

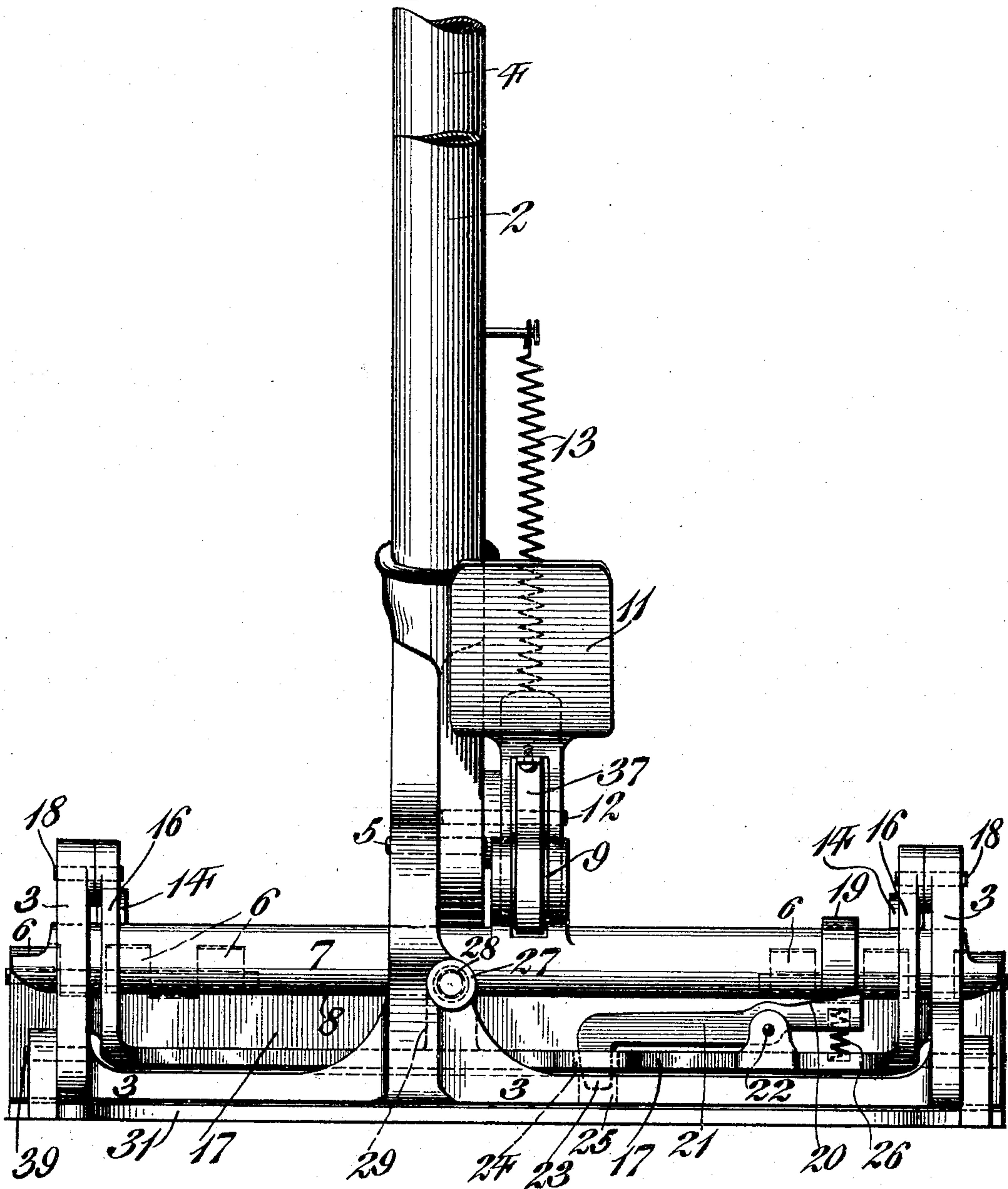
H. POELL.
TINNER'S DOUBLE SEAMING MACHINE.
APPLICATION FILED JUNE 30, 1909.

939,083.

Patented Nov. 2, 1909.

3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

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3 SHEETS—SHEET 2.

Fig. 3.

