

No. 701,904.

Patented June 10, 1902.

M. J. LOCKE.

MACHINE FOR FOLDING COLLAR BLANKS, &c.

(Application filed Dec. 28, 1901.)

(No Model.)

3 Sheets—Sheet 1.

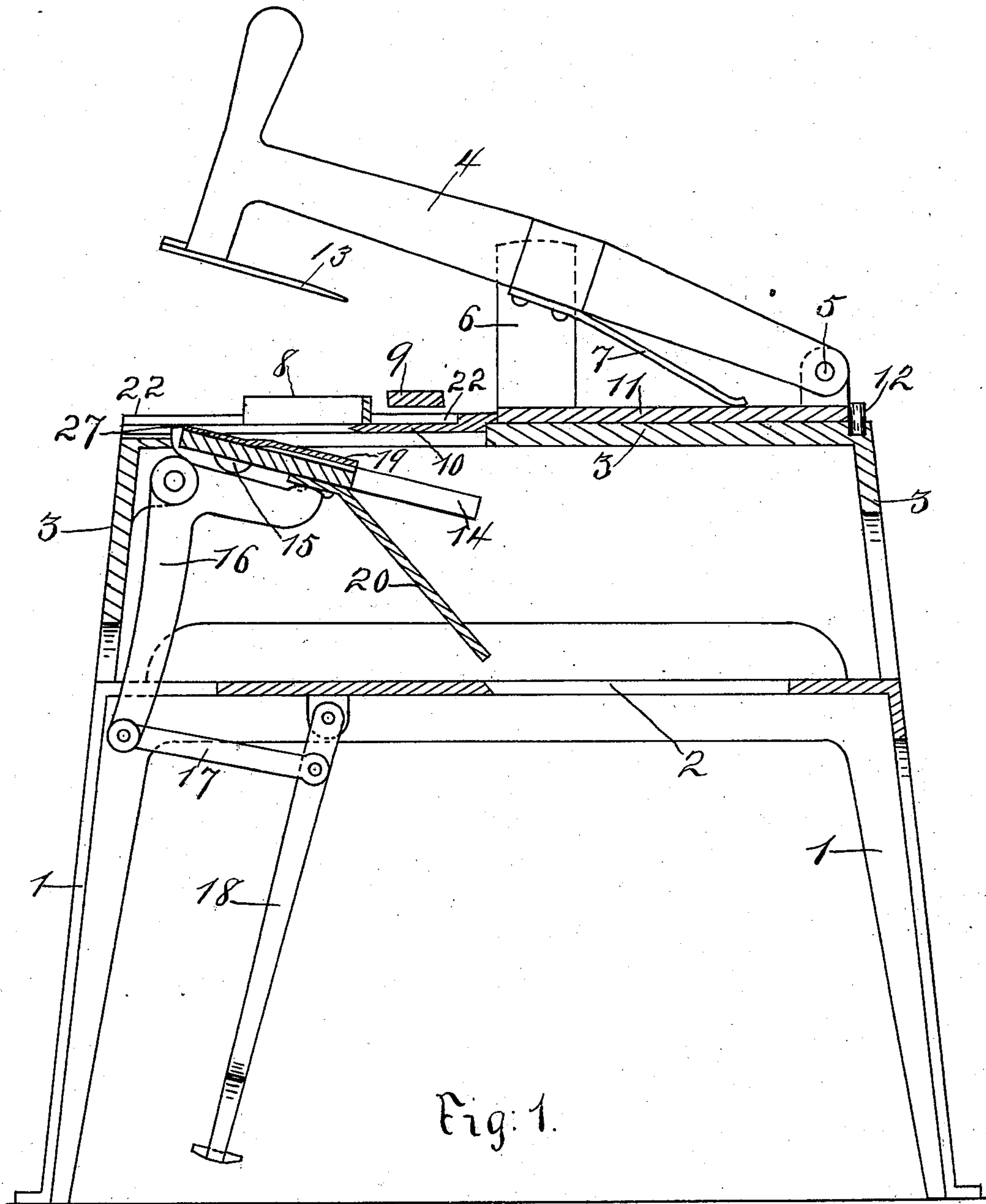


Fig. 1.

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Inventor:

Martin J. Locke:

