

G. T. LEMONT.
Clutch.

No. 220,207.

Patented Sept. 30, 1879.

Fig. 1.

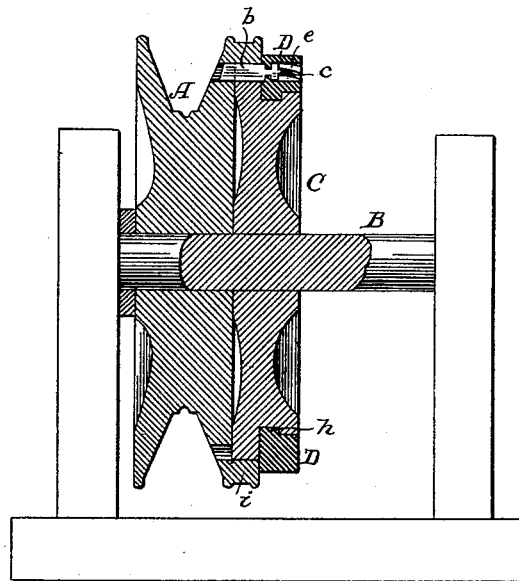


Fig. 2.

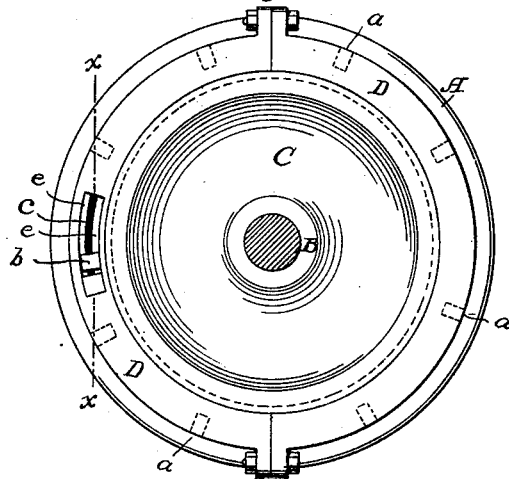
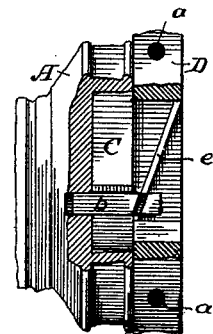


Fig. 3.



Attest:

Clarence Poole
S. M. Sully

Inventor:

Granville T. Lemont,
by *Ellis Spear*
Atty

UNITED STATES PATENT OFFICE.

GRANVILLE T. LEMONT, OF BATH, MAINE.

IMPROVEMENT IN CLUTCHES.

Specification forming part of Letters Patent No. **220,207**, dated September 30, 1879; application filed August 20, 1879.

To all whom it may concern:

Be it known that I, GRANVILLE T. LEMONT, of Bath, Sagadahoc county, Maine, have invented an Improvement in Clutches, of which the following is a specification.

My invention relates to clutches for connecting and readily disconnecting the two parts of any drum or cylinder used for the purpose of drawing upon a rope or chain wound around a part of the said drum. It is specially applicable to the windlasses of ships, but is not necessarily confined to that specific use. Where the winding-drum is made in two parts, that part upon which the rope or chain is wound being loose upon the shaft and connected to that part which is fixed upon the shaft by clutches, it is ordinarily necessary that the clutches should be capable of ready connection and disconnection; and this is specially true of the windlasses of ships when constructed in the manner indicated. It is also necessary that the clutches should be capable of ready disconnection or connection, whatever point of the drum or windlass happens to be turned toward the operator.

My improvement is represented in the drawings hereunto attached, in which Figure 1 shows a transverse section through the axis of such a drum or windlass, the figure representing the loose part which, in a windlass, is technically called a "wild-cat," and also a part of the drum or windlass which carries the clutches. Fig. 2 shows a side view of the drum or windlass, and Fig. 3 shows a section upon line *xx* in Fig. 2.

In these drawings the loose part or wild-cat is represented at *A*. It is capable when disconnected from the clutch of free rotary movement upon the shaft *B*. The part *C* of the drum or windlass which carries the clutches is fixed upon the shaft *B*, being firmly secured thereto. Around this part *C* is placed a ring, *D*, made of any suitable metal, and capable of movement around the periphery of the part *C*. It may be moved by levers placed in holes *a a* in the outer edge, or by ordinary handles. This ring *D* carries the pawls *b*, connected to it as represented more clearly in Fig. 3.

I have represented only one of these pawls in the drawings; but obviously as many of them may be placed on the ring as may be required. This pawl moves in and out in slots

c, cut transversely in the ring *D*, in which it is held and moved by diagonal splines *ee*, which fit into notches cut in the sides of the key or clutch. This movement in one direction will, it is plain, force the clutch or bolt into the transverse holes in the loose part or wild-cat, and hold it firmly connected to that part which is fixed upon the shaft, so that the motion of the fixed part may be imparted to the loose, or by movement in the other direction the loose part or wild-cat may be released and allowed to run freely upon the shaft.

The ring *D* is held in place upon the fixed part of the drum, as represented in Fig. 1, by a rib, *h*, working in a corresponding groove. A flange, *i*, upon the loose part of the drum overlaps the fixed part and abuts against the ring *D*, leaving, however, sufficient space between its internal surface and the exterior of the part which it overlaps for the movement of the clutch or bolt.

As many holes may be made in the periphery of the ring *D* as convenience may require. This construction is more complete than the ordinary loose pawl heretofore used, and it has the further advantage of operating with a positive motion.

I am aware that rings have been heretofore made adapted to drop the bolts or pawls vertically in connection with a revolving drum, and I do not claim, broadly, such a construction.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination with the loose drum *A*, shaft *B*, and fixed parts *C*, the ring *D*, working in a vertical plane, and having splines *ee*, acting in connection with the notched bolt *b*, and forcing the same in either direction, as and for the purposes set forth.

2. The combination of the loose part provided with an overhanging flange, the fixed part *C*, the ring *D*, and the laterally-moving bolt *b*, as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

G. T. LEMONT.

Witnesses:

JAMES PURINGTON,
F. E. CROMWELL.