

Nov. 22, 1938.

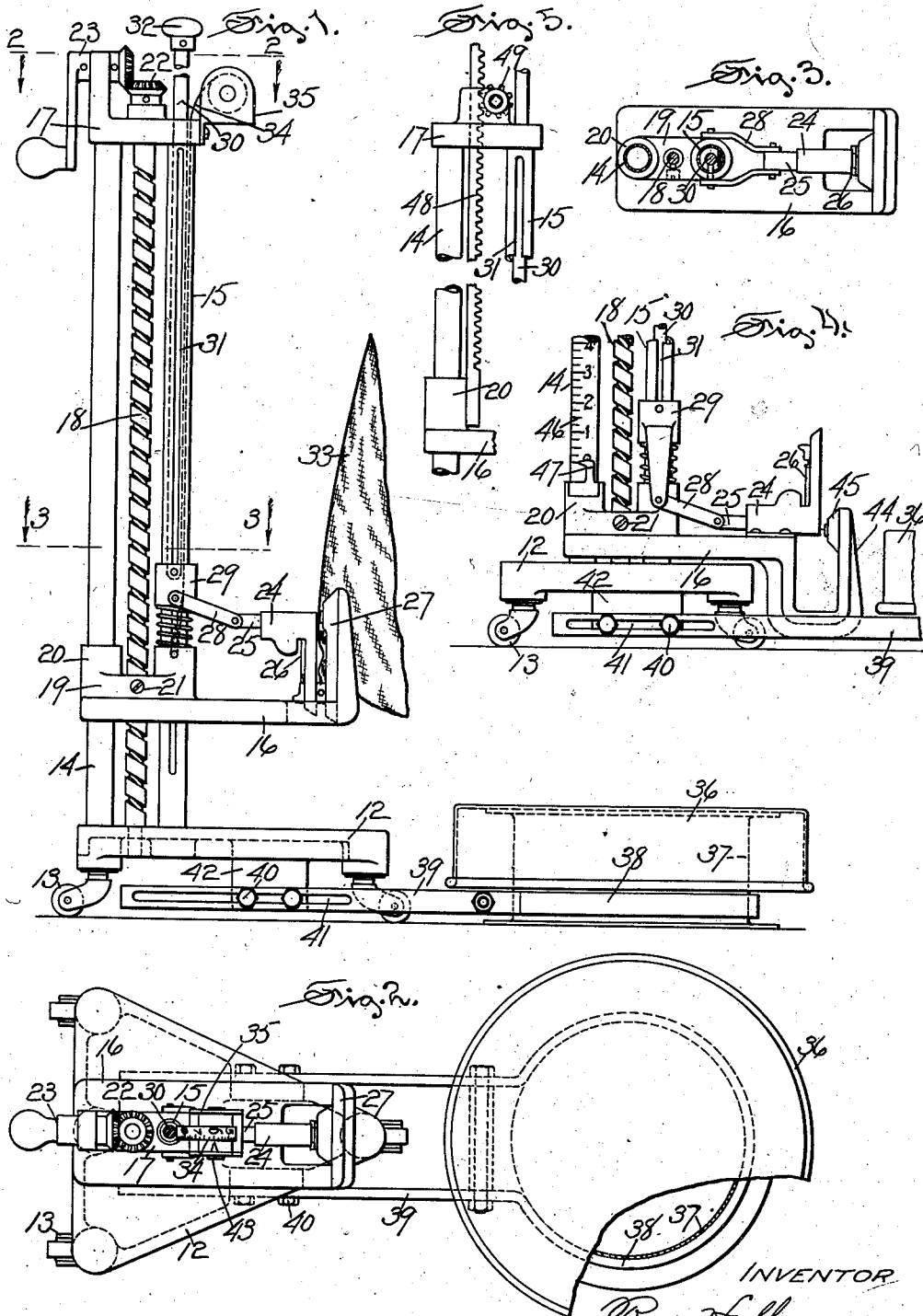
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GARMENT MARKER

