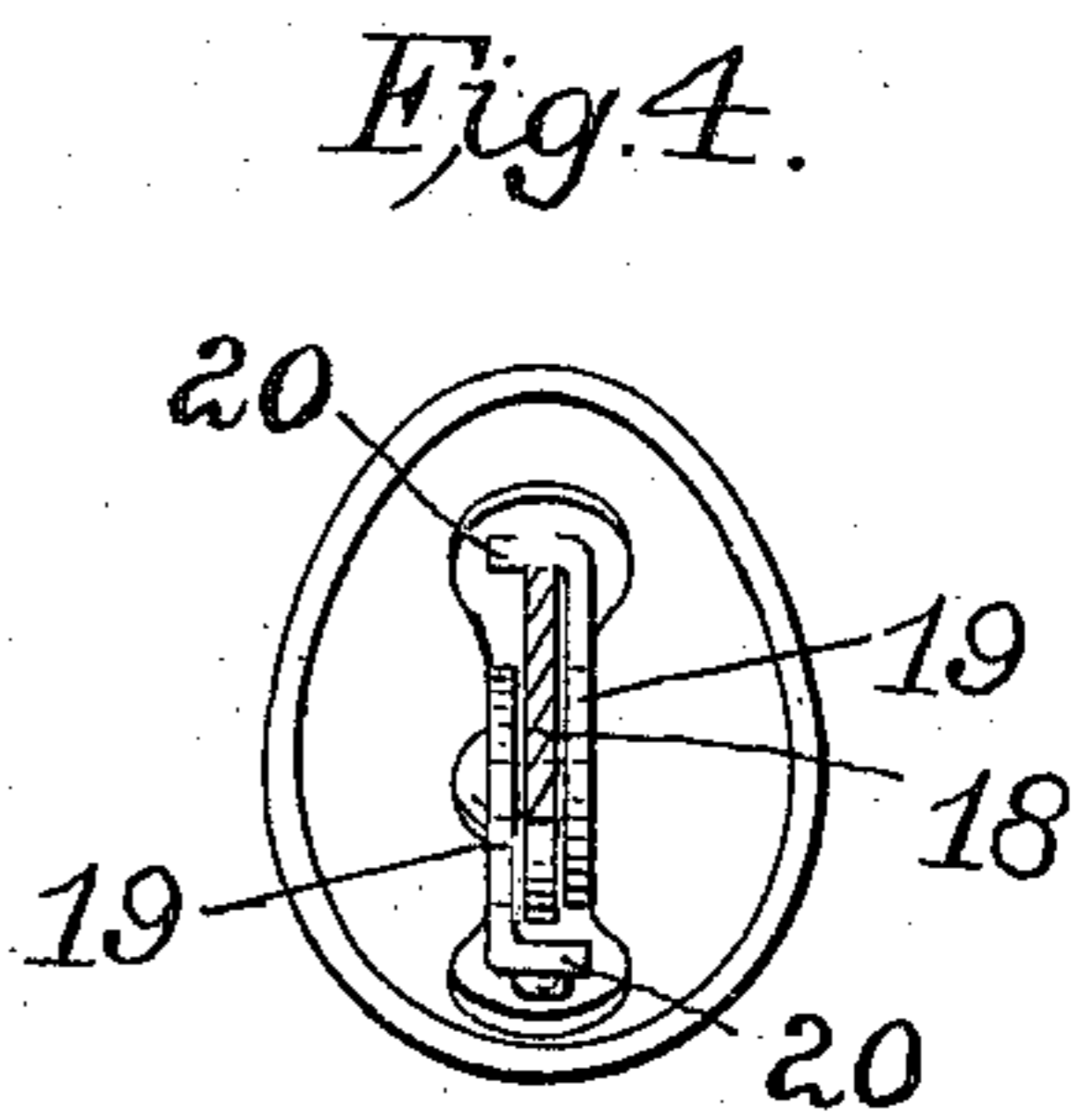
