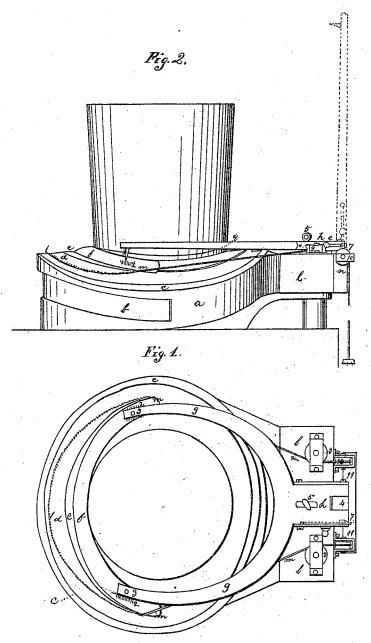
F. Degen. Curling Brims. Nº 5065 Patented Apr. 17,1847.



Witnesses Weberrell Lemuel W Gerrell

Inventor Jeanois Degen

## UNITED STATES PATENT OFFICE.

FRANCIS DEGEN, OF NEW YORK, N. Y.

## APPARATUS FOR FORMING HAT-BRIMS

Specification of Letters Patent No. 5,065, dated April 17, 1847.

To all whom it may concern:

Be it known that I, Francis Degen, of the city, county, and State of New York, hat manufacturer, have invented and made 5 and applied to use certain new and useful Improvements in Mechanical Means for Giving Shape to the Brims of Hats When Finishing Them, such improvements consisting in the adaptation and combination 10 of known parts to use with each other and with parts improved by me to effect what is technically known as "curling the brims" of hats more easily, equally, and quicker than is usually done, for which improve-15 ments I seek Letters Patent of the United States, and that the said improvements are constructively, operatively, and substantially set forth and shown in the following description and in the drawing annexed to 20 and making a part of this specification,

wherein-Figure 1, is a plan and Fig. 2, a side elevation of a machine for this purpose fitted with my improvements, as in place for use, 25 the same letters and numbers, as marks of reference, applying to the like parts, in

each of the figures.

a, is an iron stand, fitted to lie on a bench, and with a space b, wherein to re-30 ceive a heater, which, when placed in, will heat the surface piece c, which is made to the fashionable form, but as a shifting piece, to accommodate the change of form, according to the change of fashion, and to receive a 35 changeable block, to fit the interior of the given hat, and hold it in place, for operation. Upon the surface c, a piece of felt cloth, or other similar substance, is laid, to prevent the heat below acting too severely 40 on the hat brim, and over the felt is a strong cloth d, of hempen, flaxen, or cotton, material, cut round, on the outer edge, so as to come to the outside of, and over the edge, of the hat brim e, a helical opening spring 1, 45 is sewed on the rounded edge of the cloth d, with the bight of a cord, or string, m, through the spring, and passing toward and over the edge, of the block l, through a pair of guide pulleys 9, 9, and over a pair of 50 leader pulleys, 10, 10, to a stirrup 11. Upon the hat brim is a changeable curler,

or former, f, so made, that its outer edge

shall give the curl, and form, on the edge of the hat brim, the inner edge, toward each

chisel points 3, in the outer ends of a metal keeper piece g, made in a nearly semielliptical form, terminating in a butt h, and joint 4, on the block l; a slot in the butt h, has a tightening screw 5, to the block be- 60 neath, and on one side of the butt h, a slotted plate 6, incloses a groove in the butt shown by dotted lines in Fig. 1, and in the groove, is a slide bolt 7, moved by a screw 8, going through the plate 6, so that the 65 outer end of the bolt 7, falls into an open groove n, in the projecting piece of the block l, when the keeper piece g, is turned up, and thus retains that in place as shown by the vertical dotted lines, in Fig. 2, when 70 the workman takes out one hat, and puts in another.

It will now be understood by this preparatory description of the parts, that when a hat is placed on the apparatus, to curl 75 the edge of the brim, that the workman places a changeable curler piece f, of the proper shape, on the brim, and having adjusted its place, turns down the keeper piece g, so that the chisel points 3, take 80 the notches 2, then turning down the screw 5, the parts are held in place, while the workman, putting his foot on the stirrup 11, draws the cord m, and edge of the cloth d, over the edge of the hat brim e, and 85 draws that upward, and inward, over the curler f, the workman then, with his finger and a smoother, fixes the shape, as required, and releasing the cloth d, turns the finished portion around, as shown in the drawing, 90 and finishes the opposite side, to correspond. The expansive spring 1, as the stirrup 11, is released throws the cloth d, off the hat brim.

I do not claim to have invented the cloth 95 d, and spring 1, and the accessory parts, because these have been before used, in France, nearly as I have made them; but in that country, the cloth is placed beneath, so as to turn up over a shifting hollow 100 bottom piece, heated by steam, which hollow bottom piece has to be of a different size, to fit each separate size of hat; whereas, by my arrangement, of a fixed solid bottom piece, heated by a shifting 105 heater beneath, and placing the cloth d, above the bottom piece, made with a means of putting on an adjustable crown block, and using a changeable metal rim curler, 55 end, has notches 2, 2, filed across it, to take or former, one fixed bottom piece, and one 110 cloth, will enable a workman to curl the brims, on all the ordinary and fashionable size of hats.

Therefore, my claim will be limited, to—
The placing a changeable heater in the space b, of the stand a, to act in conjunction with a curling cloth d, above the heating apparatus, in combination with the adjustable curler or former piece f,

and the means of holding that in place, for 10 use, substantially as described and shown.

In witness whereof I have hereunto set my hand in the city of New York this tenth day of December 1846.

FRANCIS DEGEN.

Witnesses:

W. Serrell, Samuel W. Serrell.