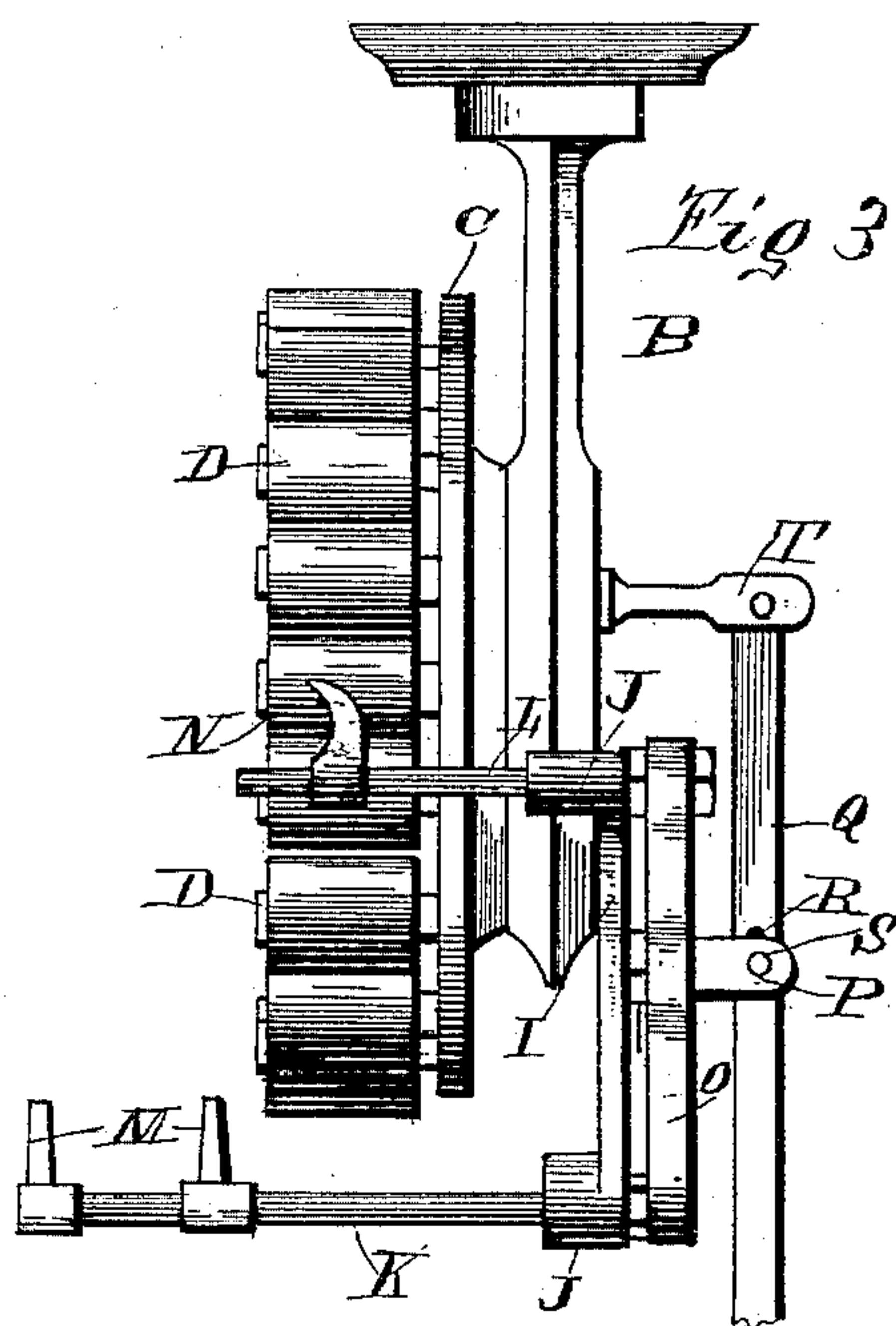
