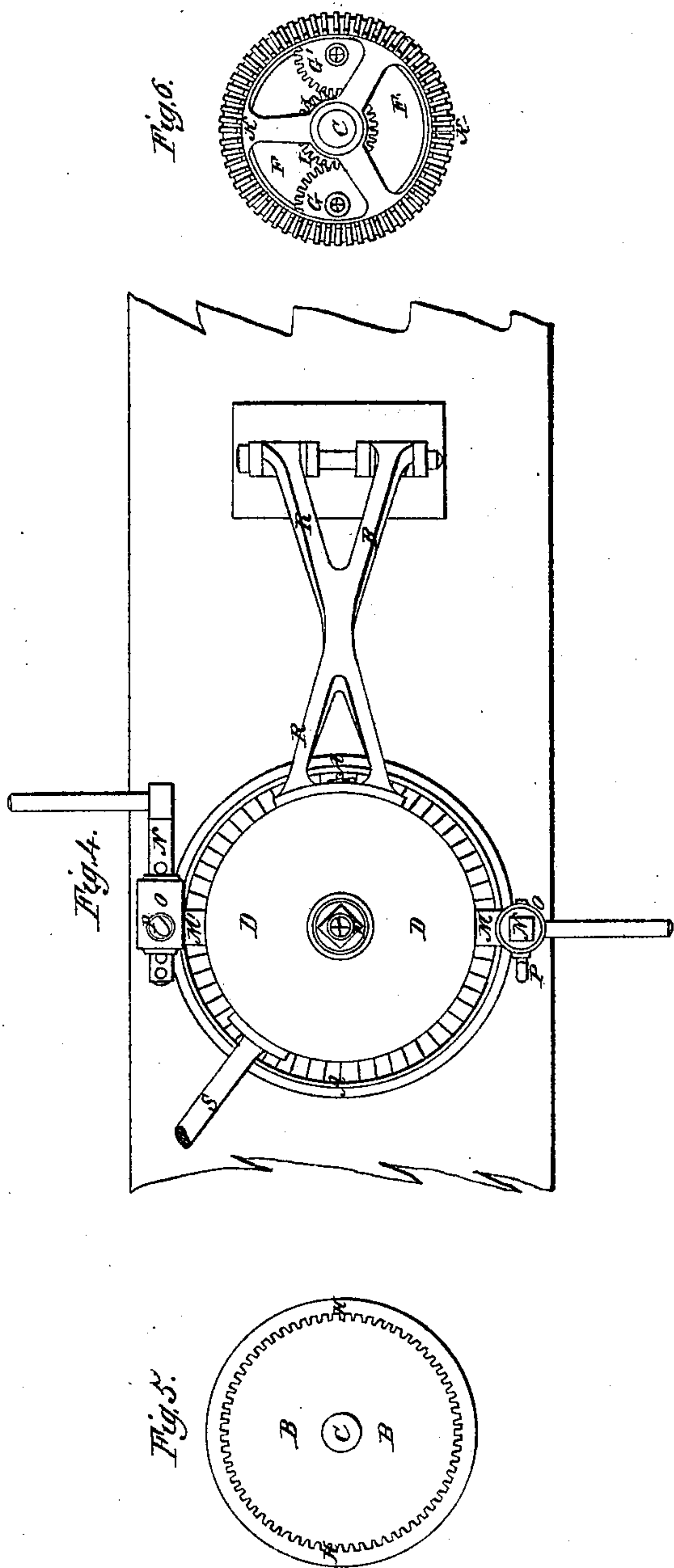
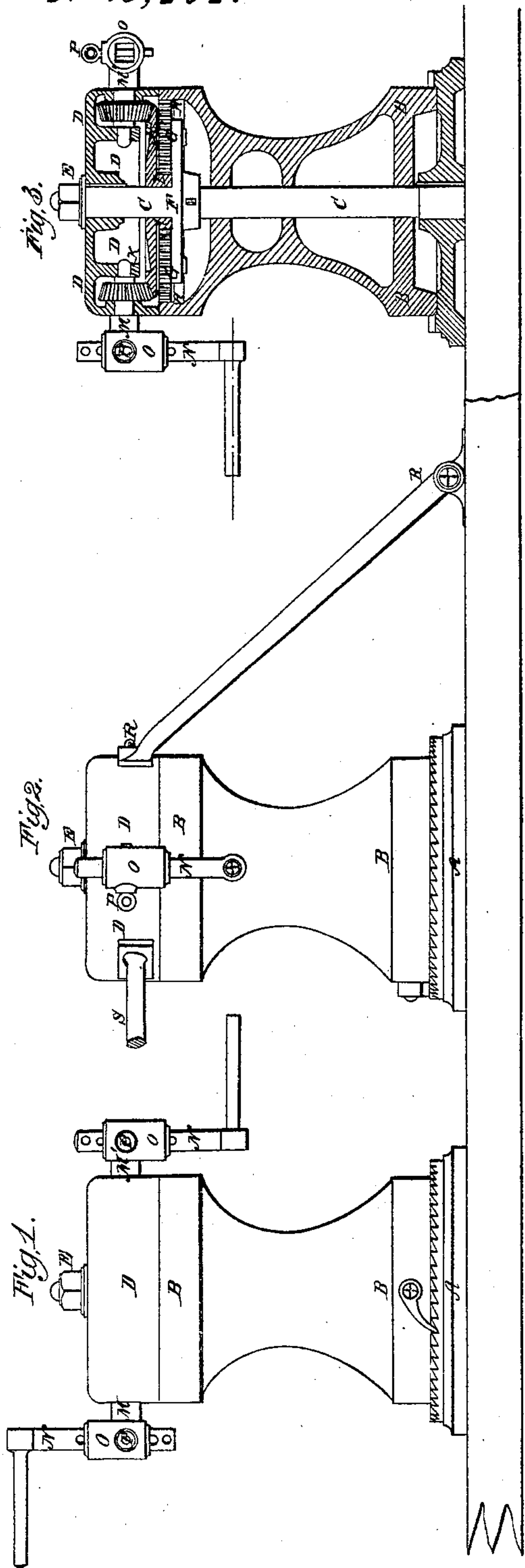


