

H. BRUCKSHAW.
MOLD FOR HAT BRIMS.
APPLICATION FILED NOV. 22, 1910.

Patented May 30, 1911.

993,344.

2 SHEETS—SHEET 1.

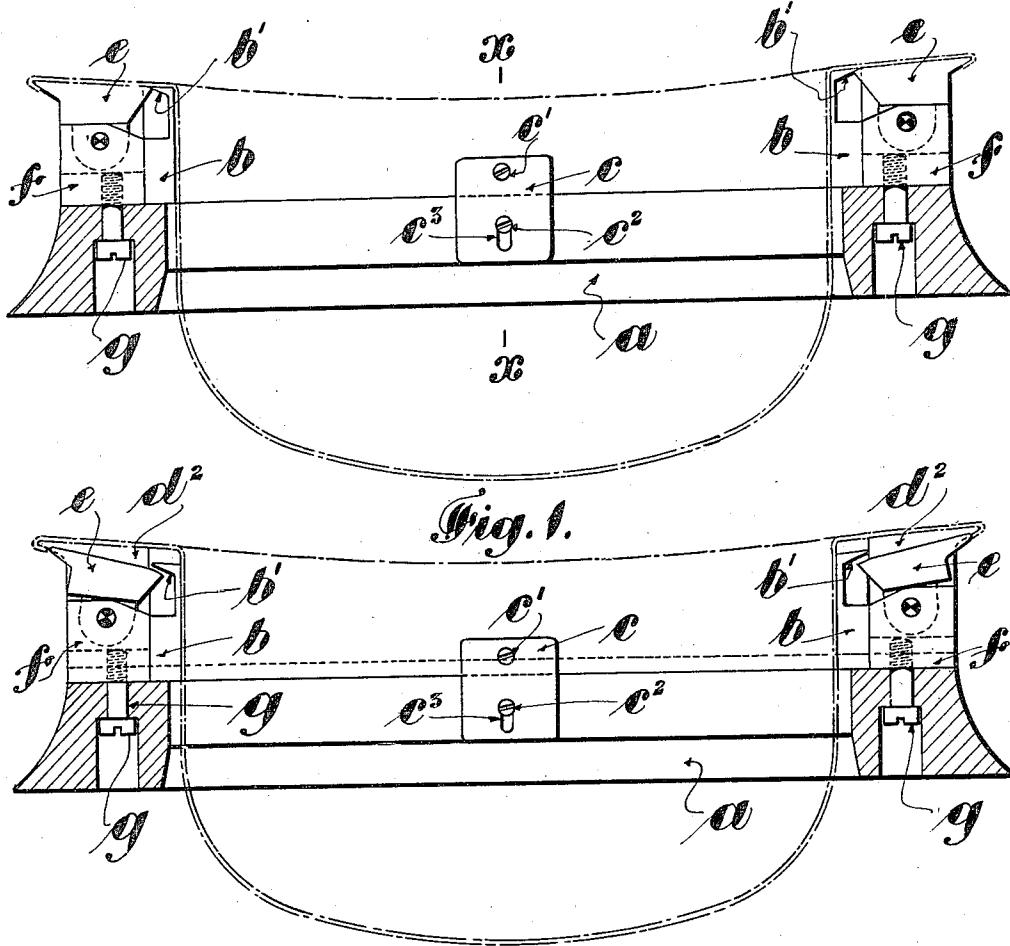


Fig. 1.

