

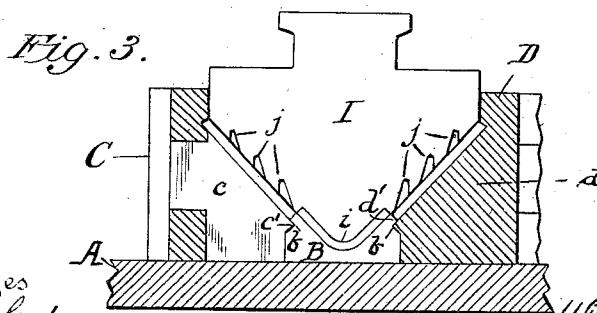
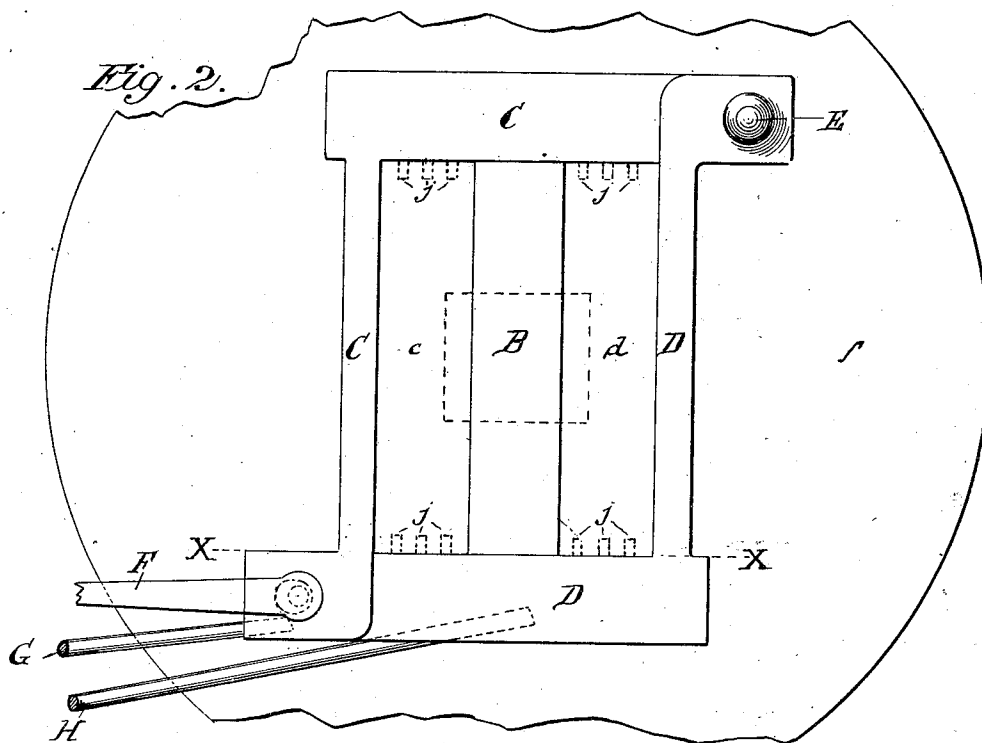
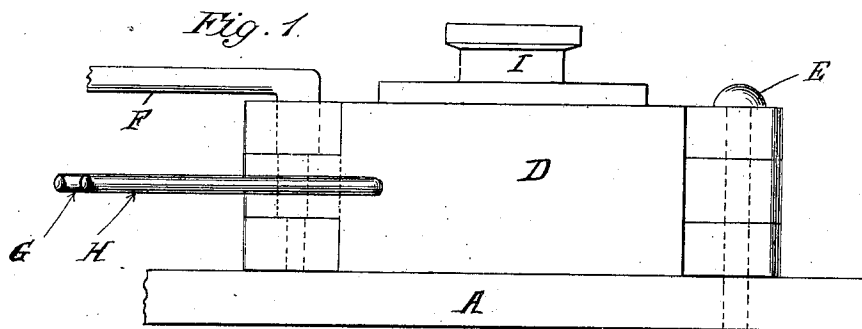
No. 861,379.

PATENTED JULY 30, 1907.

W. P. MEEKER.

TILE PRESS.

APPLICATION FILED OCT. 18, 1906.



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UNITED STATES PATENT OFFICE.

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TILE-PRESS.

No. 861,379.

Specification of Letters Patent.

Patented July 30, 1907.

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To all whom it may concern:

Be it known that I, WILLIAM PASSMORE MEEKER, of Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Tile-Presses, of which the following is a specification.

My invention relates to that class of tile presses which are used to form slabs or tiles from melted glass.

