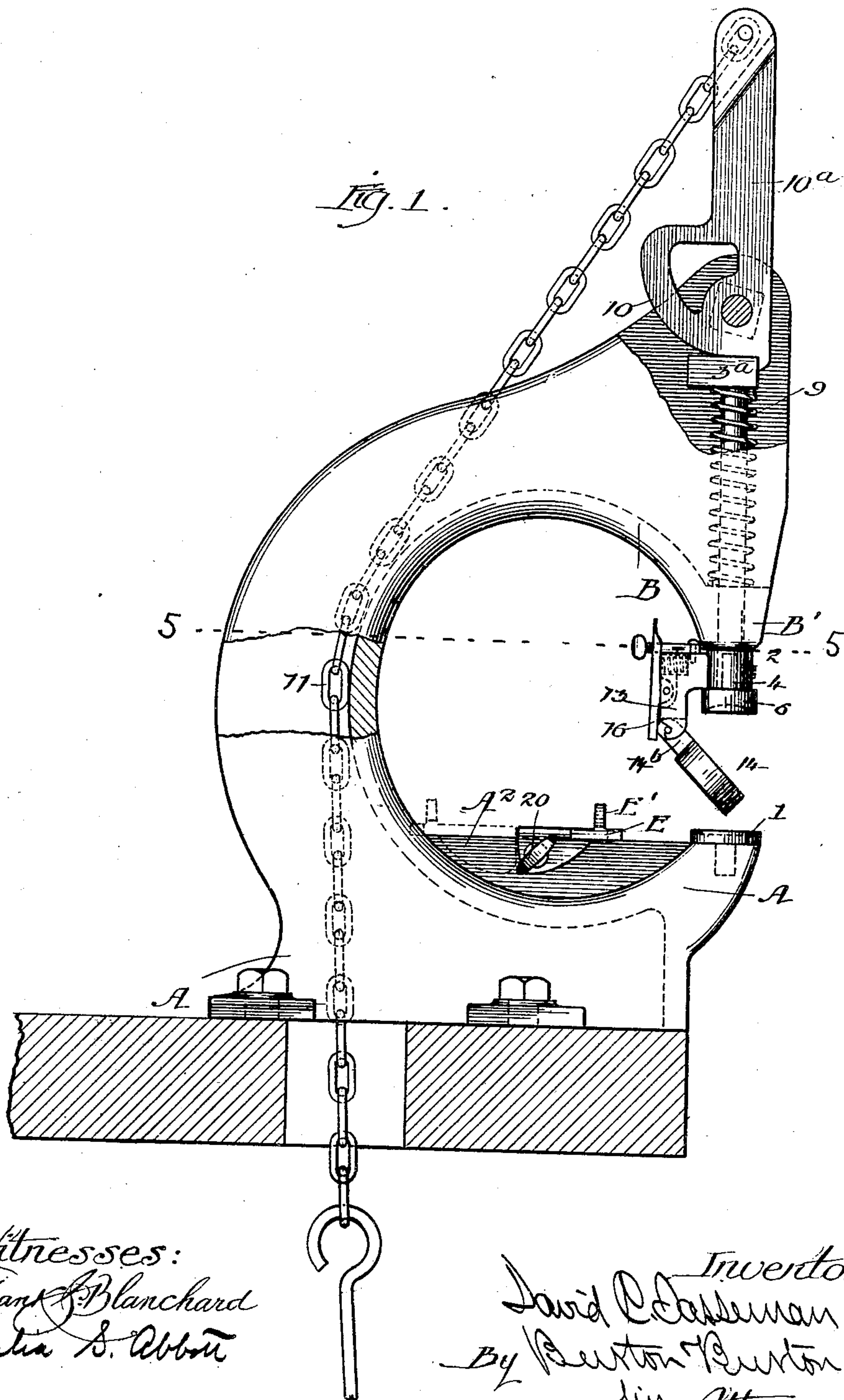


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 MACHINE FOR APPLYING METAL ORNAMENTS TO LEATHER.
 APPLICATION FILED SEPT. 26, 1908.

923,300.

Patented June 1, 1909.
 2 SHEETS—SHEET 1.



