

(No Model.)

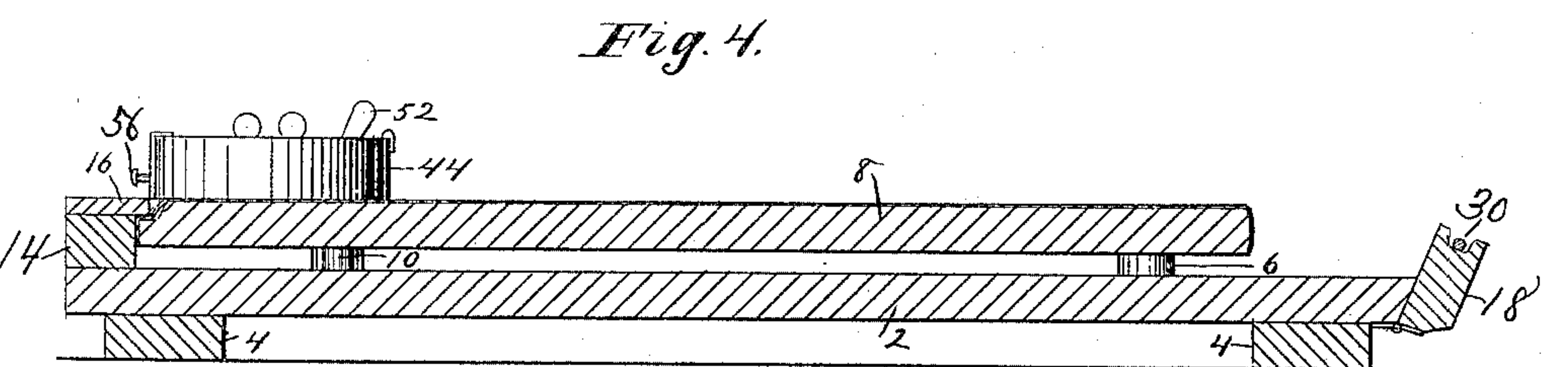
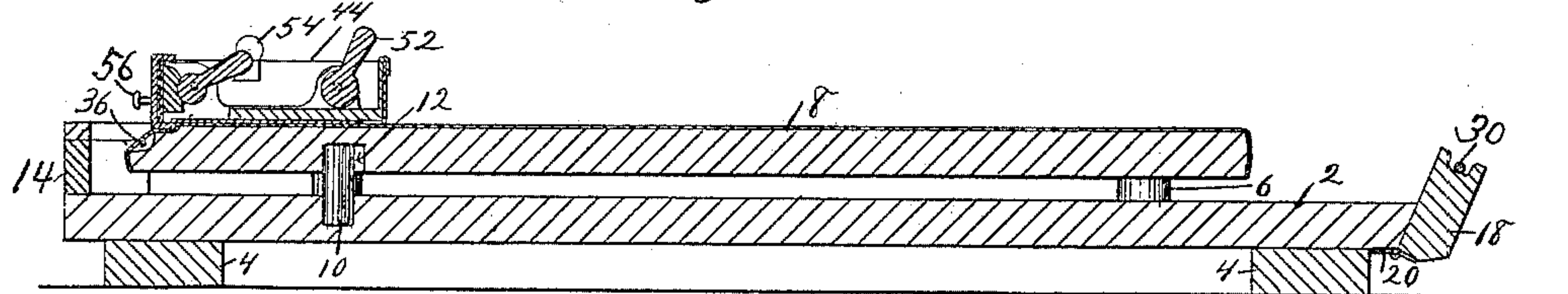
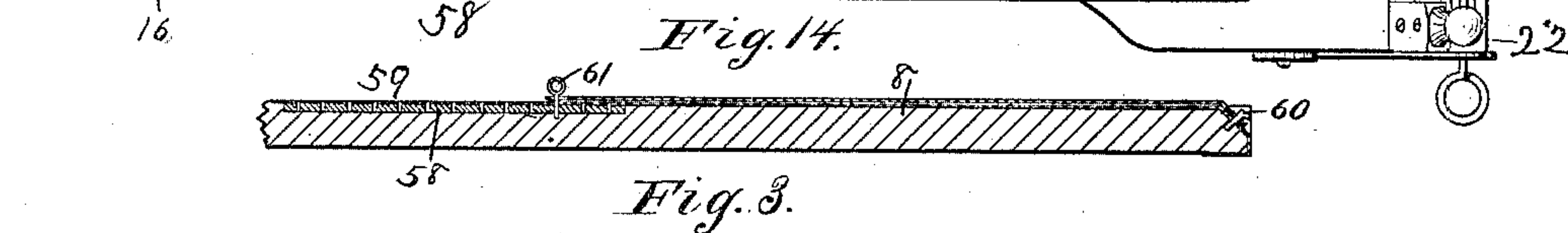
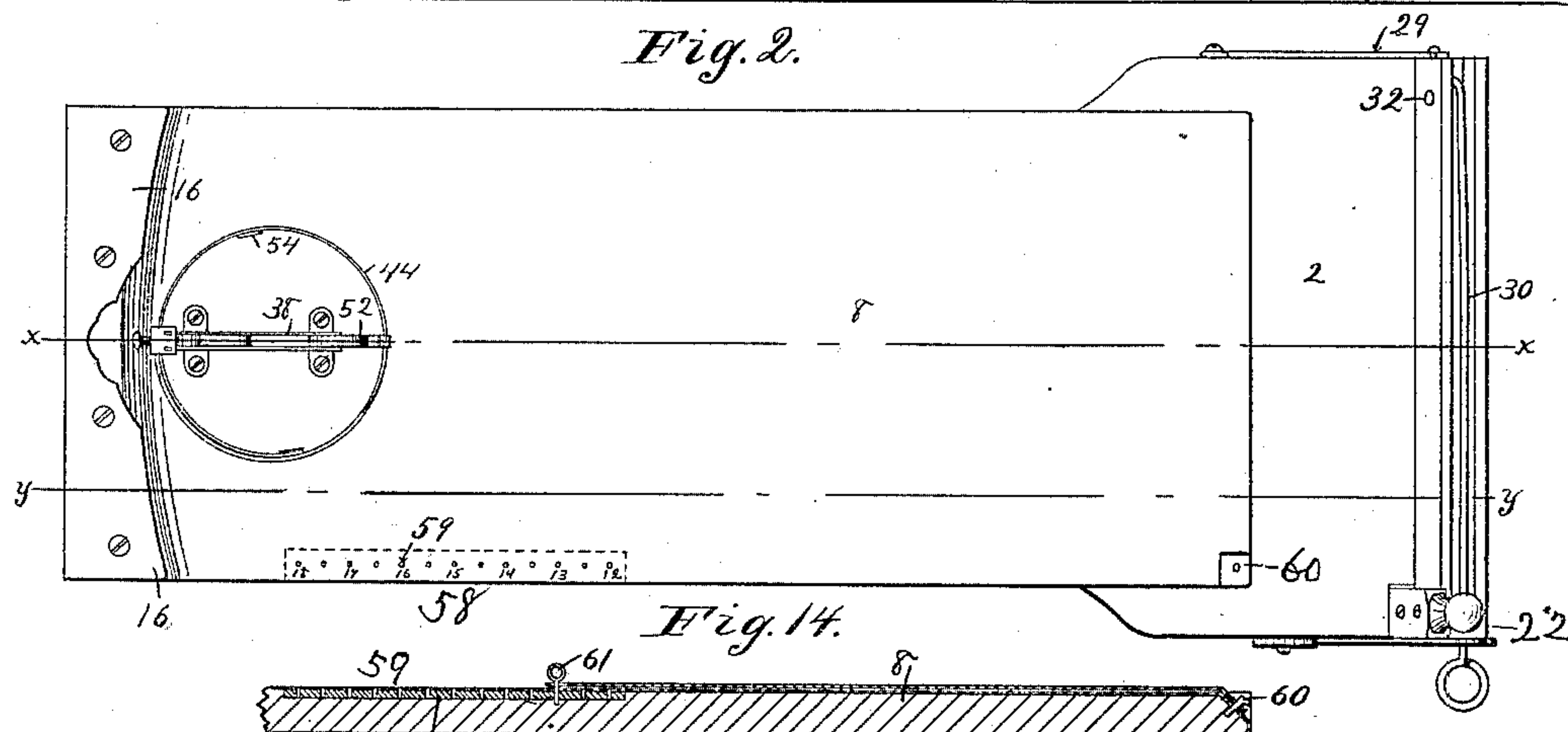
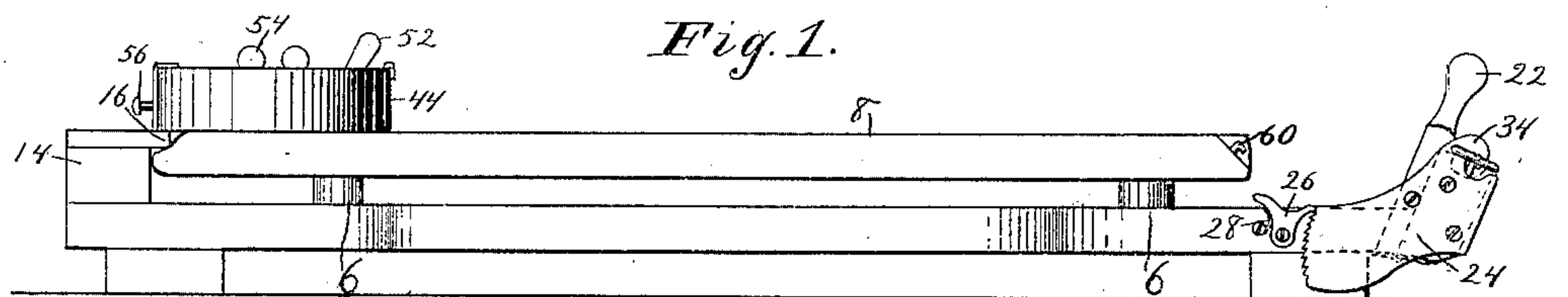
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W. H. JACOBY & C. A. FULLER.