By *H. G. Smith*
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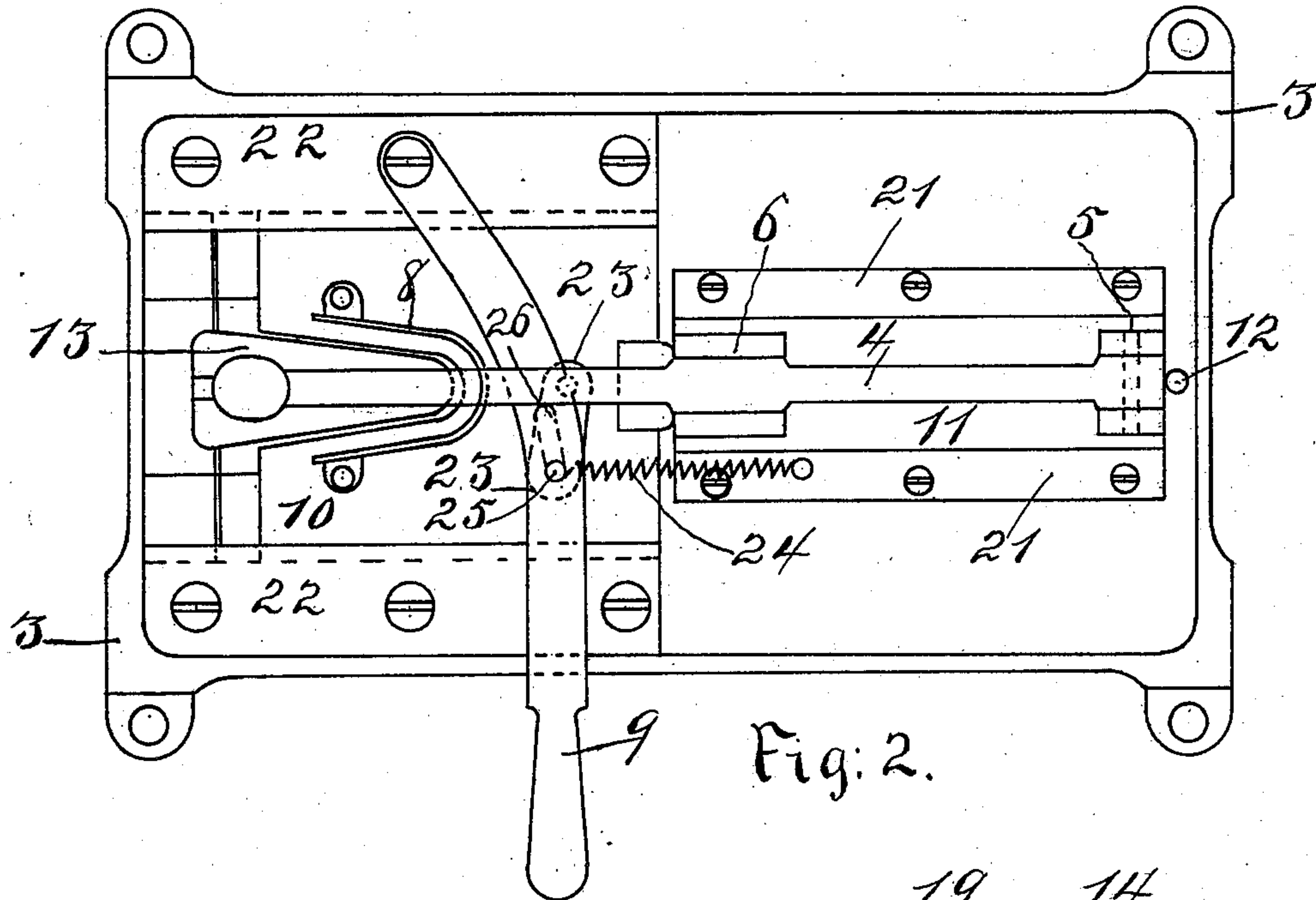


Fig: 2.