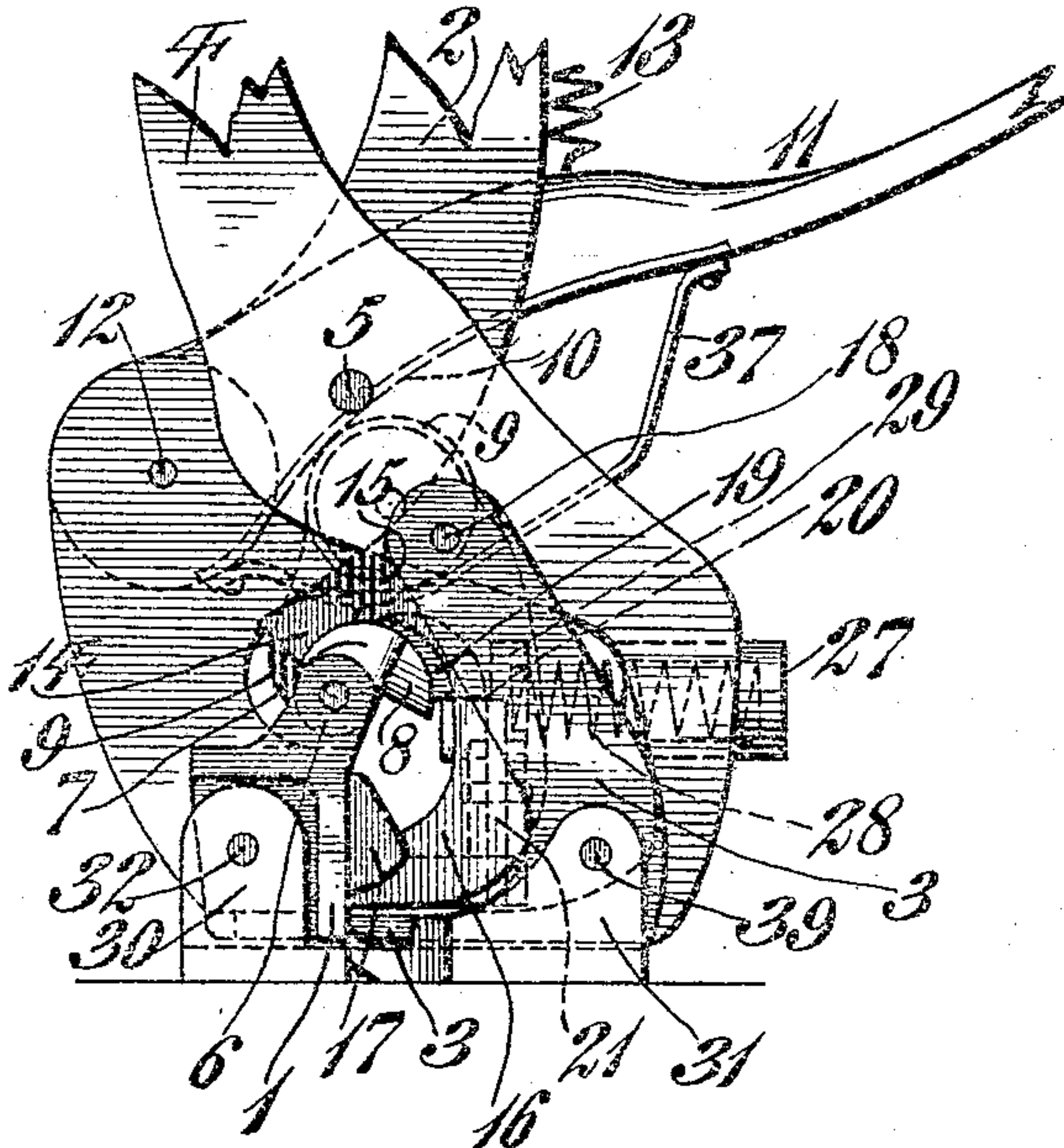


Fig. 2.