Filed July 20, 1936

2 Sheets-Sheet 1



INVENTOR
Rose Hoffman,
by
Arthur J. Jenkins,
ATTORNEY

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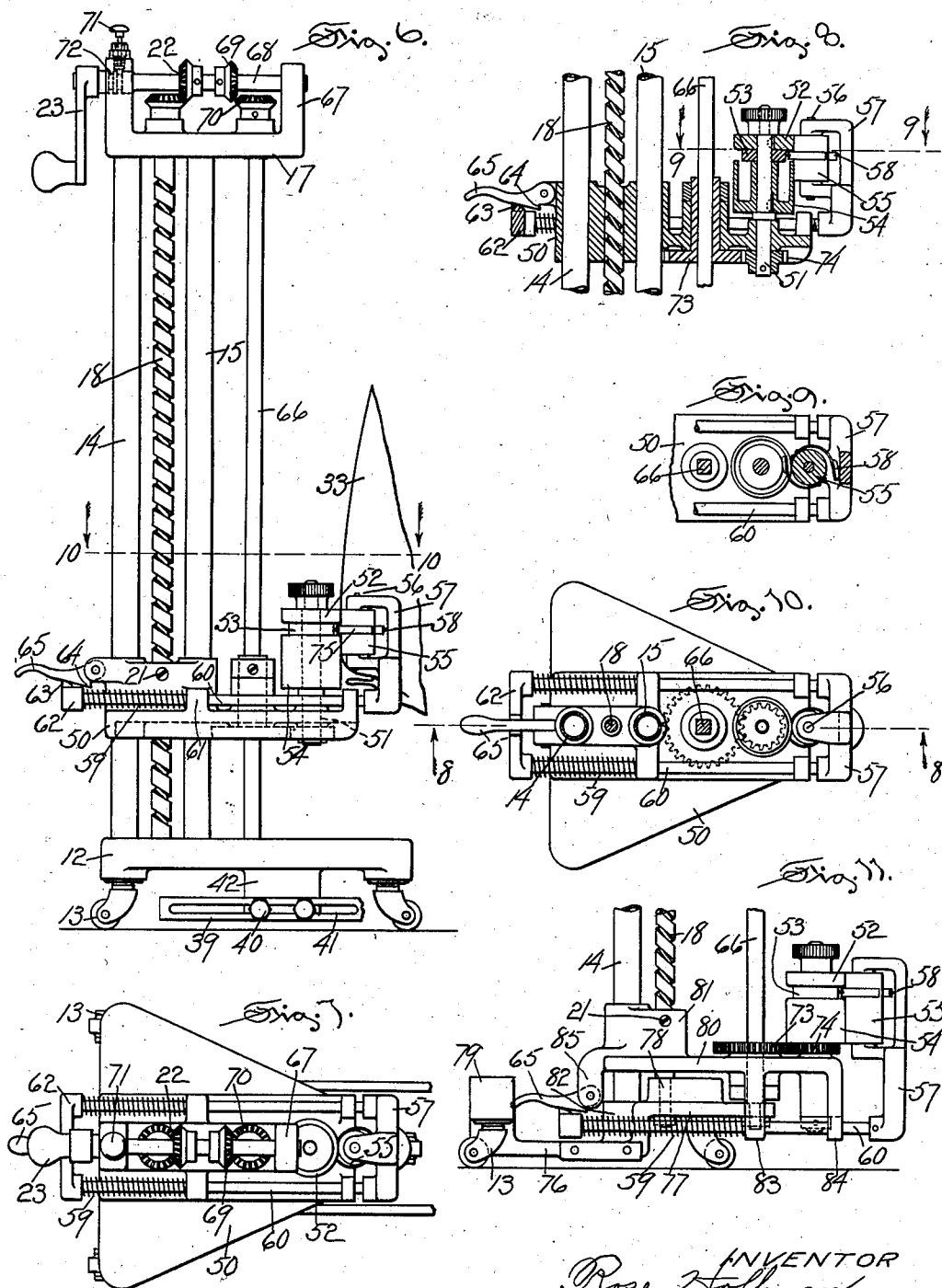
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GARMENT MARKER

Rose Hoffman, Hartford, Conn.

