The folding Bridge on the top of the caisson is supported by levers having adjustable tail weights, which together form a parallel motion. The rising and lowering of the platform is affected by rollers on the nose of the platform against curved plates placed in the abutment.

The caisson, which is hauled by steam power, may be drawn in or out of its recess in less than five minutes, and in any weather. It is divided into two parts, the lower being an air tight chamber of sufficient capacity to reduce the weight of the caisson on the rollers to a minimum, and the upper a flotation chamber, from which the water is pumped out by means of a Pulsometer whenever it is necessary to float the caisson out of its berth. Abrasion of the meeting faces of the caisson and granite cills and stop quoins is prevented by the keels having "swells" in them, as illustrated (Fig. 23), which ensures a clearance of all such, or more, between all the meeting faces, when the caisson is being hauled into or out of its recess.

The sides of the caisson are vertical, but are bevelled horizontally, the inner face being of less width than the outer, in order that by moving the caisson a short distance back into its chamber, and allowing the caisson to float high enough to clear the invert or cill, the caisson may be turned round and floated out, when necessary, for repairs, &c. The caisson, when afloat, can also be berthed against the outside meeting face of the outer invert, and by this means the available length for dockage would be increased by 31 feet, and the length of the dock from the inner face of the caisson to the base of the circular head would then be 481 feet.

By constructing the caisson as above described, the usual battered sides are dispensed with, and a saving of about 10 feet in width of the entrance is thereby effected.

The caisson is constructed of a series of horizontal and vertical angle and T irons, with cross diagonal bracing 4 feet 6 inches apart. The outside plating varies from $\frac{1}{2}$ inch to $\frac{1}{4}$ inch in thickness. A teak meeting face or rubbing piece 1 foot 3 inches wide is attached to the inside and outside faces of the caisson, following the vertical sides and radius of the invert.

The displacement of this caisson is 530 tons, and its entire weight equals 294 tons, made up as follows:—Cast iron, 63 tons; brass, 4 tons; wrought iron, 199 tons; teak face and other iron work, 28 tons; the weight of the concrete ballast, over 180 tons.

The width of the rising and falling platform is 10 feet, the height of the caisson from the inner side of the keels to the coping level is 34 feet 10 inches, the length 67 feet 2 inches on the inner or dock side, and 71 feet 2 inches on the outer or harbor side. The keel blocks are of cast iron, in three pieces, wedge shaped, the lower piece is checked into the stone paving, each block is provided with a hard wood and cap and a rubbing piece on top.

The dockage rates are at present as follows:—

Gross Tonnage of Vessel.	For the first day of docking.	For each following day, including the undocking day.
For all vessels up to 1000 tons . .	$400 00	10 cents per ton.
From 1000 to 2000 " . .	500 00	8 " "
" 2000 to 3000 " . .	600 00	6 " "
" 3000 to 6000 " . .	750 00	5 " "

It may be of some interest to mention that the above rates are slightly less than those at Yokohama, Japan, and from 100 to 300 per cent. less than those at San Francisco, U.S.A., should a vessel occupy the dock from 7 to 10 days.

The Royal Naval Dockyard is adjoining the Graving Dock property, and to the westward thereof, thereby affording great facilities for repairs to any of Her Majesty's ships.

The total cost of the Graving Dock Works, inclusive of the site, the cofferdam works, as well as the engine and boiler houses, pumping machinery, and caisson, amounted to about £180,000.

Mr. William Bennett, M. Inst. C.E., M. Can. Soc. C.E., was the Resident Engineer from 1875, until the completion of the works in 1887, and Mr. Francis O'Reilly was for two years his assistant.