

(No Model.)

J. W. SIMONS.
HEMMING GAGE FOR SEWING MACHINES.

No. 544,751.

Patented Aug. 20, 1895.

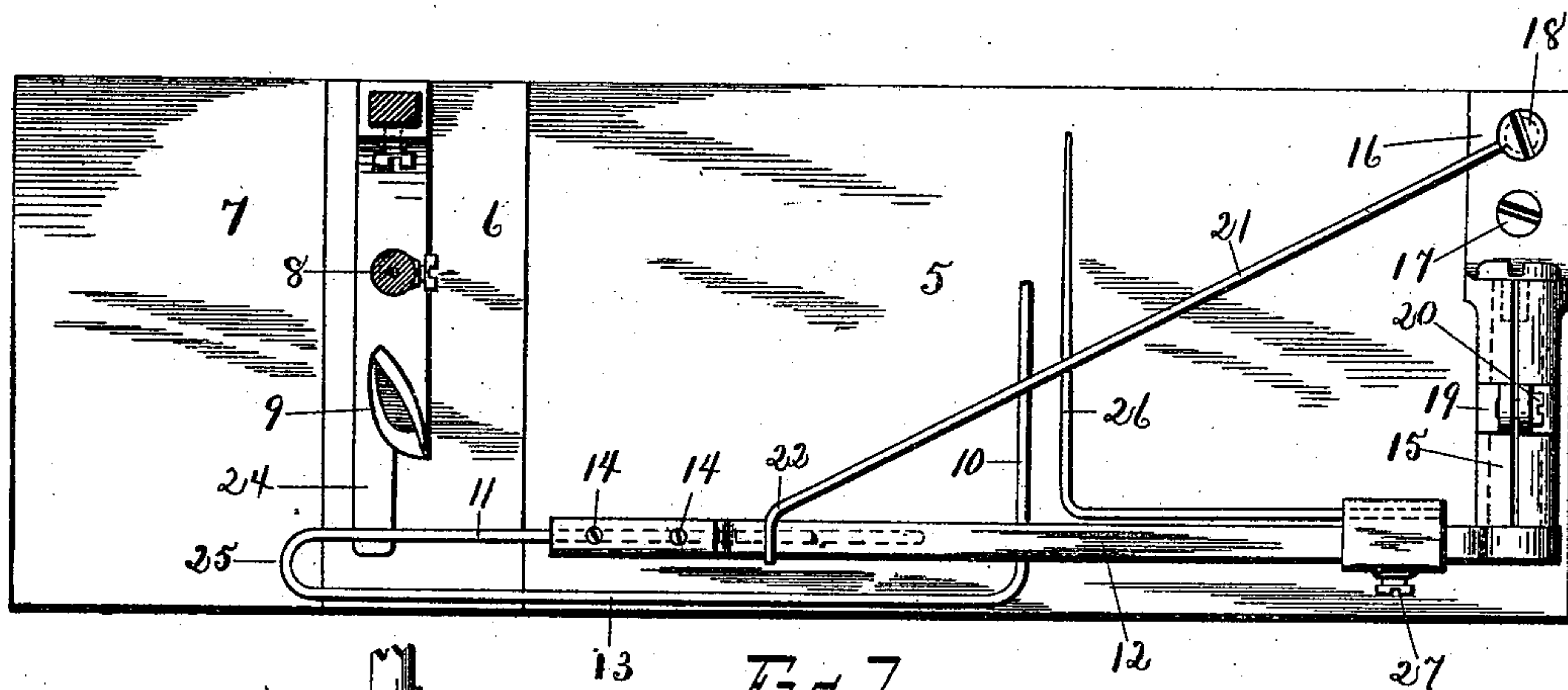


Fig 1.