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19 Claims. (Cl. 33—10)

My invention relates to that class of apparatus which is employed for marking garments, as skirts, coats, and the like to determine the proper lengths therefor, and an object of my invention, among others, is the production of a marker for this purpose that may be conveniently operated and that shall be particularly efficient in the results obtained from its use.

One form of a marker embodying my invention and in the construction and use of which the objects herein set out, as well as others, may be attained is illustrated in the accompanying drawings in which

Figure 1 is a view in side elevation of my improved marker.

Figure 2 is a top plan view of the same with parts broken away to show construction.

Figure 3 is a detail view in horizontal section on a plane denoted by the dotted lines 3—3 of Figure 1, parts below being omitted.

Figure 4 is a view in side elevation of the marker portion of a marker embodying a little different form of construction.

Figure 5 is a detail view illustrating a modification.

Figure 6 is a view in side elevation of a marker embodying a little different form of construction from that shown in Fig. 1.

Figure 7 is a top plan view of the marker shown in Figure 6.

Figure 8 is a view in vertical section of the marking members.

Figure 9 is a view in horizontal section on a plane denoted by the dotted lines 9—9 of Figure 8.

Figure 10 is a view in horizontal section on a plane denoted by the dotted lines 10—10 of Fig. 6.

Figure 11 is a view illustrating a modified form of the construction of the marking element.

In the accompanying drawings the numeral 12 denotes a base that may be constructed of any suitable material and may be of any desired form, as herein shown, its shape being somewhat triangular. It is supported as by means of casters 13 applied at each of the corners, and as shown in Figs. 1 and 2 of the drawings. Posts 14 and 15 are secured to and project upwardly from the base near one edge, said posts acting as guides for a marker carrier 16 which is supported for sliding movement on said posts. A head is secured to the upper end of the posts 14, this head being of L-shape. It supports at its upper end an actuating screw 18 which screw is fitted at its lower end in a bearing in the base 12, and as shown in Fig. 1 of the drawings. This screw

passes through a yoke 19 secured to the carrier 16, said yoke having hubs 20 that act as guides for said carrier in a sliding movement on the posts 14 and 15. A screw stud 21 projects into an opening through the yoke and engages the thread of the screw 18 which passes through said yoke. A set of beveled gears 22 are secured, one to the actuating screw 18, and another to the shaft of a crank 23 rotatably mounted in the head 17 and as shown in Fig. 1 of the drawings. Turning movement of the crank operates the set screw 18 to raise and lower the carrier 16 in a manner that will be readily understood.

The carrier 16 supports at its outer end a marking device which is in the form of a stapling tool, such as is commonly employed for driving staples into papers and the like to secure sheets of paper together. This comprises a plunger support 24, a stapling plunger 25, a magazine 26 and an anvil 27 all of ordinary construction found in an implement of this sort and further and detailed description is therefore omitted herein, it being sufficient to state that the plunger 25 is operated by a link 28 pivotally connecting the plunger and a block 29 slidably mounted on the post 15. The block 29 is carried by an actuating plunger 30 slidably mounted in the post 15 and connected with the block 29 as by means of a pin passing through a slot 31 in said post. A spring underlying the block forces the plunger upwardly and a knob 32 is provided for forcing the plunger downwardly, thereby actuating the stapling plunger 25 to force a staple through a garment as a skirt 33. The stapling device is so adjusted that instead of clinching the staples in the ordinary manner the plunger 25 simply pushes the staples through the fabric of the garment. The ends of the staple prongs are upset only just enough to prevent them from being readily dislodged, but enabling them to be easily pulled out of the garment without injury to the fabric. A graduated tape 34 is housed on a spring roller in a box 35 secured to and carried by the head 17, and as shown in Fig. 1, the lower end of this tape being secured to one of the hubs of the yoke 19 so that as the carrier 16 is raised or lowered the tape will conform to such movement, being unwound from its support within the box when the carrier is lowered and automatically winding upon said support when the carrier is raised.

