Jan. 6, 1931. J. J. O'SHEA 1,788,321

LAUNDRY MACHINE

Filed Feb. 4, 1930 3 Sheets-Sheet 1

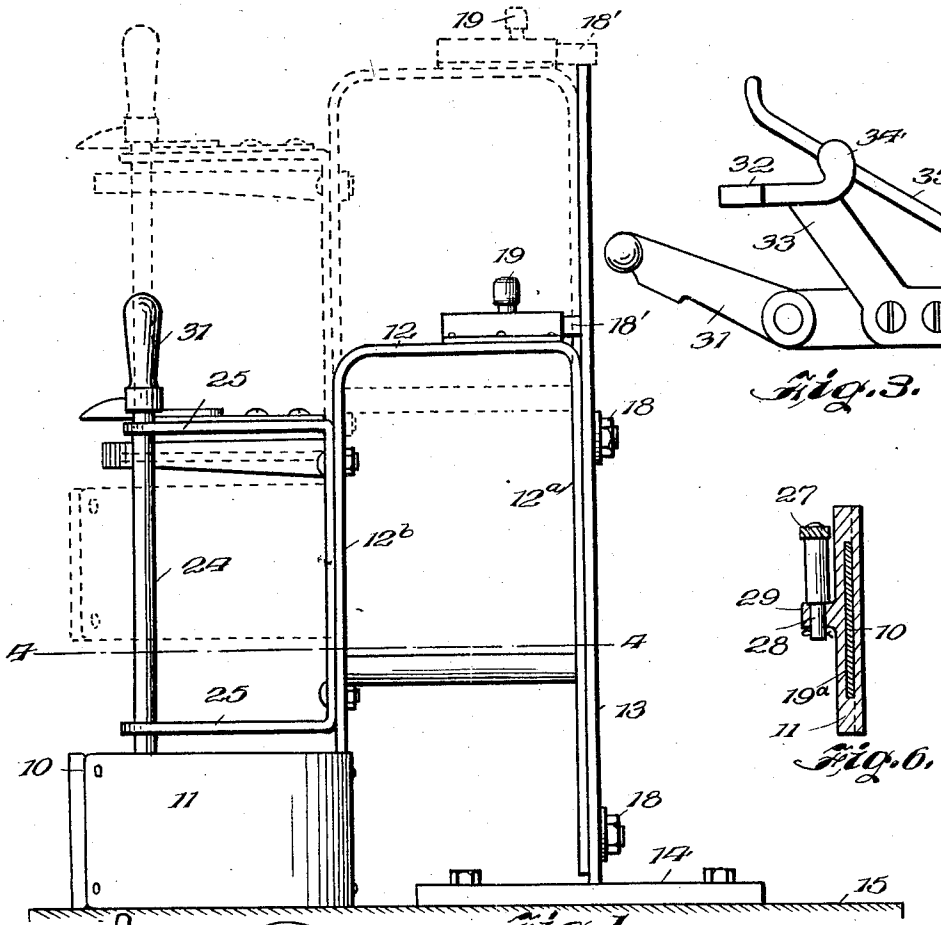

Fig. 1.

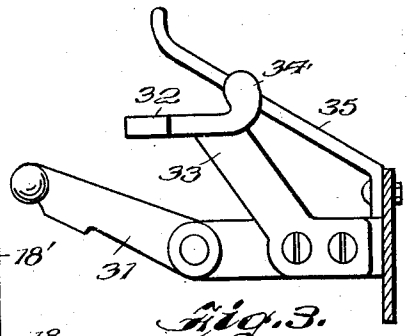

Fig. 3.

Fig. 6.

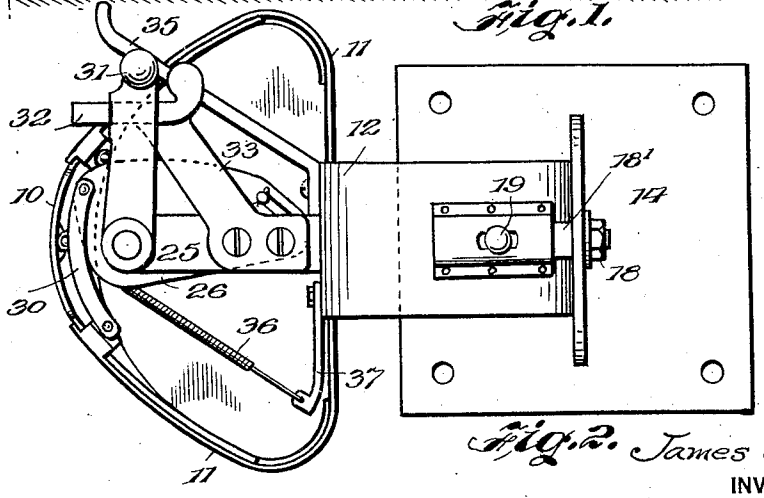

Fig. 2.

