are splendid collections of statuary and painting in the art galleries. Works of the best masters are also scattered through the other rooms, claiming the admiration of the visitor at every turn. The decorations are probably unsurpassed, the furniture is unique, and the objects of interest far too many and various even for enumeration much less description. All we can venture to do is to indicate the rooms through which visitors are conducted and a few of their leading features.

Visitors are admitted to the princely mansion at the beautiful northern lodge, and conducted through the courtyard to the sub-hall, the ceiling of which is enriched by a copy of Guido's *Aurora*, painted by Miss Curzon. Thence they pass by the north corridor, with its exquisitely inlaid marble floor, to the great hall, 60 feet by 27 feet, with floor of polished marble. The ceiling and upper walls are adorned with scenes from the life of Julius Cæsar, by Laguerre and Verrio; and the hall contains many beautiful works of art. Among its treasures is the canoe presented to the late Duke by a late Sultan of Turkey. Occupying the south-west corner of the main building is the chapel, with its marble altar at the west instead of the east end and a beautiful marble floor; its walls wainscoted with fragrant cedar, exquisitely carved, and its ceiling painted with scenes from the life of the Saviour—a very gem of art. The remaining rooms on the basement story are the private apartments of the Duke and the Marquis of Hartington in front; the oak room—also a gem—and the stag parlour on the south side; the beautiful "grotto" and other private rooms on the east and north sides. None of these rooms are open to the general public.

Visitors are usually conducted from the chapel, on the ground floor, to the following apartments in the third story:—  
(1) The sketch gallery, containing a choice collection of drawings by old masters, formed by the second Duke at great cost.

(2) The State dressing-room, where are splendid wood carvings, including the fine group consisting of a lace cravat, a woodcock, foliage, a medal and a bust, and known as "Grinley Gibbons' masterpiece." (3) The old State bedroom, containing an embroidered canopy and State chair of the second Countess of



CHATSWORTH—THE OLD STATE BEDROOM.

Devonshire, the State chairs and footstools of George III. and Queen Charlotte, and of George IV. and Queen Adelaide, a wardrobe of the unhappy Louis XVI. of France, and many other interesting objects. The walls of this room are hung with embossed leather, richly gilded, and the chief subject of the beautiful ceiling is Aurora chasing away the night. (4) The State music-room is equally beautiful and equally rich in objects of interest. A violin on one of the doors is so cleverly painted that the visitor can scarcely believe it is not a real fiddle hanging on a peg. This matchless piece of painting, it is said, was done by Verrio to cheat Grinley Gibbons, who had so often deceived fellow artists by his own wonderful imitations of nature. (5) The State drawing-room, which is hung with tapestry in imitation of Raffaele's cartoons, contains fine speci-

mens of old China and earthenware, a large malachite table, and other objects of vertu. (6) In the State dining-room, the ceiling of which was painted by Verrio, the carvings of dead game over the fire-place are among the finest specimens in the country. In this room are busts by Chantrey, Nollikins, and other masters; the rosary of Henry VIII.; a malachite clock, presented to the late Duke by the Emperor Nicholas of Russia; and many other rarities. From the windows of these rooms visitors get charming views of the gardens and surrounding scenery, and before them, as they pass from room to room, is a remarkable vista.

Descending to the second story, visitors are conducted through several other splendid apartments. The gallery of paintings, which occupies a considerable part of the south and west sides of the quadrangle, contains many remarkably fine works of art, including "Bolton Abbey in the Olden Time," and "Laying Down the Law," by Landseer; the "Monks at Prayer," by Granet; portraits by Reynolds and others, and pictures of the former mansion—one of them needlework. The billiard room and the grand drawing room, also on the south side, are splendid apartments, richly and elegantly furnished and decorated. Among many fine productions of the old masters are portraits of the beautiful Duchess of Devonshire, by Reynolds; the head of a Jewish Rabbi, by Rembrandt; Philip II., by Titian; Henry VIII., by Holbein; the Queen of Scots, by Zuccherò; &c. The Library, on the east side, is 90 feet by 23 feet; two exquisite little rooms adjoining forming an ante-library. In these rooms is one of the most valuable private collections of rare MSS. and books in the kingdom, and many art treasures.

Passing on to the north wing, erected by the late Duke, visitors, when permitted to do so, take a glance at the large and handsome dining room. They wander slowly through the sculpture room—a noble apartment, 103 feet long and 30 feet wide,—containing some of the finest sculpture in the country. The collection includes works of Canova, Thorwaldson, our own Chantrey, and other masters, far too many either to be enumerated here or to be satisfactorily inspected in the short space at the command of visitors. From the sculpture room visitors pass through a massive doorway, between two fine lions, by Canova, to the orangery, 108 feet by 27 feet. Beyond the orangery is the lofty and handsome ballroom, and over it an

open pavilion commanding charming views of the surrounding scenery. These, however, are private rooms.

Visitors pass from the orangery to the gardens, inspecting, *inter alia*, the Italian gardens, adorned with statuary from the old House in which the Queen of Scots was a prisoner and Arabella Stuart was born ; the cascade, the great conservatory, the famous willow tree, which sheds\* literal showers of tears ; the fountains and lakes, and the flourishing trees planted by the Queen, the late Prince Consort, and other members of the royal family. The conservatory—which was designed by Sir Joseph Paxton, and was the prototype of the Great Exhibition building of 1851, the Sydenham Palace and other similar erections,—is the largest in the kingdom, being 277 feet long, 123 feet wide, and 67 feet high. The cascade and other waterworks were designed by M. Grillet in the early part of the last century. The Emperor Fountain, another of the wonders of Chatsworth, throws a thick jet of water to the height of 267 feet, spreading it so that the water falls in a wide shower of spray. Other beautiful fountains surround the “Emperor,” and, when all are playing, their falling spray rainbow-tinted by the sunlight, the effect is charming. In the more remote part of the gardens—seldom seen by the general public—are alcoves, dells and other flowery retreats of exquisite loveliness, magnificent avenues of trees, shady walks and winding drives, from which the surrounding scenery can be contemplated in all its loveliness. Near the lofty avenue of trees, about a quarter of a mile west of the House, at a point where the views on all sides are particularly charming, is a large vase, on which is inscribed the simple name “Blanche,” in memory of the Duke’s deceased wife, before her marriage Lady Blanche Georgina Howard, daughter of the Earl of Carlisle. At the top of a sylvan slope, a little further on, is a bronze bust of the late Duke on a pillar built of fragments of a fluted column from the Temple of Minerva, on “Sunium’s airy steep.”

Leaving the grounds by the lodge at which they entered, visitors may ascend to the hunting tower, built in the time of Elizabeth for the accommodation of the ladies wishful to see without joining in the chase ; proceed thence to the Swiss cottage and lakes on the high ground beyond ; and, returning by a footpath past the lake from which the cascade and fountains are more immediately supplied, may descend through the

\* Of which, visitors beware !

woods immediately behind the House and gardens,—inspect the aqueducts supplying the cascade, and ramble along the carriage-drive back to the Park. The kitchen gardens are near the late Sir Joseph Paxton's residence, but are not now open to the public.

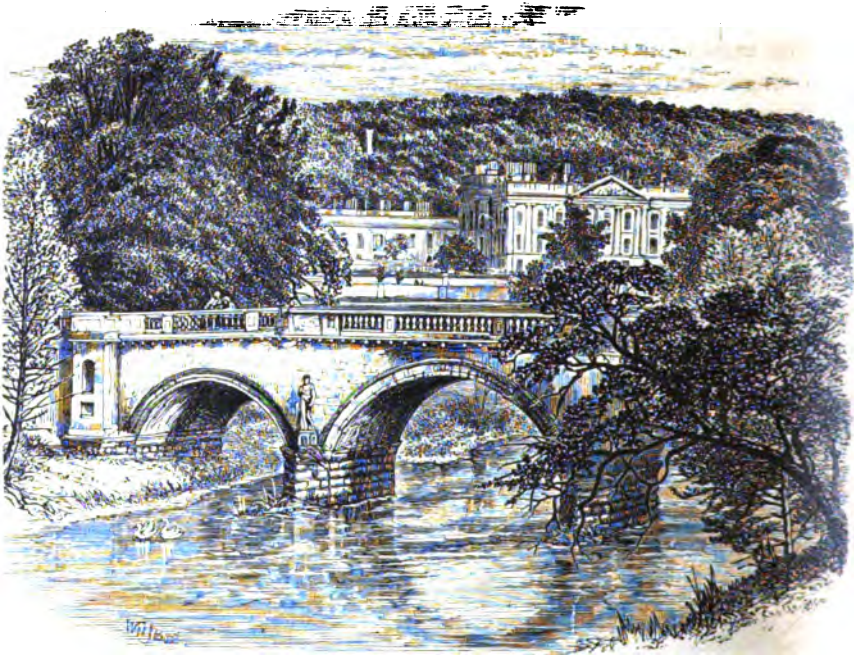
All that remains is to inspect the Duke's model village of Edensor and its beautiful church, which was completed in 1870, from the designs of Sir Gilbert Scott, and contains many



EDENSOR CHURCH AND VILLAGE.

monuments of great interest, originally erected in the old church taken down to make way for the new structure. Perhaps the most historically interesting is a brass plate in the chancel recording the death at Chatsworth of John Beton, a confidential servant of the Queen of Scots and brother of the cardinal and

archbishop of that name, who figured so conspicuously in the affairs of Scotland during the reign of Mary and her predecessor James I.

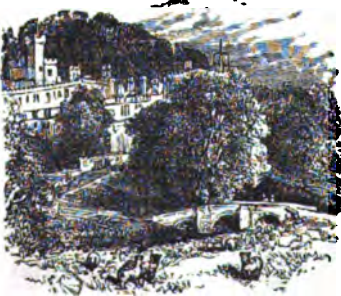


THE BRIDGE AT CHATSWORTH.

### HADDON HALL.

From Edensor, by a drive of three miles along the pleasant vale of the Derwent, we reach the celebrated "Peacock" Inn at Rowsley, and two miles further—half way between Rowsley and Bakewell—is that finest of old baronial mansions, Haddon Hall. Haddon is in the Manor of Bakewell, and seems to have

been one of the many possessions bestowed by the Norman conqueror on his natural son, Wm. Peveril. It belonged next to the Avenells, from whom, during the reign of Richard I., it passed by marriage to the Norman Vernons, who lived there in great style until the death, in 1567, of Sir George Vernon, whose wealth and profusion had



HADDON HALL.

won for him the title of "King of the Peak." From the Vernons the estate passed to the ancestors of the Duke of Rutland, the present owner. A clandestine marriage conferred on the family of Manners their splendid Derbyshire estates and fine moorland shooting grounds. Beautiful Dorothy Vernon, younger daughter of the "King of the Peak," left the Hall during a masked ball in honour of her elder sister's nuptials, and eloping with Sir John Manners, who waited for her in the dress of a forester, was married in Leicestershire next day. The door by which she escaped is pointed out to visitors. Haddon was the residence of the successive Earls and Dukes of Rutland until the beginning of the last century, when it was abandoned for Belvoir Castle. The buildings form the sides of two square court-yards, one on a considerably higher level than the other, and are generally open to visitors during the summer months, guides attending from the adjacent cottage.

We enter the lower courtyard by the gateway under the "tower entrance" at the north-east corner, and inspect the gloomy "chaplain's room," containing a variety of unclerical antiquities. The domestic chapel, with Norman font, is at the south-east corner, and has evidently been built at different eras, the south side of the chapel, including the circular columns separating it from the nave, being apparently the oldest part of the existing buildings. We may mention in passing that the bell which in the palmy days of Haddon called the lords and their retainers to their devotions in this ancient chapel, now summons



THE GATEWAY—HADDON.

worshippers to the modern church at Rowsley. We next cross to the porch at the entrance of the main passage communicating





THE CHAPEL—HADDON HALL.

between the two yards. In the porch is a Roman altar found in the neighbourhood some centuries ago. North of the passage are the buttery, vaulted cellars, kitchens, bakehouse, pantries, &c.—gloomy apartments with huge fire-places and gigantic culinary utensils, telling of the festivities of bygone days. South of the passage—divided from it by a richly-carved oaken screen, and in close connection therefore with the kitchens—is the great hall, one of the most perfect specimens extant of an old baronial banqueting hall. Attached to the screen is a singular relic of the customs of past times—a strong iron ring by which the recreant who refused his quantum of liquor was hand-cuffed, while his roystering companions poured the rejected drink down his sleeve. Over the passage are the

musicians' galleries. Adjoining the banqueting hall is a more modern apartment, a richly wainscoted dining room, over which is a drawing room. These rooms, extending to the south front, and having oriel windows overlooking the grounds outside adjoining the drawing room, are the bedroom and dressing room occupied by the Earls of Rutland during their residence at Haddon. From the landing leading to these rooms we pass by a flight of six semi-circular steps of solid oak to the ball room, which occupies the whole south side of the upper court-yard, being 110 feet long and 18 feet wide, exclusive of the three large recessed windows overlooking the gardens and grounds. It is said that the whole flooring and the outside steps of this room were cut from a single tree grown in the park. From the ball room we pass into an ante-room forming part of the western side of the upper court-yard. It was from this room, with massive door, that Dorothy Vernon passed down the flight of steps leading into the winter garden to join her lover. We cross the ante-room to the State bed and drawing rooms, look at the archers' room and the rack for stringing bows, the guard room, &c., passing thence to the Eagle Tower, beneath which was the original western entrance, and to the summit of which we climb by rude worn stairs to view the charming landscape around. Retracing our steps we pass by Dorothy Vernon's door into the "winter garden," take a peep at the fine avenue of lime and cedar trees below—"Dorothy Vernon's walk,"—descend a flight of steps into the "upper garden" in front of the ball room, glance at the "lower garden" which extends to the chapel, and then re-entering the buildings, cross the lower court-yard and leave the Hall by the worn portal through which we entered.

The building of the Hall as we now see it was the work of many generations. Gilpin was of opinion that the entrance tower was built before the Conquest, but Doomsday is silent, and there is really no evidence of the existence of a Hall at Haddon before the 12th century when Peveril lived there. The oldest part of the chapel points to this as the period of the original structure, being in the Norman style. The later side of the chapel, the banqueting room, both the towers and other apartments, were doubtless gradually reared by the earlier Vernons on the site of the old mansion of the Peverils and Avenells. The dining and drawing rooms were added by the King of the Peak during the reign of Henry VIII. The ball

room and probably also the State bedrooms were built in the more secure times of the Manners family, whose crest—the peacock—is conspicuous in the decorations. Haddon is probably the finest specimen of a baronial hall in the country, and it is all the more interesting by contrast with Chatsworth. At Chatsworth we have a perfect example of the artistic elegance, refined splendour and luxurious comfort of a modern palace.



HADDON HALL.

But Haddon carries us back to the times when a rude and unlettered nobility, no longer compelled to coop themselves up in impregnable fortresses for protection against one another, began to build the baronial halls,—half castle, half mansion,—in which they passed the time they were able to spare from war, political intrigue and the chase, in feasting and revelry, understanding little of, and caring less for, the “comforts” which enter so largely into modern life.

Haddon Hall is the connecting link between the old feudal castle and the modern palace, furnishing, moreover, in the contrast between the gloom and roughness of the older rooms and the more elegant additions of later times, no bad illustration of

the transition from the rude strongholds of the feudal barons to the more secure splendour of modern times. It is grandly situated on the banks of the Wye, is charmingly picturesque, and abounds with objects of antiquarian and historical interest. It is one of those fine old relics of the past from which the jaded sightseer turns away with regret, and which the artist and antiquary revisit with ever-increasing interest. The return journey from Haddon to Baslow is by Bakewell, an interesting town, of which some notice will be found in a subsequent page, and in the church of which are monuments of Dorothy Vernon, her husband and family.

### FOX HOUSE AND LONGSHAWE.

Fox House is the name of a much frequented Inn on the moors, seven or eight miles from Sheffield. The carriage-way is by Ecclesall Church, Whirlow and Dore Moor; but the pedestrian, wishing to avoid the dusty roads, may go through the Endcliffe and Whiteley woods to Ringinglow, whence there is a pleasant bridle road over the moors to Fox House. Among the curiosities of the Inn is a large sideboard with carvings illustrative of the leading events in the life of our Saviour, and said to have been made in the Netherlands. Fox House is at the junction of four roads, leading east to Owlter Bar and Froggatt Edge, south to Grindleford Bridge and Eyam, west to Hathersage, Castleton, &c., and north to Sheffield. Immediately opposite is Longshawe, a "shooting box" of the Duke of Rutland, in the grounds of which visitors are usually permitted to wander without let or hindrance. A pleasant walk past the front of the mansion leads round the lake to the Grindleford Bridge road, where there is a wicket opening into the romantic walks of Padley wood. Many visitors, however, prefer to leave the lake at the little summer-house and stroll through the "Sheffield plantation," along the by-paths leading to the Grindleford road, a mile or so lower down. Some fine views are obtained in this stroll, and the initiated take a peep at the "Eagle's nest," a small cave with stone seats and table under the jutting rock, from which there is one of the best views.

### PADLEY WOOD.

Visitors to Fox House in the summer time should not omit a stroll in Padley Wood, which is a most charming spot.

The wood flanks the road from Fox House to Grindleford Bridge on the right, and may be entered at several points. The Burbage brook murmurs through a steep, rocky ravine, shaded by curiously twisted and stunted oak and other trees. There are walks on the side of the brook and rustic bridges over it. Walks diverging up the wooded hill to the west lead to an arbour, from which there are beautiful views.

### FROGGATT EDGE, MIDDLETON DALE AND EYAM.

Taking the road to the left from Fox House for half-a-mile, we turn to the right on reaching the pole at Totley Moss, and descend the hill to Froggatt Edge. The road is on a ledge cut in the side of precipitous rocks. The views from the road and from the top of the rocks are among the grandest in Derbyshire. There is a comfortable Inn, "the Chequers," at Froggatt Edge, and behind it a steep path to the summit of the rocks.

Shortly after leaving Froggatt Edge we cross the Derwent to Calver Sough, which is two miles from Baslow *via* Calver, and four miles from Monsal Dale *via* Hassop Hall and Great Longstone. We turn to the right through the village of Stoney Middleton and rock-bound Middleton Dale to Eyam, the romantic village so sadly desolated in 1666 by the plague, said to have been introduced there in a parcel of cloth or clothes from London. The chief objects of interest are the church (lately restored), a remarkable Runic cross, and a monument in the churchyard to Mompesson, the heroic pastor; "Cucklet Church," a romantic dell, from a natural archway in which Mompesson preached to his stricken flock as they sat apart on the sloping sides, when the contagion was too rife for worship in the church; and "Riley gravestones," the mural monument, some distance from the village, of a family of eight persons—father, mother and six children—all struck down in seven days and buried near their dwelling on what was then waste land. Good views of the charming scenery around Eyam are obtained from the hills between that village and Stoney Middleton.

The direct return route from Eyam is by Grindleford Bridge to Fox House. Riley gravestones are seen from this road, and the views are very beautiful and extensive. We should note here that for pedestrians there is a pleasant road across the moors from the village of Totley to the Froggatt

Edge road at Totley Moss near Fox House, and that the Midland railway to Dore brings Froggatt Edge within easy walking distance by this route; also that in walking from Froggatt Edge to Baslow, the visitor, instead of crossing the valley to Calver Sough, may follow the private road on the left of the river to the mill at Calver, and on reaching the highway there, take the footpath on the right of the river through Bubnell to Baslow Church. It is a delightful walk on a fine summer day.

Monsal Dale is often included in a day's excursion to Froggatt Edge, but the visit is necessarily a hurried one. From Eyam the nearest route is by Wardlow Mires, and thence either through the village of Wardlow direct to the head of the Dale, or by the more circuitous road through Litton, which enters the Dale at Cressbrook. The return journey is by Great Longstone and Hassop Hall to Calver Sough, and thence by Froggatt Edge and Fox House or by Hassop station to Baslow. The former is preferable. As an alternative route some excursionists drive from Fox House direct by Grindleford Bridge to Eyam, and thence through Stoney Middleton to Monsal Dale *via* Calver Sough, Hassop Hall and Longstone, returning by Froggatt Edge in time to see the grand views from that road towards sunset. This is perhaps the most charming route on long summer days.

### PRE-HISTORIC REMAINS IN DERBYSHIRE.

Allusion is made in our notice of ancient earthworks at Sheffield, to an encampment on Hathersage Moor, and an earthwork behind Hathersage church. The former, known as "Carl's Wark," is on the west side of Burbage brook, between Fox House and Hathersage. The Hathersage road crosses the brook at the sharp angle below Fox House, popularly known as "Toad's Mouth." Looking up the course of the brook from Burbage Bridge, the most prominent object on the west side is Higgan Tor, a lofty hill with square plateau at the top, fringed with huge pieces of rock. In front of Higgan Tor, at a lower level, and a little nearer the brook, is the sharp rocky ridge on which is "Carl's Wark." The vallum or breastwork of the camp is faced with stones of at least a ton in weight, strongly put together, the wall being 9 feet 4 inches high, 3 feet thick, and supported within by a slanting bank of earth 25 feet long.

The gateway is 7 feet 2 inches wide, and formed of two curvilinear faces of rock, the fortification being constructed to command completely the Burbage valley. Some writers find the origin of the name in the word CAER (a fortification), but others prefer the old English word, "carl" (man or fellow). The miner who comes across old workings in "prospecting" for lead, says, he has "met th'owd mon" (the old man). Assuming "carl" to be applied in this sense to the prehistoric military engineer, "Carl's Wark" is simply "the old man's work." The camp behind Hathersage church was protected by a high mound of earth enclosed by a deep ditch, was circular, and 50 yards in diameter. Tradition assigns this work to the Danes, but Sir Gardner Wilkinson suggests that its position and *entourage* indicate that it was British, and connected strategically with "Carl's Wark." The one would be ineffectual without the other, the earthwork being necessary to watch the southern approach on that side, guard the western valley, and communicate with Eyam Moor, all of which were masked from "Carl's Wark."

The stranger visiting Derbyshire will notice, with some degree of curiosity, the remarkable masses of rock abounding on the moorland hills and plateaus between Fox House and Hathersage, and in many other parts. In an interesting paper on this subject, which we abstract, Mr. Alfred Wallis, F.R.H.S., says:—

"Huge monoliths and marvellous combinations of rocks rear their heads among the pine woods, which, as on Stanton Moor, have replaced the barren waste. Holy well and springs of divination, alternate with rocking-stones and altars—traces of a distinct *cultus*, the rites of which are not entirely obliterated, as the annual well dressings at Tissington testify. Whether the singularly formed stones upon the hills near Hathersage are Druidical, is hardly worth enquiry. Sir Gardner Wilkinson, who carefully examined these rock-idols, considered them the result of natural irregular disintegration. But their proximity to rocks, evidently thrown together by human agency, renders it very probable that these grotesque stones formed part of the system of *cultus* referred to. The well known pile of rocks known as 'Row Tor,' is so strikingly like the view of 'an ancient *Nymphæum*,' or Cabiric grotto prefixed to the Rev. G. S. Faber's *Dissertation on the Mysteries of the Caribi*, that it is impossible to avoid the conclusion, that this part of England

was once the stronghold of those strange rites, the nature of which has baffled archæological research. Hereabouts, among the stoney fastnesses of Derbyshire, probably lingered the last remnants of the savage religion of our ancestors, whose ceremonies, there is too much reason to fear, included human sacrifices, and even cannibalism, at their 'grave-feasts' and other solemn rites. Mr. Jewitt contends that several of the interesting relics in Derbyshire, known as ortholithic circles, are skeletons of sepulchral tumuli; but unless he is prepared to include Stonehenge and Abury in such circles, he must also except 'Arbor Low,' and several other Derbyshire circles. My firm impression is, that the rites and ceremonies, which for want of a better term are generally styled "Druidical," were extensively practised in this locality, where nature had left comparatively little to be effected by the hand of man, in framing scenery for the terrific forms of initiation into the greater Mysteries. Into these ceremonies, the circle, the cavern, the subterranean river, the pierced rock and the frowning precipice, all largely entered, and these are all found in the Peak district. In the great cavern at Castleton, the Mysteries were undoubtedly celebrated. Before the winding paths were widened, and the Stygian stream bridged for the convenience of excursionists, it was impossible to enter the awful recesses of the cavern without being reminded of Virgil's description of the descent of Æneas into the infernal regions. In the cavern there was every characteristic which attended the process of initiation: the subterranean river, across which the candidate was ferried, the narrow passages winding into the bowels of the mountain, the water of purification, the place of darkness, the illuminated *sacellum*. Faber, in describing a visit to the Peak Cavern many years ago, says: 'at length you arrive at a beautiful arched grotto of very large dimensions, in the centre of which rises a natural rock, which you are surprised to find illuminated ready for your reception. The rock itself is occupied by a number of persons who had previously entered for the purpose, and your ears are saluted by a variety of wild songs. I have little doubt but that this is done pursuant to an immemorial custom, all traditions respecting the origin and import of which have long been obliterated from the minds of the guides.' 'I have no doubt of this,' adds Mr. Wallis, 'the chaunts with which the unseen choir welcomed the pilgrims, were different in character to any local music I ever heard, and were never adapted to



any festive or religious purpose; and it was customary to quench the torches, and leave the party bewildered in pitchy darkness, before taking the irregular turn which led to the place of light.”

“Row Tor,” mentioned in a subsequent page, is near Stanton. “Arbor Low” is a Druidical circle between Youlgreave and the Newhaven Inn, on the Buxton and Ashbourne road. There is a small Druidical circle on Eyam Moor, about a quarter-of-a-mile north of the Sir William road, striking off from a point nearly even with the engine chimney of the Eyam Mining Company. These and other such remains are marked on the ordnance maps, with which no tourist in Derbyshire should omit to provide himself.

### HATHERSAGE.

The turnpike road to Hathersage is by Fox House, and the distance ten miles. The old road is by Bent’s Green, Ringinglow and Upper Burbage Bridge, immediately beyond which is the lofty rock of Higgan Tor, from the plateau on the summit of which are most extensive views of the surrounding country. On a lower ridge, south of the Tor, is “Carl’s Wark,” an old earthwork. Near Higgan Tor the road divides; the road to the left skirting the rock and joining the turnpike at Millstone Edge, the road to the right descending direct to Hathersage by a steep ravine or gully known as the Cupola. For pedestrians the old road is the pleasanter. Though it is a little rough and heavy, many prefer to drive that way, and descend the Cupola after scaling Higgan Tor, returning by Fox House. By either route there is a very fine drive over lofty moorlands, and the views on approaching Hathersage are strikingly beautiful. Hathersage is known to fame as the reputed birth and burial place of Robin Hood’s giant henchman, Little John. His grave in the churchyard, and his house, which is near it, are still pointed out to the curious. In a field near the churchyard are distinct remains of the vallum and ditch of ancient British earthworks. On the hill-side, at a little distance, is “Robin Hood’s Cave.” The valley of the Derwent, surrounded by bold, rocky moorlands on one side, and on the other by lofty wooded hills, peak rising above peak, is exceedingly romantic. Among those hills are nooks and dells of great beauty approached by footpaths, and there is a charming drive down the valley to Grindleford Bridge, some three miles distant.

Charlotte Bronte has located "Jane Eyre" at Hathersage, and her thrilling pages contain many fine descriptions of the scenery around. There is good hotel accommodation in the village. In going to, or returning from, Hathersage by way of Fox House, the visitor should not omit to stop at the top of the ascent from Hathersage and contemplate the charming views from the little eminence south of the road.

Upper Burbage Bridge is an occasional resort of pic-nic parties, who, having lunched by the stream, ramble over the rocks to Higgan Tor, descend to the rocky eminence below to inspect "Carl's Wark," continue the walk across the moors to Lower Burbage Bridge—better known as "Toad Mouth," from the resemblance of a piece of rock there to the head of a toad—and thence up the road to Fox House to rejoin their carriages sent round by Millstone Edge.

### CASTLETON, EDALE AND KINDER.

Castleton is six miles beyond Hathersage, and sixteen miles from Sheffield. The drive from Hathersage is along the valley of the Derwent to Mytham Bridge, beyond which the road follows the course of the tributary river Nowe to Hope, and there turns to the left for Castleton. The scenery of the Derwent and Hope valleys is very beautiful. The chief sights of Castleton are the ruins of the old castle of the Peverils, so familiar to the readers of Sir Walter Scott's "Peveril of the Peak," the extraordinary cavern under it, Speedwell and Blue John Mines, the Wynnats or "Windgates" through which the road from Buxton formerly lay, and Mam Tor, the "shivering mountain," so called because its friable shale is ever crumbling and falling. These are all remarkable sights which we have not space to describe, but which no visitor ever forgets. The village is at the foot of the remarkable rock on which the ruins of the castle stand, and on the southern edge of a wide, fertile valley encircled by lofty hills. Allusion is made in our notice of pre-historic remains to the supposed use, in former days, of Peak Cavern for Druidical rites. Our archæological readers will hardly need reminding of the British camp on Mam Tor, or the Roman camp at Brough, between Mytham Bridge and Hope. Near Hope church is the site of a Danish entrenchment. It is now a garden.

Beyond the mountains north of Castleton is Edale, also surrounded by lofty hills. The regular carriage road from Castleton to Edale is by Hope. For pedestrians the most interesting

way is by a footpath over Back Tor, from which there are fine views of both Edale and Hope valley. Driving from Castleton, the tourist may enter Edale by the steep mountain road round Mam Tor, returning through Hope. Edale is bounded south by Losehill, Lord's Seat and Mam Tor, at the western end by Cowburn moors, and on its northern side by the conspicuous mountain range called on the ordnance map, "The Peak," but better known to tourists as Kinder. Edale is six miles long, but narrow and irregular in shape, its outline being broken on all sides by huge promontories. The precipitous sides of its heathery mountains are seamed with dark cloughs or gorges, silver-streaked by small mountain torrents descending to the Nowe, which flows through the dale, debouching into Hope valley between Winhill and Losehill. In summer, when the foliage is full and green, Edale presents a scene of great and ever varying beauty. The most beautiful gorge is Grindsbrook, behind the little village of that name, where is the Nag's Head, the only inn in the dale. The road through Edale is practicable for carriages as far as Lees, a farm house where tourists may put up their horses while they explore the converging mountains beyond. Pedestrians sometimes walk across Kinder Scout to the Snake Inn. The distance from Lees is about five miles, the road being rough and steep, especially beyond Edale cross, a Saxon roadside cross marked on the ordnance map.