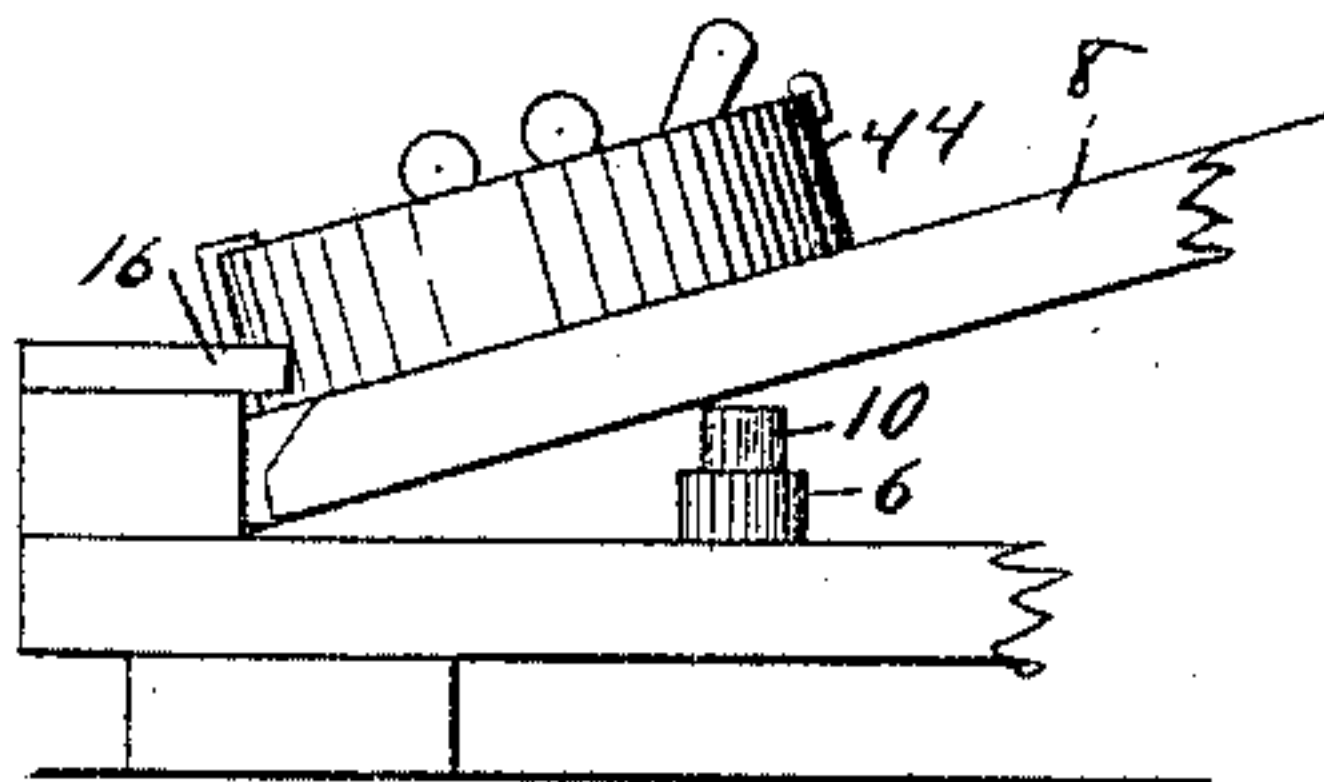
NECKBAND SHAPER AND SHIRT BOSOM BOARD.

No. 398,331.

Patented Feb. 19, 1889.



