(No Model.)

U. S. HUGGINS.

SUPPORTING HOLDER FOR GLASS MOLDS.

No. 481,142. Patented Aug. 16, 1892.

Fig. 1.

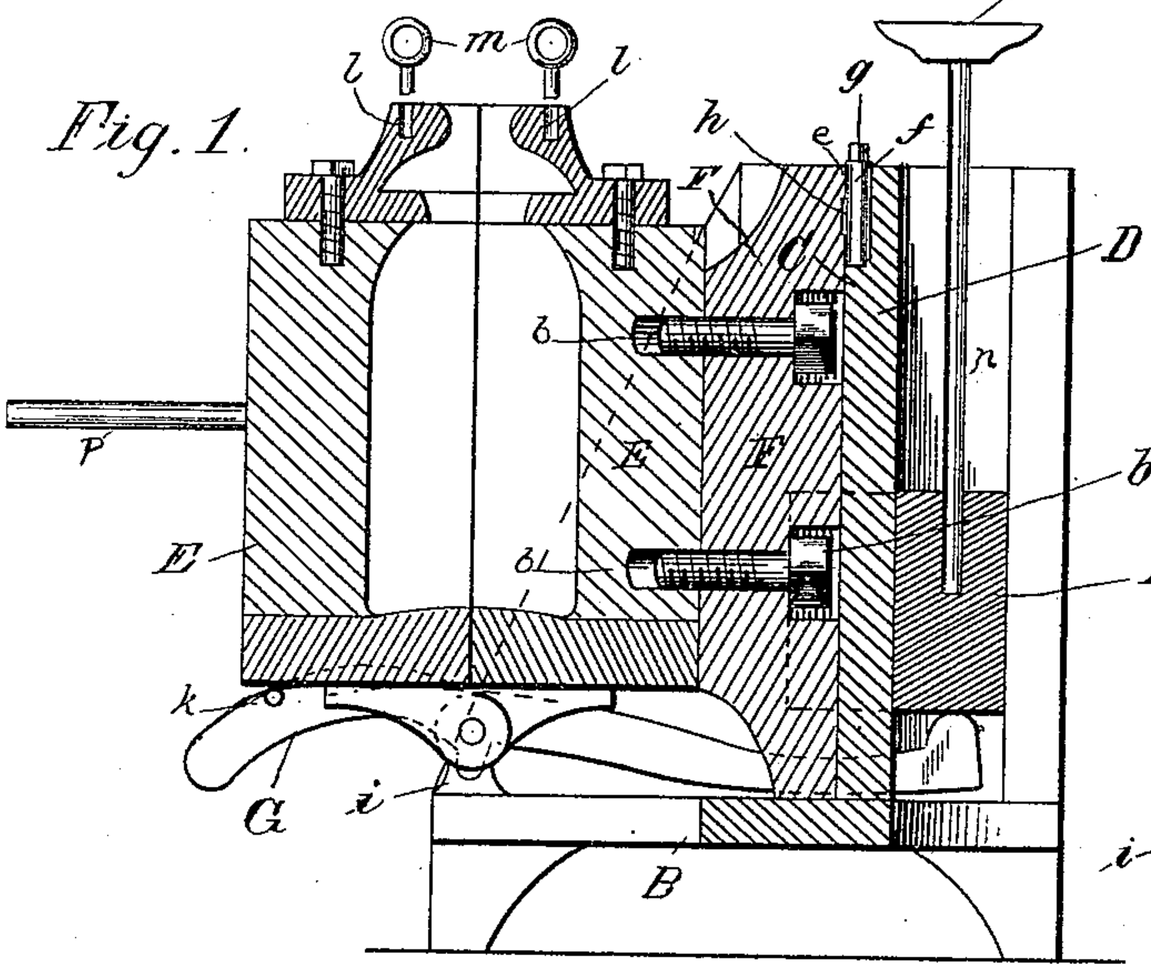

Fig. 3.

