

No. 740,458.

PATENTED OCT. 6, 1903.

J. McKAY & G. L. WENZELL.
GARMENT FOLDING APPARATUS.

APPLICATION FILED OCT. 13, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

FIG. 1.

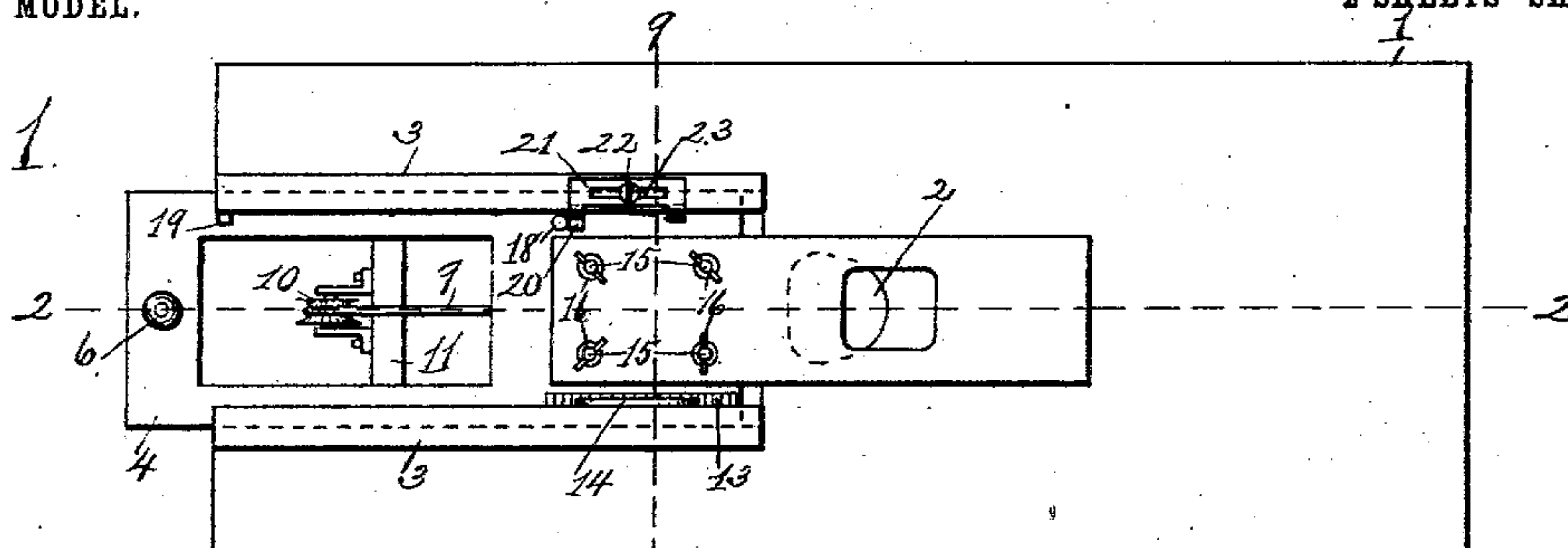


FIG. 2.

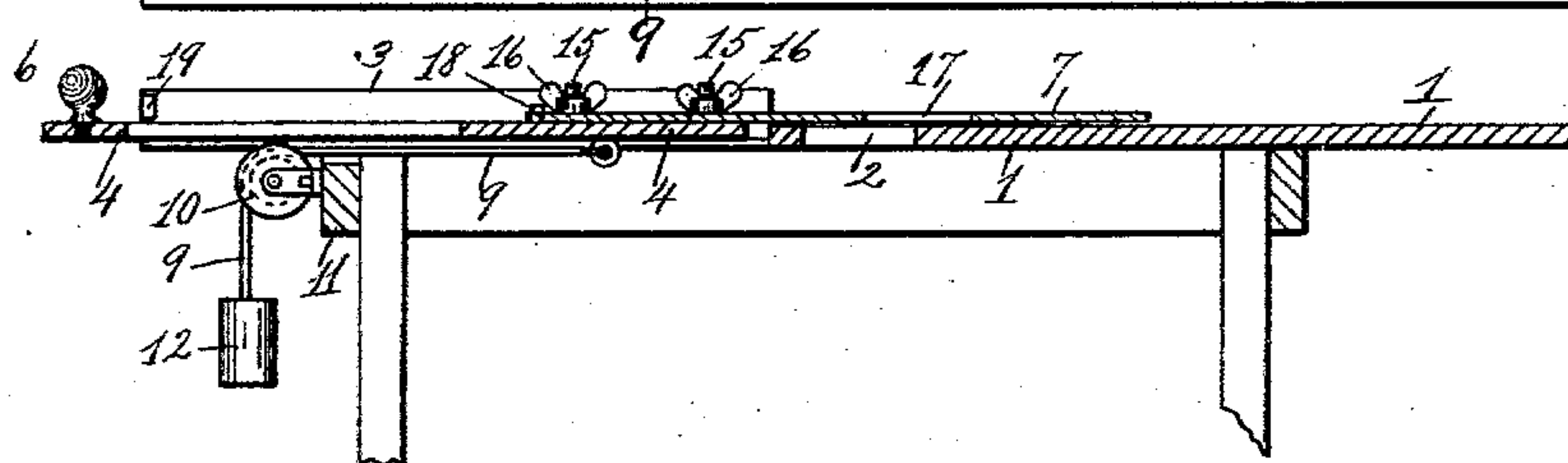


FIG. 3.

