A. NEWELL & A. B. COOK.

Adjustable Dead-Pulleys.

No. 156,492. Patented Nov. 3, 1874.

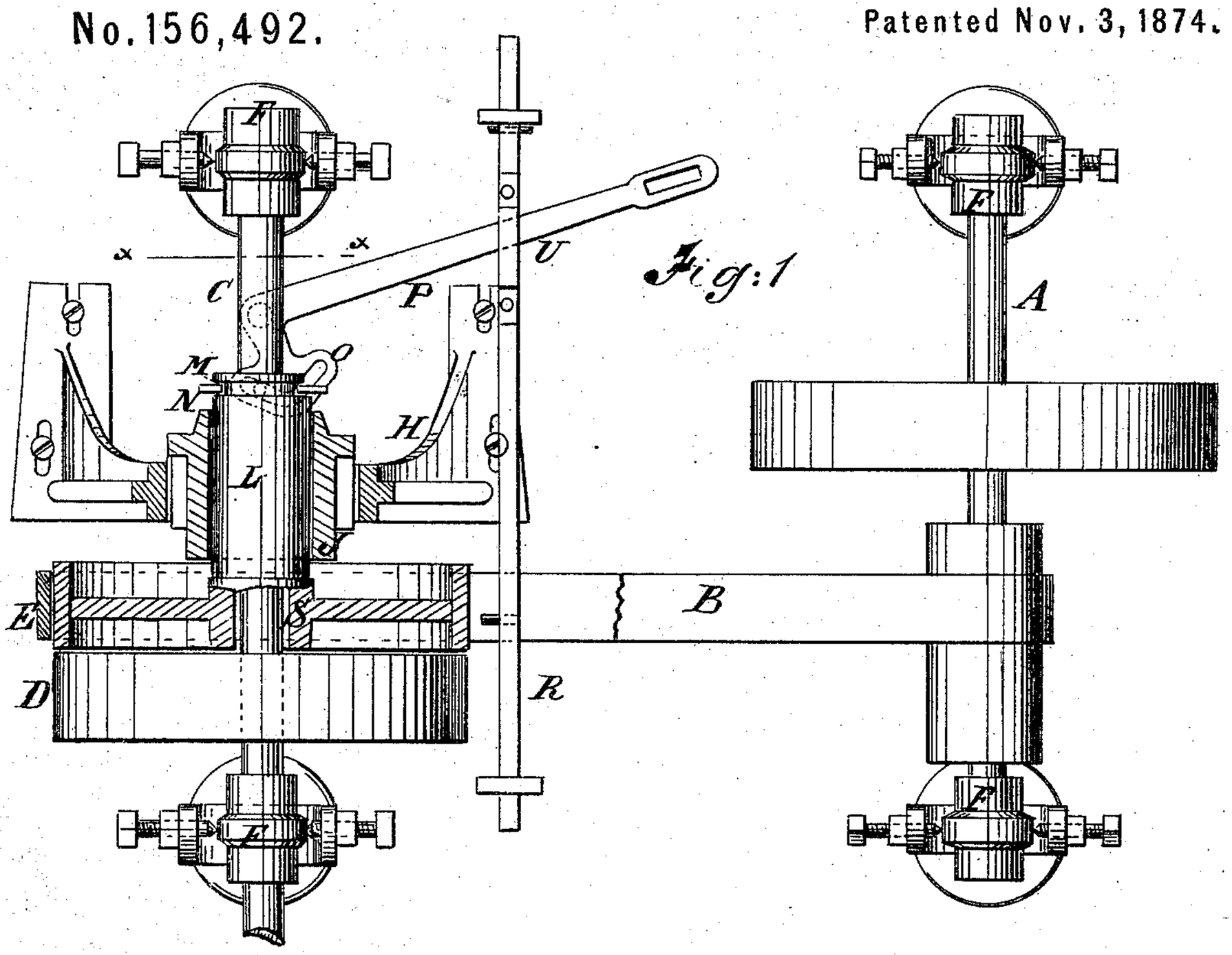
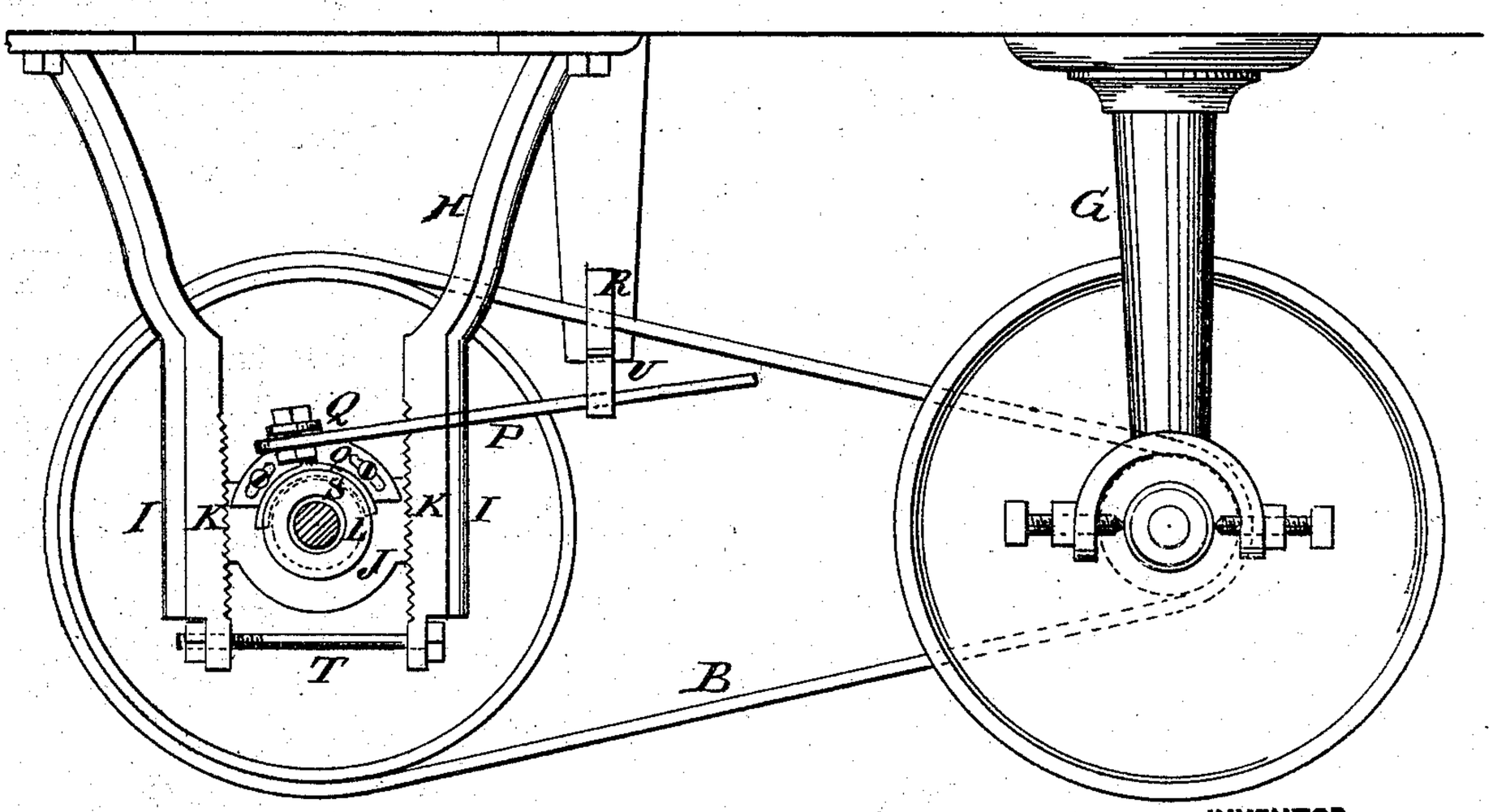