Kinder is one of the highest mountains in Derbyshire, its top a table land some five or six miles long, and at Kinder Scout the western edge nearly three miles wide. Between the two highest points of Kinder Scout—some 2,000 feet high—is a gorge, at the head of which there is a fine but little known waterfall, called "Kinder Downfall." The waterfall is marked on the ordnance map. The views from the plateau of Kinder Scout are among the finest and most extensive in Derbyshire. For solitary wildness and grandeur, Kinder is probably unequalled in England. There is comfortable inn accommodation at Castleton, and it is a convenient centre from which much splendid scenery and numerous places of interest may be visited. In many of the explorations, especially of Edale and Kinder, a guide is needed, and no better guide need be desired than Mr. Tym, the intelligent local antiquary and geologist, whose interesting museum is one of the sights of the place.

**LADY BOWER, ASHOPTON, DERWENT DALE.  
THE SNAKE INN.**

At the foot of Winhill, on the opposite side to Castleton, are Ashopton and Lady Bower. The carriage road from Castleton is by Mytham Bridge, there turning to the left through Bamford and up the narrow but beautiful valley of the Derwent, between Winhill and Bamford Edge. The road to the left through Thornhill to Yorkshire Bridge, which crosses the Derwent above Bamford, is a little nearer, but rougher and less picturesque. Pedestrians frequently cross Winhill from Castleton to Ashopton. They go to Hope and turn to the left towards Edale. A quarter-of-a-mile above Hope, a road to the right crosses the river Nowe. Following this road, and making a second turn to the right a few yards further on, they strike a stile and path to the left leading through the fields past Twitch-hill farm to the top of Winhill, the views from which are as beautiful as they are extensive. There are traces of a British encampment on the summit of Winhill.

Lady Bower is about 10 and Ashopton about 12 miles from Sheffield by the old turnpike road to Manchester through Rivelin valley. Lady Bower is a beautiful mountain glen, and there is a good inn there. The Ashopton Inn, two miles further, is an old coaching-house much frequented by pic-nic parties and pleasure parties generally. From Ashopton the ascent of Winhill is comparatively easy. Immediately north of Ashopton is Derwent Dale, in which is Derwent Hall, the Duke of Norfolk's shooting box, and Derwent church, situated amid very beautiful scenery. The whole district abounds with charming dells and splendid mountain views. The Snake Inn is six miles beyond Ashopton on the Manchester road. The scenery is grand. As previously mentioned, an omnibus runs from Sheffield to Ashopton once a week in the summer months. Tourists from Sheffield occasionally take the train to Glossop, and walk from there past the Snake, to Ashopton, returning home by the omnibus. Some few very hardy pedestrians make their way across the moors from Derwent to Woodhead station, but the way is toilsome, and in this as in other excursions across the moors, difficulties occasionally arise with the game-keepers, especially in the breeding season. There is no finer scenery in the country than is to be found in this wild mountain district. The summit of Kinder Scout is within an hour's walk of the Snake, and the ascent is easier than from Edale.

## DERBYSHIRE BY RAILWAY.

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OMING now to the outer circle of Derbyshire scenery, we proceed to indicate how the chief places of interest may be most conveniently visited by rail as well as by road. It is necessary to explain, however, that much of the scenery already alluded to, though visited chiefly by road, is within easy access of railway communication.

From the Victoria Station (M. S. and L. Railway) the traveller can book to Worksop in one direction and Mansfield in the other, the lines running within easy distances not only of Sherwood Forest, the Dukeries, and other interesting places in Nottinghamshire, but also of Bolsover Castle and various places of interest in East Derbyshire. The Midland main line *via* Chesterfield to Ambergate is the direct line of communication with places of interest on both sides; while the Midland branch line from Ambergate to Buxton and Manchester runs almost through the heart of the Peak of Derbyshire, and has stations at Matlock, at Rowsley, which is only two miles from Haddon Hall and three from Chatsworth; at Bakewell, Hassop and Longstone; and in Monsal and Miller's Dales, as well as at Buxton. By selecting these places as central points, the tourist may visit much of the most beautiful scenery in Derbyshire at comparatively small cost in carriage hire, and without undue fatigue if he prefer to go on foot. Many tourists, however, prefer to visit the more distant, as well as the nearer, beauties of Derbyshire by road, and we therefore indicate both routes.

### CHESTERFIELD AND "REVOLUTION HOUSE."

Chesterfield, which is twelve miles south of Sheffield, and is the capital of the North Derbyshire coal and iron district, has no great architectural pretensions, but is a spirited and thriving town. It is an old town, having been incorporated during the reign of King John. The curiously twisted spire of the Parish Church, which seems to lean different ways according to the side on which it is approached, is one of the land-marks of travellers by the Midland railway. The church was built in

the early part of the thirteenth century. At Whittington Moor, near Chesterfield, is an inn, formerly known as the "Cock and Pynet" (Magpie), at which, during the year 1688, the Earl of Devonshire, Earl Danby, John D'Arcy and other notabilities met to plot the overthrow of James II. and the accession of William of Orange. The inn has been enlarged, but the "plotting parlour" remains intact. The chair in which the Earl of Devonshire sat on this memorable occasion is preserved among the curiosities at Hardwick Hall.

In November, 1788, the anniversary of the revolution was celebrated at Whittington with great splendour, the Duke of Devonshire and other noblemen taking part in the festivities at "Revolution House" and joining in the subsequent procession to Chesterfield.

### BOLSOVER CASTLE.

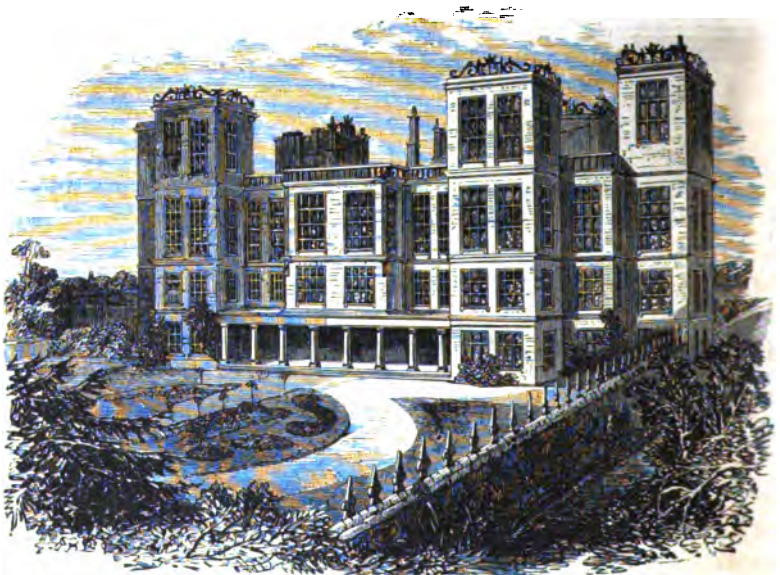
A Castle was built by the Peverils, at Bolsover, soon after the Conquest. There are remains of Norman work in the basement story of the present structure, which was built by Sir Charles Cavendish during the reign of James I., the foundation being laid in 1613. It stands upon the verge of a precipitous hill projecting into the valley, and is accessible only on the east side. Wm. Cavendish, son of Sir Charles, and afterwards Duke of Newcastle, entertained Charles I. and the Queen at Bolsover, "rare Ben Jonson" being employed to provide dramatic entertainments for the occasion. On the restoration of Charles II. the Duke of Newcastle returned from Antwerp—where he had lived during the Commonwealth—and, resuming possession of his estates, added a stately suite of apartments to Bolsover Castle; but they have long been in ruins, the older part only being habitable. The Castle, which passed with the Welbeck estates by marriage from the Newcastles to the Dukes of Portland, is now occupied by Mrs. Gray, widow of the late Vicar, and is shown to visitors during the absence of the family. The situation of Bolsover Castle is very beautiful, and there are some interesting relics in the Castle, though much of the quaint furniture which formerly enriched it has been removed of late years to London. The Castle is said to have been besieged by Cromwell during the civil wars, and marks of cannon balls are shown.

The church at Bolsover, which has lately been restored, contains interesting monuments of the Cavendish family and

other ancient records ; and the memorial stones in the churchyard abound in quaint epitaphs. Bolsover is about six miles from Chesterfield, the road being rough. It is three or four miles from the Cresswell and Langwith Stations on the Mansfield Railway, and five miles from Eckington by footpath.

### HARDWICK HALL.

This fine old Elizabethan mansion was erected by the famous "Bess of Hardwick," and is the residence of the Marquis of Hartington. It is a few miles south of Bolsover



HARDWICK HALL.

and six miles from Chesterfield. The Hall stands upon a lofty ridge in a richly wooded park, commanding a fine view of the western part of the county. The Hall contains a valuable collection of historical portraits and many objects of antiquarian interest, including the "plotting chair" already referred to. The furniture belongs to the same period as the Castle ; and the visitor to Hardwick sees a nobleman's house as it was before the time of the civil wars. The letters "E. S." (Elizabeth Shrewsbury), conspicuous in the architecture of the building, are the initials of the founder. The inn, at the western entrance



HARDWICK HALL—THE DRAWING ROOM.

of the park, has ample accommodation for man and beast. The nearest railway stations to Hardwick are Clay Cross and Doe Hill, each about four miles distant.

### ASHOVER.

In Pilkington's History of Derbyshire, Ashover is described as "a town of great antiquity," which had "a church and priest" when Domesday Book was compiled. It is now a quiet village. Ashover adjoins the turnpike from Chesterfield to Matlock Bath, being five miles from the former and four miles of steep and hilly road from the latter. It is within easy walking distance of Clay Cross, but the nearest station is Stretton, three miles distant. Ashover House is a clean and well-managed boarding house, with baths, &c. for hydropathic treatment. Rooms may be had at other places in the village. Pleasant scenery and a bracing air make Ashover a favourite summer resort. In the churchyard are the graves, with monumental stones, of the ancestors of Florence Nightingale, whose residence at Lea Hurst (between Matlock and Wingfield) is at no great distance. There is an ancient font in the fine old church, believed to be Saxon, and some curious monuments of



the local family of Babington. The Babington who plotted the assassination of Queen Elizabeth, and, with his associates, was executed September 13th, 1586, was of this family, and lived at the little hamlet of Dethic in the parish of Ashover.

### WINGFIELD MANOR.

At the time the Babington conspiracy was hatched, the Queen of Scots was confined at Wingfield Manor, a seat of Earl Shrewsbury, some miles south of Ashover. Interesting accounts are given in Froude's history of the attempts made to release the Queen, and the stratagems by which Lord Burleigh obtained evidence of the complicity of the captive. The Manor was built by Ralph, Lord Cromwell, in the time of Henry VI., and came into the possession of the Shrewburys by purchase, remaining the property of the family until 1616, when it passed to Lord Pembroke. It suffered much during the civil wars, being held first for Parliament and afterwards for the King, and twice besieged. It was dismantled in 1646 by order of Parliament. During the reign of Charles II., the estate was purchased by the Haltons, to whom it still belongs. The Manor House was a large and handsome mansion: this is evident from the very fine ruins still remaining. It is accessible by railway direct from Sheffield, being within a mile of South Wingfield Station on the Midland Railway. The ruins may be seen from the railway between South Wingfield and Ambergate. It is often visited from Matlock Bath. Rhodes, the author of "Peak Scenery," recommends a visit to Wingfield in preference to any other excursion from Matlock, prescribing the route from Cromford along the Derby road to Whatstandwell Bridge, thence up the steep hill to Crich, from which Wingfield is two miles distant, returning by Crich Cliff, Holloway and Lea Bridge. "The distance" there and back, he says, "is twelve miles, and twelve miles of greater and rarer beauty are not often travelled over." In returning, the tourist may enter the grounds of Miss Nightingale at Holloway, walking through them to Lea Mills. Lea Hurst, her residence, is beautifully situated, the view from the windows being one of the most charming in Derbyshire. It has a commanding view from the hill side of the remarkable scenery through which the Midland Railway passes, between Ambergate and Matlock. A

small portion of the Manor House at Wingfield is now used as a farm-house. An intelligent guide lives there and conducts visitors over the very interesting ruins, which have been cleared of rubbish of late, many curious relics having been found during the work.

### MATLOCK.

This charming place—often called the “Switzerland of England”—is too well known to need any lengthened description. Its mineral springs attracted attention more than a century ago; and it is now a popular holiday resort as well as a sanitarium. Until a few years ago Matlock Bath—a most romantic village hemmed in by precipitous hills and wood-crowned rocks, between which the Derwent flows in a considerable stream—was the chief place of resort. Latterly there has been considerable extension of building in the wider part of the valley at Matlock Bridge and Bank, where large hydropathic and other establishments for the accommodation of visitors have sprung up and are carried on with great success. There are caverns, petrifying wells and other interesting natural curiosities at Matlock Bath, and the river offers facilities for boating and fishing; but the great charm of the place is in the diversity and romantic beauty of the scenery, which few districts in England equal, and none surpass. Matlock is about twenty-five miles from Sheffield by way of Baslow, Rowsley and Darley Dale—a fine open valley terminating at Matlock Bridge; it is about thirty miles by railway *via* Chesterfield and Ambergate.

The visitor to Matlock is in no danger of remaining in ignorance of museums, caverns, boats or the Lovers' walks, which are obtruded upon his attention at every turn for the sake of the fees they yield. Fees are now demanded also for the privilege of ascending High Tor and the Heights of Abraham, two precipitous rocks which guard the narrow entrance to Matlock Bath from the north, and from both of which very fine views are obtained. Matlock abounds in beautiful views and charming walks, to two or three of which we must briefly direct attention. Behind the Heights of Abraham is the much higher hill of Masson, to which there is a good but steep footpath from the heights. Masson is the loftiest hill in the neighbourhood, and the outlook from its summit is as beautiful as it is extensive. There is a footpath over the southern slopes of Masson to the quaint old mining village of Bonsall. Going up

the Heights of Abraham as far as the entrance lodge, we take the winding path to the left by the Prince of Wales Inn. The view we get of the village of Matlock Bath in the ascent is more complete and beautiful than from any other point. From the footpath across the fields at the top of the hill we have a fine view to the left of Cromford and the hills beyond, and turning round we get still more charming glimpses of the Derwent valley and hills in the direction of Lea and Ambergate. Having seen the quaint church and the market cross at Bonsall, the visitor may either take the steep footpath to the right over the northern end of Masson to Matlock Bridge, a most agreeable breezy walk in fine weather, or cross the high road below the church, and take the path forward through Bonsall Wood to Via Gellia, returning through Cromford; or he may turn to the left through Bonsall Hollow direct to Cromford. He should certainly visit Via Gellia, and may, if he prefer, return by the footpath from Bonsall over Masson to Matlock Bridge, instead of going that way. There is a very fine view of Matlock and its surroundings from the Chesterfield road at the top of Matlock Bank. Before us lies the whole valley, flanked on the right by lofty Masson and the wood-crowned Heights of Abraham; on the left by the almost equally lofty hills on which Ribber Castle stands out bleak and bare; in the centre is High Tor, with the old village of Matlock at its foot, and beyond it, Matlock Bath, hemmed in on all sides by wood-crowned rocks and hills. The reverse view from the Black Rocks between Cromford and Wirksworth is even more charming. No visitor to Matlock should miss this view, which is one of the most beautiful in Derbyshire. We have already alluded to the beauty of the scenery between Matlock, Wingfield Manor, and Ambergate, and need only add that Matlock is a convenient centre from which to visit Darley Dale and Church, Haddon Hall, Chatsworth, Rowtor Rocks, Stanton and other places.

#### DOVE DALE AND ILAM HALL.

Dove Dale, one of the most charming spots in Derbyshire, is 32 miles from Sheffield, 16 miles from Bakewell and 13 miles from Matlock. From Bakewell the excursionist passes Haddon Hall, and then turning to the right, through Youlgreave to Newhaven Inn, proceeds along the Buxton and Ashbourne turnpike as far as the stately avenue of trees leading to the secluded village of Tissington. There he turns to the right along pleasant

lanes to the "Peveril," or the more commodious and celebrated "Isaac Walton" Hotel at the foot of the Dale. Dove Dale is more frequently visited from Matlock, the route being through Cromford and Via Gellia (the latter a romantic defile carpeted with primroses in spring, and perfumed with lilies of the valley in the early summer) to Grange Mill; thence along the Winstar and Ashbourne turnpike to Bradbourn Mill bar, immediately beyond which there is a carriageway over a brook, and across fields to Tissington. We know of no more delightful change than quitting the worry and monotony of town life for a few days, to explore the romantic depths of Dove Dale, and climb over "Thorpe Cloud" and other hills guarding that beautiful defile. A mile beyond the "Isaac Walton" is Ilam Hall, one of the most romantically situated mansions in the country. Ilam has a special interest to visitors from Sheffield. In a mortuary chapel attached to its pretty little church is one of Chantrey's masterpieces,—a beautiful group of statuary, representing a former owner of the Hall, Mr. Pike Watts, giving his dying blessing to his only daughter, the late Mrs. Watts Russell, and her three young children. In the gardens at Ilam Hall, is the grotto where Congreve wrote his "Old Bachelor" and "Mourning Bride." Near the grotto, the Manifold and the Hamps, two considerable rivers, after pursuing their course for several miles underground, rise to the surface again within twenty yards of each other, and, uniting into one stream, flow into the Dove near Mappleton. Near Dove Dale are Thor's Cave and other places of interest. Dove Dale is within three or four miles of Ashbourne, with which there is railway communication from Sheffield *via* Derby. The railway journey is long, being upwards of 70 miles, but the walk from Ashbourne is a very pleasant one.

### ASHBOURNE.

Ashbourne, a quiet country town, in a pleasant neighbourhood, is chiefly interesting to visitors on account of its fine old parish church, which abounds with curious and interesting monuments. One of the most beautiful and touching of these monuments is that of a sleeping child. Chantrey, it is said, visited this monument by request, before designing the "Sleeping Beauties" in Lichfield Cathedral. There is an excellent turnpike from Ashbourne to Buxton, passing within two miles of Dove Dale. Tourists not unfrequently take this road from

Ashbourne or Dove Dale to Buxton, and *vice versa*. The distance is 24 miles, but the scenery is monotonous. Assuming the necessity of a day's drive from Ashbourne to Buxton, we prefer the longer route by Bradbourne, Grange Mill, Stanton and Bakewell, because on that route there is much to charm and interest, especially after passing Grange Mill.

### ALTON TOWERS,

The famous seat of Earl Shrewsbury, with its unrivalled gardens, is nine or ten miles beyond Dove Dale. The direct route is a little difficult to trace without a map. The visitor crosses the Manifold at Ilam; ascends through fields towards the village of Blore; turns to the right within a few yards of the village, and proceeds through fields and lanes to Calton Moor toll-bar, whence he will readily find his way, mostly by turnpike, to the Shrewsbury Arms, at the aristocratic little village of Farley, which is within a few minutes' walk of the Towers.

Alton Towers is a favourite place for tourists, and contains many objects of interest. In the valley, between the Towers and the village of Alton, are some unfinished portions of a nunnery, in course of construction at the time the estates passed from the Roman Catholic Howards to the Protestant Earl of Shrewsbury, not many years since.

The best return route is along the "Duke's drive," through the grounds of Alton Towers to Elvastone, and thence through four or five miles of pleasant country to Ashbourne.

### BAKEWELL, LATHKIL DALE, ROWSLEY, STANTON AND BIRCHOVER.

Bakewell is a pleasant little town on the banks of the Wye, sixteen miles from Sheffield, four from Baslow, and two from Haddon Hall. It is accessible by railway, having a station on the line from Matlock to Buxton, and is necessarily mentioned somewhat frequently in our excursion sketches from its position on some of the more interesting main routes from Sheffield south and west. Hotel accommodation is abundant. The fine old church stands on a lofty hill, from which there is a good view of the surrounding district. There are various objects of interest in the church, including monuments of the

celebrated Dorothy Vernon (see our account of Haddon Hall), her husband and family. In the churchyard there stands an old cross similar in design to Eyam cross, but less elaborate in its details.

Near Upper Haddon is Lathkil Dale—a beautiful spot comparatively little known to excursionists. Leaving Bakewell by the steep road which passes the church, and then turning southward over the hills, we cross Lathkil Dale, within a mile of Youlgreave. The walk up the Dale is charming. The river Lathkil, from which the Dale takes its name, is considered one of the best trout-streams in England.

Rowsley divides with Bakewell the claim to be the most convenient and pleasant centre from which to visit Haddon Hall and other objects of interest in the district. Rowsley is four miles beyond Bakewell, and has also a station on the Matlock and Buxton line. The Peacock, at Rowsley, is a fine specimen of an old road-side hostelry, and a great resort of fishermen,—the Wye and Derwent, which unite near Bakewell, affording excellent sport. Rowsley is at the northern boundary of Darley Dale, already alluded to in connection with Matlock. The beautiful grounds of Sir Joseph Whitworth are a little beyond Rowsley. Darley Dale church, some two miles further, is worth a visit. The fine old yew trees in the churchyard have attained an almost fabulous age.

Stanton and Birchover are within easy reach of Rowsley and Bakewell. The scenery there is very fine, and Rowtor Rocks, Robin Hood's Stride and other remarkable rocks are much visited. Archæologists differ as to whether some of these are natural rocks or Druidical remains.

## BUXTON.

This far-famed summer resort is 28 miles from Sheffield, the carriage-road being through Baslow and Bakewell. The scenery along the excellent turnpike from Bakewell, through Ashford-in-the-Water, past the foot of Monsal Dale to the heights of Taddington, and thence through Ashwood Dale to Buxton, is exceedingly beautiful. The attractions of Buxton are too well known to need dilating upon. Its chalybeate waters for drinking, and the thermal springs for bathing; its crescent, museums, serpentine walks, gardens and pavilion; its charming villas and sumptuous hotels; its well-dressing festivals, its season

gaities, and cool, bracing air, are known far and wide, but must be seen and enjoyed to be thoroughly appreciated. Few places are surrounded by more beautiful scenery. There are curious hills and beautiful scenery in the direction of Earl Sterndale and Longnor. Ludchurch, Axe Edge and the "Cat and Fiddle," from which Liverpool and the Mersey, forty miles distant, are visible on a clear day; Corbar Woods and the hills beyond in the direction of Chapel-en-le-Frith, the Duke's drive, the beautiful little dells jutting out from Ashwood Dale, Fairfield, and many other places, will amply repay a visit.



MONSAL DALE.

### CHEE, MILLER AND MONSAL DALES.

The visitor to Buxton should either make an excursion to these Dales, or take them on his return route. The enterprising pedestrian may plunge at once into Chee Dale by leaving the turnpike near where the railway from Bakewell enters Ashwood Dale and following the course of the Wye across the fields. The carriage drive is round by Taddington to Miller's Dale. From there Chee Dale, a singularly narrow and rugged defile, may be explored by going up the course of the river on foot. On one side the Dale is bounded by the precipitous rocks of Chee Tor; the other by lower rocks, less steep, and thickly shaded by trees. A footpath at the entrance to Chee Dale leads to the interesting village of Wormhill.

There is a carriage drive through Miller's Dale and Tideswell Dale, to Tideswell. The tourist may either go forward to Tideswell, or turn to the right near Litton, and descend through the precipitous village of Cressbrook into Monsal Dale, peeping into Cressbrook Dale, which lies on his left, as he descends

from the village to Cressbrook Mills. Pedestrians usually find a shorter way from Miller's Dale to Monsal Dale. Following the course of the Wye, instead of turning off towards Tideswell, they find a steep path going more directly to Cressbrook village. Adventurous tourists occasionally cross the river in Miller's Dale, and scale the hill forming the right bank of the steep gorge through which the Wye passes from one dale to the other.

Through the wider part of Monsal Dale also there is a carriage-way, which leaves the Dale by a steep ascent at the point where it turns sharply off towards the Buxton road. Turning round, on reaching the top of the ascent, the visitor has a magnificent view of the Dale and the surrounding hills. When, as is often the case, Monsal Dale is visited direct from Sheffield, the view bursts suddenly upon the visitor at this point, and is a most agreeable surprise. He may obtain another fine view by making his way through the obstacles raised by the game preservers to Fin Cop, a prominent hill in the direction of the Buxton road. A delightful way from Monsal Dale to Sheffield is by Longstone, Hassop Hall, Calver and Froggatt Edge. The distance by Hassop station and Baslow is equally near.

Monsal Dale is often included in a day's excursion to Middleton Dale and Eyam; but Miller's and Chee Dale are too distant to be readily included in the day's tour.





## ROTHERHAM AND THE NEIGHBOURHOOD.

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ROTHERHAM is a manufacturing town at the confluence of the Rivers Rother and Don, six miles north-east of Sheffield. The valley of the Don there, as nearer Sheffield, is largely occupied by collieries and manufactories, which sadly mar its natural beauty; but south and east, the scenery is varied and beautiful, the views from many points of Moorgate, the principal suburb, being especially fine. Wentworth Woodhouse, Roche Abbey, Laughton-en-le-Morthen, Conisbrough Castle, and many other places of interest, are within easy reach. A Roman origin has been claimed for Rotherham. Roman remains have been found at diverse times at Rawmarsh, Edlington, Guilthwaite Common and Clifton, and, as already shown, there was a permanent Roman station at Templeborough. In Saxon times, Rotherham seems to have been a place of some importance. It had a Saxon church, and is believed also to have had a market and fair before the Norman Conquest, though there are records of grants in later times. If there be truth in the old tradition that its big neighbour Sheffield was at one period of its history "a vill near Rotherham," it would apply, we presume, to the times when Rotherham had its Saxon church, market and fair, and Sheffield had no such privileges.

In the time of Edward the Confessor, Rotherham was held by its Saxon lord, Acun, as a manor of five caracutes. At the Conquest, Acun was deposed in favour of Lord Morton. The manor was held for several generations afterwards by the De Vescis, whose rights were at one time hotly disputed by the family of De Tilli. These families subsequently gave their Rotherham estates to the Monks of Rufford, who enjoyed the revenues from the middle of the twelfth century until the Reformation, when Henry VIII. gave the estates to Lord Shrewsbury, and they passed with the Sheffield estates to the Howards. Henry, the sixth Duke of Norfolk, bequeathed the Rotherham estates to his second wife, Jane Bickerton, who died at the Holmes, in 1693. Her two sons leaving no children,

the estates passed to Lord Francis Howard, who was created Earl of Effingham, in 1731. He was a descendant of that younger branch of the family of the second Duke of Norfolk, from which sprang the illustrious Lord Howard, who commanded the English fleet against the Spanish Armada. The Earls of Effingham resided at the Holmes until near the close of the seventeenth century, when Thomas, the third Earl, bought an estate at Thundercliffe, near Ecclesfield, and built The Grange. The present Earl removed some twenty years ago to a more attractive mansion in the south.

Rotherham seems to have suffered much at the Conquest. Its Manor, valued at £4 in the time of the Confessor, had fallen to 30s., and its new lord, who had one caracute of land in his own possession, in addition to some meadows, had only eight villeins and three borderers. He had a mill, but the rent was only 10s. a year. The place is supposed to have prospered under the rule of the monks of Rufford, who possessed the usual privileges of feudal lords, including a gibbet on the "Gallow Tree Hill," near Clifton. Its market and fair would give it importance; its church was the only place of worship in a large district; and it was upon one of the principal roads of the kingdom—the road from London to Carlisle. But it had no resident lord, and little is therefore known of its history in those times. One or two events we may mention. On the 31st January, 1569, the unhappy Queen of Scots rested there a night, on her journey from Bolton Abbey to Tutbury Castle. During the Civil Wars, Rotherham, which was strongly held by the Parliamentarians, was besieged by the Duke of Newcastle, and taken by storm after a stout fight. Charles I., when a prisoner in the hands of the Scots, spent a night at Rotherham, sleeping, if we may believe tradition, in the house in High-street which is now the Sheffield and Rotherham Bank.

The manufacture of iron in the district seems to have originated with the monks of Kirkstead, who had forges at Kimberworth immediately after the Conquest, and houses for their grangers or overlookers at Thorpe Hesley, on the site on which Lord Effingham afterwards built The Grange. Of the progress of manufactures there during the next four centuries little or nothing is known. Ieland, who visited the place in 1550, quaintly says:—

"I enterid into Rotheram by a fair stone bridge of iiii.

arches, and on hit is a chapel of stone wel wrought. Rotheram is a meately large market towne, and hath a large and fair collegiate chirch and a very fair college, sumptuously builded of brike. \* \* \* Though betwixt Cawoode and Rotheram be good plenti of wood, yet the people burne much yerth cole, by cawse hit is plentifully found ther and sold good chepe. A mile from Rotheram be veri good pittes of cole. In Rotheram be veri good smithes for all cutting tooles."

Whether Rotherham was a "meateley large" town by virtue of its manufactures or its market we are left to guess. The latter was probably the chief source of prosperity, the town being the centre of a large and rich rural district, in which there were many families of wealth and position.

There is a tradition that cannon was first made at Rotherham, but no evidence. It is said that during the sixteenth century steel was made there and taken to Sheffield for sale, but the statement is not authenticated. The first great stride in its manufacturing progress seems to have been taken in 1746, when, the Don having been made navigable as far as Tinsley and good water communication thus established with Hull, the Walkers, of Grenoside, built their first furnaces at Rotherham. This remarkable family, who began their manufacturing career at Grenoside by casting shoe buckles, speedily established at Rotherham and in the neighbourhood some of the most extensive iron works in the country. They erected large works adjoining the river at the Holmes and at Masbrough, and near the junction of the Rother and Don, at Rotherham, adding afterwards considerable premises lower down the river at Thrybergh and at Conisbrough. Their works comprised foundries for all kinds of castings, from shoe buckles to cannons and bridges; forges, mills, steel furnaces, and large engineering and smiths' shops. During the American and Peninsular wars they acquired great fame as manufacturers of cannon. Their business—vast for those days—was carried on with great vigour, and, until the close in 1815 of the Peninsular war, with uninterrupted success, the several partners realizing large fortunes and building themselves handsome mansions,—Masbrough Hall, Masbrough House, Eastwood House, Clifton and Ferham, being all built by one or other of them. The firm afterwards undertook the casting of the iron bridge over the Thames at Southwark, designed by Rennie, the estimated

cost being £287,000. At this time the celebrated "Tom Paine" was in their employ, and it is said wrote his "Age of Reason" at their Masbrough works. The Southwark Bridge was at that day a gigantic undertaking, attended with enormous difficulties. It proved disastrous, and led to the downfall of the firm, now consisting of the descendants of Samuel, Aaron and Jonathan Walker, the three brothers—the first a schoolmaster, the second a mechanic, and the third a farmer—who were the original partners. The downfall of the Walkers was a heavy blow to the prosperity of Rotherham for the time; but the several branches of their great business gradually passed into other hands, and many new industries have since sprung up there and been largely developed. Among the principal industries now carried on in the town and neighbourhood are the manufacture of iron, Bessemer steel, stove grates and railway rails and wagons. There are also large brass, chemical, glass and earthenware works. The population of the borough is about 32,000.