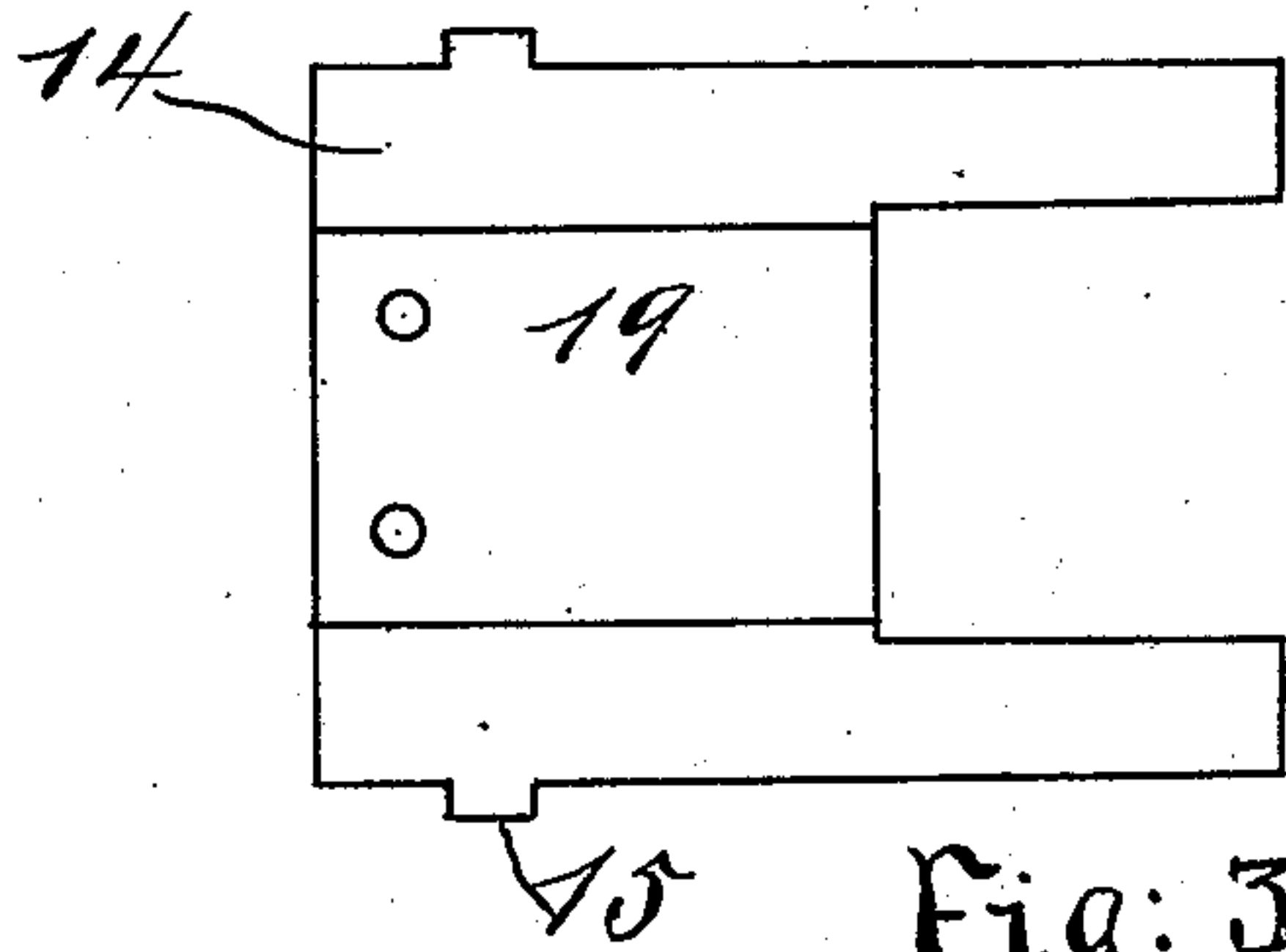


Fig: 3.

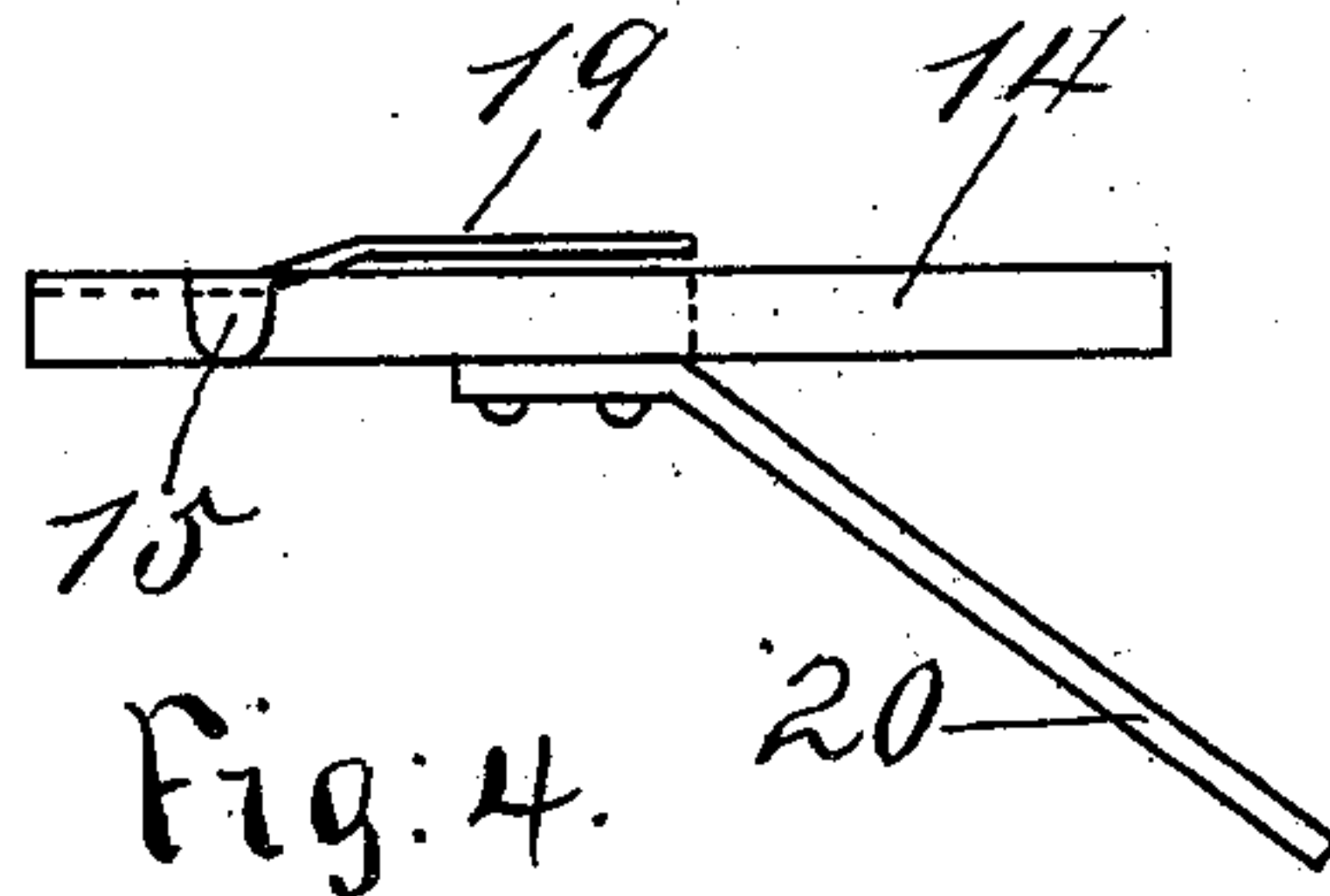


Fig: 4.