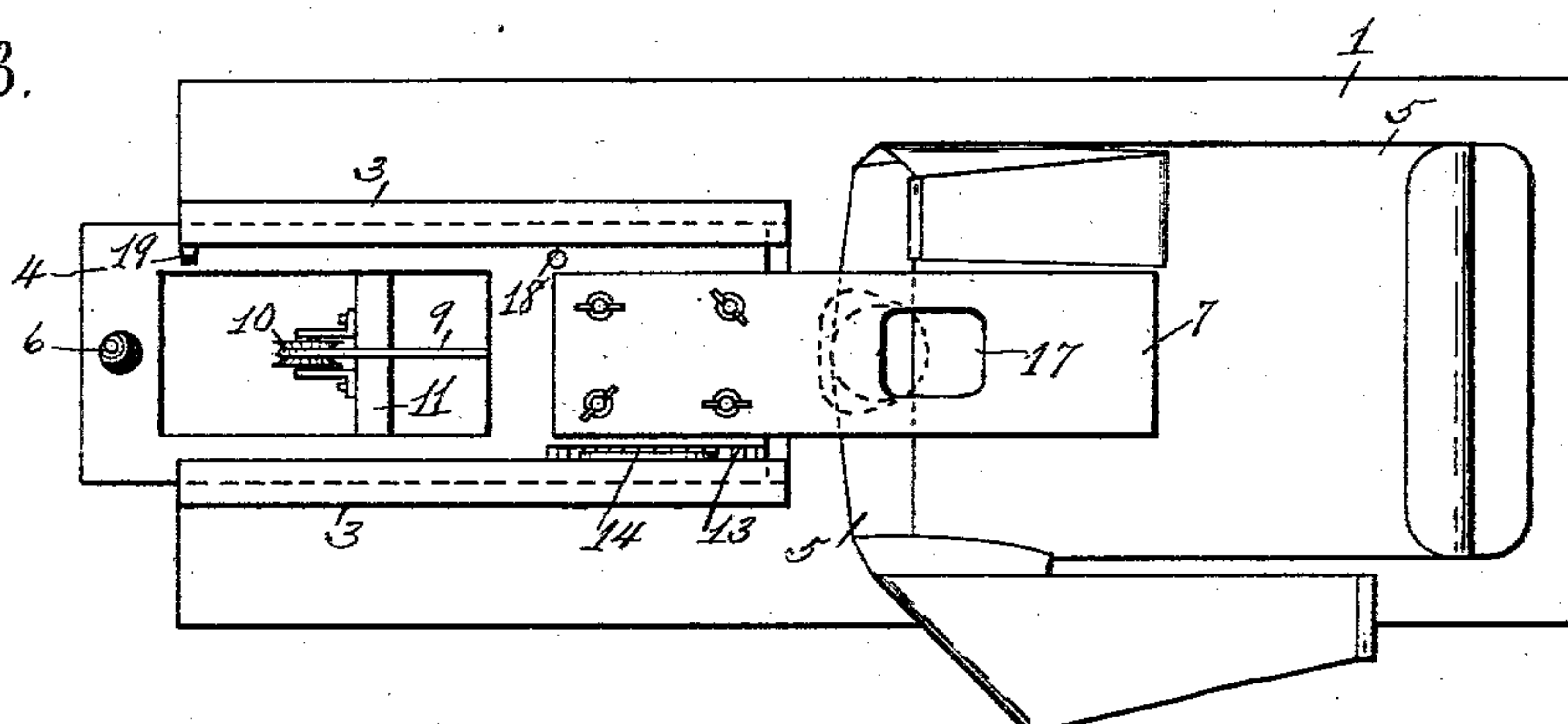