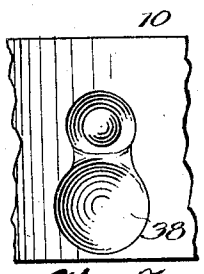

Fig. 7.

James J. O'Shea,
INVENTOR

BY Church & Church

HIS ATTORNEYS

Jan. 6, 1931. J. J. O'SHEA 1,788,321

LAUNDRY MACHINE

Filed Feb. 4, 1930 3 Sheets-Sheet 2

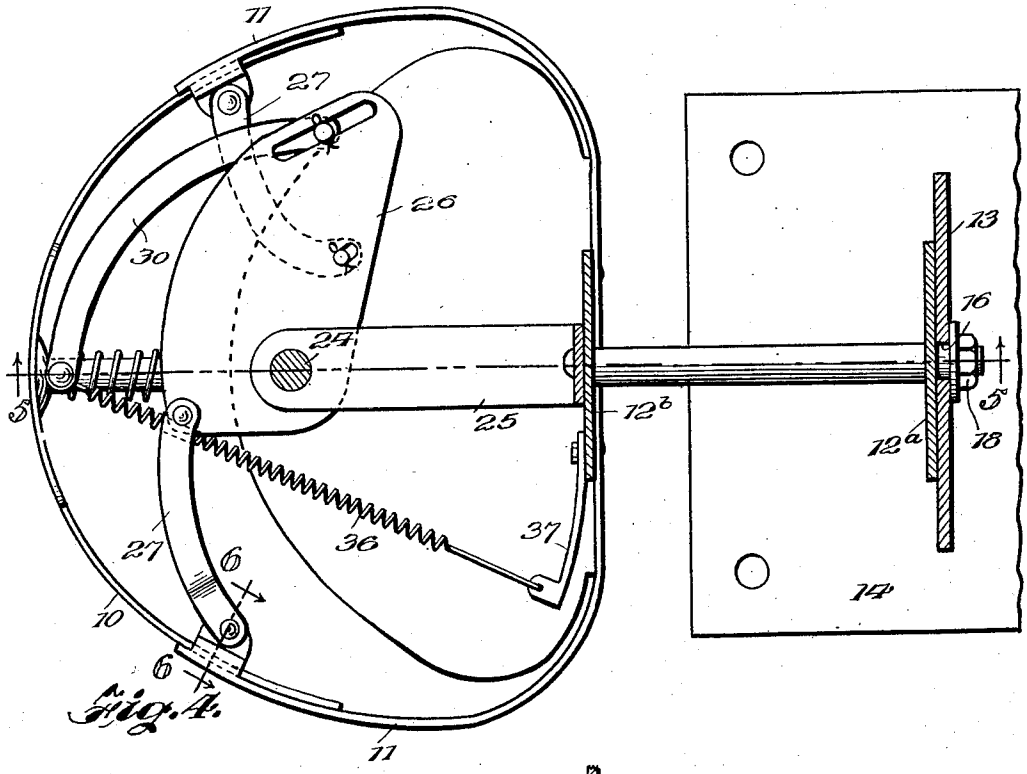

Fig. 4.

