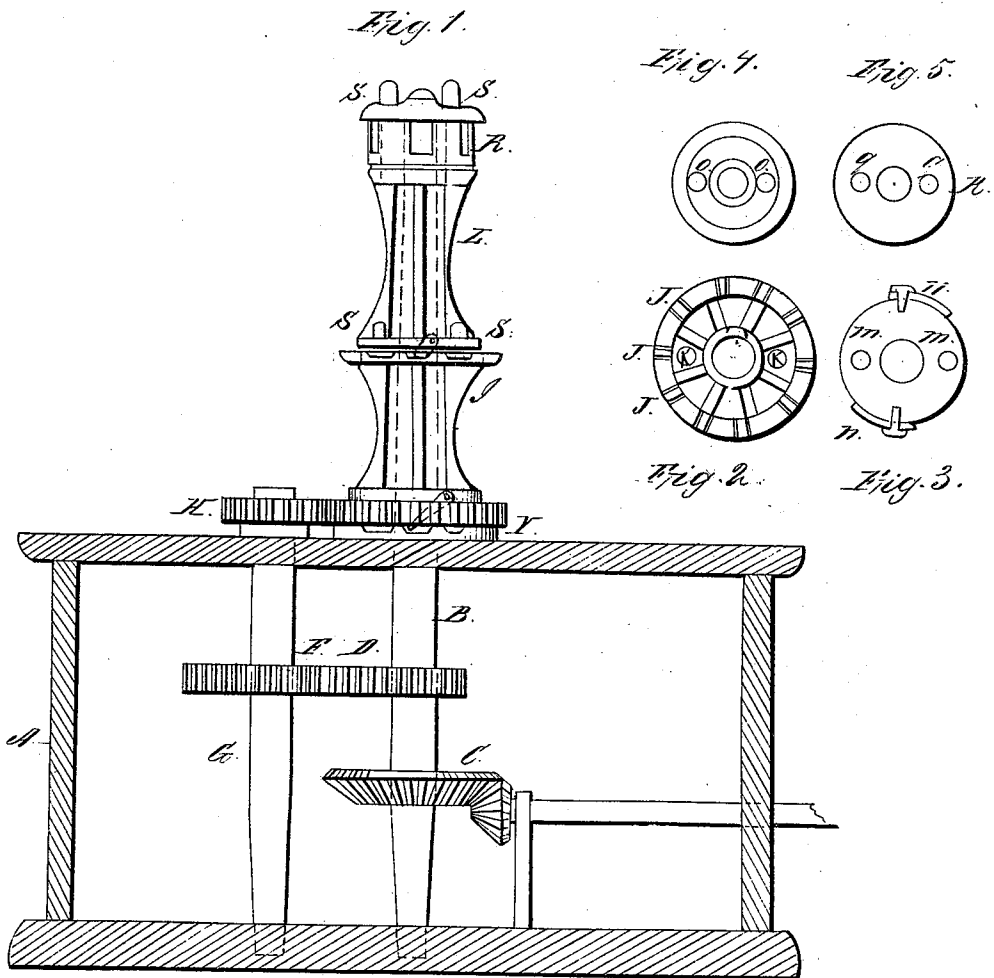


J. W. Riggs.

Capstan.

N^o 107, 104.

Patented Sept. 6, 1870.



Witnesses:
John Muhlenberg
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JAMES W. RIGGS, OF WADE, OHIO.™

Letters Patent No. 107,104, dated September 6, 1870; antedated September 1, 1870.

IMPROVEMENT IN CAPSTANS.

The Schedule referred to in these Letters Patent and making part of the same

I, JAMES W. RIGGS, of Wade, in the county of Washington and State of Ohio, have invented certain Improvements in Capstans, of which the following is a specification, reference being had to the annexed drawing.

My invention relates to a capstan having two separate and independent spools or barrels which revolve on the same axle, but while operated by the same power each can be adjusted to revolve at a different speed, or at the same speed, or one can be made stationary while the other revolves.

This is effected by constructing the capstan like those in general use, only that I extend the main or long axle far enough to receive on it a second or additional spool or barrel, which is placed immediately above and on the first spool, and is attachable to it by pins.

The first spool, having pawls in its top edge, in which a ratchet, placed on the second one, works.

This second spool is also attachable to the drum of the axle by means of pins, all of which will be more fully seen by the following description and reference to drawing, in which—

Figure 1 represents a view of the complete capstan.

Figure 2, an end view of the top end of the first or lower spool or barrel.

Figure 3, an end view of the lower end of the second or top spool or barrel.

Figure 4, an end view of the top end of the same.

Figure 5, a top end view of the drum.

A is the supporting-frame of the capstan, which should be substantially constructed.

B, the main or long axle, on which the spools revolve.

C, its bevel-wheel, by which it is connected with the steam-power.

D, its spur-wheel, which connects with a like one, E, on the counter axle G.

H, a spur-wheel on axle G, which connects with a like one on the spool.

The dimensions of all of which may be as desired, and it is by the means of these axles and wheels that motion is imparted to the spools and the power multiplied.

I is the first or lower spool or barrel, which revolves on the main axle B, provided in its top end with the pawls J J J, &c., and pin-holes K K, as shown in fig. 2, in which pawls a ratchet on the second or top spool works, and in which pin-holes pins are inserted from

like ones in the top one to connect them together when desired.

L is the second or top spool or barrel, which also revolves on the axle B, and also provided with the pin-holes M M in its lower end, and ratchets N N, as shown in fig. 3.

These pin-holes are brought opposite those in the lower spool, and pins inserted when they are to be made fast together.

It is also provided in its top end with the pin-holes O O, as shown in fig. 4, which are brought opposite to the pin-holes q q, fig. 5, in the drum or head R, and pins inserted therein when it is desired to connect the spool with the drum.

S S S represent pins inserted in holes.

T, pawl-bed on top of frame A.

When it is desired to move both spools at the same speed bring the pin-holes K K M M in the respective spools I L and insert therein the pins S S, first having withdrawn the pins which connect the spool L with the drum R.

And when desired to move the spools at different speeds withdraw the pins S S from the holes K K M M in the respective spools I L, and bring the pin-holes O O in the spool L, opposite to those q q in the drum-head R and insert the pins S S therein.

To move one only, withdraw all the pins.

The drum-head R is made attachable to the axle B by a key in a key-seat therein, which must be made fast thereon, when desired to work both spools independently.

The drum R is provided with lever sockets to admit of the top spool being worked by hand from that point.

The top end of the first spool has the same provision for the like purpose.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The spool or barrel L, provided with the pin-holes M M O O, and ratchets N N, arranged as and for the purpose herein described.

2. The spool L, provided with the holes M M O O, ratchets N N, in combination with the spool or barrel I, provided with the pin-holes K K and pawls J J J, arranged as and for the purpose herein set forth.

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