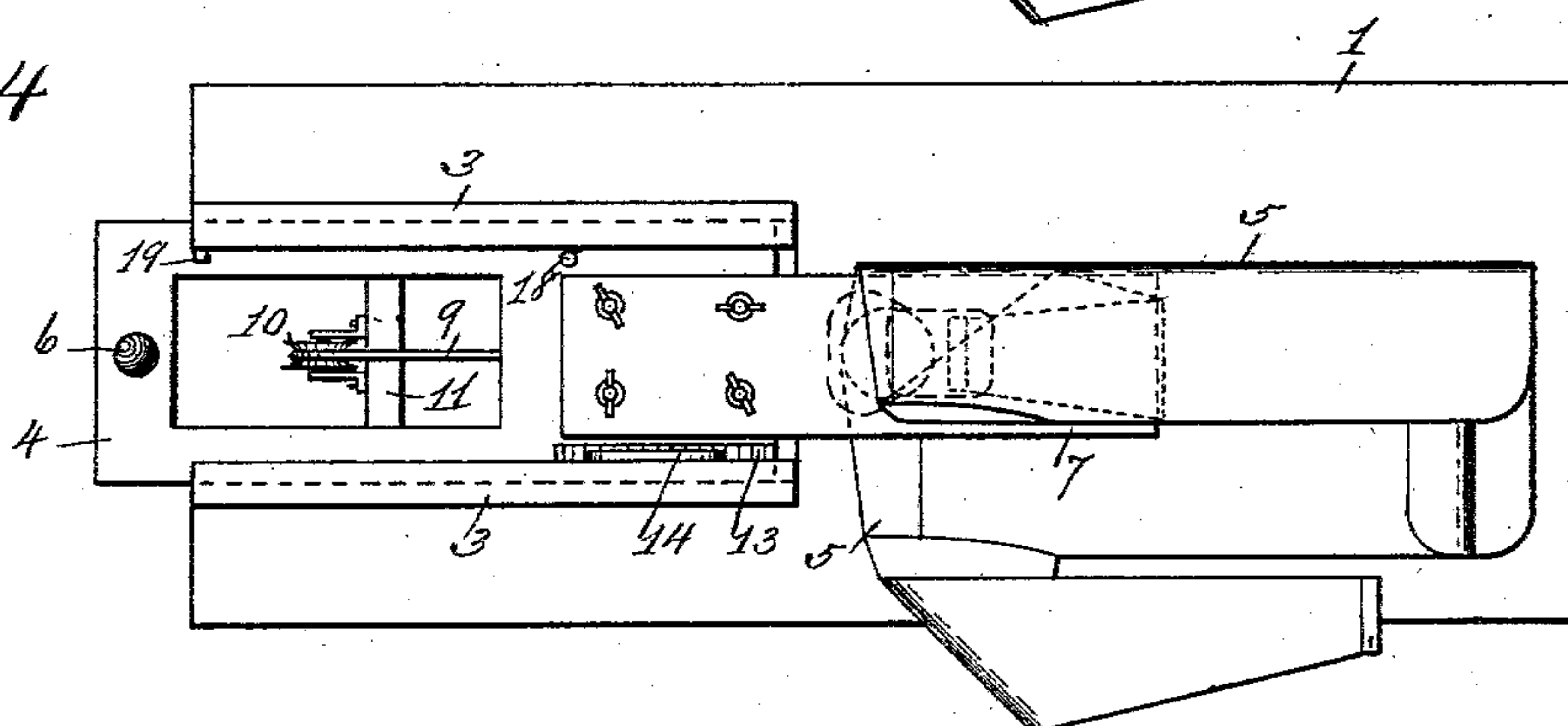


