

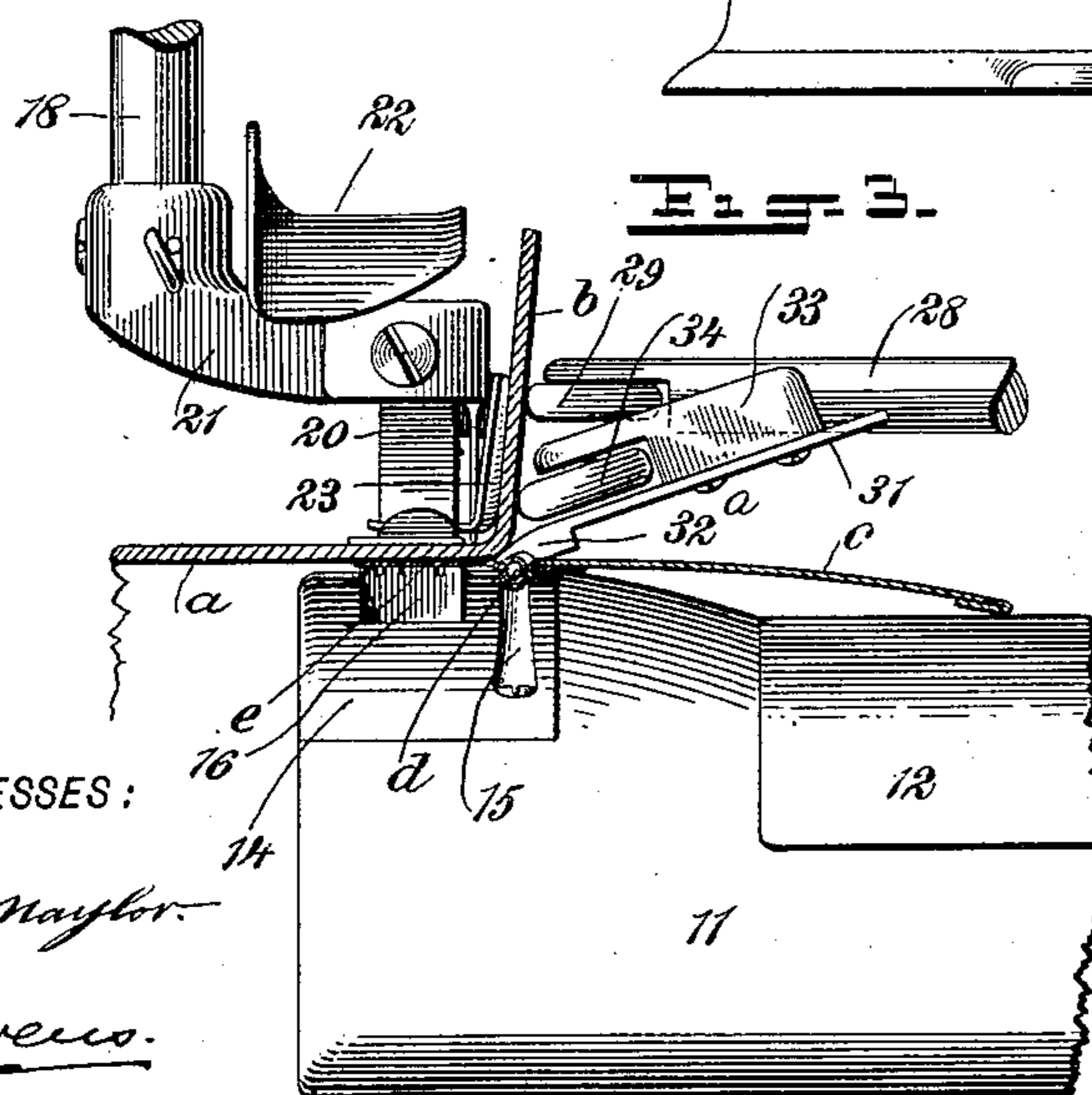
