

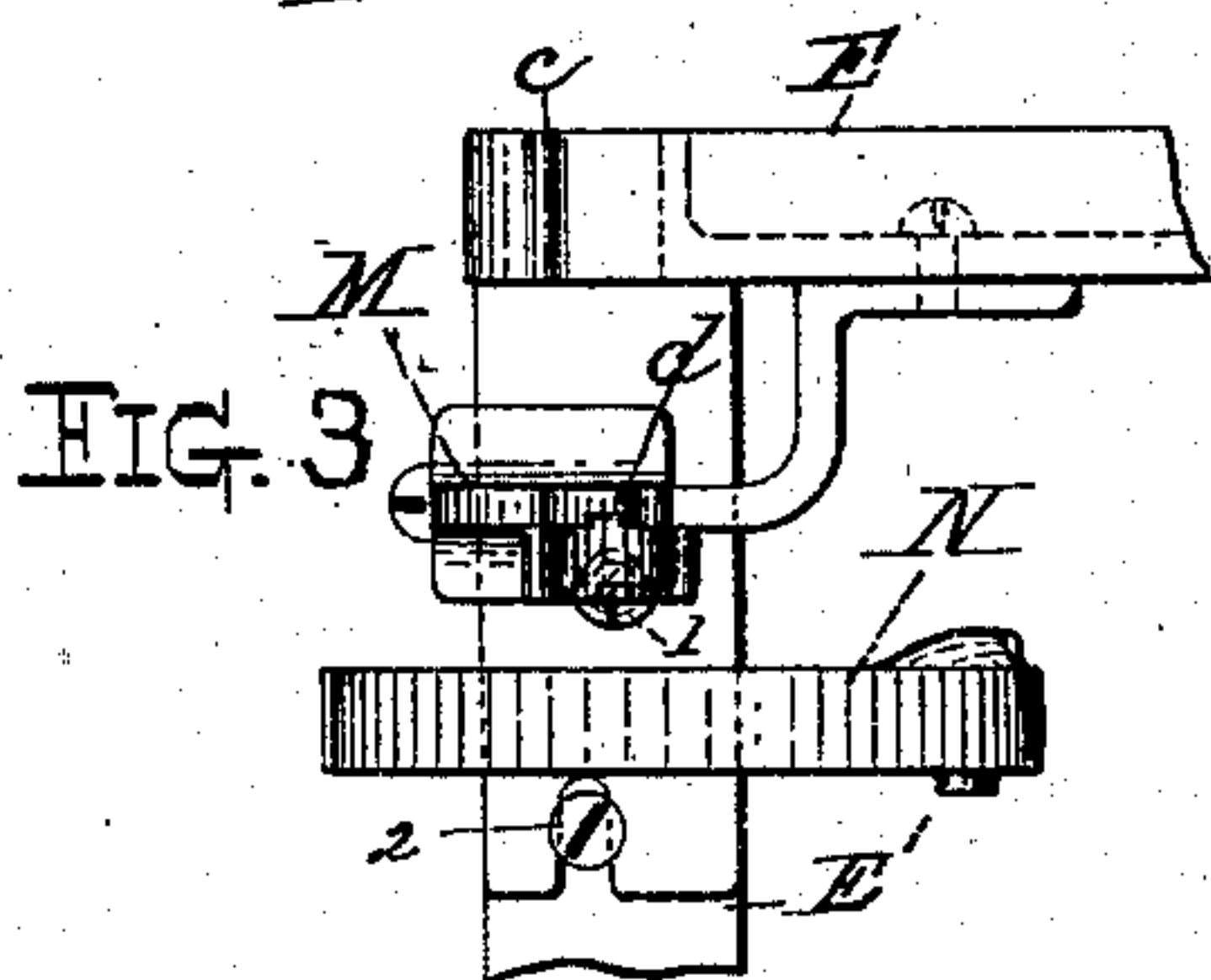