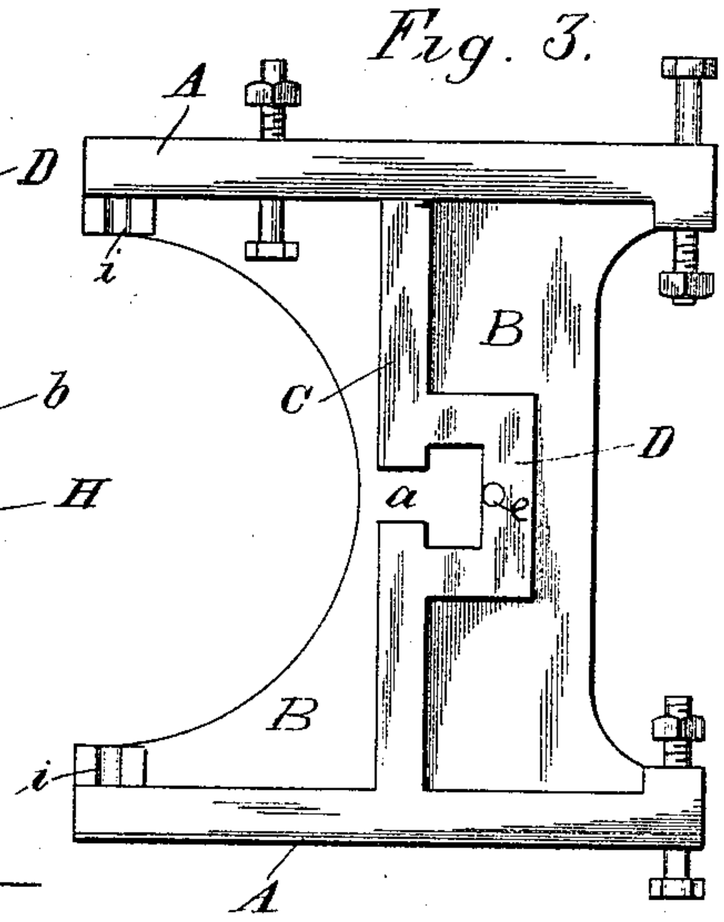

Fig. 2.

