

L. WRIGHT.
Improvement in Device for Increasing and Decreasing
the Speed of Driven Shafts.

No. 128,773.

Patented July 9, 1872.

Fig. 2

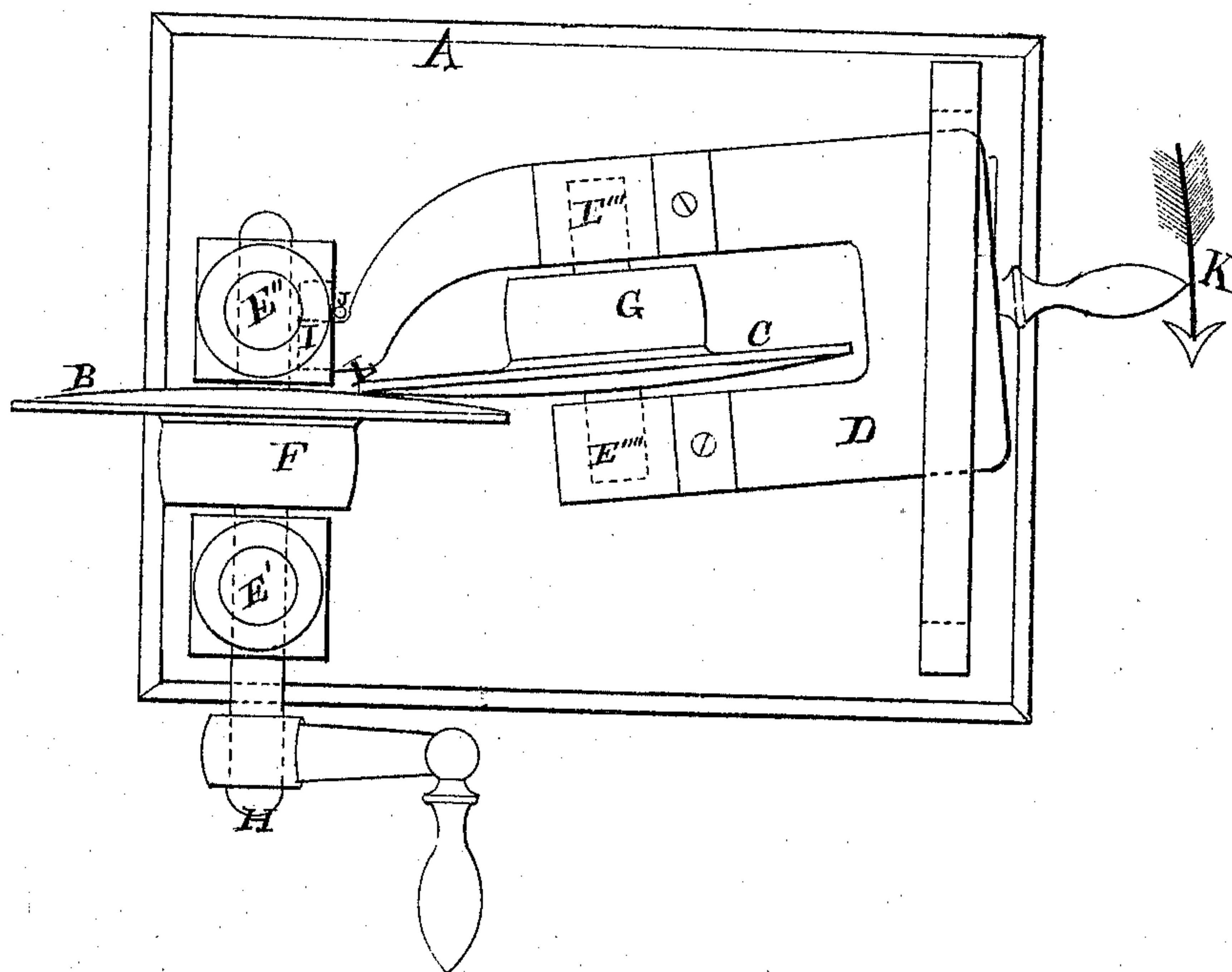
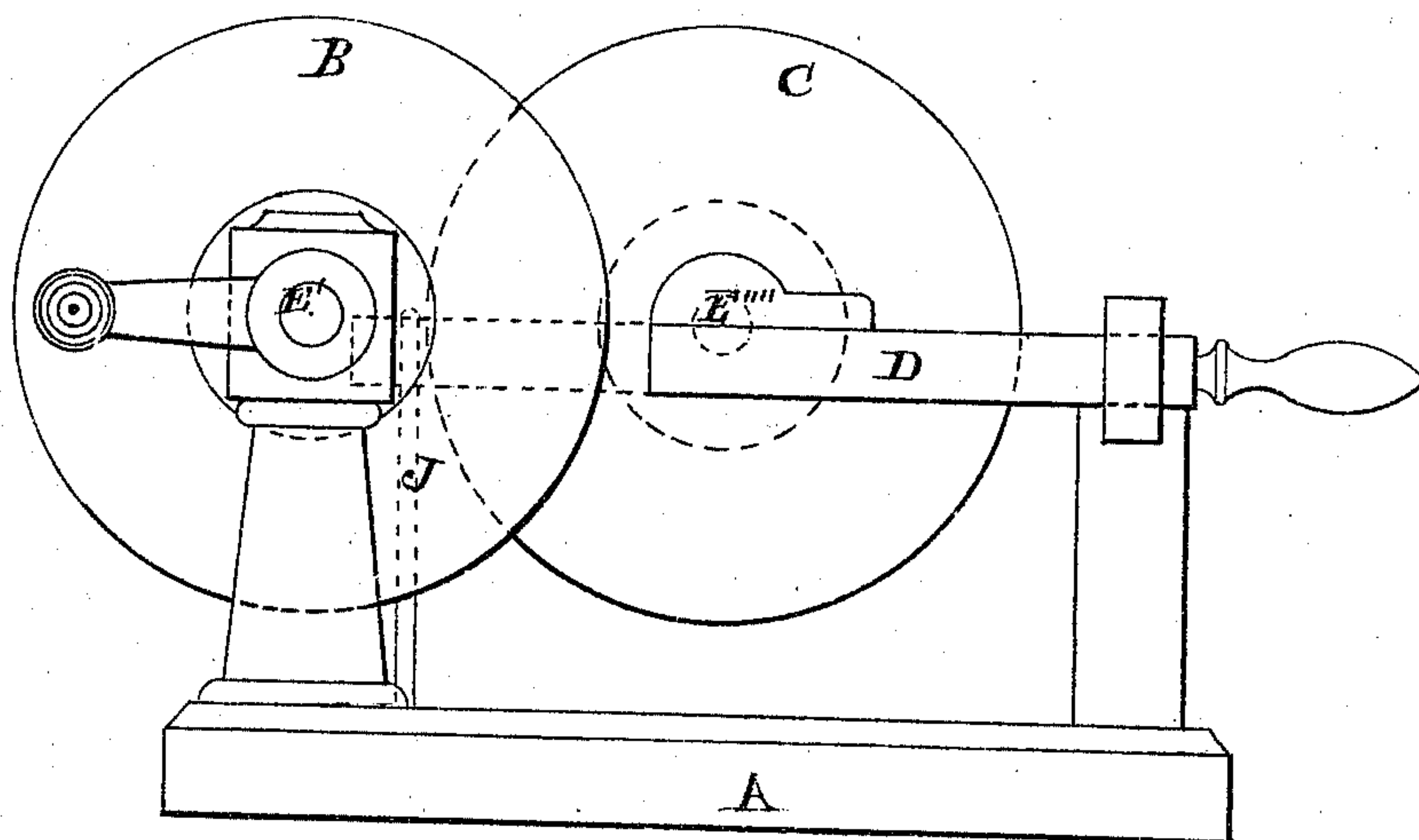