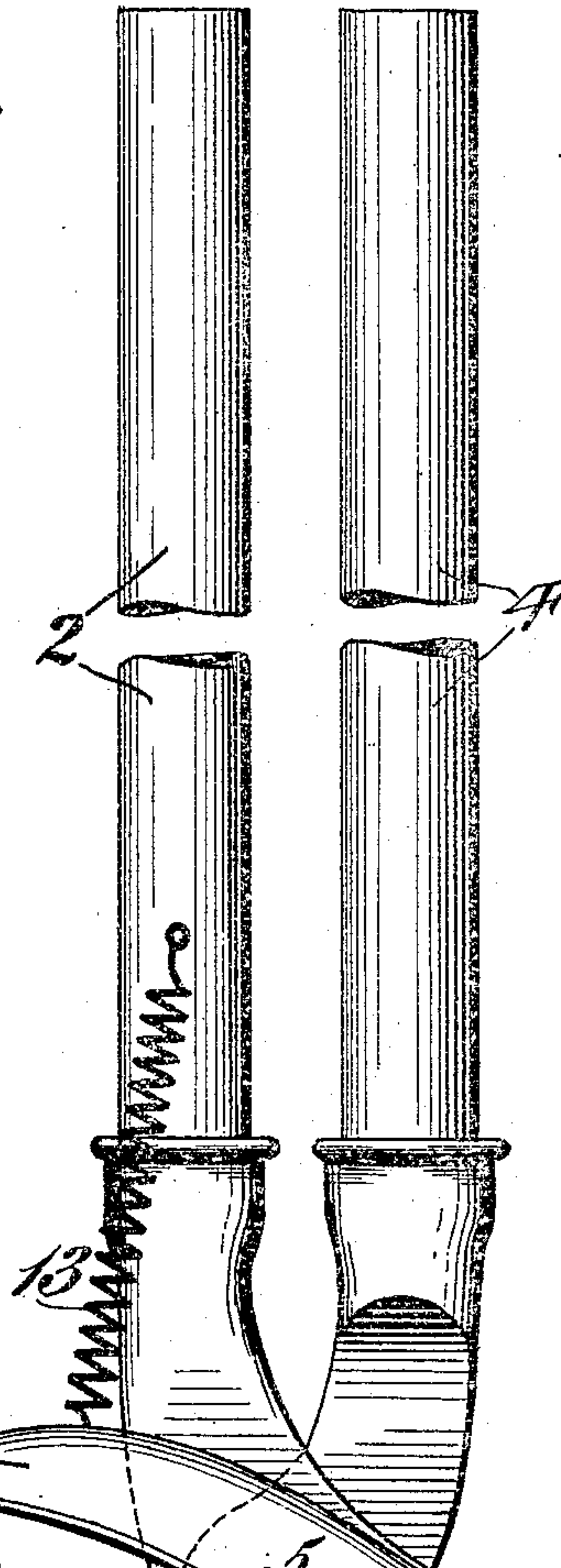
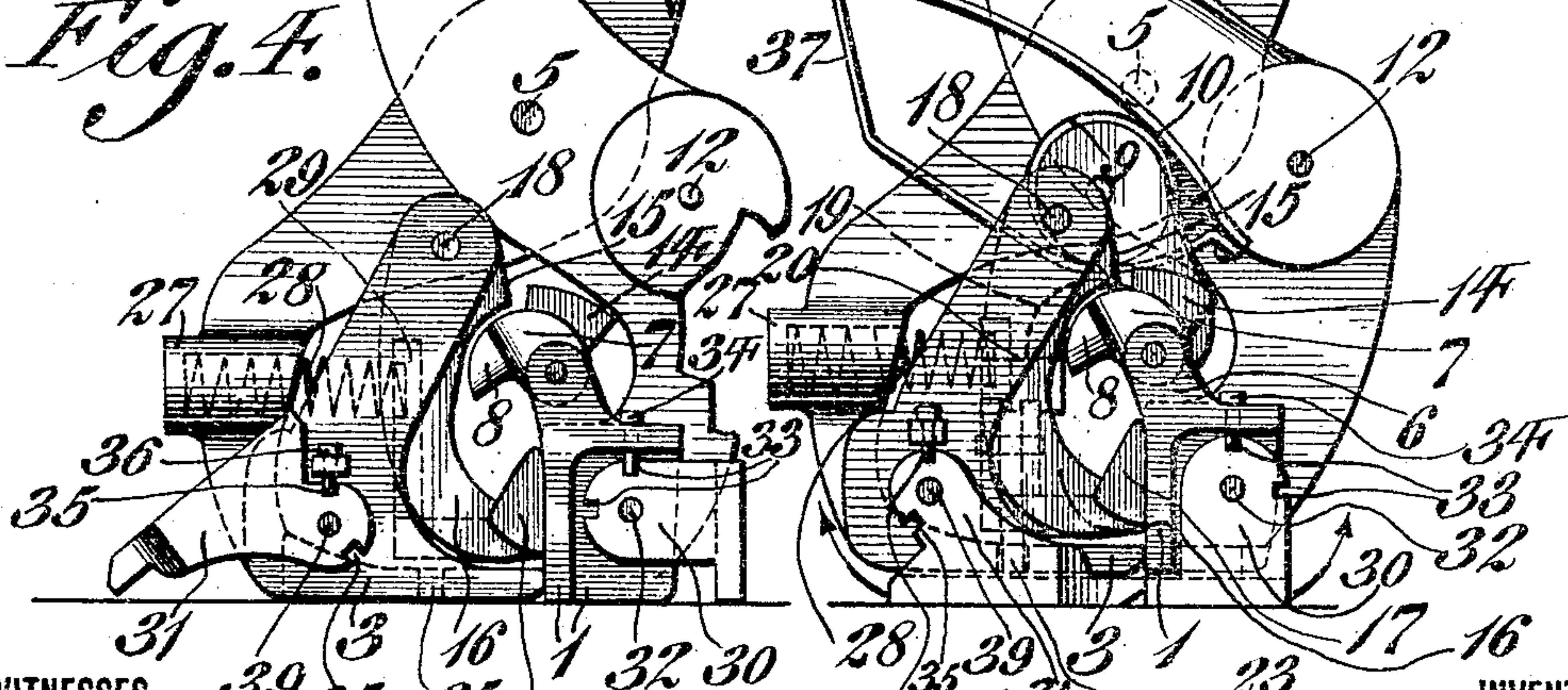


Fig. 4.



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3 SHEETS—SHEET 3.

