E. ALLEN.

Friction Clutches.

No. 138,980. Patented May 20, 1873.

Fig. 1

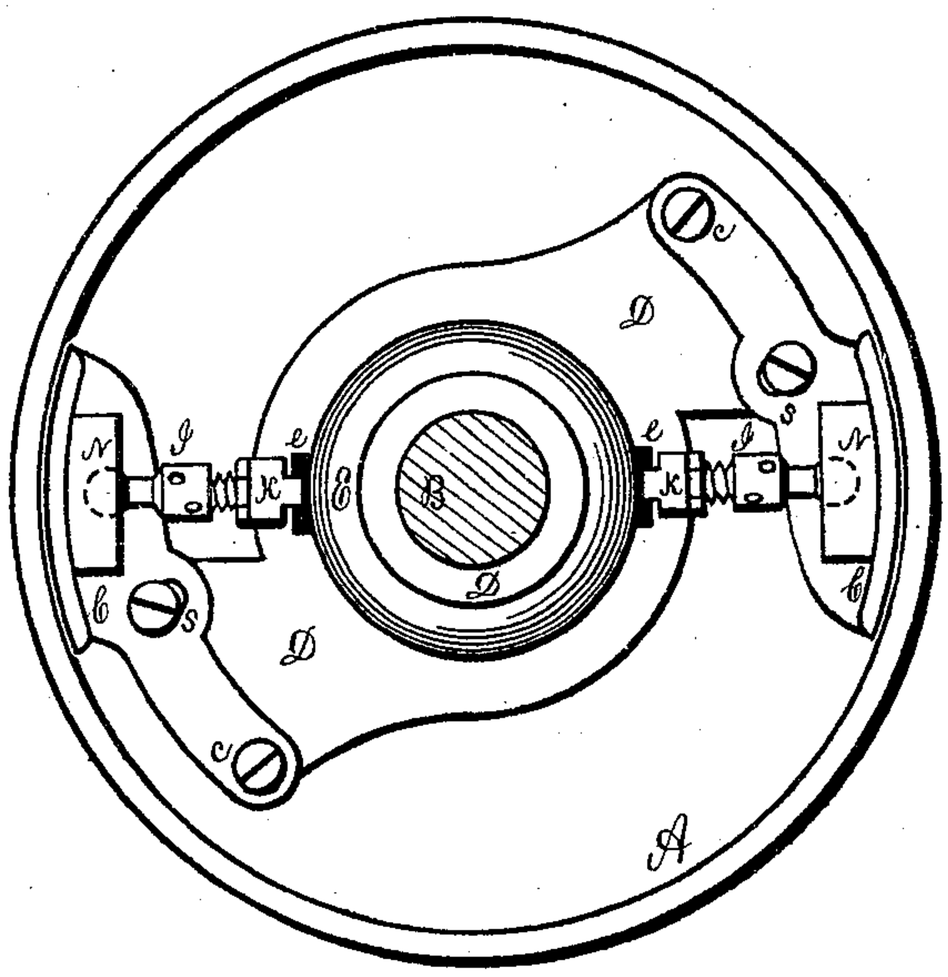
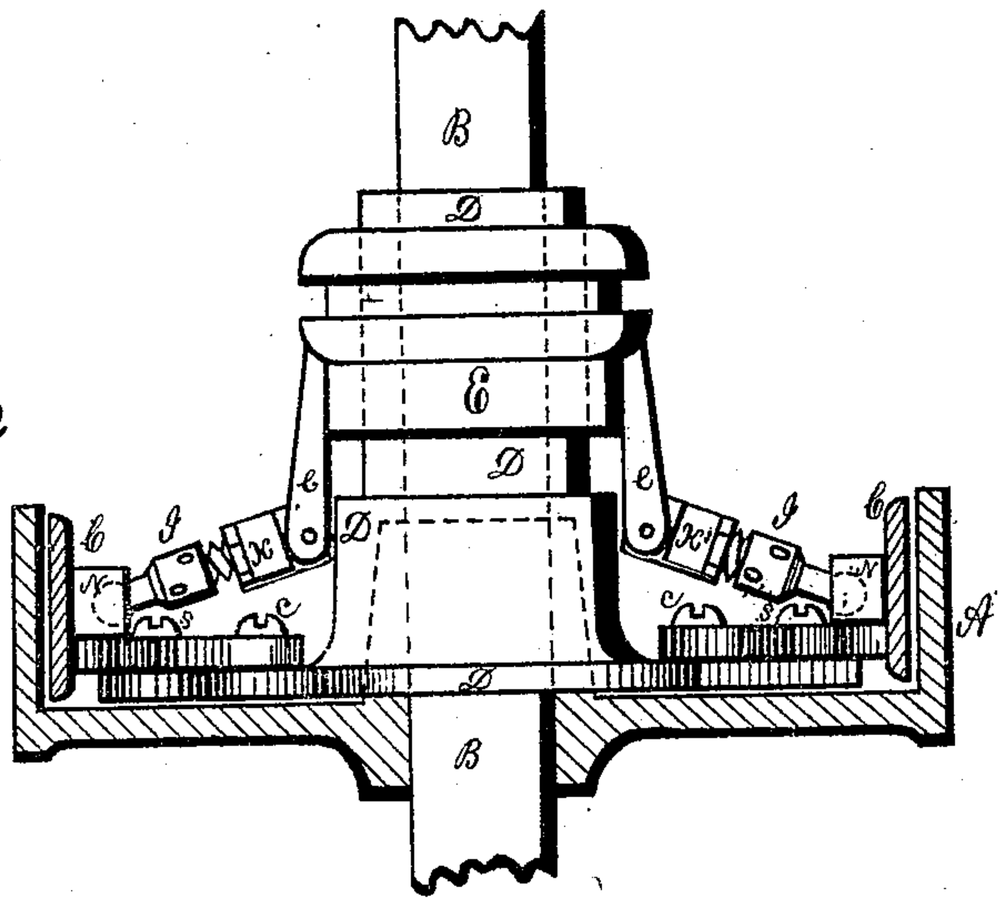