FIG. 4.



WITNESSES

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2 SHEETS—SHEET 2.

FIG. 5.

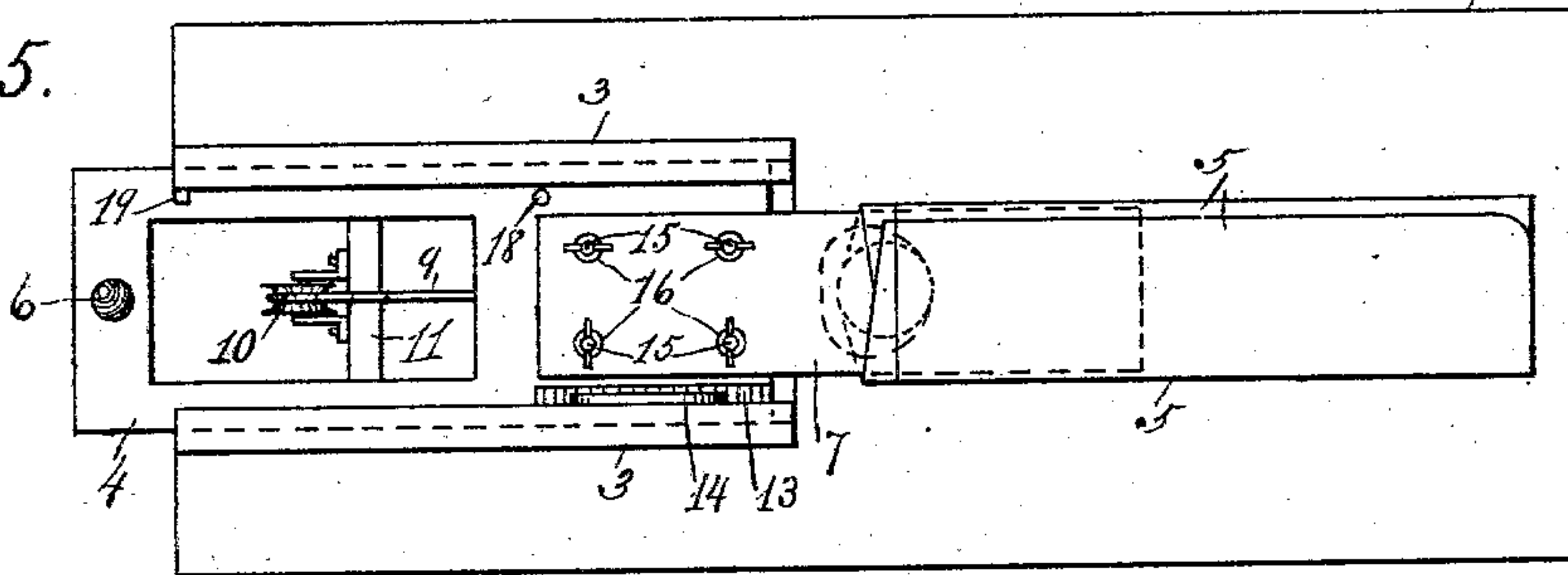


FIG. 6.

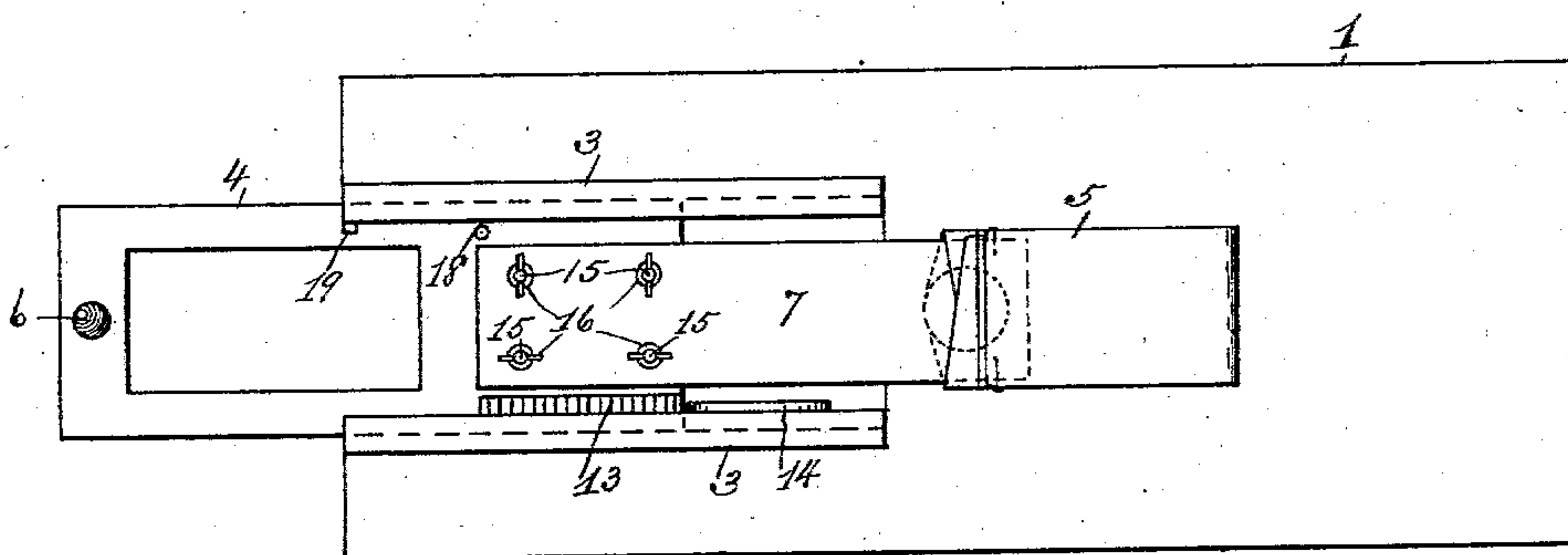


FIG. 8.