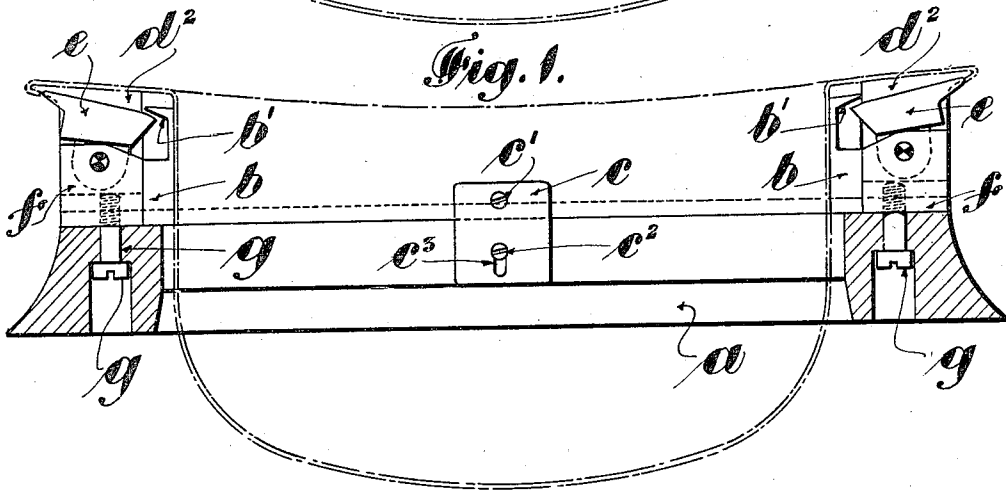


Fig. 3.

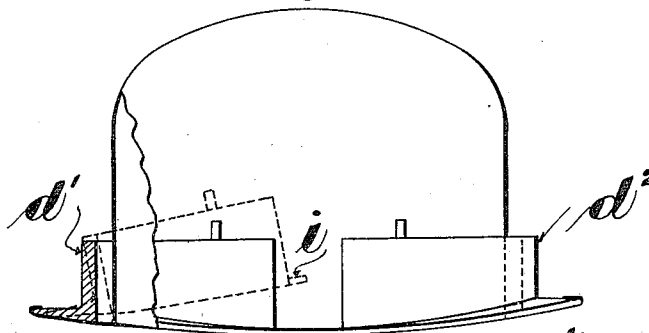


Fig. 9.

Witnesses.

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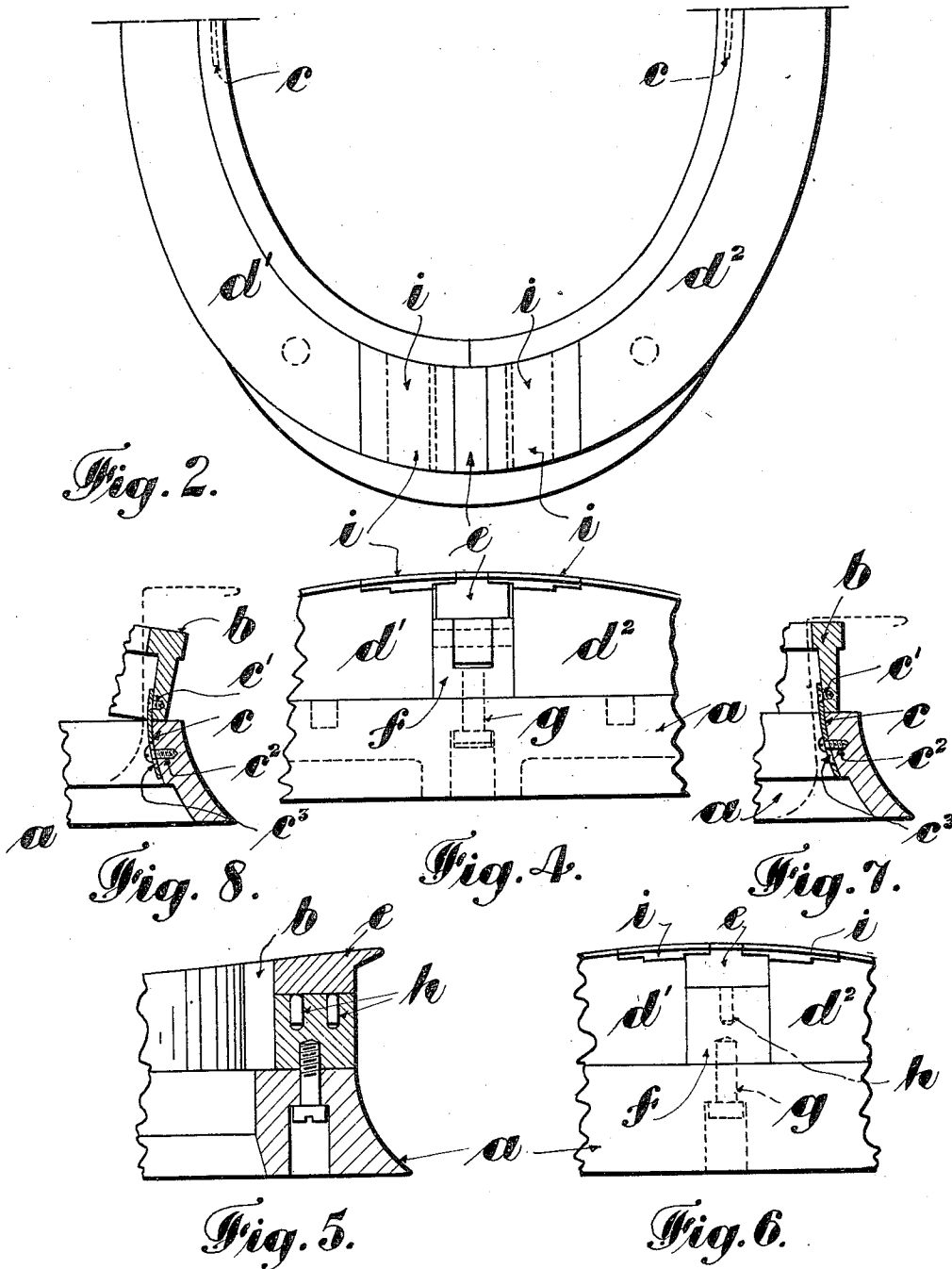
By his Attorney, M. M. Miller