Witnesses.
S. J. Beardslee.
R. H. Sanford



Inventor.
William H. Jacoby.
Charles A. Fuller.
By A. Paul Atty.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 5.

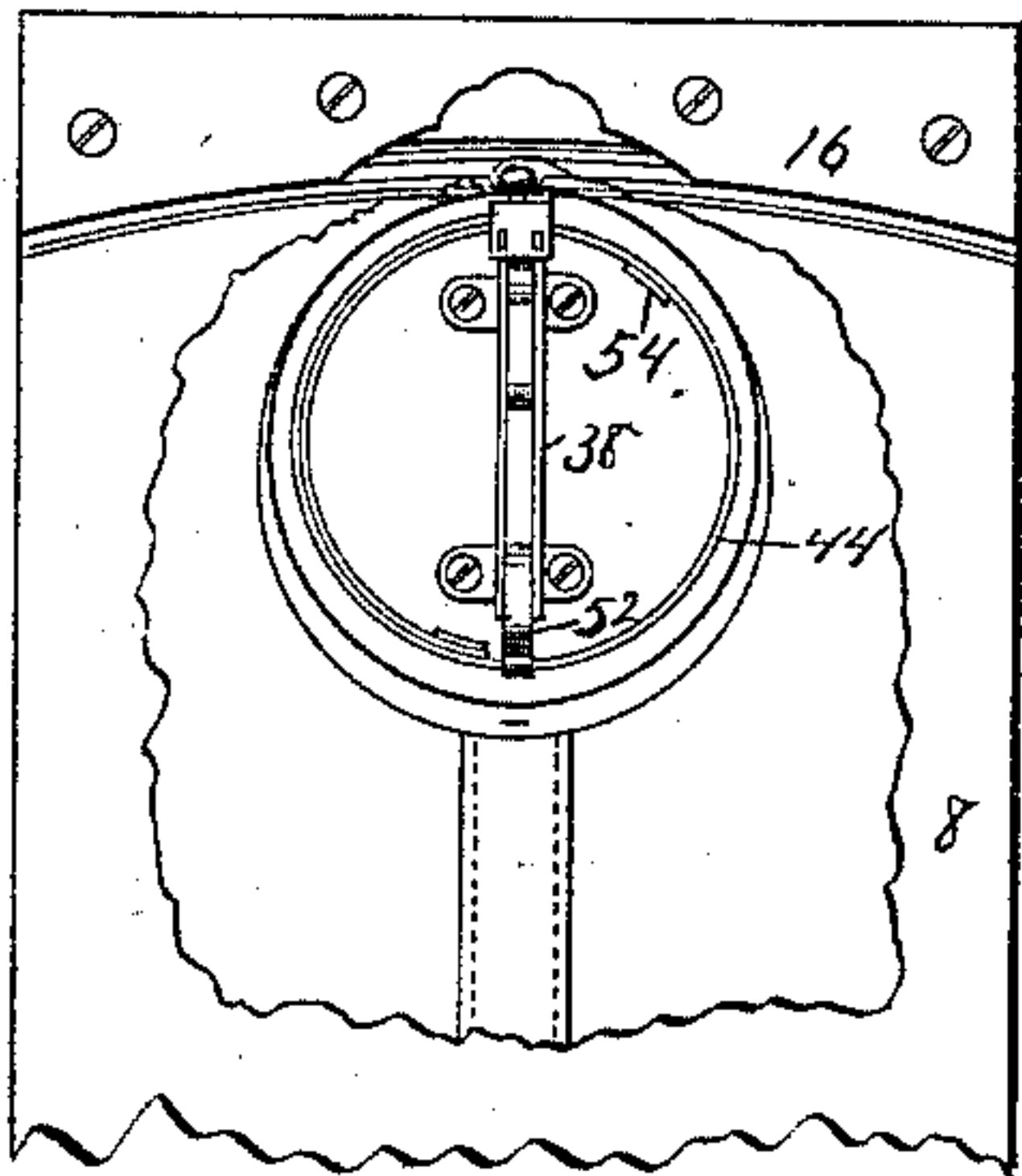


Fig. 6.

