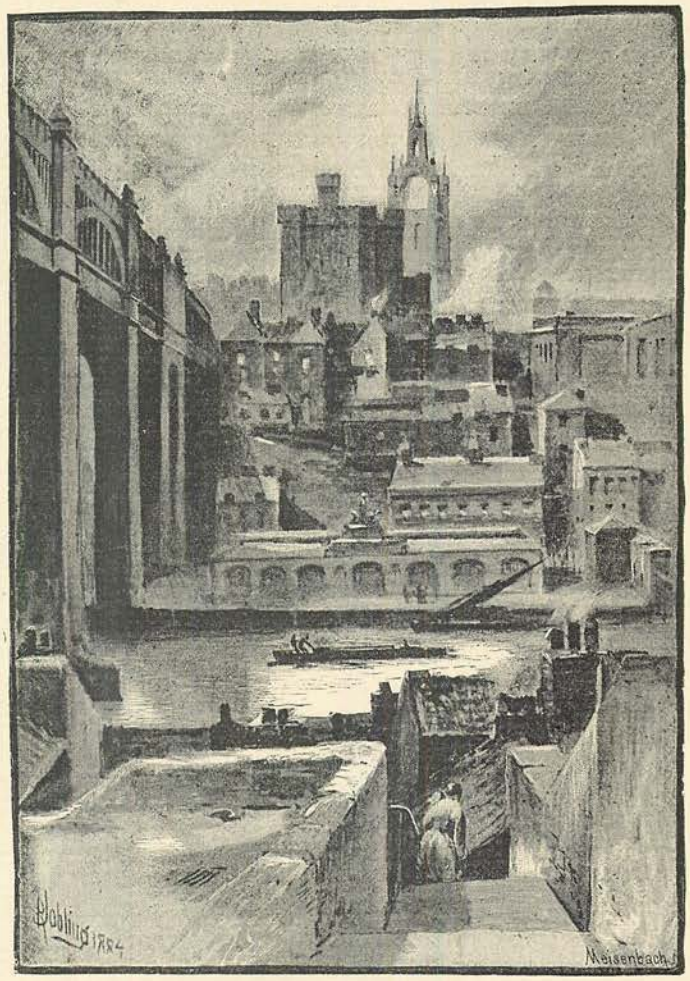
magnificence of the minster. On his way southward he fell into the company of an English judge, who was returning to London, with him he travelled to the great capital. Thence he proceeded to Dover, crossed to Calais, and at length rejoined his master at Basle, having faithfully and successfully, if adventurously, fulfilled his mission.

Twenty-two years after his visit to England, Æneas was raised to the chair of St. Peter, as Pius the Second. He was pope only for six years. He died in 1464. The morality of his early life is open to the greatest censure; but it is gratifying to learn that in his later years he deeply regretted the errors of his youth. On his sins and weaknesses we will not dwell. Let us rather remember his virtues. Throughout his life he was a zealous advocate of education and learning, and was a warm friend of the poor. Unlike many of his predecessors and successors, he cared nothing for money, and was never guilty of simony. After he became pope, he endeavoured to maintain a policy of peace amongst the governments of Europe. As a man of letters, too, he deserved to be remembered. His many writings, all in Latin, are characterized by ease and gracefulness of style. I believe he was the only traveller through Northumberland who ever wore the triple crown, and certainly no writer of ancient or modern times who has visited the Borderland has left a more picturesque account of his experiences.

