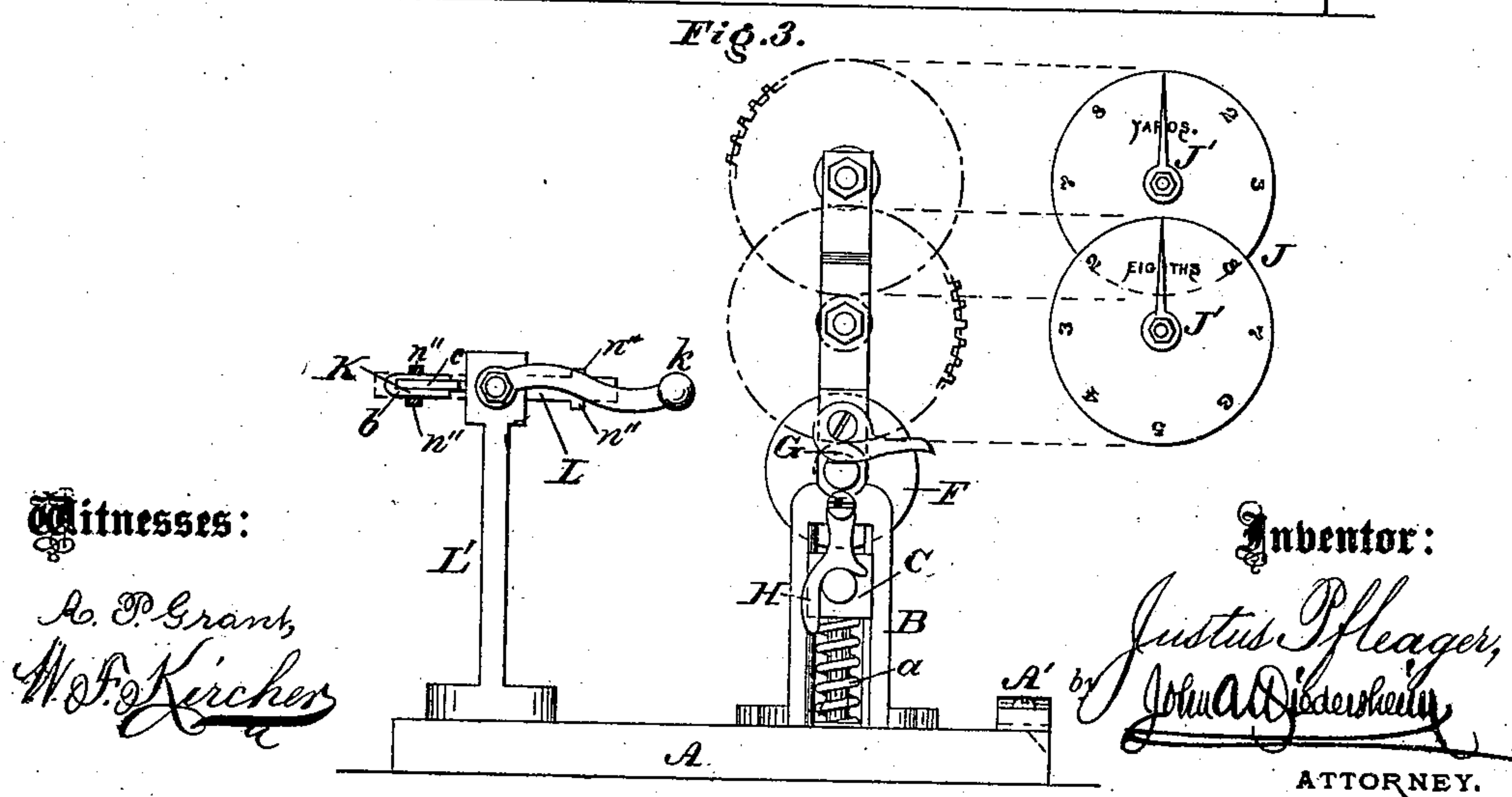
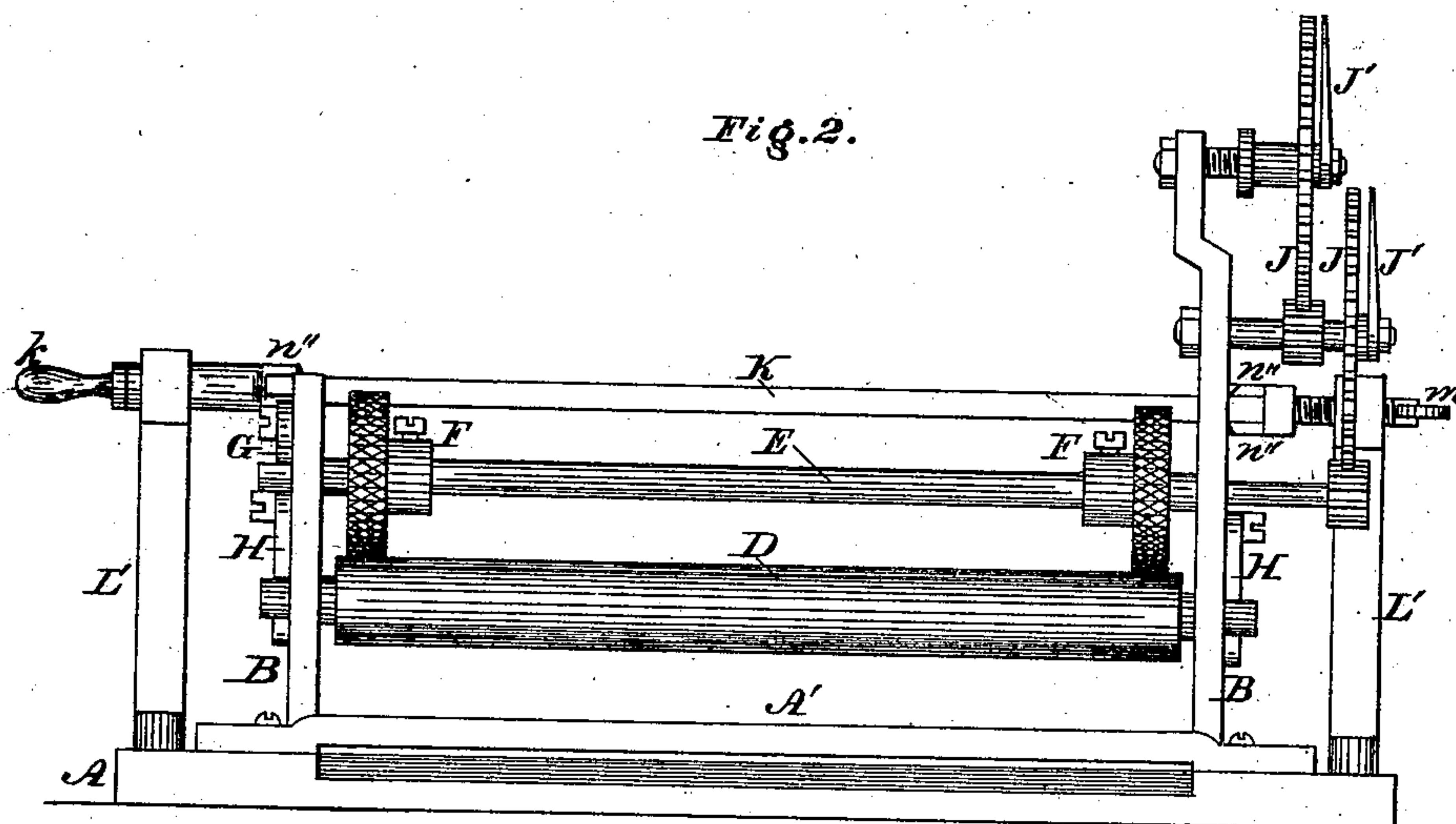