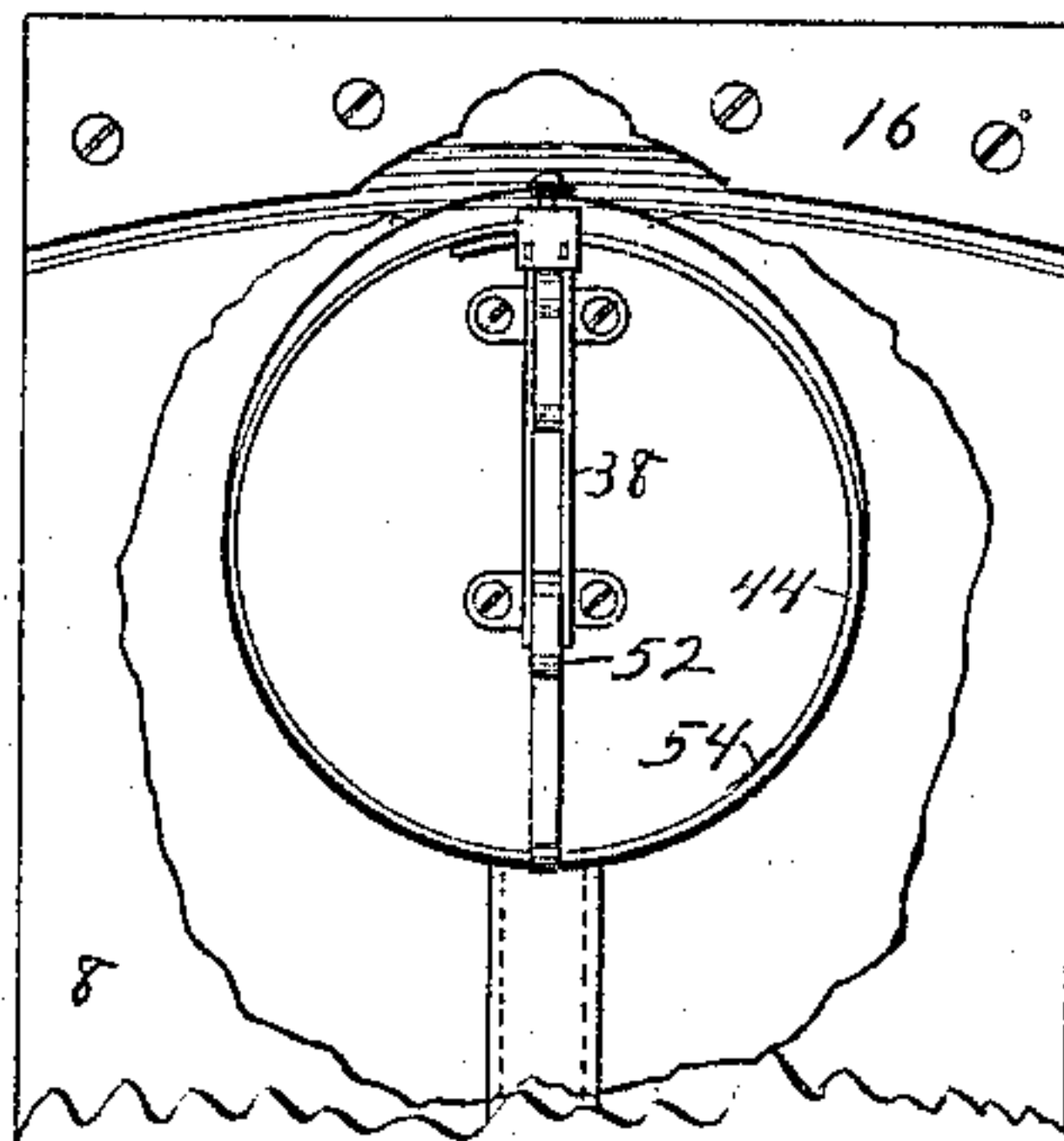


Fig. 7.

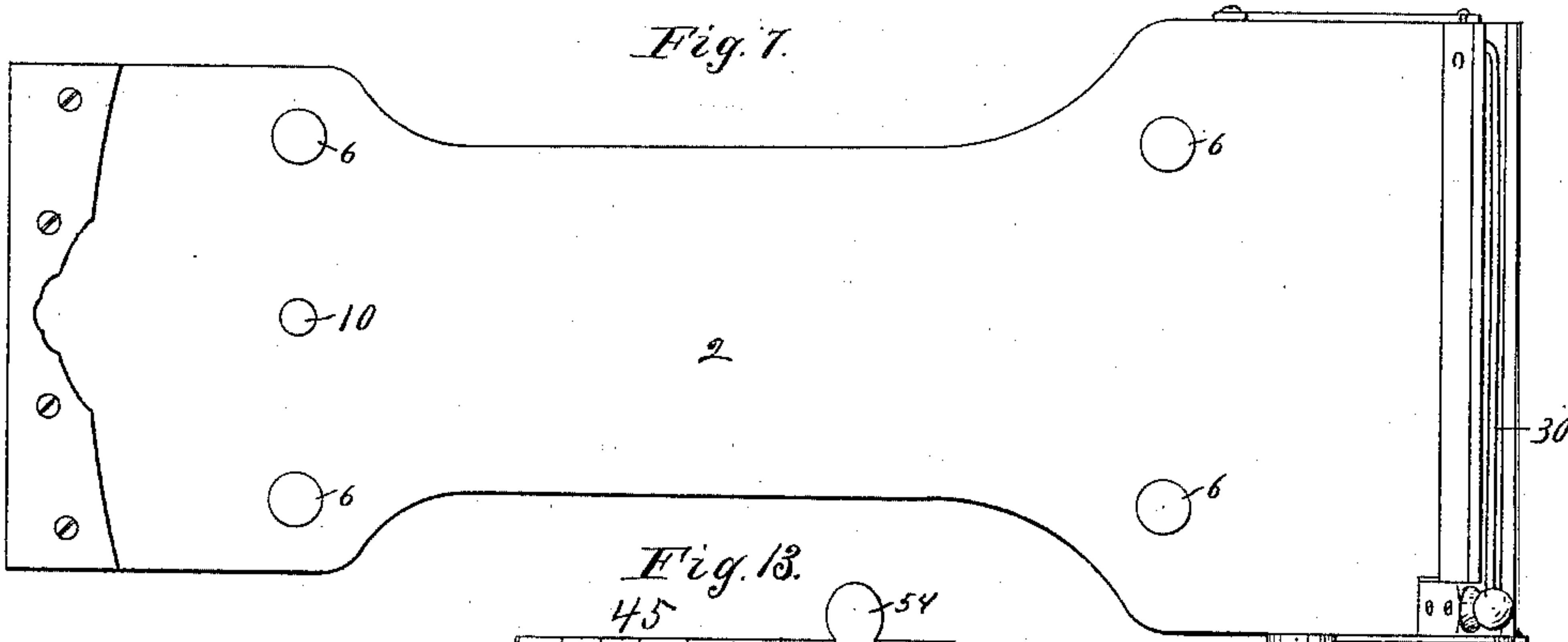


Fig. 13.

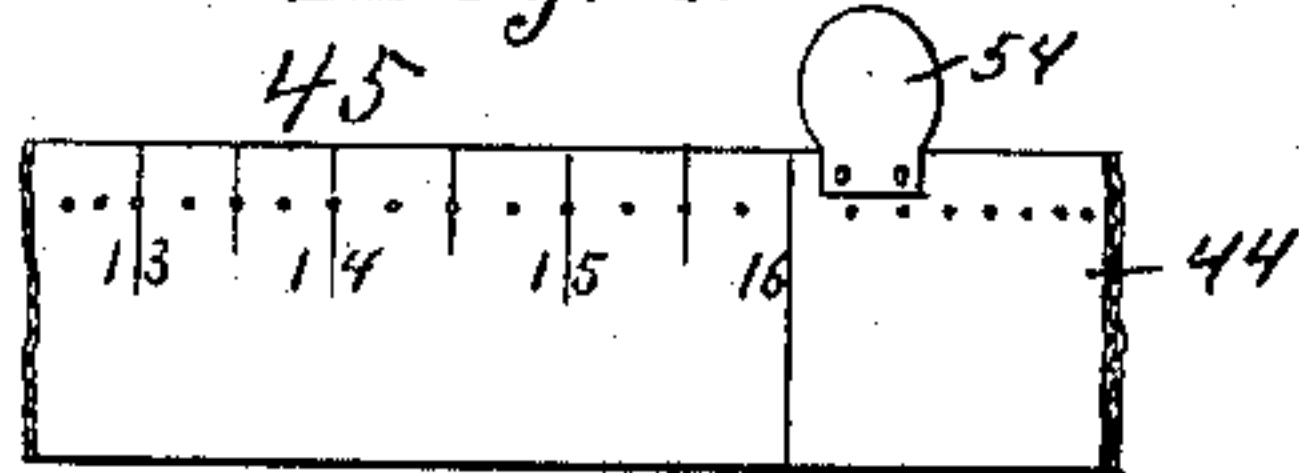


Fig. 8.

