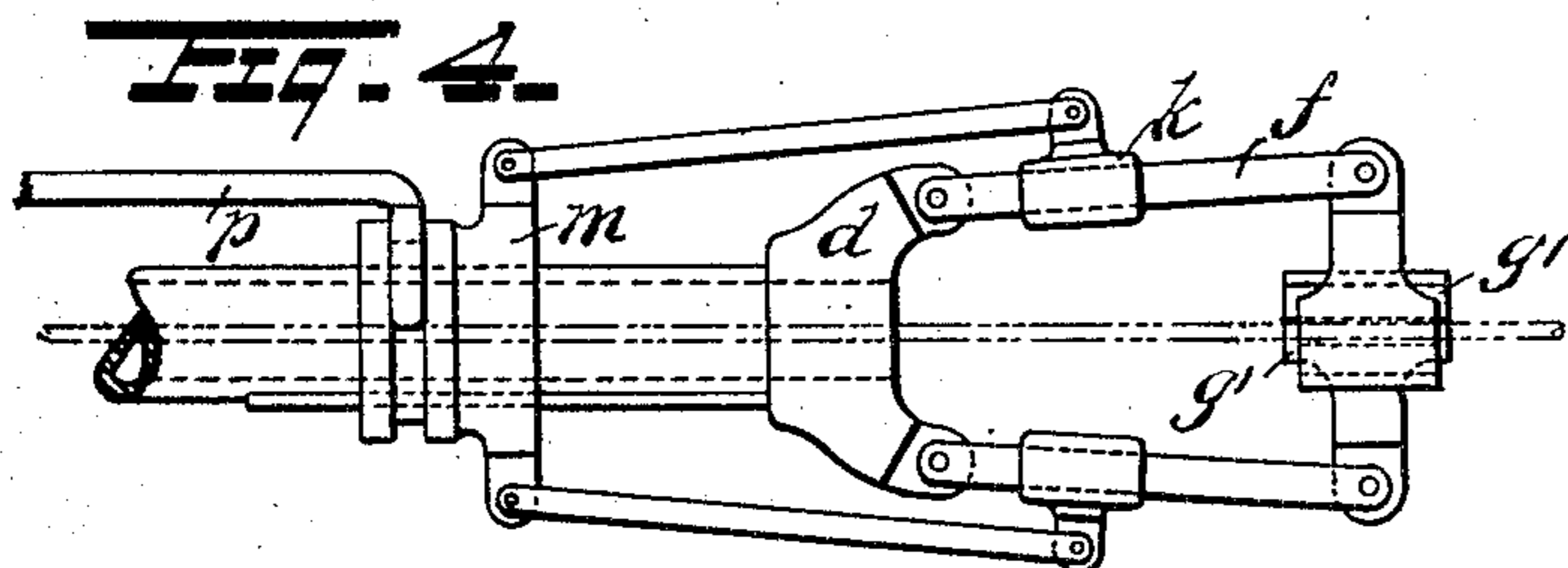
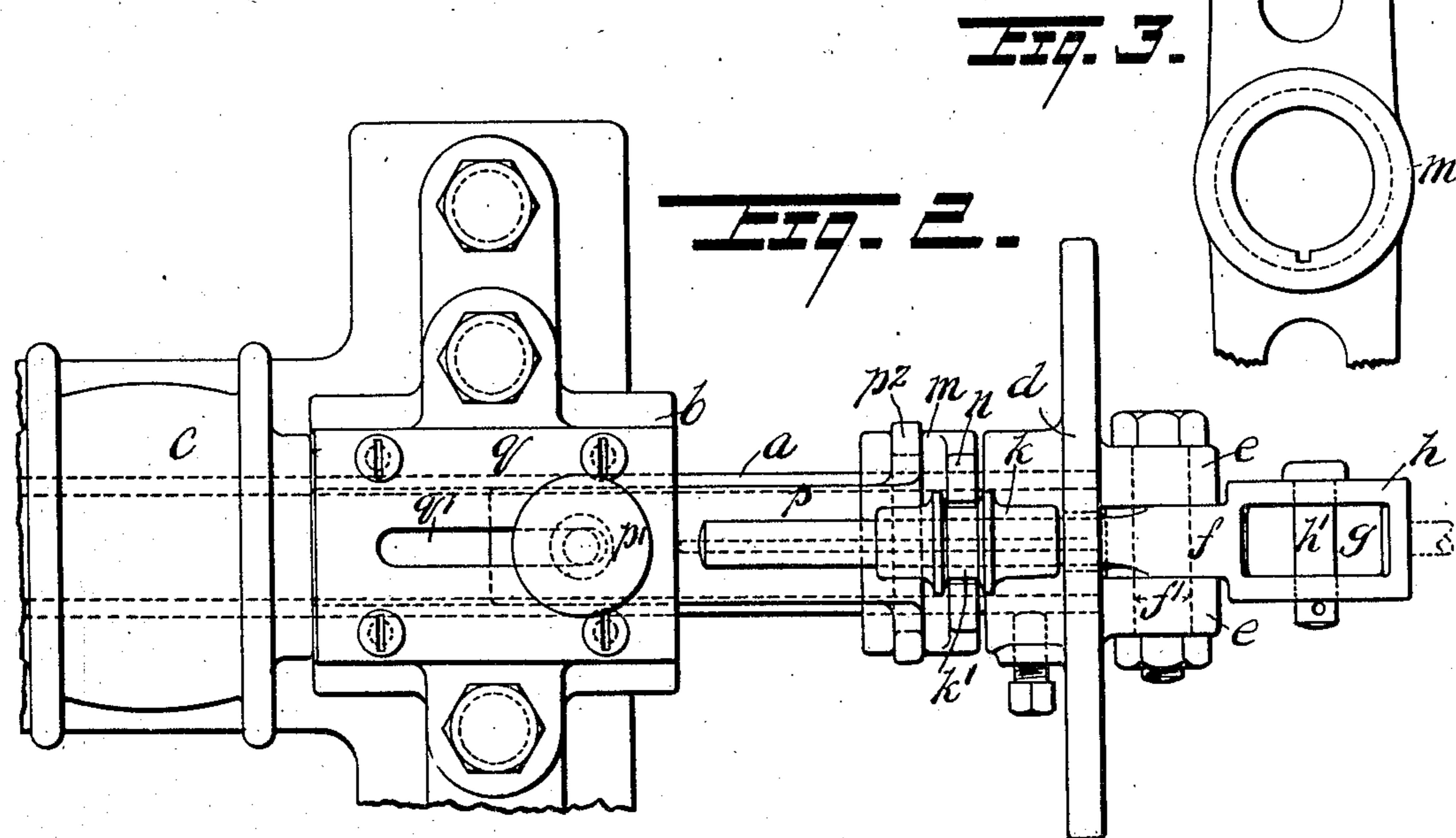