A platform 36 is supported by a drum 37 at one side of the base 12. A strap 38 encircling the drum is connected by a link 39 with the base 12 and its position relatively to said base may be adjusted as by means of screws 40 passing through

a slot 41 in the link and into a lug 42 projecting downwardly from the under side of the base 12, and as shown in Fig. 1.

In the operation of the device a person wearing a skirt or gown stands upon the platform 36 with the lower edge of the gown located between the anvil 27 and the plunger support 24, as shown in Fig. 1. The base 12 is then swung around the platform 36, the strap 38 permitting this movement, and pressure on the knob 32 will cause the staples to pass through the fabric of such garment at such intervals as may be desired. The carrier 16 will be adjusted as to its height as by means of the crank 23 in a manner readily to be seen, and the graduations on the tape 34 in connection with the index point 43 will denote the position of the carrier 16 in order to determine the proper length of the skirt or gown.

The structure shown in Fig. 4 is substantially the same as that above described with the exception that the carrier 16 is curved downwardly to form a U-shaped receiver 44 for the bottom of the skirt or gown, this receiver being located between the base 12 and the platform 36. In this structure one of the arms of the receiver carries the anvil 45 for the stapling device and this device is inverted from the position shown in Fig. 1. In this form of the device the post 14 carries graduation marks 46 acting in connection with an index pointer 47 on one of the hubs of the carrier to determine the proper length of the skirt or gown. In fact this form of the device has proved so serviceable as to be the preferred by me and it should therefore be read and considered with the upper part shown as of the same construction as the device of Figure 1 with the exception of the tape 34 shown in said figure which is supplanted by the graduation marks 46 on the post 14.

In that form of the device shown in Fig. 5 the construction and operation is substantially the same with the exception that the screw 18 of Figs. 1 and 4 is replaced by a rack 48 engaged by a pinion 49 secured to a shaft mounted in the head 17, said shaft having a crank similar to that shown in Fig. 1.

That form of the marker shown in Figs. 6 to 11 is quite similar to that just above described with the exception that in place of the stapling attachment for marking the skirt a marker comprising chalk or similar substance is employed and the apparatus is changed in construction simply to accommodate such marker, and the same numerals are therefore applied to these structures to indicate parts similar to and substantially the same as those shown in the preceding figures. The carrier 50 is supported upon the posts 14 and 15 and has a marker shaft 51 rotatably mounted therein and having a friction roller 52 secured thereto and a marking disk 53 of a substance such as chalk located on said shaft between the roller 52 and a cup 54 also secured to the shaft. The roller 52 and the cup 54 are in frictional driving contact with an impression roll 55 secured to a shaft 56 mounted in a frame 57 and carrying impression points 58. As the shaft 51 is turned the marking element 53, the cup 54, and the roll 52 will be turned and these in turn will impart rotation to the rollers 55 carrying the impression points 58 and as such points are brought into contact with the skirt or gown 33 which is located between the two sets of rollers as shown in Fig. 6, the impression points acting in connection with the marking element will leave an impression upon the fabric.

It will be noted that the points 58 are carried upon spring fingers 75 so that said points have a yielding contact with the fabric to be marked, and as the rollers are carried around the points have a sweeping action against the fabric. The rollers 55 are pressed into contact with the cup 54 and the roller 52 by means of spring 59 on rods 60 reciprocatingly mounted in lugs 61 on the carrier, as shown in Fig. 6. A cross-piece 62 connects the rear ends of the rods and this cross-piece has a lip 63 adapted to be caught by a catch 64 on a finger lever 65 pivotally mounted on the carrier.