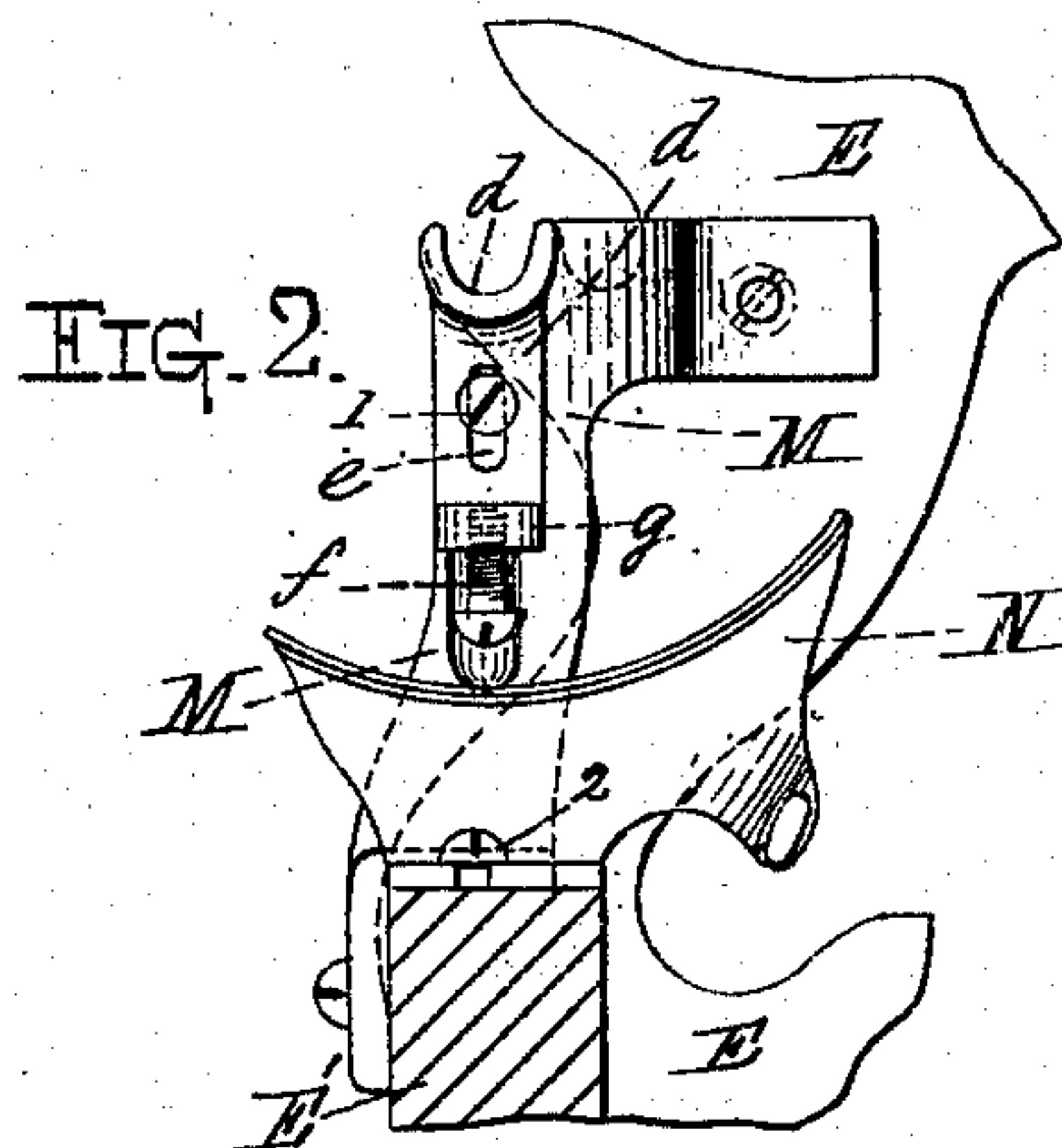
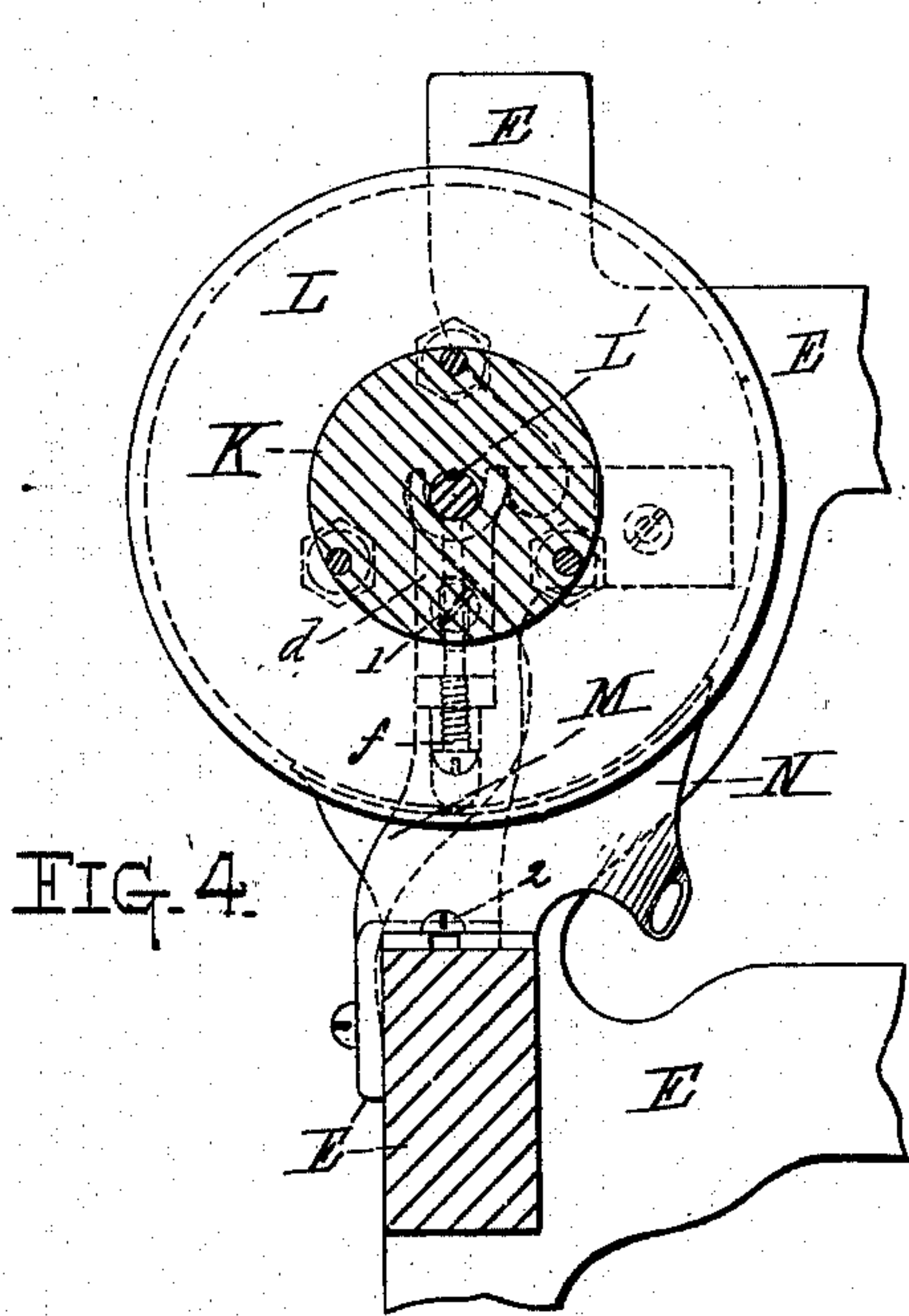