It is important that the faces of glass facing-slabs or tiles be free from wrinkles, waves or rings, and where such tiles are formed face downward in a mold-press, it is almost impossible to avoid such defects, because when the molten glass is thrown into the mold, before the plunger can be brought down, the portion of the glass which first comes in contact with the bottom of the mold stiffens so that it will not stretch into a smooth and even surface under the subsequent pressure, but will produce wrinkles, often curved or ring like in form. This defect has rendered it practically impossible to produce a first-class glass tile by molding it face downward in a press. Besides where it is attempted to so mold a slab upon the flat bottom of a mold-press, undercut or inclined holding-flanges or lugs cannot be produced upon its back by a single operation of a vertically moving plunger; and such a plunger would not free itself from undercut portions of the tile without distorting or tearing the same.

My improvements are directed to so constructing a tile-press as to avoid both of these difficulties; which I successfully accomplish by the following described apparatus.

In the drawings Figure 1 is a side view of my press with the plunger down; Fig. 2 is a top view of the same with the plunger shown in broken lines; and Fig. 3 is a vertical cross-sectional view taken on the line X X of Fig. 2 looking up, with the plunger down, the base and the jacket hinge being partially broken away.

The same reference letters refer to the same parts in all the figures.

A is the base plate which is shown in the figures as partially broken away. It is provided with a raised, centrally-disposed, guttered rib B having side grooves *b b*. The jacket of the mold is divided into two sections C C and D D, each of which consists of a side portion and an end portion, the two sections being hinged together at one corner by a suitable pintle pin E, their opposite corners being detachably locked by a cam-lever F. The inclined side *c*, moves with the portion C C of the jacket, and the inclined side *d* moves with the portion D D of the jacket. By turning the cam-lever F the locked corner of the jacket will be loosened and the cam-lever can then be lifted out and the two sections can be thrown apart by means of their respective handles G and H.

I is the plunger, which is wedge-shaped, and is provided with a rounded, recessed nose *i*, and with short, laterally-tapered sockets *j j*, the length of which is indi-

cated by the broken lines in Fig. 2, in each of its ends.

The operation of my tile press is as follows:—The sections of the jacket C D having been swung together and locked into position, the angles *c' d'* engaging closely in the grooves *b b* of the bottom rib B, a suitable quantity of melted glass is thrown into the gutter or groove in the rib B, care being taken that the glass shall not extend off the bottom rib B into the sides of the mold. The plunger I is then driven down quickly upon the melted glass causing it to flow sidewise into the spaces between the sides of the plunger and the inclined sides of the mold, filling the space between the plunger and the mold as well as the sockets *j j* in the face of the plunger, a portion of the glass remaining in the space between the nose *i* of the plunger and the rib B. If the pressing is properly done the glass will so distribute itself as to evenly fill the space between the plunger and the sides and bottom of the mold. The plunger is then raised, the recesses *j j* in its face being so formed that it will draw away from the glass without distorting the flanges or lugs which have been formed therein; the mold may then be opened, and the molded glass may be readily removed from its bottom and sides.

In using my improved mold press, when the molten glass is put in the bottom of the mold it lies in the central gutter and does not extend over upon the flat surfaces upon which the faces of the slabs are to be formed; and when the plunger is brought down the molten glass is shot or spread so quickly up through the sides of the mold that there is not time enough for it to set or stiffen into wrinkles or rings, but it will be evenly and smoothly distributed through the mold, forming a clear, smooth surface against the mold sides. That portion which remains in the gutter will form a cove, adapted to be set in the angle between a floor and wall, its upper surface also being smooth because it is formed by the quick downstroke of the plunger.

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, of a wedge-shaped plunger provided with a rounded, recessed nose and a female mold provided interiorly with a guttered rib forming a preliminary, glass-receiving space and secondary, oppositely-inclined, tile-forming spaces at the sides of said guttered rib.

2. The combination, in a glass-tile mold-press, of a plunger provided with oppositely-inclined, tile-forming faces with vertical, flange-forming recesses therein, and with a rounded recessed nose and a female mold provided interiorly with a guttered rib, preliminary, glass-receiving space and secondary, oppositely-inclined, tile-forming spaces at the sides of said guttered rib.

3. The combination, in a glass-tile mold-press, of a plunger provided with oppositely-inclined, tile-forming faces with vertical, flange-forming recesses therein, and with a rounded recessed nose, and a base having a raised, recessed member and with side sections pivoted upon said

base and adapted to close around said raised member and to form therewith a female mold provided interiorly with a guttered rib, preliminary, glass-receiving space and secondary, oppositely-inclined, tile-forming spaces at the
5 sides of said guttered rib.

4. The combination, in a glass-tile mold-press, of a plunger provided with oppositely-inclined, tile-forming faces with vertical, flange-forming recesses therein, and with a rounded recessed nose, and a base having a raised, recessed member provided with longitudinal grooves in two
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of its sides and with side sections provided with longitudinal ribs and adapted to close around said raised member and to form therewith a female mold provided interiorly with a guttered rib, preliminary, glass-receiving space and secondary, oppositely-inclined, tile-forming spaces at the
15 sides of said guttered rib.

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