

G. STORM.

Detachable Plate for Glass-Molds

No. 163,276.

Patented May 11, 1875.

FIG. 1.

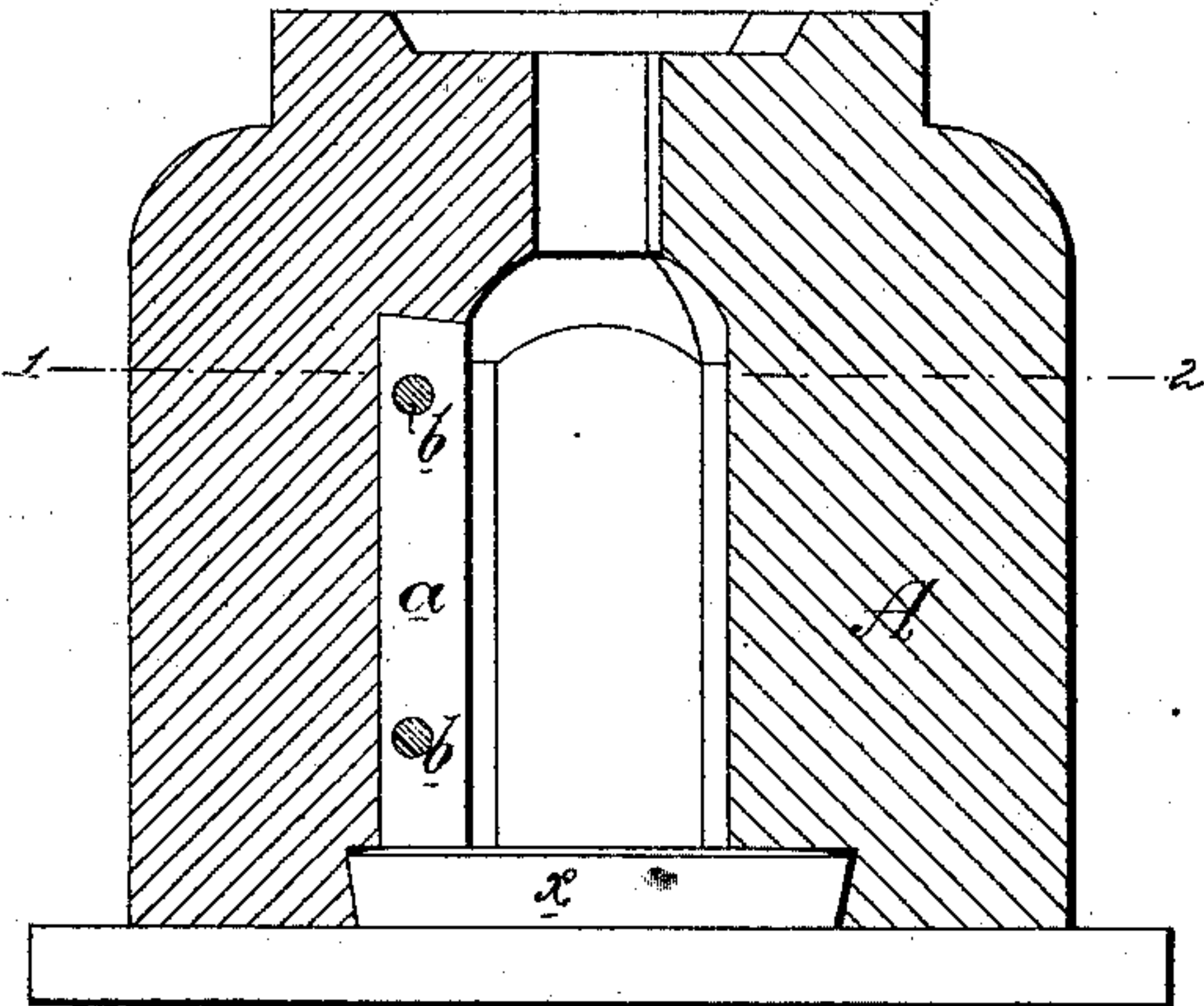


FIG. 2.