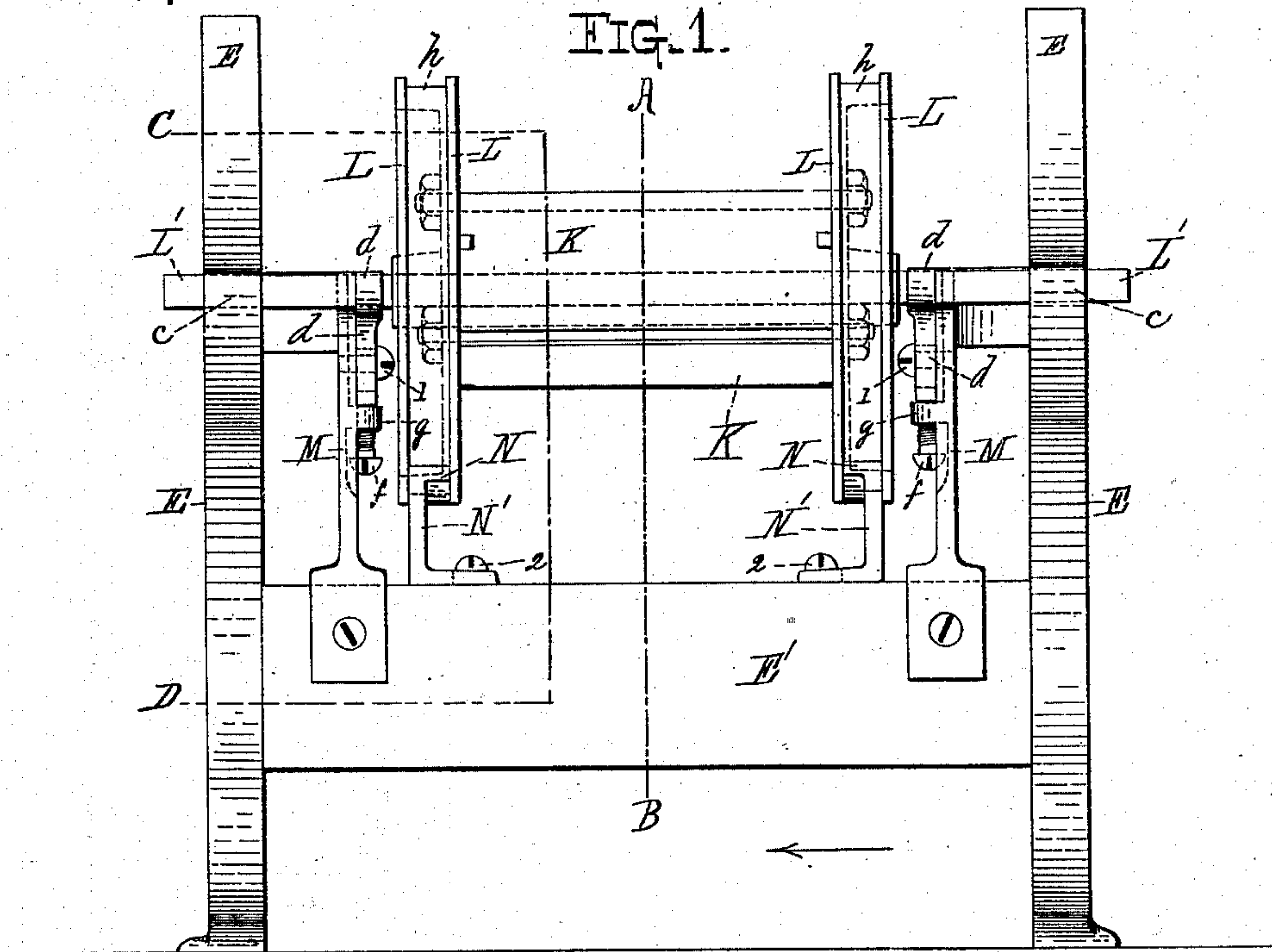
(Model.)

