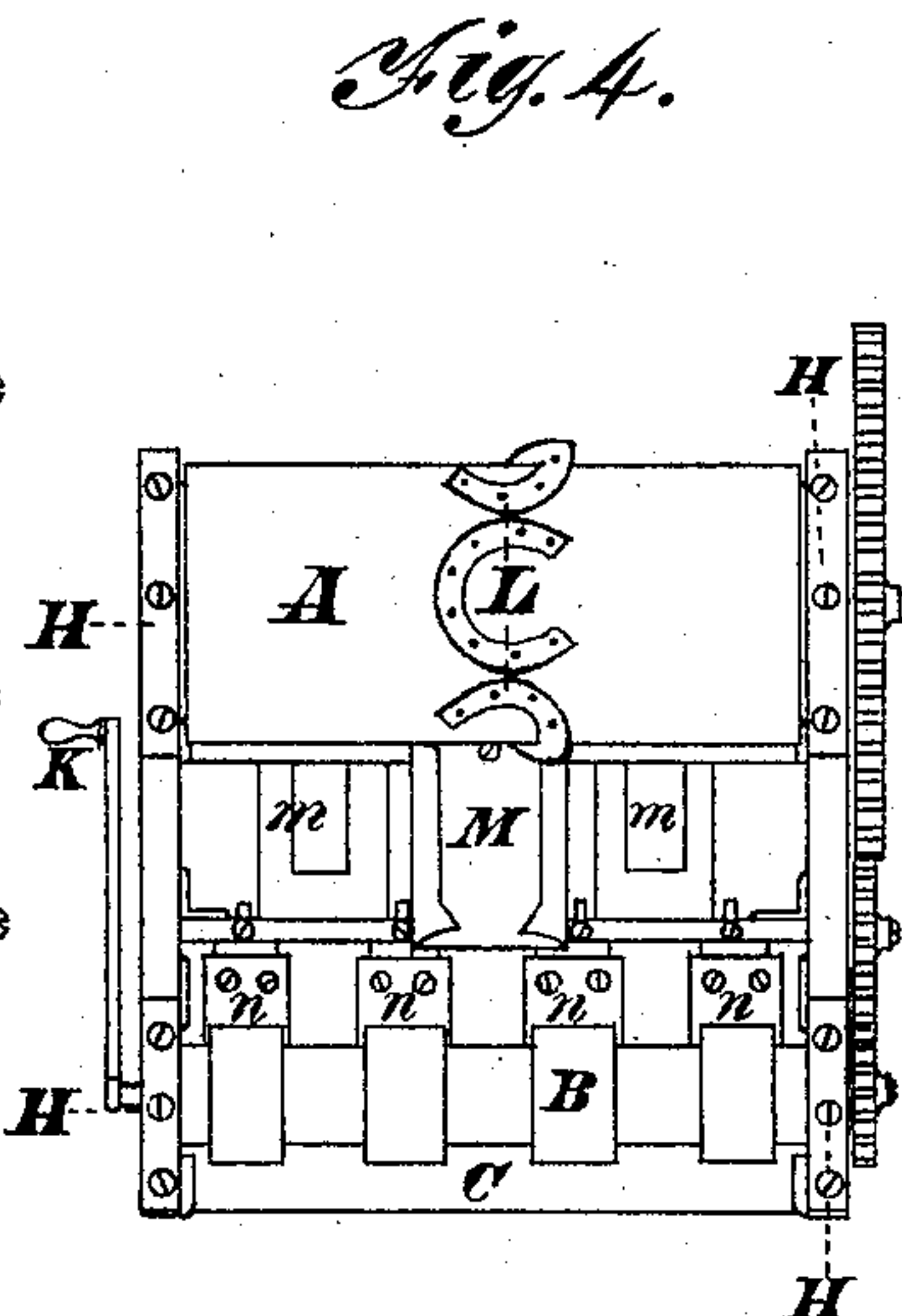
