

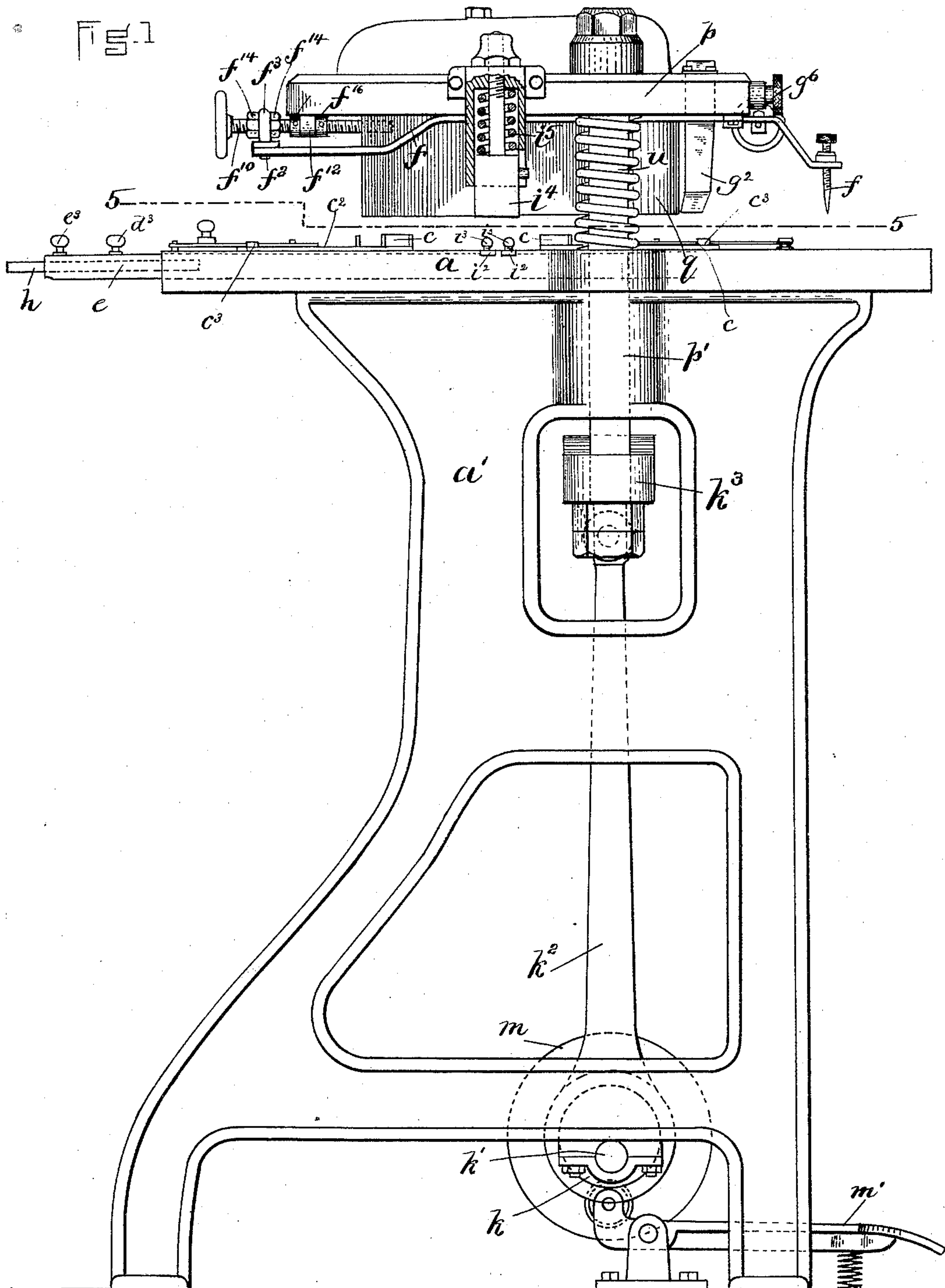
(No Model.)

3 Sheets—Sheet 1.

G. E. STEWART & A. G. BREWER.
VAMP MARKING AND THROATING MACHINE.

No. 475,952.