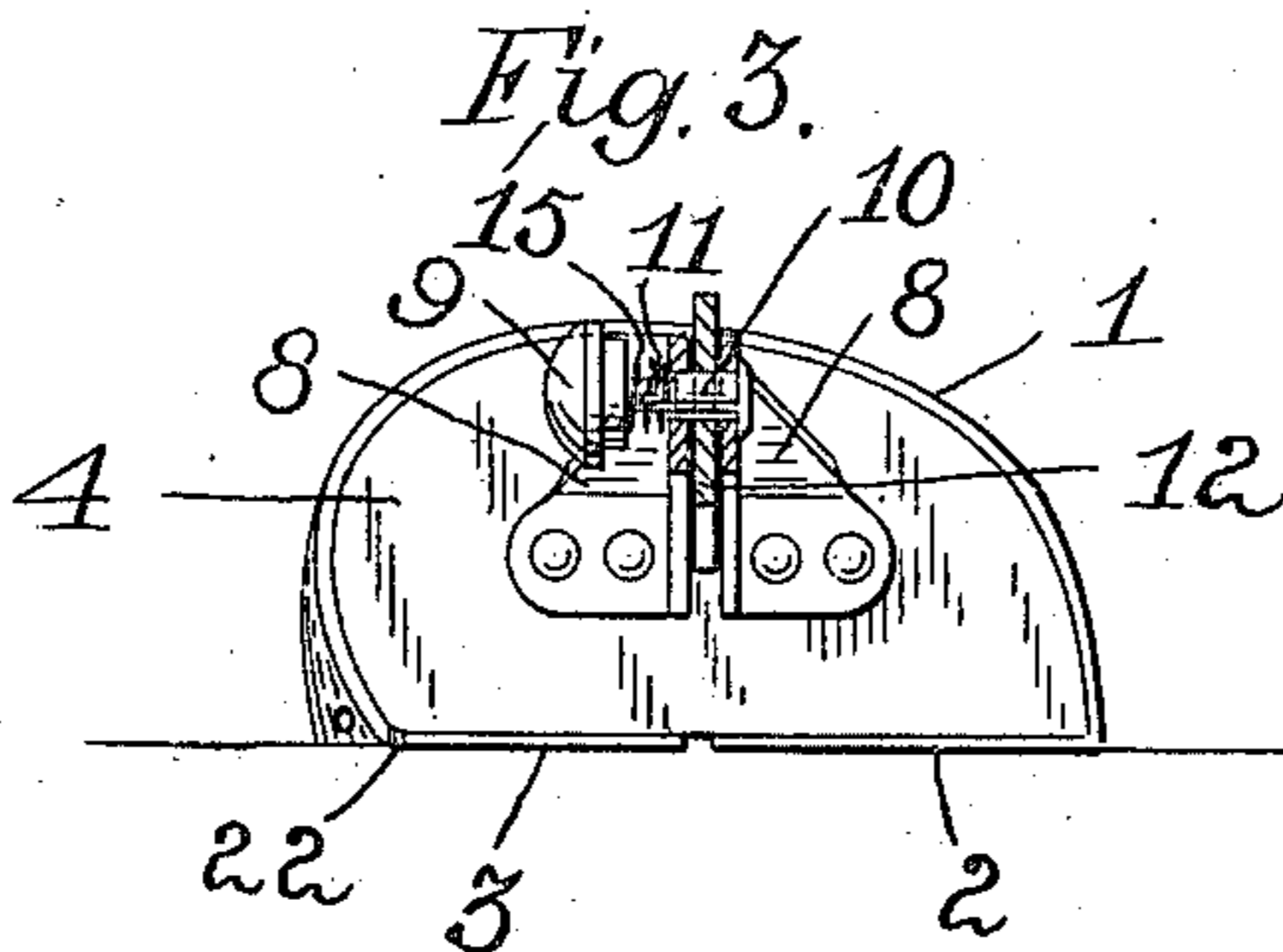
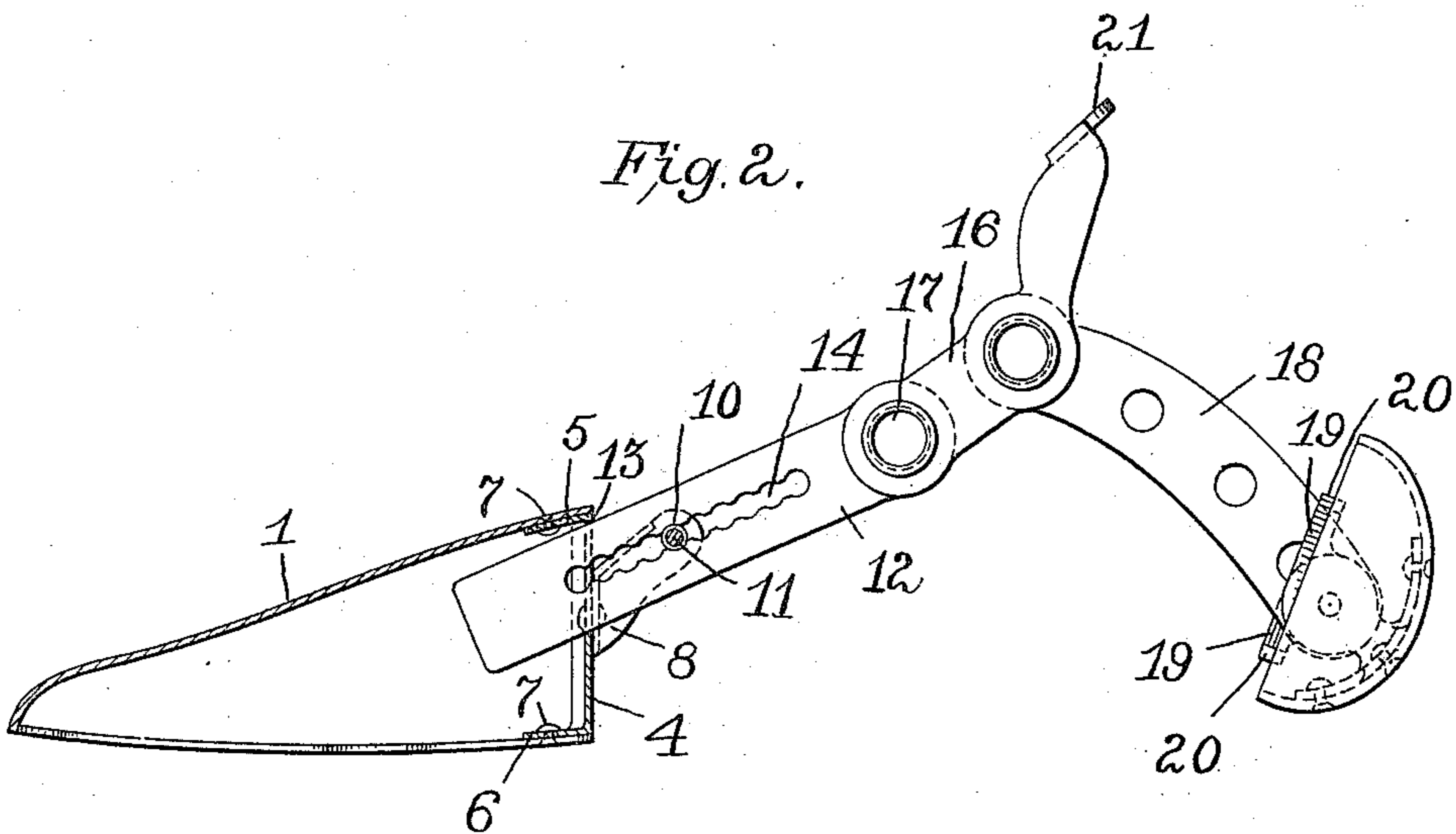
