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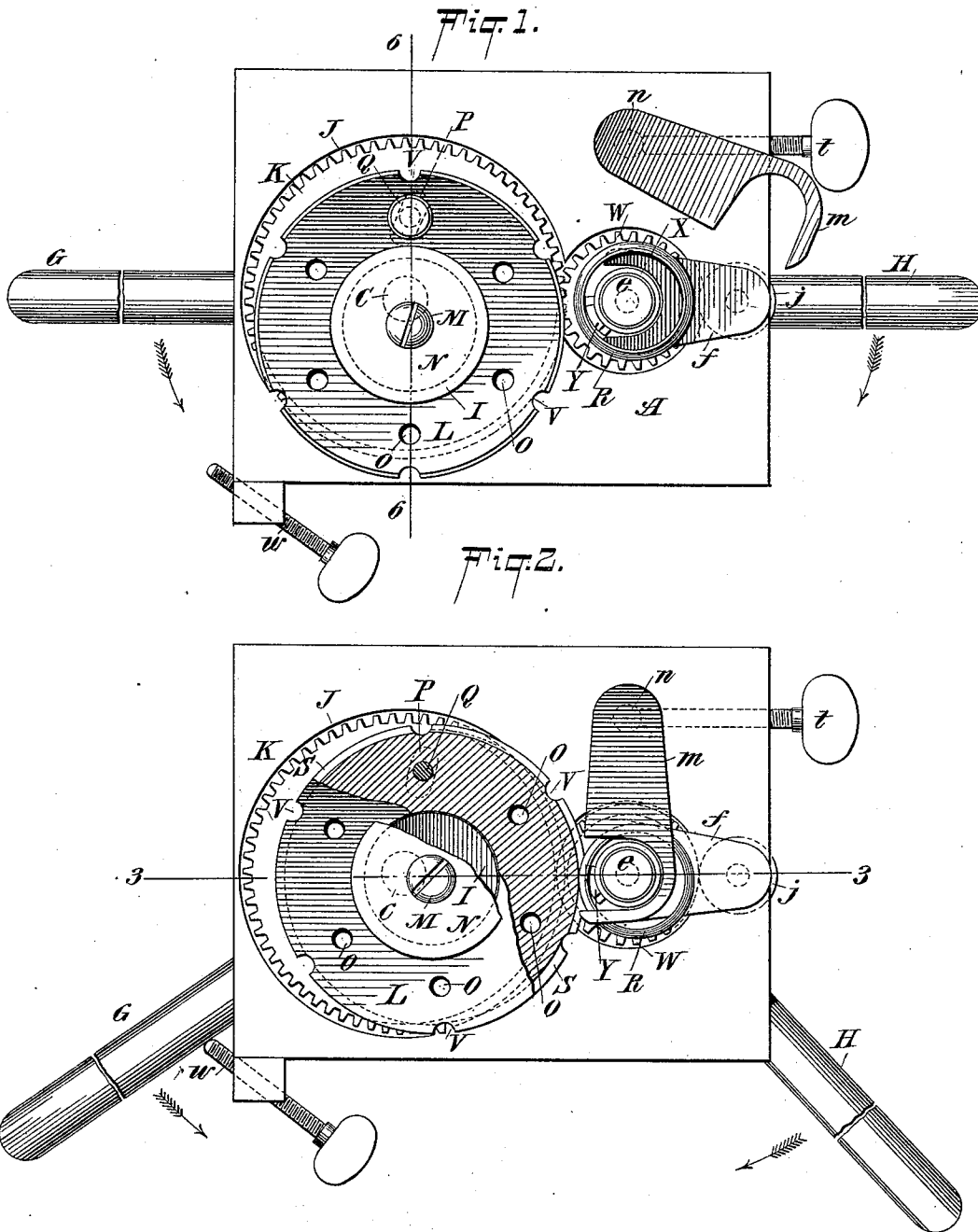
2 Sheets—Sheet 1.