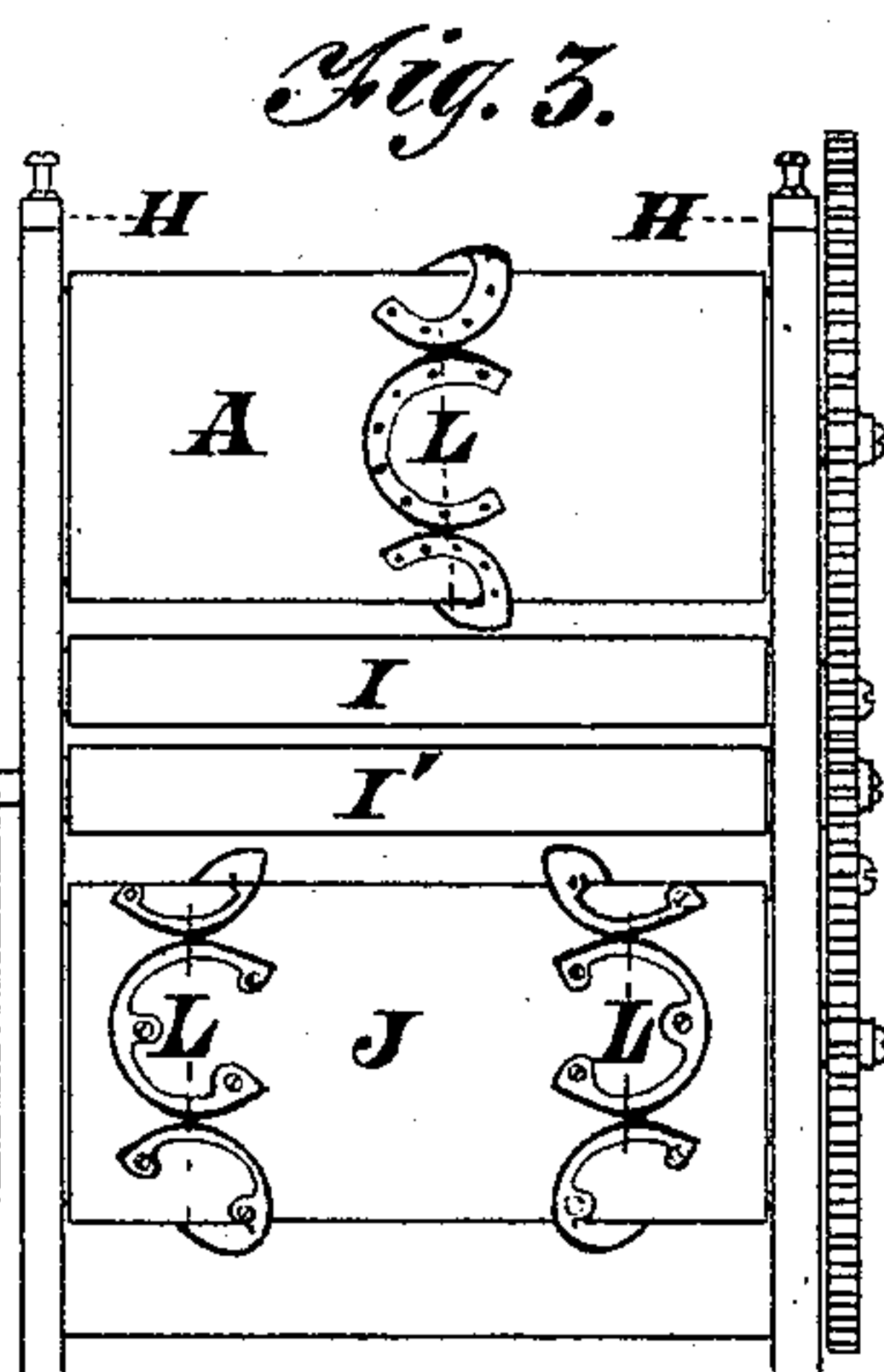