The shaft 51 is rotated as by means of a marker actuating shaft 66 supported at its lower end in the base 12 and at its upper end in the head 17 which has a support 67 for one end of the marker actuating shaft 68 to which the crank 23 is secured. The shaft 68 bears a bevel pinion 69 adapted to engage a bevel pinion 70 secured to the shaft 66, as shown in Fig. 6 of the drawings. The shaft 68 is shiftable longitudinally to engage the pinion 69 with the pinion 70, or to engage the beveled gears 22. The shaft 68 may be held in either of its positions by means of a plunger 71 projecting through the bearing for the shaft and entering one of a pair of grooves 72 in said bearing, as shown in dotted lines in Fig. 6. The shaft 66 is of angular shape in cross-section, preferably square, to permit raising and lowering of the carrier without disturbing the engagement of the gear and pinion 73 and 74.

In the operation of this form of the device the person wearing the skirt or gown will stand upon the platform in the manner as hereinbefore related, the frame 57 being positioned with the markers thereon out of engagement with the rollers 52 and the cup 54 and being held in this position by the finger lever 65 so that the lower part of the skirt may be inserted in the space between said rollers. The skirt being properly placed between the rollers the finger lever 65 is operated to release the frame and permit the springs 59 to move it to the position shown in Fig. 6. In thus positioning the skirt it will be understood that the crank 23 is actuated to operate the screw 18 to place the carrier in proper position, the bevel gears 22 being in engagement at this time. The plunger 71 is now operated to release the shaft 66 and permit it to be moved to engage the pinions 69—70 one with the other and rotation of the crank 23 now will rotate the shaft 66 and impart rotation to the roller 52, cup 54, and roller 55 together with the marking points as hereinbefore described, it being noted that the shaft 66 is connected with the shaft 51 by means of a gear 73 on the shaft 66 engaging with a pinion 74 secured to the shaft 51, and as shown in Fig. 8 of the drawings. It will be understood that an indexing mechanism for positioning the carrier at the proper height will be employed with this mechanism as well as with that shown in Figs. 1 and 4, either of which indexing mechanisms may be employed.

The structure shown in Fig. 11 corresponds to the preferred form of the invention shown in Fig. 4 as applied to the structure of Fig. 1, that is, the structure of Fig. 11 applied to the structure of Fig. 6 represents the preferred form of the device of Fig. 6. In this form of the device the base has a depressed portion 76 and a raised portion 77 with a boss 78 rising from the latter. The casters are supported in bosses 79 raised above the floor of the depressed portion 76.

The carrier 80 has a boss 81 that receives the

shaft 18 at the lower end of the latter and also the posts 14. The post 15 is omitted from this structure as in fact in some instances it may be omitted from the apparatus hereinbefore described. The shaft 18 is stepped in the boss 78 and the post 14 is secured in a boss 82 projecting from the rear portion of the base. The screw stud 21 that engages the threads of the screw 18 projects through the boss 81.

The carrier 80 has two pairs of supports 83-84 the members of each pair projecting downwardly from opposite edges of the carrier and the rods 60 extend through these supports. The frame 57 secured to the ends of these rods is substantially the same as in the other structure. The finger lever 65 is supported in an ear 85 projecting downwardly from the carrier and lug 81, as shown in Fig. 11. The operation of this form of the device is substantially the same as hereinbefore described.

It will be understood that in the use of that form of the device embodying the stapling attachment, as well as that embodying the chalk as a marking element, a gap will be created to receive the lower part of the garment, and the term "marking" is employed herein to include any means for denoting the line of cut around the garment to produce the desired length thereof.

I claim:

1. A garment marker including a stationary platform, a base pivotally attached to said platform to revolve thereabout, a carrier supported by said base and vertically adjustable with respect thereto, a marking apparatus supported by said carrier and including a stapling device having a stapling plunger, and an actuating plunger supported for reciprocating movement by said base and operatively connected with said stapling device for actuation thereof to apply a staple to a skirt in each reciprocating movement of the actuating plunger.