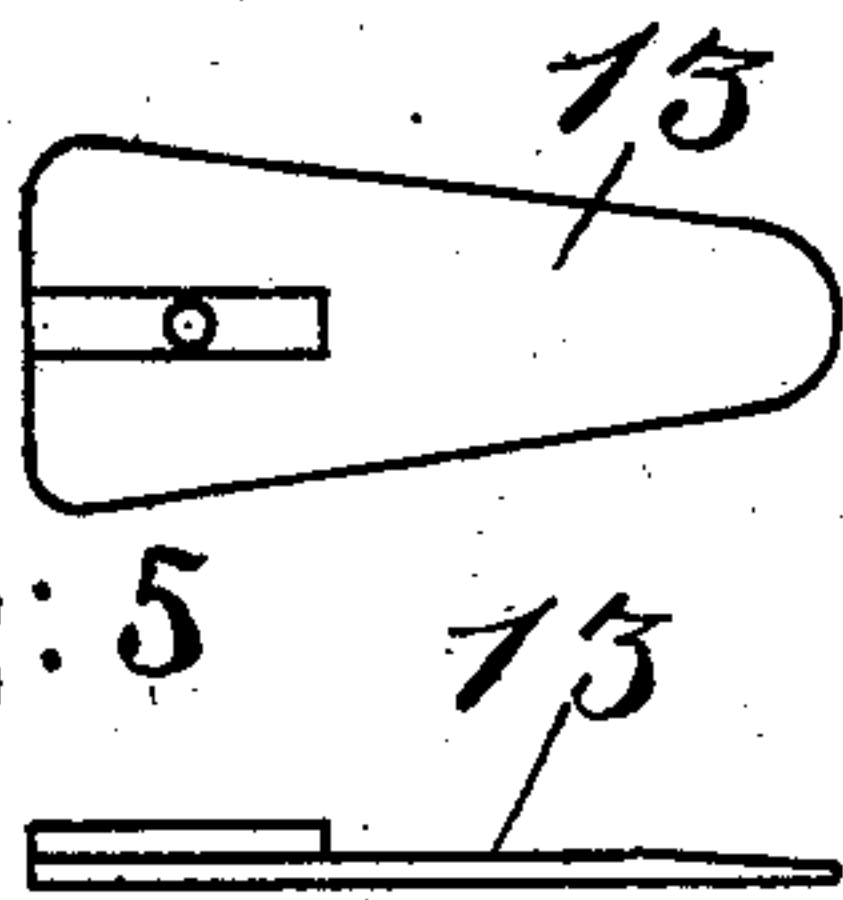


Fig: 5

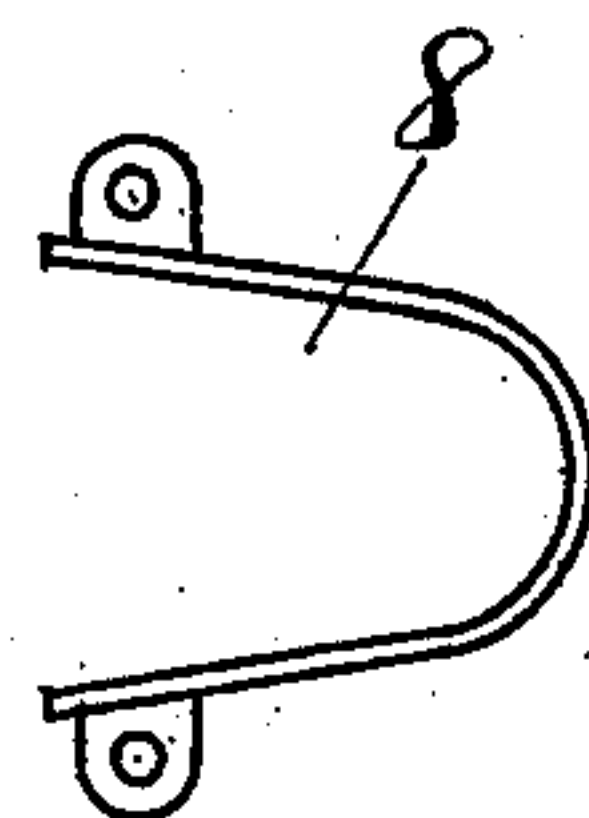


Fig: 7

Fig: 8. Inventor:
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