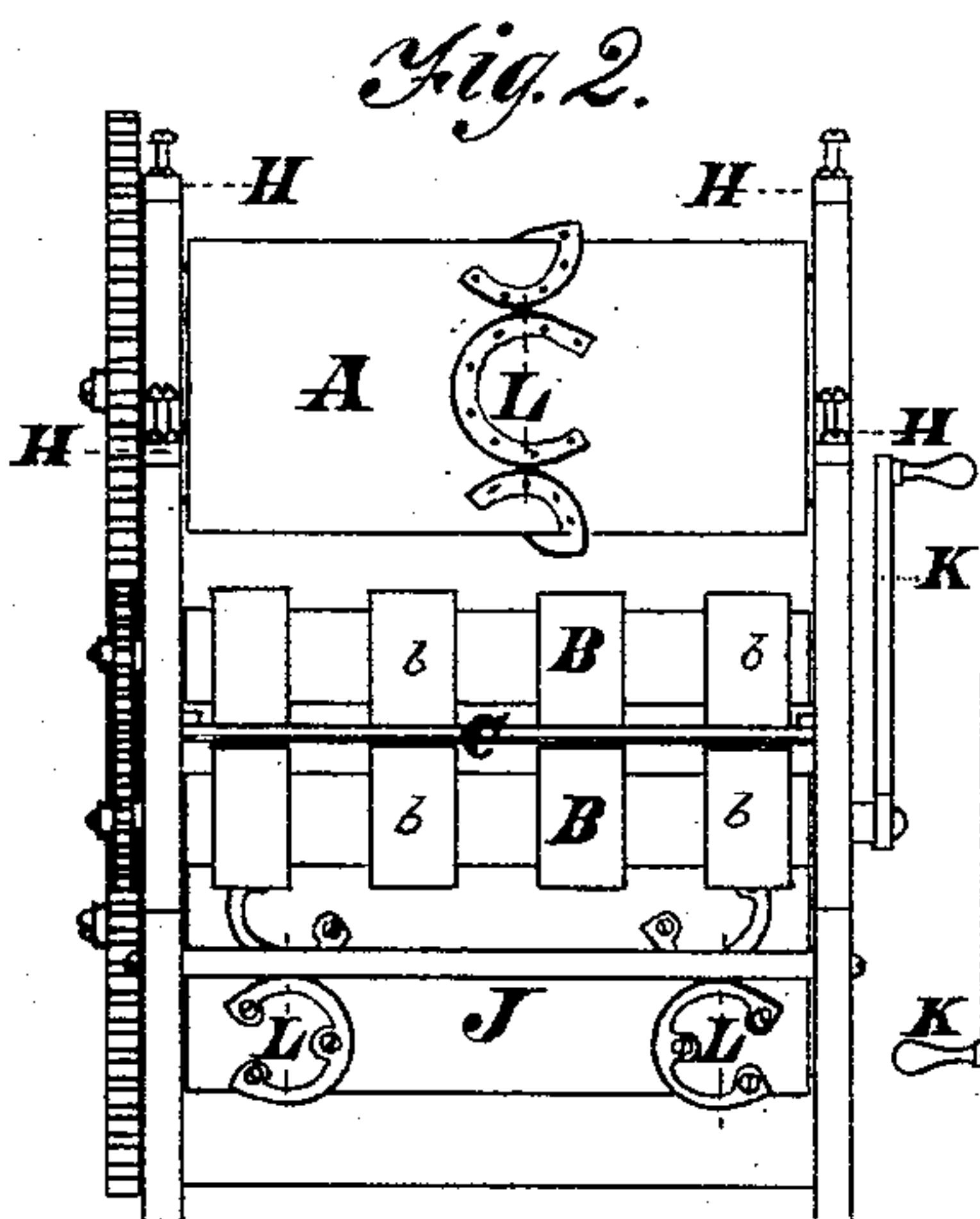
