W. P. MEEKER.

TILE PRESS MOLD.

APPLICATION FILED JUNE 3, 1908.

**925,782.** Patented June 22, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

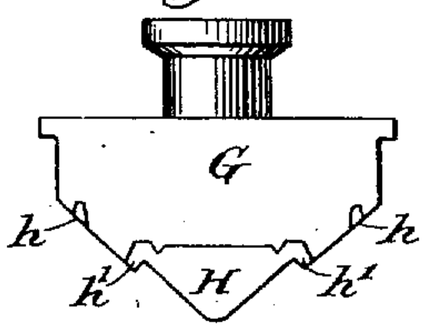



Fig. 2.

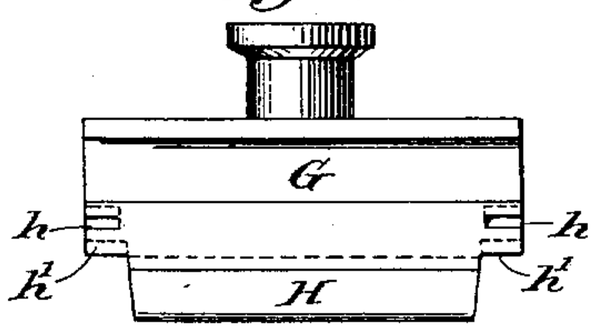



Fig. 3.

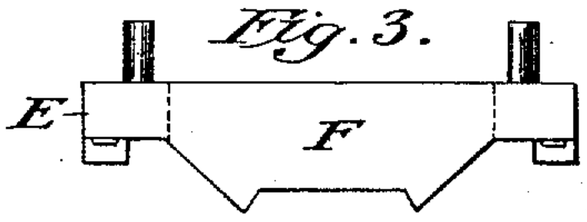



Fig. 4.

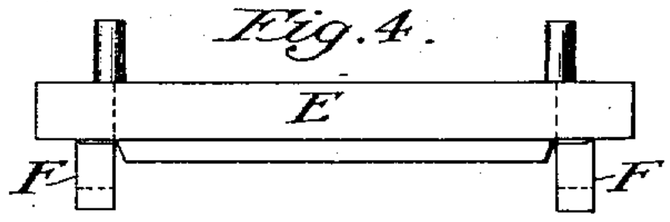



Fig. 5.

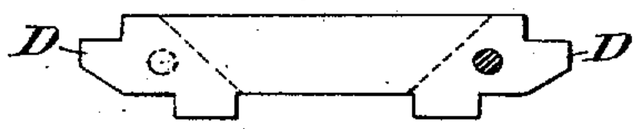



Fig. 6.

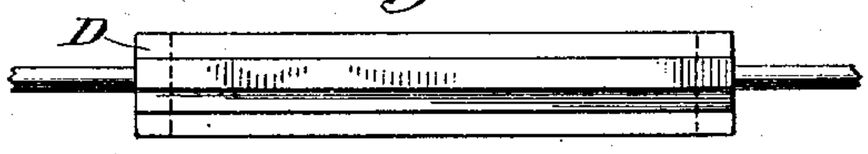



Fig. 7.

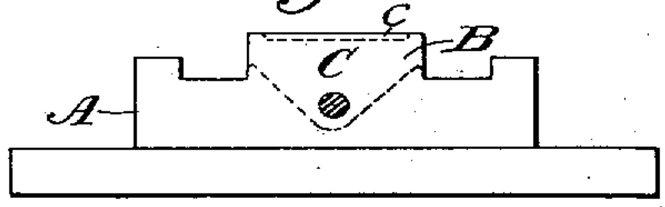
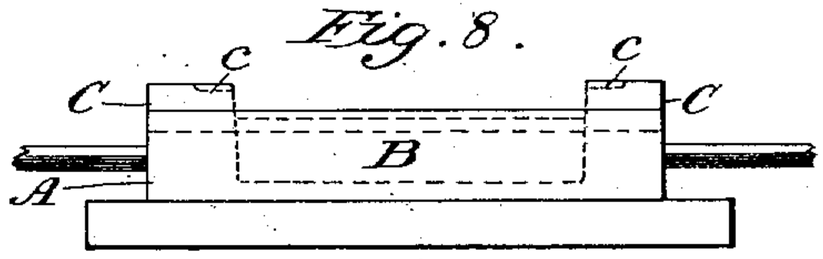



Fig. 8.