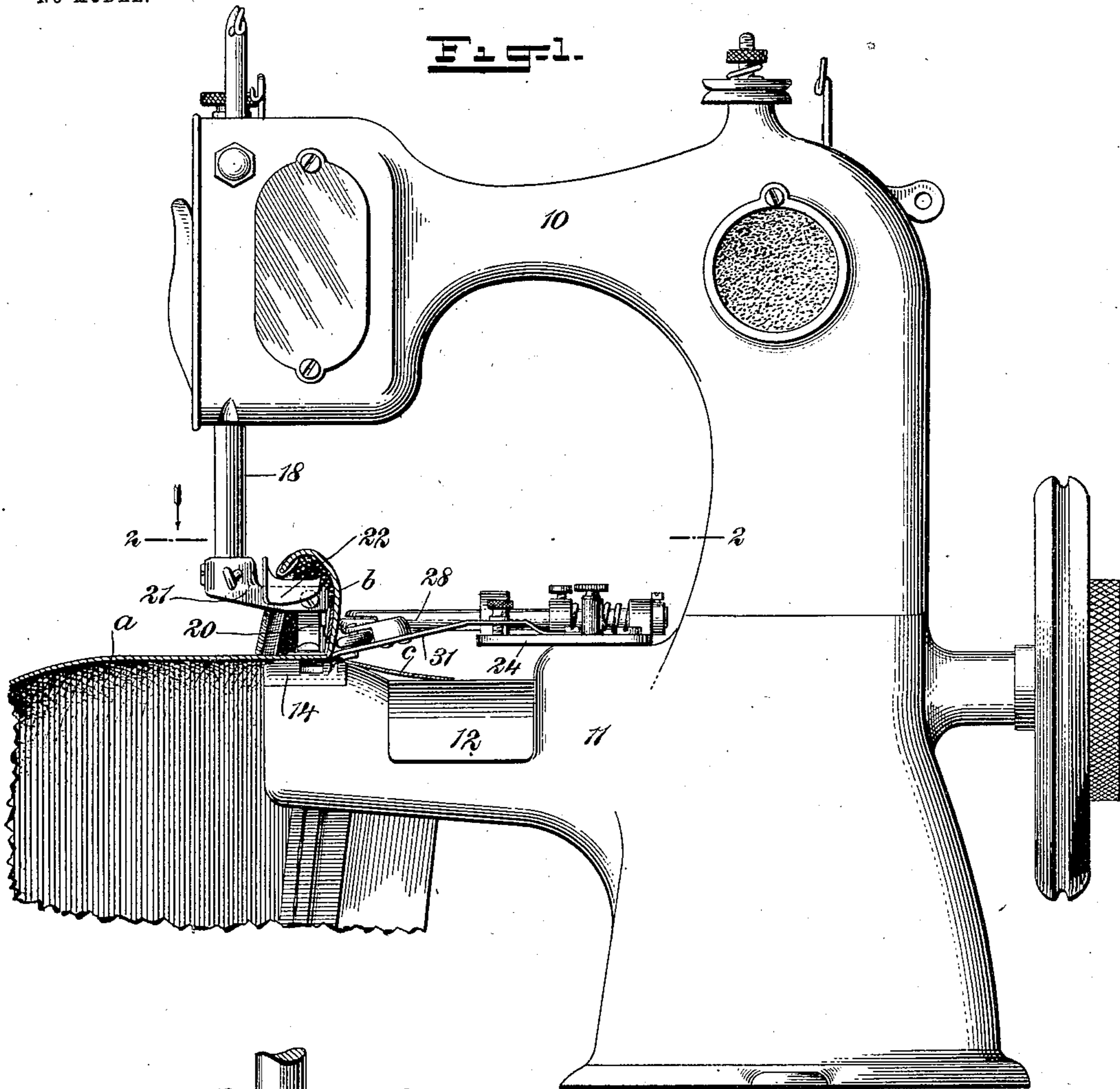
No. 728,602.