J. R. Boyle, F.S.A.



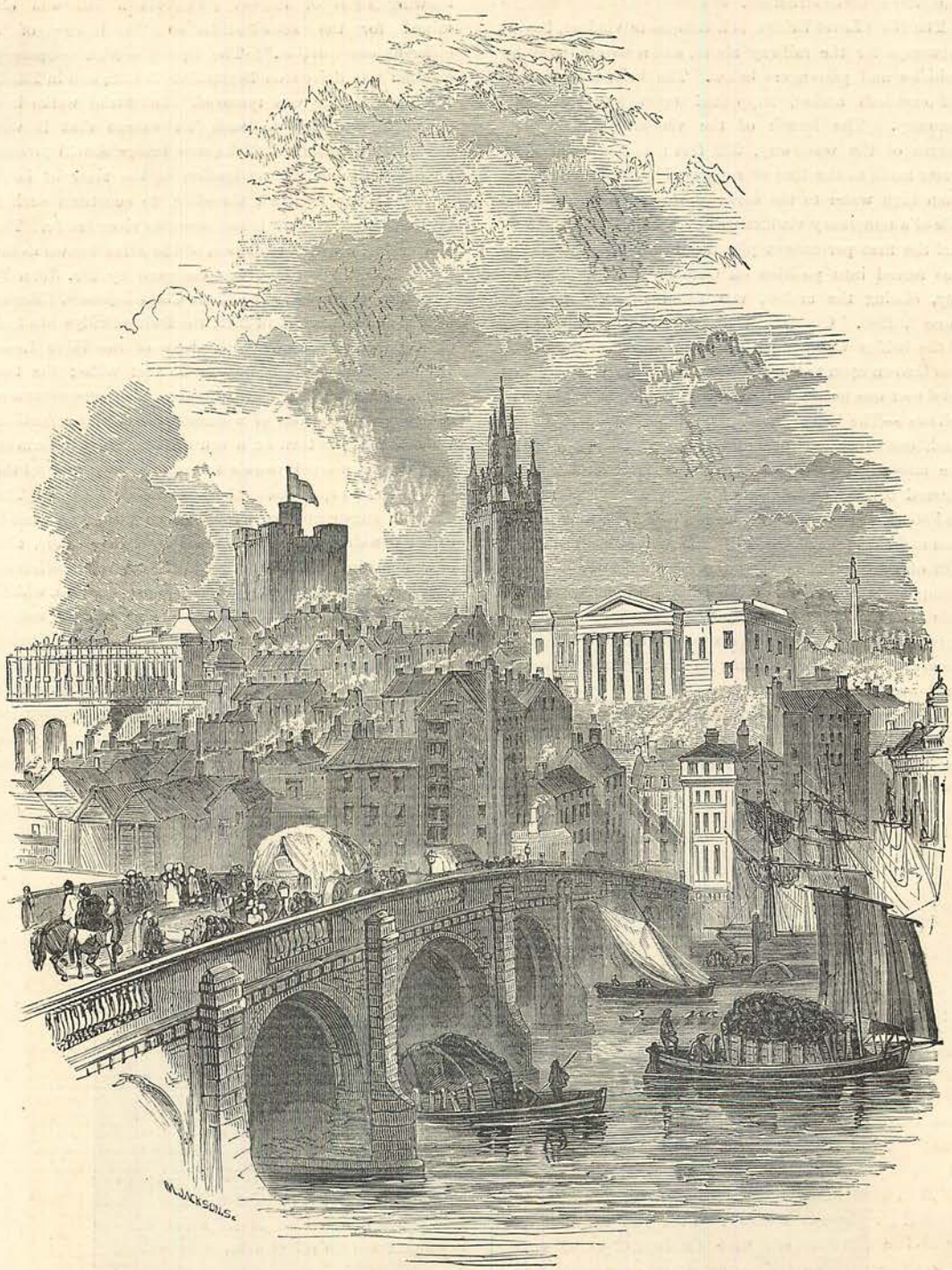
NEWCASTLE FROM GATESHEAD.

Newcastle and its Bridges.

NEWCASTLE is celebrated for its two bridges—the High Level Bridge and the Swing Bridge. Both are enduring monuments of North-Country genius and skill.

The possibility of crossing the River Tyne at a high level occurred to Edward Hutchinson, master mason, of Newcastle, in the year 1771, when the old Tyne Bridge which spanned the river was swept away by a flood. He brought his prospectus and plan before the Newcastle Corporation, but the members thereof could not see their way to adopt the suggestion. Still the project was only suspended for a time. In 1826 and succeeding years, proposals having the same object in view were made, and in 1839 Messrs. John and Benjamin Green published a scheme for crossing the river at a high level. None of the plans, however, met with approval, and it was not until 1846 that the matter took practical shape. A high level bridge had then become a necessity. Railways were being formed all over the country, and it was evident that, unless traffic could be conducted along the eastern route, the western lines would obtain a great advantage. Many difficulties presented themselves, but

THE HIGH LEVEL BRIDGE, NEWCASTLE-ON-TYNE : A BOAT RACE SCENE.