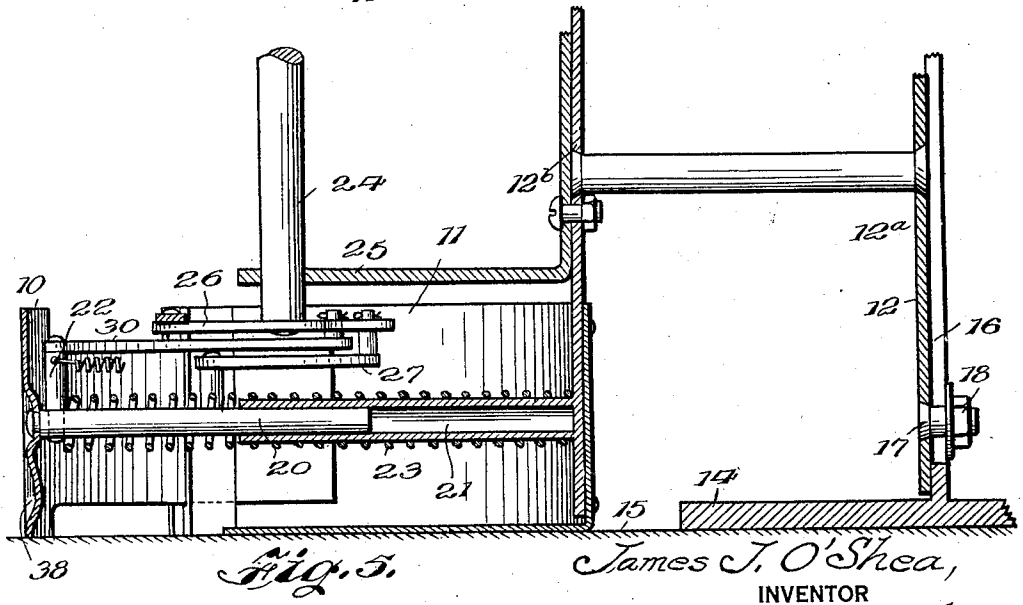

Fig. 5.

