

No. 650,084.

Patented May 22, 1900.

A. TURNER & F. BATTERSBY.
HAT SHAPING MACHINE BRIM CURLER.

(No Model.)

(Application filed May 10, 1898.)

2 Sheets—Sheet 1.

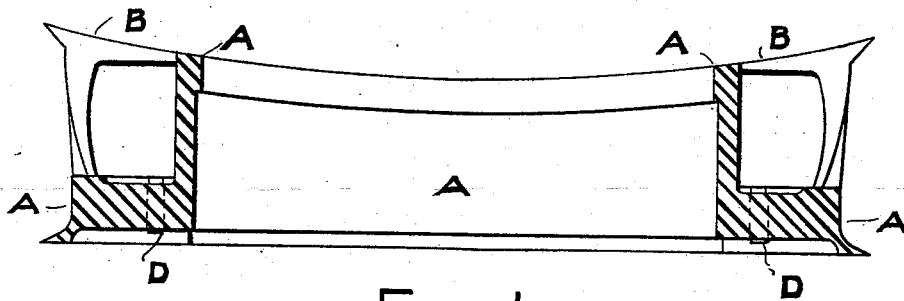


FIG. 1.

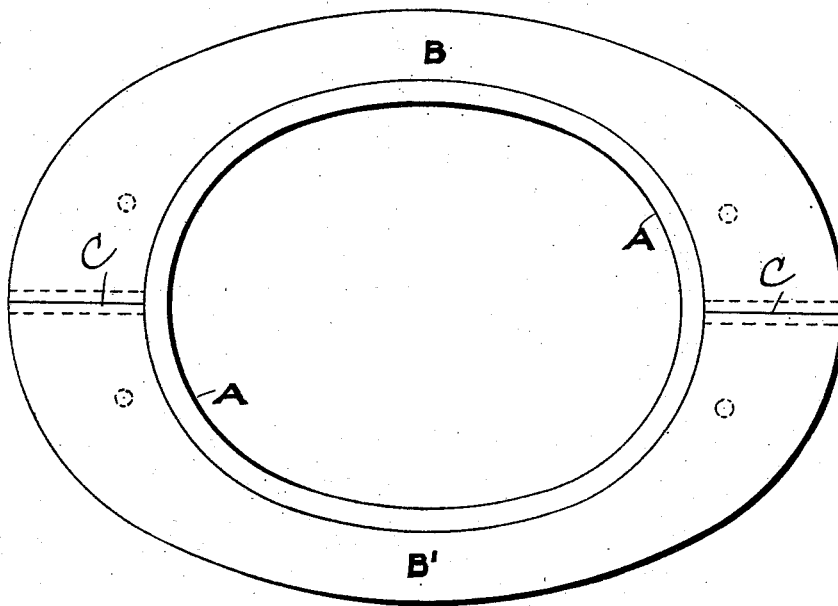


FIG. 2.

Witnesses:

E. R. Bolton
C. W. Munk

Inventors:

Albert Turner
Frank Battersby

By *Richardson*
their Attorneys

No. 650,084.

Patented May 22, 1900.

A. TURNER & F. BATTERSBY.
HAT SHAPING MACHINE BRIM CURLER.

(No Model.)

(Application filed May 10, 1898.)

2 Sheets—Sheet 2.

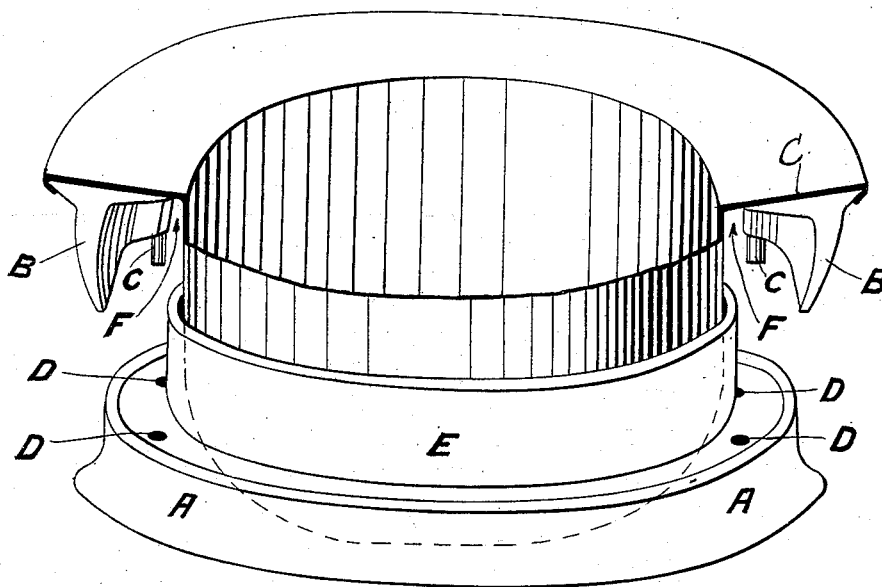


FIG. 3.

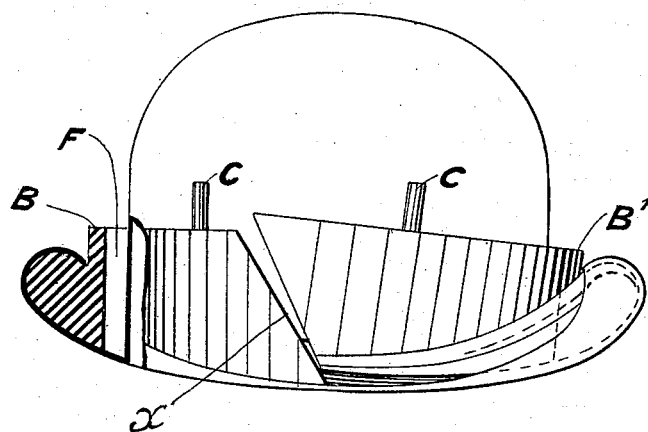


FIG. 4.