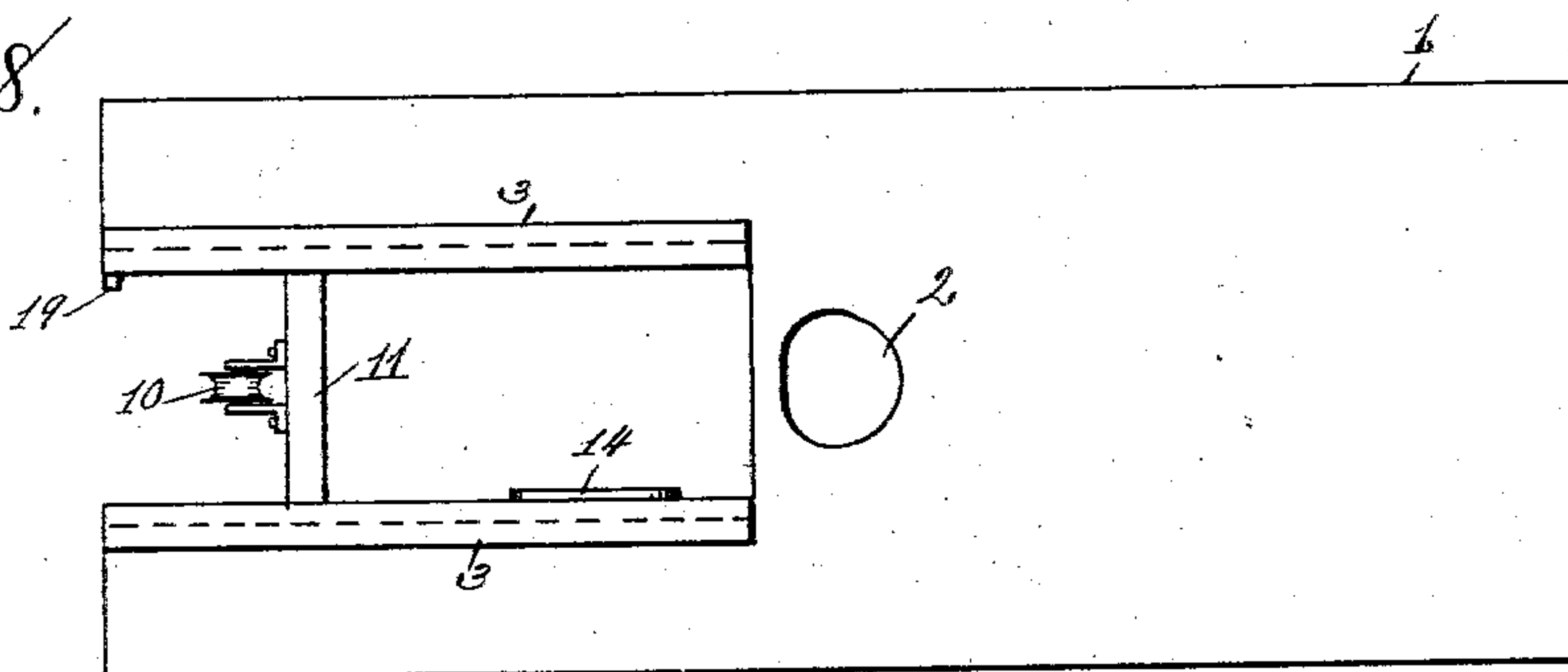


FIG. 10.

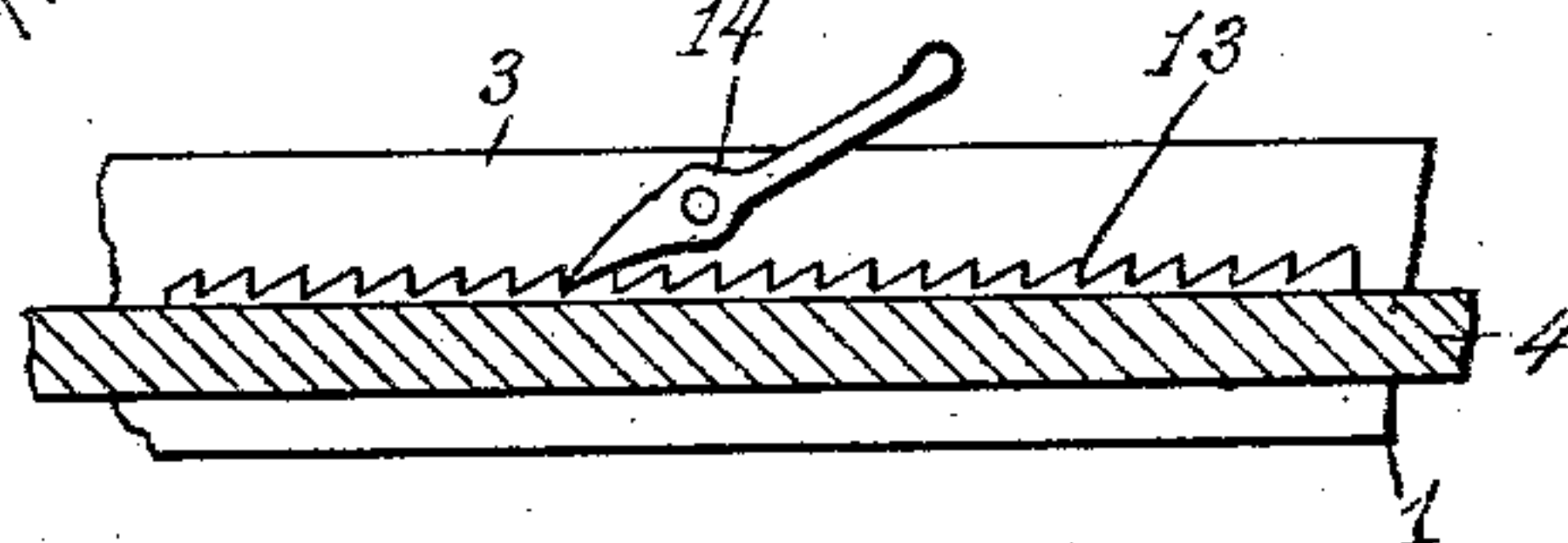


FIG. 7.