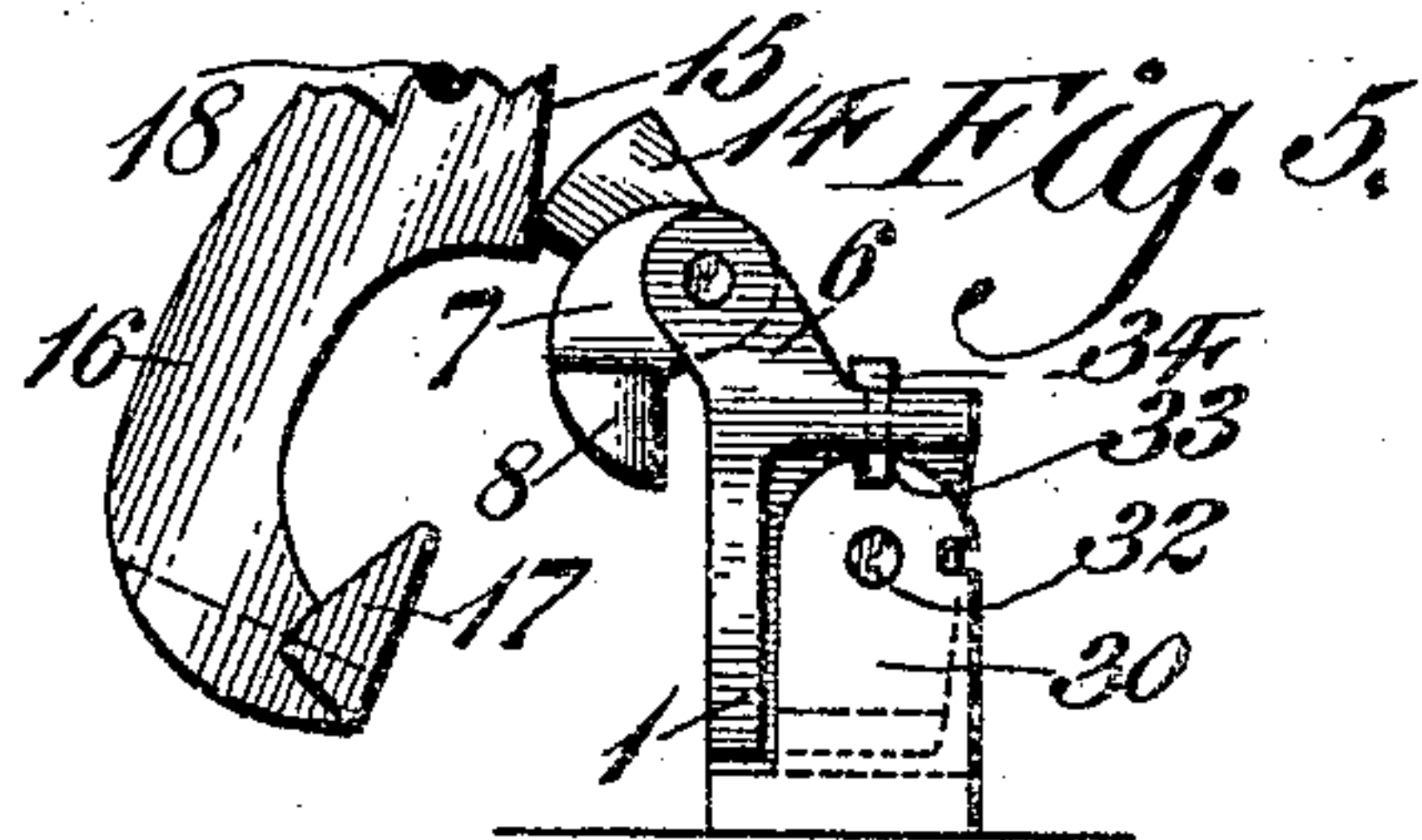


Fig. 6.