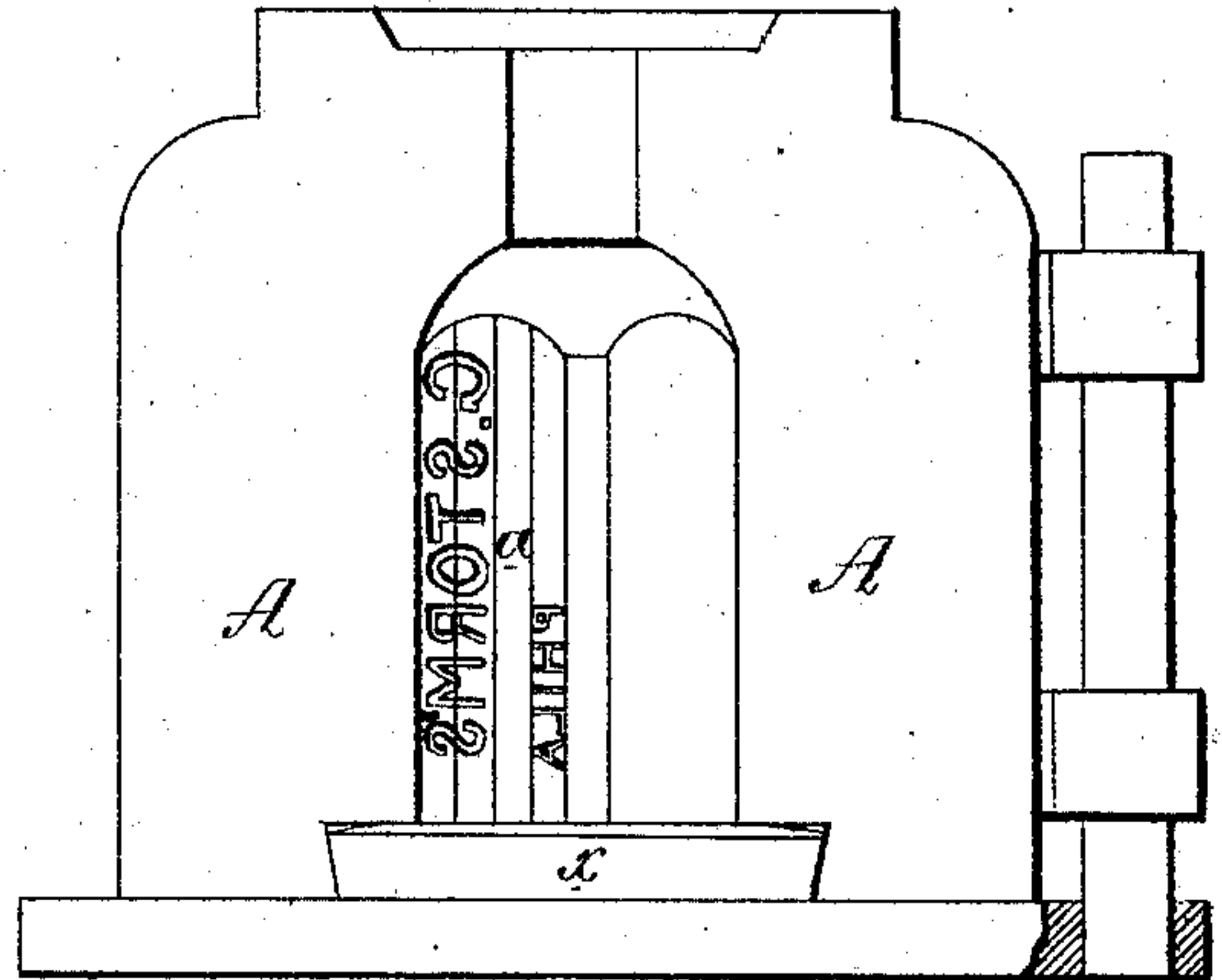


FIG. 3.