Rotherham was incorporated in 1871, the borough being conterminous with the district of the Rotherham and Kimberworth Board of Health, which was superseded by a Town Council, after an existence of nearly twenty years. The district includes the townships of Rotherham and Kimberworth, the latter township extending to the confines of Wentworth Park, and embracing the outlying villages of Thorpe and Scholes. The Corporation, which is now seeking powers to incorporate portions of adjoining parishes in the borough, is composed of six aldermen and eighteen councillors; Mr. G.W. Hodgkinson being town clerk. The gas and water works and the markets belong to the town, and are vested in, and managed by, the Corporation. Corn and cattle markets are held on Mondays, and a butter market on Fridays. Fairs are held on Whit-Monday and the first Monday in December.

Rotherham is fairly provided with public buildings. The Municipal Hall and Offices are in Howard-street, as also are the Gas and Water Works. Adjoining the Municipal Offices are the Savings Bank, a Temperance Hall, and the Hall of the Mechanics' Institution, the last at the corner of Effingham-street. New Markets and a Corn Exchange have recently been erected. The "Court House," for Quarter and Petty Sessions, is in College-street, the Police Office and cells adjoining. Mr.

John Oxley is Clerk to the Magistrates. The General Post Office is in Westgate, and the commodious Union House is pleasantly situated near Moorgate-road; Mr. John Barras is Union Clerk.

The town is fortunate in regard to its charities. The Feoffees are a body analogous to the Town Trustees of Sheffield. Their earliest trust deed dates back to the 25th year of the reign of Elizabeth, and they are possessed of property producing about £1,100 a year, which they spend in aid of religious and charitable institutions. Forming part of the trust of the Feoffees is a handsome Grammar School and Master's House in Moorgate, built in 1857, at a cost of £1,300, to supersede a small School and Master's House previously existing in College-street, the Grammar School being founded in 1584, by Lawrence Woodret and Anthony Collens, two London merchants. The Feoffees have also control of a Charity School in the Crofts, founded by a person named Scott, in 1776, and enlarged in 1870. The noblest public charity is the Hospital and Dispensary, erected at Doncaster Gate Head. This is a beautiful stone edifice in the Tudor style. The cost, exceeding £10,000, was raised by public subscription; the building, which contains 24 beds, having been opened in Nov., 1871. There are several public schools in addition to the Grammar and Charity Schools already mentioned; and a School Board was elected in November, 1875.

There are two Burial Boards, one for the Township of Rotherham, and the other for Masbrough and Kimberworth. The Rotherham Burial Ground, seven acres in extent, is at Moorgate, and is very tastefully laid out. The Kimberworth Burial Ground is between Masbrough and the village of Kimberworth.

The Rotherham Literary and Scientific Society was formed in 1862; has rooms at the Mechanics' Hall, supplied with leading daily, weekly and other journals, and has lectures and papers on popular and scientific subjects during the winter months. The leading gentlemen of the town are members of the Society, which has an interesting museum composed chiefly of articles found during the recent explorations of Templeborough.

St. George's Hall, opposite the Mechanics' Institution, was opened on the 1st November last, having been founded by the

Rev. W. Newton, the late vicar, at a cost, including the site and furniture, of over £5,000. It is a coffee and cocoa house, and contains class-rooms for church purposes, reading room and library, small hall for meetings, billiard and bagatelle room, and club rooms for friendly societies.

Rotherham, like other loyal towns, can boast of a Volunteer Rifle Corps, which consists of two companies, forming part of the Fourth West York Administrative Battalion. The drill hall of the corps is in Wharncliffe-street.

There are three churches in what may be called the town of Rotherham as distinguished from the outlying districts forming part of the borough. Of the fine old Parish Church, some account will be found in a subsequent page. St. Stephen's Church, St. Ann's-road, Eastwood, was opened in 1874, and the Rev. W. Pilkington is vicar. The church of St. John the Evangelist, at Masbrough, was opened in November, 1864. The Rev. F. W. Pudsey, M.A., is vicar. The Independents have a chapel at Masbrough, founded by the Walker family, whose mausoleum stands in the chapel grounds. There are several beautiful monuments of the Walker family in the chapel. The same denomination have a handsome new Gothic chapel on Doncaster Gate Head. The Wesleyans have an old chapel in Talbot-lane, and new chapels at Masbrough and Eastwood. The Baptist Chapel is in Westgate; the Unitarian Chapel in Oilmill-fold; the United Methodist Free Church in Effingham-street; the Primitive Methodist Chapel in Wellgate; and the Plymouth Brethren have a Meeting House in Moorgate. The Roman Catholics have a church at Masbrough.

## THE PARISH CHURCH.

The chief object of interest at Rotherham is the Parish Church, which Hunter describes as "one of the most beautiful in the diocese," and as presenting "a complete model of the ecclesiastical architecture of England in its purest age." The people of Rotherham are mainly indebted for the fine old edifice to their townsman Archbishop Rotheram. The structure seems to have been begun before the Archbishop's time—the arcade of the chancel and the lower part of the tower belonging apparently to the early part of the fifteenth century, the nave, aisles, transepts and the upper parts of the tower and

spire being built by the Archbishop towards the close of the century. The clerestory was added in the sixteenth century, the chancel being at the same time lengthened. The remains of the water tables on the tower show the pitch of the roof before the clerestory was built, and that the windows of the tower looked over the roofs of the chancel and transepts.

"The Church," says a local writer, "has been subjected to frequent alterations and enlargements, and, considering its curious formation in earlier times, it is marvellous that it has come down to us such a splendid specimen of architectural grouping of the Perpendicular style. The Church, which is a more than ordinarily rich and well proportioned structure, consists of a nave with aisles, well defined transepts without aisles, and a chancel or choir of ample dimensions, having aisles, or rather chapels, with a fine tower, surmounted by a spire at the intersection. The nave has three doors, one to the west and two opposite each other on the north and south, the latter having a good porch. It has an arcade on each side of four lofty arches, resting on slender clustered columns, with a clerestory having two windows in each compartment. The aisle windows are large and well proportioned, of four lights each. There is a west window of large dimensions, having seven lights. From the crowns of the arches, and from between each pair, rise vaulting shafts to the roof, which, however, are not utilised, being merely ornamental; the roof, which is a wooden one, and of rich character, resting upon wooden supports. The tower arches are also lofty, and are made to assimilate with those of the nave, with a vaulting of the same character. The transepts again are made to resemble the part of the church already described. When, however, we come to the chancel, we find a difference in the work. This part of the Church is of ample dimensions, and has an arcade of two arches on each side, of good proportions, resting on octagonal piers, with plain embattled capitals and good bases, having each a round, with a broad hollow moulding below. These arcades separate the chancel from chapels or aisles of considerable and rather different dimensions. The chancel extends one compartment beyond these chapels, having on the south side three sedelia, with foliated heads and panelling of rather poor character. The middle one has been pierced by a large squint from the south chapel. To the east of these is a trefoil-headed piscina,

and, on the south side of the east window, a niche. The chancel has a clerestory of late and rather poor character."

Three years ago the Church was very thoroughly restored, at a cost of £9,000; a report by Sir Gilbert Scott being taken as the basis, and the work of restoration having been carried out under the superintendence of Mr. Henry Cane, of London. Externally, the cement and other extraneous matter was removed, the old and correct features of the work being retained in their primitive state, and the decayed parts of the stonework renewed. Still greater was the change in the interior. The galleries were removed, the pews were cleared away and replaced by new oak stalls, corresponding in style with the beautiful old seating in the chancel aisles. The east window, which was small and poor in style, being one of the sixteenth century additions, gave place to a larger window of richer design. The new window is a magnificent specimen of modern stained-glass work, having for its design a dedication to "All Saints." It was inserted by the Earl of Effingham, as a memorial window, at a cost, including the stonework and the restoration of the east wall, of about £1,000. The pulpit, a very fine Jacobean work, was carefully restored, as also were the chancel stalls and screens. A handsome lectern was given by Mr. J. W. Potter, and the old reading desk was replaced by two prayer desks, which are good examples of modern work. The chancel within the altar rails was paved with encaustic tiles, the chancel roof being tastefully painted and decorated. The old west doors, which had long been closed, were re-opened. The whole of the internal stonework was cleansed from white-wash, and restored where necessary. The pavement of the floor was renewed in parts, care being taken to retain the monumental stones, some of which are very curious, in their original places. The roofs were also restored, and not too soon, some of the beams being almost ready to fall.

The Church is believed to stand on the site of the ancient Saxon church in which Acun and his followers worshipped before the Norman Conquest. The Saxon church was succeeded by a Norman edifice, probably erected under the auspices of the De Vescis or De Tillis. Of this latter church there is ample evidence. When, during the restoration, the floor of the present edifice was removed, it was found that the three piers on each side stand upon basements consisting of the capitals of Norman



piers turned upside down. The capitals are large, having evidently belonged to massive columns, and are also ornate. The foundations of the Norman church were also disclosed, and show that it consisted of a nave with aisles, transepts without aisles, somewhat shorter than the present, and a chancel of the same length as the present but without aisles, and having a Norman tower at the intersection of the arch. In removing the whitewash from the interior of the church, many Norman stones used in the re-building of the church were found, and one very ancient stone apparently of Saxon origin. The old font is also believed to be a relic of the Saxon church. There are many curious and interesting monumental inscriptions in the Church. The oldest inscription is on a stone in the south aisle of the nave:—"Thomas Wood, 1102." It is conjectured to be the monumental stone of an ecclesiastic, and to have been built in the present wall as a relic. Among the monuments is one to the memory of fifty young persons, who were accidentally drowned at the launch of a boat at Masbrough, in May, 1841.

There was a public procession on the opening of the Church after its restoration, the day being observed in the town as a general holiday. The Church is one of those grand old edifices of which any community might be justly proud, and attracts many visitors.

## REMAINS OF ARCHBISHOP ROTHERAM'S COLLEGE.

### THE CHAPEL ON THE BRIDGE.

The building occupied as the "College" Inn, at Rotherham, is an object of considerable historical interest, though not much visited by antiquarians. On the "feast of St. Gregory the Great," in the year 1482, were laid the foundations of the "College of Jesus." Archbishop Rotheram was the founder, and began the College about a year after his elevation to the See of York. Residing chiefly in his diocese, after his retirement from political dignities, the Archbishop seems to have devoted himself with energy to the duties of his See and to the carrying out of his munificent intentions towards his native town. During the building of the College he resided much with Sir Thomas Wortley, at Wortley Hall, that he might be near to superintend the work. No accurate description of the

College has survived. Leland, who, as already mentioned, visited the town in 1550, describes it as "a very fair College, sumptuously builded with brike." The buildings seem to have formed three sides of a square, the main pile crossing the site of the present Court-house, and the two sides extending from the main pile to College-street, then called "Jesus-gate." The buildings, now occupied as the "College" Inn, formed a part of the east side; the offices formerly occupied by the late Mr. Josh. Badger terminating the western side. Behind the buildings were gardens and grounds extending nearly to Bridgegate on the west, to Howard-street on the north, and probably to Pigeon-lane, if not to Doncaster-gate head, on the east. The College and grounds were surrounded by thick, lofty brick walls—the front wall having coping stones three or four feet wide, on which was strong palisading. The main entrance from Jesus-gate was opposite the lower entrance to the churchyard, and was between two square pillars about sixteen feet high, and topped with bold moulded caps, on which were large balls. In regard to the style of the building, Mr. John Guest remarks:—"I should think the red walls would be relieved by quoins, mouldings and casings of perhaps white stone, as is shown in the beautiful Italian doorway at the north entrance, and which, with the small fine brickwork almost like enamel still to be seen there, may to some extent indicate the style of an edifice worthy of the munificence, skill and taste of the pious and beneficent founder." Provision was made in the College for a provost, who was to have control and to preach in the province; for three fellows, one to teach grammar, another singing, and the third writing and arithmetic, to all comers gratuitously. There was also provision for six boy-choristers, who were to be educated, and afterwards preferred to a scholarship in Lincoln College, Oxford; and six chantry priests, who previously boarded separately in laymen's houses, "to their scandal and the ruin of others," were to live together in the College, and "holily and devoutly occupy their time in the grammar, music or writing school." In this College, which was liberally endowed, there was the germ of a great public school,—possibly of a lesser university—which should have been an immense boon to the town and neighbourhood for all time. Unhappily the College perished in less than half a century after its foundation. Having survived the confiscations

of Henry VIII., it fell beneath the Act of the first Edward VI. for the suppression of chantries, colleges and guilds, and all that the town saved from the wreck, by petitioning Queen Mary, was £10 a year towards finding a "Schole Master for the Grammar Schole." An interesting relic of the College was found during excavations in the College yard a few years ago, and has been erected in Boston Park.

The chapel on the bridge over the Don is also an object of some interest, but nothing exact is known of its origin. In Roman Catholic times, chapels were very commonly built on bridges at the entrance of towns or considerable villages, as at Sheffield and Wakefield. The chapel on the bridge at Rotherham is first mentioned by Leland, in 1550, who described it as "a chapel of stone well wrought." In Buckler's "Records of Wayside Chapels," it is described as being of nearly the same dimensions as that at Wakefield, the writer further remarking:—"The design of Rotherham chapel is plain; there have been two windows on each side, one at the east end, and one high up and of small size at the west end, over the entrance. The pediments of the side parapets are embattled and terminated with numerous crocketed pinnacles. The mullions and tracery of all the windows have been destroyed, and whatever ornamental features may have graced the interior, there is nothing of the kind now visible." The interior measurements of the chapel are 32 feet 9 inches by 15 feet 5 inches. Up to what date the chapel was used for religious purposes is not known, but about 25 years ago it was the town gaol, and had been so used for a great number of years. It is now a dwelling house. The chapel is supposed to have been originally the dwelling of a hermit or anchorite, but of this there is no evidence.

#### ROTHERHAM INDEPENDENT COLLEGE.

This College is a handsome edifice, and is admirably situated on Moorgate-hill, commanding a wide sweep of beautiful country. The style is Collegiate Gothic, and the material red sandstone, with dressings of Roche Abbey stone. The cost of the buildings and land was over £20,000, raised by voluntary subscription. The College was opened in 1876, having been erected in place of the old brick College at Masbrough, built in 1795 by Mr. Samuel Walker. There is accommodation for 30

students, with residence for principal and masters. The grounds of the College are several acres in extent, and flank the road



ROTHERHAM INDEPENDENT COLLEGE.

leading from Moorgate to Boston Park. We give an illustration.

**BOSTON PARK.**

The people of Rotherham have very pleasant recreation grounds on Moorgate-hill. During the American War of Independence, Thomas, third Earl of Effingham, resigned his commission in the army rather than take part in the war against the Americans; and having built a small banqueting-house on the edge of Canklow Wood, called it "Boston Castle," in commemoration of the battle between the Royal troops and the Americans at Boston. The old banqueting-house, a low square castellated tower, is a conspicuous object in the landscape. In 1876, the Town Council of Rotherham leased the tower, and twenty acres of land surrounding it, from the Earl of Effingham for forty years, at an annual rent of £50. They have laid out the land as public recreation grounds, appropriating the tower for the keeper's residence. Boston Park was appropriately opened on the 4th of July—the anniversary of the declaration of American Independence. One side of the Park is an elevated plateau, tastefully laid out and planted with shrubs and flowers; portions of the ground being set apart for cricket, croquet, bowls, and other games. A rustic house has been built on the grounds for the bowls, croquet mallets, &c. In the rock face near this is the interesting relic of the old College, discovered some years ago in the course of excavations for new shops. It is supposed to have been the doorway to the College gardens. The other part of the Park is enclosed from the brow of Canklow Wood, and has pleasant winding walks among the trees, seats at intervals, and shubberies. Owing to its elevated situation, Boston Park is pleasantly breezy in the summer months, when it is most frequented, and commands an extensive view of the surrounding country. It is a very pleasant resort, and well worth a visit. We wish we could say it belonged to the town absolutely, and was devoted to the use of the public as a recreation ground for ever.

**WENTWORTH WOODHOUSE.**

The park and residence of Earl Fitzwilliam are at Wentworth, about eight miles north-east of Sheffield, and four miles from Rotherham. Four Saxon lords—Reider, Swein, Ulsi and Arbor—had shares in the "Winterworth" estate before the Conquest. Roger de Busli (of Hallamshire) had a share afterwards, but the bulk passed to the lords of Skipton, they sub-

infighting to the Flemings, of Wath-upon-Deerne, who some generations later transferred the estate to the Canons of Bolton Abbey. Towards the close of the 12th century, the Canons



WENTWORTH HOUSE.

let the estate to a family who took the surname of Wentworth, and, building on their new estate the original "Wentworth Woodhouse," established themselves there, acquiring, in course

of time, the De Busli fee and other adjacent properties. Of this family was Thomas Wentworth—created Earl of Strafford by Charles I.—the great minister of a weak and unfortunate sovereign. Attainted by the Long Parliament, and timidly sacrificed by the master he had served too faithfully, Strafford died on the scaffold, but his honours and estates were preserved to his family. His son, the second Earl, dying without issue, the estates descended to Lord Rockingham, his sister's son, who took the name of Wentworth, and was created Marquis of Rockingham by George II., for his services in the suppression of the rebellion of 1745. The second Marquis added the manors of Ecclesall, Billingley and Badsworth to the already extensive patrimony, by marrying the heiress of Sir John Bright, the well-known Parliamentary Colonel. He died childless, during his second Premiership in 1782, and the estates descended to William, Earl Fitzwilliam, his eldest sister's eldest son. The original "Wentworth Woodhouse" was built of wood, and was replaced at intervals by a stone house, with a double square court in front, and porter's lodge in the outer wall. An etching of this later House is preserved in Hunter's "South Yorkshire." The present House was built by the first Marquis of Rockingham, and encloses some small parts of the previous structure. It is a Grecian edifice with lofty central piazza and extensive wings, and, as our engraving shows, is a very noble pile of buildings. The park, which comprises more than a thousand acres, is undulating and richly wooded, extending from the village of Wentworth on the north to Greasbrough on the south, and from Hooper to Scholes east and west. The house has a south-eastern aspect, commanding a fine view of the park, and of the wooded hills beyond Rotherham. Behind are the gardens, extending to the village of Wentworth, about half-a-mile distant. The House and gardens are freely shown to visitors during the frequent absence of the family, and are much visited. Hunter, in his *History of South Yorkshire*, published some fifty years ago, describes the House as being adorned with some of the finest statues of the ancient masters, and many very valuable paintings, including Vandyck's fine portrait of the first Earl of Strafford dictating to his secretary; choice works of Flemish and Italian masters, and splendid productions of Reynolds, West, and other painters of the English school; the library containing an extensive collection of rare works of early writers, and many curious and valuable manu-

scripts. Important additions have been made to the art and literary treasures, and to the decorations also, since Hunter wrote; but it is beyond our purpose to describe them in detail. The House and its treasures must be seen to be appreciated. The following principal rooms, in addition to the curious pillared entrance hall, are shown to visitors:—

The large library to the front, and two smaller libraries behind, are well furnished with standard works, ancient and modern, and many valuable manuscripts. Carefully preserved in a glass case in one of the libraries are the bible and prayer book of King Charles I.

The dining room contains portraits of the son and two daughters of the great Lord Strafford—a most interesting group painted by Vandyck; a portrait, by Reynolds, of the second Marquis of Rockingham, and other valuable paintings.

The sculpture room, with its beautiful marble floor, contains busts of various members of the family, and other interesting works of the best masters.

The saloon is an exceedingly noble apartment with marble floor, and very rich and tasteful decorations. The apartment is very lofty, and has a balcony on three sides for spectators.

The ante-room contains, among other choice works of art, Vandyck's celebrated picture of the Earl of Strafford dictating to Sir Philip Mainwaring, his private secretary, already referred to. The Earl is supposed to be giving directions as to the disposal of his effects after his condemnation. This picture is highly valued by its noble owner, and is preserved by glass. There are three fine works of Sir Joshua Reynolds in this room, the "Adoration of the Shepherds," the two figures in which are likenesses of the painter, and of Jarvis, the glass stainer; the "Shepherd Boy," and the Countess Fitzwilliam. There are also portraits of the Earl of Carnarvon, by Vandyck, and of Prince Rupert, by Sir Peter Lely.

The Vandyck room contains several very choice works of art, including "The Betrayal of the Earl of Strafford by his Dog." Disguised to escape arrest, the Earl was discovered by his dog recognizing him. He is represented as patting his favourite on the head, though divining only too truly the terrible consequences. In this apartment also are portraits of Archbishop Laud, of William, second Earl of Strafford; of Arabella, Lady Wentworth, second wife of the first Earl of Strafford, and of Charles I. and the Queen, by Vandyck.



The drawing room, which is furnished and decorated with exquisite taste, contains a very notable painting—a life-size portrait of “Whistle Jacket,” a celebrated racehorse, which won immense sums of money for its noble owner, the Marquis of Rockingham. The story runs that the horse was greatly excited on seeing its own likeness on canvas, and furiously plunged at the picture, destroying it and killing the groom. The Marquis gave immediate instructions for the animal to be painted in the act of making the plunge, and we have the result in the present picture. More interesting to those who knew him, is the portrait of Charles William, Viscount Milton, by Reynolds. It was painted when the late Earl was a little boy, and is, we believe, the only likeness of their much revered father the family possess.

These seven rooms are in the front, overlooking the park. Behind is the chapel gallery, in which are many interesting pictures, and from the windows of which visitors see the gateway by which Lord Strafford finally left the House after his arrest. In this gallery is a remarkable china vase—the *chef-d'œuvre* of the long celebrated Rockingham Potteries, at Swinton Common, on the Wentworth estate. These potteries, which attained wide celebrity, ceased to exist a generation ago; but the beautiful china made there is still highly prized and much sought after by connoisseurs.

The chapel is a comparatively plain edifice, the principal paintings in which are portraits of the “Saviour and the Twelve Apostles,” and “Samson slaying the Philistines” with a jawbone.

The picture gallery—a long, narrow room in what is paradoxically called the “back front” of the House—is a charming retreat, in which the noble owner and his family spend much of their leisure at Wentworth. It contains many valuable paintings, chiefly by Titian, Teniers, Guido, and other old masters. Its oriel west window commands a charming view of the gardens through the long avenue, in which a view is obtained of the beautiful new church, recently built by the Earl and his family, in the village of Wentworth.

The billiard room is a handsome apartment, adorned with hunting and other pictures, and contains two interesting antiquities. One is a cabinet, the upper part of which is an exact representation, in tortoise shell and gold, of King Solomon's Temple; the other, the billiard table, the legs and frame of

which are over 300 years old, and fine specimens of old carving, having belonged to Lord Strafford.

Among the objects of interest at Wentworth Woodhouse is a stone archway by Inigo Jones, a portrait of Shakespeare, and an autograph of Lord Strafford.

Visitors are occasionally shown also the yellow rooms, which were Lord Strafford's bed and dressing rooms; and the green rooms prepared for and occupied by the Queen—then the Princess Victoria—and her mother, the Duchess of Kent, when they visited the late Earl many years ago. Many of our readers will remember that the Queen designed to honour the Earl by a second visit in 1855. Preparations for Her Majesty's reception were in progress, and were arrested by his Lordship's sudden illness and death. All these latter rooms overlook the gardens, and are very beautiful apartments. Wentworth House is no mere show place: all the rooms are used by the family and their visitors, and there mingles with the richness and elegance of the place an air of home comfort which is one of the great charms of the mansion.

The cellars are one of the sights at Wentworth House. They are of great extent and thickly arched throughout, and almost as cool in the hottest weather as in the coldest. They are abundantly stocked with beer of all ages up to nearly 40 years, and wines of the choicest vintages, which have been walled up for many years.

The gardens are of great extent, are beautifully laid out, contain many rare flowering and other plants, and choice fruit in abundance. On the south-western side is a terraced walk commanding very fine views of the park and the country in the direction of Scholes. There are large lakes in the park, well stocked with fish. Within the limits of the park, or immediately adjoining, though at some distance from each other, are monumental buildings of some interest to visitors. "Hooper Stand," built by the first Marquis of Rockingham to commemorate the peace of 1748, is about a mile east of the mansion; and near it is a grotto, also shown to visitors. Some two miles westward, in Scholes Coppice, is a lofty Doric column, begun by the second Marquis of Rockingham and finished by his successors, in commemoration of the naval glory of England and in special honour of Admiral Keppel. Both these columns stand on considerable hills, and visitors who ascend them are rewarded by very extensive views of the

country around. The third structure is a Mausoleum, built by the first Earl Fitzwilliam, who inherited the estates, to the memory of the last Marquis of Rockingham. The Mausoleum is in front of the House, from which it is well seen, being distant about a mile and a half. It consists of a square Doric basement, above which is a story with open arches disclosing a sarcophagus. This is surmounted by a dome supported by columns. At each corner of the area on which the building stands is an obelisk surmounted by an urn. Within the building is a statue of the Marquis, by Nollikins, and in niches around are busts of eight of his political friends and coadjutors—Edmund Burke, the Duke of Portland, Frederick Montague, Sir George Savile, Charles James Fox, Admiral Keppel, Lord John Cavendish, and John Lee. The statue is a very fine work of art. These monuments are shown to visitors by lodge keepers living near.

At the village of Wentworth, where visitors put up their horses, the chief object of interest is the new church erected by the present Earl and his brother and sisters to the memory of their father and mother, the late Earl and Countess. The foundation stone was laid May 4, 1873. The church is built of Dunford Bridge and Darfield stone. The church has groined roofs; the interior, in which there are neither beams nor plaster, being built entirely of dressed ashlar. The floors are of pebbled marble, laid in designs on concrete, and rubbed to the smoothness of fine slabs, workmen from Italy having been employed to do the work. The height of the spire is 186 feet. The church is a plain but exceedingly chaste and beautiful structure, very massive in appearance and admirably proportioned, having been built at a cost of nearly £30,000. Mr. Street, of London, was the architect. Part of the old church, on an adjoining site, has been taken down; the tower and the nave, containing interesting monuments of the Wentworth family, being preserved as a mortuary chapel.

There is a carriage drive through the park from Wentworth to Greasbrough and Parkgate, but an order to pass has to be shown at the lodges. There are footpaths from several points, and they are open to the public. Carriage parties from Rotherham who have not orders to pass the lodges, usually drive round the park by way of Greasbrough and the Haugh, and turning to the left from the latter village, call at the Mausoleum and Hooper Stand on the way to the park entrance at Went-

worth. Orders may usually be obtained at the House for the return journey through the park. Visitors may reach Keppel's Column by a short drive from the village of Wentworth, or by footpath from the House. Sheffield parties may take it in the return journey *via* Thorpe Hesley. Pedestrians to Wentworth House, going by train to Holmes or Masbrough, may take a footpath across the fields from near Masbrough station to Greasbrough, and enter the park there, or may walk from Grange Lane station on the South Yorkshire Railway. There is a pleasant private carriage drive from Wentworth, through Coaley woods to Brampton Bierlow. It is not open to the public, but the "needle's eye" through which this drive passes is an object of curiosity to some visitors. It is a pointed column on the hill, just beyond the little hamlet called "Street," and may be seen in driving from Hooper Stand to the Park entrance.

The Wentworth estate has been extended of late years by purchases in the direction of Thorpe Hesley, to prevent the approach of iron works and collieries. In the direction of Wath-upon-Dearne and Brampton it extends for miles, and is a noble patrimony. Bread and beer were formerly supplied to all callers at the porter's door of the House. This was a great boon to wayfarers and the poor, but the privilege was so much abused by the vagabond classes that its discontinuance during the lifetime of the late Earl became a necessity.

### OLD NORMAN BUILDING AT SCHOLES.

Probably the oldest building in the neighbourhood of Sheffield and Rotherham, is at Scholes. It is believed to have been erected in connection with a Grange of the monks of Kirkstead, who erected forges near Kimberworth, under the grant of De Busli, referred to in our notices of the rise and progress of Sheffield, and of the iron trade. The building is still used as the barn of a farmstead. It has round Norman windows and doors, and enormously strong timber-work inside, and is an object of interest to archæologists. It is almost exactly opposite Keppel's Column, on the road from Rotherham to Wortley.

### CONISBROUGH CASTLE.

"Coningsburgh Castle," one of the most interesting ruins in the district, is thirteen miles east of Sheffield, and is accessible by railway. It was built, on an eminence commanding the



CONISBROUGH CASTLE.

valley of the Don, between the years 1180 and 1190. The founder was Isabel, heiress of William de Warren and wife, first of William de Blois, a son of King Stephen, and, after his death, of Hameline, Earl of Surrey, a natural son of the Earl of Anjou and half brother of Henry III.

We extract the following description of what the Castle was and what it now is from a paper contributed by Mr. E. Roberts, F.S.A., to the Congress of the British Archæological Association, at Sheffield, in 1873:—

“The height was probably a few feet higher than the loftiest existing stone, screened by a breast-work; the roof nearly flat; turrets on each buttress towering above the battlements, one probably loftier than the others for a beacon. Just below the parapet was a covered way all round which communicated with the beacon tower and a second tower next it, both having winding stairs leading to the uppermost walk. On this story there was an oven in which to prepare food for the garrison when the other parts of the Castle had been captured. Oxford Castle, Suffolk, which Conisbro' Castle resembles in several particulars, is the only other Castle with such a position. It has been suggested that the ovens were for heating missiles; but this is improbable. Of the other turrets, two have chambers for shelter and rest, and for storage; the sixth and last turret having a much larger and loftier recess, with small outer apertures, probably for pigeons, which, with their eggs, were favourite articles of food. The stairs are within the thickness of the walls, and 3 feet 1 inch wide, the inside wall being 3 feet 11 inches, and the outside wall 5 feet 5 inches, making 12 feet 5 inches of thickness in all. The staircase and gallery communicated with a central chamber, as is shown by the jamb of a doorway still remaining.

“Descending the stairs, we arrive at what may be called a second story, where was a door; immediately on the right is a small recess in the walls

terminating in a latrine; a loophole, without glass, gave light and air to the place. The chamber was for residence, but of a mixed character; for, though there is a very beautiful fire-place, which modern architects might imitate with advantage (almost purely Early English, and good enough for any lady's drawing-room), there is a stone sink very near it. An exquisite little chapel adjoins, in which are two piscinæ, two quartfoil lights, and an Eastern loop. There is more of the Norman character about this chapel than in the other parts of the Castle. Adjoining, and leading out of it, is the sacristy. The only light to the chamber on this floor was one window, approached by three steps, and with the usual luxury of window seats.