James J. O'Shea,
INVENTOR

BY Church & Church

HIS ATTORNEYS

Jan. 6, 1931. J. J. O SHEA 1,788,321

LAUNDRY MACHINE

Filed Feb. 4, 1930 3 Sheets-Sheet 3

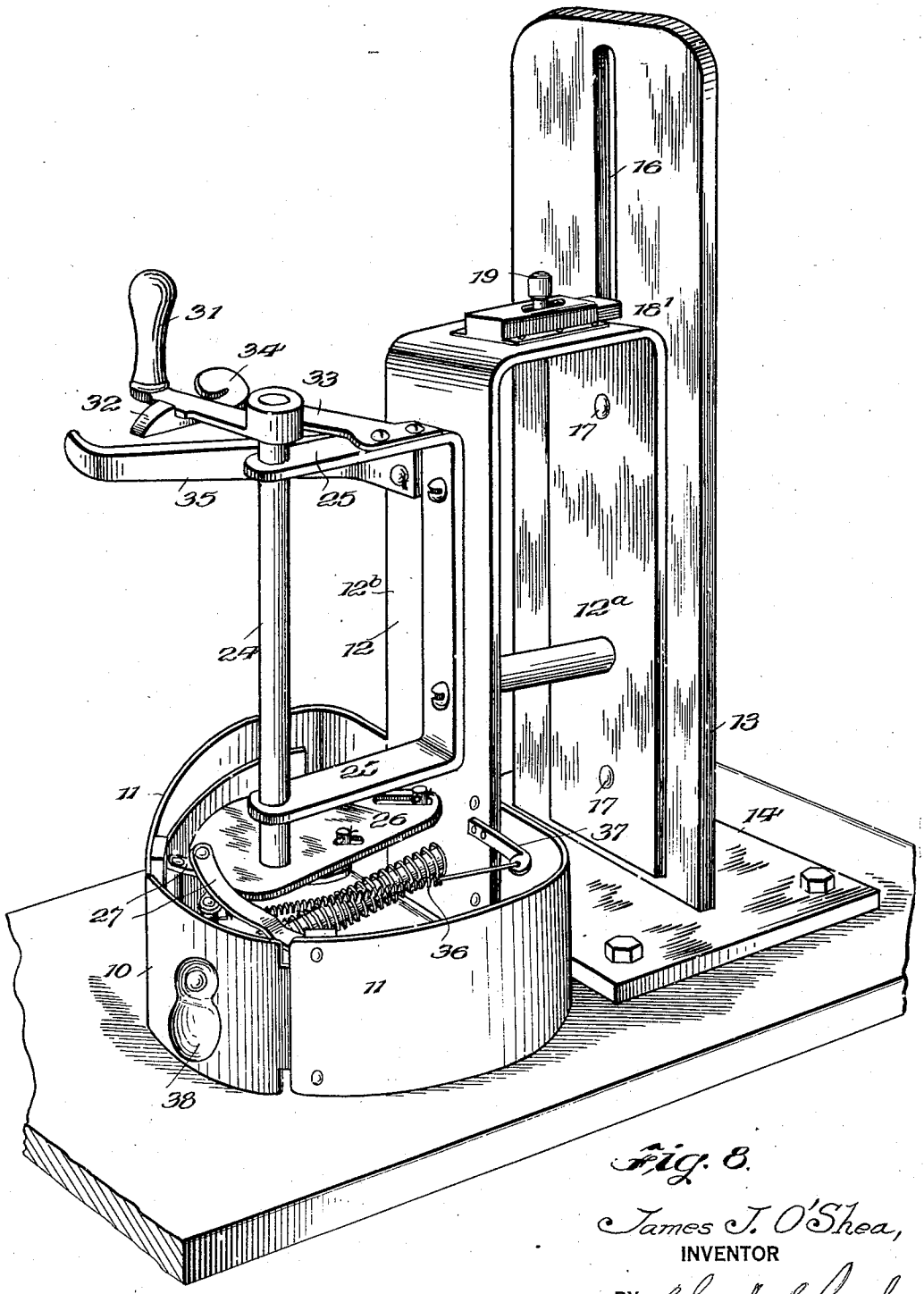

Fig. 8.

James J. O'Shea,
INVENTOR

BY Church & Church

HIS ATTORNEYS

Patented Jan. 6, 1931 1,788,321

UNITED STATES PATENT OFFICE

JAMES J. O'SHEA, OF DALLAS, TEXAS

LAUNDRY MACHINE

Application filed February 4, 1930. Serial No. 425,845.

This invention relates to laundry apparatus, and particularly to a device for engaging and shaping the neckband or attached collar of a shirt positioned on an ironing board when the final operation of ironing or finishing the shirt in the process of being laundered is to be done.

One object of the invention is to provide a neckband or collar-shaping member or ring that may be raised or lowered at will, but which, when lowered to engage the neckband or collar of a shirt on the ironing board, will hold the shirt in proper position on the ironing board, so as to allow the operator free use of both hands in straightening the body lines of the shirt, preparatory to the finishing or ironing thereof.

A further object of the invention is to provide a neckband engaging ring that is slidably supported from a base that may be permanently attached to the upper surface of the ironing board or table.

Another object is to mount the neckband or collar-engaging member on a frame that is slidable vertically upon a standard above the table, the frame being releasably latched in its elevated position on the standard, so that the only operation necessary to move the member or ring into engagement with the neckband or collar is to release said latch, whereupon the ring will move to neckband engaging position by gravity.

Another object is the provision of a neckband or collar shaping ring that will give the proper shape to either a neckband or an attached collar on all standard makes of shirts, the ring or band being made of sections that may be expanded by suitable spring operated means and contracted by the rotation of a shaft provided with a control lever which may be releasably locked in position to hold the sectional ring in contracted position, so that upon release of said latch, the ring will be instantaneously expanded by said spring means.

With these and other objects in view, the invention consists in certain details of construction and combinations and arrangements of parts, all as will hereinafter be more fully described and the novel features thereof particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is an elevational view of a collar or neckband shaping attachment, the ring itself being shown in neckband engaging position in full lines and in its elevated position in dotted lines;

Fig. 2 is a top plan view of the device with the ring contracted;

Fig. 3 is a detail view, showing the operating handle by which the ring is contracted, released or in the position it occupies when the ring is expanded;

Fig. 4 is substantially a plan view of the ring in its expanded position, this view being taken on the line 4—4 of Fig. 1;

Fig. 5 is a vertical sectional view on the line 5—5 of Fig. 4;

Fig. 6 is a detail sectional view on the line 6—6 of Fig. 4, illustrating the connection between one of the ring sections and the mechanism for contracting the ring;

Fig. 7 is a detail elevational view of the front portion of the ring; and

Fig. 8 is a perspective view of the complete device.

