July 1, 1930. W. C. JOHNSON 1,768,768

MACHINE FOR BAKING HAT STAYS

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Fig. 1

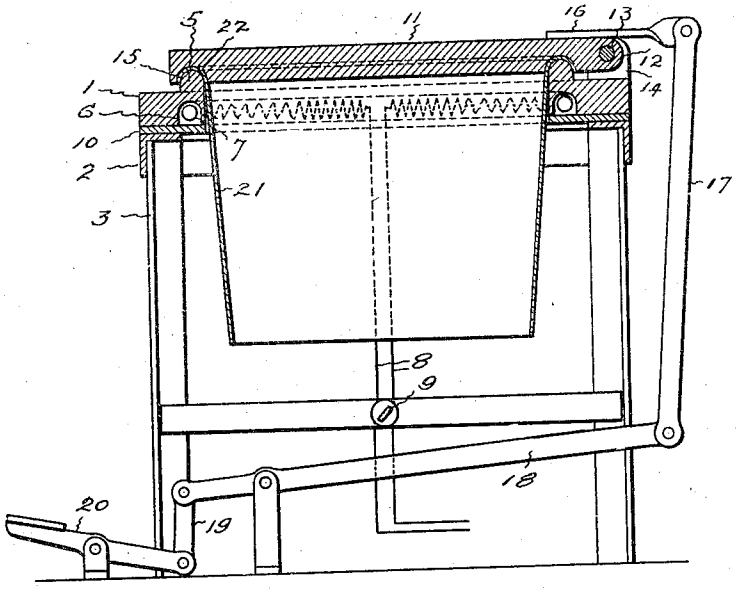
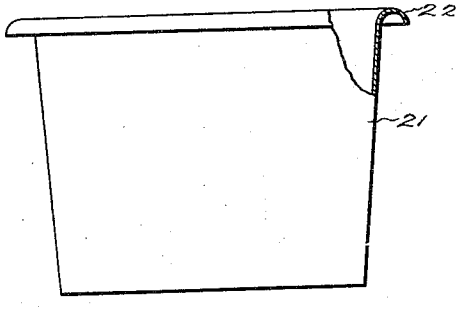