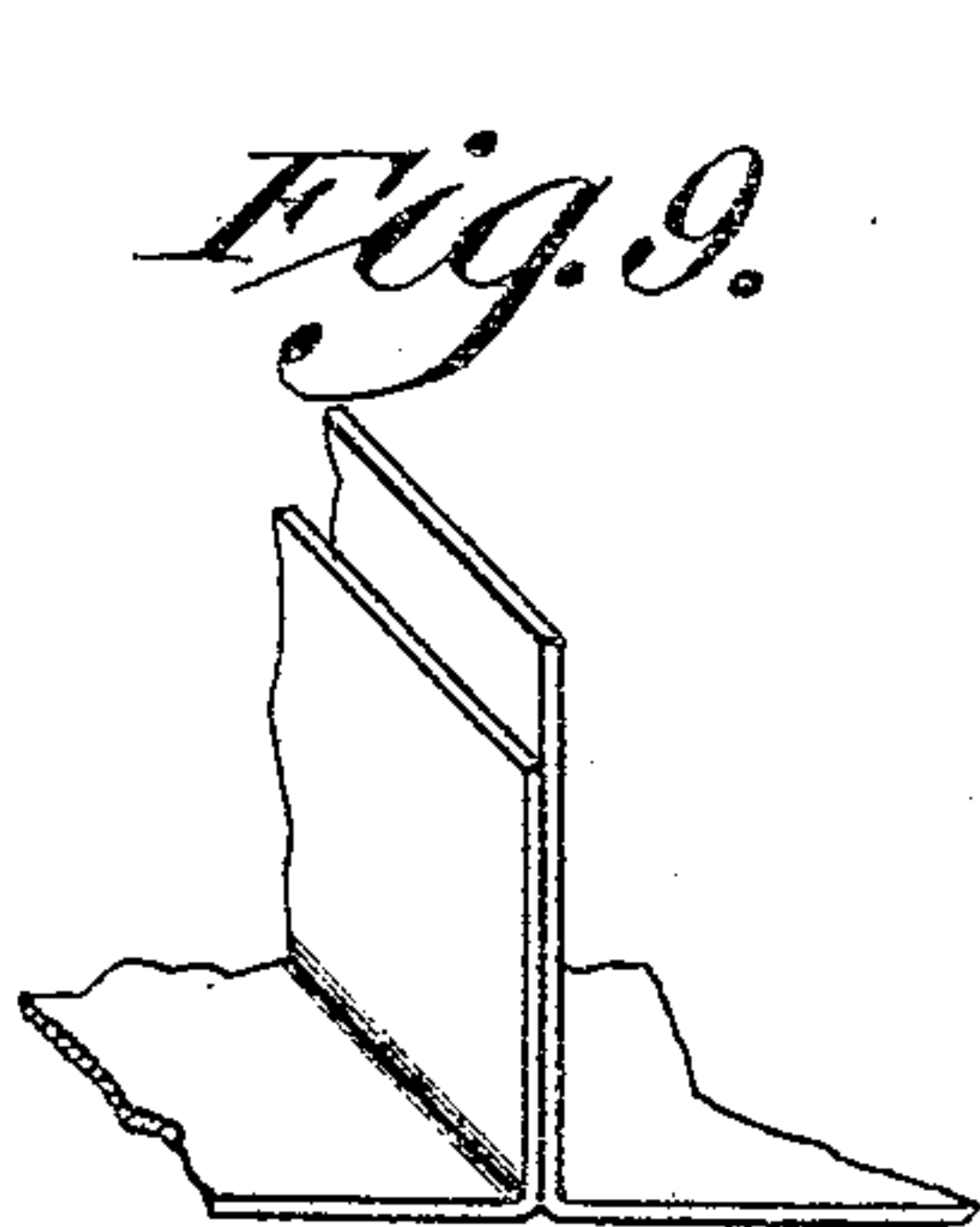
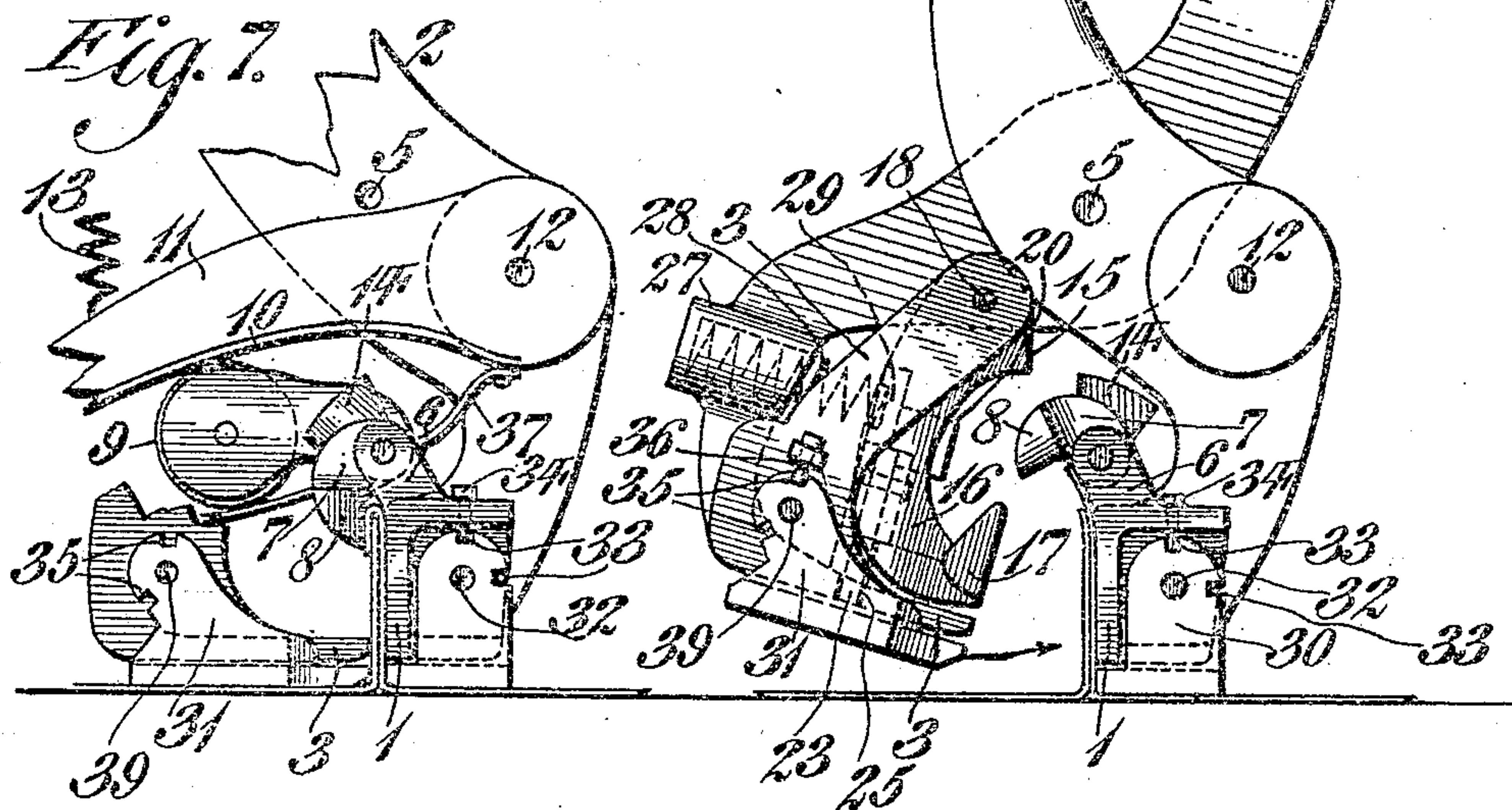


Fig. 8.

Fig. 10.