"On the descent there was a bar fastening outside the door, as if those above had to be treated as prisoners. The thickness of the walls and stairs is 13 feet 7 inches.

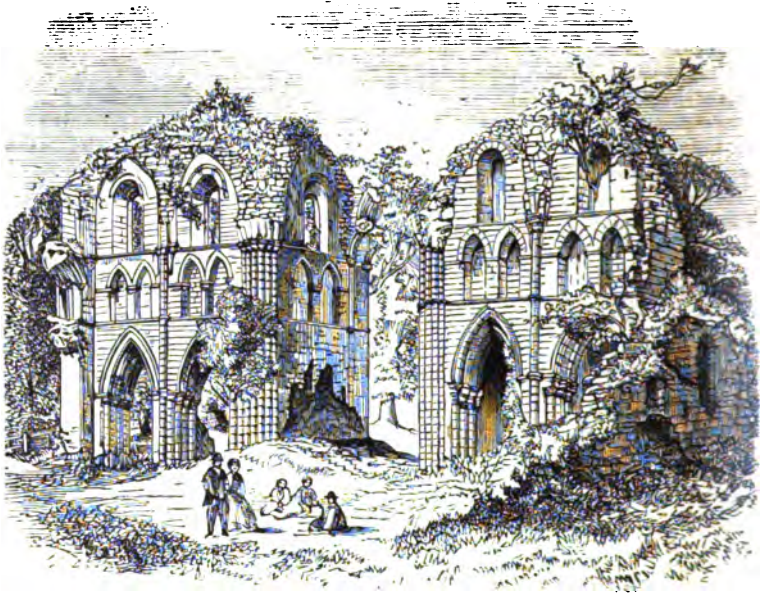
"On the first floor is a magnificent fire-place, also a sink, another latrine, and another 'ladie's bower,' or window, approached by four steps. Shutters once closed these windows, and a strong bar passed across; but they were guiltless of glass. On the centre mullion is a cushion, or roll, pierced both ways for the shutter bolts.

"These windows, raised a few steps above the floor, served a double purpose. The keep was the lord's private apartment, and that of his lady and chief guests. The raised window was so made that in time of war it could be closed by shutters bolted and barred, and if an arrow found entrance from below it fell harmlessly on the other side, as a bullet now would if discharged through a window in the ceiling. In time of peace it was the ladies' drawing-room seat—a gossiping place with a delightful look-out from an open window. With mats, or rushes on the floor, and cushions on wooden ledges laid on the stone seats, we might even now envy the charms which simplicity gave to the lives of those who looked on chivalry and chivalric deeds as the only gentlemanly exponents of breeding.

"The ground story was lighted by the doorway only; below was the cellarage and the well, which has recently been cleared. It is idle to call this the dungeon, as is usual; it was the place for stores of provisions. The bar-holes remain at the outer door. The outer steps, though perhaps all modern, are probably in the same place as the originals. Externally we find what has been called a sally-port and postern gate, but may have been really a dungeon.

"The gate-way, passing between walls for a considerable distance, is facing the village. The walls of the ballium are occasionally dotted with circular bastions, indicating, as well as the masonry, a later period than the keep. Outside there is a vallum, and again a ballium, nearly all of which is destroyed."

As our readers know, Sir Walter Scott laid some of the scenes of *Ivanhoe*—one of the most charming of his novels—at Conisbro' Castle. The Castle was completed about the time Richard I. ascended the throne, and was, therefore, in existence at the time of which the novel chiefly treats; but Sir Walter availed himself of the novelist's licence as to dates, in peopling it with Saxons for generations before that time. The surrounding scenery, so graphically described in *Ivanhoe*, is still very beautiful, though marred by the erection of brick factories and other such buildings in the valley since the railway was made. Conisbro' Castle is a favourite place for pic-nics.



ROCHE ABBEY.

### ROCHE ABBEY.

This interesting ruin is six miles east of Rotherham, about the same distance from Kiveton Park station, on the Manchester, Sheffield and Lincolnshire Railway, and nine miles from Worksop. The Abbey was founded in 1147 for the Cistercian Monks jointly by Richard de Busli and Richard Fitz Turgis, the owners of the estates divided by the stream close to which the Abbey stands, and it was dissolved on the 23rd June, 1538; Henry Cundal, the abbot, with a prior, sub-prior, fourteen other monks and four novices, being the last occupants, and the income under £200 a year. We extract the following particulars of the Abbey from the paper read by Mr. Gordon M. Hills at the Congress of the British Archæological Association in 1873:—

“The east side of the transepts, with their customary chapels, is all that remains erect of the monastery, but the complete plan of the church is traceable, the bottom of the west wall having been exposed by a removal of soil. The place is purely Cistercian, and the architecture simple and severe. The effect was, nevertheless, imposing; and the church, though not large, possessed much grandeur. As at Fountains and other abbeys, there is a clerestory, with the Norman or semi-circular arch to the windows, surmounting pointed work in the arches below. Two masses of rough masonry, in a line south from the west side of the transept, mark the west side of the great east wing of the monastery, in which would be the

chapter house, and parlour or common room of the monks ; over it that dormitory—whence, according to the account left by one Cuthbert Shirebrook, each monk at the dissolution had given to him the contents of the cell wherein he slept, the bed and clothing, of very little value, and the door or partition. A range of such cells or sleeping stalls would extend down each side of the dormitory. The east wing enclosed one side of the cloister quadrangle ; the cloister walk led direct into the south aisle of the church by a door still visible. The refectory and abbot's lodging were both within the Abbey walls, but no fragment of them remains. 'The ox houses, swine cotes, and such other houses of office,' stood without the walls, and would be between the Abbey proper and the existing remnants of the fine thirteenth century gateway of the outer court. Attached to the south side of the gateway is still a fragment of the chapel used for the first devotions of strangers arriving. Parts of the Abbey mill remain in the river eastward of the Abbey. In the 'steeple' of the church were nine bells. This tower stood at the intersection of the cruciform limbs of the church ; some remains of the four pillars on which it rested—two at the corners of the chancel and transepts, and two at the junction of the nave and transepts—still existing. At the Dissolution, Shirebrook's father bought part of the timber of the steeple and the bell frames ; the lead was torn off the roof and cast into the church, and the spars of the roof sold to the yeomen and gentlemen were similarly dealt with, whereby the tombs within were ruthlessly broken up. The monks' stalls in the choir, 'like to the seats in minsters, were plucked up and burned, so that they melted the lead therewithal into fadders, and took it away.' The service books were used by the wagoners to stop holes in the hoods or copes of their wains. 'All things of price were spoiled and carped away, or defaced to the uttermost.' So fell Roche Abbey."

Sandbeck, the seat of Lord Scarbrough, is near the Abbey.

### LAUGHTON-EN-LE-MORTHEN.

About two miles from Roche Abbey, and five miles from Kiveton Park Station, is Laughton-en-le-Morthen, a place of great interest to antiquarians. Edwin, the great Saxon Earl of Mercia, owned it, and had a hall there at the time of the Norman Conquest. He acquiesced in the Conquest at first, having been promised the Conqueror's daughter in marriage, but perished in an attempt afterwards made to shake off the Norman yoke. His estate, like so many others in this part of the country, passed to Roger de Busli, who seems to have resided at Laughton during the building of his castle at Tickhill. The church at Laughton is of great antiquity, a remarkable doorway on the north side, near the west end, being part of the church built before the Conquest by Earl Edwin or his predecessors. The finely proportioned tower and spire rise to the height of 185 feet, and, standing on very elevated ground, form a landmark for the country around. They are visible from the suburbs of Sheffield on a clear day : it is said they can be seen from both the east and west coasts, but that is hardly possible.



The tower is at the west end. The church has a nave with two aisles and a chancel. In a description of the interior of the church, the Rev. J. Stacye, says: "The arcades vary, that on the north side having piers of the Norman character, which have had their abaci added to in a singular manner, in order to raise them to the same elevation as those of the south side. These latter, as well as the arches of the former, are of the Late Decorated character of the latter end of the fourteenth century, at which period the church seems to have been mainly rebuilt. It is a very fine piece of architecture, the arcade of the nave being particularly good; and what is very notable is the great amount of figures of angels, men, and grotesque creatures with which the church is embellished. The chancel is separated from the church by a stone wall, as a basement for a screen, of the height of about four feet, but the screen is gone. On the north side of the chancel is a Norman window, which had been stopped up by a monument, but was laid open at the restoration of the church, in 1860, by Sir G. G. Scott." The Castle Hill at Laughton is supposed by some antiquarians to have been one of a series of frontier fortresses of the Brigantes, whose frontier followed the course of the valley of the Don. The earthworks, which adjoin the churchyard, consist of an elevated mound at the west angle of an enclosed quadrangular space, the enclosure being formed by a deep ditch and considerable bank. Mr. Fairless Barber, F.S.A., believes that they were constructed between the seventh and tenth centuries, as a protection to the town. Mr. Gordon M. Hills, an archæologist of some note, translates "Laughton-en-le-Morthen," into "County Town at or near the Mote Hall," adding, in reference to the Castle Hill:—"I think it is an excellent example of a Saxon holy hill in Pagan times, where the 'witan,' or wise men met together in the 'gemot.' The hill is surrounded by fortifications. It is reached from all the country round by roads on the sides of which still plentifully grow the yew and beech trees, of which the sacred groves consisted; and the church in the town adjoining the earthwork is just where we should expect the sacred edifice to be placed. The great altitude of the Castle Hill suggests that it may have been originally a geometrical landmark of the Roman surveyors. Whatever its origin, Laughton was undoubtedly a place of considerable importance in Saxon times."

## NOTTINGHAMSHIRE.

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THE nearest point of the County of Nottingham to Sheffield is Shireoaks, which has a station on the Manchester, Sheffield, and Lincolnshire Railway. The distance is about thirteen miles. Immediately beyond the western boundary of Nottinghamshire was Sherwood Forest, within whose ancient limits is still to be found some of the most interesting and beautiful scenery in the country. We proceed first by railway to

### WORKSOP.

This clean and pleasant little market town, which is sixteen miles from Sheffield, was a co-heritage of the great lords—the Lovetots, Furnivals, Talbots, and Howards—from whom Sheffield derived so many of its early privileges. It is, moreover, a centre from which the places of interest in the locality may be conveniently visited, and has excellent hotel accommodation.

### WORKSOP PRIORY AND MANOR.

At the beginning of the twelfth century William de Lovetot, who built the first church at Sheffield, founded at Worksop a priory for canons of St. Augustine, to whom he committed the spiritual oversight of the people of Sheffield and other places within his wide domains. Enriched by the benefactions of many successors, the priory became a large and wealthy institution. The church was 265 feet long, and of the usual conventual shape, but was divided internally into two churches—the eastern church, for the priors, being dedicated to St. Cuthbert, and the western church, for the parish, to St. Mary. In connection with the churches were several chapels and various chantries. The priory shared the fate of similar institutions at the Reformation, the lands belonging to it—about 2333 acres — being given by the King to Francis Earl of Shrewsbury, the descendant and representative of its founders. The priory and priory church were in great part demolished. The parish church was spared, but gradually fell into decay.

It was restored in 1845-6, and, with its twin western towers, is now a conspicuous and interesting feature in the landscape. Behind it are some remains of St. Mary's chapel, beautiful in its ruins. The priory gate-house, which is believed to have



PRIORY GATEHOUSE, WORKSOP.

been built by the third Lord Furnival when the market was established, and to have been enlarged and decorated by the Talbots, is still standing, and is in a moderately good state of preservation. "In this," says the Rev. J. Stacey, "we have a perfect house of the early part of the fourteenth century, having its great hall and retiring chambers." It was also the "hospitium" of the priory, and in its "guest room" doubtless "many a weary, way-worn band have rejoiced in the comfort and good cheer offered them, thankful for their escape from Robert's men (the name given in our old laws and documents to Robin Hood's followers) in passing through the forest of Sherwood." The only remaining part of the priory itself is a wall at the north-west corner of the church, in which is the old cloister doorway; behind it the well which was formerly the centre of the refectory. These remains include very beautiful specimens of Norman and Norman-Gothic architecture, and are much visited.

At Worksop, as at Sheffield, the name "Castle Hill" is all that remains to indicate the site of the old castle of its Norman lords; but some portions of the manor house, which was the residence of the Shrewsburys, and was occasionally visited by Mary Stuart during her imprisonment at Sheffield, are left.

Worksop Manor was one of the largest mansions in the country, containing 500 rooms, and would probably have remained entire but for an accident. The Duke of Norfolk was restoring it at great cost in 1761, when the main buildings took fire and were destroyed, the east court containing the servants' apartments and offices only being saved. In 1840 the Worksop estate of the Lords of Sheffield was sold for £375,000 to the Duke of Newcastle, who, having removed the ruined part of the mansion and turned the site into gardens, built close by the smaller mansion occupied by the late Lord Foley.

### THE DUKERY, WELBECK, CLUMBER AND THORESBY.

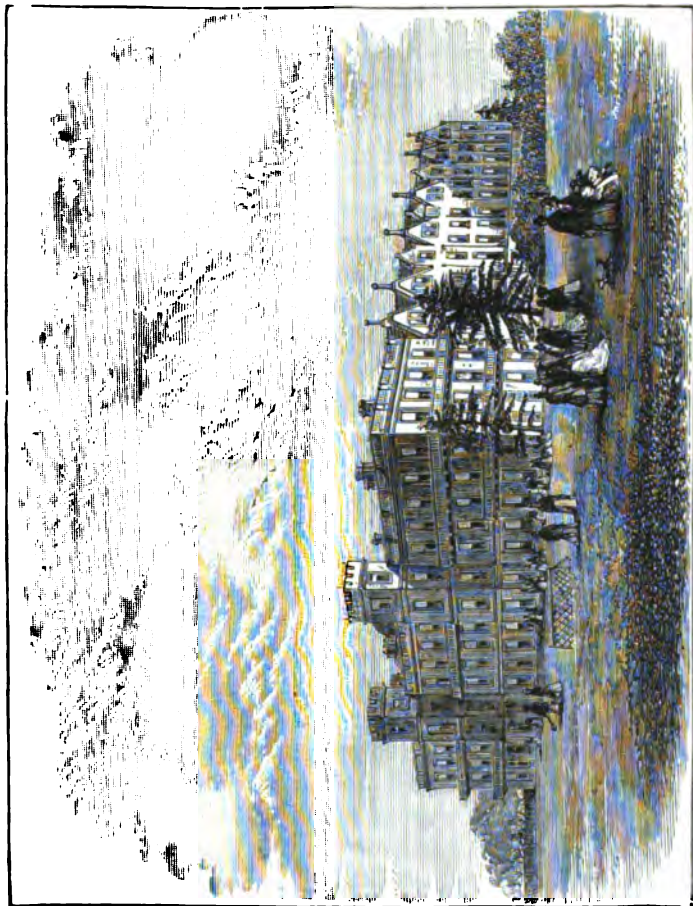
Within the boundaries of the ancient forest are now clustered three comparatively modern mansions of more than ordinary interest and beauty, Welbeck Abbey, Clumber, and Thoresby, each with its fine lake and magnificently-wooded park. The wooded lands adjoining and belonging to the owners of these mansions are known as "The Dukery." A "drive through the Dukery" is one of the most delightful of summer-day excursions.

Welbeck Abbey, the seat of the Duke of Portland, is some three miles from Worksop. An abbey for the Præmonstratensian monks was founded in 1140, and dissolved at the Reformation, the estates passing by marriage some years afterwards to Charles Cavendish, who was the youngest son of the famous Countess of Shrewsbury, and father of Sir William Cavendish the great general (afterwards first Duke of Newcastle). John Holles, Earl of Clare, having married the Duke's granddaughter, succeeded to the title and estates, and left an only daughter, who inherited Welbeck, and married the second Duke of Portland, grandfather of the present noble owner. The only remains of the old Abbey are a few vaulted arches and inner walls, to which there are attached some old sepulchral monuments. The present handsome mansion, which stands in a park of 2,283 acres, was begun by Sir Charles Cavendish in 1604, and continued by his more celebrated son, who entertained Charles I. there with great magnificence in 1633. The present Duke, who is a bachelor, has for years been spending a princely income in completing and beautifying the mansion

and grounds. His Grace has added a story to the south front of the house, erected a splendid subterranean picture gallery, library, and church, and made many other costly improvements. The park is traversed by underground roadways and passages on an extraordinary scale. Exquisite taste has been shown in recent improvements of the mansion and grounds, carried out under the personal superintendence of the Duke; and Welbeck Abbey, with its splendidly-wooded park, is one of the most interesting and beautiful of the "Stately Homes of England." In many respects it is unrivalled. At the Abbey is the well-known Portland collection of miniatures, many famous paintings, and a collection of manuscripts of great interest.

Clumber, the stately mansion of the Duke of Newcastle, is about three-and-a-half miles from Worksop, and the same distance south of Welbeck Abbey. In 1707 the same John Holles, Earl of Clare and second Duke of Newcastle, who bequeathed Welbeck to his only daughter, the Duchess of Portland, enclosed 3,000 acres of his land at Clumber as a park for Queen Anne, receiving a grant of wood from Birklands to defray the cost and a salary of £1,000 a-year as ranger, &c. The park reverted to the Duke on the death of the Queen, and was bequeathed by him to his sister's son, Lord Pelham, of Laughton, in Sussex, who succeeded to the title of his uncle, and became the head of the "Newcastle Administration" in the times of George I. and George II. Again there was a failure of male heirs, and the titles and estate passed to Henry F. Clinton, ninth Earl of Lincoln, who married his predecessor's niece, and was grandfather of the late Duke. The park now contains about 4,000 acres, 87 of which are covered by an artificial lake. The house is on the north side of the lake, with which it is connected by very beautiful terraced gardens. It is small compared with Chatsworth House, but is said to be second only to Chatsworth in the taste, elegance, and richness with which it is fitted and adorned. The collection of statuary and pictures is very fine, and there are many other works of art and antiquities of rare value. Unhappily considerable damage was done to the house and its contents by an accidental fire in the early part of the present year. A very handsome chapel in the French Gothic style, begun by the fifth Duke, will be a beautiful feature at Clumber when finished.

Thoresby, which is about two miles beyond Clumber, is the residence of Earl Manvers. Thoresby was the seat during many generations of the Pierreponts, descendants of the Robert de Perpont who came over with the Conqueror. A representative of this family married a daughter of Sir William Cavendish, and their son, having married the grand-daughter



THORESBY—FROM THE SOUTH-EAST.

of the sixth Earl of Shrewsbury, was raised to the dignity of Earl of Kingston. The fifth Earl—father of the celebrated Lady Mary Wortley Montague, who was born at Thoresby—was created Duke of Kingston-upon-Hull in 1715. The titles expired with the second Duke, who died childless in 1726, the estates passing to Sir Charles Meadows, son of

the Duke's only sister, who assumed the surname and arms of Pierrepont in 1788, and became Earl Manvers in 1806. His grandson, the present Earl, has built a new house in the Elizabethan style, and it is described in White's "Worksop" as "one of the most splendid modern additions to the long roll of English baronial homes." The park, which like those of Welbeck and Clumber was carved out of the old Royal forest of Sherwood, is splendidly wooded. The late Charles Reece Pemberton, no bad judge, considered it one of the finest examples of park scenery in the kingdom.

### REMAINS OF SHERWOOD FOREST.

Sherwood Forest, the land of song and story, the sylvan home of Robin Hood and his foresters bold, extended originally from the immediate neighbourhood of Worksop, westward and southward to Mansfield and Nottingham, covering an area of 90,000 acres. Sherwood seems to have been a favourite hunting ground from the earliest times. The Roman Conquerors had villas near Mansfield Woodhouse, its western boundary; and their Saxon successors had a hall at Edwinstowe. The Normans converted it into a Royal Forest, with lord warden, rangers, stewards, &c., who administered the laws for the protection of the King's venison, in a cruel and unrelenting spirit, which turned into heroes the outlaws who defied them. The earliest mention of Sherwood as a Royal Forest occurs in a document of the first year of the reign of Henry II. That they might enjoy there to the full the pleasures of the chase, the Plantagenets converted Nottingham Castle into a Royal residence, and built an additional palace at Clipstone, where King John—the initials of whose name, carved in the bark 600 years ago, have been found deeply embedded in the trunks of trees recently cut down—spent a great part of his time. On the 29th October, 1290, Edward I. held a Parliament under an oak tree, a portion of which is still growing beside the road from Edwinstowe to Mansfield. Within the Forest's ample bounds were the abbeys of Rufford and Newstead, where the royal hunters feasted as well as prayed. The royal hunters are forgotten or remembered only in the dry records of history; the one name imperishably associated with Sherwood Forest is that of Robin Hood. The Forest seems to have remained in something like a complete state until the close of the fifteenth century, though its fine oaks

had for some time been freely cut down for national as well as local purposes. After the Reformation it became a burden on the royal exchequer, and large tracts were given to the Byrons of Newstead, and other neighbouring nobility. Thousands of acres were enclosed by Act of Parliament towards the end of the last century, and brought under cultivation. The remnants of the great Forest—now known as the “hays of Bilhaghe and Birkland”—were given to the Duke of Portland about seventy years ago, in exchange for the perpetual advowson of St. Mary-le-bone, in London, so eager was Royalty to be rid of a property the fine timber on which, with reasonably good management, would have yielded a splendid fortune. Bilhaghe and Birkland now belong to Earl Manvers, who received them from the Duke of Portland in exchange for Manors nearer Welbeck.

In the hays of Bilhaghe and Birkland, which are about five miles long—extending from the village of Ollerton, along the side of Thoresby Park, to Clipstone, and some two miles wide—we have specimens of the great Forest in the days of its glory, and see the very trees under which Norman and Plantagenet kings chased the red deer long centuries ago. Very grand and wonderful specimens of forest scenery they are, worth a long journey to see any summer’s day. Washington Irving, C. R. Pemberton, Wm. Howitt, and other lovers of nature, write of them with enthusiasm. We quote from Howitt:—

“Bilhaghe,” he says, “is a forest of oaks clothed with the most impressive aspect of age that can, perhaps, be presented to the eye in these kingdoms. Stonehenge does not give you a feeling of greater eld. A thousand years, ten thousand tempests, lightnings, winds and wintry violence have all flung their utmost force on these trees, and there they stand, trunk after trunk, scathed, hollow, grey, gnarled; stretching out their bare, sturdy arms or their mingled foliage and ruin—a life in death. All is grey and old. The ground is grey beneath, the trees are grey with clinging lichens, the very heather and fern that spring beneath them have a character of the past. You stand and look around, and, in the height of summer, all is silent: it is like the fragment of a world worn out and forsaken. In a continuous line with Bilhaghe lies Birkland, which bears its character in its name—the land of Birches. It is a forest perfectly unique. It is equally ancient with Bilhaghe, but has a less delapidated air. There are old and mighty oaks scattered through it; some of them worn down to the very



ultimatum of ruin, without leaf or bough—huge masses of blackness; but the main portion of the forest consists of birches. Birkland is a region of grace and poetry. I have seen many a wood of birches, and some of them amazingly beautiful too, in one quarter or another of this fair island, but in England nothing that can compare with this. The birch woods which clothe the mountain sides, beautify the glens, and stud the romantic lochs of Scotland, derive a charm from the lovely and sublime forms of those mountains, glens and waters, which is not to be expected in this lowland country. The birch trees, which rear their silvery stems tree above tree, on the rocks of the Trosachs; the birch woods, that fill the delicious valleys of Rosshire; which imparadise the glens and feather the heathery mountain-sides of Glen-more-nan-Albin,—the great glen of Scotland, traversed by the Caledonian Canal,—are lovely beyond description; but Birkland has some advantages which they have not. Its trees have reached a size which the northern ones have not; and the peculiar mixture of their ladylike grace with the stern and ample forms of those feudal oaks produces an effect most fairylandish and unrivalled."



THE MAJOR OAK.

There are notable trees in the parks and Forest. Those usually pointed out to the visitors, are the "Parliament Oak," already mentioned; the "Major Oak," near one of the paths from Budby to Edwinstowe; the "Shambles Oak," in Birkland, on which it is said Robin Hood hung his venison; the

“Green Dale Oak,” with a coachway through it; the “Duke’s Walking Stick,” at Welbeck; and the “Simon Forest Oak.” The ruins of Clipstone Palace are occasionally visited. Rufford Abbey, founded in 1148, for the Cistercian Monks, and now the residence of Henry Savile, Esq., a son of the late Earl of Scarborough; and Newstead Abbey, established by Henry II., in 1170, and so long the residence of the Byrons, but now occupied by W. F. Webb, Esq., are places of great interest. The former belonged in the time of Elizabeth to Lord Shrewsbury, and it was here that Bess of Hardwicke, his wife, made the sudden match between her daughter and the young Earl of Lennox, the parents of the unhappy Arabella Stuart.

### SHIREOAKS AND STEETLEY CHURCH, CRESSWELL CRAGS AND MARSHLAND GRIPS.

Shireoaks, the railway station of which is two or three miles nearer Sheffield than is Worksop, is now a mining village. It has a beautiful Gothic church, built by the late Duke of Newcastle, the first stone having been laid by the Prince of Wales, 18th October, 1861, on the occasion of his visit to Clumber. In the park of Shireoaks Hall formerly stood a very fine oak, the branches of which stretched into the three counties of York, Derby, and Nottingham. Hence the name “Shireoak.”

Within a stone’s throw of the site of the ancient Shireoak, but in the county of Derby, is “Steetley Chapel,” a Norman edifice, pronounced by competent judges to be “a gem both rich and rare in an architectural point of view.” The chapel was built about the middle of the twelfth century by the then Lord of the Manor, and consists of nave, chancel and sacarium, terminating in a semi-circular apse. The chapel now belongs to the Duke of Newcastle, being on part of the estate purchased from the Duke of Norfolk in 1840. The chapel has for some time been roofless, but arrangements have been made for its thorough restoration. It is near Firbeck, and in the parish of Whitwell. Steetley church is about three miles from Worksop by road, and about one mile from Whitwell Station, on the Worksop and Mansfield branch of the Midland Railway.

Thorpe Salvin church, in the same neighbourhood, is also a good specimen of Norman architecture.

Cresswell Crag is three miles south of Steetley and five miles from Worksop. The scenery is singularly romantic, and recent explorations of the caves there have resulted in very interesting discoveries. Adjoining the Crag is a small inn, having in front a fine old sycamore tree, in the branches of which is an ale bench and other accommodation for a considerable party. On the other side of the village of Cresswell are Marshland Grips, which seem to have been rent from Cresswell Crag ages ago by some great natural convulsion. They are now two miles apart, the former in Nottinghamshire, and the latter in Derbyshire. At the village between them is Cresswell Railway Station.

Four miles from Cresswell Station is Bolsover Castle, and, five miles further south, Hardwick Hall. Some account of both will be found in our notices of Derbyshire scenery.



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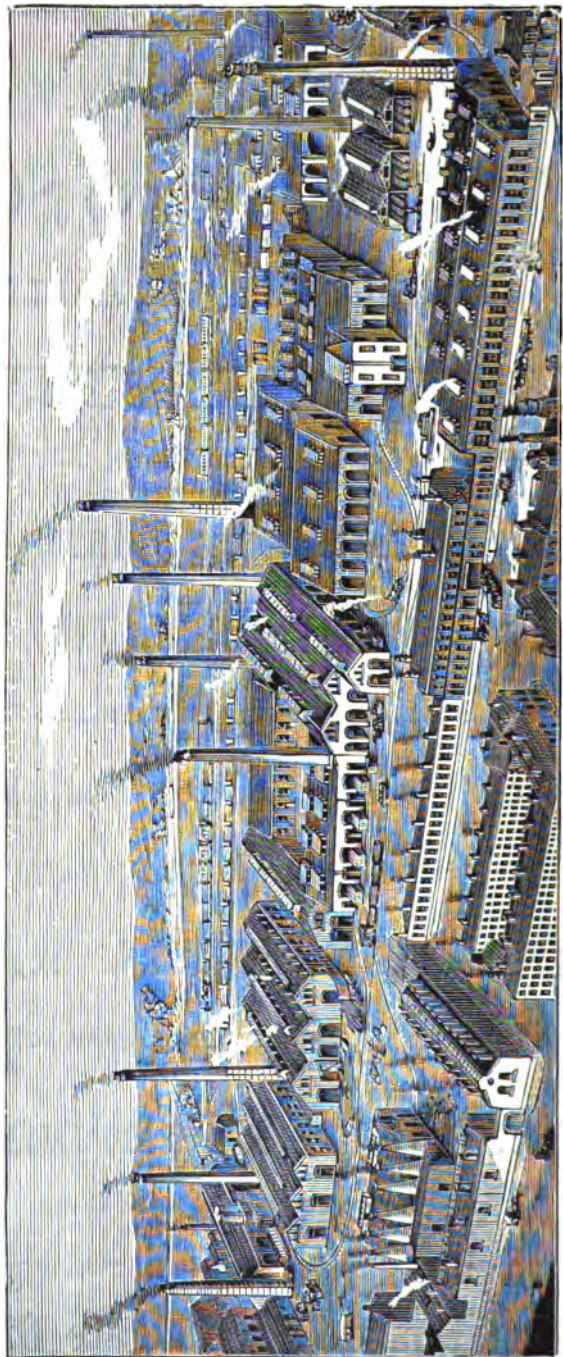
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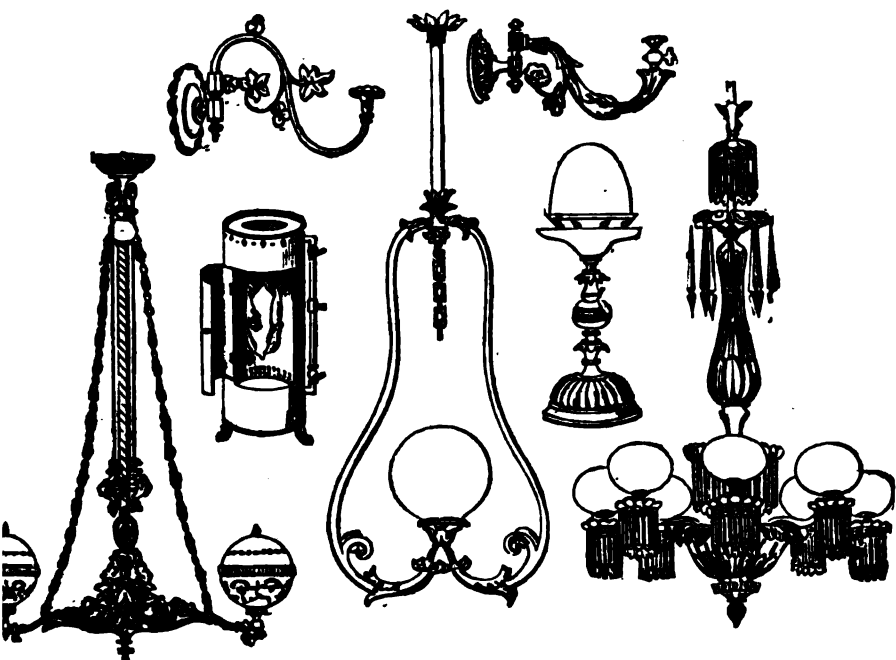
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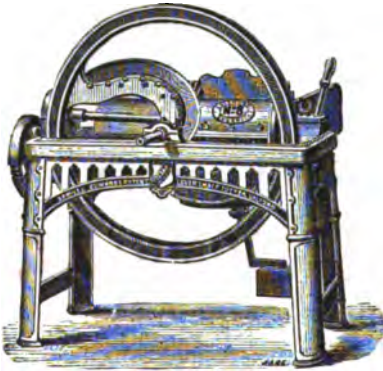
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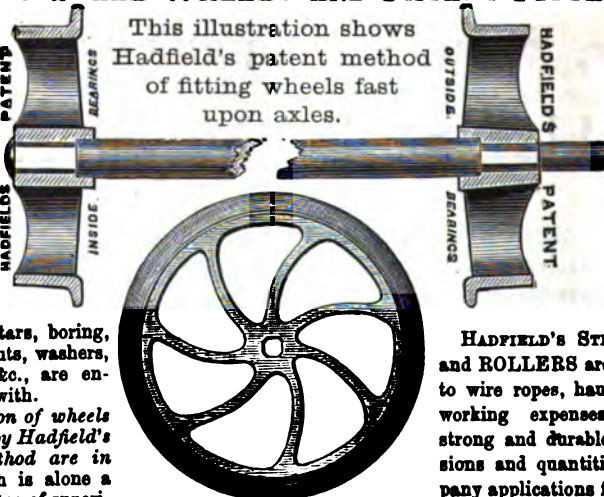
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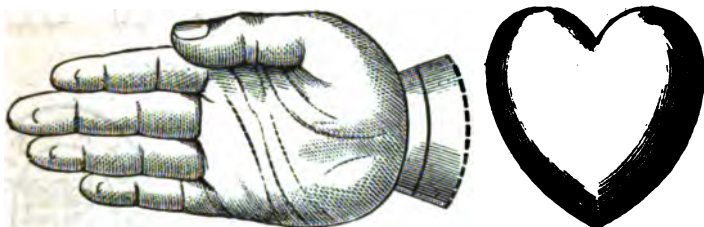
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**FOR LOCOMOTIVES, RAILWAY CARRIAGES AND WAGONS.**

Steel Sheets, Blister, Coach and Railway Spring Steel, Single and Double Shear Steel.