Witnesses Fig: 6.
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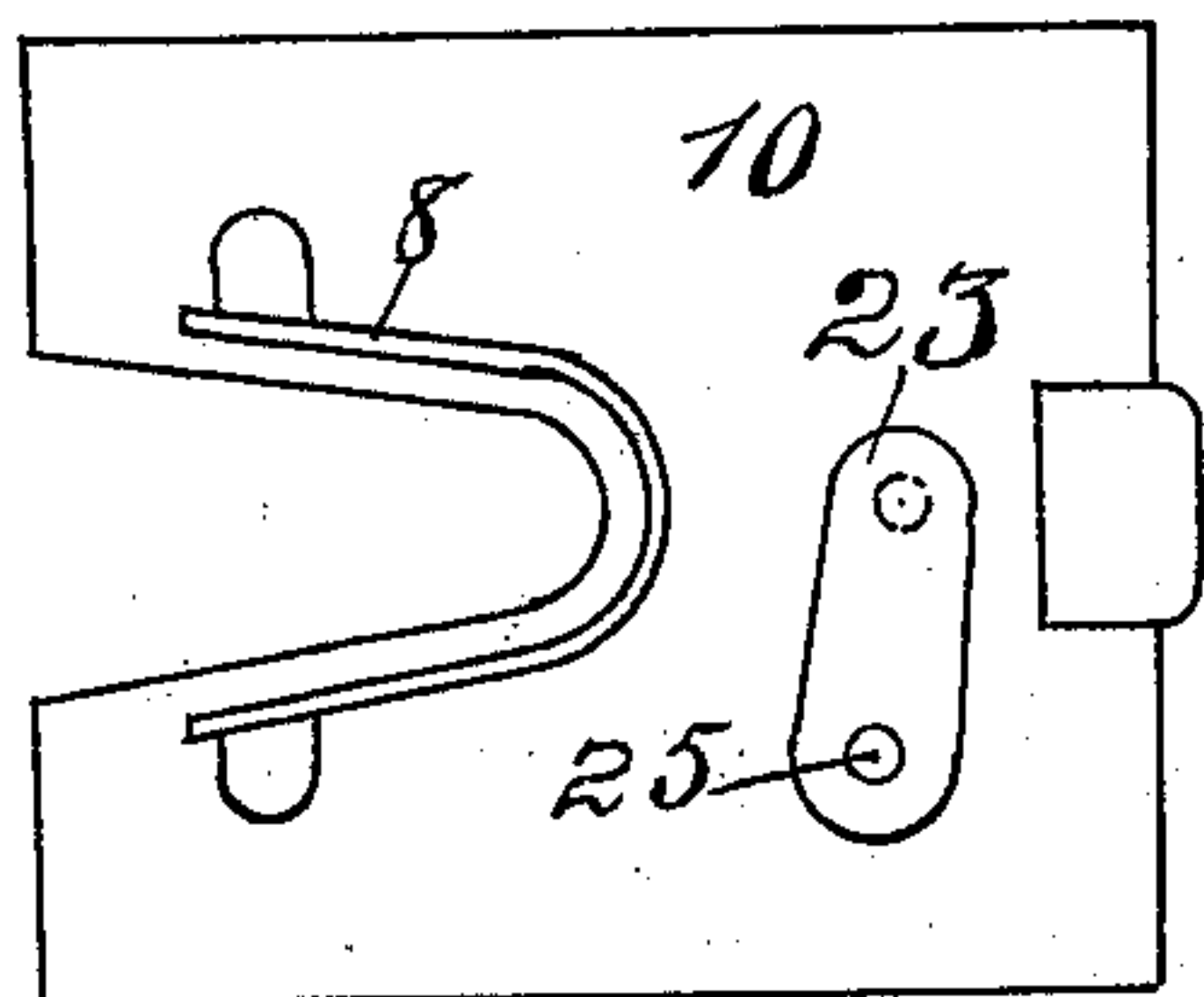


Fig: 9.