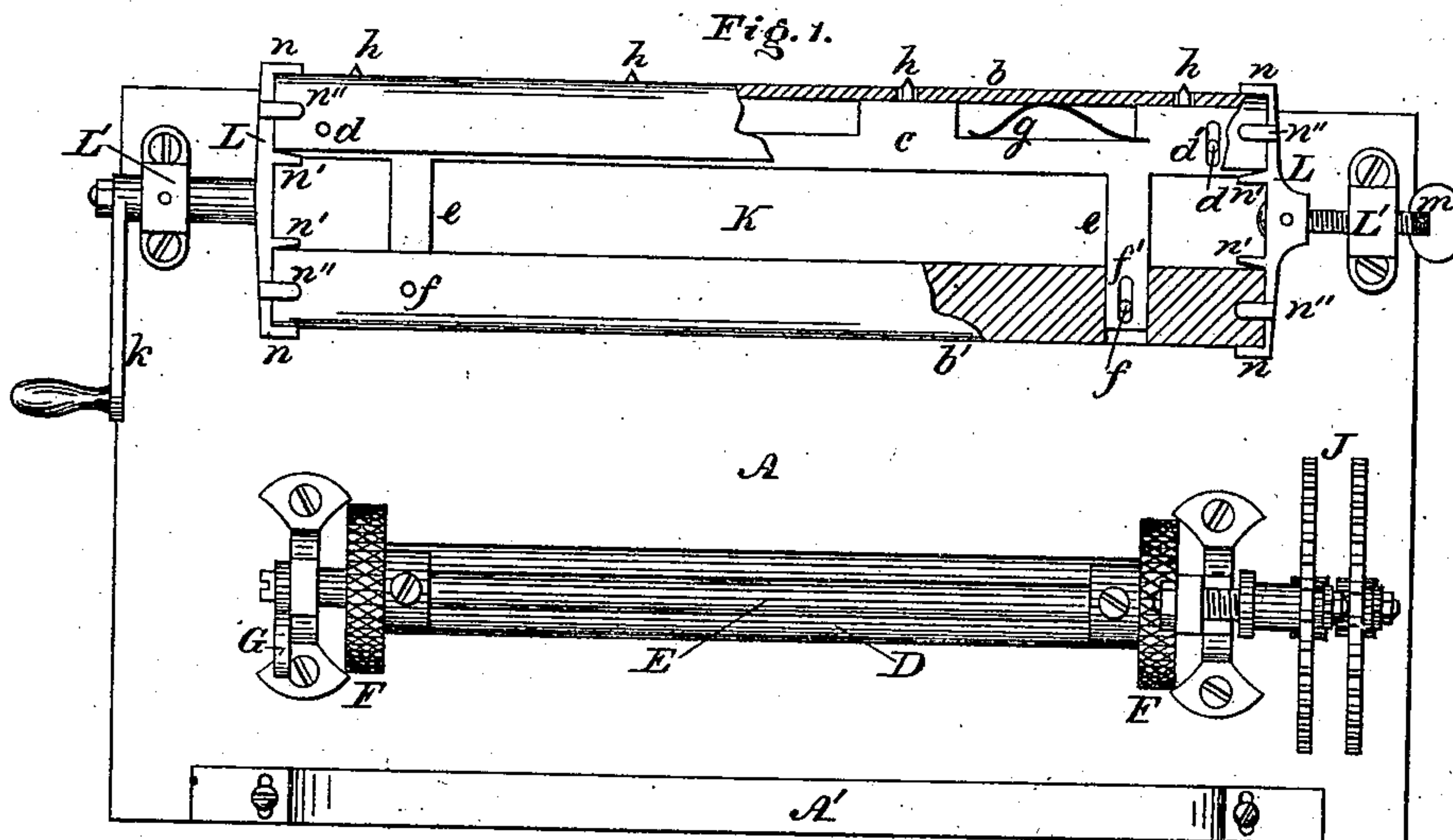