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UNITED STATES PATENT OFFICE.

HARRY BRUCKSHAW, OF DENTON, NEAR MANCHESTER, ENGLAND.

MOLD FOR HAT-BRIMS.

993,344.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed November 22, 1910. Serial No. 593,662.

To all whom it may concern:

Be it known that I, HARRY BRUCKSHAW, a subject of the King of Great Britain and Ireland, and resident of Denton, near Manchester, England, have invented certain new and useful Improvements in Molds for Hat-Brims, of which the following is a specification.

This invention relates to improvements in the split frames or molds on which the brims of felt or silk or other hats are pressed and shaped. Such molds as commonly constructed consist of a rim base, the upstanding rim of which is surrounded by two shaped wings or side frames fitting closely together around the rim with their ends abutting, and on which and the edge of the rim the brim of the hat is shaped and curled. When such wings or side frames are withdrawn from the mold with the brim of the hat as is customary, the removal of such side frames from under the curl of the brim has frequently resulted in cracking of and damage to the brim.

The object of these improvements is chiefly so to construct and form the side frames and certain accessories thereof, and so to combine them with and upon the mold base, that when such side frames are withdrawn from the mold with the brim of the hat, they can be subsequently easily removed from the brim without any danger of damaging it.

A further object is so to construct the said upstanding rim and so to mount it upon the mold base that it will enable hats to be applied to and removed from the mold with less risk of damage to the crown of the hat than heretofore especially when the crown is of "bell" shape.

The first feature of the invention consists in combining with and interposing between the ends of the side frames or wings of the mold certain members of such dimensions and shapes that in conjunction with the side wings, they complete the mold, while after a hat brim has been molded and the said members (hereinafter called filling blocks) are removed from between the ends of the side wings, gaps are formed which allow of the side wings being moved sufficiently near the one to the other and to the crown of the hat as to allow of their being readily removed from the brim without risk of injuring the brim. The filling blocks will be removed either in the act of withdrawing the side wings from the mold, in which case they

will preferably be hinged to the mold base, or after the whole frame has been lifted clear of the mold, the filling blocks being free to bodily leave the mold base.

The second feature of the invention consists in making the upstanding rim of the mold base separate from the other part of the base, and dividing such rim longitudinally. Each half part of the divided rim is hinged or loosely connected to the base in such manner as to permit the parts to separate and thus enlarge the opening presented by the rim for the hat crown.

Upon the accompanying drawings, Figure 1 illustrates a longitudinal sectional elevation, and Fig. 2 a half plan of a hat brim mold embodying the invention, the parts being shown in their normal position. Fig. 3 illustrates a further longitudinal sectional elevation of the same mold, but showing the filling blocks tilted and one of the side wings raised. Fig. 4 illustrates a part end elevation. Fig. 5 illustrates a longitudinal section (in part) of another hat brim mold embodying a modification. Fig. 6 illustrates an end view of Fig. 5, while Figs. 7 and 8 illustrate vertical sections respectively of Fig. 1 on line $x-x$, Fig. 7 showing the rim of the base in its normal vertical position and Fig. 8 showing the rim tilted outward. Fig. 9 illustrates a felt hat with the side wings of the mold in its brim and shows the gaps left between the ends of the side wings and between such side wings and the crown of the hat when removed from the base of the mold.