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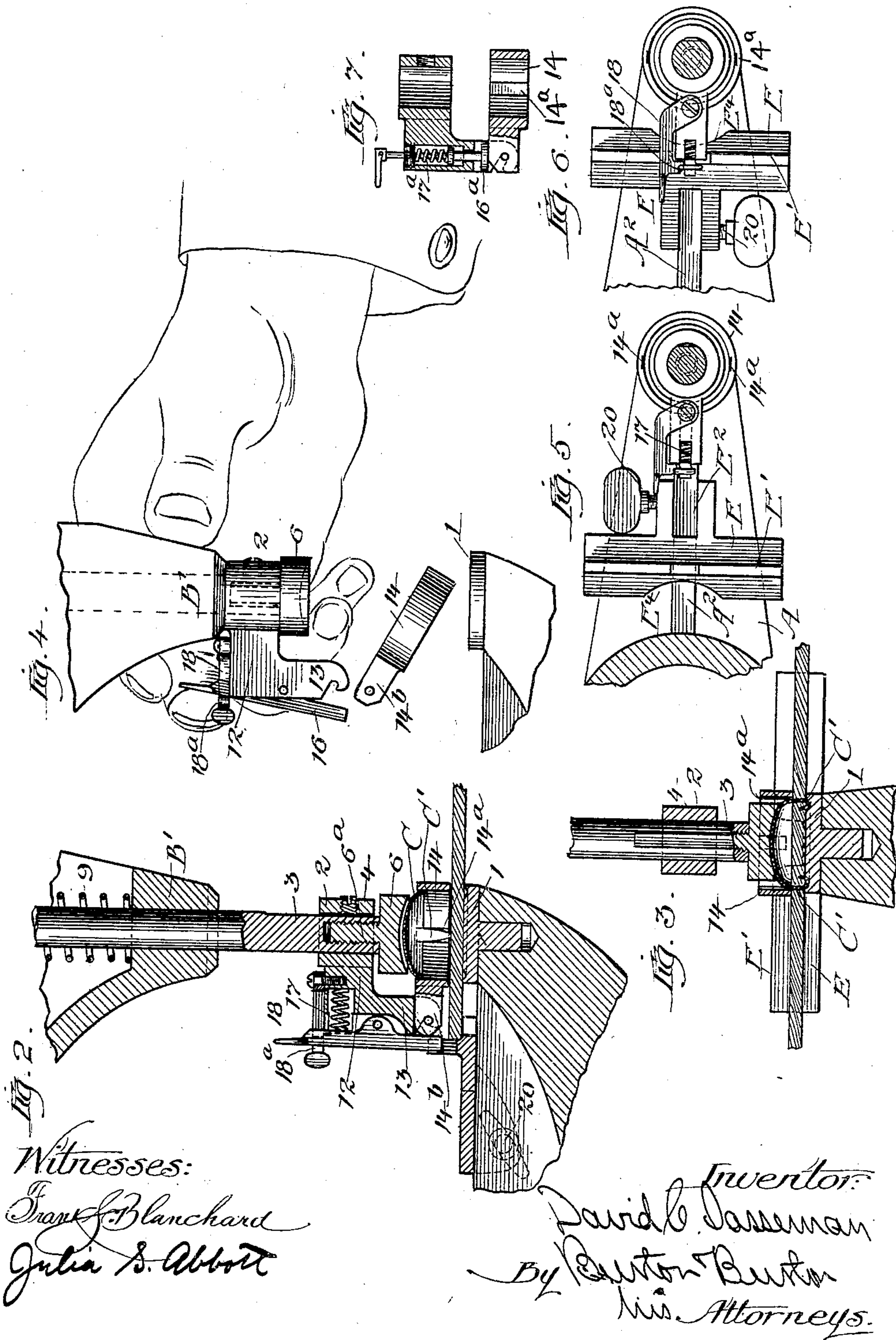
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UNITED STATES PATENT OFFICE.

DAVID C. SASSEMAN, OF RIVER FOREST, ILLINOIS, ASSIGNOR TO F. H. SMITH MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

MACHINE FOR APPLYING METAL ORNAMENTS TO LEATHER.

No. 923,300.

Specification of Letters Patent.

Patented June 1, 1909.

Application filed September 26, 1908. Serial No. 454,847.

To all whom it may concern:

Be it known that I, DAVID C. SASSEMAN, a citizen of the United States, residing at River Forest, in the county of Cook and State of Illinois, have invented new and useful Improvements in Machines for Applying Metal Ornaments to Leather, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

The purpose of this invention is to provide a device designed especially for attaching what are called "spots" to harness leathers and the like, but not limited to that particular use.

It consists of the features of construction shown and described as indicated in the claims.

In the drawings:—Figure 1 is a side elevation of a spot machine, so-called, embodying this invention, shown in position ready for operation. Fig. 2 is a fore-and-aft section of such machine axial with respect to the spot-holder, showing the parts in the position occupied at the commencement of the spot-applying stroke. Fig. 3 is a view similar to Fig. 2, showing the parts in position at the completion of the riveting or spot-securing action. Fig. 4 is an enlarged detail view of the spot-holding device and its operating connections. Fig. 5 is a section at the line 5—5 on Fig. 1. Fig. 6 is a similar view showing the gage reversed. Fig. 7 is an axial section of a modified form of spot holder.