## **CRUCIBLE STEEL CASTINGS & FORGINGS.**

## **BEST REFINED CAST STEEL FILES.**

Saws, Tools, Solid Cast Steel Hammers and Sledges.  
Plough Plates, Rake Teeth Steel, Osborn's Patent Drawn Finger Bars, and all kinds of Steel for Agricultural purposes.

**REAPING AND MOWING MACHINE KNIVES.**

**SOLE MAKERS OF**

## **"R. MUSHET'S SPECIAL STEEL,"**

**FOR LATHE AND PLANING TOOLS, DRILLS AND COUNTERSINKS.**

This Steel turns out at least double work by increased speed and feed, and cuts harder Metals than any other Steel. Neither hardening nor tempering required.

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## **"R. MUSHET'S TITANIC STEEL,"**

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BRITISH STEEL AND WIRE WORKS,



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CAST, SHEAR, SHEET, BLISTER AND SPRING  
**STEEL**

OF EVERY DESCRIPTION.

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FOR ROPES, NEEDLES, FISH HOOKS, HACKLE AND GILL  
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**CHARCOAL AND HOMOGENEOUS WIRE**

FOR ROPES, SPRINGS AND GENERAL PURPOSES.

**BEST ANNEALED BRIGHT AND GALVANIZED WIRE**

FOR FENCING, TINSMITHS, SCREWS, SCREENS, NETTING,  
WEAVING, &c.

**BEST BEST GALVANIZED WIRE**

FOR SHIPS RIGGING, TELEGRAPHS, SUBMARINE CABLES, &c.

**BEST BEST GALVANIZED FENCING, BELL-ROPE AND SIGNAL STRAND**

PLAIN AND GALVANIZED STAPLES,  
STRAINING SCREWS, &c.

# CENTRAL IRON WAREHOUSE!!!

## R. & J. SMITH BROS.

**Iron Merchants and Metal Agents,**

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BAR IRON, &c., IN STOCK, AT WAREHOUSE.

**FLATS**, from 3-8th to 12 inches wide.

**ROUNDS**, for Shafting purposes and ordinary Smiths' Work, 3-16th to 6 inch diameter.

**SQUARES**, from 3-16th to 5 inches.

**HALF-ROUNDS**, Feather Edge and Square Edge. **OVALS. BEVILS. OCTAGON and HEXAGON.**

**PLATING BARS and RIVET IRON**, Best and Best Best quality.

**TANG IRON**, Common, Best, and Swedish.

**SLIT NAIL RODS, SCISSOR and SICKLE RODS**, Common, Best, and Swedish qualities.

**SPLAYED HOOPS and ORDINARY HOOP IRON**, for Brewers, Coopers, Packing Case Makers, and general use.

**STRIP IRON**, for Saw Plates and Bellows Makers, 3 to 12 inches wide.

**SWEDISH IRON**, in Nail Rods, and for Bundling, Sheepshear, and Cutlery purposes.

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**PLATES, CHARGER and FLITCH PLATES**, Best and Best Best Boiler quality; **RIBBED, CHEQUERED, and TANK** quality.

**ANGLE and TEE IRON; ROLLED GIRDERS, CHANNEL IRON, JOISTS and BEAM IRON**, all Sections and Sizes.

**CART TYRES, BEVILLED and FLAT**, Bent and Punched.

**PERMANENT WAY, COLLIERY, CONTRACTORS', and TRAM RAILS**, Fish Plates, Bolts, Spikes, &c.

**HORSE SHOES, and PATENT HORSE SHOE BARS.**

## STEEL:

**BEST CAST TOOL STEEL, DOUBLE SHEAR and BLADE STEEL**  
also, **BESSEMER BILLETS, BARS, &c.**

### AGENTS FOR

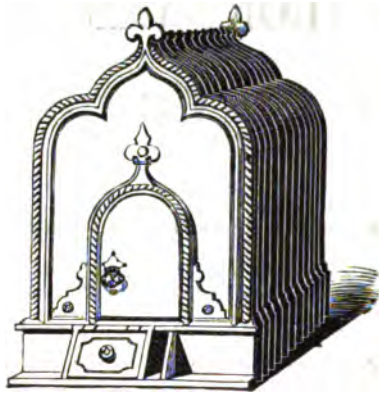
**THE ROSEDALE & FERRYHILL IRON CO., LIMITED—BRAND, "FERRYHILL."**  
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STUART & SMITH,  
Manufacturers of Gill Stoves, Grates, Fenders, &c.,  
AND  
General Iron Founders,  
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*Electro-plate and Britannia  
Metal Goods,*

TEA AND COFFEE SERVICES,  
Crucets, Spoons, Forks, Jugs, &c.;

ALWAYS A LARGE STOCK OF BRITANNIA METAL TEA POTS ON HAND;

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OLD GOODS REPAIRED AND RE-PLATED EQUAL TO NEW.

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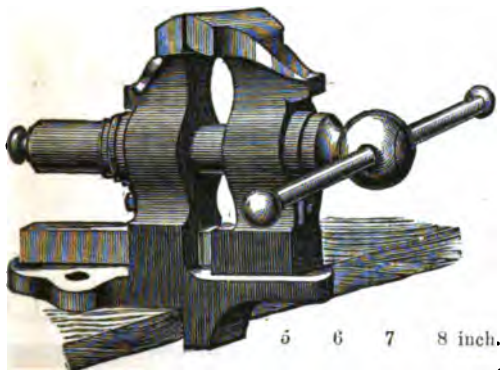


**WILLIAM MAXWELL MACBRAIR,**

*MANUFACTURER OF*

4128.

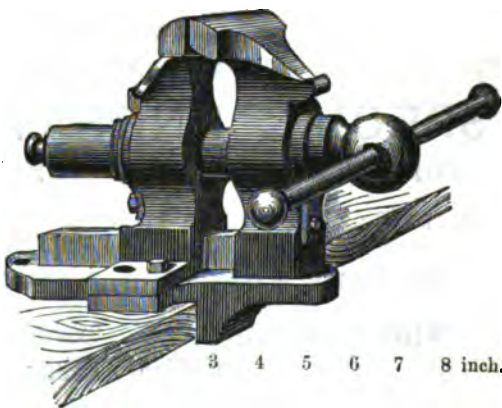
**WROUGHT  
IRON  
PARALLEL  
VICES,**



5 6 7 8 inch.

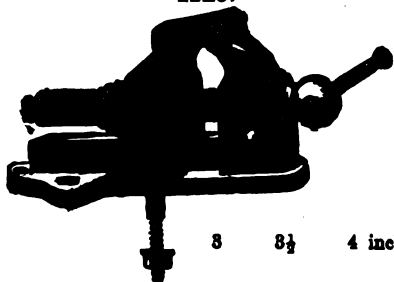
4127.

**FLY  
PRESSES,  
JACKS,  
AND  
HAMMERS;**



3 4 5 6 7 8 inch.

4129.



3 3½ 4 inch.

*Also every description of*  
**Staple and Parallel  
VICES.**

ESTABLISHED 1846

**LEADBEATER & SCOTT,**  
**Steel Converters & Refiners;**

MANUFACTURERS OF

CAST, SHEAR, BLISTER AND SPRING STEEL  
OF EVERY DESCRIPTION;

BEST CAST STEEL FILES, HAMMERS, &c.;  
And General Merchants;

ST. MARY'S WORKS,  
PENISTONE ROAD,  
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**WINDER BROTHERS,**

MANUFACTURERS OF

SPECIAL ENGRAVING STEEL  
FOR CALICO PRINTERS, BANK NOTES, CHECKS, &c.;

STEEL OF ALL KINDS,  
IN BARS, FORGINGS, HAMMERS, TOOLS, &c.;

Steel Composition and German-Silver Doctors or  
Calico Webs; also

CHILLED IRON ROLLS  
FOR STEEL ROLLING, PAPER CALENDERING, &c.;

*PATENT ROTARY AND OTHER PUMPS;*

ROYDS WORKS,  
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**J. R. SPENCER & SON,**

**MERCHANTS,**

AND

MANUFACTURERS OF

**STEEL, FILES,**

Silver Medal

Silver Medal



**EDGE TOOLS.**



**S A W S,**

Paris, 1873.

Paris, 1878.

**TABLE KNIVES, RAZORS,**

**SHOVELS,**

**STEEL WIRE, &c., &c.,**

OF EVERY DESCRIPTION,

**ALBION STEEL WORKS,**

**SHEFFIELD.**

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CAUTION—NONE ARE GENUINE UNLESS  
STAMPED WITH THE ORIGINAL  
CORPORATE MARK GRANTED 1749.

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SHEFFIELD**

# W. COOKE & CO.



LIMITED,



## TINSLEY

### Steel, Iron & Wire Works,

### SHEFFIELD,

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### BEST ENGLISH SPRING STEEL IRON

For Railway Carriage, Wagon and other Springs.

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FOREIGN AND ENGLISH MELTING IRON,  
PIG IRON, BEST SCRAP MERCHANT IRON,  
IN ALL SIZES.

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### PUDDLED STEEL FOR COLLIERY PURPOSES

Specially adapted for Cages and Corve Axles, where great  
strength and lightness is required.

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*Makers of all descriptions of Steel and Iron  
Wire Rods from Norway and English  
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other descriptions of Drawn Wire supplied  
to order.*

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### SPECIAL BESSEMER STEEL RODS AND WIRE.

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STEEL FENCING WIRE, ROUND AND OVAL.

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STEEL AND IRON HOOPS.

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TELEGRAPH WIRE TO GOVERNMENT SPECIFICATION.

# LOCKWOOD BROTHERS,

( JOHN SORBY & SONS, )  
SPITAL HILL,

74, Arundel Street, SHEFFIELD,

MANUFACTURERS OF

## FILES, STEEL, CUTLERY,

EDGE TOOLS,

## SHEEP SHEARS AND SAWS.

Sole Manufacturers of the



### PAMPA

# CUTLERY.

EDGE TOOLS & SAWS MARKED } I. & H. SORBY.

SHEEP SHEARS MARKED }



FILES MARKED }

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C & X. LOCKWOOD.

C & X  
LOCKWOOD BROTHERS,  
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ALSO,

### “PAMPA” BUTCHERS’ KNIVES.

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## THOMAS TURNER & CO.

MANUFACTURERS OF

Every description of Cutlery;  
CONVERTERS OF STEEL;

MAKERS OF BEST CAST STEEL FILES AND SAWS, WARRANTED;  
ALSO, GENERAL MERCHANTS.



THOMAS TURNER & CO. caution all parties against using their Name or Trade Mark, granted by Act of Parliament. Injunctions have been obtained from the Vice-Chancellor to restrain certain individuals who have thus infringed.—See Report in the *Times*, January 11, 1850; also March 6, 1863. All Goods bearing their Name or Mark as below are warranted.



  
TURNER.

 TURNER & CO  
SUFFOLK WORKS,  
SHEFFIELD.

  
THOMAS TURNER & COMPANY  
SUFFOLK WORKS SHEFFIELD.

  
THOMAS TURNER.

  
THOMAS TURNER & CO  
SHEFFIELD.

  
THOMAS TURNER.  
CAST STEEL.

**A CAUTION.**—Whereas, certain parties have of late assumed the title of "TURNER & CO.," with the evident intention of deceiving the public and disposing of inferior goods as being those of our manufacture, we deem it advisable, both in justice to ourselves and for the protection of our friends, to notice the matter by public advertisement, and to request that all parties will kindly see that our address be written in full, and that the goods be marked with our

CORPORATE



MARK.

## THOMAS TURNER & CO.

### SUFFOLK WORKS, SHEFFIELD.

We further beg to observe that we shall commence the usual proceedings against any person infringing upon any of our Trade Marks.

**GOLD MEDAL** awarded to **THOMAS TURNER & Co.**, at *South African International Exhibition, Cape Town, 1877.*

---

# THOMAS TURNER & COMPANY'S

## "SUFFOLK KNIFE,"

*Warranted Secure Handle,*

**SUFFOLK WORKS,**

**SHEFFIELD.**



REGISTERED.  
5936

REGISTERED.  
5936

THE NECESSITY FOR

**IVORY**

**TABLE CUTLERY**

BEING

**SECURELY FASTENED  
IN THE HANDLES,**

**IS MOST IMPORTANT;**

**We venture to assert that by our method we  
have advantages over all others in this respect.**

The **TANG** being made strong the *whole length* of the Handle, and **A CROSS PIN**, (as shown in the sketch) being inserted into a small Groove, and turned into a Cavity Inside the Handle, (made for its reception) forms an **INTERNAL LOCK**: an **OVAL RIVET**, fastened upon the *Square Tang* of the Head **PREVENTS** the possibility of the Blade **TURNING ROUND** in the Handle, or becoming Loose in any way.

---

**PRIZE MEDAL** awarded to **THOMAS TURNER & Co.**, at the *Great Exhibition, 1851.*





# PATENT PERFORATED CIRCULAR SAWS.

## TAYLOR BROTHERS, Manufacturers of Saws,

VIENNA EXHIBITION, 1873.

STEEL, FILES,

THE HIGHEST PRIZE AWARDED



MEDAL OF MERIT.

EDGE TOOLS,

PLANING AND MOULDING IRONS,

SAW BUCKLES,

MACHINE CHAFF KNIVES,

SUGAR CANE KNIVES,



FOR CIRCULAR SAWS.

CALABOZO MATCHETS, &c.

Makers to Her Majesty's and Foreign Governments.

**PERFORATED SAWS.**—Advantages of the same:—

*(See drawing on other side.)*

Great **SAVING** of Files. Effectually **PREVENTS EXPANSION**. Half the amount of **FILING SAVED**. Liability to **FRACTURE** done away with. Keeps the Teeth of **UNIFORM SIZE**. Serves as a **GUIDE** to the **FILER**. Perforations **CUT OUT** bulk of what is generally **FILED AWAY**. Frequent **RE-GULLETTING** saved. Great saving of steam power, &c., &c.

**PATENT GUIDE LINED CIRCULAR SAWS.**

The lines etched on these Saws serve as guide to the filer. *(See tracing on other side.)*

**GROUND BY PATENT MACHINERY.**

All Saws Toothed, Ground, Glazed and Polished by the most recent improved Patent Machinery.

All our **BETTER QUALITIES** of long and short Saws are ground thinner towards the back of the Saw, and being perfectly flat, they work with **LESS SET, LESS FRICTION, and WASTE LESS TIMBER. VISIBLE TEMPER.**

**BRANDS.**—"Taylor Brothers," "J. Taylor and Son," "Joseph Taylor," "J. & I. Taylor," "Adelaide Saw Works," "Melvin," "Adelaide," "Advance," and "Smithson."

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# ADELAIDE WORKS, SHEFFIELD.

# WILLIAM WILKINSON & SONS, SPRING WORKS, GRIMESTHORPE, SHEFFIELD.

TRADE MARK



CORPORATE MARK



ESTABLISHED 1730.



The only Prize Medal at the Great Exhibition, 1851, for Sheep and other Shears;



Also, Prize Medal at the International Exhibition, 1862;



And the highest Prize for SHEEP and GARDEN SHEARS at the Centennial Exhibition, Philadelphia, 1876, was awarded to William Wilkinson and Sons.



MANUFACTURERS OF EVERY DESCRIPTION OF  
 SHEEP AND GARDEN SHEARS,  
 FARRIERS', BUTCHERS' & SHOE KNIVES, &c., &c.

# WILLIAM WILKINSON & SONS,

SPRING WORKS, GRIMESTHORPE, SHEFFIELD,

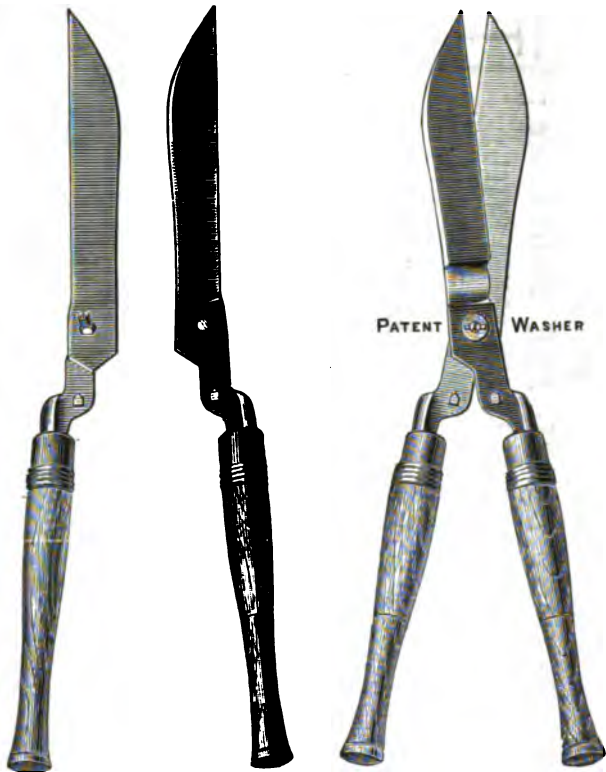
SOLE MANUFACTURERS OF

## IMPROVED GARDEN SHEARS,

WITH PATENT SELF-ACTING STEEL SPRING WASHERS.

### DIRECTIONS.

TAKE OUT THE  
PIN, UNSCREW  
THE NUT, AND  
REMOVE THE  
TOP BLADE FOR  
CLEANING,  
SHARPENING,  
&c., &c.



ALL DESCRIPTIONS  
OF  
GARDEN  
SHEARS  
MADE WITH  
THE  
STEEL  
WASHER.



NUT



PIN



PATENT WASHER

W. W. and Sons, having been awarded the highest Prize for their Improved Garden Shears at the great Centennial Exhibition, Philadelphia, 1876, beg to call the attention of Merchants, Ironmongers, and Gardeners to the above, as being a decided improvement on the ordinary Garden Shear, at a very small addition in price. It is well known by all who use the regular Garden Shear that, after a few hours' use, the joint works loose, and, when loose, a constant pressure is required to keep the blades together.

### THE PATENT STEEL WASHER

prevents the possibility of working loose, keeps the blades always on the cut, and are comparatively much easier to work. The SPECIAL ADVANTAGE is, that any person can, by taking out the pin and unscrewing the nut, separate the blades for grinding, sharpening, or cleaning, and replace at pleasure without difficulty.

SOLD BY MERCHANTS, IRONMONGERS, SEEDSMEN OR THE MANUFACTURERS.

# TURTON BROTHERS & MATTHEWS,

MANUFACTURERS OF ALL KINDS OF

**WARRANTED CAST STEEL FOR TOOLS, &c.;**

**SINGLE AND DOUBLE SHEAR, BLISTER AND SPRING STEEL;**

Sheets, Plates, Forgings, Castings, and every description of Steel for Engineering and Agricultural purposes;

**OCTAGON CAST STEEL for MINERS' DRILLS;**

**HAMMERS, SAWS and FILES, marked "TURTON BROS. & MATTHEWS."**

**RAILWAY CONICAL, VOLUTE & SPIRAL SPRINGS;**

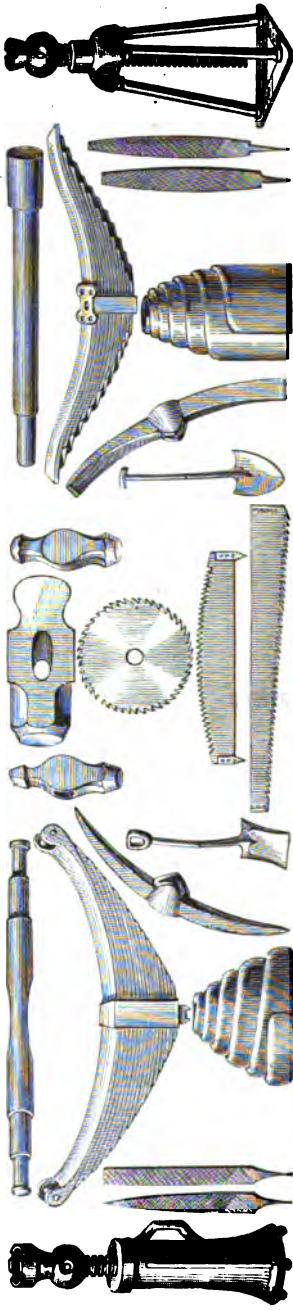
*Engineers', Contractors', and Shipbuilders' Tools; and also General Merchants. FILES marked "THOS. WING," or "THOS. WING & CO."*

**PHOENIX STEEL WORKS, SHEFFIELD.**



**T. B. & M.**

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**AUSTRIA**—FERD. EUG. BIBA, III. Marokkanergasse 23, VIENNA.

**RUSSIA**—(THEODOR SAZONOFF, 67, Fontanka, ST. PETERSBURG.

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# HENRY BESSEMER & CO. LIMITED,

*Manufacturers of Cast Steel,*

## SHEFFIELD.

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### FORGINGS

In steel of any size.—Quotations given either for Forgings or finished complete.

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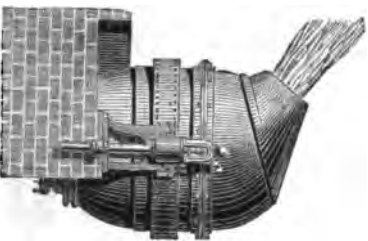
### STEEL CASTINGS,

Applicable in all cases where extra strength and durability are essential, as Hydraulic Cylinders, Mill Gearing, Rolls, Side Cranks, Hammer Tups and Faces, Crossheads, &c.

This Steel is of a mild quality and has a tensile strength of from 85 to 40 tons per square inch.

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**TYRES AND AXLES.**



TRADE MARK.

### SOFT CAST STEEL

In bars and rods, for general use in Engineering Works.

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### BLOOMS, BILLETS & SLABS

Of any size or temper, or of special soft quality, for use in lieu of best Charcoal Iron, &c.

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Of superior quality.

**S. & C. WARDLOW,**  
**Converters and Refiners**  
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**ROLLING MILLS, TILTS AND FORGES,**  
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SOLE MAKERS

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SPECIAL BRAND

"**TOUGH**"

TRADE MARK



**CAST STEEL**

FOR TURNING  
 AND  
 OTHER TOOLS.

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TURIN . . . . . *NICOLA FRASSATI, "*

FRANCE—

PARIS . . . . . *MOSBACH, AMY & CIE, "*

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BRUSSELS . . . . . *P. DE BRUYCKER, "*

# STEEL & GARLAND,

WHARNCLIFFE WORKS,

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MANUFACTURERS OF

Fine Art Tile Grates, Hot Air Stoves,  
Dog Grates, Marble and Wood Chimneypieces,  
Curbs, Fenders, Ashes Pans and Fireirons;  
The New "Queen Anne" Slow Combustion  
Grate; The "Wharncliffe" Patent,  
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Paris Exhibition, 1878.

THREE



MEDALS

AWARDED.

Also Awards—LONDON, 1862; PARIS, 1867; and  
PHILADELPHIA, 1876.

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LONDON HOUSE AND SHOW ROOMS:

45, HOLBORN VIADUCT,

LONDON.



*Prize Medal Awarded.—Paris Exhibition, 1878.*

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**JOHN HENRY ANDREW & Co.**

**TOLEDO STEEL WORKS,**

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*MANUFACTURERS of EVERY DESCRIPTION*

OF

**STEEL.**

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**SPECIALITÉS.**

**CAST STEEL RODS FOR ROPING;  
MUSIC, UMBRELLA, &c. WIRE; GRANITE DRILL STEEL;  
SUPERIOR POLISHED AND STRAIGHTENED SPINDLE  
STEEL; ALSO,  
STRAIGHTENED MACHINERY & SHAFTING BARS.  
BEST CAST STEEL FOR TOOLS, &c.**

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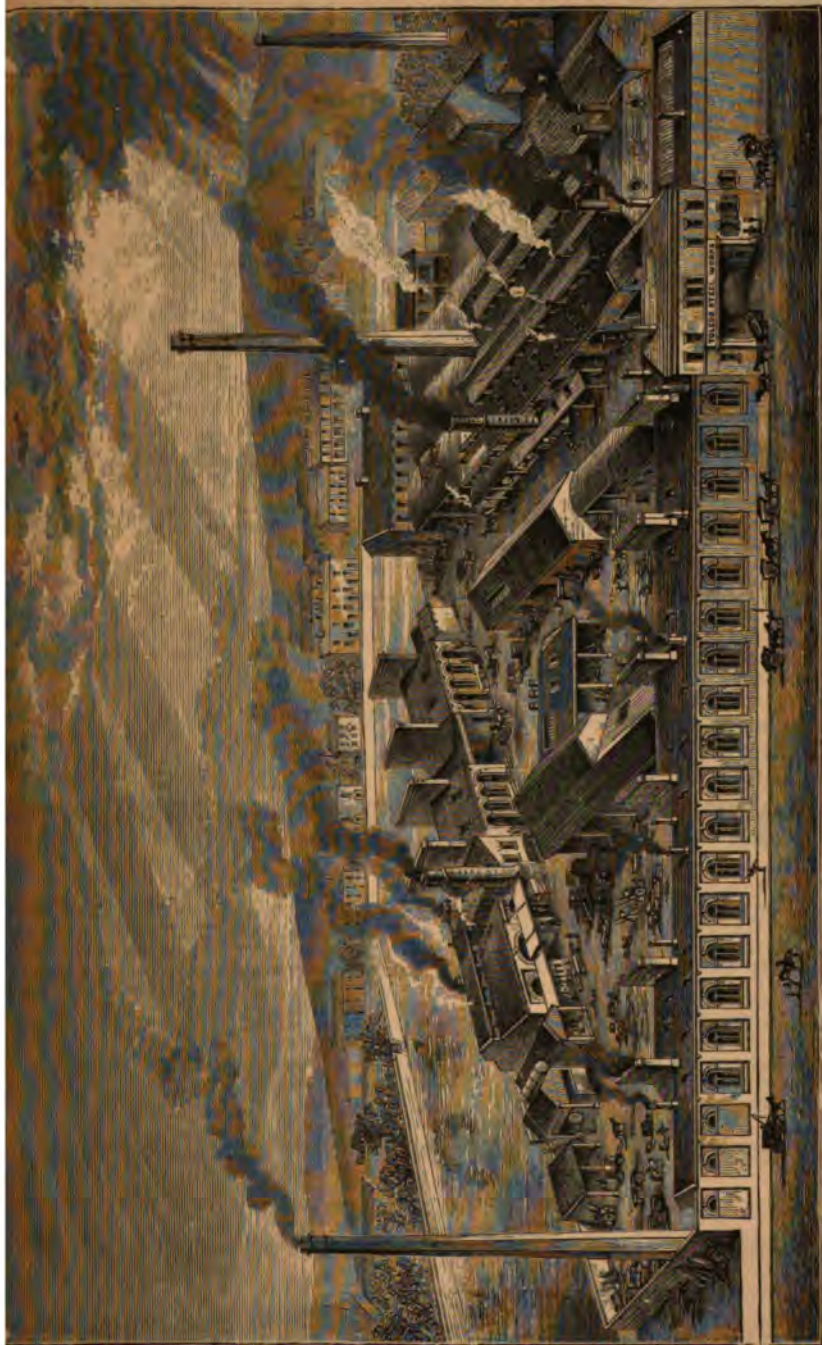
**42 and 44, Foundling Street, Montreal, CANADA.**

**Fr. Rocholl, Remscheid, PRUSSIA.**

**Fontanka No. 56, ST. PETERSBURG.**

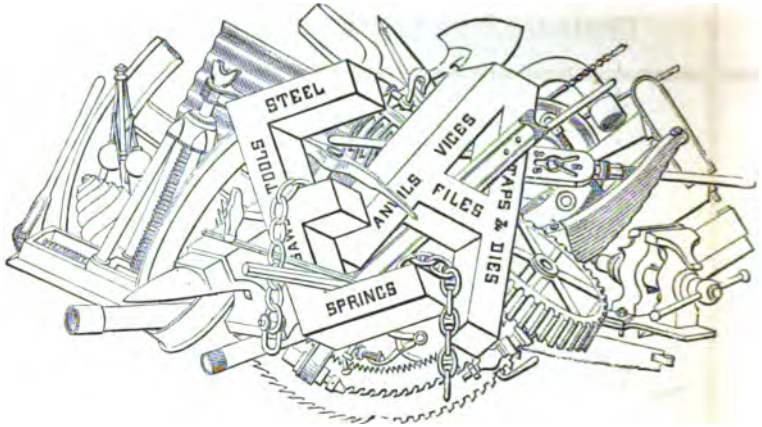
**J. T. WILKINSON & CO.**

PARIS EXHIBITION, 1878.