2. A garment marker including a stationary platform, a base pivotally attached to said platform to revolve thereabout, a supporting post rising from said base, a carrier movably supported by said post, means for raising and lowering said carrier, a plunger support secured to and rising from said base, an actuating plunger mounted for reciprocating movement in said support, a marking device supported by said carrier and having a gap to receive the lower end of a garment, and a stapling device including a stapling plunger for applying staples to said garment, the stapling plunger of said device being operatively connected with said plunger to apply a staple in each reciprocating movement of the actuating plunger.

3. A garment marker including a stationary platform, a base pivotally attached to said platform to revolve thereabout, a supporting post rising from said base, a head atop said post, a carrier slidably supported by said post, a marking device including a reciprocating marking plunger for denoting a cutting line around a garment to obtain the desired length thereof, said marking device being supported by said carrier, and an actuating mechanism for said marker including an actuating plunger operatively connected with said marking plunger and supported at its lower end by said base and at its upper end by the head atop said post.

4. A garment marker including a stationary platform, a base pivotally attached to said platform to revolve thereabout, a post rising from said base, a carrier slidably supported by said

post, a head secured to the upper end of said post, a screw shaft supported by said head and base, an operative connection between said screw shaft and carrier for elevation of the latter, means for rotating said shaft, a marking apparatus supported by said carrier and having a gap to receive the lower edge of a garment, said marking device including a stapling implement having a plunger, and an actuating plunger supported by said head and operatively connected with the plunger on said marking device.

5. A garment marker including a stationary platform, a base pivotally attached to said platform to revolve thereabout, a post rising from said base, a head secured to the upper end of said post, a screw shaft supported by said head and base, means for rotating said shaft, a carrier slidably mounted on said post and having an opening through which said screw shaft extends, an operative connection between said carrier and shaft, a hollow post supported by said base and head, an actuating plunger located in said hollow post, a marking device having a gap to receive the lower edge of a garment and including a stapling apparatus with a plunger, and an operative connection between said actuating plunger and the plunger on said marking device.

6. A garment marker including a platform, a base pivotally attached to said platform to revolve thereabout, a supporting post rising from said base, a head secured to the upper end of said post, a carrier slidably mounted on said post and having a downwardly projecting U-shaped portion with a gap at its outer end to receive the lower edge of a garment, an actuating member supported by said head and base and operatively engaged with said carrier to raise and lower it, a marking device located at the mouth of said U-shaped portion of the carrier, a marker actuating mechanism supported by the base and head, and an operative connection between said marking device and actuating device for operation of the former.

7. A garment marker including a platform, a base pivotally attached to said platform to revolve thereabout, a carrier vertically adjustably supported by said base, marker actuating means supported by said base, and a marker including a friction roller and an impression roller, a marking element supported adjacent to said friction roller, an impression member carried by said impression roller, means for temporarily moving said rollers to create a gap to receive the lower edge of a garment, means operatively connected with said rollers for operating them, and means supported by said base for raising and lowering said carrier.

8. A garment marker including a platform, a base pivotally attached to said platform to revolve thereabout, a carrier supported by said base, means supported by said base for elevating said carrier, a marker shaft rotatably supported by said carrier, means for rotating said shaft, a friction roller and a marking element secured to said marker shaft, an impression roller operatively engaged with said friction roller, and impression members yieldably mounted on said impression roller to engage a garment and press it against said marking element.

9. A garment marker including a platform, a base pivotally attached to said platform to revolve thereabout, a carrier vertically adjustably supported by said base, a rod slidably supported by said carrier, a marker shaft rotatably supported by said carrier, means for rotating said marker

shaft, a frame supported by said rod, an impression roller rotatably mounted in said frame, impression members carried by said impression roller, and a friction roller and a marking element carried by said marker shaft, said rod being slidable to create a gap between said marking element and said impression roller to receive the lower edge of a garment.