Fig: 1

Fig: 2



WITNESSES:

Chas. Nida.
A. F. Terry

INVENTOR:

A. Newell
BY A. B. Cook
Munn & Co
ATTORNEYS.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

AUGUSTUS NEWELL AND ASA B. COOK, OF ERIE, PENNSYLVANIA; SAID NEWELL ASSIGNOR TO SAID COOK.

IMPROVEMENT IN ADJUSTABLE DEAD-PULLEYS.

Specification forming part of Letters Patent No. **156,492**, dated November 3, 1874; application filed September 12, 1874.

To all whom it may concern:

Be it known that we, AUGUSTUS NEWELL and ASA B. COOK, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Improvement in Manner of Constructing Dead-Pulleys, 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 is a plan view, partly in section. Fig. 2 is a section looking from the line *x x* of Fig. 1, showing the pulley supported by the hanger, as when in use.

Similar letters of reference indicate corresponding parts.

A is the counter-shaft. B is the belt. C is the driving-shaft. D is the fast-pulley, and E is the dead-pulley. These shafts are supported in self-adjusting boxes F in the single hangers G. The pulley D is rigidly attached to the shaft C. H is a double hanger, between the arms I I of which is supported the box J. This box is made adjustable, as to height, by means of the teeth or serrations K on the inner sides of the hanger-arms, and on the sides of the box. The serrations are made on an angle so that a slight movement in or out, up or down, will make a slight variation in the height of the box, and allow of a very delicate adjustment. The loose pulley E is provided with a sleeve center or hub, L, which is received by and revolves in the box J. This sleeve extends entirely through and beyond the box, and has in its projecting end a groove, *m*, for receiving the fork-shifter N. This fork is operated by means of the double cam O of the shifting-lever P. The fulcrum of the shifting-lever is on a bracket which extends outward from the box, (not seen in the drawing,) excepting the flange Q, by means of which it is adjustably attached to the end of the box J. R is the sliding shifting-bar, which is operated by the lever P.

By this arrangement it will be seen that the loose pulley E is entirely supported by the box J, there being a space left around the shaft, as seen at S. The two arms I I of the double hanger are held against the sides of the box J by means of the bolt T, which passes through the lower extremity of the said arms. The double cam O of the shifting-lever, as it moves the pulley E in and out, presses the rim of the loose pulley E against the rim of the fast pulley, thereby causing sufficient friction between the pulleys to impart motion to the loose pulley, said motion being requisite to facilitate the shifting of the belt. The slot at U, through which the shifting-lever passes, is of sufficient length to allow the pulley to be moved before any movement of the belt takes place. A completion of the movement of the lever withdraws the pulley from contact with the other pulley, and leaves it at rest. The opposite movement of the lever applies the friction as before, shifts the belt to the loose pulley, and allows it and the belt to come to a rest.

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

1. The two-armed double hanger, having angled serrations K, combined with side serrated box J, as and for the purpose described.

2. The combination, with box J, of a loose pulley, E, having hub extended through and beyond same box, as and for the purpose set forth.

3. The pulley-hub having groove M, combined with shifter N, lever P having double cam O, shifter R, and belt B, as and for the purpose specified.

AUGUSTUS NEWELL.
ASA BROWN COOK.

Witnesses for A. NEWELL:
B. L. PEASE,
C. R. HAGERTY.

Witnesses for A. B. COOK:
FRANK GUNNISON,
JAS. R. WILLARD.