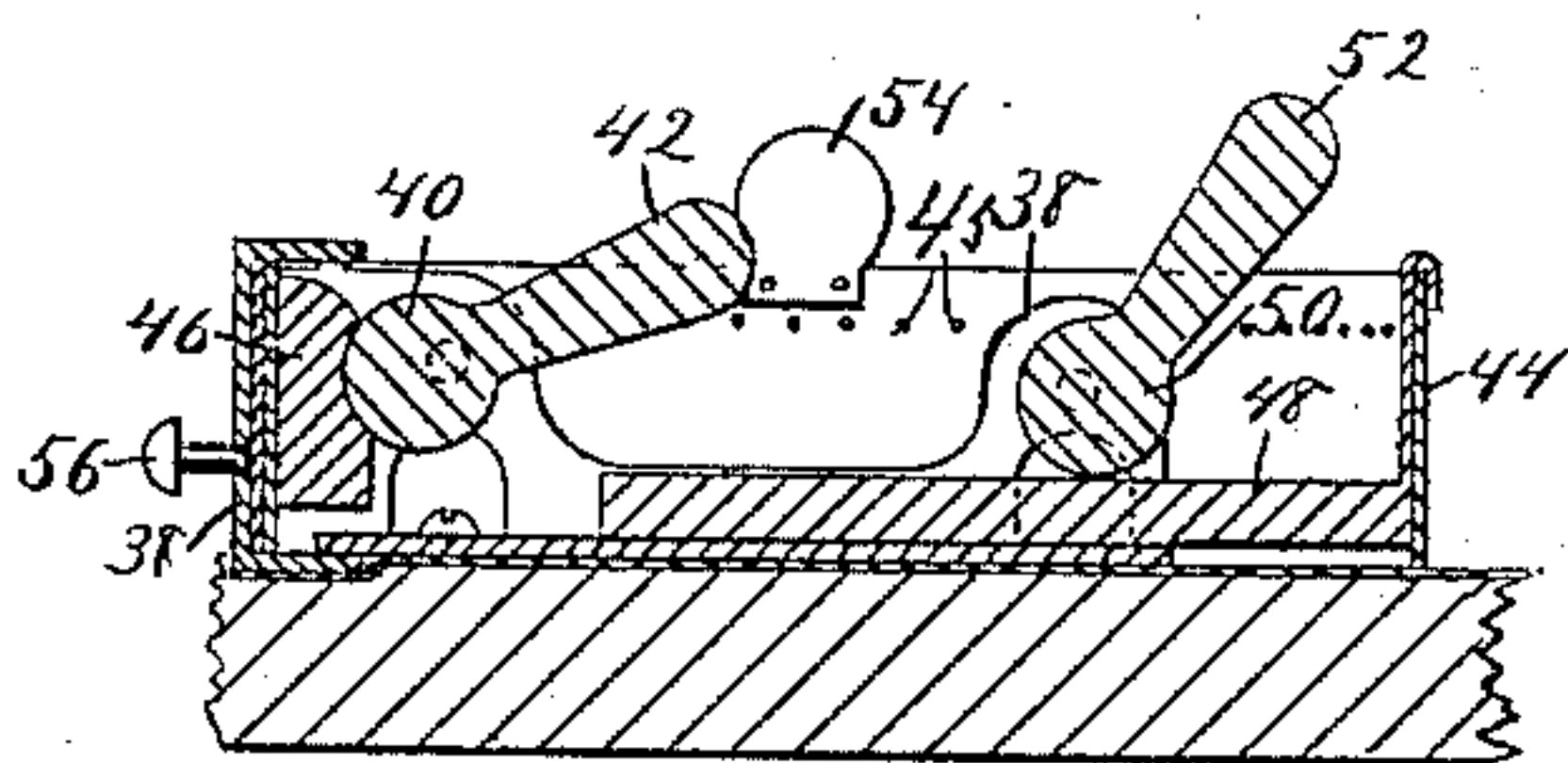


Fig. 9.