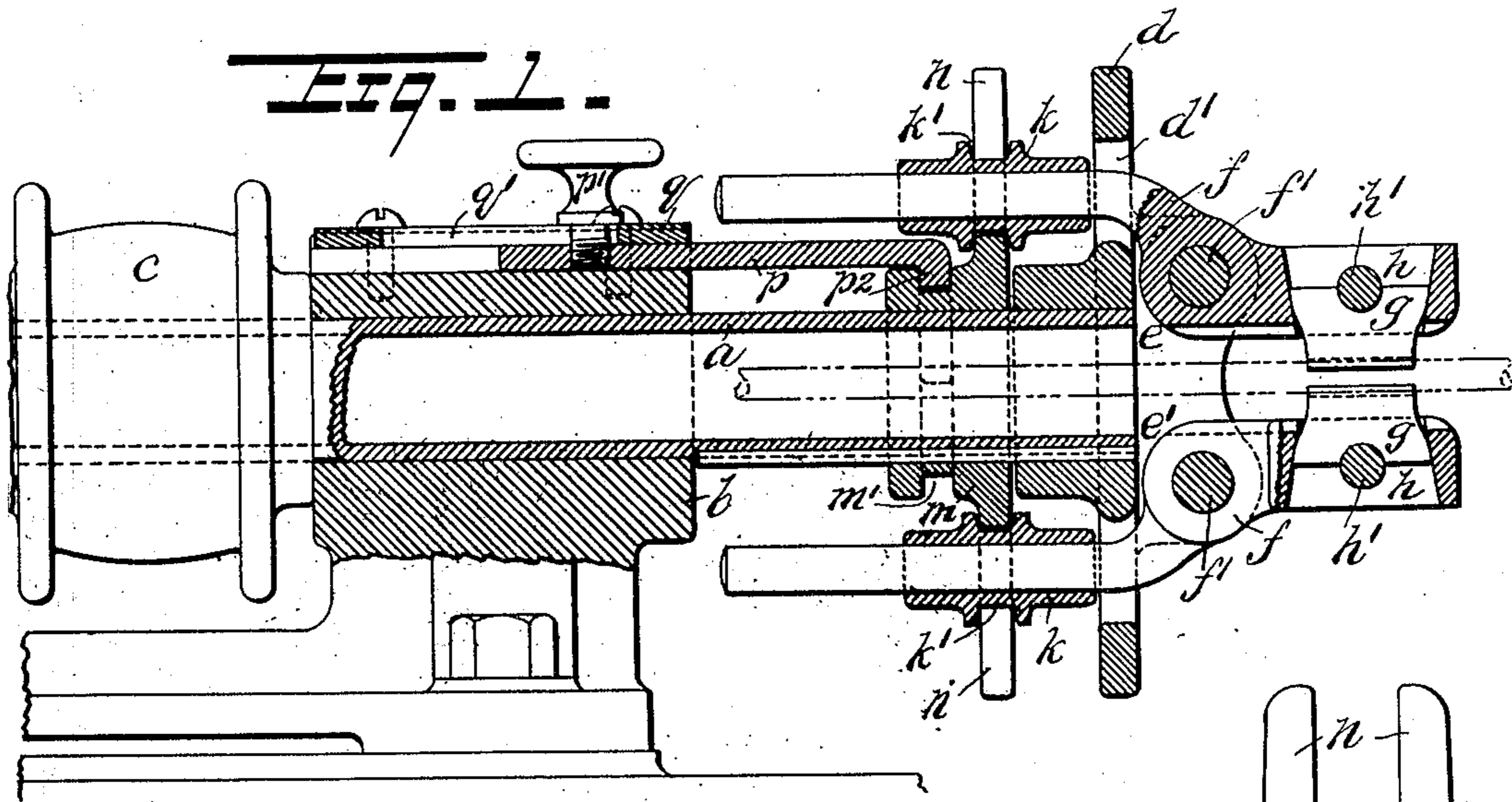


