

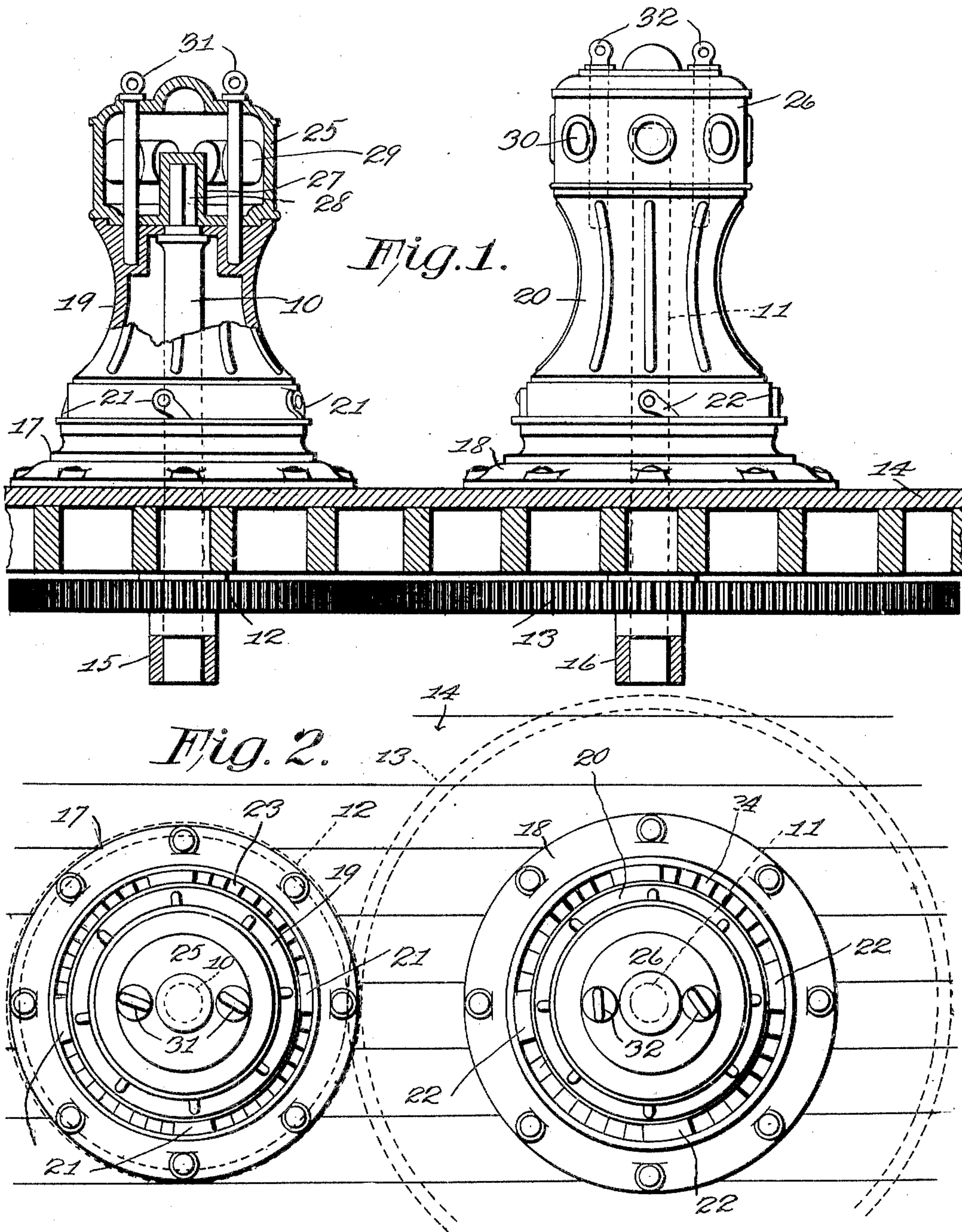
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W. J. ROBERTS & A. F. SHULTZ.

CAPSTAN.

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Witnesses
E. H. Stewart
C. H. Woodward

William J. Roberts
and Albert F. Shultz, Inventors
by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM J. ROBERTS AND ALBERT F. SHULTZ, OF KEYWEST, FLORIDA.