W. H. PECKHAM.

MACHINE FOR MARKING OR STAMPING FINGER RINGS.

No. 484,918.

Patented Oct. 25, 1892.



WITNESSES:

William Goebel.
Ed. D. Miller.

INVENTOR
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(No Model.)

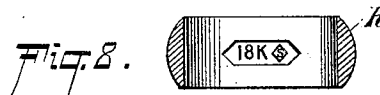
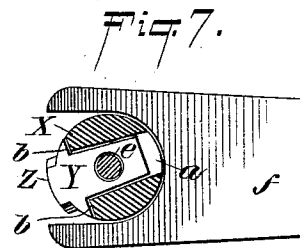
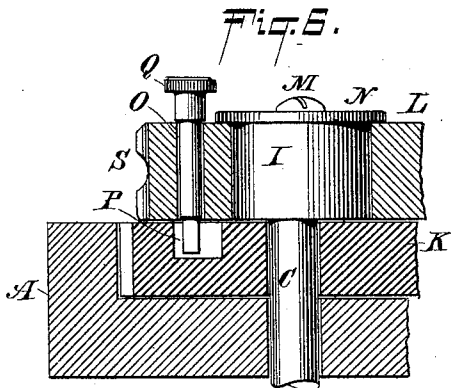
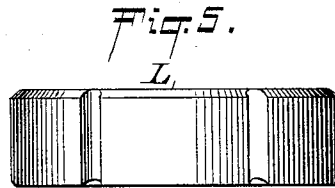
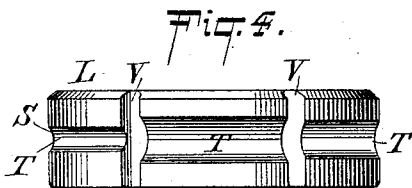
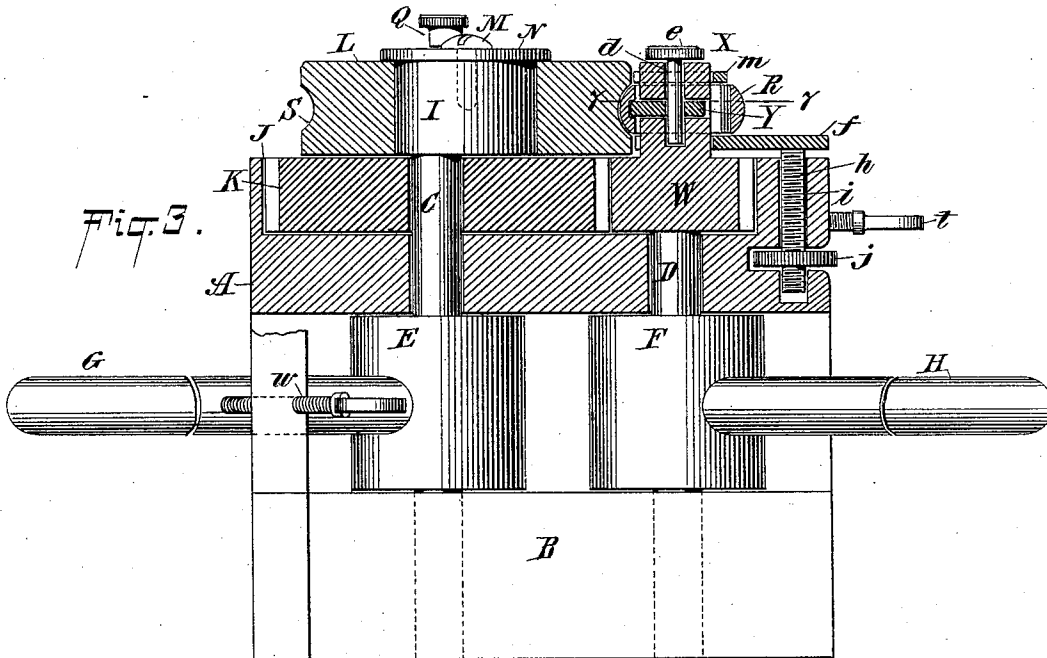
2 Sheets—Sheet 2.