PATENTED MAY 19, 1903.

E. G. O'DONNELL.  
HAT SEWING MACHINE.  
APPLICATION FILED APR. 22, 1901.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

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*J. B. Owens.*

INVENTOR

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2 SHEETS—SHEET 2.

Fig. 2.

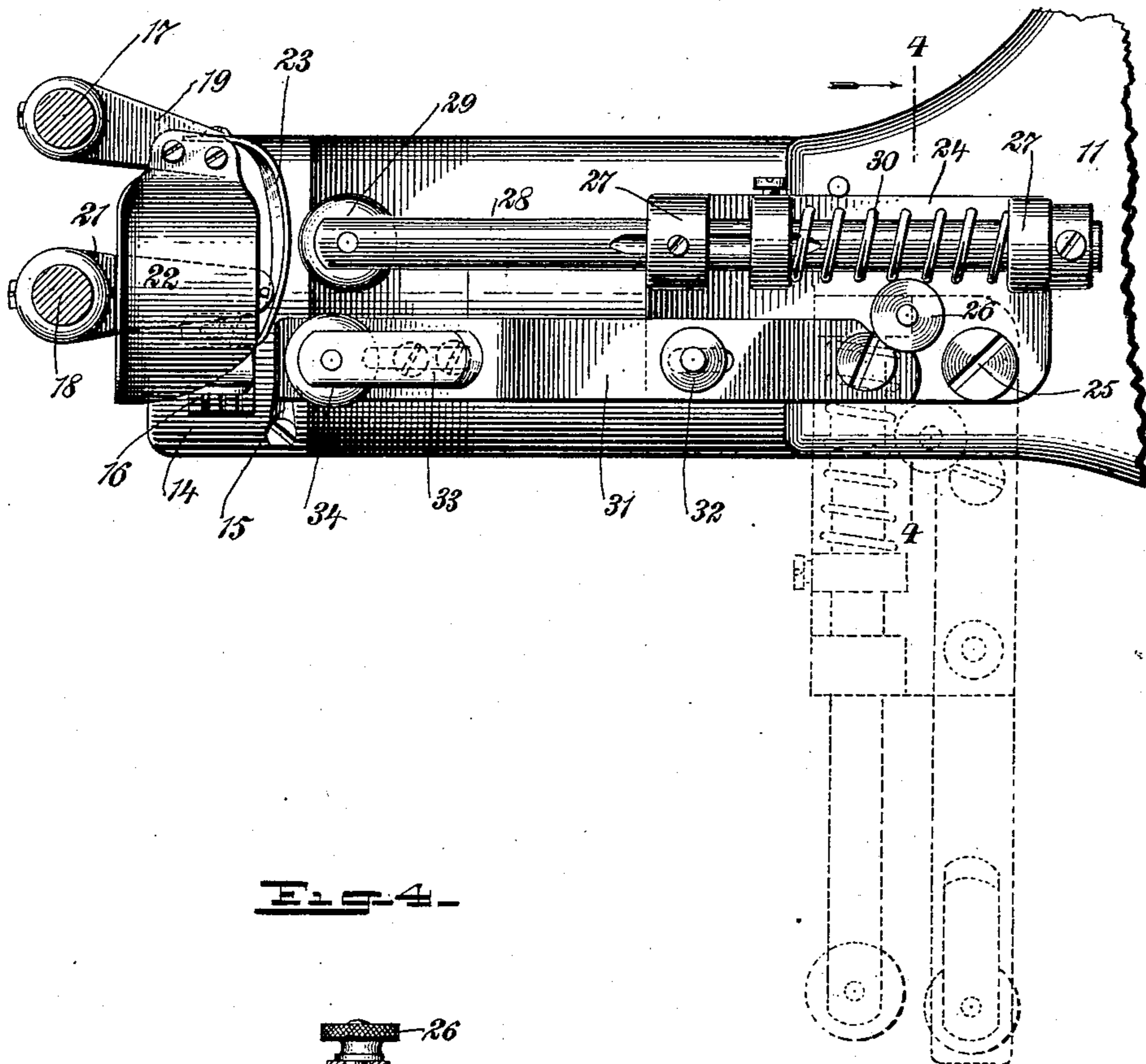
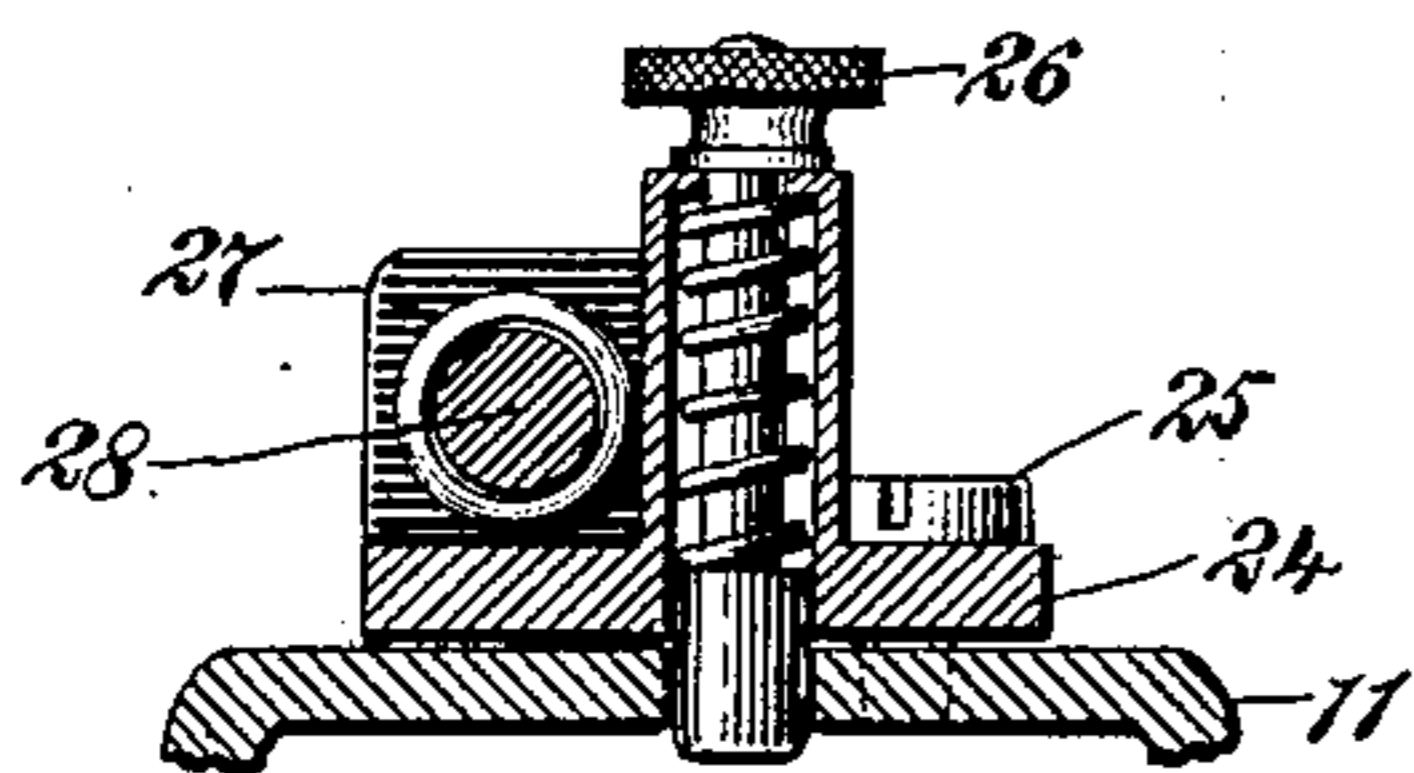


Fig. 4.