Patented May 31, 1892.



WITNESSES:

H. A. Hall
Geo. Chandler

INVENTORS

G. E. Stewart
A. G. Brewer
by Wright Brown & Co. Attys.

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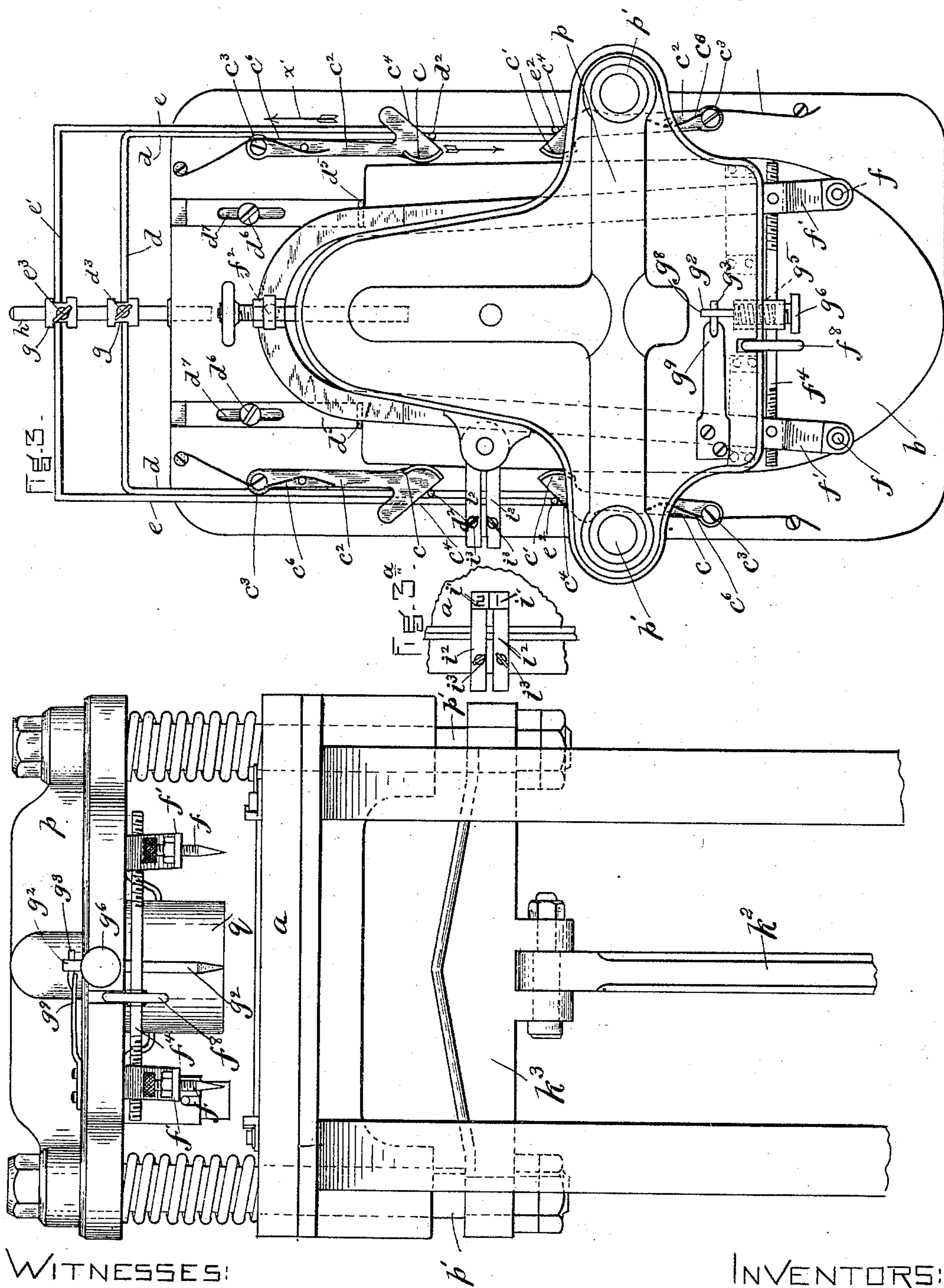
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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