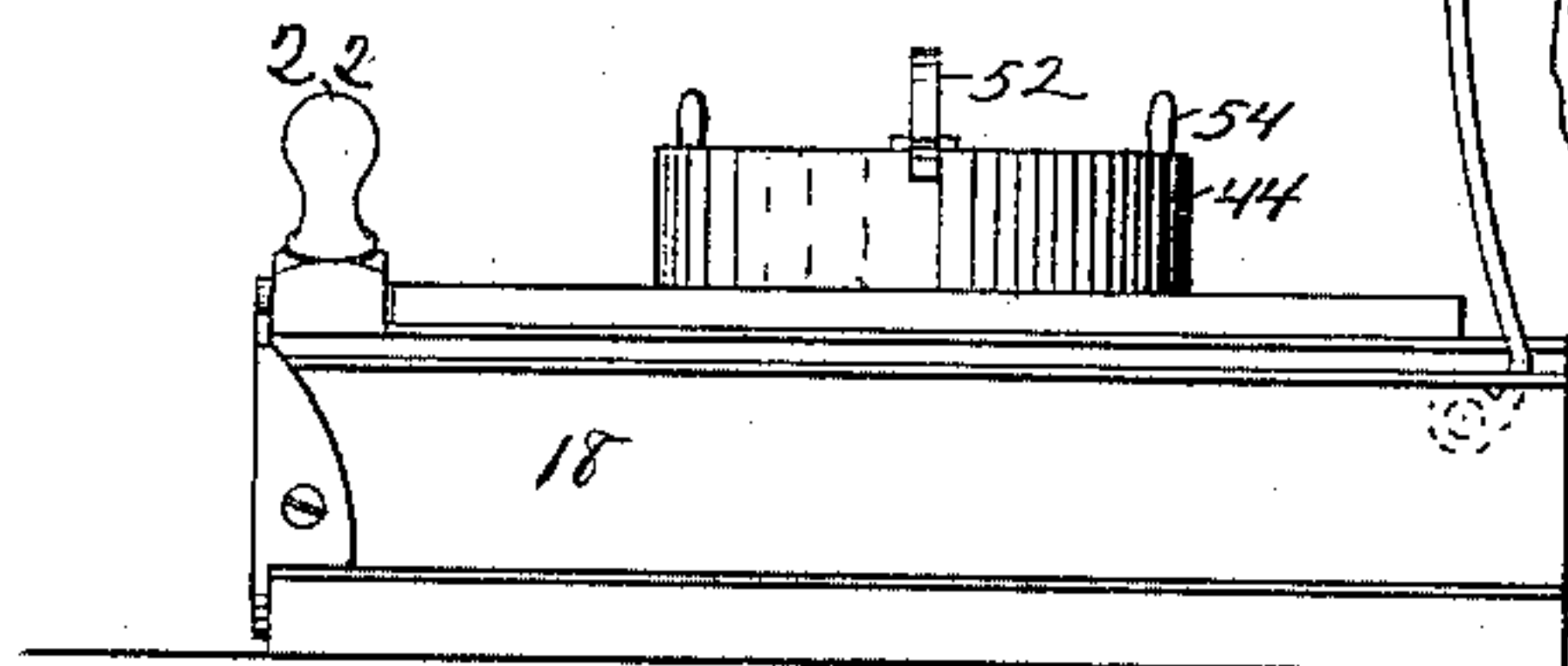
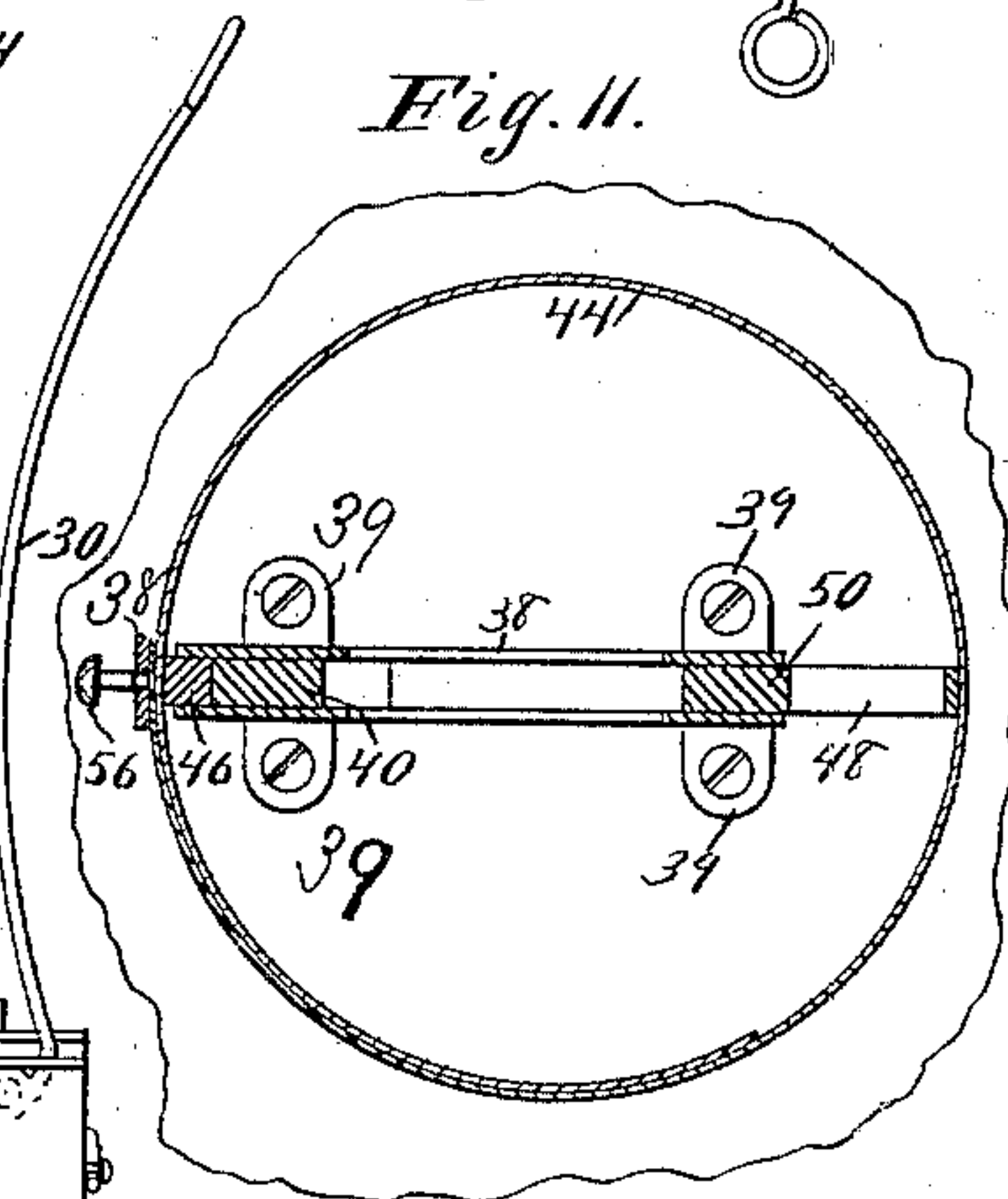


Fig. 11.

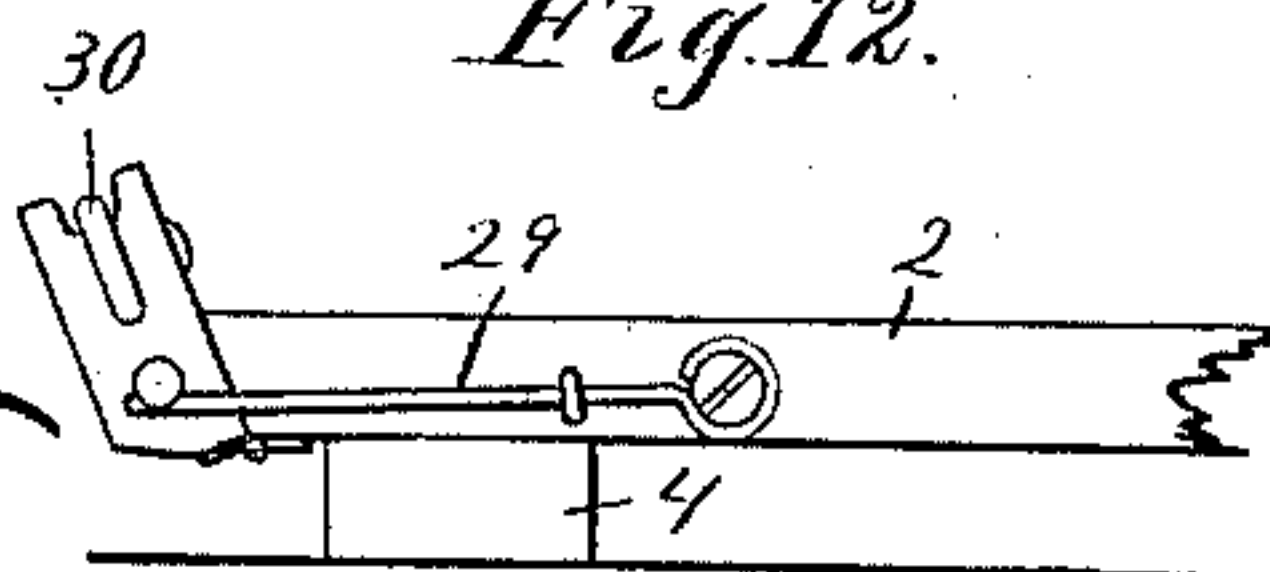


Witnesses.

S. J. Beardslee

R. H. Sanford

Fig. 12.



Inventor.

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Charles A. Fuller.

By A. C. Paul Atty.

UNITED STATES PATENT OFFICE.

WILLIAM H. JACOBY AND CHARLES A. FULLER, OF MINNEAPOLIS, MINNESOTA; SAID CHARLES A. FULLER ASSIGNOR TO FRANK R. FULLER, OF SAME PLACE.

NECKBAND-SHAPER AND SHIRT-BOSOM BOARD.

SPECIFICATION forming part of Letters Patent No. 398,331, dated February 19, 1889.

