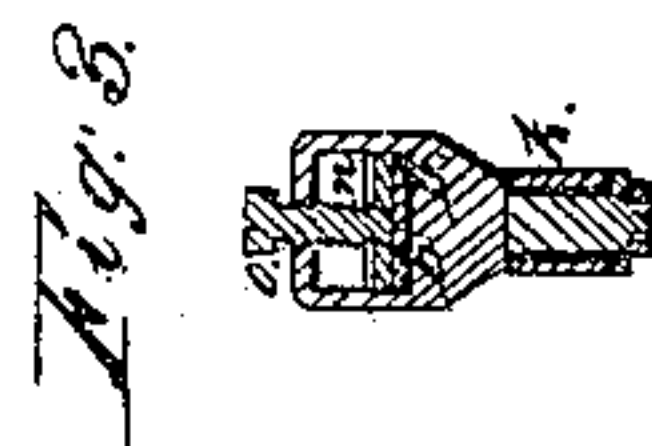
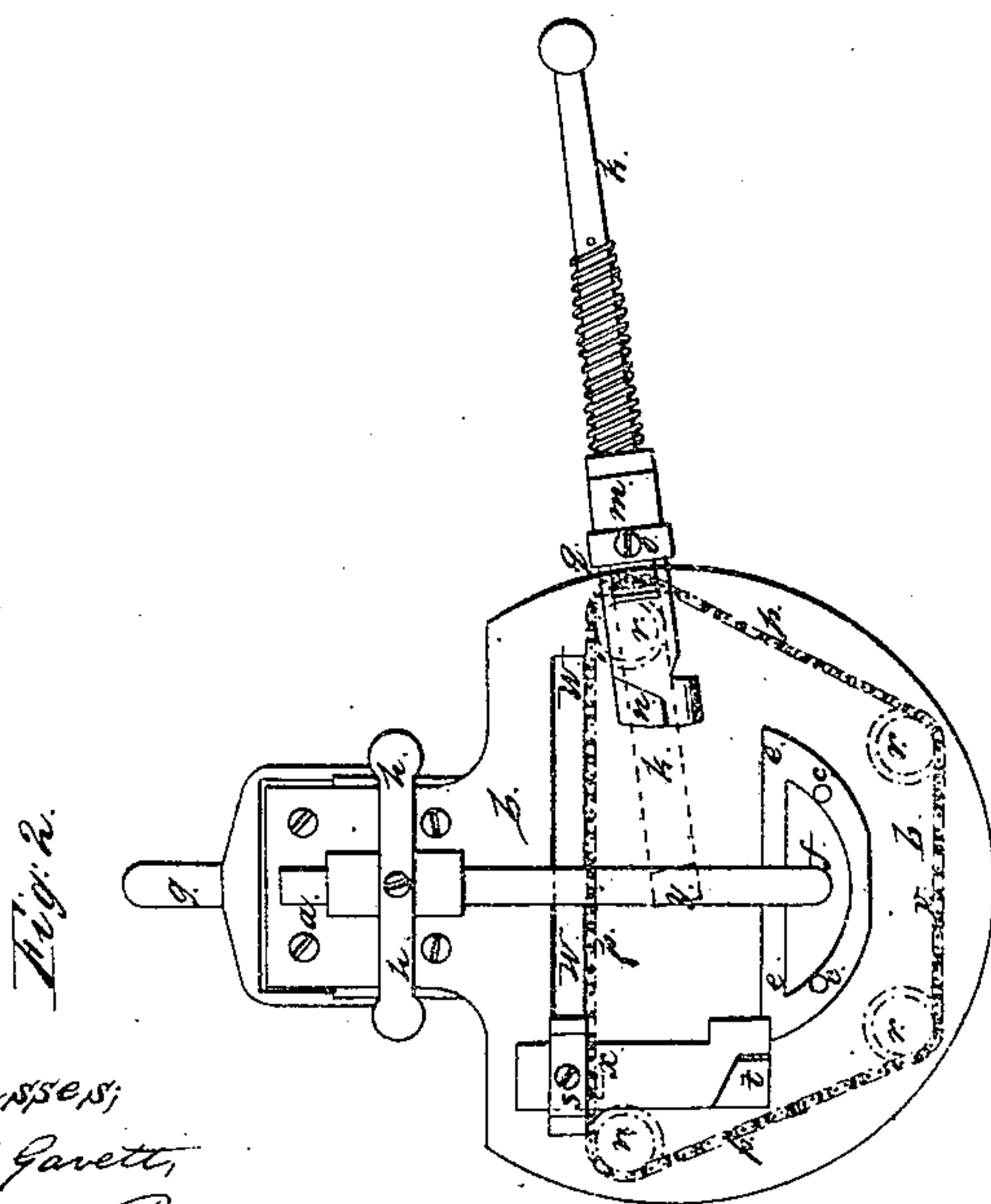