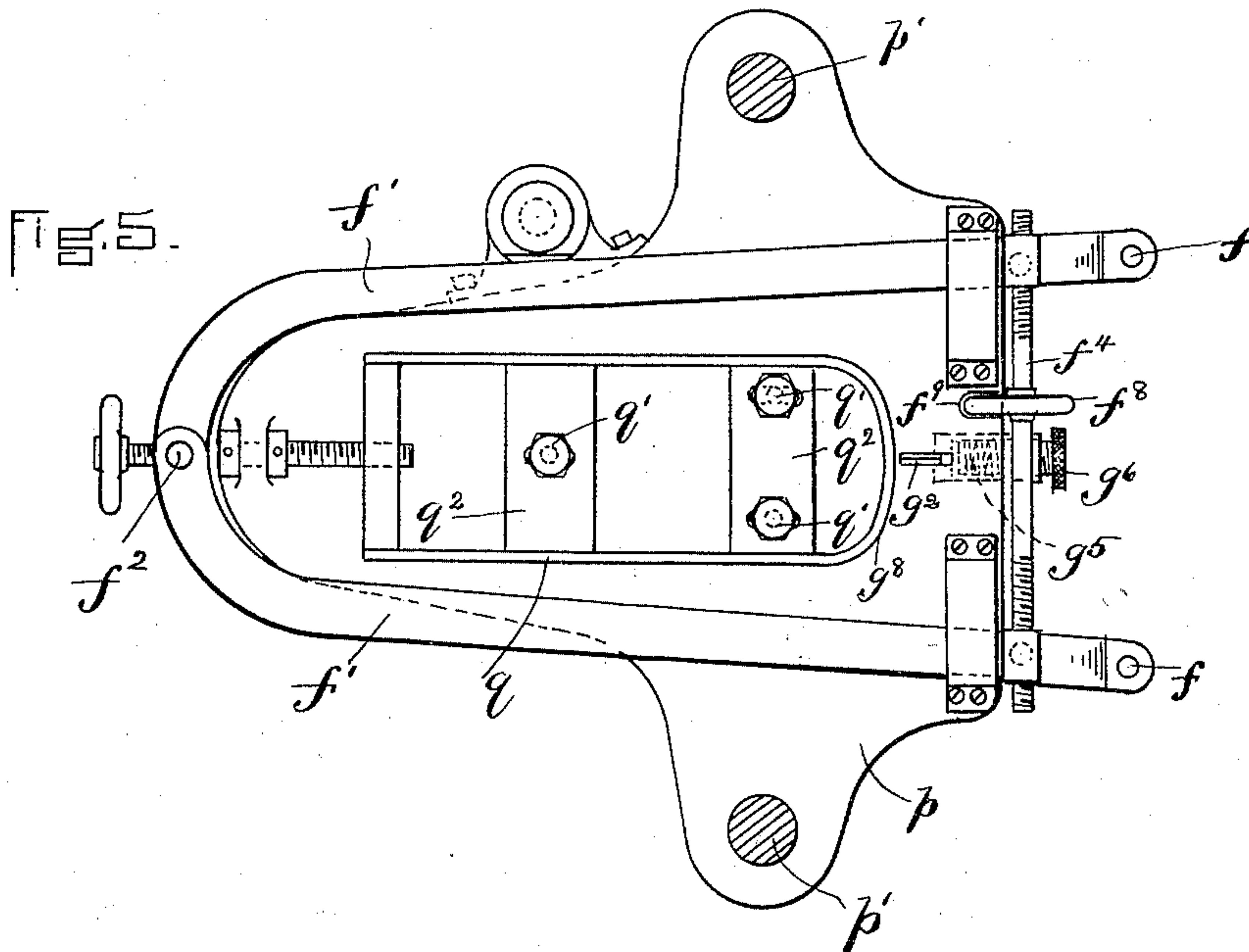
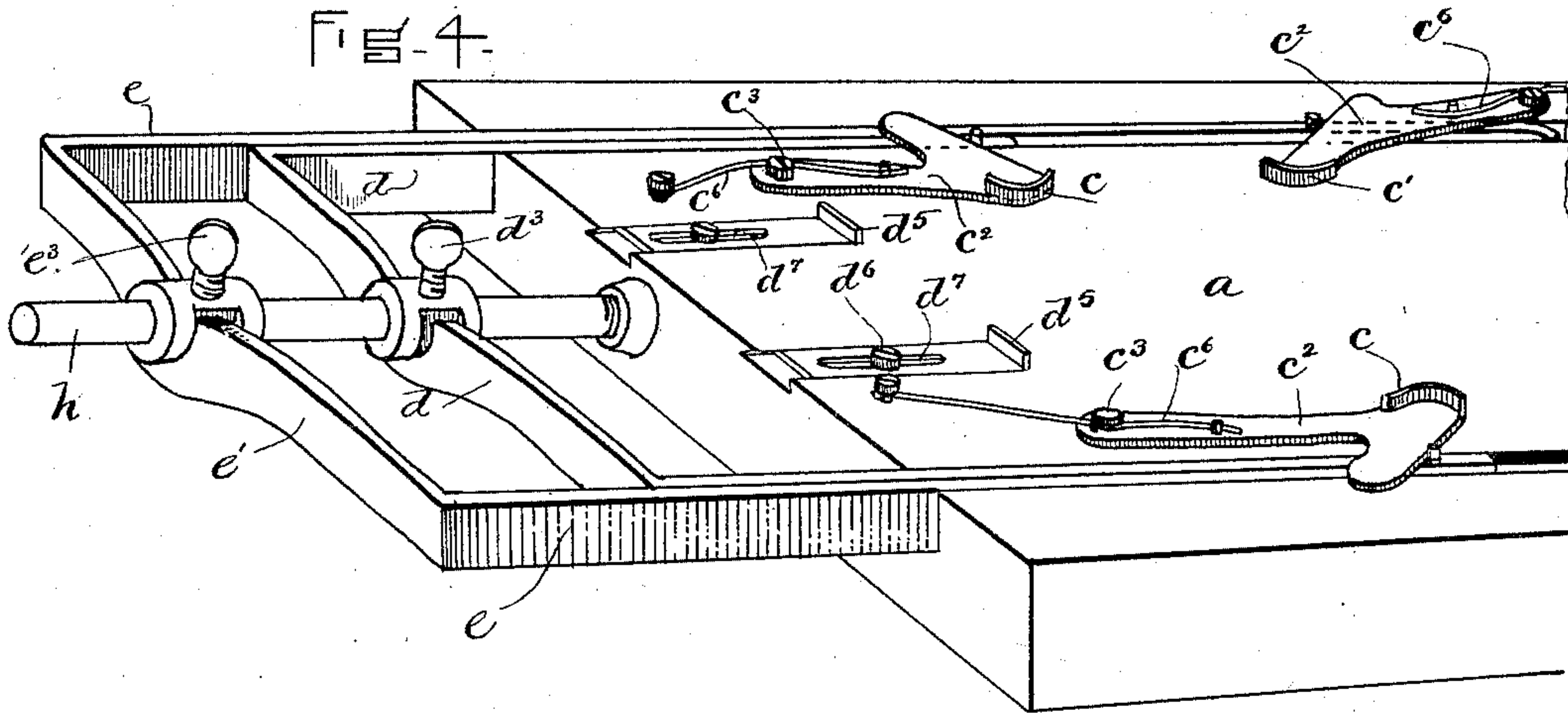
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H. A. Hall