(No Model.)

J. PFLEAGER.  
Cloth Measuring Machine.  
No. 230,809. Patented Aug. 3, 1880.





# UNITED STATES PATENT OFFICE.

JUSTUS PFLEAGER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF  
ONE-HALF OF HIS RIGHT TO SAMUEL KESSLER, OF SAME PLACE.

## CLOTH-MEASURING MACHINE.

SPECIFICATION forming part of Letters Patent No. 230,809, dated August 3, 1880.

Application filed April 22, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JUSTUS PFLEAGER, a citizen of the United States, residing in the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Measuring Cloth, &c., which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top or plan view of the apparatus embodying my invention. Fig. 2 is a front view thereof. Fig. 3 is a side elevation.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to improvements in measuring apparatus, wherein the passing cloth, paper, &c., operate registering mechanism.

It consists of means for rendering the registering apparatus inoperative at the start and conclusion of the work, and for other purposes.

It also consists of means for disconnecting the feed-roller from the rollers of the registering mechanism.

It also consists of a rack or board with spurs for taking hold of the cloth, paper, &c., to be wound thereon, and made to contract and expand, so as to permit the ready removal of the board when the roll or bolt is completed.

It also consists in certain adjusting devices and other improvements, hereinafter particularly set forth.

Referring to the drawings, A represents a suitable base or table, and B standards rising therefrom.

C represents vertically-sliding bearings, which are fitted to the standards and rest against springs *a*, supported on the base or table A or the standards B, their effect being to hold the bearings elevated.