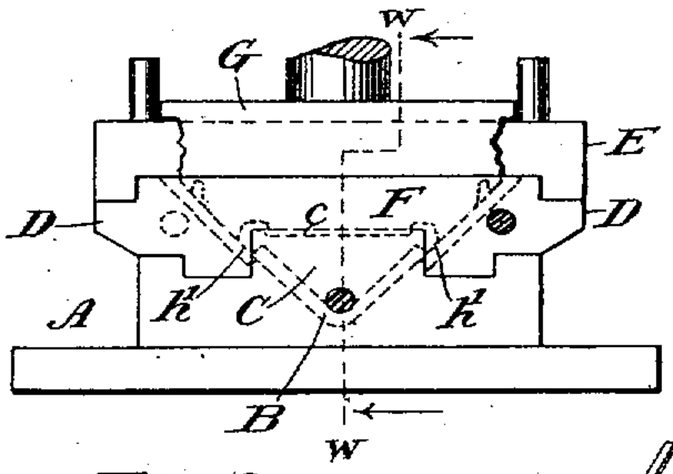




Fig. 9.

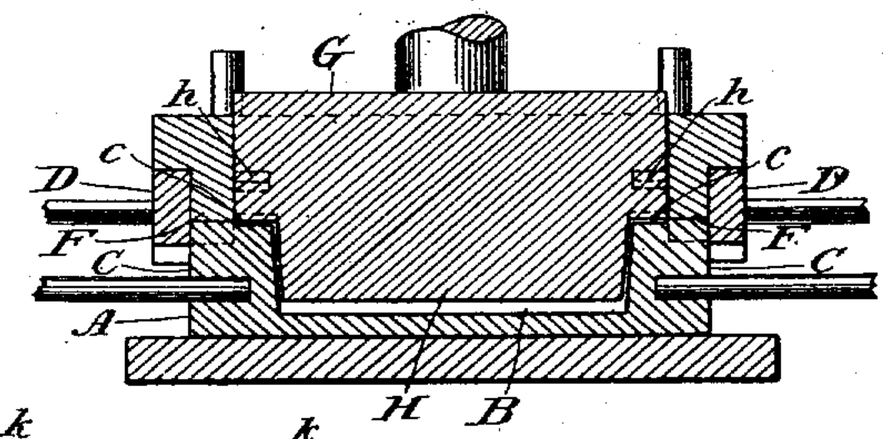



Fig. 10.

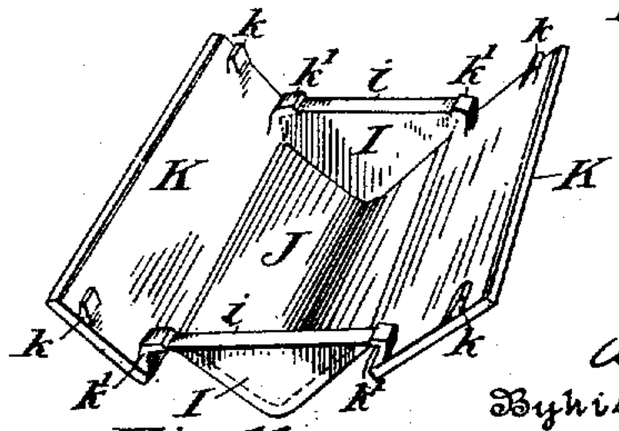



Fig. 11.

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Fig. 12.

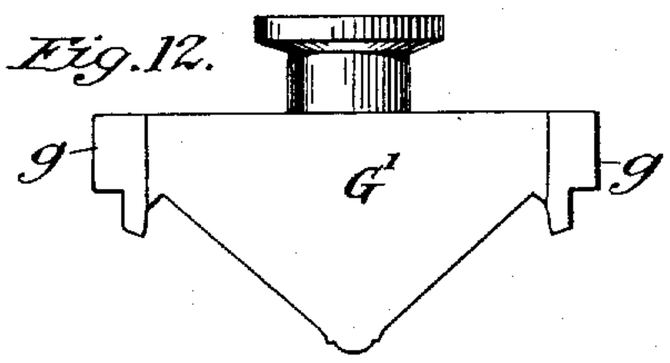
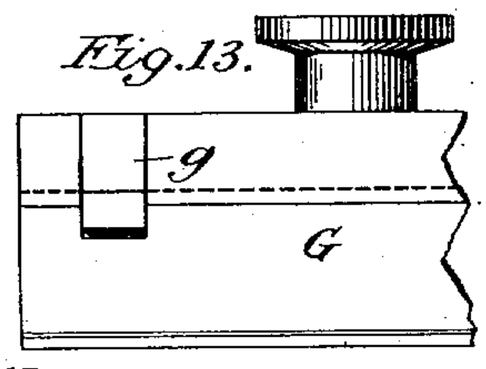



Fig. 13.