The machine, as a whole, in which this invention is embodied, is of the nature of a press which may be arranged, as illustrated, to be operated by the foot of the operator, and which comprises a base, A, and an overhanging head, B, the base being adapted to hold a riveting disk or anvil, so-called, 1, and the head having bearings in which a plunger, 2, reciprocates. The reciprocation of the plunger may be effected by any mechanical devices familiar for such purpose in die presses, riveting machines and the like. For the purpose of the desired action in securing metal ornaments called "spots", this plunger has a positively actuated central member, 3, and sleeved upon it a yielding member, 4, below the lower bearing of the member, 3, stopped between said bearing and a stop at the end of said member, 3, which is most conveniently afforded by the

spot driver, 6, which has a stem, 6^a, by which it is screwed into the end of the reciprocating member, 3, this spot driver being a disk which is of greater diameter than the said member, 3, and so stops the yielding member, 4, as indicated. The lower face of the spot driver, 6, is concaved to suit the face of the spot represented at C. A spring, 9, is coiled about the reciprocating member, 3, above the lower bearing, B¹, said spring being stopped at the upper end against the guide block or head, 3^a, of the plunger member, 3, whereby the spring operates to yieldingly retract the plunger until the lower stop,—the spot driver, 6,—forces the yielding member, 4, up against the lower side of the bearing, B¹.

10 is a cam which operates on the top of the block, 3^a, for driving the plunger downward when the cam is rocked by the foot of the operator on a pedal, not shown, connected with the chain, 11, which is attached at its upper end to the arm, 10^a, of the cam. The yielding member, 4, has an offset arm, 12, provided with a depending finger, 13, to which there is hinged a spot holder, 14. This spot holder is an apertured disk or ring of which the aperture fits the spot, and has grooves, 14^a, at opposite sides to engage the tangs or clenching fingers, C¹, of the spot, C. This spot holder has an offset lug, 14^b, by which it is hinged to the depending finger, 13, of the yielding member, 4, of the plunger. The purpose of the spot holder is to hold the spot in position to have its tangs, C¹, driven through the leather into encounter with the clenching die or anvil, 1, for clenching on the lower side of the leather; and for this purpose, it occupies a position transverse to the stroke of the plunger when the operation is to be performed, but this is not a convenient position at which to introduce the spot. The most convenient position of the spot holder for introducing the spot is inclined at an angle of about forty-five degrees, as seen in Fig. 1. In order to adapt the spot holder to assume and retain this position for the purpose and during the time of introducing the spot, not only is it hinged, as described, to the depending finger, 13, of the plunger member, 4, but there is also provided a pressure finger, 16, hinged to the offset arm of the plunger member, 4, extending down along and preferably in a slot in the back edge of the finger, 13, past the hinge of

the spot holder to said finger, a spring, 17, being provided acting upon the pressure finger for pressing it inwardly at the lower end against the hinge lug of the spot holder.

5 This hinge lug has the end squared, so that the pressure of the pressure finger against it causes said spot holder to project horizontally;—that is, across the direction of stroke of the plunger;—but if swung around to

10 vertical position, the pressure finger similarly operates upon the longitudinal edge of the lug, 14^b, to hold the device vertical. At a half-way intermediate position, the pressure of the finger will tend to maintain the spot

15 holder at 45-degree-incline position; but for greater certainty of position, the corner between the end and side of the lug, 14^b, is preferably beveled off at an angle of 45 degrees to receive the pressure of the pressure

20 finger, thus definitely positioning the spot holder properly for easy introduction of the spot. In this position, the forward edge of the inclined spot holder stands approximately in line with the axis of the plunger

25 overhanging the leather, D, to which the spot is to be affixed; and upon the descent of the plunger, the spot holder encountering at its lower edge the surface of the leather is forced upward at that edge, swinging it

30 about its hinged pivot as the plunger descends. A movement of about twenty-five degrees about that pivot carries the squared end of the lug, 14^a, to a position at such an angle to the face of the pressure finger that

35 the pressure of the latter operates to force the spot holder to complete the movement to horizontal position with a snap, lifting its lower edge off the leather, so that the further descent of the plunger brings it

40 down broadside on to the latter. The descent of the spot holder being arrested by this broadside encounter with the leather, the entire yielding member, 4, is arrested, while the member, 3, continues to descend, and the

45 spot driver, 6, at the end of said member forces the spot out of the spot holder, driving its tangs through the leather and on to the clenching die or anvil by which they are reversed into the leather, securing the spot

50 as desired. Upon the release of the operating cam, 10, the spring, 9, reacting lifts first the plunger member, 3, until the lower stop,—the spot driver, 6,—encounters the yielding member, 4, picking it up and carrying it on up until stopped by the lower side

55 of the bearing, B¹. The operator can now swing the spot holder again into oblique position and repeat the operation.