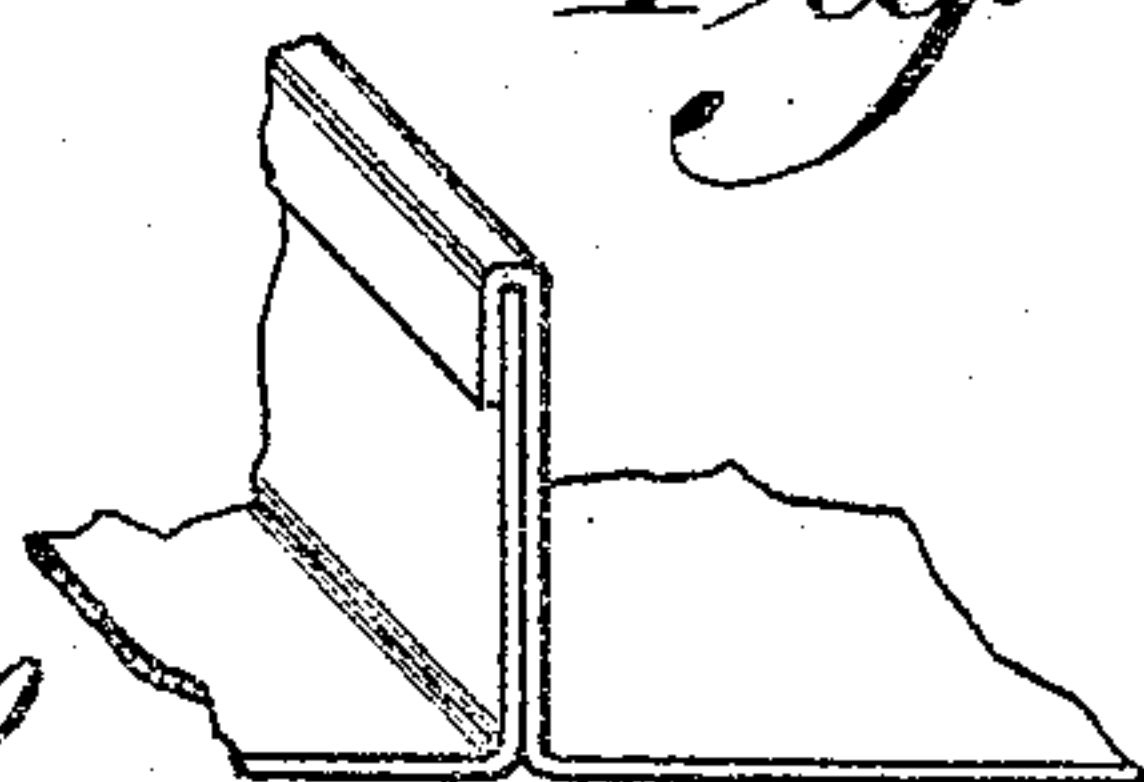
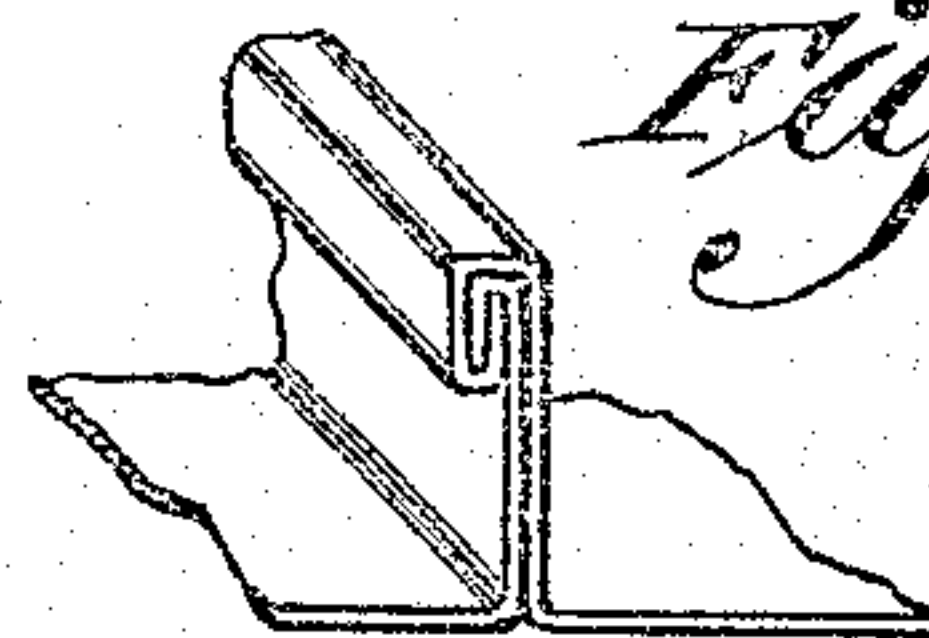


Fig. 11.



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UNITED STATES PATENT OFFICE.

HERMANN POELL, OF PHILADELPHIA, PENNSYLVANIA.

TINNER'S DOUBLE-SEAMING MACHINE.

939,083.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed June 30, 1909. Serial No. 505,121.

To all whom it may concern:

Be it known that I, HERMANN POELL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Tinner's Double-Seaming Machine, of which the following is a specification.

My present invention consists of a novel and simplified construction of a tinner's double seaming machine by the employment of which the seams formed by upsetting and interlocking the edges of the metal sheets may be rapidly and accurately formed.

In my prior patent No. 338,187, March 16, 1886, I have described and broadly claimed a novel construction of a tinner's seaming machine and in my present invention I disclose a novel construction of a seaming machine wherein the parts have been greatly simplified so that the machine may be very economically manufactured without effecting the efficiency of my device.