H. JANSSEN.
WIRE POLISHING MACHINE.
APPLICATION FILED FEB. 28, 1908.

926,002.

Patented June 22, 1909.



Witnesses

H. J. Caldwell
D. M. H. H. H.

By

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[Signature]

Attorney

UNITED STATES PATENT OFFICE.

HENRY JANSSEN, OF BOROUGH OF WYOMISSING, PENNSYLVANIA, ASSIGNOR TO TEXTILE MACHINE WORKS, OF WYOMISSING, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

WIRE-POLISHING MACHINE.

No. 926,002.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed February 28, 1908. Serial No. 418,209.

To all whom it may concern:

Be it known that I, HENRY JANSSEN, a citizen of the United States, and a resident of the Borough of Wyomissing, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Wire-Polishing Machines, of which the following is a specification.

My invention relates to machines for mechanically polishing the surface of passing rods or wire.

The invention consists in providing in connection with a rotary hollow spindle through which this rod or wire is suitably passed, pivotally mounted arms on said spindle carrying polishing devices adapted to be closed together upon the rod or wire by centrifugal action of said pivoted arms due to rotation of the spindle; and further in providing for readily varying the polishing pressure thus produced; as fully described in connection with the accompanying drawings, the novel features being specifically pointed out in the claims.

Figure 1 is a side elevation of a polishing head embodying my invention in preferred form. Fig. 2 is a partial plan view of the same. Fig. 3 is a separate view of the weight-engaging sleeve. Fig. 4 indicates a modified construction.