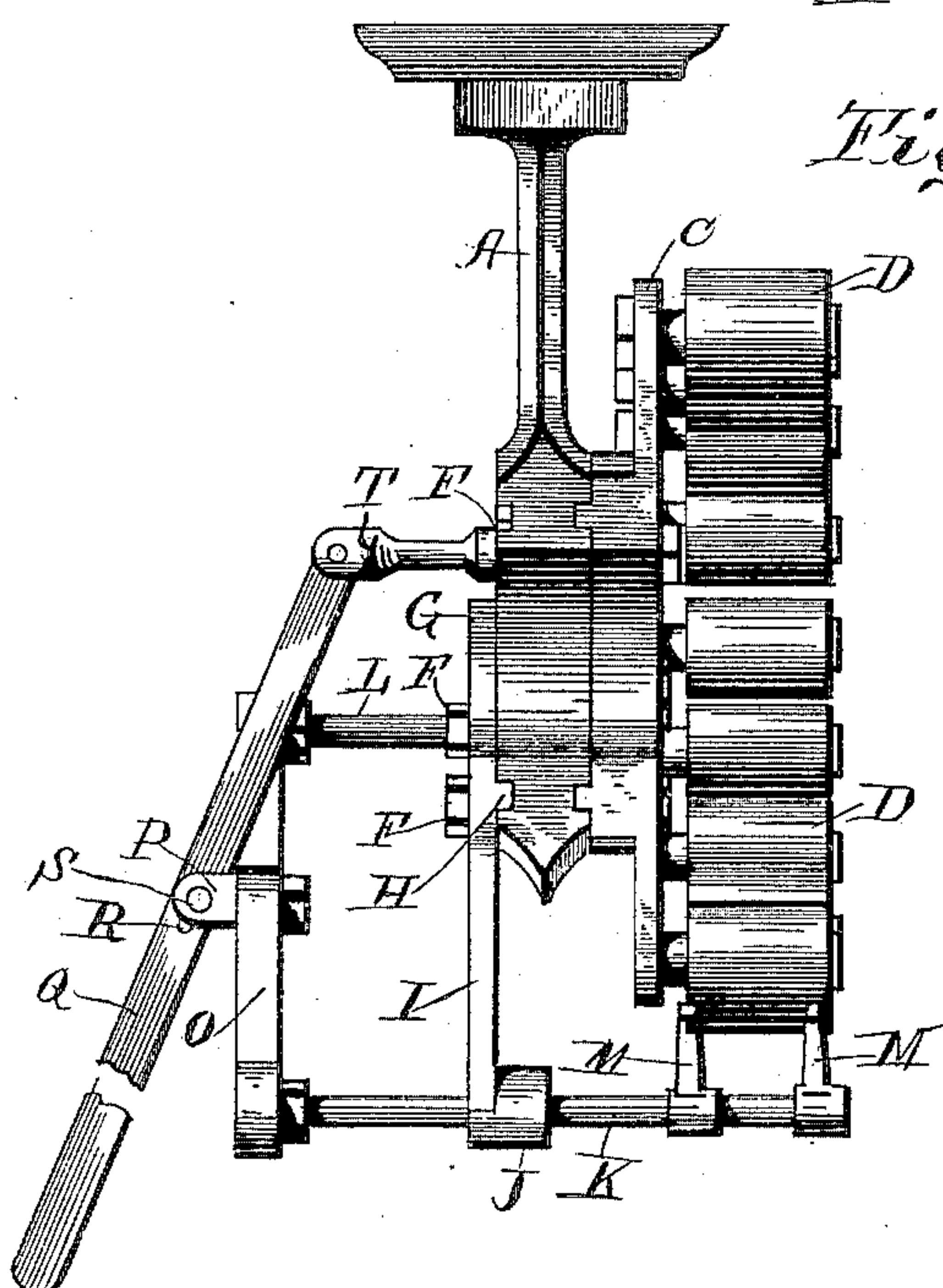