Fig. 1



WITNESSES

Daniel F. Colie

J. M. Smith

INVENTOR

Leysands Wright

UNITED STATES PATENT OFFICE.

LYSANDER WRIGHT, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF
AND CHARLES B. SMITH, OF SAME PLACE.

IMPROVEMENT IN DEVICES FOR INCREASING AND DECREASING THE SPEED OF DRIVEN SHAFTS.

Specification forming part of Letters Patent No. 128,773, dated July 9, 1872.

SPECIFICATION.

I, LYSANDER WRIGHT, of the city of Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in the Method of Increasing and Decreasing the Speed of Driven Shafts, of which the following is a specification:

Nature and Objects of the Invention.

The object desired in my invention is to secure a simple device, free from complication, by which a positive motion may be secured, which will allow of a change in the speed of a shaft to be driven within wide limits.

Description of the Accompanying Drawing.

Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a plan of the same, viewing it from above.

General Description.

In constructing my device I use two disks or face-plates, as shown in the drawing at B and C, which disks have their faces rounded slightly from the center outward. The disk B is represented as attached to the pulley F with a connection to a shaft having bearings at E' E'', and receives the power applied at H. The disk C is attached to the pulley G, in connection with a shaft having bearings at E''' and E''', which bearings rest in the adjustable frame D. The frame D is held by a pivot at I, and is arranged to move freely in the direction shown by the arrow at K.

In the operation of my device it can readily be seen that when the disk C is brought in contact with the disk B, when the adjustable frame D is thrown to the extremity right, the point of contact in the two disks will be very near the center of the disk B, as shown at L. The disk

B being rotated at a given speed, the circumference at L would represent only about one-third of that of the disk C, and, consequently, the revolutions of the latter would be only in that proportion. A spring shown at J holds the adjustable frame D firmly to its place, thus giving sufficient friction on the disks to transmit power from one to the other. When the adjustable frame D is moved to the extreme left in the direction of the arrow at K, the point of contact of the two disks would be an equivalent point on the disk C, as shown on the disk B at L, in that case making the circumference at the point of contact of the disk C only about one-third of that of the disk B at the same point, thus causing the revolutions of the disk C to be about three times those of the disk B, and the proportion of the revolutions of the two disks would be changed as the point of contact is changed within these limits by the movements of the adjustable frame D, thus securing a very wide range in the speeds of the two by a slight movement of the frame D. One of the disks may be straight on its face, if desired, and the same object would be accomplished.

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

1. The laterally-adjustable frame D, in combination with the adjustable disk C, substantially as described, and operating as and for the purposes set forth.

2. I claim the combination of the disks B and C, with the laterally-adjustable frame D, constructed as described, and operating as and for the purposes set forth.

LYSANDER WRIGHT.

Witnesses:

DANIEL F. COLIE,
J. W. SMITH.