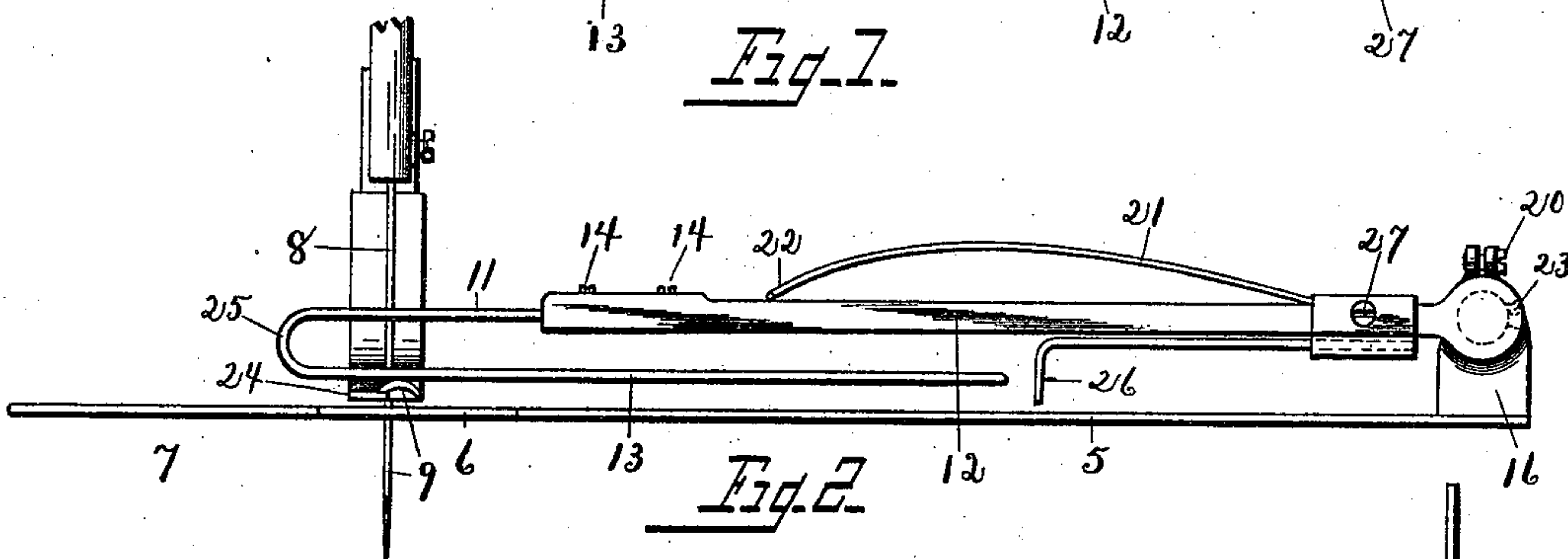


Fig. 2

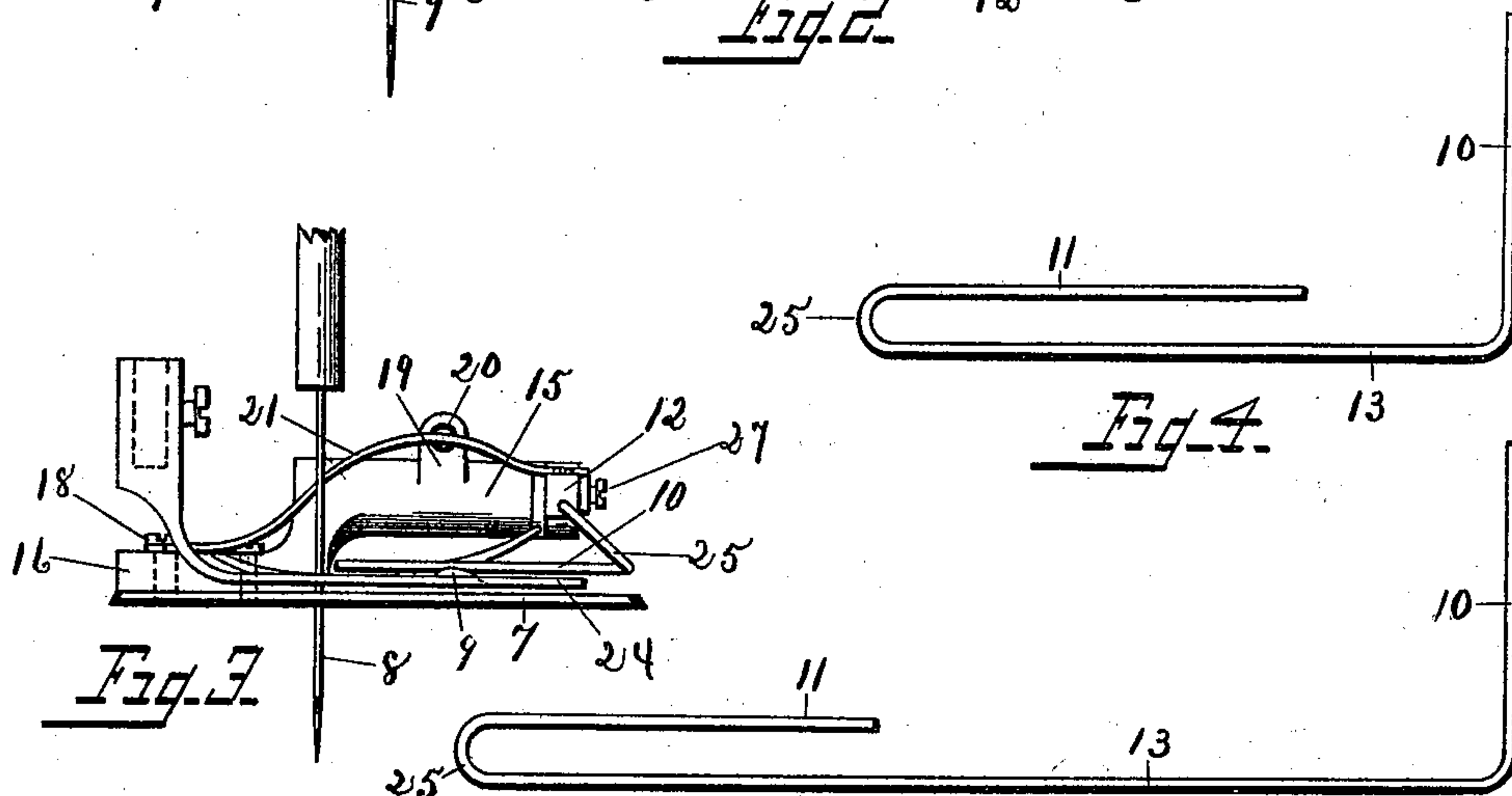


Fig 4

Fig. 5

WITNESSES

Carroll J. Webster
M. C. Hillyard

INVENTOR

Joseph W. Simons.
by H. K. Stevens, Attorney

UNITED STATES PATENT OFFICE.

JOSEPH W. SIMONS, OF PORT CHESTER, NEW YORK.

HEMMING-GAGE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 544,751, dated August 20, 1895.

Application filed March 25, 1895. Serial No. 543,101. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. SIMONS, a citizen of the United States, residing at Port Chester, in the county of Westchester and State of New York, have invented a new and useful Improvement in Hemming-Gages for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure I is a plan or top view of a hemming-gage for sewing-machines according to my invention. Fig. II is a front view of the same. Fig. III is a view looking at the left-hand end thereof. Figs. IV and V represent gages of different lengths.

This invention relates to gages which are used on sewing-machines in connection with a hemming attachment to regulate the width of the hem. Heretofore gages for this purpose have been secured to the machine to serve as guides at the outer edge of the goods where the seam is turned down, requiring a considerable skill on the part of the operator to keep just enough goods laid up to the gage to make the fold of the hem in the right place. It has also been difficult to turn very wide hems of an even width of the style at present required for pillow-slips, sheets, skirts, &c.; and the object of my invention is to overcome these objectionable features.

To this end my invention consists in the combination of parts forming a hemming-gage adapted to reach over between the fold of the hem to act on the inner side of the goods at the fold to draw just enough of the body of the goods forward to the fold so as to automatically guide the cloth to form a hem of the right width by the act of feeding it into the machine, as will hereinafter be more fully described, and particularly pointed out in the claim, reference being had to the accompanying drawings, in which—

5 is the plate or body by means of which my hemming-gage is removably attached to a sewing-machine. This plate is adapted to be slid into the machine in the place of the usual removable plate that covers the shuttle, and it is beveled at its edges like that plate to fit the same groove. It may be placed beyond the presser-foot and be followed by other plates 6 and 7 to close the top of the machine,

or the plate 5 may be made long enough to fill the whole space occupied by the plates 6 and 7, and the hole for the needle 8 may be made through this plate.

9 represents a hemmer of any usual construction.

10 represents my gage proper, made of wire, having the body 11 fitted to slide in an arm 12 and a return bend 13 connecting the body 11 with the gage proper 10.

