

ON Tuesday, the 26th of April, 1826, the first Chain of this stupendous work was thrown over the Straits of Menai; the day was calm, and highly propitious for the purpose. An immense concourse of persons, of all ranks, began to assemble on the Anglesea and Carnarvonshire shores, about twelve o'clock at noon, to witness a scene, which our ancestors had never contemplated. Precisely at half-past two o'clock, it being then about half-flood tide, the Raft, prepared for the occasion, stationed on the Carnarvonshire side, near Treborth Mill, which supported a part of the Chain intended to be drawn over, began to move gradually from its moorings, towed by four boats, with the assistance of the tide, to the centre of the river, between the two Grand Piers; when the Raft was properly adjusted, and brought to its ultimate situation, it was made fast to several buoys anchored in the Channel, for that specific purpose. The whole of this arduous process was accomplished in twenty-five minutes.

A part of the Chain, pending from the apex of the Suspending Pier, on the Carnarvonshire side, down nearly to high-water mark, was then made fast by bolts, to that part of the Chain lying on the Raft, which operation was completed in ten minutes.

The next process was fastening the other extremity of the Chain (on the raft) to two immense powerful blocks, for the purpose of hoisting the entire line of Chain to its intended station, the apex of seven small Pier, on the Anglesea side; the tension of the Chain then being forty tons. When the blocks were made secure to the Chain, (comprising twenty-five ton weight of iron) two Capstans, and also two preventive Capstans, commenced working, each propelled by twenty-eight men. To preserve an equanimity in the rotatory evolutions of the two principal Capstans, two fifers played several enlivening tunes, to keep the men regular in their steps, for which purpose they had been previously trained.

At this critical and interesting juncture, the attention of the numberless spectators, assembled on the occasion, seemed rivetted to the novel spectacle, now presented to their anxious view; the Chain rose majestically, and the gratifying sight was enthusiastically enjoyed by each individual present.

At fifty minutes after four o'clock, the final bolt was fixed, which completed the whole line of Chain, and the happy event was hailed by the hearty acclamations of the numerous spectators, joined by the vociferations of the workmen, which had a beautiful effect from the reiteration of sound, caused by the heights of the opposite banks of the river. Not the least accident, delay, or failure in any department, took place during the whole operation, which does infinite credit to every individual employed in this grand Work.

From the casting off of the Raft, to the uniting of the Chain, took up only two hours and twenty minutes, which appears truly astonishing, when the

magnitude of the work is considered, and which could only be appreciated by those who had an opportunity of viewing it—a work, differing from any other of the kind, and which, certainly, has not its equal in the known world.

This National, and splendid specimen of British Architecture, will be a lasting monument to the discernment of the present Government, for having called into requisition, the transcendent talents of Mr. TELFORD, (who was present on the occasion) who has thus proved himself, in this line, the first Architect of the age.

The masterly manner in which the various concomitant parts of this magnificent Bridge have been executed, will remain an indelible proof of the superior abilities of Mr. William Alexander Provis, the resident Engineer; Mr. John Wilson, the Contractor of the Masonry; Mr. Hazledine, the Iron-founder, Shrewsbury; and Mr. Thomas Rhodes, the superintendant Engineer of the Iron and Timber work.

Upon the completion of the Chain, three of the workmen, viz. H. Davis, stone-mason, Wm. Williams, labourer, and John Williams, carpenter, had the temerity to pass along the upper surface of the Chain, which forms a curvature of 590 feet. The versid sine of the arch is 43 feet.

On the termination of the day's proceedings, each workman employed (about 150 in number) was regaled, by order of the Right Hon. the Parliamentary Commissioners of the Holyhead Road Improvements, with a quart of *Cwrw da*.