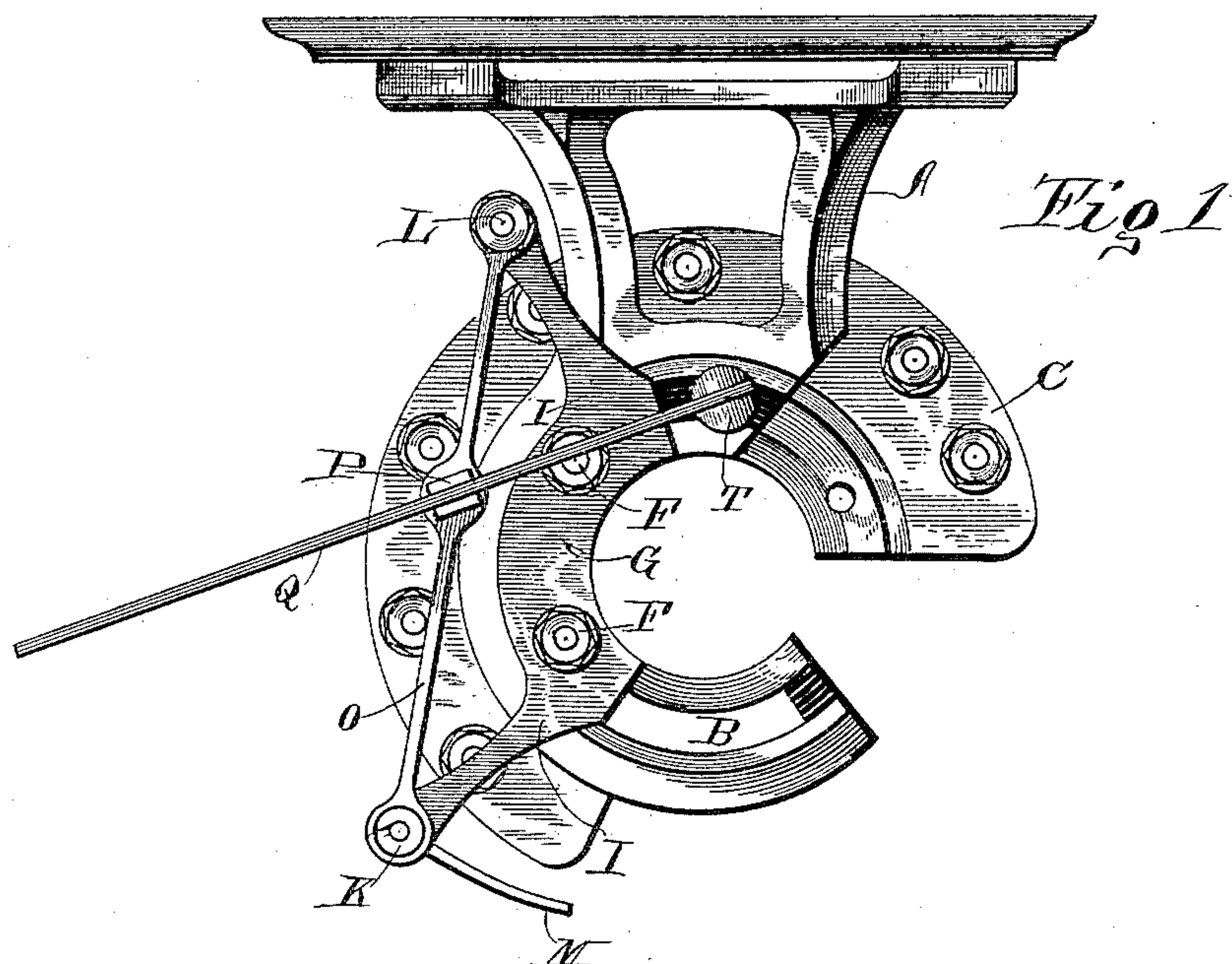