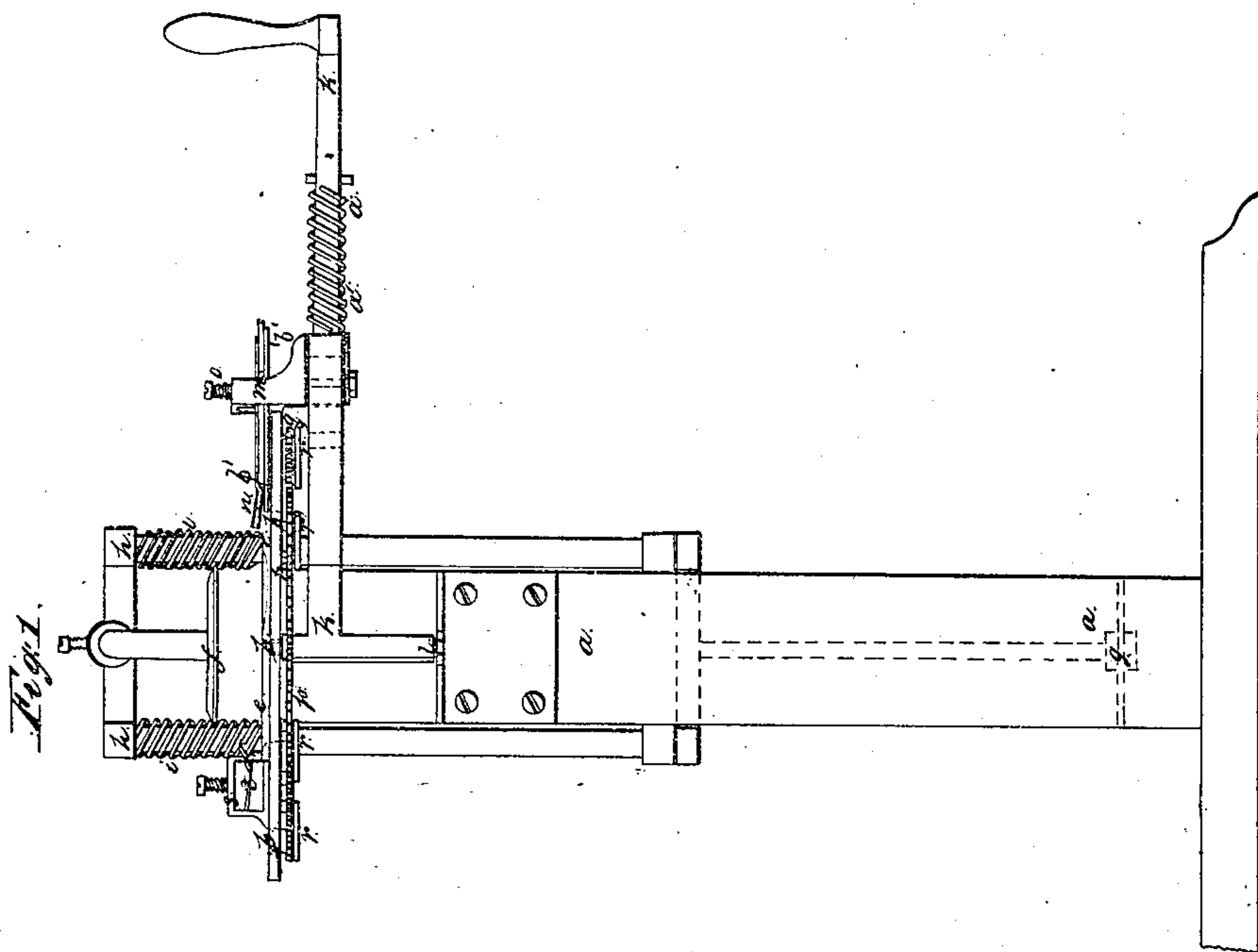