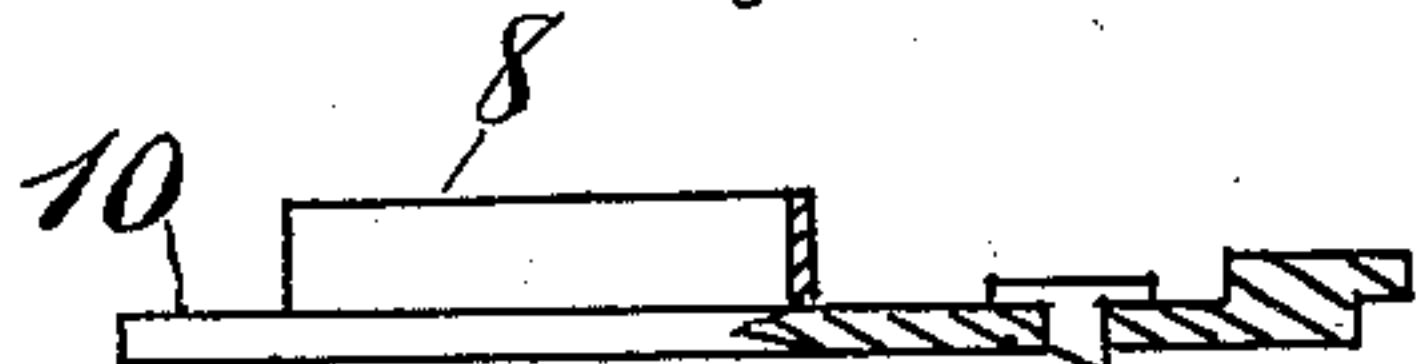


Fig: 10

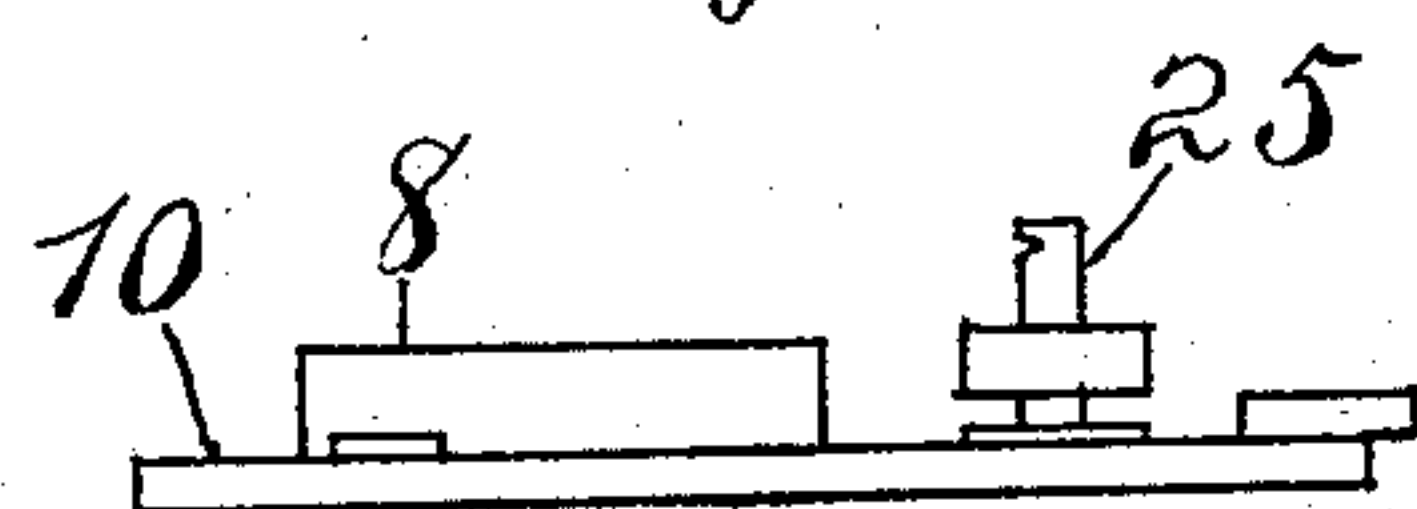


Fig: 11.

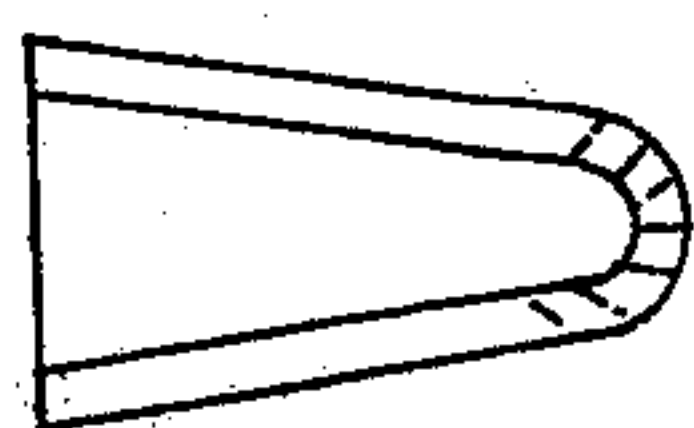


Fig: 14.

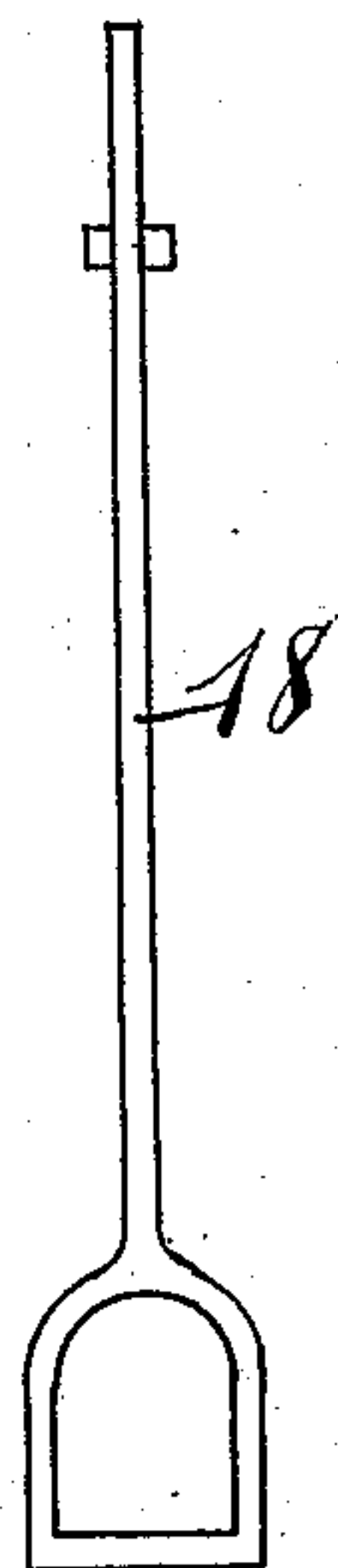


Fig 12.