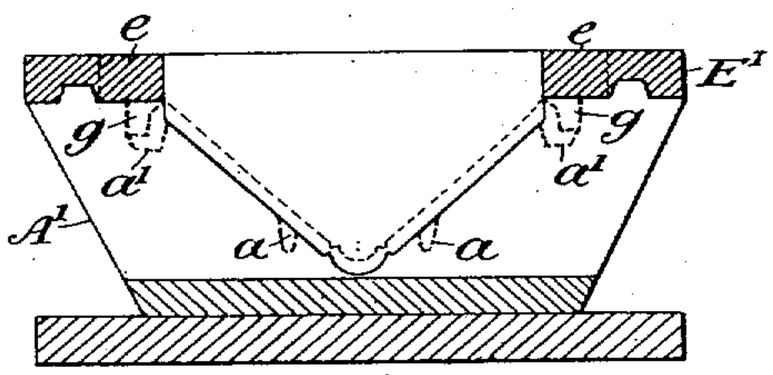




Fig. 14.

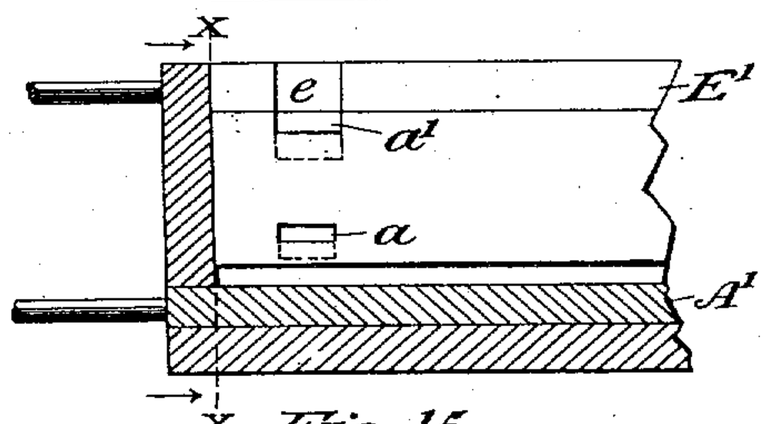



Fig. 15.

Fig. 16.

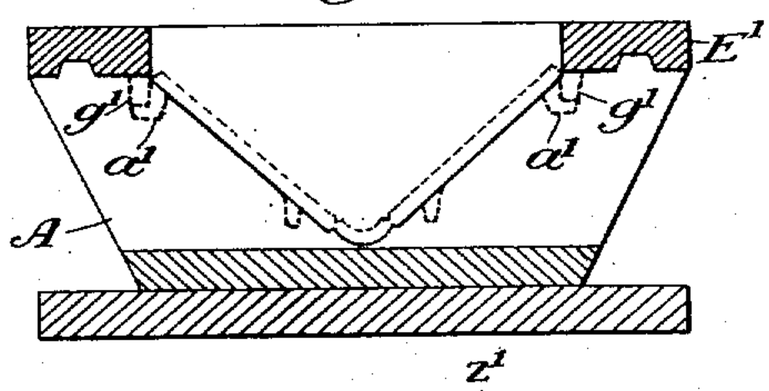



Fig. 17.

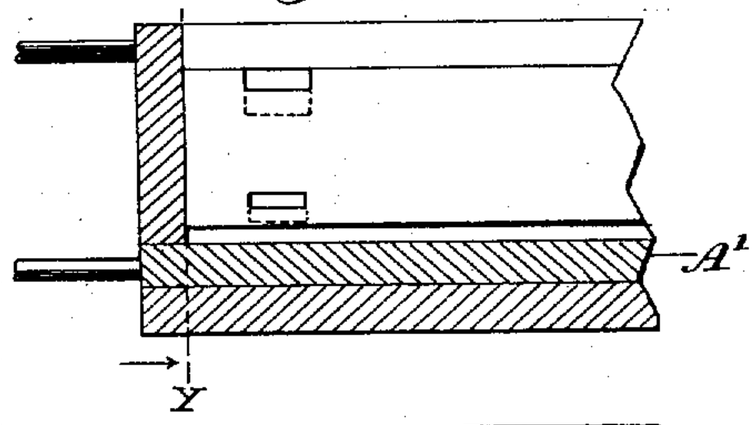



Fig. 18.