W. H. PECKHAM.

MACHINE FOR MARKING OR STAMPING FINGER RINGS.

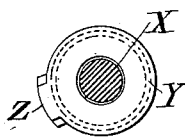
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WITNESSES:

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UNITED STATES PATENT OFFICE.

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MACHINE FOR MARKING OR STAMPING FINGER-RINGS.

SPECIFICATION forming part of Letters Patent No. 484,918, dated October 25, 1892.

Application filed June 18, 1892. Serial No. 437,163. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY PECKHAM, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Machines for Marking or Stamping Finger-Rings, of which the following is a specification.

The invention relates to improvements in machines for marking or stamping the inner side of finger-rings; and it consists of novel mechanism, hereinafter described and claimed, whereby the carat-mark or other indicia may be quickly, conveniently, and effectually impressed into the inner surface of the ring.

The parts of the machine constituting the invention are adjustable for the purpose of adapting the same to the different varieties of rings and the various carat-marks or other indicia it may be desired to impress into the inner side thereof.

While the machine is specially adapted for stamping gold finger-rings, the invention is not in every instance limited to the stamping or marking of rings, since other articles or pieces of material within certain proportions may be marked or stamped by means of the machine.

Referring to the accompanying drawings, Figure 1 is a top view of a machine constructed in accordance with the invention, the parts thereof being shown in their initial position preparatory to the marking or stamping of the finger-ring placed over the die. Fig. 2 is a like view, partly broken away and in section, of same, the parts being illustrated in the position they are given during the actual depressing of the die into the inner wall of the ring. Fig. 3 is a central vertical section of same on the dotted line 3 3 of Fig. 2, said section being confined to the upper portion of the machine. Fig. 4 is a detached side elevation of the pressure-roller. Fig. 5 is a like view of a modified form of pressure-roller. Fig. 6 is a detached vertical sectional view of a portion of the machine on the dotted line 6 6 of Fig. 1. Fig. 7 is a detached horizontal sectional view of a portion of the ma-

chine on the dotted line 7 7 of Fig. 3, the ring itself being omitted. Fig. 8 is an enlarged vertical section through the ring, showing the character of the mark or stamp impressed in the inner wall thereof; and Fig. 9 is a detached top view of a modified form of die, its sustaining-post being shown in section.

In the drawings, A B denote the bed-plates or frame of the machine, and C D two parallel vertical shafts or spindles journaled therein and provided between said plates with the hubs E F, from which the handles G H extend outward in opposite directions in convenient position to be reached by the operator.

Upon the upper end of the spindle C is formed the eccentric I, and below this eccentric and seated in a recess J in the plate A is the gear-wheel K, the latter being loose on said spindle C. Upon the eccentric I and resting on the gear-wheel K is placed the pressure-roller L, which is removably held in place by means of the screw M and washer N. The pressure-roller L is provided with a vertical aperture O or a series of the same in position to come into alignment with the elongated aperture or slot P, formed in the gear-wheel K, the purpose of the apertures O P being to receive the pin Q, which connects the pressure-roller and gear-wheel. The object of elongating the aperture or slot P is to permit the movement of the pressure-roller to the ring R under the action of the handle G and spindle C, without at such time any movement being necessary in the gear-wheel K. The pressure-roller L should have a periphery adapted to be firmly pressed against the exterior surface of the ring R without bruising the latter, and should also be adapted to the varying convexities of plain gold finger-rings. Hence it will be noted that the pressure-roller L (shown in Figs. 1, 2, and 4) is provided with an annular concave groove S, separated into a plurality of grooves or segments T by vertical grooves V, the different segments varying in width and depth to meet the character of the rings it may be desired to mark or stamp. Thus the one pressure-roller L may be adapted for a number of rings, according to the variety of the segmental grooves T,

and hence in the use of the machine, instead of providing a separate roller L for each class of rings to be marked, the operator will simply have to turn the one roller on the eccentric I a sufficient distance to bring the appropriate segment T into position to meet the rings R, according to their size and shape. On turning the roller L on the eccentric I it will be necessary to loosen the screw M and withdraw the pin Q, and after the roller has been turned to its position the screw M will be tightened and the pin Q inserted through that particular aperture O in line with the slot P of the gear-wheel K. When it is desired to mark or stamp flat band-rings, the periphery of the roller L will be smooth, corresponding with the exterior of the ring, as shown in Fig. 5.