Fig. 2



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Fig. 3

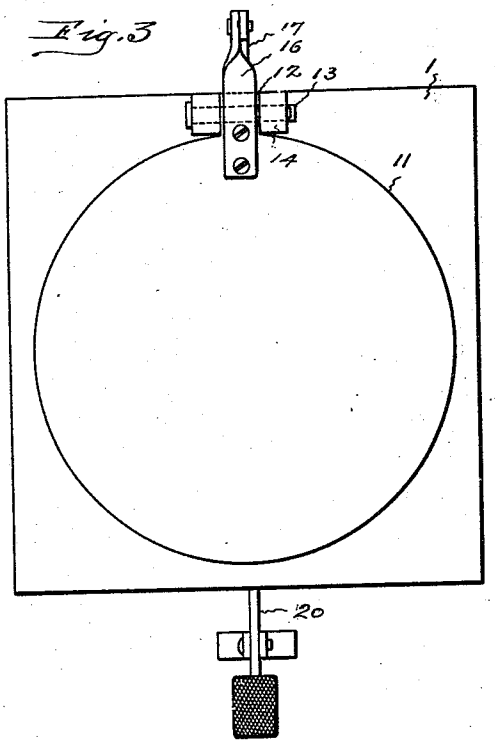


Fig. 4

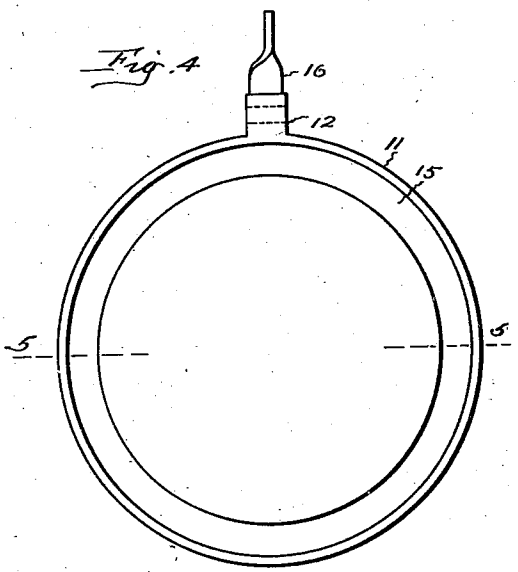


Fig. 5

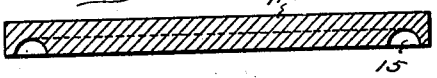


Fig. 6

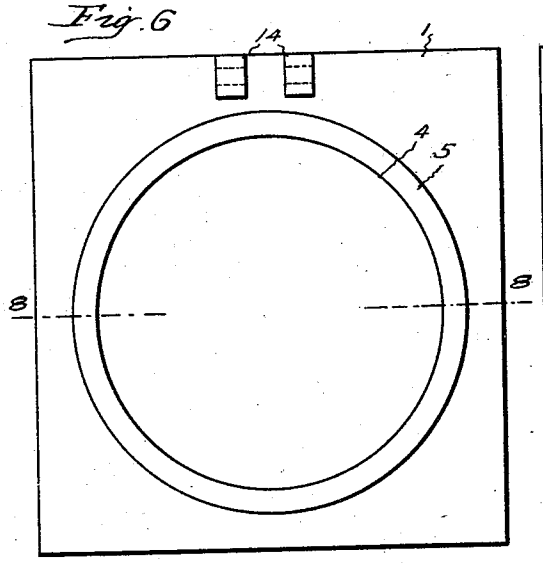


Fig. 7

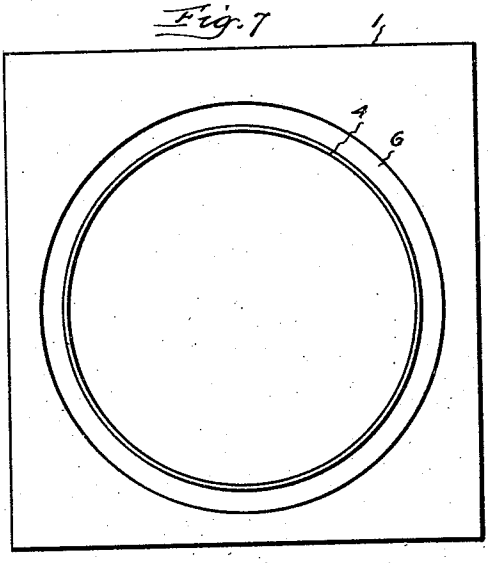
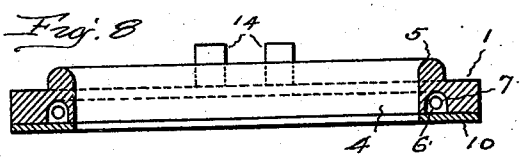


Fig. 8



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1,768,768

UNITED STATES PATENT OFFICE

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MACHINE FOR BAKING HAT STAYS

Application filed June 18, 1928. Serial No. 286,319.

Men's and boys' fur and felt hats are stacked by the manufacturers in cardboard boxes for storing and transportation to dealers, the lowest hat of the stack being set into a tubular cardboard stay with its brim resting upon and supported by the rim of the stay. The upper edges of the stays are curled to form wide flexible bearings for the hat brims to rest upon, which curls must be regular and smooth in order that any rubbing of the hat brims on the rims of the stays will not chafe the brims and so injure or mar the hats as to reduce their market value. The stay blanks are tubular, and the upper edges to be curled are first wet and softened by being dipped into warm water, and then the wet edges are in a suitable machine stretched and curled by rollers and curlers. A preferred method of taking these steps is fully illustrated and described in patent issued on my application March 27, 1928, No. 1,663,763.

The present invention relates to an apparatus which is designed to be used subsequent to the treatment above mentioned and set forth in said patent, for drying and setting the curled edges of the stays in order that the curls of the finished product will, while flexible, be smooth and uniform and will retain the desired configuration to eliminate marring of the hat brims which they are to support.