14 represents a binding-screw in the arm 12, whereby the body 11 may be secured with the gage at any desired point of extension. The arm 12 is provided with a shaft fitted to rock in the sleeve 15 of a bracket whose block or base 16 is secured to the plate 5 by means of binding-screws 17 and 18. The sleeve 15 is split lengthwise through its upper side, and is provided with a band 19, whose projecting ends are provided with a binding-screw 20, adapted to close upon the band and sleeve with the force required to hold the arm steady, and yet not so tight but that the arm may be raised for the purpose of admitting work under the gage.

21 is a spring secured by means of the binding-screw 18 upon the block 16 to press its free end 22 upon the arm 12 to return the same to place whenever it is set free after having been raised.

23 represents a stud or a pin in the arm 12 or in its shaft, for which there is a slot in the sleeve to permit a little motion of the arm. The striking of this pin against the end of the slot prevents the arm being unduly raised in service or being pressed down upon the bed or upon the work. The body 11 is preferably located over the end of the presser-foot 24, which in the present instance is shown as a portion of the hemmer, so that the act of raising the presser-foot to admit or remove work will also raise this gage for the same purpose; but the connecting portion between the body 11 and the bend 25 is slanted a little so as to bring the portion 13 beyond the end of the presser-foot.

26 represents an auxiliary gage fitted to slide upon the arm 12 and provided with a binding-screw 27, whereby the gage may be secured at any point on the length of the arm 12. This auxiliary gage is convenient for guiding the work when two or three lines of

stitches are to be made at different distances from the edge of one of the wide hems for which this gage is especially adapted. When the gage 26 is to be used upon the arm 12, the gage 10 may be removed therefrom and gages of different lengths may be provided, as shown in Figs. IV and V.

The gage represented in Fig. IV is adapted for hems up to three inches in width, and the gage shown in Fig. V is adapted for hems from three to five inches in width, more or less. By this means the arm 12 may be made short enough not to project out in the way when using the gage 26 and yet be bored deep enough for the adjustment of the body 11 to adapt it to more widths of hems up to five inches by the aid of the two gages.

It will be readily understood that the reason why I have named five inches as the greatest width of hem to be turned by this gage is because of the construction of sewing-machines in general use, to which this gage may be attached without altering the machine.

While I prefer the use of the plate 5 to be slid into bed-plate of machine, as before described, yet I am not limited to the use of this plate, because it will be readily understood that in machines which do not have the removable sliding plate I may dispense with the plate 5 and attach my gage to the bed of any machine by means of the common well-known thumb-screw to be passed through the hole in the block 16, here shown as occupied by the screw 17. In that case the screw 18 needs only to be long enough to screw into the block 16 to hold the spring 21.

In operation, after having properly placed the device, as described, on the machine, the gage 10 should be set at the distance from the hemmer required to give the right width of hem. Now, if the presser-foot be raised, the right-hand edge of the work may be passed under it and under the return end 13 and gage 10, and then turned back over the gage until the edge may be properly started to turn in the hemmer. Now, if the presser-foot be let down, the gage will be pressed down by the spring 21, not to rest upon but to support

itself a little above the work, and if the machine be started the feeder will work in the usual manner, at the same time turning the required width of hem continually over the gage by drawing the work in. In hemming sheets they may be passed in one after another in a continuous line; but in stitching such things as pillow-slips, skirts, &c., whose edges are joined, forming a continuous loop, it is only necessary to stop the needle in the work, raise the presser-foot, and, by turning the work on the needle, withdraw the gage from the hem, and then turn the work back in line, drop the foot, and complete the hem, of course stopping where the same line of stitches started.

In using the gage 26, first remove the gage 10 from the arm 12, then set the gage 26 along the arm, and bind it by means of the screw 27 at the right distance from the needle to locate the line of stitches relative to the edge of the folded hem.

Having thus fully described my invention, what I believe to be new, and desire to secure by Letters Patent, is the following:

In hemming gages, a bearing block having means by which it is adapted to be secured upon a sewing machine plate; an arm journaled in the bearing of the said block and having a longitudinal bore and a binding screw; and a gage having a body fitted to slide in the bore of the arm and provided with a downward return bend terminating in a hem spreader; the said return bend being normally located over the end of the presser foot but free therefrom, while the body portion is beyond the presser foot substantially as described, whereby hems of great width may be automatically spread, and whereby the hemmer will be raised when the presser foot is raised and yet the hemmer left free to be raised independently.

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

JOSEPH W. SIMONS.

Witnesses:

ELMER J. SCOTT,
WALTER L. BURNS.