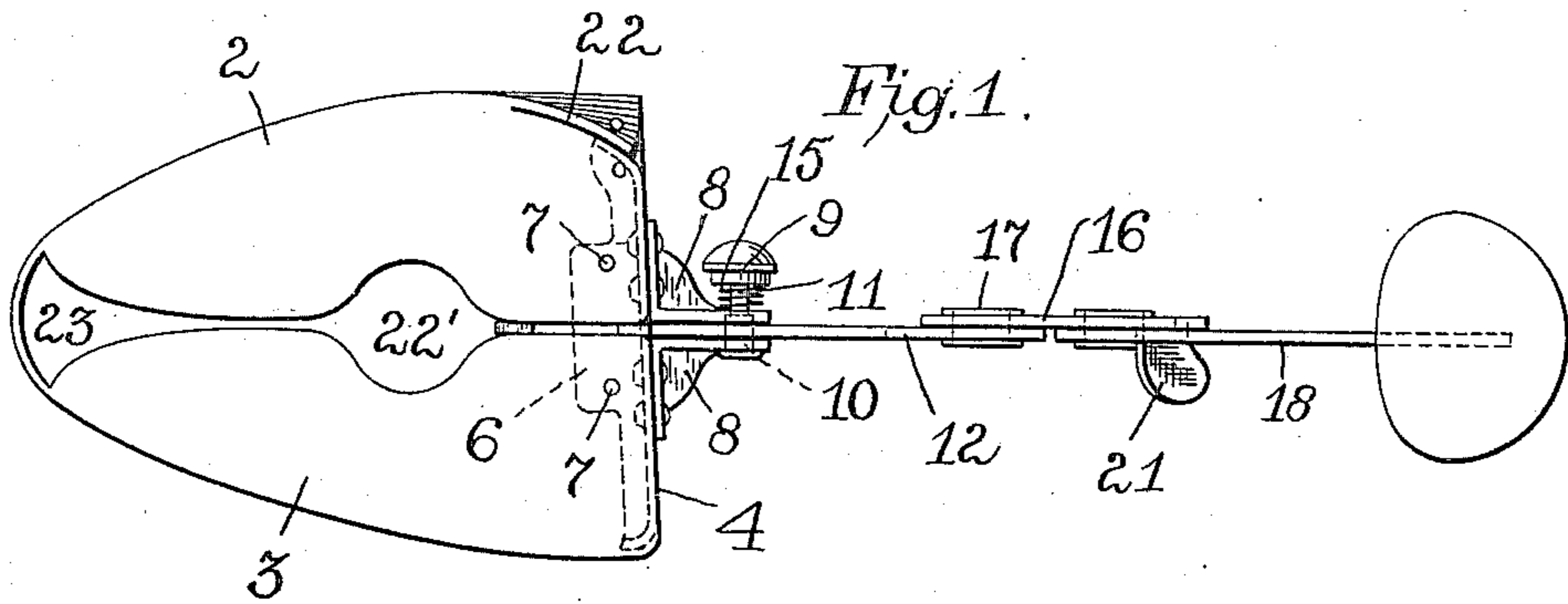