In carrying out the present invention I provide a suitably mounted metallic base plate which has a central circular opening adapted to receive the bodies of the stays. This plate has an upstanding annular rounded lip encircling the opening and shaped to fit into the wet curled upper edges of the stays when they are thrust through the opening of the base plate. Hinged over the base plate is a cover plate which is provided with an annular groove shaped to fit down upon and to clamp the wet curled edges of the stays upon the lip which extends upward from the base plate, means being provided whereby the cover may be quickly opened to permit the reception and removal of the stays, and be closed for clamping the curled edges down upon the lip of the base plate. On the under side of the base plate, encircling the opening and beneath the lip, is a groove in which is mounted an electrical resistance that is connected with a switch in a line from source of power for the purpose of heating the plate so that the wet brim of a stay which is clamped in place by the cover will be quickly dried and will set with a smooth, uniform curl that will retain its shape.

In the accompanying drawings Fig. 1 shows a vertical section of the apparatus with a stay in place to be baked. Fig. 2 shows a side view of the stay. Fig. 3 shows a plan of the apparatus. Fig. 4 is a view looking at the under side of the cover. Fig. 5 shows a section of the cover. Fig. 6 is a view looking at the top of the base plate. Fig. 7 is a view looking at the under side of the base plate. Fig. 8 is a section of the base plate.

The base plate 1 may be made of cast iron of sufficient mass to retain the required amount of heat, and may have any desired outline, preferably rectangular. This plate is shown as set upon a frame 2 of angle iron that is supported by legs 3. Through the center of the base plate is a circular opening 4 of a size to receive the bodies of the stays to be treated.

On the top of the base plate and surrounding the central opening is a substantially semi-circular lip 5 designed to fit into the soft wet curls to be heated and dried, and in the under side of the base plate and surrounding the opening is a groove 6 designed to receive an electrical resistance 7 which forms the heating element. The resistance is connected by wires 8 with a switch 9 arranged to control the heating current. A

plate 10 is usually placed against the bottom of the base plate after the resistance is placed in position in order to protect it.

The cover plate 11, which is desirably a circular disk of cast iron, has a lug 12 that is hinged by the pintle 13 to ears 14 that extend upwardly from near the rear edge of the base plate. In the under side of the cover plate is an annular groove 15 of a size to fit over the annular lip on the base, the cross-sectional area of this groove being sufficiently larger than the cross-section of the lip to form a mold for the curl that is to be pressed and baked between the walls of the lip and groove.

Attached to the cover is a rearwardly extending arm 16 that is connected by a link 17 with a rear end of a lever 18, the front end of which lever is connected by a link 19 with a treadle lever 20.

With the switch turned on and the base plate heated by the passage of the current through the resistance the treadle is depressed and the cover is raised. A stay body 21 is thrust through the opening in the base plate and the curled wet rim 22 is fitted down upon the lip on the base plate. The treadle is then released and the cover allowed to close down upon the base plate so that the groove in the cover and the lip on the base plate will form the mold in which the wet rim of the stay will be pressed and held smoothly until the curl has dried and become set without wrinkles. With this apparatus stays which have been curled by the process set forth in the patent above mentioned may be very rapidly finished with the curls set so that they will be smooth and will retain the necessary configuration to support the hats without marring the brims.

The invention claimed is:

1. Apparatus for baking the rims of hat stays comprising a base plate having an annular opening therethrough adapted to permit the passage of the stay bodies and also having an annular curved upwardly extending lip around said opening for receiving the curled rims of the stays, an electrical resistance element located in said base plate and surrounding the opening therein, a cover plate hinged to the base plate, said cover plate having an annular curved groove that complements the lip on the base plate and forms a mold for holding the rims of the stays while they are being baked, and a treadle connected with and adapted to open said cover plate.

2. Apparatus for baking the rims of hat stays comprising a base plate having an annular opening therethrough adapted to permit the passage of the stay bodies, said base plate also having an annular curved upwardly extending lip around said opening for receiving the curled rims of the stays and having an annular groove in its lower face below said lip, an electrical resistance element located in said groove, a cover plate hinged to the base plate, said cover plate having an annular curved groove that complements the lip on the base plate and forms a mold for holding the rims of the stays while they are being baked, and a treadle connected with and adapted to open said cover plate.

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