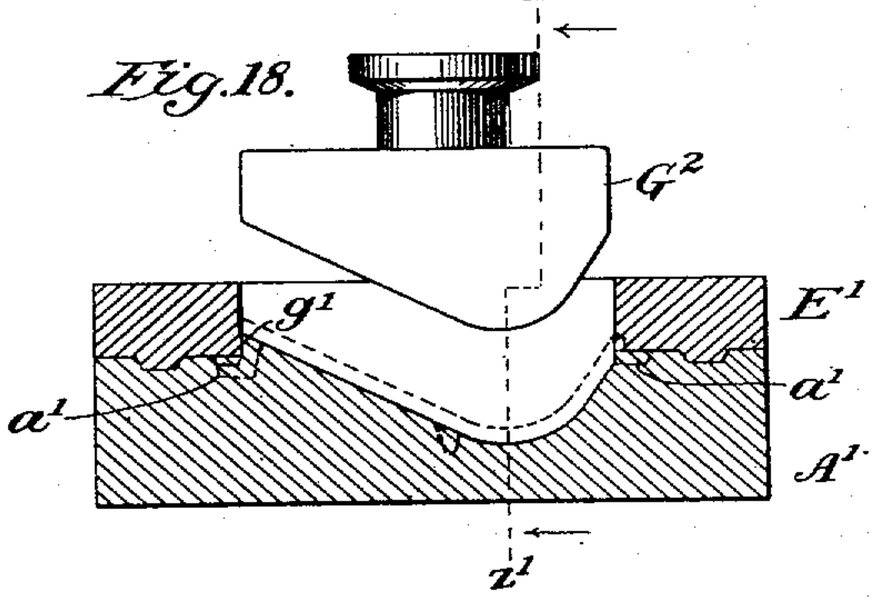
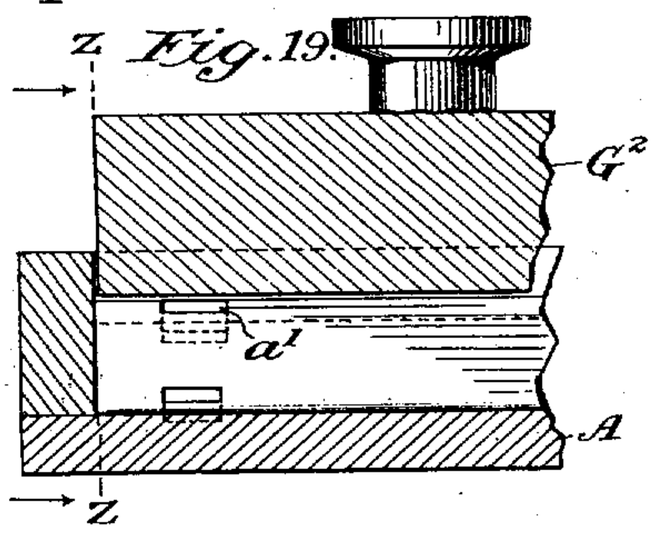



Fig. 19.




Witnesses:
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William A. Moler.

Inventor
William Benson Meeker,
By his Attorney
Andrew Wilson.

# UNITED STATES PATENT OFFICE.

WILLIAM PASSMORE MEEKER, OF MAPLEWOOD, NEW JERSEY.

## TILE PRESS-MOLD.

No. 925,782. Specification of Letters Patent. Patented June 22, 1909.

Application filed June 3, 1908. Serial No. 436,371.

*To all whom it may concern:*

Be it known that I, WILLIAM PASSMORE MEEKER, a citizen of the United States and of the State of New Jersey, residing at Maplewood, Essex county, New Jersey, have invented certain new and useful Improvements in Tile Press-Molds, of which the following is a specification.

My invention relates to that class of press-molds which are designed to form glass tiles with undercut lugs or projections thereupon, and consists in the particulars hereinafter set forth.

The drawings illustrate the following parts of my improved press-mold.