Referring now to Figs. 1 to 4 a is the base of the mold, and b is the upstanding rim, which latter may either be formed solid with the base or as shown may be formed separate and in two parts each hinged to the base at a point central to its length. Such hinging will preferably be effected by means of small plates c, c , held to one half of the rim by a screw c^1 , and to the base a by a screw c^2 , this latter passing through a slot c^3 which allows of the ready tilting of the half rim, (see Fig. 8,) while holding it to the base.

d^1, d^2 are the two side wings shaped to closely fit the rim and each removably held to the base a by pins or pegs in the usual manner.

e, e are the two filling blocks, which fill the spaces between the ends of the side wings and thus complete the frame. Each filling

block is pivoted to a fixed lower part *f* held by a set screw *g* to the base of the mold, see Fig. 1, and the rim *b* immediately adjacent to the block is recessed in order that when the block is tilted about its pivot as shown in Fig. 3, the recess allows room for the end of the block. The top of each part *b*¹ is also beveled off to allow of the block tilting inward. When the blocks *f* are in their normal positions their top surfaces lie flush with and form a continuation of the top surface of the rim *b* and wings *d*¹, *d*², and thus complete the working face of the mold.

With a hat brim mold thus constructed it should now be seen that with a hat placed in and its brim caused to conform to the shape of the mold, the removal of the side wings *d*¹, *d*² from the brim, without cracking or distorting the same, is greatly facilitated. That is to say, as the hat and with it the side wings are lifted out of the mold, the blocks *e*, *e* remain on the base and, by being partly enveloped by the hat brim, tilt about their pivots until the brim lies clear of them, see Fig. 3. When the hat is fully removed from the mold, and with the blocks *e* remaining on the mold, gaps are left front and back of the hat, see Fig. 9. The side wings *d*¹, *d*² are usually removed by angling them out of the brim, therefore with a space left between the adjacent ends of the side wings the operation of removing them is greatly facilitated. This removing of the side wings from the hat brim is still further facilitated by the gap produced by the rim *b* between the hat crown and the side wings. Of course, the improved end filling blocks *e* may be used with molds in which the rim *b* is not used, and the side wings are the full width of the brim.

Instead of being hinged to the base the filling blocks may be held thereto merely by pegs *h*, see Figs. 5 and 6, fitting into holes in the base, the filling blocks in this arrangement being lifted off the base simultaneously with the side wings, and being removed from between the ends of the side wings when the hat has been placed brim downward.

The abutting edges and ends of the blocks and side wings may be quite plain, but to insure of the blocks and side wings lying flush upon their top surfaces and leaving no marks on the brim of the hat, the said edges and ends are made to lap with each other. And, to give a close and accurate fit, the lap joints

are formed by means of gun metal or like plates *i* intermolded with, or otherwise, and suitably secured to the ends of the side wings, or blocks, see Figs. 4 and 6.

In the case of hats with straight sided crowns the rim *b* might be rigid, but to allow of the use of the mold for hats having crowns of bell shape, the rim is hinged as shown, the half parts readily separating to admit the crown of the hat and coming together again when the hat is fully on the mold.

Obviously in this connection the mold may be used for shaping the brims of silk as well as felt hats.

What I claim is:—

1. In molds for hat brims, and in means for facilitating the removal of the hat from the mold, the combination of a mold base having a rim divided longitudinally and made separate from the base, a slotted plate and pins for flexibly connecting each half part of the rim to the base, side wings adapted to surround the rim and made separate from the base and rim, blocks also made separate from the base rim and side wings, and said blocks adapted to fit between the ends of the side wings, and complete the top molding surface of the mold, and also adapted to produce a gap between such ends of the side wings when the hat is removed from the mold, as set forth.

2. In molds for hat brims and in means for facilitating the removal of the hat from the mold, the combination with the mold base and the side wings of the mold of filling blocks made separate from the mold and adapted to fit between the ends of the side wings, and complete the molding surface of the mold and also adapted to be removed from between the ends of the side wings and leave a gap between them, as set forth.

3. In molds for hat brims, and in means for facilitating the removal of the hat from the mold, the combination with the mold base and side wings of filling blocks pivotally mounted upon the base, and lying between the ends of the side wings, and each of said blocks and each side wing being stepped for one to over-lap the other, as set forth.

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

HARRY BRUCKSHAW.

Witnesses:

P. D. BAILEY,

F. C. PENNINGTON.