Witnesses:

E. B. Bolton

Odum

Inventors:

Albert Turner
Frank Battersby

By

Richardson

their Attorneys.

UNITED STATES PATENT OFFICE.

ALBERT TURNER, OF DENTON, AND FRANK BATTERSBY, OF STOCKPORT,
ENGLAND.

HAT-SHAPING-MACHINE BRIM-CURLER.

SPECIFICATION forming part of Letters Patent No. 650,084, dated May 22, 1900.

Application filed May 10, 1898. Serial No. 680,254. (No model.)

To all whom it may concern:

Be it known that we, ALBERT TURNER, residing at Denton, and FRANK BATTERSBY, residing at Stockport, England, subjects of the Queen of Great Britain and Ireland, have invented new and useful Improvements in Hat-Curling Presses, of which the following is a specification.

Our invention relates to hat-brim-curling presses, and refers more particularly to the matrix portion of such presses by which the brim of a hat is given the requisite arch and curl. Such matrix is made in halves for enabling it to be removed from the brim of the hat after curling, but for the purpose of keeping such halves together during the curling operation they are pegged onto a frame or base. At present such half portions are the exact size of the space within the intended curl of the brim, and after the felt is pressed around them they require very careful handling to remove them from the curl without damaging or breaking the felt or altering the curl, and this operation is a source of much trouble and loss to the hatter.

In accordance with our invention we make the interior diameter of the matrix about half an inch larger than heretofore, and we cause the base or frame of the matrix to extend upward to a point level with the face of the matrix and so fill up the space heretofore occupied by the matrix of smaller interior diameter. Hence with the half portions of the matrix provided with beveled-off ends it will be seen that when the hat is removed from the press, with the curling-irons or matrix within its brim, an annular space of about one-fourth of an inch will be left between said irons or matrix and the crown or side of the hat and the irons will be more or less slack and will involve little or no trouble to remove, with the risk of damaging the brim greatly reduced and the speed of stripping greatly increased.

On the accompanying drawings, Figure 1 is a longitudinal section of a curling-frame and with one half or part of the matrix removed. Fig. 2 is a plan of a curling-frame and matrix complete. Fig. 3 is a perspective view showing how a gap or space is left between the

hat-body and the matrix when lifted from the base. Fig. 4 is an end view of a felt hat, showing on one side how the half portions of the matrix readily leave the curl, due to the said gap or space and the bevel ends, and on the other side showing the hat and matrix in section and illustrating in a more striking manner the gap or space between the hat and the matrix when lifted from the base.

A is the frame or base, and B B' the half portions of the matrix, which abut against each other at C and have their abutting faces beveled or formed at an angle in the ordinary manner. Each half is pegged onto the base or frame A by pegs *c* and holes D. Instead of each half being the full size of the intended brim or instead of the inner diameter or circumference which surrounds the crown or body of the hat being the same as that of the opening in the base, we make them smaller or the said inner diameter greater, as shown more clearly in Fig. 4, and we cause the base or frame A to extend upward to a height which is level with the upper face of the matrix and of a width that serves to fill up the space previously occupied by the matrix, as shown in Figs. 1 and 2. With the matrix thus made up to its proper size the curling operation is properly effected; but when the time arrives for the half portions of the matrix to be removed from the frame an annular space is left all around the hat between the inner edge of the matrix and the hat-body instead of being a perfectly-tight fit as heretofore, and thus with the abutting ends of the curling-irons beveled off at an angle of about thirty degrees it is the easiest operation imaginable to remove the respective irons out of the brim, since the said annular space allows of the diagonal movement of the iron, which was hitherto prevented by reason of the close abutment of the irons against the sides of the hat-body. The beveled ends of the irons are shown in Fig. 4 at *x*.

In lieu of the raised edging of the base being continuous it may be on one side only, or to further increase the slackness of the matrix in the brim we may cause the raised edging of the base to extend between one or both of the abutting edges of the curling-irons, as

shown in dotted lines in Fig. 2, with suitable provision for the stripping of the felt on the outer end of said raised edge or edges.

By dividing the frame A we may adapt our invention to silk-hat-curling presses.

Having thus particularly described and ascertained the nature of our said invention, what we claim is—

1. In combination, the base A having an upwardly-extending portion and the sectional matrix fitting about the outer side of said upturned portion of the base, the sections of said matrix having beveled ends and said upturned or upwardly-extending portion lying flush with the upper surface of the matrix and fitting between the same and the body of the hat, substantially as described.

2. In combination, the base having the up-

turned portion, the sectional matrix fitting about the outer side of said upturned portion, the several sections of said matrix being detachably connected with the base and each independently removable from the hat-brim, said sections having their ends abutting and shaped to permit their independent removal, said upturned or upwardly-extending portion lying flush with the upper surface of the matrix and fitting between the same and the body of the hat, substantially as described.

In witness whereof we have set our hands in the presence of two witnesses.

ALBERT TURNER.

FRANK BATTERSBY.

Witnesses:

WALTER GUNN,

SAM SIDLEY KAY.