Application filed October 24, 1887. Serial No. 253,189. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. JACOBY and CHARLES A. FULLER, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Neckband-Shapers and Shirt-Bosom Boards, of which the following is a specification.

The object of the invention is to provide a simple and inexpensive device which shall readily and conveniently form the neckband and firmly hold the bosom of the shirt to the ironing-board.

Our invention consists, generally, in the construction and combination hereinafter described, and particularly pointed out in the claims.

In the drawings which form a part of this specification, Figure 1 is a side elevation of our improved bosom-ironer. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal vertical section on line *x x* of Fig. 2. Fig. 4 is a longitudinal vertical section on line *y y* of Fig. 2. Figs. 5 and 6 are plan views of the upper portion of the device, showing the spring neck-shaper in its retracted and extended position. Fig. 7 is a plan view of the base with the bosom-board removed. Fig. 8 is a partial section showing the construction of the neckband-shaper enlarged. Fig. 9 is an end elevation showing the spring-clamp and stretching device. Fig. 10 is a partial elevation to more clearly show the shoulder clamping mechanism. Fig. 11 is a section of the neckband-shaper. Fig. 12 is a detail showing the spring attachment for the stretching device. Figs. 13 and 14 are details.

In the drawings, 2 represents a suitable base or bottom plate, the under side of which is preferably provided with suitable battens, 4, which form supports for the said plate. The upper surface of the plate is preferably provided with pins or projections 6, upon which the bosom-board 8 rests and by which it is slightly raised above the surface of the bottom plate. At some convenient point, preferably upon the center line and near the upper end of the plate 2, is placed a steady-pin, 10, which is firmly secured in the

said plate 2 and is arranged to extend into a recess, 12, in the under surface of the board. This recess is preferably made oblong, in order to easily put the board 8 in place. At or near the upper end of the plate 2 and extending across the said plate is placed the yoke 14, which is provided upon either side with the projecting flanges 16, which conform in shape to the upper end of the bosom-board, and over which they lap when the said board is in position for use, and between these flanges and the bosom-board the shoulders of the shirt are clamped and securely held.

We prefer to provide the plate 2 with a means for drawing or stretching the shirt over the bosom-board. For this purpose we may use the cross-piece 18, provided with hinges 20, by which it is secured to the under side of the plate 2. A suitable handle, 22, may be attached to one side of this cross-piece for convenience of operation. A metal plate, 24, is preferably secured to the end of this cross-piece and extends forward over the side of the plate 2. The front edge of the plate is serrated, and a pawl, 26, is secured to the edge of the plate 2 and engages the notched or serrated edges of the plate 24 and holds the cross-piece 18 in any desired position. A spring, 29, may be placed upon the opposite side of the plate 2 and connected to the hinged cross-piece, so that the tension of the spring will act to draw or force the said cross-piece to its normal position. The upper edge of the cross-piece is constructed with a groove extending its entire length.

30 is a spring-clamp secured at one end to the cross-piece 18 by means of the pivot or pin 32, upon which it swings, and at the opposite end it is arranged to be fastened under the projecting hook 34 upon the plate 24. This clamp is preferably formed of spring-wire and bent to the form shown in Fig. 9, and as it is forced down into position it lies in the bottom of the groove in the cross-piece and will clamp the shirt equally for the entire length of the cross-piece, and the spring will allow for any unevenness occasioned by the folds in the cloth without loosening at the portions where the folds do not occur.

We prefer to construct the bosom-board 8 with a suitable covering or padding upon the upper surface, and at the upper end, which is made slightly curved or circular in form to better adapt it to the form of the shirt, we provide a recess or groove, 36, extending the full width of the said board. The surface-covering is drawn tightly over this recess and forms a spring-cushion where the end of the board 8 comes in contact with the flanges 16, and thus accommodates itself to the varying thickness of the fabric at the shoulders.

We prefer to provide a device for sizing and setting up the neckband. This is preferably as follows: A supporting-frame, 38, is provided with the flanges or lugs 39, by which the said frame is secured to the bosom-board. 40 represents an eccentric supported between the two walls of the frame 38, and for convenience in operating this eccentric is provided with a handle, 42. The front portion of the frame 38 is recessed to receive two thicknesses of the spring-band 44, one end of which is firmly secured to the said frame and the other portion is allowed to pass freely through said recess to allow the circle of the spring-band to be contracted or expanded, as desired. A sliding block or key, 46, one surface of which is arranged to be brought in contact with the free portion of the spring-band, and the opposite surface being provided with a curved recess to fit the outer circle of the eccentric 40, is placed between the walls of the frame. This key, by the operation of the eccentric, is forced against the spring-band and forms a double clamp between the eccentric and the band and holds the said band in any required position. The block may be clamped against any thickness of material that can be inserted between it and the stationary part of the frame, and the outer surface of the eccentric, being circular in form, will lock against the clamping-block at any point in its circumference whenever it meets with sufficient resistance. This form of clamps may be used advantageously in other connections when it is desired to lock two pieces of metal or other material together. It will be noticed that the pivot about which the eccentric turns is directly in line with the central point of the recess in the clamping-block, and that the line of resistance is at all times directly through the center of this axis on which the eccentric turns, so that no matter how great the resistance is there is no tendency to turn back the eccentric and loosen the clamping-block.

The spring 44 may be covered with cloth or other suitable substance to prevent the metal of which the spring is made from coming in contact with the neckband of the shirt. For the purpose of holding this covering firmly to the surface of the spring, we prefer to perforate the upper portion of the spring with a row of small holes, 45, through which the cloth may be stitched and drawn tightly over the said spring. It may be convenient to set the spring to suit some particular size

of neckband. For this purpose we place division-lines upon the inner surface, commencing at the fixed end of the said spring. These divisions are so arranged and numbered that when the free end of the spring is brought in line with one of the said divisions the number on the spring will indicate the circumference of the outer surface of the spring-band. For example, if the end of the spring is in the position shown in Fig. 13 the whole circumference of the spring-band will be sixteen inches, and by partially revolving the eccentric 40 the key 46 is thrown against the spring, and the two portions of the said spring are firmly held together and determine the size of the band attached thereto.

At the rear of the eccentric 40, and also supported between the walls of the frame 38, we prefer to place the slide 48, which is arranged to move longitudinally in the said frame, and to form an abutment against the inner surface of the spring-band, and also to extend over the top of the said band with a hook-shaped end, so that when the said slide is forced down it will bear upon the top of the spring-band and hold it firmly down against the board and also support the upper portion of the spring in both directions.