In accordance with the present invention, it is proposed to mount the attachment permanently on the upper surface of the ironing table and accordingly the neckband engaging ring, composed of sections 10, 11, is carried by a frame 12 slidably mounted on a standard 13, the standard being rigid on a base 14 that may be attached by suitable fastening elements to the ironing table 15. As shown in Figs. 4, 5, and 8, standard 13 has a vertically extending slot 16 therein, and the frame 12 is provided with one or more guides 17 that project through said slot 16 and have nuts 18 attached to their protruding ends, whereby the frame will be guided on the standard when moved vertically up or down. Secured on frame 12 is a latch of any desired construction, said latch having a plunger 18′ adapted to extend over the upper end of standard 13 to retain the frame 12 in its elevated position, as shown in dotted lines in Figure 1. Plunger 18′ is retractable by a finger piece 19 when it is desired to disen-

gage the plunger from the standard for the purpose of lowering the frame to position the ring within a neckband or collar of a shirt on the ironing table 15.

Frame 12 has a depending portion spaced from the standard a sufficient distance to clear base 14. Preferably, said frame is of inverted U-shape, one leg 12*a* of the frame being slidably attached to the standard, as before described, by means of the guides 17 in slots 16, while the other leg 12*b* extends downwardly at a point beyond the edge of base 14. Projecting from leg 12*b* outwardly from the base 14 are the two sections 11 of the collar engaging ring, these sections being described as arms secured to and projecting from the leg 12*b*. Said arms 11 are curved somewhat, so that their free ends converge toward one another, but said free ends are spaced apart somewhat, this space being closed by section 10 of the ring. Section 10 is of arcuate formation, its ends being slidably secured in slots 19*a* in the arms 11. Arms 11 are preferably resilient and are adapted to be contracted toward one another and, on the other hand, are adapted to be expanded or moved away from one another when inserted in the neckband or collar of a shirt. This expansion of the ring may be accomplished by movement of section 10 away from the leg 12*b* of the frame, under which circumstances the end portions of section 10 will move the free ends of arms 11 away from one another, as shown in Fig. 4. Preferably, this movement of section 10 away from the frame to expand the ring is accomplished by having said section mounted on a plunger or post 20 slidable in a sleeve 21 mounted on the leg 12*b* of the frame. Attached to the plunger 20 is a pin or post 22 and interposed between said pin or post 22 and the leg 12*b* is a coil spring 23 which is placed under compression when the ring is expanded, so that its normal tendency is to force the section 10 away from the leg 12*a* so as to expand the ring.

To contract the ring by retracting section 10 and moving the free ends of arms 11 together, there is a shaft 24 journaled in a bracket 25 mounted on leg 12*b*. At the lower extremity of shaft 24, there is mounted a plate 26, which is connected to each of arms 11 and plunger 20. For instance, said plate 26 has pivotally attached thereto links 27, and these links are attached to the arms 11 by pins 28 extending through protuberances 29 formed on said arms. The details of this construction are illustrated in Fig. 6. Also attached to plate 26 is a link 30, said link being attached to the post 22 on plunger 20. Preferably, the link 30 and one of the links 27 are secured to plate 26 by pin and slot connections, as shown in Figs. 4 and 8. At the upper end of shaft 24 there is an operating handle 31 by which the shaft may be rocked in its bearings in bracket 25. When the ring is in its contracted position, handle 31 is adapted to be positioned behind a latch 32 carried by an arm 33 mounted on the bracket 25. Arm 33 is more or less resilient, so that upon pressure being applied to the finger portion 34 of the latch 32, said latch may be depressed so as to free the operating handle 31. Excessive depression of arm 33 is prevented by a stop 35, mounted on leg 12*b* of the frame.

The neckband or collar engaging ring is shown in its contracted position in Figures 1, 2, and 8, under which circumstances, the operating handle 31 is positioned behind latch 32. After the ring has been lowered, as shown in Figures 1, 5, and 8, where it would normally be positioned within the neckband or collar of a shirt, the operation depresses the latch 32 so as to free the operating handle 31 of shaft 24. The shaft thus being unlocked, the pressure of spring 23 forces section 10 of the ring outwardly from the frame and the ends of said section force the free ends of the arms 11 of the ring away from one another, so that the ring is expanded into the position shown in Figs. 4 and 5. After the shirt (not shown) has been finished and is to be taken from the table to be replaced by another, the operator will move operating handle 31 back behind latch 32, thereby rotating shaft 24 and the movement thus imparted to plate 26 will, through links 27 and 30, contract the ring to its normal position. The frame 12, together with the ring and its operating mechanism, is then elevated by the operator until the plunger 18 of the frame latch can engage over the upper end of standard 13, under which circumstances the frame and ring will be locked in their uppermost positions. The finished shirt can then be removed and the second shirt substituted therefor, whereupon the same operations will be repeated.