PRIZE MEDAL AWARDED.

TOLEDO STEEL WORKS, SHEFFIELD.



# EDGAR ALLEN & CO.,

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Company,  
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WELL MEADOW STEEL WORKS,  
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AND

LIVERPOOL, TRAFFORD CHAMBERS (SHIPPING OFFICE.)

TRADE MARK.



GRANTED BY  
THE  
Cutlers'  
Company,  
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## MANUFACTURERS & SHIPPING MERCHANTS.

CAST STEEL OF EVERY DESCRIPTION.  
SPRING STEEL, BLISTER STEEL, AND  
SILVER STEEL.  
STEEL AND IRON FORGINGS.  
CARRIAGE AND WAGGON BEARING  
SPRINGS.  
LOCOMOTIVE AND TENDER SPRINGS.  
CONICAL AND VOLUTE SPRINGS.  
STEEL TYRES, for ENGINES & TENDERS.  
CAST STEEL FILES, RASPS, AND SAW.  
SOLID CAST STEEL HAMMERS.

SCREWING TACKLE, in COMPLETE SETS.  
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ANVILS, VICES, and PORTABLE FORGES.  
LIFTING JACKS & TRAVERSING SCREW  
JACKS.  
PULLEY BLOCKS, SCREW KEYS, RAT-  
CHET BRACES.  
BOILER AND CONDENSER TUBES.  
BOLTS, NUTS, AND RIVETS,  
& c., &c., &c.

ORDERS EXECUTED IN METRICAL OR ANY FOREIGN MEASURES  
AND WEIGHTS,

AND OF SHAPES AND FORM SUITED TO FOREIGN COUNTRIES.

Contractors to Foreign Governments & Railway Companies  
FOR THE SUPPLY OF BRITISH MATERIAL.

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et Hollandais.

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SPENCER FILES,

**WILLIAM SPENCER & SON,**

KINGSTON STEEL WORKS,

MALINDA STREET,

SHEFFIELD,

MANUFACTURERS

OF THE

**CELEBRATED FILES & RASPS.**

BEST  
CAST & SHEAR  
STEEL FOR TOOLS,  
TAPS, DIES, SPINDLES,  
FLYERS, SPRINGS, WIRE, &c.  
OF EVERY DESCRIPTION.  
ALSO GENERAL MERCHANTS.

TRADE SPENCER MARK  
SHEFFIELD

NOTE.— ALL GOODS WARRANTED GENUINE AND SUPERIOR QUALITY, NONE  
BUT FIRST CLASS WORKMEN EMPLOYED, & EVERY DESCRIPTION MADE TO ORDER

GUARANTEED ENTIRELY



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GOLD MEDAL, PARIS, 1867.

GOLD MEDAL, PARIS, 1875.  
GOLD MEDAL, CAPE TOWN, 1877.

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**BURYS & Co. Limited,**

REGENT WORKS,

AND

Philadelphia Rolling Mills and Forges,

**SHEFFIELD;**

**CONVERTERS, MELTERS, ROLLERS & TILTERS**

OF EVERY DESCRIPTION OF

**STEEL**

For Engineers, Machinists, Ship Builders, Agricultural Implement  
Makers, Rock-boring Tools, and general Mining purposes;

MANUFACTURERS OF **FILES** OF ALL KINDS;

**EDGE TOOLS, ENGINEERS' TOOLS, SAWS AND  
HAMMERS.**

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"WM ASH & CO"



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PARIS ADDRESS:—RUE CHARLOT, 62 (AU MARAIS).  
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CORPORATE **I·XL** MARK.

**GEORGE WOSTENHOLM & SON LIMITED,  
WASHINGTON WORKS,  
SHEFFIELD.**

Only one awarded for perfection in English Cutlery.



LONDON, 1851.



LARGE GOLD MEDAL OF HONOUR. PARIS, 1855.



LONDON, 1862.

PARIS, 1867.



JURORS' MEDAL.



U. S. CENTENNIAL, 1876.

PARIS, 1867.



JURORS' MEDAL.

**SOLE MANUFACTURERS OF THE CELEBRATED I·XL CUTLERY:**

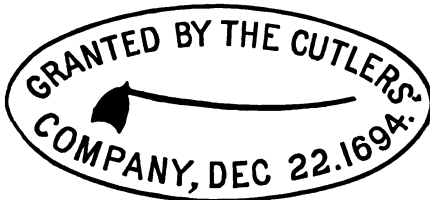
*(Spring Knives; Gardeners' Pruning, Grafting and Budding Knives; Table Knives; Bowie, Dirk & Hunting Knives.)*

**RAZORS and SCISSORS,**

AND THE

**ORIGINAL AND ONLY TRUE "PIPE" RAZORS.**

THE OLDEST  
BRAND  
IN USE  
FOR



ARTICLES  
WITH  
A CUTTING  
EDGE.

Also the noted "CONGRUENT" (Bingham's) and "TALLY HO!" RAZORS; and the celebrated "DOUBLY CARBONIZED," "SWISS" or "LECOULTRE" RAZORS, the Cleanest and Best shaving Razor known.

*Exporters to all Markets—Home, Foreign, and Colonial.*

# ROBERT JENKINS & Co., MASBRO' BOILER WORKS, ROTHERHAM,



IMPROVED INDEPENDENT BOILERS

For Heating Conservatories, Public Buildings, &c.  
No setting in brickwork required.



MANUFACTURERS OF

*Wrought Welded or Rivetted Boilers*

Of every description, for Kitchen Ranges ;

**HOT WATER APPARATUS**

For Heating Vineries, Greenhouses, Churches, Mansions and Public Buildings ; also **STEAM ENGINE BOILERS** for Iron Works, Collieries, &c., &c.

**HOT WATER ENGINEERS.**

Manufacturers and Erectors of Apparatus for Heating most efficiently and economically Buildings of all descriptions by Hot Water.

VALVES, PIPES, FURNACE FITTINGS, &c., &c.

*Illustrated Price Lists forwarded on application.*

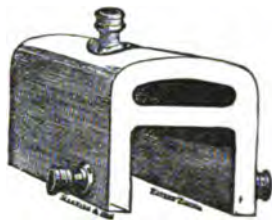
# ROBERT JENKINS & CO., ROTHERHAM,



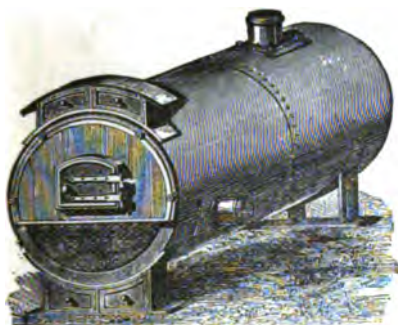
Double Chambered  
Terminal End Boiler.



Duplex Cylinder  
Boiler.



Terminal End Boiler.



Trentham Cornish Boiler.



The Express Boiler.



Vertical Steam Engine  
Boiler.

Makers of  
TRENTHAM,  
DUPLEX,  
EXPRESS,  
TERMINAL END,  
INDEPENDENT,  
DOME TOP,  
CYCLOPS,  
WENTWORTH,  
DEVONSHIRE,  
AND  
EVERY DESCRIPTION  
OF  
HEATING APPARATUS  
BOILERS.



Amateur Heating Boilers,  
from 45/ each, complete.



HENRY ROSSELL & CO.,

CORPORATE  
TRADE



VICTORY AND REGISTERED  
MARK.

STEEL & FILE MANUFACTURERS

AND

GENERAL MERCHANTS,  
WALLACE WORKS,  
**SHEFFIELD.**

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TAITE & CARLTON, 63, Queen Victoria Street, E.C.

CORPORATE



MARK.

WINGFIELD, ROWBOTHAM & Co.,

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CONVERTERS AND REFINERS OF

**Blister, Cast, Shear and Rolling Steel;**

GENERAL MERCHANTS;

MANUFACTURERS OF EVERY DESCRIPTION OF

**TABLE AND SPRING CUTLERY,**

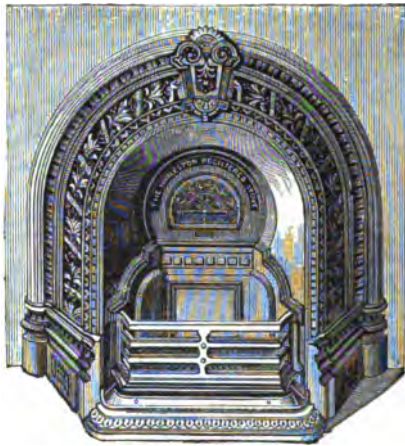
Razors, Scissors, Saws, Files, Mill Bills, Engineers' Hammers,

Reaper, Mower, and Chaff Knives.

LONDON OFFICES AND SHOW ROOMS—

321, **HIGH HOLBORN, W.C.**

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**HARLESTON IRON WORKS,**  
**CARLISLE-ST., SHEFFIELD,**  
MANUFACTURERS OF  
**STOVE GRATES, FENDERS, ASHES-PANS,**  
**FIRE-IRONS, PALISADES, &c.**



***THE HARLESTON REGISTER GRATE,***

The most efficient Open Fire Register Stove hitherto invented.

Its special advantages over other Stoves are—

It effects a saving of 50 per cent. in Fuel.

Obviates Draughts from Doors and Windows.

Thoroughly Warms and Ventilates the Apartment in which it is fixed.

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**COOKING APPARATUS,**

Having all the latest improvements suitable for Hotels, Public Institutions, and Private Houses.

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**SHOW ROOMS AT THE WORKS.**

**W. MAKIN & SONS,**

*Attercliffe & Clifton Steel Works,*

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**MANUFACTURERS OF EVERY DESCRIPTION**

**OF**

**STEEL AND FILES,**

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**FORGINGS,**

**BESSEMER STEEL, SHEETS, BARS AND RODS;**

**MILLERS' CHISELS, PICKS AND PUNCHES;**

**STEEL TOOLS FOR MINING, QUARRYING & GRANITE USES;**

**SOLID STEEL SHEAR BLADES,**

**STEEL CASTINGS, HAMMERS, HAND TOOLS, SAWS.**

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*ESTABLISHED A.D. 1736, for the MANUFACTURE of*

**PAPER MAKERS' STEEL TOOLS.**

**AWARDED THE ONLY MEDAL AT THE EXHIBITION, 1851.**

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# HAWKSLEY, WILD & CO'S Patent Flanged Flued Boiler.



LONGITUDINAL SECTION OF DOUBLE FLUED BOILER.

A.—REVERBERATING COMBUSTION AND HEAT-RETAINING CHAMBERS.

**EXPANSION and CONTRACTION** :—By neglecting this universal law in the construction of most Boilers, their safety and durability are of short duration, and the want of an efficient compensator has long been felt. Each flange in this Flue is an expansion joint, which allows the separate rings to expand and contract without increasing the strain upon the Ends or Shell of the Boiler, thereby preventing a great amount of leakage and consequent need of repairs.

*Nearly 2000 of these Boilers are working, and on all hands are proving their superiority in both Durability, Power and Economy.*

ENGINEERING AND BOILERS OF EVERY DESCRIPTION. PATENTEES OF FEED WATER HEATERS, DEAD WEIGHT SAFETY VALVES, &c.

**Brightside Boiler and Engine Works, SHEFFIELD.**

# TURNER, NAYLOR & MARPLES

(LATE SORBY & TURNER),

MANUFACTURERS OF

LIGHT & HEAVY EDGE TOOLS,

AUGERS, JOINERS' TOOLS,

SAWS, FILES, SHEARS AND ENGINEERS' TOOLS,

Hammers, Screw Stocks, Taps and Dies,  
Screw Wrenches, Spanners, Ratchet Braces,  
Pulley Blocks, Lifting Jacks;

Joiners', Flooring, and Ship Cramps;  
Hand, Bench, Parallel, Smiths' and Portable Vices;

TABLE AND SPRING CUTLERY;

PLUMBERS', GLAZIERS', and TINMEN'S TOOLS, &c., &c.

Trade  
Mark,

“I. SORBY.”

Established  
1810.

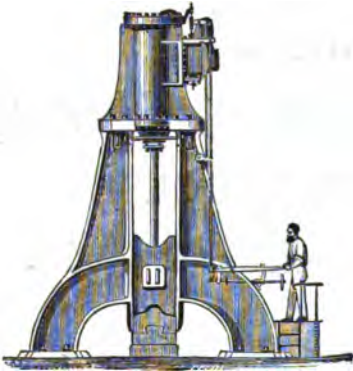
Corporate Mark,



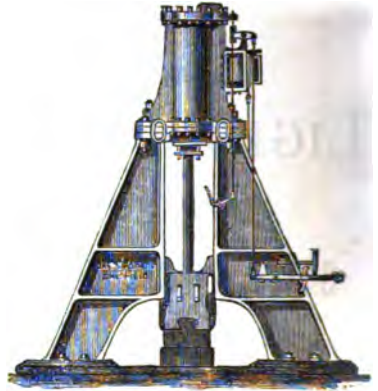
Granted by the  
Cutlers' Company.

THE NORTHERN TOOL WORKS,  
JOHN STREET,  
SHEFFIELD.

# DAVY BROTHERS LIMITED, SHEFFIELD.



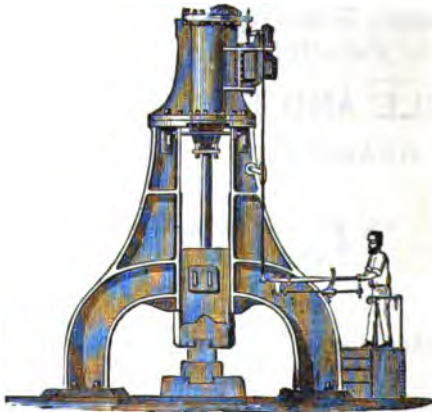
*Special Shingling Hammers to 6 tons.*



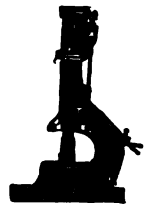
*Shingling Hammers to 9 tons.*



*Smiths' Hammers  
to 10 cwt.*



*Forge Hammers to 25 tons.*



*Stamping Hammers  
to 20 cwt.*

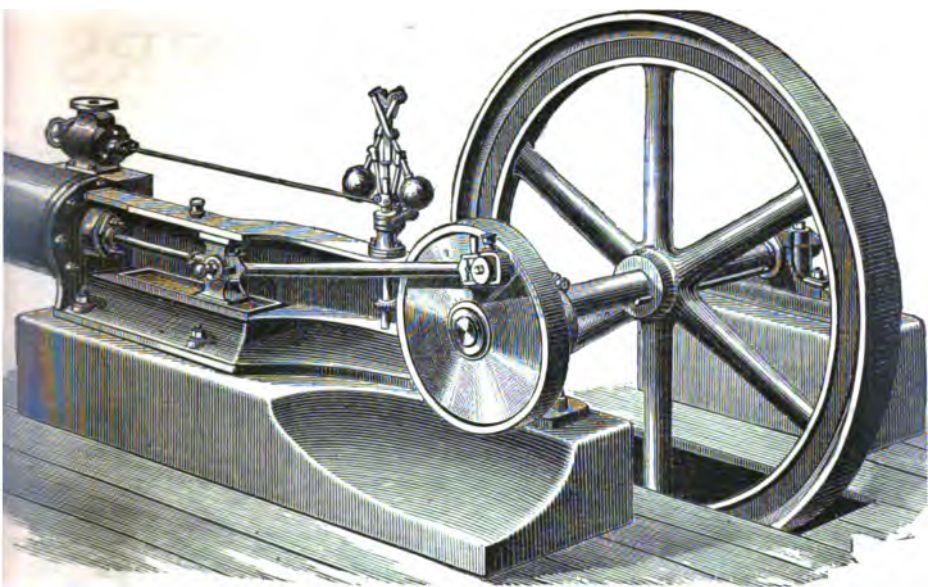
**FITTED WITH DAVY'S PATENT VALVES,**  
Which save 25 to 50 per cent. of Steam.

ALL KINDS OF

**FORGE & ROLLING MILL MACHINERY,**

STEAM ENGINES for Mills, Iron Works, Collieries, &c.

**SINGLE & DOUBLE FLUED BOILERS.**



**DAVY BROTHERS**  
**LIMITED,**  
**SHEFFIELD,**  
MANUFACTURERS OF  
**STEAM ENGINES**

OF ALL KINDS,  
UP TO 500 HORSE POWER,  
Suitable for Ironworks, Collieries, &c. ;

**SPECIAL HORIZONTAL ENGINES,**  
AS PER ENGRAVING,  
UP TO 20 HORSE POWER.  
PRICES ON APPLICATION.

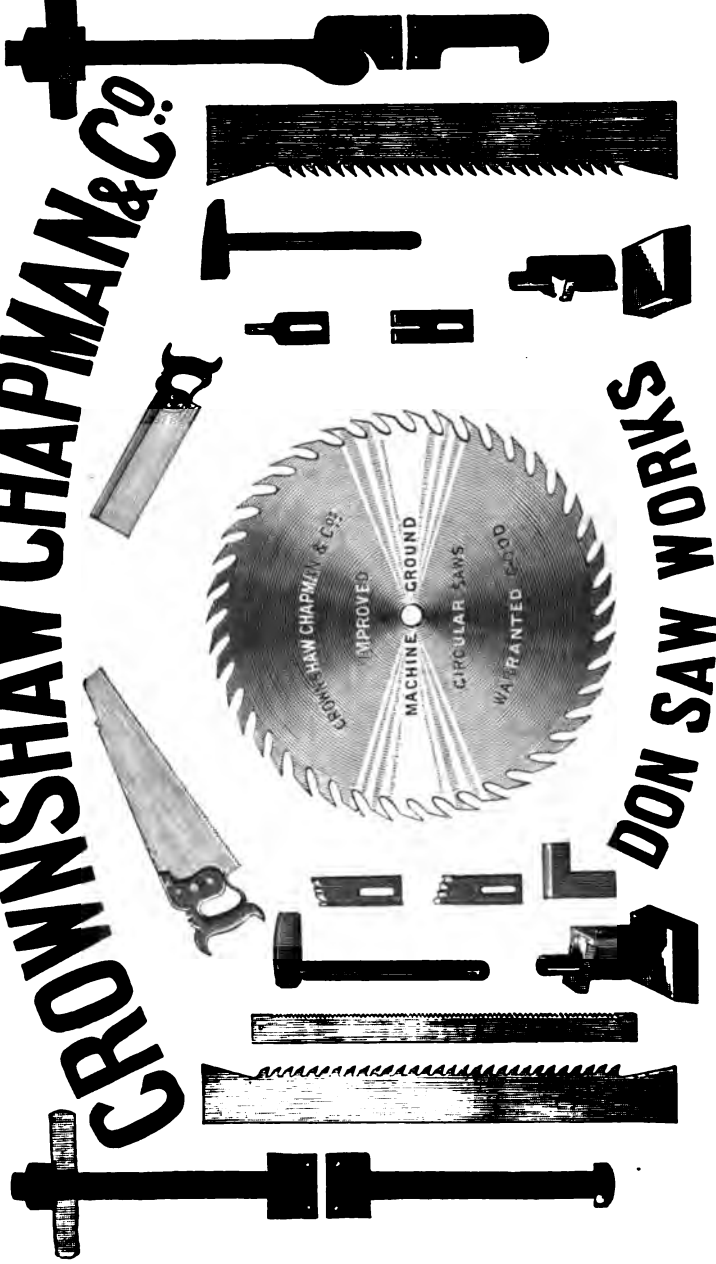
**BOILERS OF ALL KINDS,**

Single and Double Flued, with Patent Oblique Transverse Tubes.

All kinds of Forge & Rolling Mill Machinery, Steam Hammers, &c.



**CROWNSHAW CHAPMAN & CO.**



**DON SAW WORKS**

**SHEFFIELD.**

Manufacturers of all kinds of Saws by improved machinery, Machine Planing and Moulding Irons,

JOHN HARTLEY & CO.,  
Steel Converters & Refiners,

MANUFACTURERS OF

ALL KINDS OF

**TOOL STEEL**

AND

EVERY DESCRIPTION OF

**STEEL WIRE;**

**PATENT STEEL PLOUGH WIRE.**

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NEWHALL WIRE MILLS,

NEWHALL ROAD,

ATTERCLIFFE,

SHEFFIELD.

**ECONOMY IN FUEL!!**

**PERFECTION IN COOKING!!**

**CLEANLINESS AND COMFORT IN THE KITCHEN!!**

**PATENT CLOSE & OPEN FIRE COOKING RANGE (NO. 220)**

MANUFACTURED BY THE PATENTERS,

**NEWTON, CHAMBERS & CO.,**

**THORNCLIFFE IRON WORKS, NEAR SHEFFIELD.**

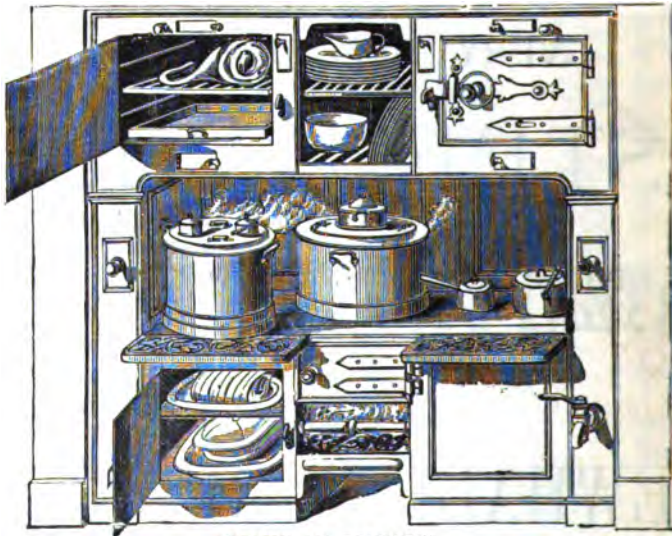
Branch Establishments—No. 1, **HOLBORN VIADUCT, London E.C.,**

and No. 47, **SHEFFIELD MOOR, Sheffield,**

CONSISTING OF

Two Sheet-iron Ovens for Baking and Roasting, fitted with Bright Bands and Disc Latch, Ventilator and Air-pipe, Flue Doors, Moveable Grated and Plain Shelves, Cast-iron Plate Rack between the Ovens, Sheet-iron Door over the Plate Rack to lift off and give access to the Chimney, Hot Plate for Boiling, Frying Stewing, and Grilling, with Moveable Covers; Cover over Fire can be thrown back, thus making the Range into an open FIRE RANGE; Bracket Shelf along front of Hot Plate, Square Slip along back and side, with Folding Doors at back of fire for opening into Chimney when an open fire is required. The Range consists of Wrought Top and Bottom Bar and Three Moveable Cast Iron Bars, Door in Front of Range fitted with Band and Knob, Cast-iron Hot Closet under Hot Plate with Cast Grated Shelf and Saddle, fitted with Bright Bands and Disc Latch, Wrought-iron Boiler at back of fire, fitted Manhole, Pipe and Tap, one pair of Slide Dampers, Top Plates over Ovens with Dampers and Flue Pipes, Wrought Hook and Flue Cleaner, four Quarries for Flue, and one for side of Hot Closet, Meat Stand, Gridiron, and Ashes Guard. No down draughts! Flues ascending

**THE THORNCLIFFE RANGE.**



PRICES AS FOLLOWS:—

For	7ft by 5ft6in	6ft by 5ft6in	5ft6in by 5ft3in	5ft by 5ft	4ft 9in by 5ft	4ft 6in by 4ft 9in	Openings
With	22-inch	22-inch	20-inch	18 inch	16½-inch	15-inch	Ovens.
With	20-inch	16-inch	14-inch	12-inch	11-inch	10-inch	Ranges.
With	6-feet	6-feet	4ft 6in	4-feet	3ft 9in	3ft 6in	Hot Pits.
	£42	£36	£32	£27 10s.	£26 10s.	£25	each

Delivered Free at any Railway Station.

If with Feed Cistern 20 inches long, 14 inches deep, fitted with Ball Tap, Copper Ball, Check Valve and Union Joint, £2 7s. each extra.

If with Double-tin Dripper, 12s. 6d. each extra.

If without Boiler, £5 each less.

If without Hot Closet under Hot Closet under Hot Plate, £1 5s. each less.

Prices of smaller sizes with one Oven and one Hot Closet only to suit, 3ft.6in. by 4ft.9in., 3ft.9in. by 4ft.9in., and 4ft. by 4ft.9in. openings may be had on application; also Plans of Fixing, Instructions for Working, and Fac-simile Testimonials.

Experienced Men sent out to fix these Ranges, and satisfaction guaranteed.

**WARDROBE & SMITH,**  
*Converters, Refiners, and Manufacturers*

OF EVERY DESCRIPTION OF

**STEEL,**

**MEADOW STEEL WORKS,**

**SHEFFIELD.**

ESTABLISHED, 1850.

PARIS: 9, AVENUE DES AMANDIERS.

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**BRUCE WORKS, SHEFFIELD.**

ESTABLISHED



1774.

**JOSEPH ASHFORTH & CO.,**

MANUFACTURERS OF

**STEEL, FILES,**

**IMPROVED SCREW STOCKS, TAPS AND DIES,**

**RATCHET BRACES, ENGINEERS' HAMMERS,**

**WOOD SCREWS, BOLTS AND WASHERS;**

**ALSO FROST SPIKES TO PREVENT HORSES FROM SLIPPING,  
AND REMOVAL OF SHOES.**

ESTABLISHED 1825.



# GEORGE WILKIN

(LATE BROADHEAD, HALL & Co.),

MANUFACTURER OF

**FINE SCISSORS, TAILORS' SHEARS, &c.,**

**PALMERSTON WORKS,**

**BROAD LANE & GARDEN STREET,**

**SHEFFIELD.**

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TRADE



MARK.

DEFIANCE

**CARR BROTHERS & WEBSTER,**  
**CHANTREY WORKS,**  
**SYLVESTER STREET,**  
**SHEFFIELD,**  
**Merchants & Manufacturers**  
**OF**  
**HOT AIR STOVES,**  
**GILL STOVES, TILE GRATES,**  
**DOG STOVES,**  
**STOVE GRATES,**  
**FENDERS, ASHES-PANS AND**  
**FIRE-IRONS.**

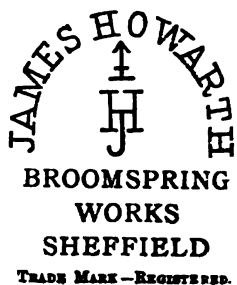
ESTABLISHED 1835.

# JAMES HOWARTH & SONS,



Granted by the Cutlery Company.

BROOMSPRING WORKS,  
BATH STREET,  
SHEFFIELD,  
MERCHANTS & MANUFACTURERS  
OF  
LIGHT AND HEAVY



## EDGE TOOLS & JOINERS' TOOLS,

In every Variety;

SAWS, FILES, HAMMERS, PINCERS,  
AUGERS, GARDEN TOOLS, SHEARS, TOOL CHESTS, SKATES,  
CUTLERY, &c.

### LIGHT EDGE TOOLS, viz. :-

CARB STEEL CHISELS AND GOUDES—Firmers, Coachmakers', Model Makers', Millwrights', Turning, Socket, & Mortising. Plane Irons—Single, Cut, Double, and Tooth. Drawing Knives—Carpenters', Wheelwrights', Coopers', &c. CARVERS' and ENGRAVERS' TOOLS in all their Varieties.

JOINERS' TOOLS, viz. :- Braces and Bits of all kinds, together or separate; Squares, Bevels, Spokehaves, Gauges, Levels, Turnscrows, Saw Frames, Saw Sets, Saw Pads, &c.

TOOL CHESTS, in Oak and Deal :- Youths', Gentlemen's, Emigrants', and Carpenters'; containing Tools of First Quality.

HAMMERS, viz. :- Kent, Scotch, Garrick, Canterbury, Garden, Lath, Shoe, Ladies', Gentlemen's, Saddlers', Upholsterers', Coachtrimmers', Grocers', Farriers', Coal, Geologists', &c.

HAMMER HEADS—London, Warrington, Manchester, Bath, Roefing, Flooring, Clinch, Sheathing, Bricklayers', Boiler Makers', Engineers', Machinists', Hand, Sledge, and Stonebrakers'. Slaters' Axes, Hammers, Stakes, & Rippers. FIREMEN'S AXES, &c.

PLANES of all kinds. SKATES of every Variety.

AUGERS—Carpenters', Ship, Shell, and Screw Augers; Screw Bits, Ship Gimlets, Brad Awns, and Gimlets.

SAWS, viz. :- Hand, Panel, Rip, Compass, Dovetail, Carcase, Sash, Tenon, and Fret Saws; Frame, Pit, Cross-Cut, Mill, Turning, Billet, and Canada Web. CIRCULAR SAWS, Saw Benches, and Spindles.

HEAVY EDGE TOOLS, viz. :- Axes and Adzes, for Joiners, Carpenters, Coopers, Wheelers, Coachmakers, and Shipwrights; Hatchets, Choppers, Mining and Cheese Knives, Bills, single and double-edged Switching Hooks, &c. Brick, Masons', Pointing, Gauging, and Plastering Trowels.

GARDEN TOOLS, viz. :- Trowels, Hoes, Rakes, Spades, Forks, Reels, Syringes; Sets of Ladies' Garden Tools. CARRIAGE and WAGON BUILDERS' TOOLS.

SHEARS, viz. :- Garden, Pruning, Lopping, and Grass; Sheep, Fellmongers', Woolstaplers', Thatchers', Bag, Hoop, and Docking Shears.

FILES, viz. :- Flat, Half round, 3-Square, Square, Hand, Equaling, Slotting, Mill, and Cutter; Frame and Hand Saw, Gulleting, Warding, and Topping Files.

RASPS, viz. :- Horse, Shoe, Bread, Wood, Cabinet, and Farriers'.

