T. D. MARSH & F. M. CRANE.

Locking Device for Machinery.

No. 161,695. Patented April 6, 1875.

Fig: 1.

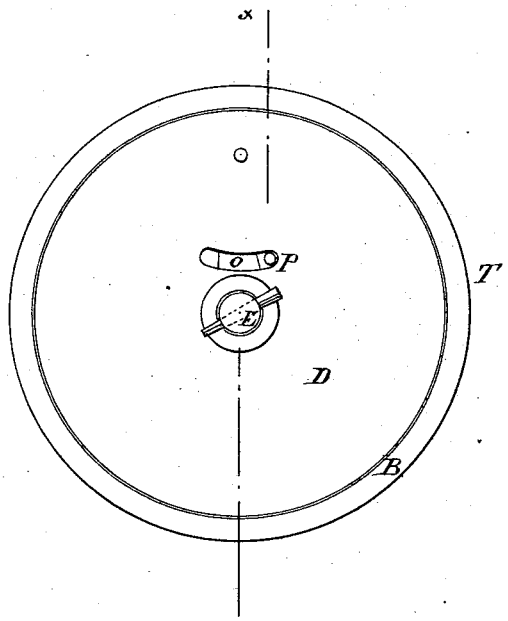


Fig: 2

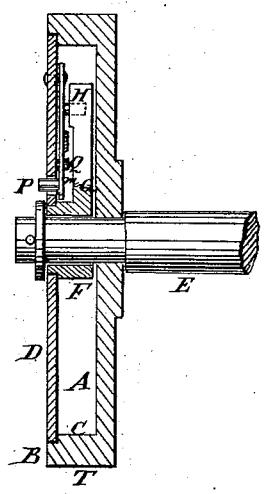


Fig: 3.

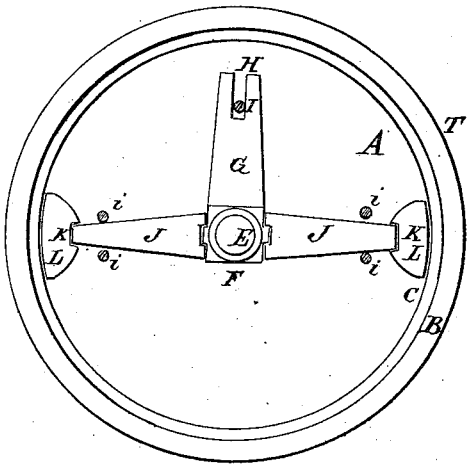
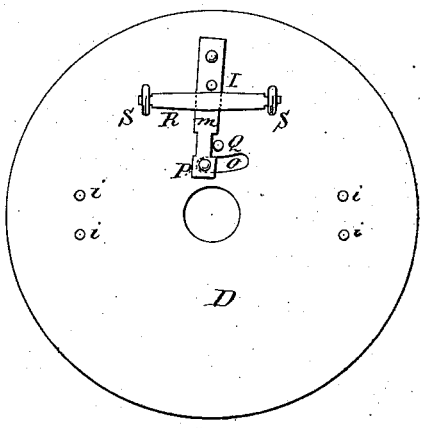


Fig: 4



WITNESSES:

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UNITED STATES PATENT OFFICE.

TIMOTHY D. MARSH AND FRANKLIN M. CRANE, OF JERSEY, OHIO.

IMPROVEMENT IN LOCKING DEVICES FOR MACHINERY.

Specification forming part of Letters Patent No. **161,695**, dated April 6, 1875; application filed February 5, 1875.

To all whom it may concern:

Be it known that we TIMOTHY D. MARSH and FRANKLIN M. CRANE, of Jersey, in the county of Licking and State of Ohio, have invented a new and useful Improvement in Locking Device for Machinery, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claims.

In the accompanying drawing, Figure 1 represents an outside view of the machine, showing the cap. Fig. 2 is a cross-section of Fig. 1, taken on the line *x x*. Fig. 3 shows the machine with the cap-plate removed. Fig. 4 shows the under side of the cap-plate.

Similar letters of reference indicate corresponding parts.

A is the chambered disk, the formation of which is more readily seen in Fig. 2. B is a flange which surrounds it, the inner side of which, C, forms the frictional surface. D is the cap-plate. E is the shaft. This shaft revolves freely in the disk A. F is a hub on the shaft which carries a slotted arm, G, the slot H of which receives the pin I of the reversing-lever connected with the hub F, and extending in opposite directions from it are two loose arms J J, the outer ends of which are fitted into slots K K, of the two friction-shoes L L. The outer sides of these shoes are nicely fitted to the circle of the frictional surface C. In the cap-plate D are two pins, *i i*, for each of the arms J J, arranged to give the arms a little play and allow the shoes to bind against the frictional surface C and hub G. *m* is a reversing-lever attached to the cap D, which carries the pin I which enters the slot H. O is a curved slot through the cap-plate D. P is a pin in the reversing-lever *m*, which protrudes through the slot O. On the inside of the cap-plate is a short stud, Q. In reversing the action of the device, the lever *m* is moved, by means of the pin P, from one side to the other of the stud Q. R is a spring confined at its ends by the two staples S S to the cap. This spring bears upon the lever *m*, but it is sufficiently flexible to allow the lever to be moved over the stud. The hub F, which carries the arm G, is square, so that the ends of the arms J J, by a slight movement or change in position of the pin I, bind against it. This change is allowed by the play given between the arms J J and the pins *i i*. The movement of the pin I moves arm G, which allows the arms J J and shoes L L to revolve in one direction, while they bind and prevent motion in the other direction. When the lever *m* is moved over the stud Q the action is reversed, and when the lever *m* is left on the stud the arms J J bind when the shaft is turned in either direction and prevent all motion, from the fact that when the shaft is turned either way the movement of the square hub causes the arms to bind and the shoes to catch against the frictional surface C. This device may be made of any size and may be applied to any kind of shaft machinery, the periphery T being used as a driver for either belt or gearing.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of hub F, fast on shaft E, and shoes K L, having arms J loosely attached to said hub, with a loose and flanged disk, A B, as and for the purpose described.

2. The combination, with hub F, of end-slotted lever *m* having pins I P, spring R, and disk D, having pin Q, and arc slot O, all arranged substantially as and for the purpose specified.

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Witnesses:
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WESLEY DEWITT.