Above the slide 48, and arranged to come in contact with it, we place the eccentric 50, provided with a suitable handle, 52. This eccentric is preferably pivoted in the frame, and as it is revolved upon its pivot the slide is clamped upon the bottom portion of the frame and the slide held in any required position. After the two portions of the band have been clamped together by the eccentric 40, as before described, the slide is set to give the required shape to the neckband spring. This may be in a circular form, as shown in the drawings; or, if desired, an oval shape can be given to the spring 44. If it is desired to have the oval lengthwise of the board, the slide is forced out, thus elongating the circle until the desired form is attained, and the slide is then clamped by turning the eccentric 50. If it is desired to form the oval crosswise of the board, the slide is drawn back and with it the spring-band, flattening the circle and forming any desired oval in this direction, the eccentric is operated, and the spring-band held firmly in position. Suitable projections or handles, 54, may be placed upon the spring-band for convenience in operating it.

A button, 56, may be placed upon the outer portion of the surface of the frame 38 for the purpose of attaching or securing the neckband of the shirt around the spring 44.

We prefer to provide the bosom-board with a device for properly sizing the neckband before the bosom is ironed. This is done as follows: At or near the edge of the board 8, and at a convenient distance from the end, we insert a metallic plate, 58. This plate is provided with suitable pin-holes, 59. The covering for the bosom-board may extend over the plate, and only the location of the pin-

holes will be indicated upon the surface. The lower corner of the board is cut diagonally across for a short distance from the edge, and in the space or recess thus formed is placed the pin or hook 60. The holes 59 in the plate are located at a distance from the pin or hook 60 to correspond with the size of the neckband from outside to outside of the button-holes, and the proper size may be indicated by figures placed upon the board at these holes. The neckband of the shirt is secured to the board between the pins 60 and 61, as shown in Fig. 14. This arrangement is of great advantage where the band has become either shrunken or stretched out of shape. The ends are secured at the proper distance apart by the use of the plate 58 and the two pins 60 and 61, and when thus ironed and the starch is set the band will be the right length from button-hole to button-hole and be sure to fit the collar, whereas with shirts laundered in the ordinary way a variation is apt to occur in this respect, and shirts of the same size after being once ironed will be either too large or too small.

The operation is as follows: The neckband is first ironed, and if it is desired to size the said band before the shirt is placed upon the board the band is laid upon the outer edge of the board 8 with one button-hole over the pin or hook 60. The button-hole in the opposite end of the band is brought over one of the holes 59, corresponding to the desired size of the neckband. The pin 61 is then inserted through this button-hole and into the hole 59. This holds the band upon the board and gives the proper length for the finished band. The recess in which the pin 60 is placed allows the iron to be passed over it without striking. The iron is now passed lightly over the band until it is fixed, when the pin 61 may be removed and the band finished. The bosom of the shirt is now placed upon the board 8, and the neckband is attached to the button 56. The yoke or shoulder of the shirt is drawn over the front of the board, and the board is inserted under the projections 16 in the position shown in Fig. 10. The board is now forced down upon the steady-pin, which causes the front edge of the board to come in contact with the projections 16, and the yoke or shoulders are clamped between said board and the said projections. The spring 44, which is held in the position shown in Fig. 5, is now released by operating the eccentrics 40 and 50, one releasing the key 46 at the front of the spring and the other releasing the slide 48 at the back or rear portion of the spring. The spring is now free, and is thrown out by its own tension until it fills the opening in the neckband. The spring may be brought to register the required size and properly set up the neckband. When this is done, the eccentrics 40 and 50 are again thrown into the position shown in Fig. 8, and the spring is tightly clamped and held firmly to the bosom-board, and the neckband is sized

and set up and held smoothly upon the outer surface of the said band 44.

It will be seen that as one end of the spring is fastened to the board at the point which comes nearest to the shoulder end of the board, and as the free end passes inside the fixed end, the point at which the joint is made between the two ends of the spring is always opposite the button-hole when the shirt is applied, and this point is always in the same relation to the shoulder-clamps, while the other side of the spring is brought nearer to or farther from the shoulder-clamps as the spring is expanded or contracted. This is an advantage, as the distance between the front of the neckband and the shoulders of a shirt varies in accordance with the size of the neckband. Hence if the spring were fixed at its center in front it could not be moved toward or from the shoulder-clamps as it was expanded or contracted, and if the joint between the two ends of the spring were not in the center, where it would come opposite the button-holes, it would cause a wrinkle or crease in the neckband when it was stretched tightly over the spring. By securing the spring to the board by one end only and at the point that is nearest to the shoulder-clamps we obviate these objections.

The spring-clamp 30 is raised to the position shown in Fig. 9. The loose portion of the garment is placed under this clamp and over the groove in the cross-piece 18. The spring-clamp is now forced down and held in position under the projection 34. The cross-piece is now forced outward by means of the handle 22 until the bosom of the shirt is sufficiently stretched over the board, where it will be held by the pawl 26.

It will be seen that the clamp 16 will hold the shoulder or yoke against the upper end of the board, and the bosom will be stretched over the said board without bringing any undue strain upon the button-holes in the neckband.

We claim as our invention—

1. The combination, with the bosom-board and the shoulder-clamps, of the expanding spring 44, arranged upon said board and secured by one end only to the board at the point in the spring that is nearest to the shoulder-clamps, whereby the distance between the front of the spring and the shoulder-clamps is varied as the spring is expanded and contracted, substantially as described.

2. The combination, with the bosom-board and the shoulder-clamps, of the expanding spring 44, having one end secured to the board at a point substantially central between the shoulder-clamps and having its other end free and arranged within said fixed end, and a clamp for securing said free end, whereby the distance between the front of the spring and the shoulder-clamps is varied as the spring is expanded and contracted, substantially as described.

3. The combination, with the bosom-board,

of the frame 38, secured thereon, the expanding spring 44, having one free end and having the other end secured to said frame, the slide 48, arranged within said spring, and the
5 eccentric lever 52, pivoted upon said frame and adapted to hold said slide in any position, substantially as described.

4. The combination, with a neckband-shaper and a bosom-board having the recess
10 36, of a covering stretched over said recess to form a cushion, and the shoulder-clamps 16, arranged to be brought in contact with said cushion at either side of the neckband-shaper and clamp the yoke of the shirt be-
15 tween them, substantially as described.

5. The combination, with the bosom-board having a recess, 36, at its forward end, of the shoulder-clamps 16 and the steady-pin 12, the said pin engaging the board upon its un-

derside to hold it against the shoulder-clamps, 20 substantially as described.

6. The combination, with a bosom-board having a recess and cushion at its forward end and having the recess 12 in its under side, of the steady-pin 10, adapted to enter said re- 25 cess 12 and secure the said board in position, and the stretching device for the lower portion of the shirt, consisting of the cross-piece provided with a spring-clamp and held in position by the serrated plate 24 and pawl 26, 30 all substantially as described.

In testimony whereof we have hereunto set our hands this 20th day of October, 1887.

WILLIAM H. JACOBY.

CHAS. A. FULLER.

In presence of—

R. H. SANFORD,

A. M. GASKELL.