It further consists of other novel features of construction all as will be hereinafter fully set forth.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a front elevation of a tinner's seaming machine embodying my invention. Fig. 2 represents a side elevation of my device showing the parts in their normal position. Fig. 3 represents a side elevation showing the parts in a different relation from that seen in Fig. 2. Fig. 4 represents a side elevation of a portion of my device, certain parts thereof having been removed for the sake of clearness of illustration. Fig. 5 represents a side elevation of a portion of my device showing the manner in which one of the crimpers is actuated. Fig. 6 represents a side elevation of my device showing the position the parts assume when the device is first placed in position with respect to the metal plates which form the seam. Fig. 7 represents a side

elevation of a portion of my device showing the position the parts assume at a different stage of the operation. Fig. 8 represents a perspective view of my novel device. Figs. 9, 10 and 11 represent perspective views of the metal during different stages of the operation.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—my present device is adapted to be employed to form either a single or double seam.

1 designates the body of the machine to which is secured a stationary handle 2 which has a double function to readily move the machine from place to place and partly to steady the machine during the operation of the crimping.

3 designates a jaw provided with a handle 4 which is pivoted at 5 to the handle 2 whereby the jaw 3 is movable toward and away from the body 1.

The body 1 is provided with lugs 6 to which the bar 7 is pivoted in any suitable manner, said bar being provided with a crimping jaw 8. The bar 7 has secured thereto in any suitable manner the cam or roller 9 which is adapted to co-act with the cam face 10 of a treadle 11, which latter is pivoted at 12 to the handle 2 as will be readily apparent by reference to Fig. 2, said treadle having secured thereto one end of the spring 13, the other end of which is secured to the handle 2 so as to maintain the treadle in position as indicated in Fig. 2.

The bar 7 has mounted thereon the cams 14 adapted to co-act with the cam faces 15 of the arms 16, the lower ends of which are secured to the shaper 17, it being noted that the arms 16 are pivoted at 18 to the upwardly extending portions of the jaw 3.

The bar 7 is provided with a cam 19 which is adapted to co-act with a cam face 20 on a lever 21 which is fulcrumed at 22 and which at one end is deflected in order to form a tongue 23 adapted to pass through an aperture 24 in the shaper 17 and into an aperture 25 in the jaw 3 so that the jaw 3 and the shaper 17 are normally interlocked so as to move in unison, it being seen that the parts are maintained in their normal position by means of a spring 26 interposed between the shaper 17 and the end of the lever 21.

The handle 4 is provided with a boss or enlargement 27 in which is located a spring

28, the inner end of which bears against a standard 29 carried by the shaper 17.

In order to adapt the device for either a single or a double seam I provide the
5 spacers 30 and 31, the spacer 30 being pivoted at 32 to the body 1 and provided with a plurality of notches or recesses 33 with which a pin 34 is adapted to interlock in order to maintain the spacer 30 in operative
10 position. The spacer 31 is pivoted at 39 to the jaw 3 and is provided with a plurality of notches 35 in a manner similar to that already described with respect to the spacer 30, it being seen that a pin 36 is movably
15 carried by the jaw 3 whereby said pin may interlock with a recess 35 in order to maintain the spacer 31 in operative position.

37 designates a rod the ends of which are secured to the treadle 11, said rod passing
20 through an aperture 38 in the cam 9.

The operation of my novel construction of tinner's double seaming machine will be readily apparent and is as follows:—The parts normally appear in a position indicated in Fig. 2. The flanges of the tin or
25 other material are brought together as indicated in Fig. 9, one flange being longer than the other. The machine is then placed over these flanges so that the parts assume the position indicated in Fig. 6 and the upper
30 portion of the longer flange will be slightly bent over as indicated in said figures. The operator then brings the two handles together so that the parts of the machine assume the position shown in Fig. 2, whereby
35 the two flanges are firmly clamped together. The operator then depresses the treadle 11 whereupon the cam or roller 19 co-acts with the cam face 20 on the lever 21 to rock the same and thereby unlock the shaper 17 with
40 respect to the jaw 3. On the further downward movement of the treadle 11 the cams 14 co-act with the cam faces 15 and cause the shaper to move upwardly out of the path
45 of the crimping jaw 8 so that the latter assumes the position indicated in Fig. 7 thereby forming a single seam. When the operator removes his foot from the treadle 11 the spring 13 causes the treadle to be
50 brought back to its normal position, and owing to the provision of the rod or band 37 the bar 7 and its adjuncts will return to their normal position. At the same time, owing to the provision of the spring 28, the
55 shaper 17 will be moved forwardly so that the tongue 23 of the lever 21 will interlock with the apertures 24 and 25 so that the shaper 17 and the jaw 3 will be interlocked and maintained in their normal position.

60 When it is desired to make a double seam, it being understood that the first seam has been formed in the manner just described, the pins 34 and 36 are moved out of engagement with the recesses with which they interlock as seen in Fig. 2 and the spacers 30

and 31 are rotated so that they assume the position seen in Fig. 4 and the pins 34 and 36 interlock with the notches 33 and 35 respectively as seen in said Fig. 4, so that when the machine is placed over the single seam
70 which has been formed as seen in Figs. 7 and 10 and the device operated in the manner just described, a double seam will be formed as indicated in Fig. 11, as will be apparent to those skilled in this art. 75

In the present instance I have preferred to show the treadle 11 as being provided with a reinforcing strip of metal with which the roller 9 co-acts, but it will of course be apparent that in practice this may be dispensed with if desired. The handles 2 and 4 are preferably whole and are so constructed that they may be readily detached when desired. 80

It will now be apparent that I have devised a novel construction of tinning machine which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description, and while I have in the present instance shown and described a preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages. 85 90 95

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:— 100

1. In a machine of the character stated, the combination of a bed, a bar movably carried thereby, a crimping jaw on said bar, a jaw pivotally carried by said bed, a shaper
105 movably mounted on said jaw, means for interlocking said shaper and said pivoted jaw, devices for moving said bar, a cam carried by said bar for unlocking said means, and cams carried by said bar and co-acting
110 with said pivoted jaw to move the latter out of the path of the crimping jaw.