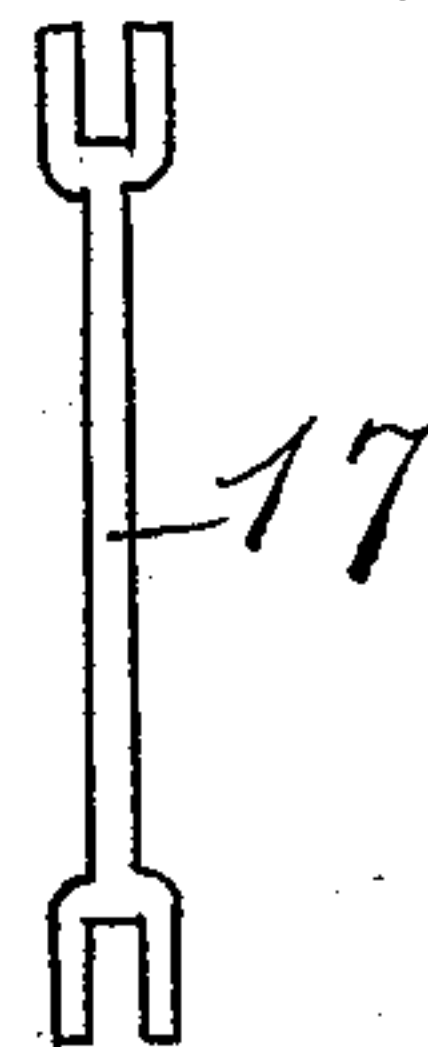


Fig: 15.

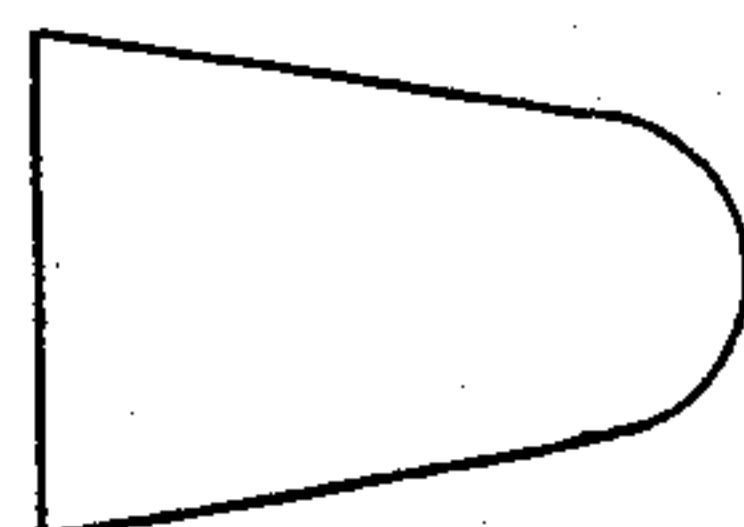


Fig: 15.

Witnesses:

John A. Rudman
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Inventor:

Martin J. Locke.

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H. G. *[Signature]*
his Atty.

UNITED STATES PATENT OFFICE.

MARTIN J. LOCKE, OF TROY, NEW YORK.

MACHINE FOR FOLDING COLLAR-BLANKS, &c.

SPECIFICATION forming part of Letters Patent No. 701,904, dated June 10, 1902.

Application filed December 28, 1901. Serial No. 87,588. (No model.)

To all whom it may concern:

Be it known that I, MARTIN J. LOCKE, a citizen of the United States, residing at Troy, Rensselaer county, New York, have invented certain new and useful Improvements in Infolding-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a novel and improved infolding-machine for forming tabs for shirts and other garments and for infolding such other articles as may require their edges folded over ready for stitching or fastening in any other manner.

In the drawings, Figure 1 shows a vertical sectional view of my device and the preferable table or stand upon which it rests; Fig. 2, a top plan view of the device; Fig. 3, a plan view of the resilient movable ironing board or table; Fig. 4, an edge view of Fig. 3; Fig. 5, a plan view of the presser-foot; Fig. 6, an edge view of Fig. 5; Fig. 7, a plan view of the receiver; Fig. 8, a side elevation of Fig. 7; Fig. 9, a plan view of the infolder-plate; Fig. 10, a longitudinal sectional view of Fig. 9; Fig. 11, a side elevation of Fig. 9; Fig. 12, a plan view of the lever and its stirrup; Fig. 13, a plan view of one of the connecting links or levers; Fig. 14, a plan view of a piece of cloth forming a blank as it appears after being operated on; Fig. 15, a similar view of the same before being operated on.