Upon the upper end of the spindle D are formed the pinion-wheel W and post X, the pinion-wheel engaging the gear-wheel K, and being within a recess formed in the plate A. The purpose of the post X is to receive the die Y, which, as shown more clearly in Figs. 3 and 7, consists of a flat plate having a head Z, bearing in relief the mark or stamp it is desired shall be impressed into the ring. The post X is provided with a horizontal slot *a* to receive the shank of the die, and with flattened shoulders *b*, against which the ends of the head Z abut. The die Y is provided in its shank with an aperture corresponding with a vertical aperture *d* in the post X, and through these apertures is inserted the pin *e*, by which the die is firmly held in place within the slot *a*. Upon the pin *e* being withdrawn the die Y may be removed and a die bearing different characters substituted for it. The side edges of the shank of the die Y will preferably be slightly tapered or wedge-shaped so as to bear against the adjoining walls of the slot *a*, and thus aid the head Z in affording a firm support or backing for the die. The initial position of the die Y in relation to the roller L is shown in Fig. 1, in which it will also be seen that the ring R is inserted downward over the post X and is centrally supported around the die Y upon a table *f*, having a concave inner end fitting around the post below the die and ring. The table *f*, as shown more clearly in Fig. 3, is supported upon a screw *h*, seated in a smooth aperture *i*, provided in the plate A, and said screw is furnished with an adjusting-nut *j*, by which the table *f* may be raised or lowered at will, in accordance with the thickness of the rings, for the purpose of supporting the latter in an appropriate position with respect to the die Y to receive the mark or impression at the desired point.

In rear of the spindle D is provided the clamp *m*, which is secured upon the upper end of a plain rod *n*, (indicated by dotted lines in Figs. 1 and 2,) and is adjustable vertically at will, said rod being loosely seated in its receiving-aperture. The position of the

clamp *m* when not in use is represented in Fig. 1, and when it is desired to employ the clamp for holding down the ring R it will be moved to the position shown in Fig. 2, and there temporarily secured by the thumb-screw *t*, engaging the rod *n*. The free end of the clamp *m* is recessed, as shown, to fit around the post X and engage the upper edge of the ring. After the ring has received its mark, stamp, or impression the screw *t* is loosened and the clamp *m* moved back to its initial position, preparatory to the removal of the stamped ring and the placing around the post and die of the next ring to be treated. The purpose of leaving the clamp *m* free for vertical adjustment is to adapt it for the varying thicknesses of the rings it may be desired to stamp.

In the operation of the machine, the parts being in their normal position, with the handles G H extended outward in opposite directions, as shown in Fig. 1, and the table *f* having been adjusted to its proper elevation, the ring R is inserted downward upon the post X and die Y, and then secured by means of the clamp *m*, whereupon the handle G will be drawn to the front, as shown in Fig. 2, until it strikes the stop *w*, thereby rotating the spindle C and eccentric I sufficiently to move the roller L firmly against the ring R, after which the pressure against the ring having been thus applied the handle H is drawn forward to the position shown in Fig. 2, whereby the spindle D, pinion W, and post X are rotated a short distance toward the roller L, with the result that the roller L and gear-wheel K, and the pinion W and post X will, during a limited movement, roll toward each other, carrying the projecting head of the die Y inward against the ring under the increasing pressure of the roller L and causing said projecting head to be pressed into the inner wall of the ring and there leave its impression. The rolling motion of the pressure-roller L and die Y toward each other is of short duration, being simply enough to bring the face of the die squarely into the surface of the ring, and hence the operation is brief and may be rapidly pursued. An important feature of the operation is the fact that the head of the die is rolled into the ring under pressure and that during this operation the ring is held in the groove of the pressure-roller conforming with its exterior outline, whereby during the rolling motion of the parts the ring is preserved from being bruised or otherwise injured. After the ring has received its impression or stamp, as above described, the handles G H are moved back to their former position, being that shown in Fig. 1, thus relieving the roller L from the ring, after which the screw *t* is loosened and the clamp *m* thrown outward, leaving the ring free to be removed and the machine in condition to immediately receive and stamp another ring.