TYNE BRIDGE, NEWCASTLE-ON-TYNE, 1859.

all were surmounted by Robert Stephenson, who devised the present noble structure.

The High Level Bridge is a composite viaduct, having a passage for the railway above, and a covered way for vehicles and passengers below. The bridge consists of six cast-iron arches, supported upon piers of solid masonry. The length of the viaduct is 1,337 feet; length of the waterway, 512 feet; height from high-water mark to the line of railway, 112 feet; and height from high water to the carriage way, 85 feet. The first pile of a temporary viaduct was driven on April 24, 1846; and the first permanent pile for forming the foundation was forced into position on October 1, 1846. The last key, closing the arches, was fitted into its place on June 7, 1849. On August 15, 1849, the upper roadway of the bridge was opened for use; and the lower road was thrown open to the public on February 4, 1850. The total cost was nearly half-a-million of money, made up as follows:—The bridge, £243,096; approaches, £113,057; land, compensation for buildings, &c., £135,000. Into the masonry of the piers and the land arches there entered 681,609 cubic feet of ashlar, 116,396 of rubble, and 46,224 of concrete. As many as 4,728½ tons of cast iron and 321½ tons of wrought iron were consumed. An Act of Parliament permits the North-Eastern Railway Company, the owners of the bridge, to charge at the rate of three miles for carrying a passenger across the upper portion; foot passengers pay a toll of a halfpenny when crossing by the roadway; and a carriage drawn by one horse is charged threepence.

The Tyne Bridge, which succeeded the old bridge destroyed in 1771, was erected in 1781, but it was far from being a satisfactory structure, and before it had been in existence some seventy years it was showing signs of failure. In 1861 a bill was obtained for the substitution of "a bridge of a different construction." The first pile of a temporary erection was driven on September 7, 1865, and in 1866-7 the Tyne Bridge was removed. Industrial works had extended westward to such an extent that it was absolutely necessary that the new bridge should present no difficulties in the navigation of the river by large ships. It was resolved, therefore, to construct such a bridge as would be no impediment to river traffic. The new bridge, a structure of iron of the class known as the hydraulic swing bridge, was designed by Mr. John F. Ure, then engineer to the River Commissioners. Begun in 1868 and completed in 1876, the Swing Bridge has four openings corresponding with those of the High Level Bridge. The carriage way is 24 feet wide; the two footways are each 8 feet 6 inches. The superstructure of the bridge consists of a central or swinging portion, which is made to turn on a central pier, so as to form an opening for masted vessels to pass on each side of the pier, with two spans next the land on either side. The swing is constructed of wrought iron girders of what is called bowstring form, connected by cross girders, also of wrought iron, and supported in the centre by rollers on circular roads; and a large hydraulic press or ram, which, when the bridge is swung, shares a portion of the weight with the rollers. The whole weight of the swinging portion is about 1,500 tons, and the total length about 281 feet. It is moved round by powerful hydraulic machinery. The levers for working the machinery are placed in a raised lantern tower in the centre, and above the top of the girders. The bridge is so constructed that

THE SWING BRIDGE, NEWCASTLE-ON-TYNE.

a weight of sixty tons, on four wheels, can be safely passed over any part of the roadway; and it stood a test of this description before being opened for traffic. The whole of the ironwork of the superstructure of the side spans and the swinging portion, with the hydraulic and other machinery, was constructed by Sir William Armstrong and Company, at Elswick, Newcastle. The rest of the work, including the foundations of the piers and abutments, masonry, approaches, &c., was executed by the workmen of the River Tyne Commissioners.