Fig. 2



Witnesses—
Webster Park
George, W. Tilly

Inventor—
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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

EDWIN ALLEN, OF NORWICH, CONNECTICUT, ASSIGNOR TO ALLEN MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN FRICTION-CLUTCHES.

Specification forming part of Letters Patent No. **138,980**, dated May 20, 1873; application filed April 24, 1873.

To all whom it may concern:

Be it known that I, EDWIN ALLEN, of Norwich, in New London county and State of Connecticut, have invented certain Improvements in Friction-Pulleys, of which the following is a specification:

The object of my invention is to simplify the construction and reduce the expense of flat-rimmed friction-pulleys, and at the same time to increase their durability and efficiency.

Figure 1 shows a side view of my improved pulley; and Fig. 2 is a sectional view of the rim taken through the middle, showing the arrangement of the interior parts.

A is the flat rim of the pulley, and B is its shaft. C C are the friction-arcs, which are each pivoted at *c* to the outer ends of the radial flat arms of the center piece D. This center piece D has its hub secured fast upon the shaft B, with the end of the hub recessed out, as shown by the dotted lines in Fig. 2, so as to allow the hub of the loose pulley A to extend into it sufficiently to obtain a proper bearing upon its shaft B. E is the grooved sleeve, which slides upon the cylindrical part of the hub D, being operated by a forked shipper in the ordinary manner. *e e* are extensions upon the opposite sides of the sliding sleeve E, into the ends of which are jointed the nuts K K. I I are adjustable screws inserted into the nuts K K, forming, at their outer ends, ball-and-socket joints N N in the friction-arcs C C. These friction-arcs have that portion which is set up against the rim wide enough to cover its whole width, with the ball-and-socket joint N in the center, by which means a steady and uniform pressure is obtained over the whole frictional surface, inasmuch as the arcs have a slight play upon the screw-pivots *c c*, while, at the same time, the screws S S, which are inserted through small slots in the arcs, keep the arcs quite snugly in position.

I claim as my invention—

The friction-pulley formed by the combination and arrangement, with the flat-rimmed loose pulley A, shaft B, and sliding sleeve E, of the friction-arcs C C, which are pivoted at *c c* upon the center piece D, and guided by the slots and screws S S, when operated by the ball-and-socket joints N N and adjustable screw-connections I K *e* I K *e*, substantially as and for the purposes herein set forth.

EDWIN ALLEN.

Witnesses:

WEBSTER PARK,

GEORGE W. CILLEY.