A. P. BROOKE.

Molds for Glass, &c.

No. 164,517. Patented June 15, 1875.

Fig. 1.

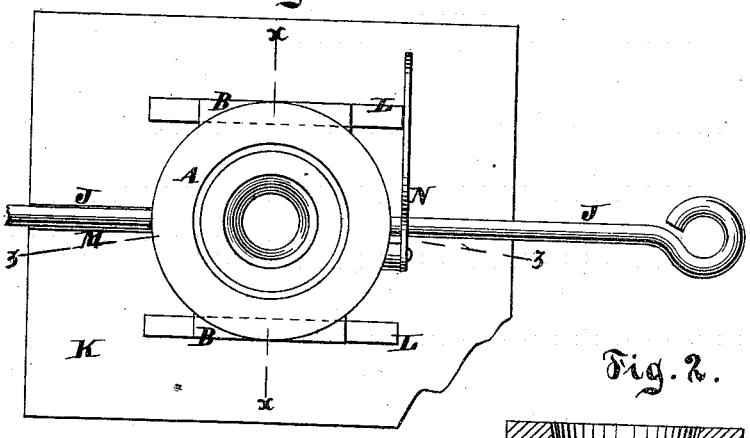


Fig. 2.

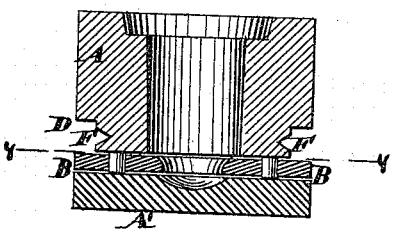


Fig. 3.

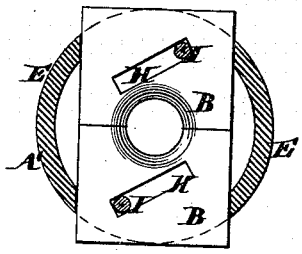


Fig. 4.

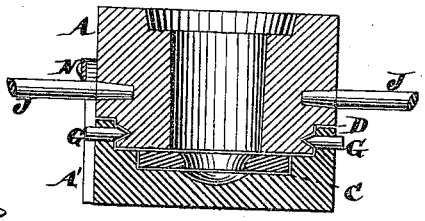
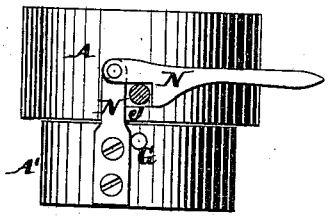


Fig. 5.



Witnesses.
Otto Hufland
Chas. Wahlers.

Inventor.
Aries P. Brooke
per
Van Santwood & Hauff
Attys

UNITED STATES PATENT OFFICE.

ARIES P. BROOKE, OF BAYONNE, NEW JERSEY, ASSIGNOR TO JAMES M. BROOKFIELD, OF NEW YORK CITY.

IMPROVEMENT IN MOLDS FOR GLASS, &c.

Specification forming part of Letters Patent No. **164,517**, dated June 15, 1875; application filed May 12, 1875.

To all whom it may concern:

Be it known that I, ARIES P. BROOKE, of Bayonne, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Molds for Glass and other materials, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is a plan view of a mold intended to illustrate my invention. Fig. 2 is a vertical section, taken in the plane of the line *x x*, Fig. 1. Fig. 3 is a horizontal section, taken in the plane of the line *y y*, Fig. 2. Fig. 4 is a vertical section, taken in the plane of the line *z z*, Fig. 1. Fig. 5 is an elevation of the mold, which shows a fastening device thereon.

Similar letters indicate corresponding parts.

My invention relates to molds for molding articles from glass or other plastic material, and the invention will be hereinafter specifically described, and pointed out in the claims.

The letters A A′ designate a mold through whose sides extend a pair of movable dies, B B, whose inner edges are curved, so that when they meet within the mold they form a circle, as shown in Figs. 1 and 3, and the edges project inward beyond the inner surface of the mold, so as to form therein a circular projection, which, when the metal or plastic material is gathered into the mold, forms on the outside of the molded article a groove, whose depth corresponds to the distance the edges of the dies project beyond the inner surface of the mold. The bottom part of the mold A′ is divided from its main body A in a horizontal plane, and the dies B B are arranged between them, resting on the part A′, and guided thereon in the recess C, which extends through the mold from side to side, so that the dies can be moved in and out therein. The lower edge of the upper part A of the mold is rabbeted at D to allow it to fit within the curved rims E of the bottom part A′, and the rabbeted part D is grooved, as seen at F, so that the pins G G, which pass through the rims E, can project into the groove, and connect the parts A A′ in such a manner that they cannot be separated, but so that the part A can be turned on the part A′ for the purpose of moving the dies in or out. This action on the dies is accomplished in the following manner: The dies are provided with diagonal slots H H parallel with each other, into which the pins I I, extending from the part A, project. The upper part of the mold is provided with the usual handle J, and the bench K, on which the mold rests, is provided with guides L L, between which the mold is shoved, so that its lower part A′ is held from turning when the upper part A is turned for the purpose of operating the dies, the lower part A′ being cut away, as indicated by dotted lines in Fig. 3, to form straight sides where it fits between the guides L L. The stop M prevents the mold from being pushed too far on the bench. When the dies are in the position shown in Figs. 1 and 3—that is to say, projected into the mold ready to form a groove in the molten glass, they are locked in that position until the article has been molded, and is ready to be removed from the mold. In this example, wherein I have shown how the die can be operated by making the upper part of the mold movable on the lower part, I lock the dies fast in their inner position by locking the parts A A′ of the mold to each other by means of the latch N, which rises from the part A′ and falls over the handle J on the part A. Any other suitable form of locking device can be employed, it being desirable that the fastening be simple and easily operated, and not liable to be put out of working order by the heat to which the mold is necessarily exposed. The part A′ of the mold, in this example, contains only a small part of the molding-cavity into which the glass is received, being the part which extends beyond the place of the groove formed by the dies. The mold here shown is of a shape suitable for molding glass telegraph-insulators, which are provided with an outside groove that receives the line wire which is to be insulated.

After the molten glass has been gathered in the mold, the mold is removed on the bench to the press, (not shown,) where the molten glass is subjected to the action of the device or devices which form the insulator or other article, the bed of the press being provided also with guides for the mold. After the ar-

ticle has been molded, the locking device is unfastened, and the dies drawn out to their outer positions, (which, in this example, is accomplished by turning the part A of the mold, the lower part being held between the guides on the press, when the molded article can be removed or turned out of the mold. The molding-cavity should be so formed that it diminishes in diameter from the mouth to the bottom of the mold.

What I claim as new, and desire to secure by Letters Patent, is—

1. The glass-mold, constructed of the solid upper and lower sections A A′, in combination with the dies B, arranged between said sections, substantially as and for the purpose described.

2. The mold A, having its lower edge rabbeted, as at D, in combination with the lower section A′, having the curved rims E, horizontal pins G for connecting the sections together, and the dies B arranged between the latter, as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 21st day of April, 1875.

ARIES P. BROOKE. [L. S.]

Witnesses:

J. VAN SANTVOORD,

E. F. KASTENHUBER.