Goodman

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G. E. Stewart

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by *Wright Brown* *Crosby*
Atty.

UNITED STATES PATENT OFFICE.

GEORGE E. STEWART, OF ASHLAND, AND ALBERT G. BREWER, OF HOPKINTON, MASSACHUSETTS.

VAMP MARKING AND THROATING MACHINE.

SPECIFICATION forming part of Letters Patent No. 475,952, dated May 31, 1892.

Application filed December 28, 1891. Serial No. 416,333. (No model.)

To all whom it may concern:

Be it known that we, GEORGE E. STEWART, of Ashland, and ALBERT G. BREWER, of Hopkinton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Vamp Marking and Throating Machines, of which the following is a specification.

This invention has for its object to provide a simple and efficient machine adapted at one operation to mark the vamp of a boot or shoe, to indicate the position of the toe-cap thereon and the median line of the vamp, and to cut out the throat or opening of the vamp.

The invention also has for its object to enable a vamp to be simultaneously marked to indicate the position of the toe-cap and the median line and to be stamped with the size or number of the shoe of which the vamp is to form a part.

To these ends the invention consists in the improvements which we will now proceed to describe and claim.

Of the accompanying drawings, forming part of this specification, Figure 1 represents a side elevation of a vamp-marking machine provided with our improvements. Fig. 2 represents a front elevation of the same. Fig. 3 represents a top view. Fig. 4 represents a perspective view of a portion of the bed. Fig. 5 represents a section on line 5 5, Fig. 1, looking upwardly.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a bed adapted to support a vamp *b* in a preferably horizontal position. Said bed is supported by a frame *a'*, which may be of any suitable form. The bed is provided with a pair of gages *c c*, located at opposite sides of the bed in position to bear against the edges of the vamp at the rear portion thereof and with another pair of gages *c' c'*, arranged to bear against the opposite edges of the vamp at points in advance of the gages *c c*. Said gages are ears or flanges formed upon arms *c²*, which are pivoted at *c³* to the bed *a*, and are provided with inclines *c⁴* at their swinging ends.

d d and *e e* represent slides, which are adapted to move in grooves in the bed *a* and are connected at their outer ends by cross-

bars *d'* and *e'*. The arms *d d* are provided with studs *d² d²*, which project upwardly and bear upon the inclines *c⁴ c⁴* on the gages *c c*, and the arms *e e* are provided with corresponding studs *e² e²*, which bear upon the inclines *c⁴ c⁴* on the gages *c' c'*. Said inclines are so arranged that a movement of the studs which bear against them lengthwise of the bed will cause the gages to move simultaneously in opposite directions, a movement of the bars *d d* in one direction causing both the gages *c c* to move inwardly, while a movement of said bars in the opposite direction permits said gages to be moved outwardly by springs *c⁶ c⁶* as far as the studs *d² d²* will permit. Movements of the bars *e e* produce the same result upon the gages *c' c'*. It will be seen, therefore, that by moving the bars *d* and *e* to the desired points and securing said bars at the points to which they are adjusted the gages *c c* and *d d* may be adjusted to suit vamps of various widths. The bars *d* and *e* are secured to the points at which they are adjusted by means of set-screws *d³ e³*, which secure collars *g g*, engaged with the cross-bars *d' d'* to the rod *h*, which is affixed to and projects from one end of the bed *a*.

The collars *g g* are provided with slots *g' g'* in their sides, which slots are longer than the thickness of the cross-bars *d' e'*, so that said cross-bars have a limited movement in the slots independently of the collars *g g*. The springs *c⁶*, that force the gages outwardly, cause the inclines *c⁴* to exert endwise pressure on the bars *d e*. The inclines that bear on the studs *d²* are arranged to press the bars *d* in the direction indicated by the arrow *x*, Fig. 3, while the inclines that bear on the studs *e²* are arranged to press the bars *e* in the direction indicated by the arrow *x'*, Fig. 3. The cross-bar *d'* is thus normally held in contact with the inner ends of the slots *g'* of one collar *g*, while the cross-bar *e'* is normally held against the outer ends of the slots *g'* in the other cross-bar. Hence the operator by grasping both cross-bars can move them toward each other as far as the length of said slots will permit, thus simultaneously moving the gages *c c c' c'* inwardly to a limited extent. The object of this is to enable the operator to quickly center the vamp and bring it to the

proper position with relation to the marking and cutting devices, presently described, by moving the bars $d' e'$ toward each other after placing the vamp upon the bed between the gages, the collars $g g$ having been previously adjusted, so that when the gages are moved by the action of the operator's hand on the bars $d' e'$ they will exactly fit a vamp of a given size and when held by the springs c^6 they will not fit said vamp.