J. B. Holmes,

Canstan.

No 13,262.

Patented July 17, 1855.



UNITED STATES PATENT OFFICE.

JOHN B. HOLMES, OF NEW YORK, N. Y., ASSIGNOR TO JOHN R. PRATT.

SHIP'S CAPSTAN.

Specification of Letters Patent No. 13,262, dated July 17, 1855.

To all whom it may concern:

Be it known that I, JOHN B. HOLMES, of New York, in the county of New York, in the State of New York, have invented new and useful Improvements on Capstans; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying model and drawings and to the letters of reference marked thereon.

Before entering into a detailed description of the various parts of my capstan I will proceed to give a general view of the nature of my improvement.

The nature of my invention in capstans consists in the arrangement of a stationary drum head in combination with a stationary base and spindle and a revolving rope barrel or body, said barrel being moved by gearing and cranks, as hereinafter described.

Thus economy of space, increased facility of working, combined with firmness and strength are jointly embraced in the construction of my improved power capstan; further, by dispensing with cumbrous bars and with the extensive and valuable area required for operation when they are employed the whole apparatus may be made transportable, not only, but stored away, put up or used even in the most confined spaces and localities of the vessel. The greatest inconvenience and encumbrance, however, inherent in all capstans, even of the most recent construction, when worked by bars, consist in the indispensable necessity of traveling or jumping over the hoisting rope, or interfering with the person employed to work it over the barrel, at every turn, the operators perform, it crossing their annular path regularly at every revolution of the capstan; this obvious difficulty, as will be perceived, is also done away with in my improved capstan.

With reference to the annexed drawings, making a part of this specification, and in order to explain the various details more fully, the capstan in Figure 1 and Fig. 2 is represented in elevations; Fig. 3 gives a longitudinal section of it and exhibits the interior arrangement; Fig. 4 shows a ground plan and Figs. 5 and 6 give the more prominent parts in detail.

A, A, in Figs. 1, 2, 3, and 4 is the bottom part or bed plate of the capstan, and of ordinary construction, secured to the flooring or

deck of the vessel, the eye in its center receives the vertical spindle or axis C, made of wrought iron, and keyed fast to the bottom plate A. B, B is the cast iron and hollow barrel of the capstan, revolving freely upon the center shaft C. D, D represents the hollow top or drum head; it is also made firm and stationary with the spindle C and kept in the proper proximity to B, by means of the top nut E, thereby allowing the barrel to move closely between the bed plate A and the top D.

F F in Figs. 3 and 6 is a round plate, firmly secured to the spindle C and placed in a proper position to form the support and the fixed centers for the two spur wheels G, G'; these wheels are alternatively in gear with the toothed rim H, H, Fig. 5, of the barrel B, B, and in the same time with a third wheel or pinion I, I, Fig. 6; the pinion I, I, also forms one piece with the large bevel wheel K, K, and both of them are made to revolve loosely upon the fixed spindle C, the plate F, as support, maintaining their respective positions to G and G'. The hollow top or drum head D, D contains the bearings for the two shafts M, M', which carry in the interior of the head the two pinions L, L' gearing both into the bevel wheel K, while the other extremities of the shafts project through the top of the capstan, for the purpose of receiving the cranks N, N; thus, by turning the cranks, proper motions are imparted to the wheel K with its pinion I, and by means of the intermediate wheels G, G' to the barrel B. The shafts M, M' are provided with cast iron sockets O, O, arranged so, as to allow the cranks N, N, to slide through them, for the purpose of varying the throw of the latter, as above set forth and specified; eye bolts P, P being provided in the sockets, to keep them in the proper position when once set and adjusted.

R, R and S, S in Fig. 2 and Fig. 4 finally represent brakes, and exhibit the principle of bracing and supporting the spindle C with the stationary top or drum head D, D, of the capstan, in various modes, and in such a way as to instantly admit of removal when required; by suitable connections either with the flooring and the deck, or in any horizontal direction from the guards, rails, etc.

Having thus fully described and explained my improvements in capstans, I wish it to be understood, that I make no claim to originality of invention, to employ compound

gearing for working capstans more effectively, for I am aware, that gear wheels have been applied and combined before for the purpose of overcoming a variable resistance
5 in capstans, nor do I claim the shape, form or construction of the different parts, when separately considered, but

What I claim, is—

The arrangement of the stationary drum

head in relation to the stationary base and 10 spindle and movable body, the same being moved by gearing and cranks, as herein set forth and described.

JOHN B. HOLMES.

Witnesses:

CHARLES EHMAN,
E. R. BOGARDUS.