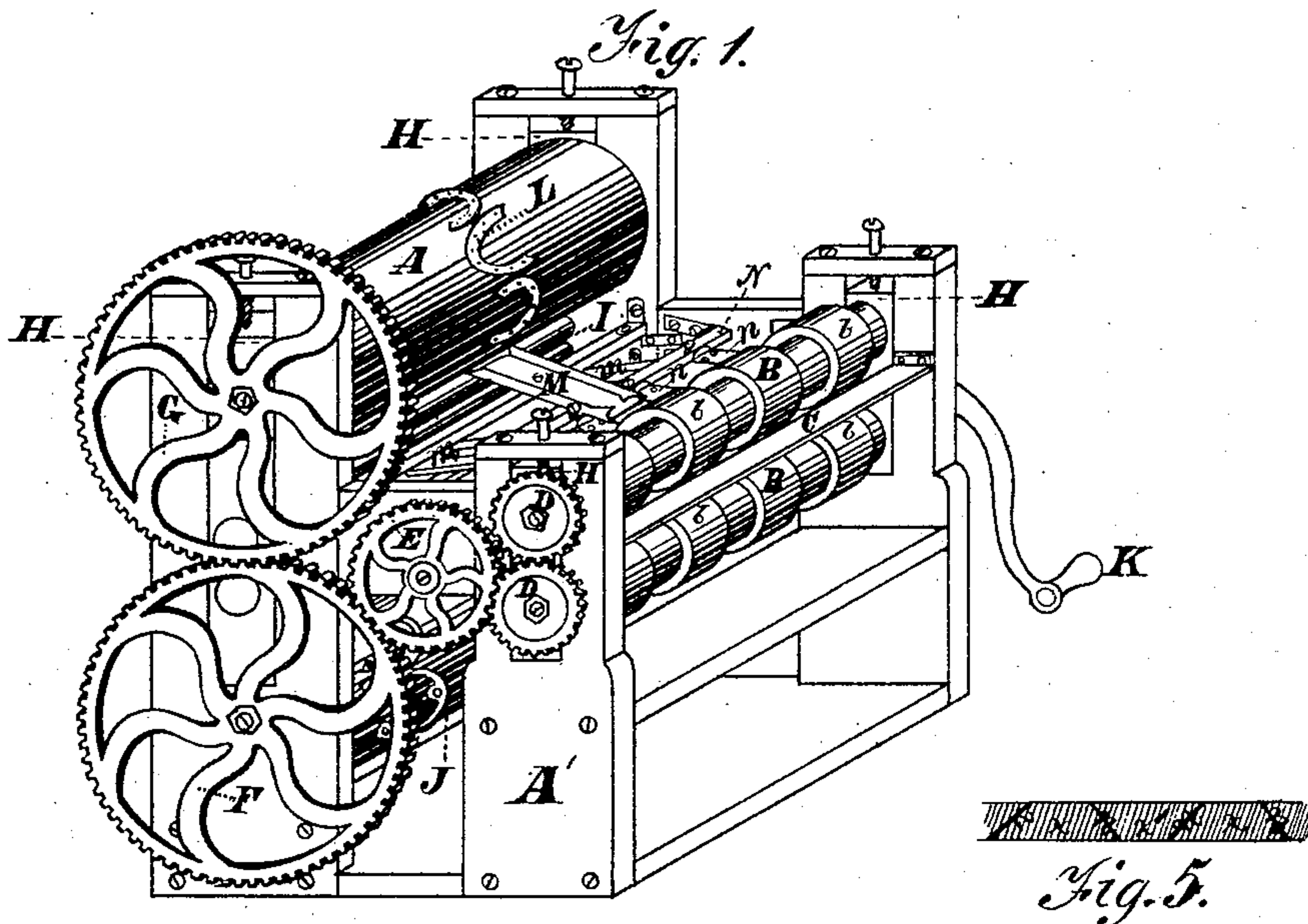