$d^5 d^5$ represent gages arranged to bear on the rear end of the vamp, said gages being adjustable lengthwise of the bed and adapted to position the vamp lengthwise of the bed. The gages $d^5 d^5$ are attached to the bed by screws $d^6 d^6$, passing through slots $d^7 d^7$ in the gages, said slots and screws permitting the gages $d^5 d^5$ to be adjusted lengthwise of the bed.

p represents a platen or carrier, which is supported by vertically-sliding rods $p' p'$, movable in guides in the bed and supporting-frame, said carrier being movable toward and from the bed. To the under side of the carrier is affixed a cutting-die q , formed to cut the usual throat or opening in the vamp. Said die may be of any suitable construction, and it is preferably detachably secured to the carrier by means of bolts q' , passing through webs or plates q^2 , affixed to the blade or cutting portion of the die into the carrier. The carrier is provided with two marking-spurs $f f$, which are arranged to mark the toe portion of the vamp at opposite edges thereof, and thus indicate the proper position on the vamp of the toe-cap of the boot or shoe. The spurs $f f$ are adjustable toward and from each other, so that they may be set at any desired distance apart.

The means which we here show and which we prefer to employ for supporting and adjusting the markers $f f$ are as follows: Said markers are affixed to arms or levers $f' f'$, which are pivoted at f^2 to an ear f^3 , supported by a rod f^{10} , which is fitted to rotate in a bearing f^{12} , affixed to the carrier p . The rod f^{10} is screw-threaded and provided with nuts $f^{14} f^{14}$ at opposite sides of the ear f^3 , said nuts enabling the arms f' and markers f to be adjusted lengthwise of the bed, the ear f^3 being adapted to slide freely on the rod f^{10} . The die q may be adjusted lengthwise of the bed by means of the rod f^{10} , the threaded inner end of the rod being engaged with a threaded socket formed in the die, so that the rotation of the rod causes endwise movement of the die. The rod is prevented from moving endwise by collars $f^{16} f^{16}$, affixed to it on opposite sides of the bearing f^{12} .

f^4 represents a rod provided at one end with a right-hand screw-threaded portion f^5 and at its other end with a left-hand screw-threaded portion f^6 . Said threaded portions engage nuts $f^7 f^7$, which are pivotally connected to the arms f' , so that the nuts can turn upon the arms to permit the swinging movements of the latter. The rod f^4 is pro-

vided with a disk or flange f^8 , which projects into a slot f^9 in the carrier, and by its engagement with the carrier prevents the rod f^4 from moving endwise. It will be seen that the rotation of the rod f^4 causes the oppositely-threaded portions $f^5 f^6$ to move the arms f' simultaneously in opposite directions, thus increasing or decreasing the distance between the markers $f f$. It will be seen that the engagement of the disk or flange f^8 with the carrier prevents the markers from moving loosely in either direction and keeps them equidistant from the median line of the carrier and bed.

g^2 represents a center marker, which is engaged with the carrier in position to crease or mark the vamp at its median line. The marker g^2 is preferably a blade or finger fitted to slide in a slot g^3 in the carrier and supported by a spring-arm g^9 , attached to the carrier, said arm having at its free end a stud g^3 , which passes through a hole in the upper end of the marker g^2 . The object of the spring-arm g^9 is to enable the marker g^2 to yield upwardly after it comes in contact with a vamp on the bed, thus preventing the marker from cutting the vamp.

To prevent the marker g^2 from swaying or wobbling loosely we provide a spring g^5 , (see dotted lines, Figs. 3 and 5,) located in a socket on the carrier and arranged to bear against the rear edge of said marker. A screw g^6 regulates the pressure of said spring.

The bed a is provided with marking-dies or printing characters, which may be adapted to impress on the vamp the size or number of the boot or shoe and any other desired mark or marks. We have shown in Fig. 3^a two printing characters $i i'$, located side by side. Said characters may be located in a recess in the bed and detachably secured to the bed a by means of plates $i^2 i^2$, secured by set-screws $i^3 i^3$, or the said printing characters may be affixed to the bed in any other suitable way, it being essential that they be detachably secured in order that different characters may be used interchangeably.

i^4 represents a presser or platen, which is mounted on the carrier p in position to cooperate with the characters or dies $i i'$ in stamping or marking the vamp, the presser i^4 being arranged to press a portion of the vamp down upon the dies $i i'$. The presser is adapted to yield vertically and is pressed downwardly by a spring i^5 , as shown in Fig. 1.