Due to the excessive pull to one side of plunger 20 by link 30 and the link 27 at that side of the ring, there is attached to post 22 on plunger 20 one end of a spring 36, whose opposite end is secured to a lateral extension 37 on leg 12*b* of the frame. The tension on this spring 36 tends to hold the plunger 20 in alinement with sleeve 21, when the ring is expanded, so that the plunger will readily slide back into said sleeve when the ring is being contracted. As shown more fully in Figs. 7 and 8, the outer face of section 10 of the ring is formed with a concave portion 38 for accommodation of the button, usually a wooden one, that is inserted in the button holes of the neckband or collar preparatory to the ring being placed and expanded in the neckband or collar.

As will be apparent from the foregoing disclosure, the entire device is mounted on a base fixedly secured on the upper surface of the ironing board or table, so that the entire apparatus is above the ironing surface, under

which circumstances it is much more accessible than would be the case if the operator had to reach below or beneath the ironing board or table to adjust the ring within the neckband or collar of a shirt on the table. Another advantage is the fact that after the frame latch 18 is disengaged from the standard and the ring lowered onto the surface, or rather onto the neckband of the shirt, it will be retained in this position without any effort whatever on the part of the operator, so that the latter has full use of both hands for the purpose of straightening the body lines of the shirt, as is always necessary before the shirt can be ironed or finally finished. The ring, and all of its operating connections, are carried by the frame itself, and not only are the ring and its operating connections of comparatively simple construction, but the elements constituting the same are comparatively sturdy, so that there is very little likelihood of parts being broken or the mechanism for expanding or contracting the ring getting out of working order.

What is claimed is:

1. In a device of the character described, a fixed standard, a frame slidable vertically on said standard, a sectional collar-shaping ring carried by said frame, means for expanding said ring, and lever controlled means for contracting said ring.

2. In a device of the character described, a fixed standard, a collar-shaping ring formed of slidable sections vertically adjustable with respect to said standard, means for expanding said sections, a lever for contracting said sections, and a latch yieldingly engaging said lever for holding said ring contracted.

3. In a device of the character described, a fixed standard, a frame slidable vertically on said standard, a releasable latch engageable with the top of said standard to hold the frame elevated, a collar-shaping ring on said slidable frame, and means carried by said frame for expanding and contracting said ring.

4. In a device of the character described, a vertically movable frame, a collar-shaping ring composed of horizontally spaced resilient arms projecting from said frame and a member bridging the space between said arms and slidably engaging the latter, a shaft rotatably supported from said frame, a plate mounted on said shaft, a plunger slidably supported in said frame and engaging the member between said arms, a spring for forcing said plunger and member away from said frame to expand the ring, and connections between said plunger and plate and said plate and said arms to contract said ring.

5. In a device of the character described, a vertically slidable frame, resilient arms projecting from said frame said arms being spaced horizontally from one another and converging toward one another, a spring pressed plunger slidably supported on said frame, a bridge member mounted on said plunger and bridging the space between said arms, said bridge member slidably engaging said arms, said arms being movable away from one another when said bridge member is forced away from the frame by said spring pressed plunger, and means for returning said bridge member toward said frame and returning said arms to their contracted position.

6. In a device of the character described, a vertically slidable frame, resilient arms projecting from said frame, said arms converging toward one another with a space between their free ends, a plate slidably engaging the free ends of said arms, means supported by said frame for forcing said plate away from the frame and expanding said arms, a shaft rotatably supported by said frame and connections between said shaft and the arms and plate for moving said plate toward the frame and contracting said arms.

7. In a device of the character described, a vertically slidable frame, a pair of resilient arms projecting from said frame and converging toward one another at their free ends with a space between said free ends, a plunger slidably supported by said frame, a bridge plate mounted on said plunger and slidably engaging the free ends of said arms and bridging the space between said arms, a spring for forcing said plunger and plate away from the frame to expand said arms, a bracket on said frame, a shaft journaled in said bracket, connections between said shaft and the plunger and arms, whereby said plate may be returned toward the frame and the arms contracted upon rotation of said shaft, and means for holding said shaft against rotation with the arms in their contracted position.

JAMES JOSEPH O'SHEA.