For gaging the distance of the spot from

60 the edge of the leather, any convenient form of gage may be mounted upon the press bed. In order to obtain the widest range of adjustment within the capacity of the press standard, the gage employed is a T-shaped

65 element, E, having the gage lip, E¹, extend-

ing along the cross arm of the T at one side, the stem of the T having at the opposite side a groove, E², which engages a rib or feather, A², on the base, A, of the press, a set screw, 20, being provided for securing

70 the gage at any point which may be adjusted along the feather. For steadiness of the gage, it is desirable to have as long a bearing as possible for engagement of the T stem with the rib or feather, but obviously,

75 the length of the stem added to the range of movement cannot exceed the distance between the back arm of the press standard and the rear edge of the spot holder. But in order to have the benefit of as long bear-

80 ing as possible, and at the same time to utilize the entire distance from the position of the spot holder and clenching die back to the standard for adjustment of the gage, and be able to secure the spots as far from

85 the edge of the leather as that entire distance, the T gage is made reversible, the rib, E¹, having both faces made true and the said cross arm being cut away at E⁴ at the outer side,—that is, opposite the end of the T of

90 the stem,—to accommodate the standard when the gage is mounted with the stem projecting forward for engaging the rib or feather. From the rearmost position at

95 which the standard of the press enters the recess, E⁴, of the gage, the gage may be moved forward half way to the rear edge of the spot holder, and for further forward adjustment it may be reversed so that the stem projects rearward, and when thus reversed

100 and set with the end of the stem back against the press standard, the forward edge of the gage rib occupies the identical position occupied by the opposite edge of that rib before it was reversed, and from this

105 position the gage may be adjusted forward to the rear edge of the spot holder.

For locking the latch, 16, at the position shown at Fig. 4 for disengaging the spot holder and substituting a different one, a

110 detent hook, 18, is pivoted upon the top of the offset arm, 12, of the plunger member, 2, the hook nose, 18^a, being positioned for engaging the outside or upper arm of the latch when it is swung to the position shown.

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In Fig. 7, there is shown a modification of the spot holder connection, which consists in a spring-pressed plunger, 16^a, in lieu of the latch, 16, the spring, 17^a, operating to thrust the head of the plunger down upon

120 the upper edge of the lug, 14^b, of the spot holder for holding it yieldingly in either of the three positions,—horizontal, inclined or vertical.

I claim:—

1. In a machine for the purpose indicated, in combination with the standard, a clenching die or anvil mounted in the lower arm; a plunger mounted in the upper arm and reciprocable toward and from the anvil; a

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spring for retracting the plunger; a hanger sleeved on the plunger below the lower bearing of the latter in the arm; a spot holder pivoted to such hanger, and means for holding it yieldingly in inclined position.

2. A machine for the purpose indicated, comprising, in combination with the standard, an anvil or clenching die and a plunger reciprocable in the standard toward and from the anvil; a head or driver terminating the plunger; a spring for retracting the plunger; a spot holder carrier sleeved on the plunger stopped for longitudinal movement on the plunger between the head or driver and the lower bearing of the plunger in the standard; a spot holder pivoted to the carrier and adapted to be stopped thereon at position transverse to the plunger, and apertured for the passage of the plunger head there-through and means for holding the spot holder yieldingly at inclined position between the anvil and the driver.

3. A machine for the purpose indicated, in combination with the standard, a lower die or anvil; a plunger reciprocable toward and from the anvil; a spot driver or head terminating the plunger; a hanger mounted for longitudinal movement on the plunger between the head and lower bearing of the latter, having an arm depending past the head; a spot holder pivoted to said depending arm, the pivot being fast on the spot holder and the pivot bearing on the hanger being slotted to admit the pivot; a spring latch pivoted to the hanger and bearing upon the pivot lug of the holder, the latter being squared to cause the pressure of the

latch to project the holder transversely to the plunger axis.

4. A machine for the purpose indicated, in combination with the standard, a lower die or anvil; a plunger reciprocable toward and from the anvil; a spot driver or head terminating the plunger; a hanger mounted for longitudinal movement on the plunger between the head and lower bearing of the latter, having an arm depending past the head; a spot holder pivoted to said depending arm, the pivot being fast on the spot holder and the pivot bearing on the hanger being slotted to admit the pivot; a spring latch pivoted to the hanger and bearing upon the pivot lug of the holder, the latter being squared to cause the pressure of the latch to project the holder transversely of the plunger axis, and a latch retainer for locking the latch out of operative position.

5. In a machine for the purpose indicated, in combination with the standard, a reversible T-shaped gage, the cross-arm of the T being projected from the plane of the stem and parallel edged for gaging the work at either side, and the stem having a tongue-and-groove engagement with the standard, and means for clamping it in adjusted position.

In testimony whereof, I have hereunto set my hand at Chicago, Illinois, this 24th day of September, 1908.

DAVID C. SASSEMAN.

Witnesses:

JULIA S. ABBOTT,
M. GERTRUDE ADY.