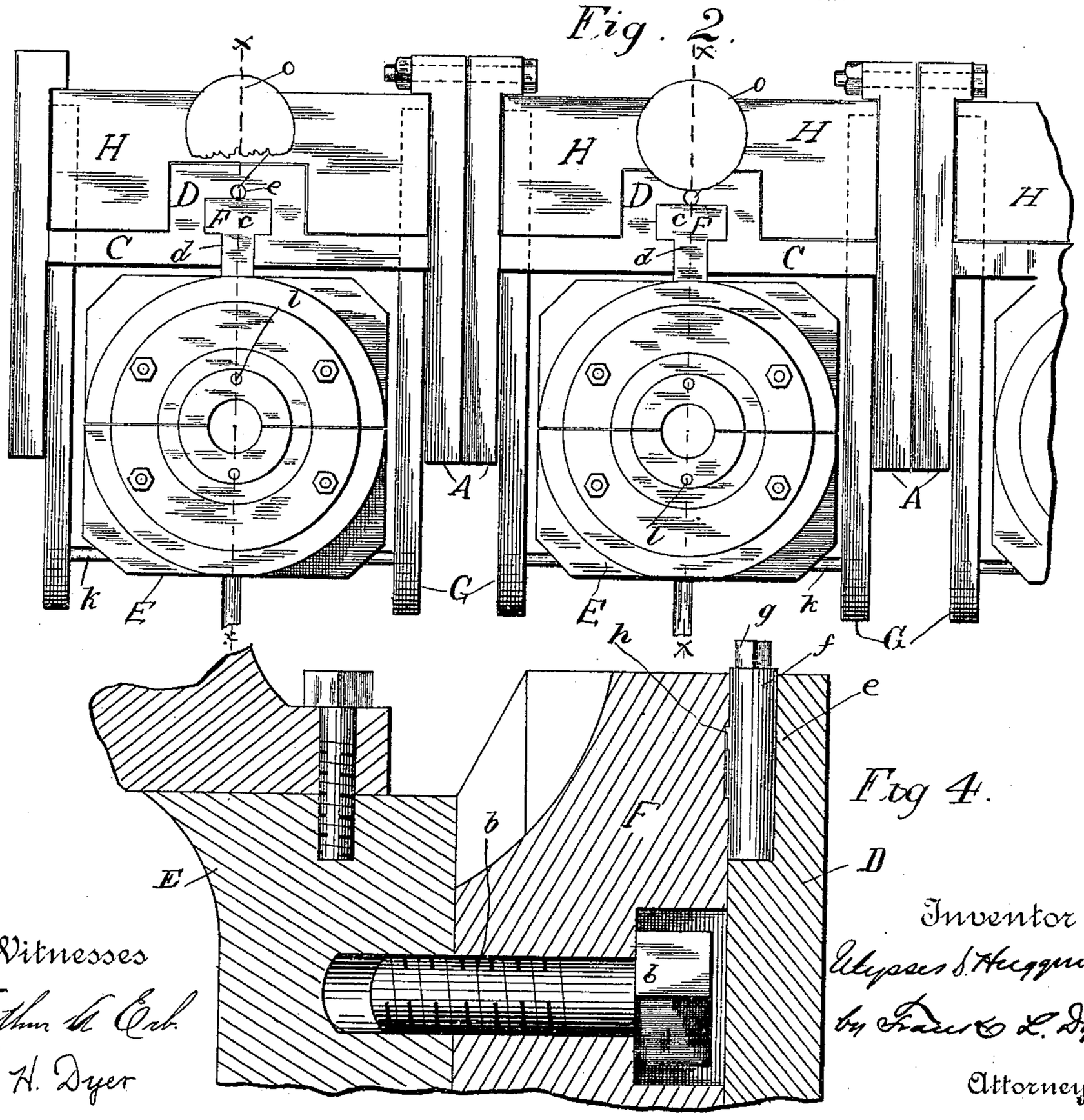

Fig 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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SUPPORTING-HOLDER FOR GLASS-MOLDS.

SPECIFICATION forming part of Letters Patent No. 481,142, dated August 16, 1892.

Application filed September 10, 1890. Renewed May 16, 1892. Serial No. 433,214. (No model.)

To all whom it may concern:

Be it known that I, ULYSSES S. HUGGINS, a citizen of the United States, residing at Washington, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Supporting-Holders for Glass-Molds; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to various new and useful improvements in holders for glass-molds, whereby the mold may be securely locked in position when desired, so as to be prevented from moving laterally or becoming accidentally disarranged, and whereby the mold may be quickly and easily removed from the holder when it is so desired for cleaning or repairing the same.

The principal object of my invention is to provide and produce a holder for glass-molds, whereby the mold will be securely held in place and may be removed when desired.

Another object of my invention is to provide a holder for molds by which molds of different sizes and shapes may be held so as to be on the same level.

A further object of my invention is to provide certain auxiliary attachments to my device, whereby the mold may be quickly removed from the holder when desired.

The principal novelties in my invention consist in providing an ordinary sectional mold with a separate T-headed tenon on one of its parts; in providing the holder with a corresponding mortised I-groove, with which said tenon engages; in providing certain locking mechanism for securing the tenon in place in said mortise; in pivoting a double lever within the holder, with which the movable section of the mold engages, and in mounting a weight on the other end of this lever for closing the mold, as well as in other but less important construction, all as will be more fully hereinafter described and claimed.

For a better comprehension of my invention attention is invited to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a vertical sectional view of my invention on the lines *x x*; Fig. 2, a top view of a number of mold-holders and molds, showing the manner of attaching the same together; Fig. 3, a top view of a holder proper, and Fig. 4 an enlarged vertical sectional view showing the manner of locking the molds in position.

In all of the above views corresponding parts are designated by the same letters of reference.

