M. C. JOHNSON.

CLUTCHES FOR STOPPING AND STARTING MACHINERY.

No. 195,018. Patented Sept. 11, 1877.

Fig. 1

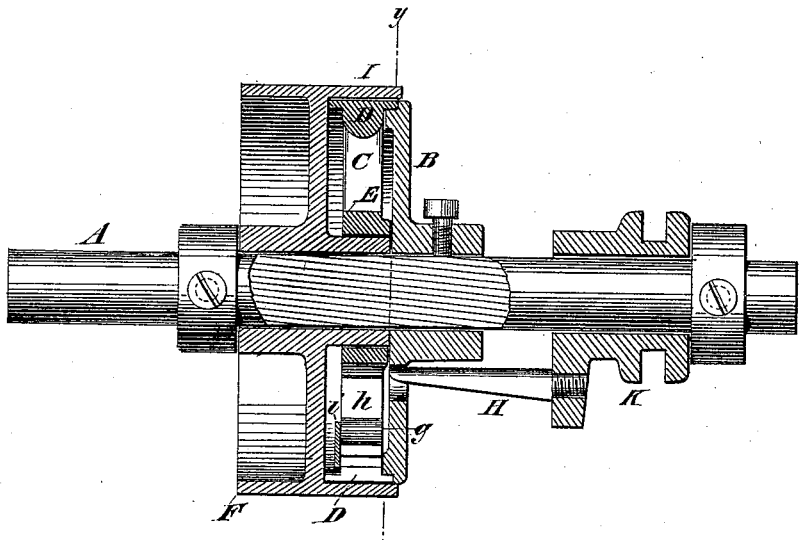
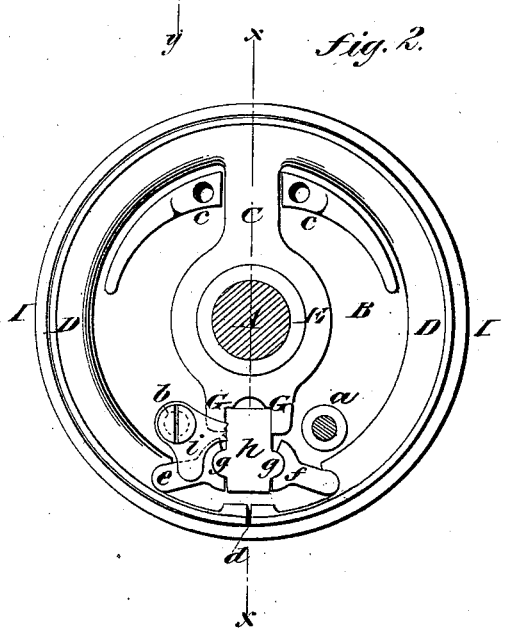


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN CLUTCHES FOR STOPPING AND STARTING MACHINERY.

Specification forming part of Letters Patent No. **195,018**, dated September 11, 1877; application filed July 13, 1877.

To all whom it may concern:

Be it known that I, MOSES C. JOHNSON, of the city and county of Hartford, State of Connecticut, have invented a new and Improved Clutch, of which the following is a specification:

Figure 1 is a vertical section of my improved clutch, taken on line *x x* in Fig. 2. Fig. 2 is a tranverse section, taken on line *y y* in Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

In the drawing, A is a shaft, to which is secured a disk, B, having studs *a* for receiving screws *b*, and the lugs *c* for holding the arm C of the split ring D. The split ring D, which is divided at *d*, is cast together with the arm C and a ring, E, that surrounds the shaft A, leaving sufficient space between it and the said shaft for the hub of the pulley F. The ends of the divided ring are recessed to receive the convex ends of the parts *e f* of the toggle, which parts are concaved at their inner ends to receive convex projection *g*, formed on the sides of a follower, *h*, that moves between guides G, formed on the ring E, opposite the arm C. A concave groove is made in the ring E, between the guides G, for receiving the wedge H. The follower *h*, the parts *e f*, and the guides G are retained in place by a plate, *i*, that is secured to the studs *a* by the screws *b*.

Upon the shaft A the pulley F is placed, the rim I of which is bored out to receive the split ring D, over which it freely revolves when the ring is unexpanded. A sleeve, K, is placed upon the shaft A, and to it the wedge H is secured, which consists of a bar of iron or steel that is made flat and tapered at one side, and left round upon the other side. This wedge passes through a hole drilled in the disk B and between the follower H and the ring E.

When this wedge is forced between the said follower and ring, the follower is forced outward, straightening the toggle and throwing the ends of the ring D apart, so that the ring fills the rim I.

It is obvious that when the ring D is thus expanded the disk B will carry the pulley F, or the pulley F will carry the disk B, as may be required.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with pulley, of the disk B, having lugs *c*, and the split ring D having arm C as well as ring E, as and for the purpose described.

2. The combination, with split ring D having end recesses, and the follower *h* having projections *g*, of toggles jointing with said recesses and projections, for the purpose set forth.

3. The combination of disk B having studs *a*, the guides G, the toggles, and the clamp-plate *i*, for the purpose specified.

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Witnesses:
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