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# UNITED STATES PATENT OFFICE.

EDMOND GREGORY O'DONNELL, OF FALL RIVER, MASSACHUSETTS,  
ASSIGNOR, BY MESNE ASSIGNMENTS, TO WHEELER & WILSON  
MANUFACTURING COMPANY, OF BRIDGEPORT, CONNECTICUT.

## HAT-SEWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 728,602, dated May 19, 1903.

Application filed April 22, 1901. Serial No. 56,941. (No model.)

*To all whom it may concern:*

Be it known that I, EDMOND GREGORY O'DONNELL, a citizen of the United States, and a resident of Fall River, in the county of Bristol and State of Massachusetts, have  
5 invented a new and Improved Hat-Sewing Machine, of which the following is a full, clear, and exact description.

This invention relates to a machine designed  
10 especially for sewing sweat-bands into hats; and the object is to provide an effective means for holding the hat and allowing it to be fed properly and also for holding the sweat-band in position to be sewed into the  
15 hat. It is adapted especially for use in connection with stiff felt hats using what is known as a "beveled sweat" with a reed and cloth backing.

The invention constitutes an improvement  
20 over the subject-matter of my previous patent, No. 646,786, granted April 3, 1900.

This specification is a specific description of one form of the invention, while the claims are definitions of the actual scope thereof.

25 Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the machine,  
30 showing a part of the hat in section. Fig. 2 is a plan view of the lower arm of the machine with the adjacent parts, some of which are indicated by dotted lines. Fig. 3 is an enlarged fragmentary elevation showing the action of the gage elements and the position of the parts during operation, and Fig. 4 is a detail section on the line 4-4 of Fig. 2.

10 indicates the upper arm of the machine, which carries the needle and presser bars and  
40 their operating mechanism.

11 indicates the lower arm or work-support of the machine, which is formed with a transverse depression 12, adapted to receive the sweat-band, which projects into the depression  
45 when the machine is in operation, as shown best in Fig. 3, this depression allowing the band to keep its natural form and avoiding wrinkling the band adjacent to the reed.

In the art the term "beveled" is used to  
50 define a sweat-band, which when drawn out-

ward from the hat slants inward from the point of the attachment of the band to the hat, as shown in Fig. 1.

In Figs. 1 and 3, *a* indicates the crown of a hat; *b*, the brim; *c*, the sweat-band; *d*, the  
55 reed, and *e* the backing.

14 indicates the needle-plate, which has a groove 15 to receive the reed as it moves over the lower arm or work-support. The feed 16 works through the needle-plate, as usual. I  
60 prefer to employ a chain-stitch mechanism as distinguished from the lock-stitch; but this is not essential.

17 indicates a presser-bar, and 18 indicates the needle-bar, which are carried in the up-  
65 per arm 10. The presser-bar has a lateral extension 19, (see Fig. 2,) carrying the presser-foot 20. (See Fig. 1.) The needle-bar 18 has a lateral extension 21, projecting inward in the same direction as the extension 19 of the  
70 presser-bar. This extension 21 carries the needle, as will be understood.

22 indicates the top shield, which is fastened to the extension 19 of the presser-bar and projects horizontally over the extension 21 of  
75 the needle-bar. This top shield is adapted to be engaged by the edge of the brim of the hat, as shown in Fig. 1, so as to guide the same over the extensions 19 and 21 of the presser  
80 and needle bars. The extension 19 of the presser-bar also carries the side shield 23, which stands vertically at the side of the presser-foot and needle and is adapted to have the horizontal portion of the brim of the hat  
85 run against it.

The gage devices are carried on a base-plate 24, which is pivoted to the lower arm of the machine to swing around the center of a pin or screw 25, as indicated by the dotted lines  
90 in Fig. 2.