T. A. BAXENDALE.

Machines for Manufacturing Shoe-Counters.

No. 157,268.

Patented Dec. 1, 1874.



WITNESSES;

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# UNITED STATES PATENT OFFICE.

THOMAS A. BAXENDALE, OF BROCKTON, MASSACHUSETTS.

## IMPROVEMENT IN MACHINES FOR MANUFACTURING SHOE-COUNTERS.

Specification forming part of Letters Patent No. **157,268**, dated December 1, 1874; application filed October 8, 1874.

*To all whom it may concern:*

Be it known that I, THOMAS A. BAXENDALE, of Brockton, in the county of Plymouth, State of Massachusetts, have invented a certain new and useful Improvement in Machines for Manufacturing Shoe-Counters, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an isometrical perspective view of my improved machine. Fig. 2, a front elevation; Fig. 3, a rear elevation; Fig. 4, a plan or top view; and Fig. 5, a view showing the arrangement of the knives.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

My invention relates to an organized mechanism for cutting and skiving the counter at one operation; and consists of a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a simple and very effective device for this purpose is produced.

In Fig. 1 of the drawing, A' is the main frame of the machine, in which are mounted the rollers A J B B. The rollers B B are the feed-rollers, and A J the die-rollers, the feed-rollers being connected at one end by the gears D D, and the die-rollers in the same manner by the gears G F, the lower roller of each of the respective pairs being connected by the intermediate gear E. A table or bar, C, is arranged in front of and midway between the rollers B B, which are constructed with corresponding bosses *b b*, as shown in Fig. 2. A series of fixed splitting-knives, *n n n n*, are disposed immediately behind the feed-rollers, and on a plane with their point of contact, there being a knife to each pair of the bosses. These knives are secured by set-screws to the transverse bar N, and are inclined laterally at an angle of about thirty degrees, and are arranged in a series of pairs in such a manner that the space between any two pairs will be the same as that between any two knives, or so as to cut the leather board passing through the machine into regular sections or strips,

with correspondingly inclined sides, every alternate section or strip being inverted, or the reverse of the adjoining, as shown in Fig. 5, in which *n n* represent the knives, and *x x'* the strips of leather board, as divided by the knives. The roller A is provided with a series of semicircular cutting-dies, L, firmly attached to its periphery, and operating against the green-hide-covered bed-roller I, the roller J being provided with a like series of dies acting against a like bed-roller, I'. These dies consist of thin blades of steel, provided with flanges at the back, for screwing them to the roller, as shown at L, Figs. 2 and 3, and have rubber cushions or springs adjoining the cutting-edges, for throwing off or shedding the cut counter as the roller revolves. In the drawing, the roller A is represented with dies having the springs attached, and the roller J with dies without the springs. Between the rollers A I and the rollers B B there is a runlet or channel, M, for conducting the strip of leather board *x'* (which passes upwardly as it leaves the knives) to the dies on the upper roller, and between the rollers J I' and rollers B B there is a like channel, *m*, for conducting the strip of leather board *x* (which passes downwardly as it leaves the knives) to the dies on the lower roller.

In the drawings, each of the die-rollers is shown as provided with but a single series of dies, but it will be understood that as many series of dies must be employed as there are pairs of knives or strips of leather board to be cut; also, that the dies are to be placed on a line with the spaces between the knives, and as many runlets or channels used as there are pairs of knives or strips of leather board to be conducted to the dies. It will also be understood that the dies may be varied in size or form to correspond with the shape or style of the counter it is desired to produce.

From the foregoing the nature and operation of my invention will be readily obvious to all conversant with such matters.

In using the machine, the leather board to be cut into counters is placed upon the table C, and inserted between the feed-rollers B B. Power is then applied to the lower feed-roller by means of the crank K, communicating motion through the gears D D to the upper feed-



roller, and through the gears E F G to the die-rollers A J, forcing the leather board against the cutting-edges of the knives *n*, (which cutting-edges are nearest the rollers B,) dividing it into strips, and carrying the strips by means of the channels M *m* to the dies L, by which they will be cut by the dies L into pieces of the proper form, all in a manner too apparent to require a more explicit description.

It will be obvious that the counter will be chamfered or skived on two of its sides by the action of the knives in splitting the leather board into strips, leaving but very little to be afterward done in this respect; also, that in the manufacture of shoe-counters my improved method of dividing the leather board into strips by the inclined knives, as described, effects a very large saving in stock and labor.

Having thus described my improvement, what I claim is—

1. In a machine for the manufacture of shoe-

counters the following instrumentalities, to wit: The knives *n n*, arranged in series of pairs on the cross-bar N, in combination with the rollers B B, provided with bosses *b b*, substantially as and for the purpose set forth.

2. The knives *n n* on the cross-bar N, and the rollers B B, in combination with the channels M *m*, substantially as and for the purpose set forth.

3. The combination of the feed-rollers B B, knives *n n*, channels M *m*, die-rollers A J, and bed-rollers I I', substantially as and for the purpose set forth.

4. The die-bearing rollers A J, in combination with intermediate bed-rollers I I', and channels M *m*, all substantially as and for the purpose described.

THOS. A. BAXENDALE.

Witnesses:

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JONA. WHITE.