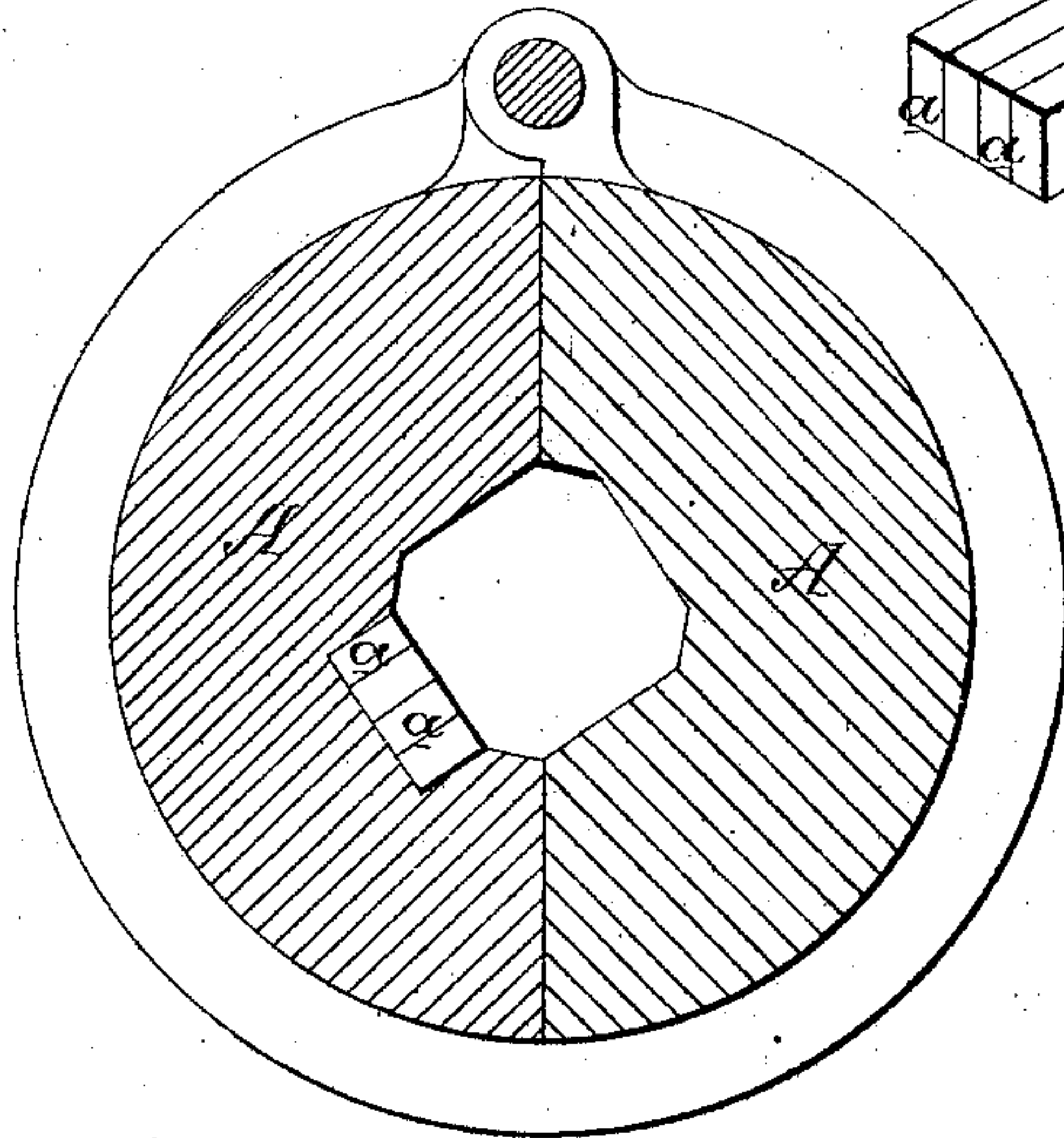
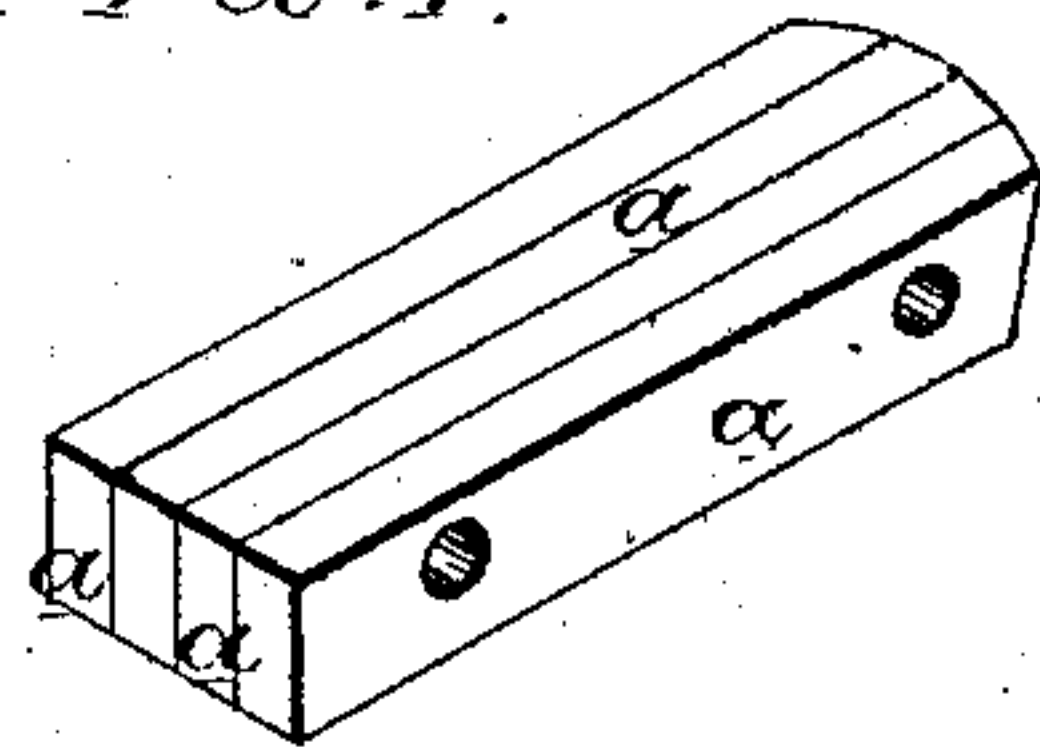