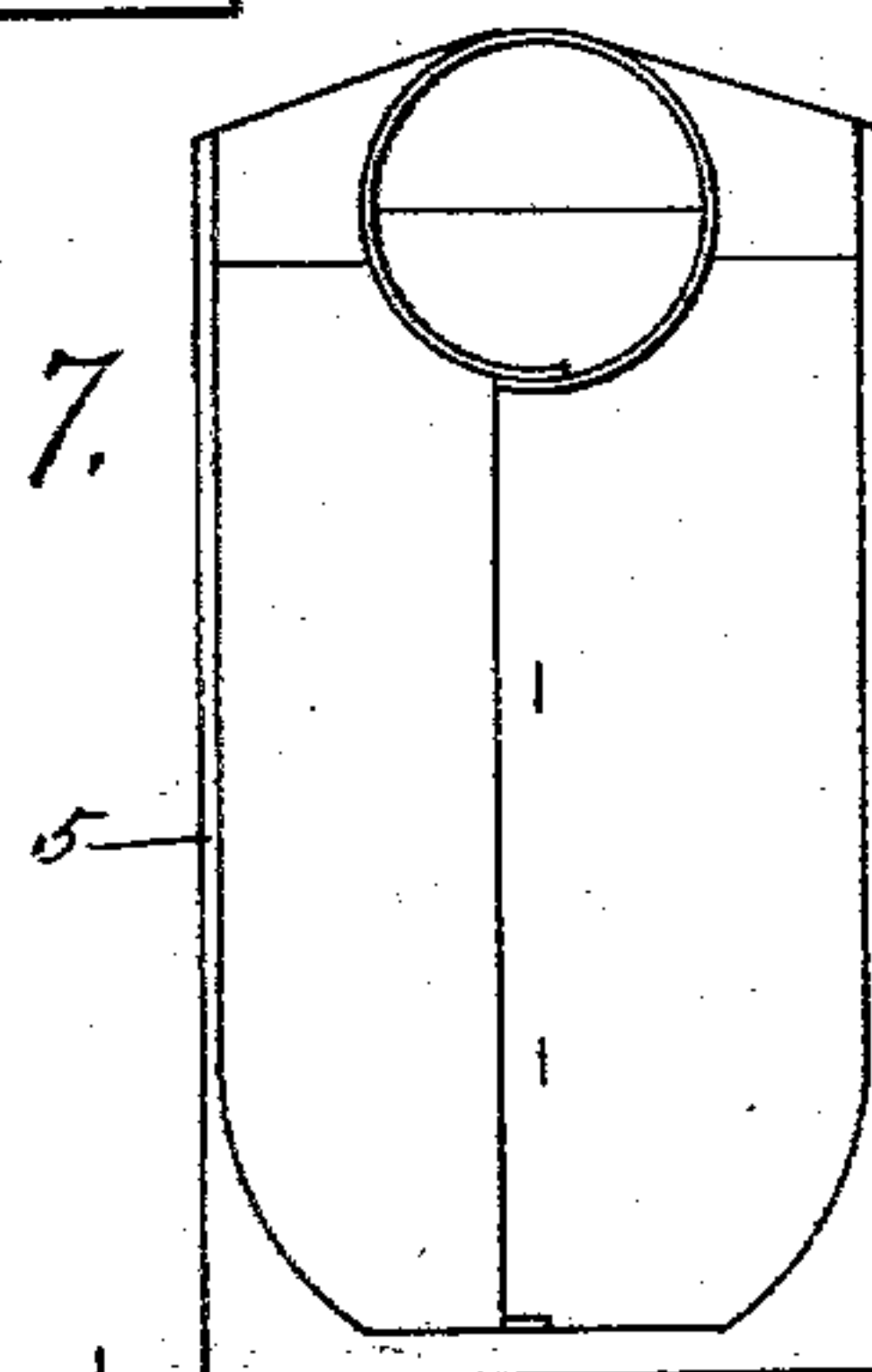
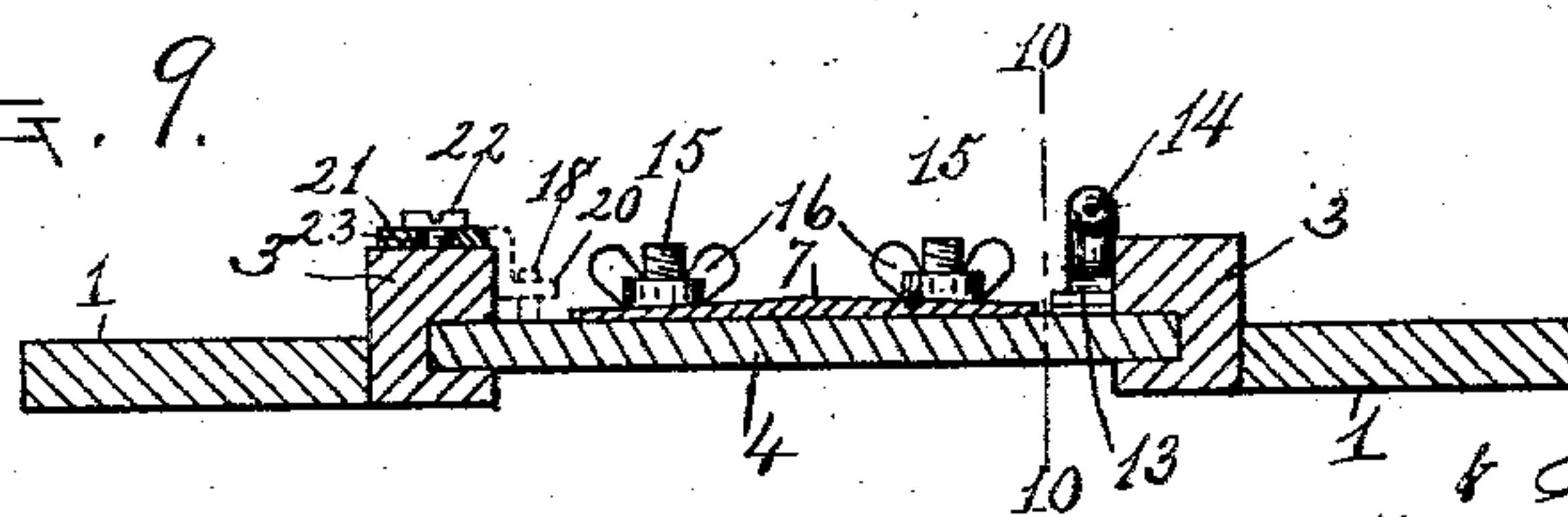