2. In a machine of the character stated, the combination of a bed, a bar movably carried thereby, a crimping jaw on said bar, a jaw pivotally carried by said bed, a shaper
115 movably mounted on said jaw, means for interlocking said shaper and said pivoted jaw, devices for moving said bar, a cam carried by said bar for unlocking said means, cams carried by said bar and co-acting with
120 said pivoted jaw to move the latter out of the path of the crimping jaw, and spacers movably carried by said bed and the pivoted jaw. 125

3. In a machine of the character stated, the combination of a bed, a bar movably carried thereby, a crimping jaw on said bar, a jaw pivotally carried by said bed, a shaper
130 movably mounted on said jaw, means for

interlocking said shaper and said pivoted jaw, devices for moving said bar, a cam carried by said bar for unlocking said means, cams carried by said bar and co-acting with said pivoted jaw to move the latter out of the path of the crimping jaw, spacers movably carried by said bed and the pivoted jaw, and means for locking the spacers in operative or inoperative position.

10 4. In a machine of the character stated, the combination of a bed, a bar movably carried thereby, a crimping jaw on said bar, a jaw pivotally carried by said bed, a shaper movably mounted on said jaw, means for
15 interlocking said shaper and said pivoted jaw, devices for moving said bar, a cam carried by said bar for unlocking said means, cams carried by said bar and co-acting with said pivoted jaw to move the latter out of
20 the path of the crimping jaw, spacers movably carried by said bed and the pivoted jaw, said spacers having a plurality of notches therein, and fastening devices carried by said bed and said pivoted jaw for
25 engagement with said notches.

5. In a machine of the character stated, the combination of a bed, a bar rotatable thereon, a cam on said bar, a treadle on said bed for actuating said cam, a crimping jaw
30 on said bed, a jaw pivoted with respect to said bed, handles for said pivoted jaw and bed, a shaper movably mounted on the pivoted jaw, means for interlocking the shaper and pivoted jaw, a cam on said bar for controlling such interlocking, and cams on said
35 bar co-acting with said shaper to move the latter out of the path of the crimping jaw on the rotation of said bar.

6. In a machine of the character stated,
40 the combination of a bed, a bar rotatable thereon, a cam on said bar, a treadle on said bed for actuating said cam, a crimping jaw on said bed, a jaw pivoted with respect to said bed, handles for said pivoted jaw and
45 bed, a shaper movably mounted on the pivoted jaw, a spring intermediate the shaper and the pivoted jaw, means for interlocking the shaper and pivoted jaw, a cam on said bar for controlling such interlocking,
50 and cams on said bar co-acting with said shaper to move the latter out of the path of the crimping jaw on the rotation of said bar.

7. In a machine of the character stated, the combination of a bed, a bar rotatable

thereon, a cam on said bar, a treadle on said bed for actuating said cam, a crimping jaw
55 on said bed, a jaw pivoted with respect to said bed, handles for said pivoted jaw and bed, a spring secured to said treadle and to one of said handles, a rod secured to said
60 treadle and co-acting with said bar to return the latter to normal position, a shaper movably mounted on the pivoted jaw, means for interlocking the shaper and pivoted jaw, a cam on said bar for controlling such in-
65 terlocking, and cams on said bar co-acting with said shaper to move the latter out of the path of the crimping jaw on the rotation of said bar.

8. In a machine of the character stated,
70 the combination of a bed, a bar rotatable thereon, a cam on said bar, a treadle on said bed for actuating said cam, a crimping jaw on said bed, a jaw pivoted with respect to said bed, handles for said pivoted jaw and
75 bed, a spring secured to said treadle and to one of said handles, a rod secured to said treadle and co-acting with said bar to return the latter to normal position, a shaper movably mounted on the pivoted jaw, means
80 for interlocking the shaper and pivoted jaw, a cam on said bar for controlling such interlocking, cams on said bar co-acting with said shaper to move the latter out of the path of the crimping jaw on the rotation of
85 said bar, and spacers pivotally mounted on the bed and the pivoted jaw.

9. In a machine of the character stated, the combination of a bed, a bar rotatable thereon, a cam on said bar, a treadle on said
90 bed for actuating said cam, a crimping jaw on said bed, a jaw pivoted with respect to said bed, handles for said pivoted jaw and bed, a shaper movably mounted on the pivoted jaw, said shaper and pivoted jaw hav-
95 ing registering apertures, a pawl fulcrumed on said shaper and adapted to normally interlock with said apertures, a spring for said pawl, a cam on said bar co-acting with said
100 pawl to unlock the latter on the rotation of said bar, and cams on said bar co-acting with said shaper to move the latter out of the path of the crimping jaw on the rotation of said bar.

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