The following is a summary account of the Dimensions of the Bridge:—The extreme length of the Chain, from the fastenings in the Rocks, is about 1600 feet. The height of the road-way, from high water line, is 100 feet.—Each of the seven small Piers, from high water line to the spring of the arches, is 65 feet.—The span of each arch is 52 feet.—Each of the two Suspending Piers is 52 feet above the road. The road on the Bridge consists of two carriage-ways, of 12 feet each, with a foot-path of four feet, in the centre. The carriage roads pass through two arches, in the Suspending Piers, of the width of nine feet, by fifteen feet in height to the spring of the arches. To counteract the contraction and expansion of the iron, from the effect of the change of the atmosphere in Winter and Summer, a set of Rollers are placed under cast-iron saddles, on the top of the Suspending Piers, where the Chains rest. The vertical rods, an inch square, suspended from the Chains, support the sleepers for the flooring of the road-way, the rods being placed five feet from each other. The Chains, sixteen in number, contain five bars each; length of the bar nine feet nine inches, width three inches by one inch—with six connecting lengths at each joint, one foot six inches, by ten inches, and one inch—secured by two bolts at each joint, each bolt weighing about 56 pounds, and the total number of bars, in the cross section of the Chains, is 80.



## Process used in taking over the first Chain.

ON Tuesday, the 26th of April, 1825, the first Chain of this stupendous work was thrown over the Straits of Menai; the day was calm, and highly propitious for the purpose. An immense concourse of persons, of all ranks, began to assemble on the Anglesea and Carnarvonshire shores, about twelve o'clock at noon, to witness a scene, which our ancestors had never contemplated.

Several Gentlemen's pleasure-boats, arrayed in all their gaudy colours, were seen "gliding, in envious pride, on Menai's proud waters."

Precisely at half-past two o'clock, it being then about half-flood tide, the Raft, prepared for the occasion, stationed on the Carnarvonshire side, near Treborth Mill, which supported the part of the Chain intended to be drawn over, began to move gradually from its moorings, towed by four boats, with the assistance of the tide, to the centre of the river, between the two Grand Piers; when the Raft was properly adjusted, and brought to its ultimate situation, it was made fast to several buoys, anchored in the Channel for that specific purpose. The whole of this arduous process was accomplished in twenty-five minutes.

A part of the Chain, pending from the apex of the Suspending Pier, on the Carnarvonshire side, down nearly to high-water mark, was then made fast by a bolt, to the part of the Chain lying on the Raft; which operation was completed in ten minutes.

The next process was fastening the other extremity of the Chain on the Raft, to two blocks, of immense size and power, for the purpose of hoisting it up to its intended station, the apex of the Suspending Pier, on the Anglesea side; the tension of the Chain was forty ton. When the blocks were made secure to the Chain, (comprising twenty-five ton weight of iron) two Capstans, and also two preventive Capstans, commenced working, each Capstan being propelled by thirty-two men.

To preserve an equal tension in the rotatory evolutions of the two principal Capstans, two fifers played several enlivening tunes, to keep the men regular in their steps; for which purpose they had been previously trained.

At this critical and interesting juncture, the attention of every one present, seemed rivetted to the novel spectacle, now presented to their anxious view; the Chain rose majestically, and the gratifying sight was enthusiastically enjoyed by all present, in "breathless silence."

At ten minutes before five o'clock, the final bolt was fixed, which completed the whole line of Chain, and the happy event was hailed by the hearty acclamations of the numerous spectators, joined by the vociferations of the workmen, which had a most delightful effect, from the reiteration of sound, caused by the reverberation of the rocks on the opposite banks of the river.

Not the least accident, delay, or failure, occurred in any department, during the whole operation; which does infinite credit to every individual engaged in this grand Work.

From the moving off of the Raft, to the uniting of the Chain, took up only two hours and twenty minutes, which appears truly astonishing, when the magnitude of the work is considered, and which could be appreciated by those only who had an opportunity of viewing it—a work, differing, in sublimity of Design, from every other Bridge; and which, undeniably, has not its equal in the known world.

This National, and splendid specimen of British Architecture, will be a lasting monument to the discernment of the present Government, for having called into requisition, the transcendent talents of Mr. TELFORD, who has thus proved himself, in this line, the first Architect of the age.