Our illustrations include a drawing of the old Tyne Bridge from the Gateshead side of the river, made about 1859. (Page 265.) In the extreme distance may be seen Grey's Monument; nearer are the Old Castle, the tower of St. Nicholas' Cathedral, and the Moot Hall; in the middle distance are a number of warehouses; the small erection at the end of the bridge was a toll-house; close to it was a public-house, the landlord of which was Richard Ayre, a celebrated Radical, and a friend of Mr. Feargus O'Connor; part of the Guildhall may be observed on the right. The view of the High Level Bridge (on page 264) is taken from the north shore of the river. Here we have a familiar scene on the Tyne. A couple of scullers are about to row a race. The starters are in their places, and all are eagerly waiting for the signal to commence the contest. Two or three steamboats are filled with excited passengers; whilst a few spectators have taken temporary possession of wherries and boats; others again are content with the view from the causeway of the bridge, and a small group has congregated on an open space on the south side of the river. The drawing by Mr. Robert Jobling (page 263) also shows the Old Castle, St. Nicholas' Cathedral, the Fish Market, and the Moot Hall, but from a higher level. Many of these buildings are likewise depicted in the sketch of the Swing Bridge, the most noticeable object seen in the bridge itself being the tower from which the machinery which turns it is worked.

Lindley Murray at York.

IT is not generally known that the grammarian who exercised so much influence over the English language was closely associated with Yorkshire Quakers. Nor is it quite understood how the American scholar came to pass his days in England without ever returning to his native country. Both points are fully explained in "The Records of a Quaker Family, the Richardsons of Cleveland," by Mrs. Anne Ogden Boyce, which has been published by Messrs. West, Newman, and Co., of Hatton Garden. A whole chapter of this interesting narrative is devoted to Lindley Murray. Born at Swetara, Pennsylvania, in 1745, he grew up a "mischievous child" and a "heedless boy," though he believed he "never failed to perform his tasks." When his schooling was over, he "wished to be anything rather than a merchant," and, with the waywardness of youth, resenting chastisement, he left his home and took up his abode in a distant seminary. Eventually his father allowed him to choose the legal instead of the mercantile profession. In the year 1766, when he was twenty-one, he was called to the American bar, and about the same time he married "a good and amiable woman." While the War of Independence was raging, Lindley Murray fell into ill-health, being troubled with a weakness in the muscles of his limbs. Nothing seemed likely to restore him, and at length a physician proposed a residence of two or three years in England, so as to escape the hot, exhausting summers of America; the climate of Yorkshire, we are told, being especially recommended. Thus it came that the voyage to England was made, and the parting from his native land proved to be for life.

Lindley Murray and his wife landed in England in 1784, the year in which peace was ratified. After visiting many places in Yorkshire, he bought a house and garden in the village of Holdgate, near York, and settled there in 1785. At first he had hopes of returning to America a vigorous man; but the improvement from change of climate was only temporary, and we find Lindley Murray writing in 1806: — "Two-and-twenty years have passed away since we left our native land, and little hope remains of our ever being able to visit it again." He was, however, quite resigned, and, indeed, became closely attached to this country. It is very refreshing at the present day to read the following expression of the feelings of this eminent scholar:—

> Our attachment to England was founded on many pleasing associations. In particular, I had strong prepossessions in favour of a residence in this country, because I was ever partial to its political constitution, and the mildness and wisdom of its general system of laws. I knew that, under this excellent Government, life, property, reputation, civil and religious liberty are happily protected, and that the general character and virtue of its inhabitants take their complexion from the nature of their constitution and laws. On leaving my native country, there was not, therefore, any land on which I could cast my eye with so much pleasure; nor is there any which could have afforded me so much real satisfaction as I have found in Great Britain. May its political fabric, which has stood the test of ages, and long attracted the admiration of the world, be supported and perpetuated by Divine Providence! And may the hearts of Britons be grateful for this blessing, and for many others by which they are eminently distinguished!

The American lawyer who formed this estimate of British institutions did not surrender himself to the morbid fancies of an invalid. For years he took a daily drive to see "the busy or the cheerful faces of his fellowmen," while he occupied himself with writing his first work, entitled "The Power of Religion upon the Mind," which was printed at York in the year 1787. The first edition of five hundred copies, neatly bound in leather, was distributed at the author's own expense. "I sent them," he says, "to the principal inhabitants of York and its