The stop *w*, which arrests the movement of the handle *G*, is in the form of a screw, so as to be adjustable, and thus regulate the throw of the handle *G* in accordance with the character of the rings under treatment.

As above described, the pressure-roller *L* is provided with a plurality of segmental grooves *T*, each sufficient in length to sustain the ring during the rolling action of the die, and preparatory to the use of the machine the roller *L* should be set upon the eccentric *I* in position to have the appropriate groove *T* meet the ring when the handle *G* is drawn forward to apply the initial pressure. The adjustment of the roller *L* for the different kinds of rings to be treated may be readily accomplished, since the roller upon the pin *Q*, being withdrawn, may be freely turned on the eccentric *I* to shift the position of the grooves *T* and then secured by again inserting the pin *Q* through the roller and into the slot *P* of the gear-wheel *K*.

The invention is not limited in every instance to the particular shape of the die *Y*, and hence in Fig. 9 the die is illustrated as being in the form of a ring passing downward over the post *X* instead of in the form of a flat plate entering a slot in the post, as shown in Fig. 7.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The spindle, the eccentric carried thereby, the pressure-roller on said eccentric, the gear-wheel on said spindle, and a connection between the pressure-roller and gear-wheel, combined with the additional spindle, the pinion thereon, the post, and the die carried by said post, substantially as and for the purposes set forth.

2. The revoluble post and the die carried thereby, combined with the pressure-roller, the eccentric on which said roller is mounted, and means for first moving said roller against the ring and then rolling the die against the ring while under the pressure of said roller, substantially as set forth.

3. The revoluble post and the die carried thereby, combined with the pressure-roller having a groove conforming to the exterior of the ring and means, substantially as described, for moving said roller against the ring and

rolling the die against the ring while under pressure, substantially as set forth.

4. The revoluble post and the die carried thereby, combined with the pressure-roller having a plurality of grooves adapted to the different rings, means for adjusting said roller to bring the appropriate groove to the ring, and means, substantially as described, for moving said roller against the ring and rolling the die against the ring while under pressure, substantially as set forth.

5. The revoluble post, the die carried thereby, the table to receive the ring, and the clamp to hold the ring upon the table, combined with the pressure-roller and means, substantially as described, for moving said roller against the ring and rolling the die against the ring while under pressure, substantially as set forth.

6. The revoluble post, the die carried thereby, the vertically-adjustable table to support the ring, and the vertically-adjustable and horizontally-movable clamps to hold the ring upon the table, combined with the pressure-roller and means, substantially as described, for moving said roller against the ring and rolling the die against the ring while under pressure, substantially as set forth.

7. The revoluble post and the die removably seated in a slot in said post, combined with the eccentric, the pressure-roller mounted on said eccentric, and means, substantially as described, for moving said roller against the ring and rolling the die against the ring while under pressure, substantially as set forth.

8. The connected revoluble post, pinion, spindle, and handle, and the die carried by said post, combined with the connected eccentric, spindle, and handle, the gear-wheel on said spindle, the pressure-roller on said eccentric, and the pin connecting said roller and gear-wheel, substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 4th day of June, A. D. 1892.

WILLIAM HENRY PECKHAM.

Witnesses:

CHAS. C. GILL,
ED. D. MILLER.