The carrier p may be depressed and raised in any suitable manner, preferably by means of an eccentric k on a driving-shaft k' and a rod k^2 , connecting said eccentric with a cross-head k^3 , affixed to the rods $p' p'$. The shaft k' may be driven by power applied to a pulley m , which is normally loose on the shaft and is adapted to be connected therewith by devices operated by a treadle m' , the arrangement being such that a depression of the treadle will cause the engagement of the pulley m with the shaft k' until the eccentric

has depressed and then raised the carrier *p*, the pulley being automatically disengaged from the shaft when the carrier is raised, so that it will not descend again until the operator depresses the treadle. There is nothing new in this stopping and starting mechanism, and as devices adapted to accomplish the same result are well known we do not now show the same in detail. The carrier is yielding-ly supported by springs *n n*, interposed between the carrier and bed.

It will be seen that when a vamp is placed upon the bed *a* and the carrier *p* is depressed the cutting-die *q*, the side markers *f f*, the center marker *g*², and the presser *i*⁴ will operate simultaneously, so that the vamp will be at one operation throated, marked, and stamped with its number or size. The gages *c c*, *c' c'*, and *d*⁵ *d*⁵ enable the operator to readily adjust the vamp upon the bed, so that the cutting and marking devices will act at the proper points upon the vamp.

We do not limit ourselves to the conjoint use of all the devices above described in one machine. The cutting-die *q* may be used with any suitable marking devices secured with it to the carrier, and the bed *a* may be provided with gages arranged and adjusted in any suitable manner.

We prefer to make the platen or presser *i*⁴ laterally adjustable, so that it may be accommodated to slight variations in the position of the marking-dies.

We claim—

1. A vamp marking and throating machine comprising in its construction the vamp-supporting bed, the adjustable side and end gages thereon, a marking die or dies detachably secured to the bed, the carrier movable toward and from the bed, the throat-cutting die and marking devices attached to the carrier, and the yielding presser or platen supported by the carrier and arranged to co-operate with the marking or printing dies on the bed, as set forth.

2. A vamp marking and throating machine comprising in its construction the vamp-sup-

porting bed, the carrier movable toward and from said bed, the marker-carrying arms pivoted at their inner ends to a support on the carrier and having markers at their outer ends, and the marker-adjusting rod having oppositely screw-threaded portions engaged with said arms, and a disk or flange projecting into a slot in the carrier, whereby said rod is prevented from moving endwise, the rotation of said rod causing the marker-arms to move simultaneously in opposite directions, as set forth.

3. A vamp marking and throating machine comprising in its construction the vamp-supporting bed, the carrier movable toward and from said bed, a support, such as the ear *f*³, secured to the carrier and movable lengthwise thereof, the marker-carrying arms pivoted to said support, and means for adjusting the support and markers lengthwise of the bed, as set forth.

4. The combination, with the vamp-supporting bed, of the spring-pressed pivoted gages *c c c' c'*, arranged in pairs, and means, substantially as described, for simultaneously moving said gages inwardly, as set forth.

5. The combination, with the vamp-supporting bed, of the slides *d d e e*, connected by cross-bars *d' e'*, the spring-pressed gages *c c*, having inclines bearing on studs on the bars *d d* and adapted to move said bars in one direction, the spring-pressed gages *c' c'*, having inclines bearing on studs on the bars *e e*, the adjustable collars *g g*, engaged with said cross-bars and adapted to permit a limited independent movement of the cross-bars, and means for securing said collars in different positions, as set forth.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, this 19th day of December, A. D. 1891.

GEORGE E. STEWART.
ALBERT G. BREWER.

Witnesses:

ELIZABETH D. WHITEMORE,
MARTHA L. HYDE.