CAPSTAN.

SPECIFICATION forming part of Letters Patent No. 793,909, dated July 4, 1905.

Application filed March 20, 1905. Serial No. 251,138.

To all whom it may concern:

Be it known that we, WILLIAM J. ROBERTS and ALBERT F. SHULTZ, citizens of the United States, residing at Keywest, in the county of Monroe and State of Florida, have invented a new and useful Capstan, of which the following is a specification.

This invention relates to capstans employed upon vessels of various kinds, and has for its object to produce a simply-constructed and efficient device of this character whereby a differential speed may be attained to effect an increase of speed or an increase of power, as required.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages.

In the drawings thus employed, Figure 1 is a side elevation, partially in section; and Fig. 2 is a plan view of the improved device.

The improved capstan construction herein disclosed comprises two shafts 10 11, spaced apart and mounted for rotation at different speeds, as by connecting-gears 12 13 of different diameters or by other suitable connecting means. The shafts 10 11 will usually be mounted for movement through the deck of the vessel, the latter represented at 14, or upon other suitable foundation, and will be further supported, as by hangers or brackets 15 16.

Mounted upon the foundation 14 and surrounding the shafts 10 11 are the bases 17 18 of two capstans, preferably of different sizes,

and mounted for rotation upon these bases are the drums 19 20 of the capstans, the drums rotating freely upon the shafts and having the usual pawls 21 22 for engaging the usual ratchets 23 24 in the bases, as represented. The capstan-drums are provided, respectively, with heads 25 26, attached rigidly to the shafts, as by square sockets engaging square portions of the shafts. One of these sockets is shown at 27 and the square portion of the shaft at 28 in Fig. 1; but it will be understood that each head is similarly rigidly connected to its respective shaft. The head members 25 26 are provided with the usual sockets 29 30 for the capstan-bars and are also provided with pins 31 32, passing down through the head members into the drums 19 20, as represented more clearly in Fig. 1. When the pins are in position, as in Fig. 1, it will be obvious the head members and drums will be coupled together, so that rotary motion imparted to the head members by the capstan-bars in the usual manner will be communicated to the drums from one drum to the other. If it is required to operate both capstans simultaneously, both sets of pins will be left in position in the heads. If it is required to operate either of the capstans alone, the pins will be removed from the head of the other capstan. If it is required to run the smaller capstan from the larger one, so that an increased speed may be attained, the pins are withdrawn from the larger capstan-head and the capstan-bars applied only to the head of the larger capstan. If, on the other hand, it is required to operate the larger capstan only and at reduced speed, but with increased power, the pins are withdrawn from the head of the smaller capstan and the capstan-bars applied only to the head of the smaller capstan. By this means it is obvious that a variety of movements may be attained by simply inserting or withdrawing the coupling-pins and applying the capstan-bars to the head, which will impart the desired speed or power.

The device is simple in construction, may be readily applied to any form or size of vessel, and will be found very useful and conven-

ient for a variety of purposes which will readily occur to persons requiring such an apparatus.

While the capstans are shown connected for operation by gears, it will be understood that chains or other suitable means may be substituted therefor.

Having thus described the invention, what is claimed is—

10 1. In a capstan construction spaced shafts having means for rotation at different speeds, a capstan mounted for rotation upon each of said shafts, each of said capstans having a head connected for rotation with its respective
15 shaft, and means for detachably coupling each of said heads to its respective capstan.

2. In a capstan construction, spaced shafts connected for rotation by gears of different diameters, a capstan mounted for rotation upon
20 each of said shafts, each of said capstans having a head connected for rotation with its re-

spective shaft, and means for detachably coupling each of said heads to its respective capstan.

3. In a capstan construction, spaced shafts 25 connected for rotation by gears of different diameters, a capstan mounted for rotation upon each of said shafts, each of said capstans having a head connected for rotation with its respective shaft, and removable pins extending 30 through said head members into their respective capstans and forming detachable coupling means between them.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures 35 in the presence of two witnesses.

WILLIAM J. ROBERTS.
ALBERT F. SHULTZ.

Witnesses:

E. W. RUSSELL,
D. Z. FILER.