ENGINEERS' and LANCASHIRE TOOLS, viz. :- Screw Stocks, Dies and Taps, Screw Plates and Taps, Hatchet Braces, Coach Wrenches, Hand, Bench, Staple, and Parallel Vices; Chipping Chisels, Spring Dividers, Compasses, Callipers, Pliers, Cutting Nippers, &c.

GAS FITTERS' TOOLS, viz. :- Pipe Tong, Pliers, Pipe Cutters, Screw-Cutting Tools, &c.

CRAMPS—Joiners', Bench, Floor, and Sash Cramps; Bench Screws, Holdfasts, &c.

## SCYTHES, SICKLES, REAPING HOOKS, HAY AND STRAW KNIVES.

CAST STEEL HAY, DIGGING, SPADING, and MANURE FORKS;

Rules, Measuring Tapes, Oil Stones and Slips, Tool Bases, Table and Pocket Cutlery.

N.B.—Cast Steel, Single and Double Shear, Blister and Spring Steels, to any Size or Temper.

FIRST-CLASS PRIZE MEDALS, as under :-



LONDON, 1851.



PARIS, 1855.



SOCIETY OF ARTS, 1864.



LONDON, 1862

# HYDES & WIGFULL

LIMITED,

88, MARKET PLACE, AND STANLEY STREET, WICKER,  
SHEFFIELD,

**Hydraulic, Colliery, Agricultural**  
AND  
**General Engineers.**

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SOLE LICENSEES and MANUFACTURERS of  
**BENNISON'S PATENT ROTARY PUMPS,**  
*And Hydraulic Machinery of every description.*

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Sole Makers of the Celebrated  
**"STANLEY" & "CHESTER" BICYCLES**  
(REGISTERED),

The strongest, most elegant and highly finished  
Machines ever made.

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**GALVANIZED IRON ROOFS, BUILDINGS AND SHEDDING.**

*GALVANIZED & PAINTED ROOFING PLATES & TILES. Estimates on application.*

*GALVANIZED IRON TANKS and CISTERNS.*

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IMPROVED WEIGH BRIDGES AND WEIGHING MACHINES:

**Cast and Wrought Iron Stable and Cattle Fittings.**

Every variety of TOOLS and MACHINERY for Colliery,  
Engineering, and general purposes.

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MANUFACTURERS OF  
**CONTINUOUS IRON FENCING & HURDLES,**  
**WROUGHT IRON FIELD AND ENTRANCE GATES.**

**WIRE STRAND FENCING, AND PLAIN AND ORNAMENTAL WIRE WORK.**

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**Works:—STANLEY ST., WICKER, SHEFFIELD.**



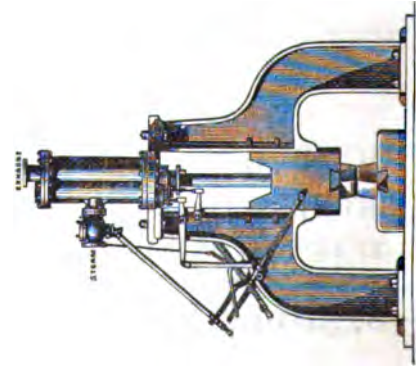
ROYAL



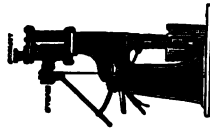
LETTERS PATENT.

# GLOSSOP, TINGLE & Co.,

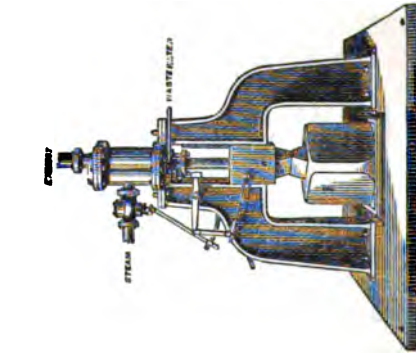
## ALMA WORKS, SHEFFIELD.



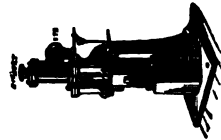
From 20 cwt. to 5 tons.



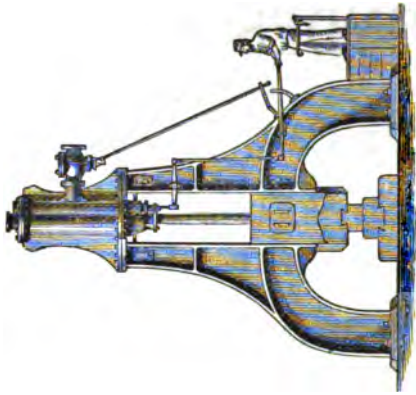
From 4 cwt. to 20 cwt.



From 2 cwt. to 20 cwt.



From 1/2 cwt. to 8 cwt.



From 8 to 25 tons.

Patentees and Makers of Improved Steam Hammers, from 1/2 cwt. to 25 tons, for Table Blade Forging, Auger Forgers, Steel Tilting, Heavy Forging, Puddling, Shear Steel Making, Fork Drawing, &c. &c. Special Hammers for Scythe and Shovel Plating, and General Smith work, the latter being fitted to work either Self-acting or by Hand without any disconnection. The above will strike twice the weight of blow of any other makers' hammers, self-acting. Same size, with half the steam, can strike a light blow without altering the speed of the hammers, and is so arranged as to receive the steam at any part of the stroke; so as to have cushioned, or dead blow, to suit all purposes. A Stock always on hand from 1/2 cwt. to 15 cwt. First-class references. Price Lists and Engravings on application. All Hammers guaranteed.

# JOHN ROUND & SON LIMITED,

## SILVERSMITHS

AND MANUFACTURERS OF

# PATENT ARGENTINE PLATE

OR

ELECTRO-PLATED NICKEL SILVER,

AND

## GENUINE BRITISH PLATE

OR IMPROVED NICKEL SILVER

SPOONS, FORKS, LADLES,

## DESSERT KNIVES & FORKS,

NUTCRACKS,

GRAPE SCISSORS, KNIFE RESTS,  
SNUFFERS, TOAST RACKS, CRUET FRAMES,

LIQUOR FRAMES, CAKE BASKETS,  
SUGAR BASKETS, BUTTER COOLERS,

TEA AND COFFEE SERVICES,  
CORNER DISHES, DISH COVERS,

WAITERS, SALTS, &c., &c.



TRADE MARKS.



TRADE MARKS.

# TUDOR WORKS & ARUNDEL PLATE WORKS, SHEFFIELD.

# WILKS BROTHERS & Co.

(SUCCESSORS TO JOSEPH WILKS),

## IRONMONGERS, WHITESMITHS,

AND MANUFACTURERS OF

Wrought Iron Gates, Palisades,

**HURDLES AND PARK FENCING,**

**MANGLES, WEIGHING MACHINES, SACK BARROWS, CHAFF AND TURNIP  
CUTTERS, BEAN, OAT AND OIL CAKE MILLS;**

**CAST STEEL SPADES, SHOVELS, FORKS,  
HOES, AND MACHINE KNIVES;**

**GARDEN & DAISY RAKES;**

Tangs, Tillars, Buckles and Bows, for Saws;

**BRIGHT COFFIN FURNITURE,**

**HAMES, BLOCKS, CHAINS, TRACES, &c.;**

**IRON, COPPER, ZINC AND TIN PLATE WORKERS.**

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**I, 7, 9, FURNIVAL ROAD,**

**CORN EXCHANGE, SHEFFIELD.**

# WALTER SPENCER & CO.

MIDLAND STEEL WORKS,

ROTHERHAM,

MANUFACTURERS OF

**FILES, AND EVERY DESCRIPTION OF STEEL.**

—:—

SOLE MAKERS OF THE

**DIAMOND CAST STEEL.**

—:—

CORPORATE AND TRADE MARKS

GRANTED AND REGISTERED ACCORDING TO ACT OF PARLIAMENT.

) **NO** SPENCER  
ROTHAMHAM

DIAMOND  
CAST STEEL

---

**4, CORPORATION ST., WESTBAR, SHEFFIELD.**

---

**W. GREEN & CO.**

MANUFACTURERS OF

**Kitchen Ranges, Stove Grates, Registers,**

**SHAMS, MANTELS,**

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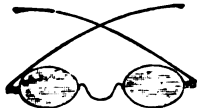
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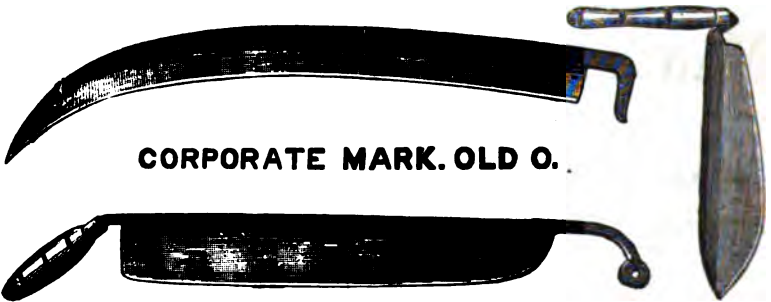
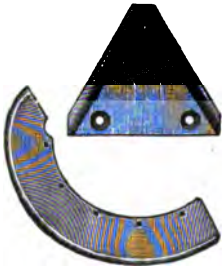
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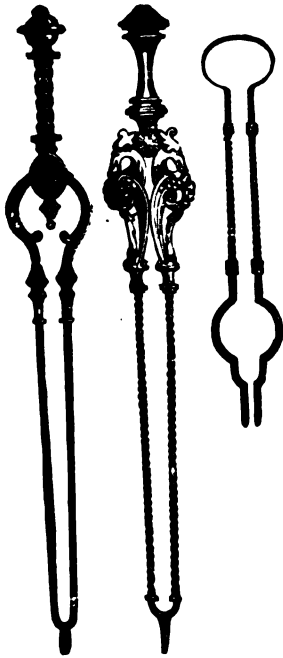
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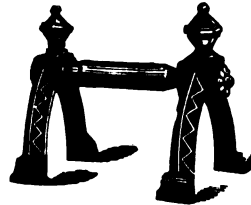


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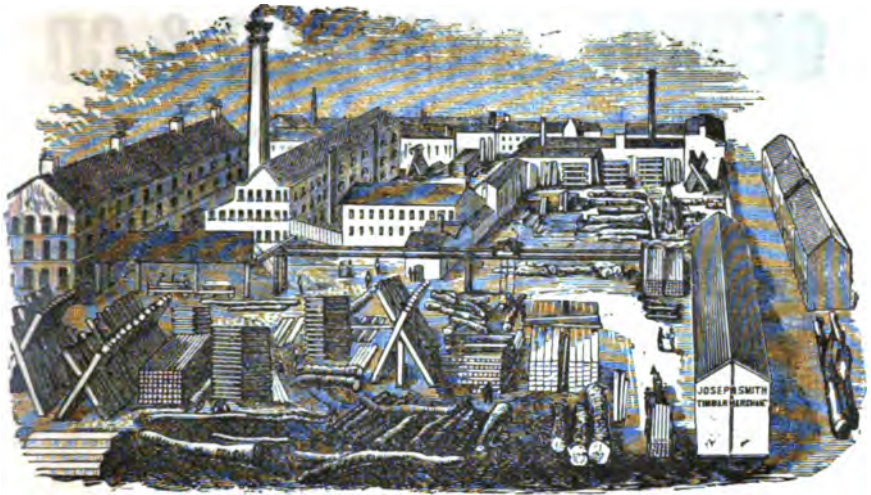
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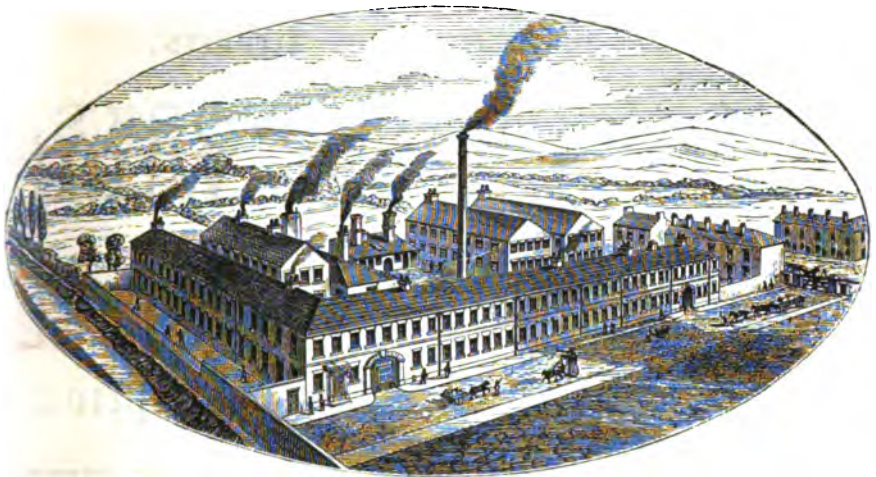
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N.B.—Goods of every description are being successfully and economically produced at the above Works, from this most useful of metallic mediums. In bringing it before the notice of Engineers and the various branches of Machinists, we beg to call their particular attention to the following extracts from a leader, published upon the subject in *The Engineer*, March, 1864:—

## MALLEABLE CAST IRON.

"Among the large majority of those engaged in the arts, malleable cast iron has always been a metallurgical mystery. The mode of its production is generally a secret in the few foundries where it is made, and the very ignorance of its true character has prevented its use to anything like the extent it deserves.

"In 1804, Samuel Lucas, of Sheffield, patented a mode of producing malleable cast iron, and his specification clearly indicated the theory of conversion. It was that simply of partial decarbonation. His process is, substantially, that which has been followed for the purpose ever since the time of his description.

"The colour, both that of external and that of the fractured specimens, approaches that of Steel. The 'malleablized' metal takes readily a very fine polish, which is not very easily destroyed upon exposure to moisture.

"Malleable cast iron is easily stamped, drawn, and hammered without heating. It can also be worked well under the hammer at a low heat, and at this stage hammering appears to improve the grain.

"Very small sections may be now and then welded; but on the whole, malleable cast iron is not weldable. It is, however, readily brazed with copper. It melts only under a very high heat; and, indeed, it stands fire so well that it is employed for foundry ladles, crucibles for the precious metals, and for the tubes of some descriptions of boilers. Malleable cast iron may be case-hardened more readily and to a greater depth than wrought iron. The castings are not blistered, scaled or warped in the process, and the case-hardening may be effected either with bones, hoofs, or leather in the ordinary manner, or with prussiate of potash.

"As the general results of these experiments, M. Brull observes that they indicate a general resistance, a co-efficient of elasticity, and a limit of elasticity as great in malleable cast iron as in good wrought iron. This was, indeed, to have been expected from the ordinary practical acquaintance which we have of the first-named metal."

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**PATENT TEMPERED PAPER KNIVES**  
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Rag and Rope Choppers, Circular Cutters (flat and plate shape), Ream Knives, Doctor Blades and Plough Knives.

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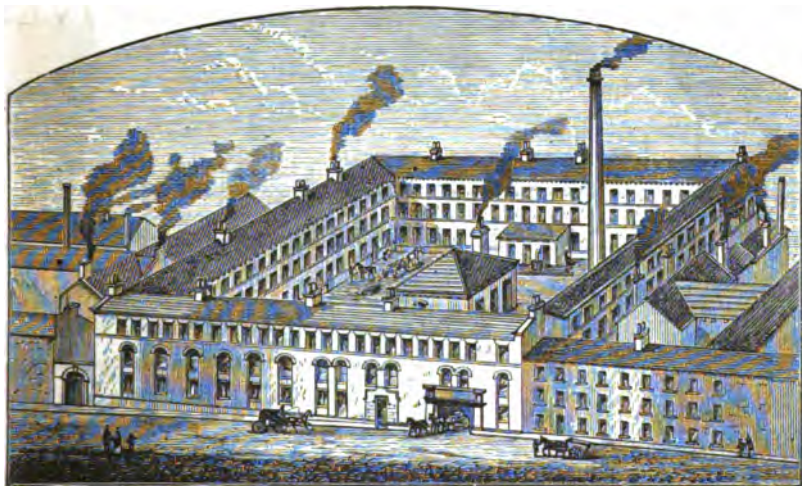
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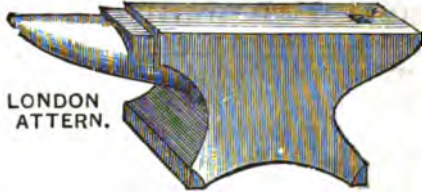
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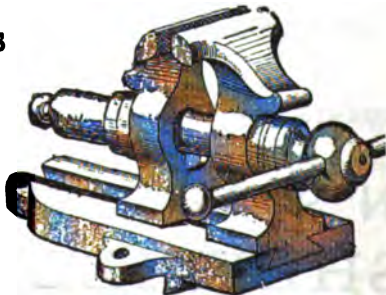
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 THE HONOURABLE FRANCIS DUDLEY STUART WORTLEY.

BAGSHAW, F. W., Esq. BARBER, J. H., Esq. BLAKE, W. GREAVES, Esq. BLAKENEY, Rev. Canon. CUTLER, JOHN E., Esq. EARNSHAW, Rev. S., M.A. ELLISON, M. J., Esq. FIRTH, MARK, Esq.	FIRTH, CHAS. H., Esq. FISHER, WILLIAM, Esq. HARRISON, J. W., Esq. HUNT, FREDERICK, Esq. HOWSON, WILLIAM, Esq. LEADER, ROBERT, Esq. MILNER, WM. P., Esq. MOSS, JOSHUA, Esq.	NEWBOULD, JOHN, Esq. ROBERTS, SAMUEL, Esq. SORBY, THOMAS A., Esq. STEPHENSON, HY., Esq. WALKER, HORACE, Esq. WATSON, H. E., Esq. WALL, JAMES, Esq. WILSON, THOMAS, Esq.
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**TREASURER:—WILLIAM WATSON, Esq.**

**PUBLIC ACCOUNTANT FOR THE YEAR:—NEWMAN H. HUNT.**

The number of Depositors on the 20th November, 1878, was 28,925; and the amount due to them was £759,277.

Since the Bank was opened in 1819, £4,654,043 has been deposited, and, including interest, £4,360,497 has been withdrawn by Depositors.

Deposits as small as One Shilling and not exceeding £30 are received during any year, ending 20th November.

Interest is allowed on every Ten Shillings deposited, at the rate of £3 per cent. from the 20th of the month.

The Moneys of the Bank are invested with the Government.

A sum not exceeding Ten Pounds can be withdrawn by the Depositor without Notice, and above Ten Pounds within Seven Days after Notice has been received at the Bank.

Friendly and Charitable or Provident Societies, and Penny Savings Banks may invest all their proceeds, and in case of emergency, can withdraw, without notice, £25.

**SUPPLEMENTARY INVESTMENT DEPARTMENT.**—Depositors having Accounts of  
 £200 may transfer £150.

150 " " 100.

100 " " 50.

On sums so transferred 3½ per cent. interest is allowed.

Upwards of £20,000 was transferred during the year 1877-78.

**GOVERNMENT ANNUITIES** for not less than £4, nor more than £50, may be purchased on advantageous terms through this Bank, by annual payments, or by payments in one sum, either immediate or deferred, for life or for a certain term of years. Husband and wife may each have a separate Annuity.

All persons concerned in the management of this Bank are prohibited from disclosing particulars of the register, or the amount of any Deposit, to any person except to the Depositor.

**FRANK WEVER, Actuary.**

**OXLEY BROTHERS,**  
**GENERAL IRONFOUNDERS,**

MANUFACTURERS OF

ANVILS, PELLETS, INGOT MOULDS,  
INGOT MOULDS FOR BESSEMER,  
IMPROVED MORTAR, GANNISTER & CLAY MILLS,  
And all kinds of Plain and Ornamental Castings,  
Union Foundry, Mowbray Street,  
SHEFFIELD.

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ESTABLISHED 1851.

**WORRALL BROTHERS,**

FALCON WORKS,  
BERNARD LANE, SHEFFIELD,  
Manufacturers of  
PARAGON WIRE (BY WORRALL'S PATENT),  
PARAGON RIBS AND STRETCHERS,  
SOLID RIBS and STRETCHERS, also HARDENED  
and TEMPERED WIRES for Export,  
AND ALL KINDS OF  
—UMBRELLA FURNITURE;—  
IMPROVED BICYCLE SPOKES HEADED BY MACHINERY;  
HACKLE, GILL and COMBER PINS,  
HACKLES AND CARDS FOR FIBRE, BRUSHMAKERS' COMBS, WIRE,  
SPRINGS, &c., and  
GENERAL MERCHANTS.

**JOHN HARRISON & CO.**  
**LIMITED,**

(ESTABLISHED 1820.)

MANUFACTURERS OF EVERY DESCRIPTION OF

**SILVER, SILVER-PLATED**

AND

**BRITANNIA METAL GOODS,**

COMPRISING

THE NEWEST AND MOST CHASTE DESIGNS IN

**DISHES, DISH COVERS,**

**DINNER SERVICES,**

**TEA AND COFFEE SETS,**

**CRUET AND LIQUOR FRAMES,**

**CAKE AND CARD BASKETS,**

**WAITERS, VASES, EPERGNES, CUPS, BISCUIT BOXES,**

*Communion Services, &c., &c.;*

**SPOONS, FORKS, LADLES, FISH CARVERS,**

**DESSERT KNIVES AND FORKS.**

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Patterns, Drawings and Price Lists on application.

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**NORFOLK WORKS, SCOTLAND ST.,  
SHEFFIELD;**

**London Warehouse: 5, Garrick St., Covent Garden, W.**



CHAS. MARSDEN & SONS,  
PAPER MANUFACTURERS,  
RIVELIN PAPER MILLS,  
SHEFFIELD,

ALSO AT

BARNSELY AND WAKEFIELD,

*Beg to call the attention of*

MANUFACTURERS OF CUTLERY *and*

BRIGHT STEEL GOODS *to their*

PURE ROPE PAPERS,

*made specially for the SHEFFIELD*

TRADES.



A large stock of GLAZED AND UNGLAZED  
ROPE PAPERS always on hand, suitable for  
CUTLERY, EDGE TOOLS, SAWS, FILES, ELECTRO-  
PLATE, and for every description of HARDWARE.

**JOS<sup>H</sup> & ROB<sup>T</sup> DODGE Limited,**

{ W. I. HORN & CO.,  
BRIDGE STREET, }

**CONTINENTAL WORKS, SHEFFIELD,  
CONVERTERS AND REFINERS OF  
STEEL;**

**MANUFACTURERS OF EVERY DESCRIPTION OF  
FILES,**

Also of the well-known } **HORSE RASPS** Marked { W. I. HORN & CO.,  
SHEFFIELD.

**TABLE CUTLERY,  
BREAD, BUTCHERS' & OTHER KNIVES,  
RAZORS, SCISSORS, POCKET CUTLERY,  
*Saws, Edge Tools, Scythes, Sickles, Straw Knives,***

**SCYTHE STRICKLES;**

**MERCHANTS OF ALL KINDS OF HARDWARE FOR HOME AND EXPORT.**

~~~~~  
**Corporate Mark—"JUSTE JUDICATO."**  
~~~~~

**AT AMSTERDAM, IN 1869, THE GRAND DIPLOMA OF HONOUR, THE  
HIGHEST PRIZE, WAS OBTAINED BY**

**JOS<sup>H</sup> & ROB<sup>T</sup> DODGE, SHEFFIELD.**

# Alliance Life and Fire Assurance Company.

ESTABLISHED 1824. CAPITAL, £5,000,000.

*Chief Office: BARTHOLOMEW LANE, LONDON.*

## BOARD OF DIRECTION.

Sir Moses Montefiore, Bart., F.R.S., President.

James Alexander, Esq.	Thomas Masterman, Esq.	J. M. Montefiore, Esq.
C. G. Barnett, Esq.	Samuel Gurney, Esq.	Baron L. N. de Rothschild.
James Fletcher, Esq.	Richard Hoare, Esq.	Sir N. M. de Rothschild,
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Right Hon. Lord R. Grosvenor, M.P.	Sampson Lucas, Esq.	Hugh Colin Smith, Esq.
	Elliot Macnaghten, Esq.	

## AUDITORS.

Francis William Buxton, Esq. | Francis A. Lucas, Esq.  
Lord Edward Cavendish. | Charles Rivers Wilson, Esq., C.B.

ROBERT LEWIS, Secretary to the Company.

*Sheffield Office: 35, GEORGE STREET.*

## DIRECTORS.

William Wake, Esq. (Chairman); Sir John Brown, D.L. and J.P.; Edward Hudson, Esq.  
RESIDENT SECRETARY—E. ROGER OWEN.

## LIFE DEPARTMENT.

In a life assurance contract security should be the paramount consideration, and next to security in importance are the terms and conditions on which a policy of assurance may be obtained. The conditions of the Alliance have been recently revised, and placed on a footing eminently favourable to the assured, and the rates of premium for policies that do not participate in profits have been materially reduced. Persons are thus enabled to effect assurances with the office free from unnecessary restrictions, and at a minimum cost of premium; while the security afforded by the large capital and reserves of the Company is of the highest character.

Participating policy holders receive 80 per cent. of the declared divisible profit from all life assurances.

Important concessions have been made to the assured as regards foreign residence and travel.

Under favourable circumstances whole-world policies are granted free of extra premium.

Policies acquire a surrender value after two annual premiums have been paid.

The following are specimens of the reduced premiums for assurance for the whole life, without profits:—

£1 12 7	per cent. per annum for life aged 20 next birthday.
2 1 8	” ” ” 30 ”
2 16 4	” ” ” 40 ”
4 2 0	” ” ” 50 ”

Premiums for policies payable during the lifetime of the assured, and for other classes of non-participating policies are equally favourable.

## FIRE DEPARTMENT.

FIRE POLICIES ARE GRANTED ON THE USUAL TERMS.

The Directors are open to entertain applications for agencies from parties who are in a position to introduce business of a high class.

Life and fire proposal forms, detailed prospectuses and statements of accounts may be had on application at the office of the Company, or to its Agents.

E. ROGER OWEN,

RESIDENT SECRETARY, SHEFFIELD.

# THE SHEFFIELD COLLEGIATE SCHOOL.

FOUNDED 1835.

## PATRON.

THE RIGHT HONOURABLE AND MOST REVEREND THE LORD  
ARCHBISHOP OF YORK.

## PRESIDENTS.

THE RIGHT HON. EARL WHARNCLIFFE.

THE RIGHT REVEREND THE LORD BISHOP OF SODOR AND MAN.

## VICE-PRESIDENTS.

THE REV. CANON BLAKENEY, M.A., VICAR OF SHEFFIELD.

HENRY WILSON, ESQ.

## PRINCIPAL.

THE REV. JAMES CARDWELL, M.A., LATE SCHOLAR OF  
GONVILLE AND CAIUS COLLEGE, CAMBRIDGE.

The object of the school is to provide a sound training for the Universities, and thoroughly to meet the wants of those boys who enter directly upon a professional or business career.

The long list of Honours recently won bears testimony to the efficiency of the training received at the school.

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## J. C. CLARKE & Co.,

### STEEL CONVERTERS AND REFINERS,

AND MANUFACTURERS OF EVERY DESCRIPTION OF

Cast, Shear, Blister, and Spring Steel

IN BARS, RODS, AND SHEETS;

FILES, SAWS, TOOLS & HAMMERS.

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## CRUCIBLE STEEL WORKS, SHEFFIELD.

# Sheffield Royal Grammar School.

ST. GEORGE'S SQUARE.

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FOUNDED A.D. 1603.

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## FOUNDATION MASTERS—

### Head Master :

J. E. JACKSON, M.A., D.C.L., First Mathematical Prizeman, and late Senior Scholar of Queens' College, Cambridge.

### Second Master :

W. DOIG, B.A., St. John's College, Cambridge ; Second Class Classical Tripos ; Assistant Master for five years in Manchester Grammar School.

---

TERMS : EIGHT GUINEAS PER YEAR.

Entrance Fee, One Guinea.

These Terms include English, Mathematics, Science, French, German, Latin, and Greek. Writing, English Composition, Arithmetic, Mensuration, and Book-keeping, all receive careful attention. Pupils are prepared to compete for open Scholarships at Oxford, Cambridge, and London, and for the Preliminary Legal and Medical, Civil Service, Local, and other Examinations.

---

**Thirty Exhibitions**, which entitle the Holders to Tuition at half the usual Terms, are open to the sons of widows or of professional men, or to boys of special ability.

---

**Scholarships**, which entitle the Holders to Tuition free of charge, are awarded after the Examinations at the end of each Term.

---

The Senior Governor of the School, H. WILSON, Esq., has generously promised a **Scholarship** to a Grammar School Boy whose abilities qualify him for a successful career at Oxford or Cambridge.

---

At the Cambridge Local Examinations, when 4396 Junior Candidates competed, the FIRST, Eighth, and Twenty-Fifth places in English—in which the competition is of course especially severe—were won by boys in this School ; and out of 1475 Senior Candidates, the Thirteenth in Mathematics, and the Eighteenth in English were Sheffield Grammar School Boys.

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*For further particulars apply to Dr. JACKSON, 14, Claremont Place,  
Glossop Road.*



# WESLEY COLLEGE, SHEFFIELD.

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GOVERNOR AND CHAPLAIN - REV. WM. JESSOP.

HEAD MASTER - - - - H. M. SHERA, Esq., LL.D.

---

In this Institution the utmost importance is attached to sound moral and religious culture, and both discipline and tuition are carefully adapted to promote it. The educational course is of the most comprehensive kind. A very large number of the students of Wesley College have passed in the London Matriculation and B.A., as well as the various preliminary Examinations for the professions during the last few years, and many have obtained high honours.

The French and German languages, with drawing, music, and chemistry, are taught by accomplished Professors. Instruction in natural science is systematically given in classes and by weekly lectures to the whole College.

Spanish, Italian, and Oriental languages are taught if required.

Gold and silver Medals, together with other prizes, are open to successful students.

Valuable Scholarships, supplied chiefly by the munificence of Sir Francis Lycett, Isaac Holden, Esq., J.P., and the late P. Spooner, Esq., are annually given as the rewards of industry and proficiency.

By the recent opening of a large Lower School the best provision has been made for the thorough instruction of the junior pupils in elementary subjects.

The College is situated in a remarkably healthy locality, and by the use of careful sanitary arrangements, assiduous attention is given to promote the health of the establishment.

For Prospectuses, &c., apply to the Governor.

# Girls' Public Day School Company Limited,

IN CONNECTION WITH THE

NATIONAL UNION FOR IMPROVING THE EDUCATION OF WOMEN.

President of the Union:

HER ROYAL HIGHNESS PRINCESS LOUISE, MARCHIONESS OF LORNE.