In the drawings the numeral 1 shows the form or table having the opening 2 through the top, through which the finished product, guided thereto by the chute 20, passes to a suitable receptacle set beneath the table. The device proper sits upon this table, its body being shown at 3. Pivotaly attached to the device, preferably by the pivot 5, is an arm 4, operating between guides 6 and having a resilient device 7, (see Fig. 2,) arranged to return the arm to its normal position after it is released.

On this arm is a presser-foot 13, arranged to freely enter a receiver 8 and press and hold

the cloth after it has been introduced into the receiver.

9 shows a pivoted handle or lever (see Fig. 2) operatively connected with a former-plate made of a single continuous piece 10, so as to draw the former-plate forward and over the presser-foot 13, thus turning down or infolding the edges of the cloth. The handle or arm 4 is now drawn or slid forward until the presser-foot 13 is released from under the former-plate 10, leaving the cloth undisturbed, when the operator pushes lever 18 forward, which operates link 17 and bell-crank 16, forcing the ironing-table 14, with its resilient face-plate 19, whose resilience is inherent in the material of which it is made, upward and against the cloth, and as the table 14 and face-plate 19 are heated by a source of heat, preferably by a gas-jet acting underneath the table 14, the cloth is heated and pressed. While the cloth is thus being heated and pressed, the handle or lever 4 is released, and spring 7 forces it to its normal position, and after the cloth is sufficiently heated and pressed the foot-lever 18 is drawn back by drawing back the foot, when the ironing-table 14 and its resilient face-plate 19 fall to their normal position. When this is accomplished, the force exerted by spring 24, which has been under tension while the handle 9 has been forced forward, draws former-plate 10 rearward and against base-plate 11 and forces 11 back against pin or stop 12. On top of former-plate 10 is a steel plate or member 23, through which pin 25 passes, and carrying on its other end a pin or stud 28, having an edge or point which passes loosely through an aperture in former-plate 10, the steel plate or member 23 being free to rise and fall and carry its stud 28 upward and downward. As the former-plate 10 is slid over the cloth and infolds it stud 28 rises as it moves over the cloth-lifting plate 23; but as former-plate 10 is forced rearward by spring 24 when handle 9 is released the point or edge of stud 28 catches the cloth or its fold, and as the former-plate 10 is moved backward quickly and with force stud 28 carries the cloth with it and shoots it onto the chute 20, and it slides down the chute through the opening 2 and into a suitable receptacle resting under the table 1. The spring

24 is preferably attached to pin or stud 25, which rests in an opening 26 in handle 9 and moves therein as the handle is drawn forward or forced backward.

5 22 represents guide-plates for former-plate 10 and hold it in position, allowing it to perform its functions. 21 shows guide-plates for plate or member 11.

The ironing-table 14 is pivoted or hinged at 10 one end and its free end rises or falls, carrying the self-resilient face-plate 19 with it, this construction being desirable on account of the absolute uniformity of motion and truth of position given the table, as well as allowing 15 of the use of the simplest and most direct acting means for producing its motions and the pressure desired.

Having described my invention, what I claim is—

20 1. In an infolding-machine a receiver to receive the object to be infolded; an arm having an upward and downward and a forward and rearward motion; said arm bearing a presser-foot arranged to enter the receiver and 25 turn the edges of the object to be infolded; a movable former member or plate, formed in a continuous piece arranged to slide over the upturned edges of the object to be infolded and press them down; a hinged or pivoted 30 movable pressing or heating table or form having a resilient surface, the resilience being inherent in the material of which said surface is formed, arranged to be forced against the object to be infolded; and means for auto- 35 matically throwing the infolded article off the table when the article is finished, substantially as described.

2. In an infolding-machine, a swinging table or form consisting of a base; a plate-spring 40 attached thereto and arranged to form a resilient surface to said table or form; a movable former-plate in proximity to said resilient surface; an infolding member arranged to act in conjunction with the movable former- 45 plate and infold the article to be operated on and hold it in position to be pressed and heat-

ed; a source of heat to heat the resilient surface; a discharging member consisting of a pin or stud free to have movement toward and away from the infolded article, its lower end 50 being arranged to move over the material to be infolded in one direction without disturbing it, and to catch and eject it when moved oppositely, all operating substantially as herein shown and described. 55

3. In an infolding-machine, a tilting or hinged table or form consisting of a base or bed; a plate-spring attached thereto forming a surface movable by reason of the resilience of the plate-spring; a guide or chute attached 60 to the table and arranged to guide the infolded article when finished from the table; means for throwing the finished infolded article upon the chute; means for forcing the table and its resilient face against and from the infolded 65 article that it may be pressed; a source of heat arranged to heat the said resilient face of the table; a movable former member arranged to form the article to be infolded and hold it in position to be heated and pressed 70 all operating substantially as herein shown and described.

4. In an infolding-machine, a movable former-plate arranged to press the edges of the article and infold them; a movable table; 75 a pin or stud moving with said table and having free upward and downward movement, its contact end being beveled and arranged to slide over the infolded article when the table moves forward and to catch in the article 80 when moved backward and remove the article at predetermined times; a blank-supporting member, and means for moving said former-plate and the above-named movable members 85 substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN J. LOCKE.

Witnesses:

JOSEPH A. MURPHY,
BORDEN H. MILLS.