The skilful manner in which the various concomitant parts of this magnificent Bridge has been executed, will remain an indelible proof of the superior abilities of Mr. William Alexander Provis, the resident Engineer; Mr. John Wilson, the Contractor of the Masonry; Mr. Hazledine, the Iron-founder; and Mr. Thomas Rhodes, the superintendant Engineer of the Iron and Timber work.

Upon the completion of the Chain, three of the workmen, viz. H. Davis, stone-mason, Wm. Williams, labourer, and John Williams, carpenter, had the temerity to pass along the upper surface of the Chain, which forms a curvature of 590 feet. The versid sine of the arch is 43 feet.

On the termination of the day's proceedings, each workman (about 150 in number) was regaled, by order of the Right Hon. the Parliamentary Commissioners of the Holyhead Road Improvements, with a quart of *Cervu da*.

The 16th Chain, which completed the whole Line of Suspension, was carried over on Saturday, July 9th, 1825. There was a vast assemblage of persons present; but the process was precisely the same as that stated above.

## Final Opening of the Bridge,

### FOR THE USE OF THE PUBLIC.

This singularly unique structure was Opened at one o'clock *a. m.* by the Royal London and Holyhead Mail Coach, carrying the London mail-bag for Dublin, under the superintendence of Mr. Acres, Inspector of the Mail Coaches for this District.

During the morning, the rain fell in torrents, but before mid-day, the weather cleared up; and the afternoon was fine.

By 11 o'clock, *a. m.* there were, at least, a thousand persons assembled, to witness, as reported, a public Procession; but which was, however, dispensed with, at the particular request of Mr. TELFORD, the Architect.

The first *private* Carriage that passed was that of Augustus Elliott Fuller, Esq. one of the Commissioners, drawn by four beautiful greys. The first *Stage* Coach was, The Pilot, Bangor & Carnarvon Day-coach. The first *London* Stage Coach was, The Oxonian. After these, the Carriage of Sir David Erskine, Bart. late Proprietor of the Ferry, drawn by four elegant greys, decorated with ribbons, followed by several Gentlemen's carriages, landaus, gigs, cars, &c. &c. and horsemen innumerable. Horses, of every description, passed over without shewing the least shyness or timidity.

Numerous flags were flying; and cannons, stationed on each side of the Bridge, kept firing, at intervals, the whole of the day. A Band of Music attended, changing its situation occasionally, from one side of the Bridge to the other. The whole scene was enchanting; and it was, indeed, a proud day for Cambria.

### DIMENSIONS OF THE BRIDGE.

The extreme length of the Chain, from the fastenings in the Rocks, is about 1714 feet. The height of the road-way, from high water line, is 100 feet.—Each of the seven small Piers, from high water line to the spring of the arches, is 65 feet.—The span of each arch is 52 feet.—Each of the two Suspending Piers is 52 feet above the road. The road on the Bridge consists of two carriage-ways, of 12 feet each, with a foot-path of four feet, in the centre. The length of the suspended part of the road, from Pier to Pier, is 553 feet. The carriage roads pass through two arches, in the Suspending Piers, of the width of nine feet, by fifteen feet in height to the spring of the arches. To counteract the contraction and expansion of the iron, from the effect of the change of the atmosphere, a set of Rollers are placed under cast-iron saddles, on the top of the Suspending Piers, where the Chains rest. The vertical rods, an inch square, suspended from the Chains, support the sleepers for the flooring of the road-way, the rods being placed five feet from each other. The Chains, sixteen in number, consist of five bars each; length of the bar nine feet nine inches, width three inches by one inch—with six connecting lengths at each joint, one foot six inches, by ten inches, and one inch—secured by two bolts at each joint, each bolt weighing about 56 pounds, and the total number of bars, in the cross section of the Chains, is 80.

Just Published, by J. Brown, in 12mo. price 2s. a Pamphlet, ornamented with a beautiful Plate, engraved purposely for the work, entitled, "Particulars of the Grand Menai Suspension Bridge, from its Commencement in 1819, to its Completion in 1826."