The hollow spindle *a*, as shown, is mounted in fixed bearings *b b* between which it is provided with a drive pulley *c*. At its forward end is secured a carrier-head *d*, formed with pivot-jaws *e* and *e'* in which are mounted similar centrifugally movable arms *f f* having polishing devices fitted thereto. These devices as indicated comprise similar die-blocks *g g* having their opposed faces grooved to suitably contact with the surface of the rod or wire, and each entered in a pocket *h* formed in a forwardly projected portion of an arm *f*, the blocks being backed by pivot-pins *h'* in the respective pockets, upon which they are free to rock so as to insure their bearing uniformly against the interposed rod or wire when in action. Upon the rearwardly extending portions of each arm *f* is mounted a weight *k* in the form of a sliding sleeve, the degree of pressure exerted through centrifugal action, upon the passing rod or wire, at a given speed of rotation of the spindle, being determined by the location of

these weights at a greater or less distance from the pivotal connections *f' f'* of the arms. To provide for conveniently adjusting these weights upon the arms *f* I employ a longitudinally adjustable sleeve *m*, on the spindle *a*, having peripherally projecting fingers *n* arranged to engage the respective weights so as to slide the latter with the sleeve without interfering with the free swing of the arms due to centrifugal force; the weights *k* as shown being provided with grooves *k'*, and a pair of fingers being arranged fork-like in each groove. The adjustment of the sleeve *m* on the spindle to thus vary the polishing pressure, should be so effected that it may be conveniently accomplished without interference with the running of the machine; and for this purpose I employ a non-rotating sleeve-adjusting device consisting of a sleeve-engaging slide *p*, movable in a suitable guide-plate *q*, fixed to the top of bearing *b*. This slide, as shown, is provided with a clamping screw *p'* extending through a slot *q'* in the plate *q*, and its hooked outer end *p''* is engaged in a circular groove *m'* in said sleeve so that the position of the latter may be readily changed as desired while the sleeve is being rotated with the spindle *a* and arms *f*.

The die-blocks *g* may be readily changed to suit the particular size or character of material operated upon. They are ordinarily made of steel with smooth wire-contacting surfaces, though other suitable material may be employed. The swing of the pivoted arms may be positively limited as by means of slots *d'* therefor in carrier head *d*, as indicated in Fig. 1. Though the intermediate pivoting of the arms to the carrier-head, as described, is preferred, they may be pivoted thereto at one end for instance as indicated in Fig. 4, each polishing device *g'* in the latter case being extended around the rod or wire operated upon so as to bear against the opposite side thereof under centrifugal action, as indicated. Other modifications may obviously be devised without departing from the invention.

What I claim is:—

1. A wire or rod polishing machine comprising a hollow rotary spindle and centrifugally movable arms pivoted thereto and provided with polishing devices, said devices be-

ing closed together at the spindle axis by the pivotal centrifugal movement of the rotated arms.

2. A wire or rod polishing machine comprising a hollow rotary spindle and centrifugally movable arms pivoted thereto and provided with polishing devices and adjustable weights, said devices being closed together at the spindle axis by the pivotal centrifugal movement of the rotated arms.

3. A wire or rod polishing machine comprising a hollow rotary spindle, centrifugally movable arms pivoted thereto and provided with polishing devices, weights slidable on said arms, and a longitudinally adjustable sleeve on said spindle engaging said weights.

4. A wire or rod polishing machine comprising a hollow rotary spindle, centrifugally movable arms pivoted thereto and provided with polishing devices, weights slidable on said arms, a longitudinally adjustable sleeve on said spindle engaging said weights, and non-rotating adjusting means for said sleeve.

5. A wire or rod polishing machine comprising a hollow rotary spindle, centrifugally movable arms pivoted thereto and having forwardly projecting portions provided with polishing devices and rearwardly extending portions provided with slidable weights, and a longitudinally adjustable sleeve on said

spindle engaging said weights, substantially as set forth.

6. A wire or rod polishing machine comprising a hollow rotary spindle, centrifugally movable arms pivoted thereto and having forwardly projecting portions provided with polishing devices and rearwardly extending portions provided with slidable weights, a longitudinally adjustable sleeve on said spindle engaging said weights, and non-rotating adjusting means for said sleeve.

7. A wire or rod polishing machine comprising a hollow rotary spindle, centrifugally movable arms pivoted thereto, and provided with polishing devices, grooved weights slidable on said arms, and a longitudinally adjustable sleeve on said spindle having forked fingers engaging said grooved weights.

8. A wire or rod polishing machine comprising a hollow rotary spindle and centrifugally movable arms provided with polishing devices, said devices being closed together at the spindle axis by the centrifugal movement of the rotated arms.

In testimony whereof, I affix my signature, in the presence of two witnesses.

HENRY JANSSEN.

Witnesses:

D. M. STEWART,

W. G. STEWART.