On the bearings is mounted a horizontal roller, D, having a frictional surface, preferably of rubber, and on the standards B, above the roller D, is mounted a shaft, E, which, being horizontal, is parallel with said roller D, said shaft E carrying rollers F F.

Pivoted to the upper end of one of the standards B is a cam-lever, G, which is adapted to bear against the shaft E and prevent move-

ment thereof. To the standards are also pivoted gravitating-latches H, which, when the roller D is depressed, are adapted to drop against the journals thereof, and thus hold said roller D from the rollers F F.

J represents registering-dials, and J' indices, either of which are operated by the shaft E, the dimensions of the rollers F F whereof being relative to subdivisions of yards or other characters, so that, as in the present case, one rotation of the rollers will move the dial or indices an eighth of a yard, the calculation of the whole number of yards measured being readily made.

K represents the board or rack on which the article to be measured is wound, and the same may be made of wood or metal, and consists of two strips, *b b'*, the strip *b* being grooved to receive a pronged or spurred strip, *c*, on which the strip *b* slides, the two strips being connected by pins *d*, which are driven through the strip *b* and pass through slots *d'* in the inner strip, *c*.

Tongues *e* are secured to or formed with the strip *c* and project into openings in the strip *b'*, to which they are connected by pins *f*, which pass through slots *f'* in said tongues *e*, so that the strips *b'* have a sliding connection on said tongues. Springs *g* are interposed between the strips *b c*, so as to force out the strips *b* and thereby cover the spurs *h*, which, projecting from the inner strip, *c*, enter openings in the strip *b*.

The rack or board is arranged in position parallel with the roller D and shaft E, and its ends are secured to rotary holders L, which are mounted on standards L', rising from the table A, and one of them is provided with an operating crank-handle, *k*, and the other with a swivel-screw, *m*, which is fitted to the respective standard L', so that the rack or board may be applied to and removed from the holders.

Each holder has a lug, *n*, at its ends, two lugs, *n'*, intermediate of the ends, and side lugs, *n''*.

When the rack or board has its ends fitted to the holders the strip *b* may be said to be contracted and the strip *b'* expanded. In the



former case the spurs *h* are exposed and present their points for attachment of the end of the cloth, &c., to be measured.

The operation is as follows: The roller D is depressed and the gravitating-latches H drop against the journals of the roller and hold it down from the rollers F. The cam-lever G is rotated and its head binds against the shaft E, rendering the registering mechanism immovable or inoperative. The piece or sheet of material to be measured is passed under the guide A', in front of the table or base A, and then between the rollers D F, which have been separated to permits its passage. The cam-lever G is now released from the shaft E and the latches H cleared of the journals of the roller D. A sufficient length of the material is now drawn through in order to attach it to the rack or board K, the register indicating such length. While such attachment is being accomplished the shaft E may be locked, in order to prevent accidental movement of the registering mechanism; but by exercise of proper care this may be avoided. The rack or board K is rotated and the fabric or material drawn between the rollers D F, thus rotating the latter by contact, and registering or measuring the length of the material, the rack or board winding the material and forming a roll or bolt thereof. When the work is accomplished the screw *m* is rotated and the attached holder L is drawn from the end of the rack or board, whereby the roll or bolt of material with the inclosed rack or board may be removed from the holders. As the strip *b* is no longer controlled by the lugs *n*, the springs

*g* exert their pressure and expand or move out said strip so as to cover the spurs *h*, and the strip *b'* is free to contract. Consequently the rack or board K is disengaged from the folds of the material and may be easily withdrawn at the end of the roll or bolt.

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

1. The registering mechanism, in combination with the roller D, with sliding bearings C, the springs *a*, and latches H, substantially as and for the purpose set forth.

2. The shaft E, carrying the rollers F and geared with the registering mechanism, in combination with the cam-lever G, substantially as and for the purpose set forth.

3. In combination with an expanding and contracting rack or board, the rotating holders L, having lugs which embrace the ends of said rack, substantially as set forth.

4. The strip *b*, strip *c*, and springs *g*, combined and operating substantially as and for the purpose set forth.

5. The strip *b*, strip *c*, with tongues *e*, and strip *b'*, combined and operating substantially as and for the purpose set forth.

6. In combination with roller D and shaft E, the rollers F, adjustable on said shaft, so as to adapt the machine to fabrics of different widths.

JUSTUS PFLEAGER.

Witnesses:

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W. F. KIRCHER.