FIG. 9.



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UNITED STATES PATENT OFFICE.

JOSEPH MCKAY AND GEORGE L. WENZELL, OF TROY, NEW YORK.

GARMENT-FOLDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 740,458, dated October 6, 1903.

Application filed October 13, 1902. Serial No. 126,990. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH MCKAY and GEORGE L. WENZELL, citizens of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Garment-Folding Apparatus, of which the following is a specification.

The invention relates to such improvements; and it consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification.

Similar characters refer to similar parts in the several figures.

Figure 1 of the drawings is a top plan view of our improved garment-folding apparatus. Fig. 2 is a central vertical longitudinal section of the same, taken on the broken line 2 2 in Fig. 1. Fig. 3 is a view similar to Fig. 1, showing a shirt placed upon the table in one of the preliminary steps of the folding operation. Figs. 4, 5, and 6 are similar views illustrating successive steps in the folding operation. Fig. 7 is a plan view of the bosom side of the folded shirt. Fig. 8 is a plan view of the table of the apparatus with the slide and form-board removed. Fig. 9 is a vertical cross-section taken on the broken line 9 9 in Fig. 1. Fig. 10 is a vertical longitudinal section taken on the broken line 10 10 in Fig. 9. Figs. 7, 9, and 10 are drawn on a larger scale than the other figures.

The object of our invention is to facilitate and provide for accurately and symmetrically folding garments, such as shirts.

Our invention is particularly adapted for folding dress-shirts or shirts having stiff bosoms, and we have shown in the drawings the invention embodied in an apparatus adapted for folding such shirts.

Referring to the drawings, 1 is a table provided with an aperture 2, adapted to receive the neckband of a shirt supported by the table, the shirt being applied to the table bosom downward. The table is provided near one end with a pair of slideways 3, grooved to receive the slide 4, which is preferably of oblong rectangular form and is provided with

an operating-handle 6. This slide is capable of reciprocating movements in its slideways toward and from the apertured portion of the table. Mounted upon and projecting from the slide is a form-board 7 of oblong rectangular form, movable in unison with the slide over the apertured portion of the bed. The projecting end of this form-board is of substantially the shape which it is desired to impart to the folded shirt. The form-board is detachably mounted upon the slide, as by providing the same with apertures adapted to receive the screw-threaded studs 15 inserted therethrough and provided with thumb-nuts 16, whereby the form-board is clamped firmly to the slide from which the studs project. The form-board can thus be easily and quickly detached and replaced by a form-board of different shape or size when desired. Any known form of detachable connection may be employed in place of the studs 15 and thumb-nuts 16.

The form-board may, if desired, be provided with an aperture 17, adapted to receive during the folding operation a cuff or wrist-band on one of the sleeves of the shirt.

The slide 4 is connected by a cord 9, passing over a pulley 10, mounted upon a cross-bar 11 of the table, with a weight 12, which tends to withdraw the slide and form-board when released to its action away from the shirt-supporting portion of the bed.

As a means for holding the form-board over the apertured portion of the bed during the folding operation we provide the slide with a toothed rack 13 and one of the slideways 3 with a detent in the form of a pawl 14, adapted to engage said toothed rack and hold the slide against the force of the weight 12. This pawl can be operated by hand, when desired, to release the slide to the action of the weight.

