

(No Model.)

G. YULE.
HAT BRIM HEATER.

No. 344,800.

Patented June 29, 1886.

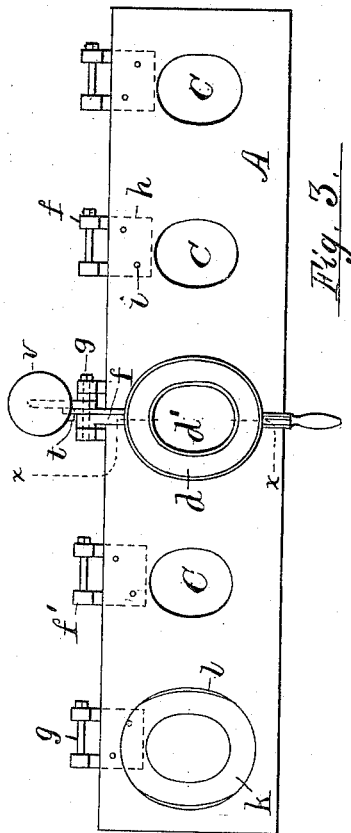


Fig. 3.

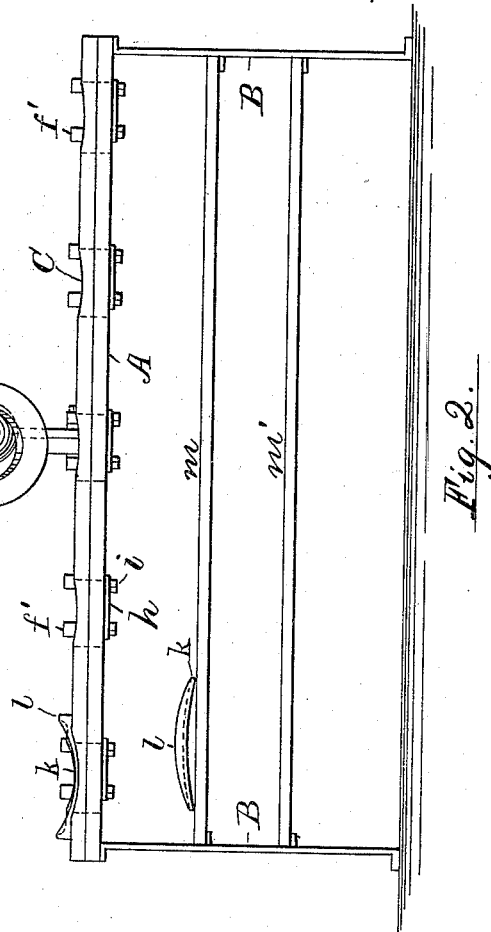


Fig. 2.

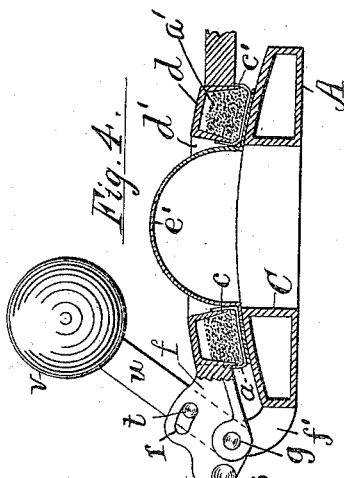


Fig. 4.

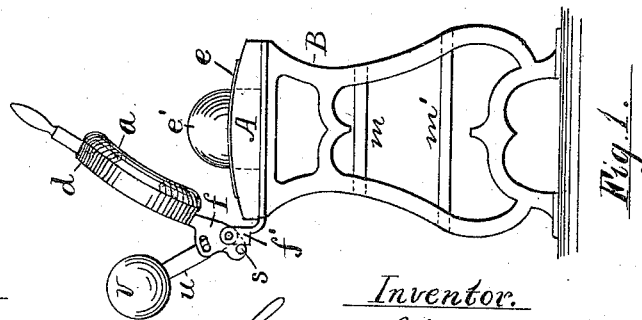


Fig. 1.

Attest.

Le. Sec.
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UNITED STATES PATENT OFFICE.

GEORGE YULE, OF NEWARK, NEW JERSEY.

HAT-BRIM HEATER.

SPECIFICATION forming part of Letters Patent No. 344,800, dated June 29, 1886.

Application filed September 5, 1885. Serial No. 176,527. (No model.)

To all whom it may concern:

Be it known that I, GEORGE YULE, a citizen of the United States, residing in Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Hat-Brim Heaters, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The object of this invention is to provide a more convenient means of applying a so-called "bag" to the brim of the hat when laid upon a hot table for softening the same preparatory to curling or shaping; and the essential feature of the invention is the combination of the yielding cover of the bag with an annular casing, so that the yielding pressing-surface is adapted to fit and press the hat-brim exclusively.

It also consists in mounting such annular bag upon a lever pivoted directly to the hot table.

It also consists in a means for supporting and weighting the presser, and in the combination, with the arched top of the table, of a flange fitted to such arch, and having curled edges to partially shape the brim during the heating operation.

In the drawings, Figure 1 is an end view of a machine constructed with my improvements, the presser being elevated above the hot table. Fig. 2 is a front elevation of the same with four of the pressers removed. Fig. 3 is a plan of the machine with the presser resting upon the table, a loose flange also being shown upon the table in Figs. 2 and 3; and Fig. 4 is a section of the presser resting upon a hat upon the table, the view being taken on line *x x* in Fig. 3.