Figure 1 is an end view and Fig. 2 is a side view of the plunger; Fig. 3 is an end view and Fig. 4 is a side view of the top and end frame; Fig. 5 is an end view and Fig. 6 is a side view of the detachable sides; Fig. 7 is an end view and Fig. 8 is a side view of the base; Fig. 9 is an end view of the assembled press with the plunger down and showing the molded glass in broken lines; and Fig. 10 is a longitudinal sectional view taken on the line W W of Fig. 9, omitting the glass; Fig. 11 is a perspective view of the molded form of glass; Fig. 12 is an end view and Fig. 13 a side view of one end of a modified form of plunger; Fig. 14 is a cross-sectional view taken on the line X X of Fig. 15 which is a longitudinal sectional view of one end of the modified form of top and end and mold body to be used with the modified plunger shown in Figs. 12 and 13; Fig. 16 is a cross-sectional view taken on the line Y Y of Fig. 17 which is a longitudinal sectional view of another modified form of top and end plate combined with a mold body, like that shown in Figs. 14 and 15, and Fig. 18 is a cross-sectional view taken on the line Z Z of Fig. 19 which is a longitudinal sectional view taken on the line Z′ Z′ of Fig. 18, of one end of a modified form of mold-press for making coves or bases.

In all the figures corresponding parts are referred to by similar reference letters.

The object of my improvements is to produce, by a single operation of a reciprocating plunger, a glass tile having a smooth, finished face on one side, and oppositely inclined undercut lugs upon its other side or back. And this may be accomplished by the use of the form of mold press illustrated in Figs. 1 to 10 inclusive, or by the use of the modified forms illustrated in Figs. 12 to 19 inclusive.

In the first mentioned form my press-mold is provided with a base or body A having a centrally disposed gutter or groove B, shown by broken lines in Figs. 7, 8 and 9, and also having raised ends C C preferably provided with depressions *c c* upon the tops thereof.

Removable side members D D rest upon the base A, and the top E rests upon the side members D D with its depending ends F F fitting inside of the same and resting upon the raised ends C C of the base.

The plunger G has its nose H shortened so as to pass down between the raised ends C C of the base, while the body of the plunger extends out over the raised ends *c c* so as to overlap the same, as shown in Fig. 10. The plunger is provided with recesses *h h* adapted to form the upper lugs on the back of the tile, and with other recesses *h′ h′* adapted to overlap the corners of the raised ends C C and to leave between them and such corners recesses of the form shown by the broken lines in Fig. 9, and adapted to form the lower hook-like lugs upon the tile.

It will be seen that when molten glass is placed in the body of the mold and the plunger is forced down upon it, the glass will be spread up into the sides and ends of the mold, and forced into the recesses in the plunger, so as to take the form shown in Fig. 11. The plunger may then be raised, coming freely away from the molded glass, the top and ends removed, and the sides then lifted off the base, carrying the molded form of glass with them, which may afterward be annealed and separated into its tile sections. The slight space between the ends of the plunger and the ends of the mold, and the recesses upon the tops of the ends of the mold coöperating with slight corresponding recesses in the plunger's ends, will produce end webs I I with their top webs *i i* shown in Fig. 11, which serve to stiffen the molded form of glass during the process of handling and annealing. It will be seen that by breaking or cutting away the gutter web J and the end webs I *i*, the completed tile sections K K will remain with the lugs *k k* inclined in one

direction, and with hook-like lugs $k'$ $k'$ inclined in the other direction. Such lugs are of advantage in firmly locking a tile upon its backing.

In the form of press just described, the tile is formed with its finished face down and its lugs up. But in the modified forms of press, shown in Figs. 12 to 19 inclusive, the tile is formed with its smooth face up and with its back and lugs down. This is accomplished in the form shown in Figs. 12 to 15 by forming in the mold body A′ recesses $a'$ $a'$ and attaching to the outer edges of the plunger G′ spurs $g$ $g$ which pass down through suitable recesses $e$ $e$ in the top E′ so as to rest within the recesses $a'$ $a'$ in the position shown by the broken lines in Fig. 14. This, as will be seen, will form an undercut portion in the recesses $a'$ $a'$ so that when the plunger is brought down upon the melted glass it will be molded into the form shown by the broken lines in Fig. 14, with inclined lugs near the lower edge of each tile section, and an oppositely disposed hook lug at the upper edge of each tile section. And by raising the plunger and removing the top this molded form can be removed from the mold by turning the mold over.