FIG. 4.



Witnesses, Harry Smith  
Thomas McIlvaine

Gustavus Storm  
by his Attorneys  
Horsman and Son



# UNITED STATES PATENT OFFICE.

GUSTAVUS STORM, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN DETACHABLE PLATES FOR GLASS-MOLDS.

Specification forming part of Letters Patent No. **163,276**, dated May 11, 1875; application filed February 11, 1875.

*To all whom it may concern:*

Be it known that I, GUSTAVUS STORM, of Philadelphia, Pennsylvania, have invented certain Improvements in Detachable Plates for Glass-Molds, of which the following is a specification:

The object of my invention is to so construct the removable engraved plates, which are used in molds for marking the glass bottles or other articles blown therein, as to allow the ready escape of air, and thus insure the prominence of the marks, and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figures 1 and 2 are vertical sections of an ordinary hinged bottle-mold with my improvement; Fig. 3, a sectional plan on the line 1 2; and Fig. 4 a perspective view of the plate.

Detachable plates, on which are engraved the desired characters, have heretofore been used in connection with bottle-molds, the object of these detachable plates being to permit one mold to be employed for blowing bottles with different characters formed upon them.

The plates as usually constructed consist of a solid piece of metal, on the face of which are engraved the desired characters, the plate being adapted to a recess in the inside of the mold.

Plates thus constructed are objectionable because they have no vents in the engraved portions of the plate for the free escape of air, in consequence of which the glass is prevented from properly entering the said engraved portions, and the lettering on the bottle or other object is not in proper prominent relief.

Attempts have been made to overcome these objections by chambering the plate and making, where the letters occur, perforations, which establish a communication between the interior of the mold and the chamber of the plate, but these perforations are necessarily very minute and their formation is both difficult and expensive. The plate has also been constructed in the form of a frame, to which rows of type were adapted, but this plan has

been found in practice to be objectionable, both on account of the difficulty of procuring a clear impression, and on account of the restricted character of the designs produced.

I obviate all these objections, and produce a plate, which is at once simple, economical, and effective, by forming it of a number of sections, *a*, (see Figs. 2, 3 and 4), four being shown in the present instance, these sections being properly fitted to each other and secured together by rivets, *b b*, as shown, or in any other suitable manner, the sections being secured together before the engraving operation. A plate thus constructed, after being engraved in the usual manner, is applied to the recess in the mold *A*, and when the glass is inserted and blown, the air will find a vent through the spaces between the sections *a*, and will escape finally around the bottom plate *x* of the mold, thus presenting no obstacle to the free entrance of the glass into the engraved portions of the plate, nor to that complete filling of the same, which is essential to the formation of the character in proper relief on the surface of the bottle or other object.

Care should be taken, however, in engraving the plate, to see that each letter crosses or communicates with at least one of the lines of junction between two of the sections *a*, in order to insure the desired vents.

It will be evident that upon a plate composed of sections in the manner above described, any desired character or design can be engraved with the same facility as upon a solid plate.

I claim as my invention—

A detachable engraved plate for glass-molds composed of two or more sections, *a*, adapted to a recess in the mold, all substantially as and for the purpose set forth.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

GUSTAVUS STORM.

Witnesses:

HUBERT HOWSON,  
HARRY SMITH.