A represents a hot table, substantially such as has long been used to heat hat-brims, the same being mounted upon legs B and provided at intervals with holes C, to avoid the radiation of heat within the hat-crown, and to admit air within the crown during the heating of the brim. The top of the table is shown arched transversely, as in Fig. 1 and in the enlarged section in Fig. 4; and it has been common heretofore to lay the hats upon such table with the crown over the openings C, and to allow the brims to become heated without any pressure, or to press them toward the table with metallic forms fitted to the top or

curve of the table. It has also been common in various hat-flanging machines to apply a bag of sand or analogous material to the hat-brim to press it in contact with suitable shaping or curling dies, such bags being lifted and operated by a variety of mechanism of a more or less complicated character, and combined with treadles or other lifting devices; and my present invention consists, chiefly, in a novel construction for the metallic casing to which the bag-cover is attached, and which determines the form of the yielding pressing-surface.

The annular form which I employ for the casing *d* is clearly shown in Figs. 3 and 4, with an oval opening, *d'*, as shown in the center of such casing, to permit the casing to be dropped upon the hat-brim *e* without touching the crown *e'*, the casing being formed with inner and outer edges, *c* and *c'*, which project downward toward the hat-brim, and to which edges the yielding cover *a* is securely fastened in any convenient manner. The cover is made sufficiently slack to bulge normally outward from the casing when lifted from the brim, as shown at *a* in Fig. 1, but conforming itself with the weight of the sand *a'* within it to the shape of the hat-brim or table when pressed upon the same, as shown in Fig. 4. The presser, which is constituted of the annular casing *d* and bag *a*, is attached by a lug, *f*, directly to a pivot, *g*, at the rear of the table A. The pivot is shown in Figs. 1, 2, and 3 supported by brackets *h*, extended under the table and secured thereto by bolts *i*, but may be cast directly upon the table, as shown in Fig. 4, if desired. A stop-pin, *s*, is attached to a projection upon the lug *f*, and is arranged to strike the pivot-bearing *f'* when the bag is raised in its operative position, as shown in Fig. 1, and a slotted segment, *r*, is also affixed to the lug concentric with the pivot *g*, to receive a pin, *t*. This pin projects from the side of a movable lever, *u*, which is hinged upon the pivot of the bag, and has a weight, *v*, attached to its outer end, to aid in holding the bag in the inoperative position shown in Fig. 1. In this figure the weight and lever are shown extending from the pivot *g* in an opposite direction to the bag, so as to balance the weight of the latter and uphold it while the operator removes the hat from

the table. The object of the slotted segment is to permit the weight and lever, when the bag is lowered, to pitch forward and materially increase the pressure exerted by the bag upon the hat-brim. By this construction a part of the weight which is operative in pressing the hat is utilized to sustain the bag above the table, when required.

In Figs. 2 and 3 is shown a flange, *k*, having at opposite sides upturned edges *l*, which serve to partially shape the hat-brim while heating upon the table, and thus preparing the hat more effectually for the subsequent flanging or shaping. Such flange requires in my invention to be made so thin as to readily permit the passage of the heat from the table to the hat-brim, the flange, when required for use, being preferably laid upon the table a few minutes, to get warm, before applying the hat and presser thereto. Such flange is only intended to partially bend the hat-brim, and is not expected to shape it perfectly, and to effect this object the flange may therefore be wholly made of thin sheet-copper, which is an excellent conductor of heat, the metal being merely thick enough to retain its form under the yielding pressure of the bag.

In Fig. 2, besides the flange shown at the left end of the table, another flange, detached from the table and turned sidewise, is shown resting upon a shelf, *m*; but both flanges are unavoidably shown of greater thickness than would be required in practice, to represent them clearly in the drawings. Such flanges may obviously be made of any suitable material and formed upon a sufficient part of their under side to fit the top of the table, whether flat or arched, so as to sustain the pressure of the bag. Two shelves, *m m'*, are shown extended between the legs *B*, to serve as supports for the flanges or the hats.

It will be noticed by reference to Fig. 4 that the hat-crown is protected from heat by the construction of the table and of the pressing-bag, with openings through which the air may gain access to both the inner and outer sides of the crown; and such construction enables me to heat the brim in the very best manner, without softening the crown, and without the employment of any special means to protect the latter from heat.

I have long used hot tables with holes *C* therein, to avoid the radiation of heat within the hat-crown; but I am not aware that an annular bag has ever been combined with such a perforated table to expose the outer as well as the inner side of the crown to a free circulation of air.

I am aware that it is not new to use flanges for shaping a hat-brim, and do not, therefore, make any claim to such a flange, except in combination with the table by which the flange is heated, and with the annular bag pivoted to the table so as to operate economically with its heating-surface.

Having thus set forth the nature of my invention, I claim the same as follows:

1. In a hat-brim heater, an annular bag having an annular casing, with a central opening extended entirely through the same to permit the passage of the hat-crown, substantially as and for the purpose set forth.

2. In a hat-brim heater, a heated table, an annular bag having a central opening extended entirely through the same to permit the passage of the hat-crown, and means for supporting the bag movably over the table, as and for the purpose set forth.

3. In a hat-brim heater, a hot table and an annular bag formed upon a casing having a central opening through which the hat-crown is exposed to the atmosphere, the bag-casing being hinged by a lug, *f*, to a pivot at the rear of the table, and provided with a handle at its opposite side to raise the same from the hat, substantially as herein set forth.

4. In a hat-brim heater, the combination, with the hot table and an annular presser having a central opening extended entirely through the same to permit the passage of the hat-crown, of the separate movable flange *k*, fitted to the top of the table and adapted to partially shape the hat-brim, substantially as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE YULE.

Witnesses:

THOS. S. CRANE,
L. LEE.