President: THE EARL OF AIRLIE.

Chairman of the Council: W. H. STONE, Esq.

## SHEFFIELD HIGH SCHOOL, SURREY STREET, SHEFFIELD.

HEAD MISTRESS - MRS. WOODHOUSE.

### THE AIM OF THE COMPANY

Is, by the employment of an ample staff of competent Teachers and the use of the best methods of instruction, to ensure for Girls an education adapted to their requirements, but as sound and thorough as that which Boys now receive in Grammar Schools of the highest class.

### THE SCHOOL COURSE

Includes Religious Instruction, Reading, Writing, Arithmetic and Mathematics, Book-keeping, English Grammar, Composition and Literature, History, Geography, French, German, Latin, the Elements of Physical Science, Social Economy, Drawing, Class Singing and Harmony, Gymnastic Exercises and Needlework, or such of the above or other Subjects as the Council, with due regard to particular circumstances, may determine.

### THE SCHOOL YEAR

Is divided into Three Terms, each of about Thirteen Weeks.

### THE HOURS OF ATTENDANCE

Are from 9.30 to 1.30 every day but Saturday (which is a whole holiday).

Regular and punctual attendance is required.

Lessons in Music, and Special Drawing Lessons are given in the Afternoon.

The Pupils can attend between 2.30 and 4, to be assisted by the Teachers to prepare their lessons.

### VACATIONS.

About Three days at Easter, and Eight days a fortnight later; about Seven weeks at Midsummer; and about Four weeks at Christmas. There is a whole holiday in the middle of each Term.

### FEEES (PAYABLE IN ADVANCE).

*Entrance Fee—One Guinea.*

### TERM FEES.

For Pupils under Ten Years of Age .. .. .	THREE GUINEAS a Term.
For the above Pupils remaining after Ten, and for Pupils entering the School between Ten and Thirteen Years of Age .. .. .	FOUR GUINEAS a Term during the whole of their stay in the School.
For Pupils entering the School above Thirteen Years of Age .. .. .	
	FIVE GUINEAS a Term during the whole of their stay in the School.

*School Stationery (not including Drawing Materials) Five Shillings a Term.*

Prospectuses and Forms, to be filled up before admission, may be obtained at the School, or from the Secretary of the Company, 112, Brompton road, London, S.W.

A. McDOWALL, B.A., B.Sc., SECRETARY.

# SHEFFIELD AND SOUTH YORKSHIRE Permanent Building Society.

Established January 1st, 1849, and incorporated in 1875 under "The Building Societies Act, 1874."

Offices—10, NORFOLK-ST., SHEFFIELD.

ANNUAL INCOME EXCEEDS £150,000.

PRESENT BORROWING POWERS, authorised by Act of Parliament, £200,000. On 31st Dec., 1878, the following were the balances in the Society's books:—

Due to Depositors .. .. £103,921 at 4 per cent.  
Due to Investing Shareholders .. £157,000 exclusive of Profits.  
Due from Borrowing Shareholders .. £296,040 secured by Mortgages.

The Annual Balance Sheets show, by the increased funds entrusted to its care, that the public has had confidence in the Society's direction and management, and the results obtained fully justify such confidence.

The following are some of the advantages offered by this Society:—

## BORROWERS

May obtain at short notice advances upon security of land, houses, shops, works, &c., and facilities are given for redemption such as no private lender can possibly allow. Repayments may be made monthly, quarterly, or half-yearly, extending over from 5 to 14 years, to suit the Borrower's convenience, according to the following scale for each £100 advanced.

Term.	Monthly Repayment.	Annual Repayment.	Average Payments for	
			Principal.	Interest.
5 years	£1 19 1	£23 9 0	£20 0 0	£3 9 0
7 "	1 9 4	17 12 0	14 5 9	3 6 3
10 "	1 2 2	13 6 0	10 0 0	3 6 0
12 "	0 19 4	11 12 0	8 6 8	3 5 4
14 "	0 17 6	10 10 0	7 2 10	3 7 2

At the expiration of the time selected by the Borrower, his payments cease absolutely; he may however, at any time at the discretion of the Directors, shorten or lengthen the term originally agreed upon, so as to increase or decrease his monthly payments.

Mortgages can be redeemed, wholly or in part, by payment of the present value of the repayments unpaid, discount being allowed at the rate of 5 per cent. per annum.

The usual commission is 3 per cent., and the Borrowers are not liable for any losses. The legal and Surveyor's charges are fixed by a low scale.

## INVESTORS.

There are two classes of Investing Shares, viz.:—

**PAID-UP SHARES**, which entitle the owner to £100 at the end of the selected term, with profits which have hitherto been equal to £18 for each 10 years' share. The charge for these shares varies from £68 for a 10 years' share to £83 for a 5 years' share. If withdrawn before maturity, 4 per cent. interest is allowed.

**SUBSCRIPTION SHARES** are similar to above, except that they are paid by monthly or other periodical instalments, instead of in one sum. Discount is allowed on instalments paid one year and upwards in advance. The monthly subscriptions vary from 13s. for a 10 years' to £1 10s. for a 5 years' share. Half and Quarter shares are issued at proportionate rates.

The entrance fee is 2s. 6d. for each £100 share, and there is a premium on Subscription Shares of £1 10s. to £2, according to the term, which has been charged in consequence of the great number of applicants desirous of participating in the large Reserve Fund.

The Gain to Investors on Paid-up Shares is, at present rates of profit, £50 in 10 years, against £23 8s. to a depositor in the Sheffield Savings Bank, and £19 1s. in the Post Office Savings Bank. The Gain on Subscription Shares is even more. Shares can be entered at any time, and withdrawn at very short notice.

## DEPOSITORS.

The Society receives deposits of £5 and upwards, and allows interest at 4 per cent. from date of receipt. Every facility given for withdrawal, as although notice is stipulated for, only two or three days have ever yet been required for the largest sums in the 28 years' experience of the Society. Deposits held 31st December, 1878, were £103,921, or about one-half of the amount authorised by Act of Parliament. Depositors have a FIRST CHARGE upon the Society's Assets, valued at £296,040 at above date. Few investments offer the facilities of repayment and fair interest with the safety found in this Society.

Subscription days the first Monday in each month, but deposits and subscriptions received and paid, loans negotiated, and other business transacted daily at the Offices.

Hours of Business—10 to 5; Saturdays, 10 to 1; Subscription days, 10 to 4, and 5 to 8.

JOHN KIDNER, Secretary.



# EXCHANGE DRAPERY CO. LIMITED,

*Victoria Buildings,*



*Fargate, Sheffield.*

(Late GRAYS AND HENDERSON.)

## PARIS & LONDON MILLINERY BONNETS & HATS.

ENGLISH AND FRENCH  
FLOWERS, FEATHERS, RIBBONS.

REAL AND IMITATION LACES.

SEWN MUSLINS.

LADIES' UNDER-CLOTHING.

BABY-LINEN.

DRESS AND MANTLE TRIMMINGS.

*Haberdashery.*

HOSIERY AND GLOVES.

GENTLEMEN'S OUTFITTING.

FURS.

UMBRELLAS AND SUNSHADES.

FRENCH AND SPITALFIELDS

**Silk, Silk Velvets, and  
Velveteens.**

## BONNET MATERIALS.

MANTLES, JACKETS.

SHAWLS, SKIRTS.

PLAIN AND FANCY

## DRESS MATERIALS.

COSTUMES.

EXPERIENCED

*DRESS-MAKERS AND MILLINERS  
ON THE PREMISES.*

MOURNING & SPECIAL ORDERS  
EXECUTED PROMPTLY.

LINENS, CALICOS, SHEETINGS, QUILTS,  
BLANKETS, CURTAINS, &c.

DAMASKS. WOOLLEN CLOTHS.

### **Mourning Department.**

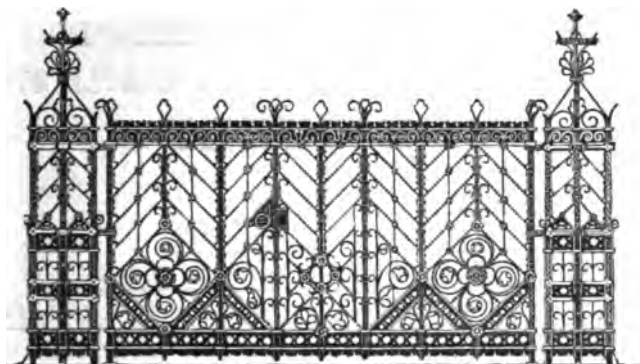
Crapes, French Merinos, Paramattas,  
Baratheas, Alpacas, Coburgs, &c.

ALL GOODS MARKED IN PLAIN FIGURES.

# ENTRANCE GATES!!

ALL WROUGHT IRON.

FROM SPECIAL DESIGN, WITH SUPERIOR WORKMANSHIP.



JOHN WILSHAW,  
*Ornamental Ironworker*

AND MANUFACTURER OF

ENTRANCE GATES,  
*Railings, Balconies, Crestings, &c.,*

GRANVILLE STREET,

AND AT

18, BROAD ST., CORN EXCHANGE,  
SHEFFIELD.

# GEORGE H. HOVEY,

## THE HALLAMSHIRE

### Drapery, Furnishing and Furniture

#### ESTABLISHMENT,

38, 40, 42, 44, ANGEL STREET, and 2, CASTLE STREET,  
SHEFFIELD.

ONE OF THE LARGEST STOCKS IN YORKSHIRE!

THE MOST POLITE ATTENTION GIVEN TO CUSTOMERS!

PROMPTITUDE AND CELERITY IN THE DESPATCH OF BUSINESS!

THE LOWEST PRICES POSSIBLE, FROM WHICH NO ABATEMENT CAN BE MADE!

THE PREMISES have recently been very considerably ENLARGED, and EXPERIENCED BUYERS and MANAGERS PLACED AT THE HEAD OF EACH DEPARTMENT. The whole is under G. H. H.'s PERSONAL SUPERINTENDENCE.

The present Premises afford much greater convenience to Customers, and facilities for SHOWING A LARGELY INCREASED VARIETY OF ALL CLASSES OF GOODS, particular care being taken to provide ONLY THE PUREST AND BEST MAKES in each class, bought for Cash.

G. H. H. is resolved fully to meet the surrounding competition; the PRICES will, therefore, be found as ECONOMICAL as those of any House in the Trade.

#### THE FOLLOWING ARE THE PRINCIPAL DEPARTMENTS:—

SILKS	FEATHERS	KITCHEN FURNI- TURE	IRON AND BRASS BEDSTEADS
VELVETS	UMBRELLAS	UPHOLSTERY AND CABINET WORK,	BEDS, BEDDING, MATTRESSES
BONNETS	HOSIERY	IN ALL ITS BRANCHES	BLANKETS, SHEETS
HATS	GLOVES	BRUSSELS CARPETS	QUILTS
MANTLES	FLANNELS	TAPESTRY CARPETS	CRETONNES AND CHINTZES
SHAWLS	PRINTS	KIDDERMINSTER CARPETS	FLOOR OILCLOTHS
FURS	LINENS	HEARTH RUGS	TABLE COVERS
COSTUMES	CALICOES	MATS AND MATTING	FLAGS, BANNERS, SHIELDS,
INFANTS' CLOAKS, HOODS, &c.	MUSLINS	LACE CURTAINS	MOTTOES
FRENCH DRESS GOODS	BED ROOM FURNI- TURE	DAMASK AND REP CURTAINS	GENERAL INSIDE AND OUTSIDE
ENGLISH DRESS GOODS	DINING ROOM FUR- NITURE	LOOKING GLASSES	DECORATIONS, on SALE or HIRE.
RIBBONS	DRAWING ROOM FURNITURE	GILT CORNICES	
LACES	LIBRARY FURNI- TURE	CURTAIN POLES	
FLOWERS			

EVERY DESCRIPTION OF UPHOLSTERY WORK DONE ON THE PREMISES.  
ALL KINDS OF FURNITURE MADE TO ORDER.

#### WEDDING OUTFITS.

**FAMILY AND COMPLIMENTARY MOURNING. FUNERALS FURNISHED.**

All kinds of Inside or Outside Decorations for Bazaars, Banquets, Weddings, &c.  
N.B.—Catalogues of Furniture, &c., free on application.

THE NEWEST PRODUCTIONS OF THE BEST MANUFACTURERS ARRIVE DAILY.

**10, OLD HAYMARKET,  
NEXT THE POST OFFICE.**

**HOUSE FURNISHING  
IRONMONGERS & GASFITTERS.**

# **WILSON & SONS**

Solicit inspection of the large and varied assortment of Goods displayed in their SHOW ROOMS, and would remind those furnishing, removing, or making alterations that as they have experienced workmen they can with considerable advantage to customers execute orders for GASFITTING, BELL HANGING, HOT AND COLD BATHS, WATER CLOSETS, LAVATORIES, &c.; FIXING PICTURE RODDING, BRASS FITTINGS; CLEANING, ALTERING, RE-BRONZING OR LACQUERING GAS FITTINGS, CORNICE POLES, PICTURE RODS AND FITTINGS; CLEANING STOVES, FENDERS, &c., &c.

**BRASS AND IRON BEDSTEADS, CHILDREN'S COTS, CHAIRS, &c.  
BATHS and TOILET WARE.**

**FENDERS, FIRE-IRONS, ASHES-PANS, &c.**

**PAPIER-MACHIE & IRON TEA TRAYS, WAITERS & STANDS.**

**COAL BOXES—A Splendid Assortment.**

**DISH COVERS, HOT-WATER DISHES, PLATES & COVERS.**

## **TABLE CUTLERY.**

**Electro-plated and Britannia Metal Tea and Coffee Pots,  
Cruet Frames, Spoons, Forks and Ladles.**

## **WASH-STANDS,**

**BRUSHES, MATS, & TURNERY GOODS.**

**FLOUR BINS, CANISTERS, BOILER FILLERS, HASTNERS,  
FISH KETTLES—Strong Block Tin and Japan Ware.**

**BRASS and COPPER KETTLES, SAUCEPANS, PRESERVING PANS,  
STEW-PANS and ROASTING JACKS.**

**Iron Saucepans, Kettles, Stewpots, Frying Pans, Coal Pans, Buckets,  
Gridirons, Coffee Mills, Sausage Machines, and Kitchen Requisites.**

**WASHING, WRINGING & MANGLING MACHINES.**

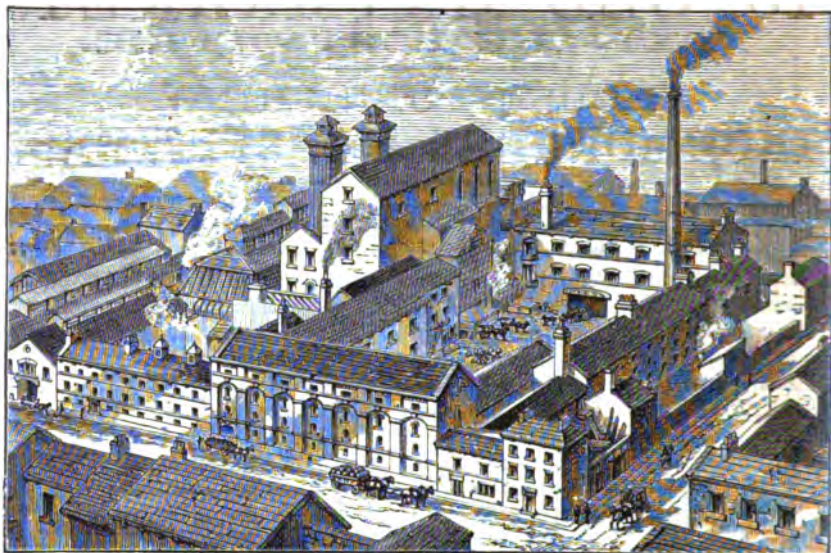
**Gasfittings in all the Newest Designs.**

**CHANDELIERS IN POLISHED BRASS AND FLORENTINE BRONZE.**

**Hall Lamps, Brackets, Globes and Burners, Ceiling Ornaments.**

**WILSON & SONS' SHOW ROOMS,  
10, OLD HAYMARKET, next to the POST OFFICE.**

*Agents for Hink's Patent Duplex Extinguisher Lamp (Petroleum).*



TRUSWELL'S —

*Brewery Company*

— LIMITED, —

ALE, PORTER AND BITTER BEER

— \* *Brewers,* \* —

EYRE STREET,

—  SHEFFIELD.

Sheffield Bath Company  
Limited,

GLOSSOP ROAD.

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SLIPPER,

SWIMMING,

MEDICAL,

TURKISH,

—AND—

LADIES' BATHS.

These Baths are quite new, and no expense has been spared to finish them in the most complete and elegant manner.

The SWIMMING BATH is 77 feet long and 30 feet wide, is very light, spacious and airy, and has a constant flow of fresh water of a uniform and agreeable temperature. It is kept for lady bathers on certain days each week.

The TURKISH BATHS are second to none in the kingdom; they have been fitted up with all the most modern appliances known; the rooms are large, lofty and well ventilated; the whole appointments of the most superior order, and replete with every luxury for the comfort and cleanliness of the bathers.

The LADIES' TURKISH BATH is very complete in its arrangements, is open daily, and has a female shampooer always in attendance.

WILEY & CO.

Wine, Spirit,

and

Liqueur Merchants,

Old Haymarket,

SHEFFIELD.



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—\*Brewers,\*—

*Exchange Brewery,*

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 *Also Brewers of Beer for Export.*



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AND OF

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# SHEFFIELD

# ROYAL VICTORIA HOTEL

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Proprietress - **MRS. GEORGE MEYER.**

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Honoured by the presence of their Royal Highnesses the PRINCE AND PRINCESS OF WALES on the occasion of their visit to this town.

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Replete with every modern comfort, adjoining the Victoria Station, with which it is connected by a covered way.

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ROYAL



HOTEL

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**First-Class Commercial & Family Hotel.**

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ROOMS.

BATHS.

SMOKE  
AND  
BILLIARD SALOON.

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Wine and Spirit Merchants,

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SHEFFIELD,

AND AGENTS FOR RAGGETT'S NOURISHING STOUT AND  
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India Pale Ales.

# THE WHARNCLIFFE, KING-ST., SHEFFIELD.

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The Proprietors respectfully announce completion of alterations, with a view to the further requirements and comfort of the Public.

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Now offer selections of PORTS and SHERRIES of the Finest Quality, drawn from the Wood, and supplied in Dock Glasses, at very moderate prices.

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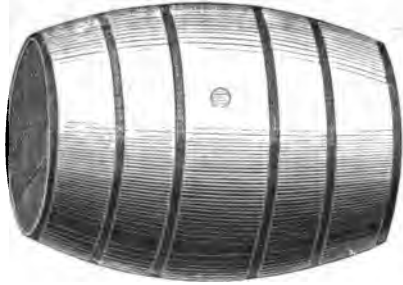
Is of a first-class character, and Guests are assured that nothing is spared to promote their comfort and satisfaction.

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**THOMAS MARRIAN & Co., Burton Weir Brewery, SHEFFIELD.**



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**X.L. ALL**

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118

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- Silks and Shawls.
- Costumes and Fancy Dresses.
- Crapes and Mourning.
- Ladies' Skirts & Down Clothing;
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VIENNA, 1873.

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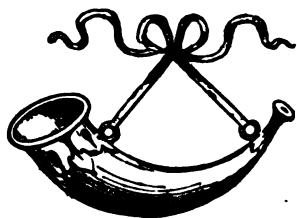
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*And strongly recommend its use by all who are interested in a First-Class Article.*

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**THESE PISTONS EMBRACE THE FOLLOWING COMBINED PROPERTIES  
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They are economical in price and use—the friction being reduced to a minimum ensures **STEAM-TIGHTNESS.**

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And Hall Tables; Gill, Warm Air, Shop, Hot Air, Gas, Cabin, and Wine or Ale Stoves; Cooking and Hot Water Apparatus of all kinds; Stable Fittings; Baths, Cisterns and Sinks; Carrels and Pig Troughs; Ornamental Columns, Windows,

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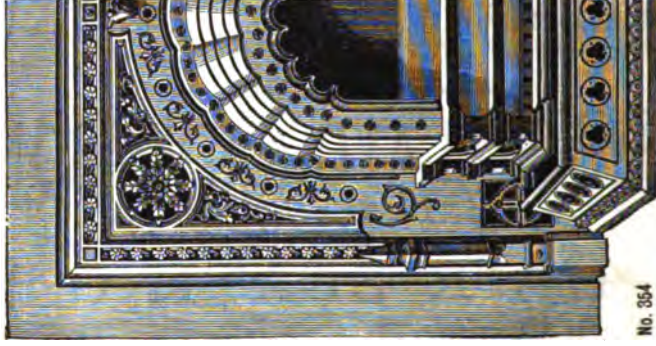
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OF EVERY DESCRIPTION,

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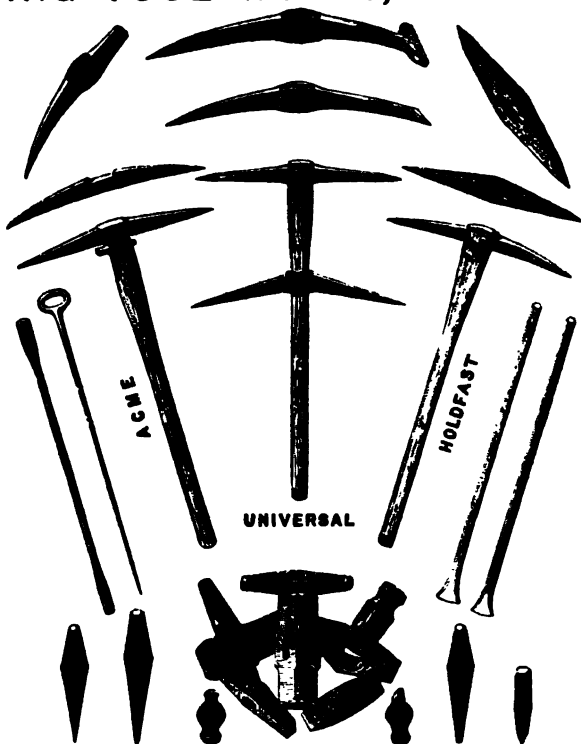


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For Tools, Files, Saws, &c.,

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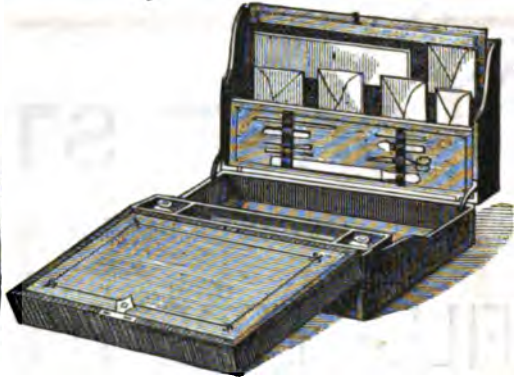
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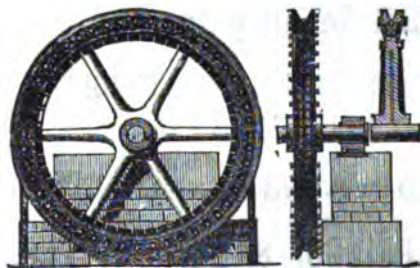
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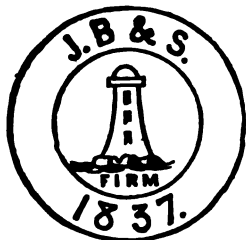
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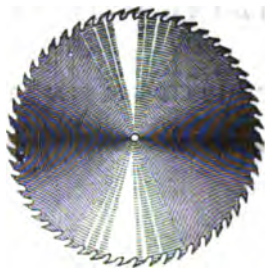
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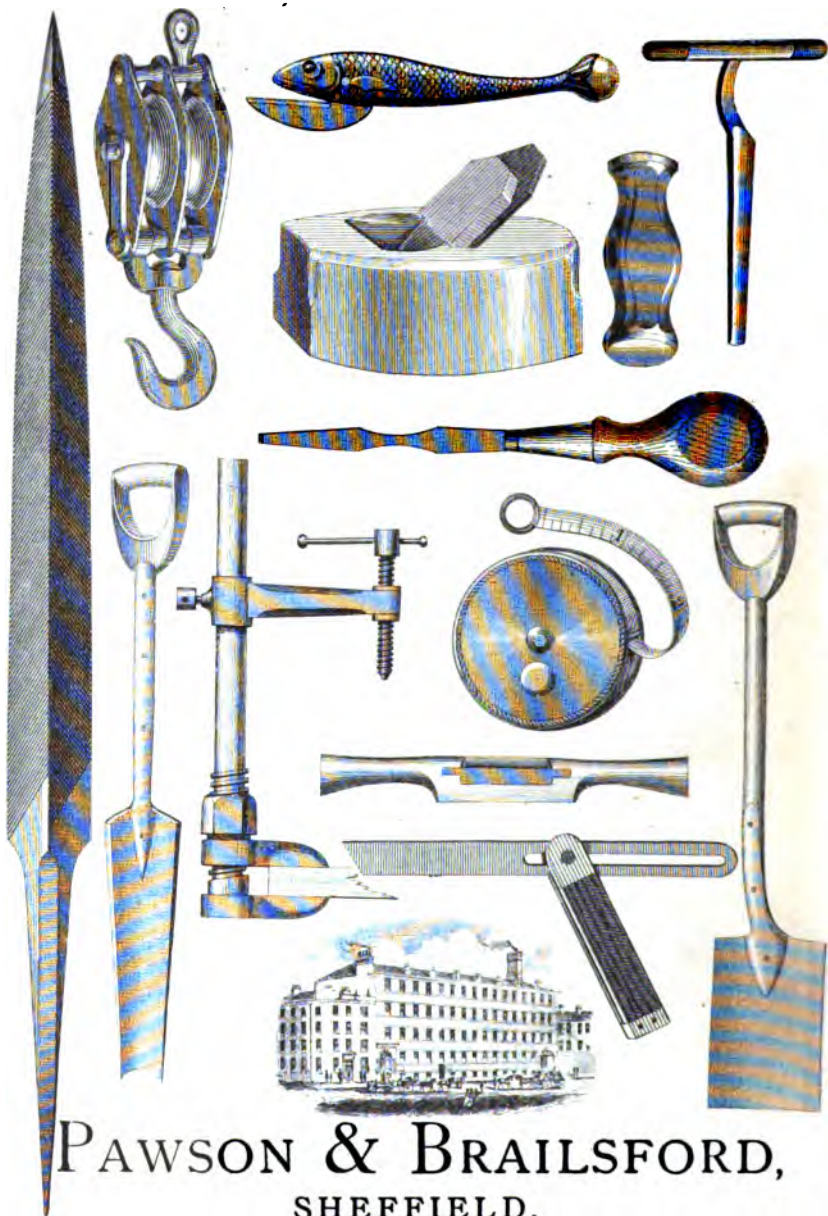
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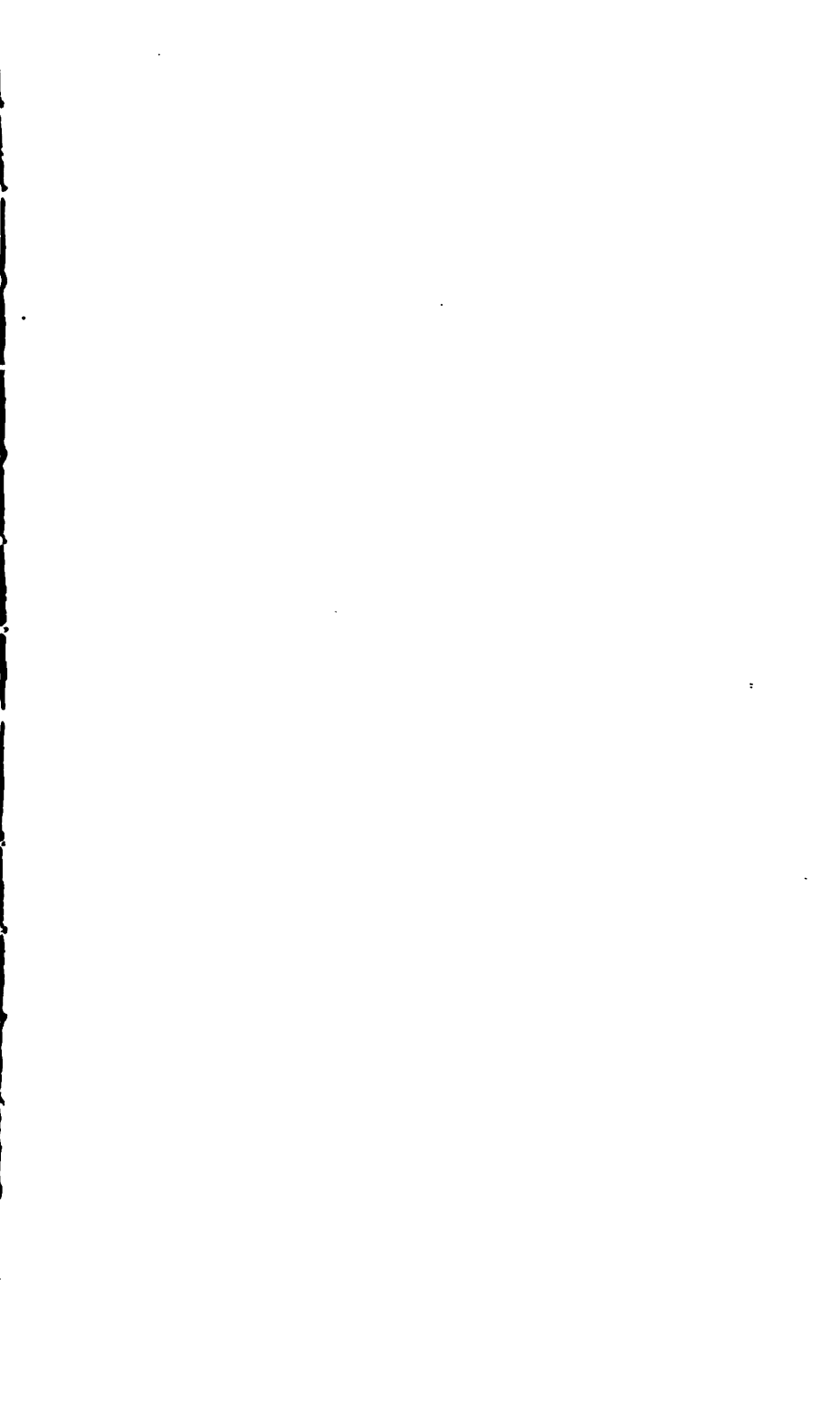
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