(No Model.)

J. C. JACKSON & H. WHITCOMB.
BELT SHIFTER.

No. 442,227.

Patented Dec. 9, 1890.



Witness
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UNITED STATES PATENT OFFICE.

JOHN C. JACKSON AND HENRY WHITCOMB, OF PENCOYD, PENNSYLVANIA.

BELT-SHIFTER.

SPECIFICATION forming part of Letters Patent No. 442,227, dated December 9, 1890.

Application filed August 13, 1890. Serial No. 361,900. (No model.)

To all whom it may concern:

Be it known that we, JOHN C. JACKSON and HENRY WHITCOMB, citizens of the United States, residing at Pencoyd, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Belt-Shifters; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our present invention relates to an improvement in belt-shifters, which is particularly designed for use in connection with that class of belt-holders shown and described in our previous patent, No. 430,345, dated June 17, 1890, in which the belt is arranged to be shifted upon a series of loose rollers mounted on studs projecting from an arc-shaped plate, which is connected to a similarly-shaped supporting-bracket by bolts which pass through an arc-shaped slot in the latter, whereby the belt-holder is rendered adjustable to various positions in relation to the driven pulley.

The object contemplated is to construct a shifter which will be so connected to the adjustable belt-holding plate that it will move freely with the latter and always maintain the same relative position thereto and to the belt, and at the same time to produce a simple and strong arrangement which will act in a sure and effective manner to shift the belt.

With these ends in view our invention consists in the peculiar features of construction and combinations of parts, more fully described hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a side elevation of our complete device shown depending from a ceiling; Fig. 2, a front view, and Fig. 3 a rear elevation.

The reference-letter A indicates the supporting-bracket, provided with the arc-shaped slot B, and C the holder-plate to which the loose rollers D are attached.

The plate C is provided with a suitable circular bead or guiding-rib E, which fits in the slot B, and said plate is connected to the bracket A by bolts F, extending through said slot. In this instance these bolts also embrace a curved plate G, arranged on the op-

posite side of the bracket A, and provided with a bead H similar to that of the holder-plate and fitting the slot B, and from the opposite ends of this plate G extend arms I, which diverge and project slightly beyond the outside edge of the plate C. Enlarged heads or bosses J are formed on the outer ends of the arms I, said bosses being provided with suitable bores and constituting bearings for the sliding shifter-rods K and L, respectively, the former of which has secured on its outer end the usual arms or forks M, adapted to inclose the belt, and the latter a crooked finger N, which engages one edge of the belt. The inner ends of the rods K and L are connected by a cross-arm O, having at its center a casting or bracket P, and the shifting-lever Q is mounted at its middle between the arms of this bracket, and is there provided with a slot R, through which the pivot-pin S extends. The upper end of the lever Q is fulcrumed in a standard T, which is an extension of one of the bolts F, which secure the supporting-bracket and holder-plate together through the arc-shaped slot in the former.

It will be evident from the foregoing description that as the holder-plate is shifted to adjust it in relation to the position of the driven pulley the bolts F will travel in the arc-shaped slot B, and the belt-shifting devices being mounted on said bolts must necessarily move with them, and thus will maintain the same relative position to the holder and belt.

The operation of the belt-shifter will of course be apparent, as it will be readily seen that the manipulation of the lever acts to reciprocate the sliding rods K and L, and thus shift the belt from the pulley to the holder, and vice versa, and in this operation the slot through the center of the lever allows the latter free movement and prevents binding of the parts.

It is evident that numerous slight changes which would suggest themselves to a skilled mechanic could be made in the construction and arrangement of parts of our invention, and hence we do not wish to confine ourselves to the precise construction herein shown, but consider ourselves entitled to all such slight variations as come within the spirit and scope of our invention.

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

1. The combination of an arc-shaped supporting-bracket, a similarly-formed belt-holder arranged beside said bracket and so connected thereto as to have a rotary movement to render it adjustable in relation to the driven pulley, and a belt-shifter connected to said holder and movable therewith, substantially as and for the purpose described.

2. In combination with a supporting-bracket having an arc-shaped slot and an adjustable belt-holder secured to said bracket and guided in its movements by said slot, a belt-shifter connected to said holder and movable therewith, substantially as described.

3. The combination of a supporting-bracket having an arc-shaped slot, a belt-holder on one side of said bracket, a belt-shifter on the opposite side, and fastening devices, substantially as described, connecting these parts together and extending through said arc-shaped slot, whereby the holder and shifter are rendered adjustable in relation to the driven pulley and the belt, as set forth.

4. The combination of a supporting-bracket having an arc-shaped slot, a belt-holder on one side of said bracket, a plate on the oppo-

site side, bolts connecting these parts and extending through said arc-shaped slot, an arm extending from said plate, a sliding rod having a bearing in said arm and provided with suitable shifting devices for engaging the belt, and a lever connected to said arm and having its fulcrum rigid with the belt-holder, substantially as and for the purpose described.

5. The combination of a supporting-bracket having an arc-shaped slot, a belt-holder on one side of said bracket, a plate on the opposite side, bolts connecting these parts and extending through said arc-shaped slot, arms projecting from said plate, sliding rods having bearings in said arms, respectively, and provided with suitable shifting devices engaging the belt, a cross-arm connecting said rods, and a lever pivotally connected to said cross-arm and fulcrumed in a standard consisting of an extension of one of the bolts connecting the holder and bracket, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN C. JACKSON.
HENRY WHITCOMB.

Witnesses:

HARRY M. SORBER,
GEO. L. WHEELOCK.