L. J. KNOWLES.

LOOM.

No. 272,062.

Patented Feb. 13, 1883.



Witnesses:

H. H. Brierley
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Inventor:

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UNITED STATES PATENT OFFICE.

LUCIUS J. KNOWLES, OF WORCESTER, MASSACHUSETTS.

LOOM.

SPECIFICATION forming part of Letters Patent No. 272,062, dated February 13, 1883.

Application filed May 7, 1881. (Model.)

To all whom it may concern:

Be it known that I, LUCIUS J. KNOWLES, of the city and county of Worcester, State of Massachusetts, have invented certain new and useful Improvements in Looms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents the rear part of so much of a power-loom as is necessary to illustrate my invention. Figs. 2, 3, and 4 represent sections and parts of the devices and mechanism represented in Fig. 1 of the drawings, as will be hereinafter more fully described, Fig. 2 being a section on line C D of Fig. 1 with the yarn-beam removed, Fig. 3 a top or plan view of the parts shown in Fig. 2, and Fig. 4 a section on line A B of Fig. 1.

The invention consists in the combination, with friction-plates for receiving and supporting the heads of the yarn-beam, of mechanism for supporting and adjusting the shaft or journals of the yarn-beam to regulate the amount of friction between the heads of the yarn-beam and said plates, as hereinafter described and claimed.

In the drawings, the parts marked E represent the loom-frame, which may be made in the usual manner.

K represents the yarn-beam, provided with grooved metallic heads L L; and L' L' represent the shaft or journals of said beam, which journals or supporting shaft or spindle, in addition to the curved supports *c* in the sides of the frame E, have an inner set of adjustable

bearings, *d d*; and these bearing-pieces are provided with slots *e*, whereby they can be adjusted up and down by means of adjusting-screws *f*, which pass through lugs *g* upon the pieces M, fastened to the cross-piece E' and to the frame E, as fully indicated in the figures of the drawings.

N are curved stationary friction-surfaces, which are so made and arranged that they will fit into the grooves *h* of the heads L of the yarn-beam K, whereby, by means of adjustable bearing-pieces *d*, the friction between the heads L of yarn-beam K and the curved friction-surfaces N can be very delicately and accurately adjusted, and when once adjusted, screws 1, which pass through slots *e*, being tightened up, the parts are not liable to be displaced. Consequently a very desirable friction is obtained. It will be observed that the curved friction-surfaces N are supported upon slotted stands N', which are secured to the cross-piece E' by means of screws 2, whereby said friction-surfaces can be adjusted laterally, if occasion requires.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of the frame of a loom, the body, heads, and journals of the yarn-beam, and the adjustable auxiliary bearings *d d* with frictional plates N, substantially as and for the purpose described.

LUCIUS J. KNOWLES.

Witnesses:

H. H. MERRIAM,
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