M. B. REACH.  
SHOE FORM.  
APPLICATION FILED JAN. 28, 1910.

985,550.

Patented Feb. 28, 1911.



Attest:  
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Spear  
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# UNITED STATES PATENT OFFICE.

MILTON B. REACH, OF CHICOPEE, MASSACHUSETTS, ASSIGNOR TO R. P. K. SPECIALTY CO., OF NEW YORK, N. Y.

SHOE-FORM.

985,550.

Specification of Letters Patent. Patented Feb. 28, 1911.

Application filed January 28, 1910. Serial No. 540,543.

To all whom it may concern:

Be it known that I, MILTON B. REACH, citizen of the United States, residing at Chicopee, Massachusetts, have invented certain new and useful Improvements in Shoe-Forms, of which the following is a specification.

My invention is an improvement on the shoe form disclosed in Letters Patent of the United States, Nos. 927,280 and 927,281, of July 6, 1909, granted to me, and my present improvements consist in the features and combination and arrangement of parts hereinafter described and particularly pointed out in the claims.

In the accompanying drawings: Figure 1 is a bottom plan view of a shoe form embodying my present improvements; Fig. 2 is a view partly in section and partly in side elevation; Fig. 3 is a rear view of the shoe form; Fig. 4 is a detail.

The body of the form is made of a single piece of sheet metal having an arch portion 1 and two sole portions 2, 3, separated from each other by a longitudinal opening or crevice with an enlarged opening at the toe between the sole portions and the arch portion. In the rear portion of the form a reinforcing plate 4 is fitted, this consisting of a plate having a flange fitting within the body portion of the form, and having ears 5 and 6 at top and bottom through which rivet rods 7 pass, which secure the reinforcing plate to the arch portion and to the two sole portions of the form. This reinforcing plate extends across the opening between the sole portions, and serves to connect them at the rear, the said sole portions forward of this point being left free from each other. In order to connect the straining rod, I provide a bracket or ears 8 riveted to the reinforcing plate and extending rearwardly therefrom, these ears being brought closely together at their rear ends, and furnishing a support for a locking pin 9 having a stem with an enlarged portion 10 and a reduced portion 11. The forward section 12 of the straining rod passes between these ears or brackets, and through an opening 13 in the reinforcing plate, and it has its forward end extending into the hollow form so that this section of the straining rod is free to be adjusted longitudinally, for which purpose it has a longitudinal slot 14 serrated along its

edges, forming recesses fitted to the larger portion of the holding pin 9. This pin is pressed laterally by a spring 15, which normally holds the larger portion of the pin in engagement with the seats or serrations of the straining rod, so that by pressing upon the pin the larger portion thereof is pressed out of these seats, and the portion of smaller diameter then enters the slot, so that the straining section is free to be adjusted longitudinally, and when the proper adjustment is reached, it is simply necessary to release the pressure on the pin, when the spring will draw the portion of larger diameter into the slot to enter the serrations or seats and hold the section in its adjusted position. The straining section is guided both by the pin and also by the opening 13 in the reinforcing plate, and these guiding means hold the straining section at the proper inclination in relation to the body of the form, this inclination conforming substantially to the incline from rear to front of the arch portion of the form. I pivot to the rear end of the straining section 13 a lever 16 by means of an open rivet or eye 17, and at an intermediate part of this lever I pivot the rear section 18 of the straining rod by means of a similar open eye or rivet. At the extremity of this rear section a rear bearing or "goose egg" is pivotally mounted to bear upon the counter portion of the shoe or slipper, and in order to make this pivotal connection, I rivet a pair of brackets or plates 19 within the "goose egg", these brackets having upstanding portions adjacent each other with a space between them just wide enough to take in the thickness of the metal of the rear section of the straining rod. These upstanding portions also have stop projections thereon, which limit the pivotal action of the "goose egg" in relation to the straining rod section.