The operation of folding the shirt is as follows: The shirt 5 having been properly ironed is placed bosom downward upon the bed of the table in the position shown in Fig. 3, with its neckband inserted in the aperture 2, formed in the bed, and the slide 4 is operated to move the form-board inwardly over the apertured portion of the table and the shirt supported thereupon to the position shown in Figs. 1 to 5, inclusive, the garment being centered beneath the form-board by

contact of the operator's fingers with the side edges of the bosom on opposite sides of the board. One of the sleeves is then folded over upon the neighboring side portion of the body and then upon itself to bring its cuff or wristband in line with the aperture 17 in the form-board, as shown in Fig. 3. Said side portion of the shirt-body, with said sleeve, is then folded over upon the form-board, as shown in Fig. 4, the cuff or wristband lying in or over the aperture 17 in the form-board, which is adapted to receive the same and protect it from pressure in the subsequent steps of the folding operation. The other sleeve is then folded over upon the opposite side portion of the shirt-body, which, together therewith, is folded over upon the form-board and the first-folded side portion of the shirt, as shown in Fig. 5. The skirt portion of the shirt is then folded over upon the upper portion thereof along the line of the end of the form-board, as shown in Fig. 6, and secured by pins in the usual manner. The order of the steps may be varied and the shirt folded in any desired manner, using the edges of the form-board as a guide, whereby uniformity of the folded product is secured. When the shirt has been thus folded, the form-board is withdrawn therefrom and the folded shirt is removed from the table. The form-board is shown partly withdrawn in Fig. 6. The folded garment can thus be given straight parallel side lines and a square lower end, as shown in Fig. 7.

The length of the folded garment can be varied as desired by projecting the form-board a greater or less distance over the apertured portion of the bed, the pawl-detent 14 serving to hold the form-board in the selected position.

We have shown the slide provided with a stud 18 movable between the stops 19 and 20 on one of the slideways 3, whereby the movements of the slide and form-board are limited.

The stop 20, which determines the position of the form-board over the bed during the folding operation, is shown projecting from a plate 21, adjustably secured to the slideway 3 by means of the set-screw 22, inserted through a slot 23 in said plate into the slideway. By loosening said set-screw the plate can be adjusted to vary the position of the stop 20 to adapt the apparatus for garments of different lengths when folded. The stop 20 having been secured in the desired adjusted position the form-board can be accurately positioned by drawing the slide forward until the stud 18 engages therewith, the pawl 14 preventing withdrawal of the slide until released.

If desired, the aperture 17 in the form-board may be omitted and the weight-cord and pulley for withdrawing the slide may be dispensed with, the slide being operated in both directions by the operator by means of the handle 6.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a garment-folding apparatus, the combination with a garment-supporting bed; of a form-board corresponding in outline with the desired outline for the folded garment slidable longitudinally over said bed, and a slideway adapted to guide and support the form-board, substantially as described.

2. In a garment-folding apparatus, the combination with a garment-supporting bed; slideways extending longitudinally of said bed; a slide mounted in said slideways; and a form-board detachably fixed to said slide and movable therewith above said bed, substantially as described.

3. In a garment-folding apparatus, the combination with a garment-supporting bed; of a form-board slidable longitudinally over said bed; means for automatically withdrawing the form-board when released; and a detent for holding the form-board in position during the folding operation, substantially as described.

4. In a garment-folding apparatus, the combination with a garment-supporting bed; of a form-board slidable longitudinally over said bed; means for guiding and supporting the form-board, and an adjustable stop for determining the position of the form-board above the bed during the folding operation, substantially as described.

5. In a garment-folding apparatus, the combination with a garment-supporting bed; of a form-board slidable above said bed; means for guiding and supporting the form-board; a pulley mounted on a fixed support; a cord passing over said pulley and having one end connected with said form-board; and a weight connected with the other end of said cord, substantially as described.

6. In a garment-folding apparatus, the combination with a garment-supporting bed; of a form-board slidable above said bed; a pulley mounted on a fixed support; a cord passing over said pulley and having one end connected with said form-board; a weight connected with the other end of said cord; and a detent, substantially as described.

7. In a shirt-folding apparatus, the combination with a shirt-supporting bed apertured to receive the neckband of the shirt; of a form-board slidable longitudinally over said apertured bed; means for guiding and supporting the form-board, and means for detachably locking said form-board in position above the apertured bed, substantially as described.

8. In a shirt-folding apparatus, the combination with a shirt-supporting bed apertured to receive the neckband of the shirt; of slideways extending longitudinally of said bed; a slide mounted in said slideways; and a form-board detachably fixed to said slide and movable therewith toward and from the apertured portion of the bed, substantially as described.

9. In a shirt-folding apparatus, the combi-

5 nation with a shirt-supporting bed apertured to receive the neckband of the shirt; of a form-board slidable longitudinally over said apertured bed; means for automatically withdrawing the form-board when released; and a detent for holding the form-board over the apertured portion of the bed, substantially as described.

10 10. In a shirt-folding apparatus, the combination with a shirt-supporting bed, apertured to receive the neckband of the shirt; of a

form-board apertured to receive a cuff or wristband of the shirt, substantially as described.

In testimony whereof we have hereunto set 15 our hands this 10th day of October, 1902.

JOSEPH MCKAY.
GEO. L. WENZELL.

Witnesses:

JOHN J. CAREY,
NORMAN F. TAYLOR.