No. 28,580.

PATENTED JUNE 5, 1860.

E. T. INGALLS.
LEATHER SKIVER.



Witnesses;
Joseph Garrett,
A. W. Brown.

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UNITED STATES PATENT OFFICE.

ELIAS T. INGALLS, OF HAVERHILL, MASSACHUSETTS.

MACHINE FOR SKIVING LEATHER.

Specification of Letters Patent No. 28,580, dated June 5, 1860.

To all whom it may concern:

Be it known that I, ELIAS T. INGALLS, of Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Machines for Skiving or Beveling the Edges of Counters used in Boots and Shoes, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1 is a side elevation of my improved machine. Fig. 2 is a plan or top view of the same. Fig. 3 is a detail view to be hereinafter referred to.

The present invention consists in a new arrangement of devices for "skiving" or beveling the "counters" of boots and shoes, whereby the top or curved portion of the counter and the bottom or straight portion thereof are "skived" at the same time by one operation of the machine, instead of being done separately as has heretofore been necessary. I effect these results by the use of two knives so arranged and operated, that one knife will travel in the arc of a circle or nearly so and thereby cut the top of the counter, and the other in a straight line, so as to cut the bottom of the counter by one movement of a proper actuating device. My new machine is also adapted to the skiving of counters which have an irregularly curved surface, as I use a sliding knife-stock which adapts the knife to and causes it to bear, with an elastic yielding pressure, upon a suitable former, the said former having the same shape as that of the counter to be skived.

a a in the drawings represent a standard supporting a table or platform *b b*, the outer edge of which forms part of the circumference of a circle. On this table *b b* is fastened by dowels *c c*, extending into or through the same, a former *e*, which may be of any desired shape or size, it being intended to have a series of these formers so that one of any kind can be used, being held upon the table *b b* by the dowels.

f is a pressure-pad to hold the counter upon the former while it is being skived, being actuated by a treadle *g* acting upon a rectangular frame *h h* retracted for releasing the counter by springs *i, i*.

k k is a swinging-bar turning upon centers at *l l* and carrying a knife-stock *m m* in which a knife *n* is fastened in any desired position by means of a set-screw *o*. The knife *n n* being set in the required position with regard to the former *e*, is made to travel around the table, by moving the swinging-bar *k k*, the center or pivot of which corresponds with the center of the table. The edge of the knife being inclined at any desired angle will thus skive or bevel the curved portion of the counter, firmly held, as before described, by the pressure pad *f*. The above described movement of the swinging-bar *k k* is then made to effect the skiving of the lower portion of the counter, as follows:

p p is a chain or cord, attached to the swinging-bar *k k* at *q* and extending around guiding wheels or pulleys *r, r* on the underside of the table *b b* and through a groove in the lower portion of a knife-stock *s*, carrying a skiving knife *t* and placed in a grooved way *w w*. This knife receives an intermittent rectilinear motion by means of a projection *v* on the chain or cord *p p*, which when it has traveled a sufficient distance, brings the said projection in contact with the lower portion of the knife-stock *s*, thereby it will be seen causing the knife *t* to skive the straight portion of the counter. The knives *n* and *t* are then brought back into the position from which they started, so as to be ready to skive another counter, by simply turning the swinging-bar *k k* back again, a projection *x* in the chain acting upon the knife-stock *s* to give it a retrograde movement in the same manner as the projection *v* gave it its forward motion. By the above arrangement, it will be seen that the curved and straight portions of the counter are skived or beveled at one operation by the forward movement of the swinging-bar *k k*.

In order to adapt the machine to the skiving of irregular shaped counters, the knife-stock *m m* slides in proper grooves formed in the swinging-bar *k k* as shown in Fig. 3 and a spring *a' a'* bears upon the said knife-stock. A plate *b'* fastened to the knife-stock bears upon the edge of the former *e*.

By this means it will be seen that the knife *m*, will adapt itself to any shape of former as the knife-stock bears with an elastic yielding pressure upon the former *e*.

5 Having thus described my improvements, what I claim as my invention and desire to have secured to me by Letters Patent, is—

1. In a machine for skiving counters of boots and shoes, the use of two knives one
10 traveling on the arc of a circle or nearly so, and the other in a straight line or nearly so, operating substantially as described, whereby both the curved and straight portions of

the counter are skived at one operation, as set forth.

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2. In combination with the above so arranging the knife-stock, that the knife if desired may bear with an elastic yielding pressure upon the former so as to be adapted to skiving counters of irregular curves, as set
20 forth.

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Witnesses:

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