10. A garment marker including a platform, a base pivotally attached to said platform to revolve thereabout, a carrier slidably supported by said base, means supported by said base for elevating said carrier, a marker actuating shaft rotatably supported by said base, a marker shaft supported by said carrier and operatively connected with said actuating shaft, a friction roller and a marking element secured to said marker shaft, a rod slidably supported on said carrier, a frame secured to the end of said rod, an impression roller rotatably mounted in said frame, and impression elements carried by said impression roller to engage said marking element, said rod being slidable to create a gap between said friction and impression rollers to receive the lower edge of a garment.

11. A garment marker including a platform upon which a person may stand, a support located in cooperative position relative to said platform, a stapling device mounted on said support and comprising a magazine for staples and a stapling plunger longitudinally movable in line with that of movement of the staples from the magazine to drive said staples, and an actuating plunger mounted on said support and operatively connected with said stapling plunger.

12. A garment marker including a stationary platform, a base pivotally attached to said platform to revolve thereabout, a stapling device mounted on said base and comprising a magazine for staples and a stapling plunger longitudinally movable in line with that of movement of the staples from the magazine to drive said staples, and an actuating plunger mounted on said base and operatively connected with said stapling plunger.

13. A garment marker including a stationary platform, a base pivotally attached to said platform to revolve thereabout, a carrier mounted on said base, means for vertically adjusting the position of said carrier, a stapling device mounted on said carrier and comprising a magazine for staples and a stapling plunger longitudinally movable in line with that of movement of the staples from the magazine to drive said staples, and an actuating plunger mounted on said base and operatively connected with said stapling plunger.

14. A garment marker including a stationary platform, a base pivotally attached to said platform to revolve thereabout, a carrier vertically movable on said base, means for imparting vertical movement to the carrier, means for changing the relative positions of the base and platform, a stapling device mounted on said carrier and including a magazine for staples and a stapling plunger longitudinally movable in line with that

of movement of the staples from the magazine to drive said staples, and an actuating plunger mounted on said base and operatively connected with said stapling plunger.

15. A garment marker including a platform upon which a person may stand, a support located in cooperative position relative to said platform and including an anvil, a stapling device supported in cooperative relation with respect to said anvil and spaced therefrom to provide a gap to receive the lower edge of a skirt said stapling device including a magazine for staples and a stapling plunger longitudinally movable in line with that of movement of the staples from the magazine to drive said staples, and an actuating plunger mounted on said support and operatively connected with said stapling plunger.

16. A garment marker including a stationary platform, a base pivotally attached to said platform to revolve thereabout, a carrier mounted on said base and including an anvil, a stapling device mounted on the carrier in spaced relation with respect to said anvil said stapling device including a magazine for staples and a stapling plunger longitudinally movable in line with that of movement of the staples from the magazine to drive said staples, and an actuating plunger mounted on said base and operatively connected with said stapling plunger.

17. A garment marker including a base, a post rising from said base, a carrier slidably supported by said base, a head secured to the upper end of said post, a screw shaft supported by said head and base, an operative connection between said screw shaft and carrier for elevation of the latter, means for rotating said shaft, marking apparatus supported by said carrier and having a gap to receive the lower edge of a garment, and means for operating said marking apparatus.

18. A garment marker including a base, a post rising from said base, a head secured to the upper end of said post, a screw shaft supported by said head and base, means for rotating said shaft, a carrier slidably mounted on said post and having a threaded opening through which said screw shaft extends, a hollow post supported by said base and head and extending through said carrier, an actuating shaft located in said hollow post, a marking device having a gap to receive the lower edge of a garment, and a marking apparatus supported by said carrier and operatively connected with said actuating shaft.

19. A garment marker including a base, a supporting post rising from said base, a head secured to the upper end of said post, a carrier slidably mounted on said post and having a downwardly extending U-shaped portion with a gap to receive the lower edge of a garment, a lifting member operatively engaged with said carrier to raise and lower it, a marking device located at the mouth of said U-shaped portion of the carrier, marker actuating mechanism supported by the base and head, and an operative connection between said marking device and actuating device for operation of the former.

ROSE HOFFMAN.