26 indicates a spring-pressed dog, (see Fig. 4,) which engages the lower arm to hold the base-plate 24 of the gage device in operative position and which may be drawn up to permit the gage devices to be thrown to one side.  
95 Carried on the base-plate 24, which slides axially in bearings 27, is a rod 28, with a roller 29 at its front end, this roller bearing against the under side of the brim of the hat to press it against the side shield 23.  
100

30 indicates a spring, which presses the bar 28 into operative position. Carried on the base-plate 24 is a spring-arm 31, which may be raised or lowered by means of an adjusting-screw 32. This arm 31 projects forwardly over the needle-plate 14 and is inclined downward, as best shown in Fig. 3. The front end of the arm is enlarged and grooved transversely, as indicated at 32<sup>a</sup> in Fig. 3, the grooved portion being designed to engage the reed *d* of the sweat-band, so as to guide said reed as it moves over the needle-plate. Adjustably carried on the top of the arm 31 is a block 33, on which is arranged a roller 34. This roller is adapted to bear on the hat-brim at a point below the roller 29 and to gage the position of the hat with respect to the grooved portion 32<sup>a</sup> of the arm 31, thus gaging the location of the reed in the hat. By moving the block 33 to the left in Fig. 3 the hat will be held farther away from the grooved portion 32<sup>a</sup> of the arm 31, and consequently the reed of the sweat-band will be placed higher with respect to the bottom edge of the crown. By moving the block 33 to the right in Fig. 3 the reverse effect will be attained.

In using the invention, to start the operation the gage devices are thrown aside, as indicated by the dotted lines in Fig. 2. Then the needle and presser bars are raised, and the sweat-band is then placed in position. The brim of the hat is then passed under the needle and presser bars into the position shown in Figs. 1 and 3. The gage devices are thrown into action, and then the needle and presser-foot are lowered to operative position, as shown in Figs. 2 and 3. The roller 29 presses the hat firmly into position against the hat-guide 23, and the roller 24 adjusts the position of the hat with respect to the reed. The parts of the hat are then free to be moved over the lower arm 11 by the action of the feed 16, thus turning the hat completely around the arm and sewing in the sweat-band through the medium of the backing *e* in Fig. 3. Reference to Fig. 3 will show the utility of the depression 12 in the arm of the machine. The sweat-band *c*, owing to the usual form thereof, tends to slant downward against the arm, and were it not for this depression the sweat-band would be wrinkled, and when sewed in the hat it would lie uneven and present a cumbrous appearance. By providing the depression, however, and allowing the sweat-band to assume its natural form during the sewing operation I insure neat and effective work.

Various changes in the form and details of my invention may be resorted to at will without departing from the spirit of my invention. Hence I consider myself entitled to all forms of the invention as may lie within the intent of my claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A hat-sewing machine, provided with

presser and needle bars, each having lateral and inward extensions, and a top shield carried on top of the extension of the presser-bar and projecting substantially horizontally over the extension of the needle-bar in position to be engaged by the edge of the rim of the hat, for the purpose specified.

2. A hat-sewing machine, having a presser-foot, a top shield lying essentially horizontally over the needle and presser-foot in position to be engaged by the edge of the brim of the hat, whereby to keep the hat out of engagement with the upper parts of the needle and presser-foot, means for supporting said top shield, and means for carrying the needle and presser-foot.

3. A hat-sewing machine, comprising a needle-bar having a lateral extension adapted to carry a needle, a presser-bar having a lateral extension, a presser-foot carried thereby, a top shield lying in substantially horizontal position over the needle and presser-foot and sustained by the lateral extension of the presser-bar, and a side shield lying in substantially vertical position at one side of the needle-bar and presser-foot and sustained by the lateral extension of the presser-bar, said shield serving to hold the work out of engagement with the needle and presser-foot at points adjacent to the shields.

4. A sewing-machine, having a needle-bar and presser-bar, said bars having lateral inwardly-directed extensions respectively carrying the needle and presser-foot, a top shield carried by the extension of the presser-bar and projecting essentially horizontally over the needle and presser-foot, and a side shield carried by the extension of the presser-bar and extending essentially vertically past one side of the needle and presser-foot.