The straining lever 16 has its extended arm provided with a finger piece 21 by which the straining rod may be pressed downwardly to get the necessary pressure, and in this action the intermediate pivot point of the lever will get below the plane in which the pivot of the "goose egg" and the pivot of the front section of the straining rod lie to lock the parts in position. The straining rod, it will be seen from the above, is formed by the front and rear bars of flat

metal set on edge, and connected to each other by the straining lever which is pivoted by rivets thereto, and lies closely alongside of the front and rear sections of the said straining rod. It will be observed that the "goose egg" or rear bearing will adjust itself automatically to the heel or counter of the shoe or slipper.

At one side of the rear portion of the form I provide a cut or slit 22 extending from the extreme rear edge forwardly. At this point the side of the form curves rearwardly, downwardly and inwardly, in order to provide a good fit to the shoe or slipper at this point. This cut enables the form to be properly shaped, as just described, at this point. In the pressing operation of shaping the form a mandrel is used, which, of necessity, has a square corner, and the mandrel is so shaped as to permit its ready withdrawal from the form after the pressing action. The cut or slit is therefore made so that the form may be properly shaped, as described, at the rear side portion. The portions of the sole and side of the form may be riveted to the reinforcing plate on each side of the cut or slit, if desired, in order to make a strong connection at this point.

It will be seen from Fig. 1 that an opening is provided at 22' at substantially the center of the sole portion, and approximately half way between the opening 23 at the toe and the back of the form. In making certain styles and models of shoe forms, it has been found that there is a crowding of metal difficult to dispose of at the sole portions, and this centrally disposed opening 22' is employed to provide for the flow or movement of the metal performing, at this point, substantially the same function that is performed by the hole 23 at the toe.

I claim as my invention:—

1. In combination with the body of the form, a reinforcing rear plate, a bracket attached thereto, said reinforcing plate having a guiding opening, a straining rod passing therethrough, and a pin connecting the straining rod with the bracket adjustably, said guiding opening and pin controlling the straining rod to move in the direction of its length and prevent deflecting upwardly or downwardly, substantially as described.

2. In combination with the main part of the shoe form, a plate at the rear thereof having a guiding opening and a two-part bracket, a straining rod guided between portions of the two-part bracket and by the opening in the reinforcing plate, and a pin adjustably connecting the straining rod with the two-part bracket, said guiding opening and pin controlling the straining rod to move in the direction of its length and pre-

vent deflecting upwardly or downwardly, substantially as described.

3. In combination with the main part of the form, a back plate having a two-part bracket attached thereto, and a guiding opening, a straining rod having a serrated slot and guided between the two-part bracket and in the opening in the back plate, a spring pin carried by the two-part bracket having portions of larger and smaller diameter to connect the straining rod with the two-part bracket, substantially as described.

4. In combination with the main part of the shoe form, a straining rod, a rear bearing or "goose egg" having upstanding brackets with a space between them to receive the rear end of the straining rod which is pivoted thereto, said brackets having stop projections thereon, substantially as described.

5. In combination with the main part of the form, a back plate having a bracket attached thereto, and having also a guiding opening therethrough, a straining rod having a serrated slot and a spring pin carried by the bracket having portions of larger and smaller diameter to connect the straining rod with the two-part bracket, said guiding opening and pin controlling the straining rod to move in the direction of its length and prevent deflecting upwardly or downwardly, substantially as described.

6. A shoe form comprising a hollow body to fit into the shoe and straining means comprising a member slidably mounted on the said hollow body to move into the same, said member being guided to move only in the direction of its length with means for holding the said straining member in different positions of adjustment, a rear member and a lever pivoted to the sliding front member and having an intermediate pivotal connection with the front end of the rear member and having also an extended arm, substantially as described.

7. In combination with the hollow form, a link slidably mounted in connection therewith and guided at two points to be adjusted only in the direction of its length and prevent swinging, and means for moving the link, consisting of a lever pivoted to the link and a rear member also pivoted to the link intermediate of its length, substantially as described.

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

MILTON B. REACH.

Witnesses:

C. H. KILPATRICK,  
JAMES M. MORTON.