In the modified form shown in Figs. 16 and 17, spurs $g'$ $g'$, shown in broken lines in Fig. 16, are attached to the top E′ and fit within the recesses $a'$ $a'$, so as to form undercut sockets therein of a form like those formed by the spurs $g$ $g$ shown in Figs. 12 and 14. A plunger having a face corresponding with the upper broken lines shown in Fig. 16 is used; and it will be seen that by withdrawing the plunger and raising the top E′ the molded tile form can be readily freed from the mold by turning it over.

The mold shown in Figs. 18 and 19 embodies the same principle illustrated in Figs. 16 and 17, and shows it applied to forming a curved tile, commonly called a cove; recesses $a'$ $a'$ being formed in the body A′, into one of which a lug $g'$ fits to form an undercut socket, while the opposite edge of the top E′ overlaps the other recess $a'$ so as to form it also into an undercut socket. And it will be seen that the molded glass may be readily removed from this form of mold also, by raising the plunger $G^2$ and removing the top.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States, is:—

1. The combination, in a glass-tile mold-press embodying a male member and a female member, of a lug-socket having portions disposed successively at angles oppositely inclined to the tile-face forming portion of the mold.

2. The combination, in a glass-tile mold-press embodying a body-base and a reciprocating plunger, of a lug-socket having portions disposed successively at angles oppositely inclined to the tile-face forming portion of the mold.

3. The combination, in a glass-tile mold-press embodying a body base and a reciprocating plunger, of a lug-socket formed between the mold-press members and having portions disposed successively at angles oppositely inclined to the tile-face forming portion of the mold.

4. The combination, in a glass-tile mold-press embodying a body base, a superimposed removable portion and a reciprocating plunger, of a lug-socket formed between the mold-press members and having portions disposed successively at angles oppositely inclined to the tile-face forming portion of the mold.

5. The combination, in a glass-tile mold-press embodying a body base and a reciprocating plunger forming between them a laterally-inclined tile space, of a lug-socket located at one side of said tile space and having portions disposed successively on opposite sides of a line perpendicular to the plane of the tile space.

6. The combination, in a glass-tile mold-press embodying a body base and a reciprocating plunger, of lug-sockets having portions inclined successively in directions opposite to each other and at inclined angles to the tile space of the mold.

7. The combination, in a glass-tile mold-press embodying a body base and a reciprocating plunger, of a lug-socket having portions inclined successively in opposite directions and at inclined angles to the tile space of the mold and another lug-socket disposed in the same direction as the base of said first mentioned socket.

8. The combination, in a glass-tile mold-press, of a guttered body-base having elevated ends and a plunger having a nose to pass between said elevated ends and recessed shoulders to overlap the same.

9. The combination, in a glass-tile mold-press, of a buttered body-base having elevated ends with depressions thereupon, and a plunger having a nose to pass between said elevated ends and recessed shoulders to overlap the same.

10. The combination, in a glass-tile mold-press, of a body-base having elevated ends and a plunger provided with upper lug-sockets, a nose to pass between such elevated ends and recessed shoulders to overlap the same and to form therewith oppositely inclined lug-sockets.

11. The combination, in a glass-tile mold-press, of a body-base having elevated ends with recesses thereupon, a plunger provided with upper lug-sockets, a nose to pass be-

tween such elevated ends and recessed shoulders to overlap the same and to form therewith lug-sockets having portions disposed successively at angles oppositely inclined to the tile-face forming portion of the mold.

12. The combination, in a glass-tile mold-press embodying a body-base, a superimposed removable portion and a plunger, of lug-sockets in one of such mold-press members and coöperating projections on another of such mold-press members to enter and partially close the tops but not the bottoms of such lug-sockets so as to form undercut portions therein.

WILLIAM PASSMORE MEEKER.

Witnesses:
WILLIAM H. MOHR,
HOWARD M. ROWE.

Corrections in Letters Patent No. 925,782.

It is hereby certified that in Letters Patent No. 925,782, granted June 22, 1909, upon the application of William Passmore Meeker, of Maplewood, New Jersey, for an improvement in "Tile Press-Molds," errors appear in the printed specification requiring correction, as follows: In lines 12–13, page 2, after the word "recesses" the letters and word *a a and* should be inserted, and in line 113, same page, the word "buttered" should read *guttered;* and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 13th day of July, A. D., 1909.

[SEAL.]

C. C. BILLINGS,
*Acting Commissioner of Patents.*

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