5. A hat-sewing machine having needle and presser bars, a side shield lying at one side of the same to keep the work from engagement with said parts at points opposite the shield, and a gage device projecting toward the shield and adapted to have the work passed between it and the shield, the gage device serving to press the work against said shield.

6. A hat-sewing machine, comprising a needle-bar, a needle, a presser-bar, a presser-foot, a top shield lying essentially horizontally over the needle and presser-foot, a side shield lying essentially vertically at one side of the needle and presser-foot, gage devices comprising a part pressing the brim of the hat against the side shield and also comprising a guide for the reed of the hat sweat-band, and a member pressing against the brim of the hat to gage the position of the hat with respect to the reed of the sweat-band.

7. A hat-sewing machine, having a needle-bar and a presser-bar, said bar having lateral inwardly-directed extensions respectively carrying the needle and presser-foot, a top shield carried by the extension of the presser-bar and extending essentially hori-

zontally over the needle and presser-foot, a side shield carried by the extension of the presser-bar and extending essentially vertically past one side of the needle and presser-foot, and a gage located outside the side shield and adapted to press the work against the same.

8. In a hat-sewing machine, the combination with the needle and presser bars, of a top shield carried by the presser-bar and lying essentially horizontally to be engaged by the edge of the rim of the hat, a side shield carried from the presser-bar and extending essentially vertically, means located opposite the side shield and pressing the rim of the hat against the same, and a two-part gage device, the members of which are adjustably connected together, one part of the gage device being adapted to be engaged by the reed of the sweat-band and the other part being adapted to engage the brim of the hat, whereby to gage the location of the sweat-band with respect to the hat.

9. A machine for sewing beveled sweat-bands into hats having a horizontal lower arm or work-support, needle and presser bars movable toward and from the work-support and each having an inwardly-projected horizontal extension, a presser-foot carried by the extension of the presser-bar, a top shield carried by the presser-bar extension and adapted to coact with the edge of the brim of the hat, a side shield also carried by the presser-bar extension and adapted to coact with the brim of the hat, and a gage device projecting toward the side shield to hold the brim of the hat engaged therewith, the said lower arm or work-support having a depression in its upper side, said depression extending inward from a point adjacent to the presser-foot and serving to receive the "beveled" sweat-band of the hat to permit the same to incline downward from the horizontal plane of the presser-foot.

10. In a hat-sewing machine, the combination with the means for guiding the hat and the means for sewing the "beveled" sweat-

band in place, of the lower arm or work-support having a depression in its upper side, said depression extending inward from a point directly adjacent to the said sewing means along the lower arm or work-support and serving to receive the sweat-band to permit the same to incline downward from the horizontal plane of the upper side of the said lower arm or work-support, said guiding means including gage devices pivotally mounted at the inner portion of the arm and extending outward over said depression, and means for releasably holding the gage devices in operative position.

11. In a hat-sewing machine, the combination with the means for guiding the hat and for sewing the "beveled" sweat-band in place, of the lower arm or work-support having a depression in its upper side, said depression extending inward from the said sewing means along the lower arm or work-support and serving to receive the sweat-band to permit the same to incline downward from the horizontal plane of the upper side of the said lower arm or work-support, gage devices coacting with said means for guiding the hat, a base-plate on which the gage devices are carried, said base-plate being pivotally mounted on the inner portion of the arm and extending outward over said depression, and means for releasably holding the base-plate in operative position.

12. A sewing-machine having needle and presser bars, a side shield lying at one side of the same to keep the work from engagement with said parts at points opposite the shield, a gage device serving to press the work against the shield, a pivoted base-plate on which the gage device is mounted, and means for removably holding the base-plate in operative position.

April 16, 1901.

EDMOND GREGORY O'DONNELL.

Witnesses:

CLYDE T. CLAYTON,  
PATRICK POWERS.