The holder consists of a side A A, the bottom B, and the central partition C. The front of each side A is cut away on an incline, as shown, in order to save the material and to allow for the easy access to all parts of the mold. The partition C extends across from side to side. This partition C is divided into two parts by means of a vertical slot *a*. Surrounding this slot at the rear of the partition is a casing D, which is preferably cast integral with the partition.

E represents an ordinary mold, made of iron or steel, in two parts pivoted at their lower ends so as to open outwardly, in order that the bloom may be inserted in the mold and that the completed article may be withdrawn from the mold, as will be understood by those skilled in the art of glass-making. Secured to one section of this mold is a metallic tenon F, which is preferably held in position by means of set-screws *b*. This tenon is provided with a large head *c*, adapted to fit within the casing D, and with a smaller neck portion *d*, which engages with the slot *a* in the partition C. By this means the tenon F may be made to engage with the casing D, so as to be held securely therein.

At the upper portion of the rear wall of the casing D an opening *e* is formed, which is enlarged at its lower end or near the same, as will be seen, so as to communicate with the space within the casing. Engaging with this opening *e* is a pin or stud *f*, having a rectangular head *g*. This pin or stud is also provided with a cam portion *h*, which works within the enlargement therein. After the head *c* of the tenon F has been inserted within the casing D the pin or stud *f* may be turned partly around by means of a key engaging with the headed portion thereof, so that the cam portion *h* will engage tightly against the tenon, so as to lock the same se-

curely in place within the casing. By this means it will be seen that the mold may be locked at any height within the casing D, and it will therefore be evident that molds of different sizes may be locked in adjoining holders, so as to be all on the same plane.

At the lower portion, near the front of the inside of each piece A, is cast or secured a small block *i*, hollowed out on its upper face, so as to form a pivoting-piece. Pivotally mounted within each of these blocks is a lever G, having a small depending stem, which bears within the grooved block *i* on each side. The forward end of each lever G is connected to the corresponding end of the other lever by means of a connecting-rod *k*. The bottom portion of the movable portion of the mold engages with this connecting-rod and will operate the same as the mold is opened or closed. Bearing on the other end of each lever is a weight H, which is adapted to move vertically upward and downward within the holder directly in the rear of the partition C. It will now be seen that when the mold is open the forward portion of the levers will be moved downwardly and the weight will be elevated. I prefer to make the weight H of such dimensions as to exactly counterbalance the movable portion of the mold E. To the upper side of this weight is attached a vertical standard *n*, to the upper extremity of which is secured a pedal or handle *o* in any suitable manner.

In order that the mold may be removed from the holder when necessary, I make use of the device illustrated in Fig. 1 and which will now be described. Each section of the mold is provided with a screw-threaded chamber *l*, cut in its upper face. When it is desired to remove the mold from the holder, I screw within each opening *l* a small handle *m*, by which the mold may be raised from its position within the holder.

It is intended that a number of these holders are to be placed side by side within the pit, so as to be under the supervision of one glass-blower, who stands at a point on a level with the top of the holder and with his foot in convenient distance of the pedal *o*. In operation the glass-blower blows the article in the usual manner, keeping the mold closed by applying his foot to the pedal *o*. After the mold is filled and the article blown the mold is opened by means of a handle or similar device *p*, rigidly secured to the mold E, by an assistant who stands in the pit below the glass-blower. This assistant also removes the finished article by means of any suitable instrument. These holders may be securely fastened together by means of bolts passing through the adjacent sides of each.

Having now described my invention, what I claim as new therein is as follows:

1. The combination of a supporting-frame having a number of mortises therein, one or more molds each provided with a tenon F, engaging with each mortise, and a cam-bolt *g* for locking said tenon in place in said mortise, substantially as set forth.

2. The combination of a supporting-frame having a number of mortises therein, one or more molds each provided with a tenon F, engaging with each mortise, a cam-bolt *g* for locking said tenon in place in said mortise, a counterbalancing-weight H for each mold, and a lever G, upon which bear the said counterbalancing-weight and the moving part of each mold.

ULYSSES S. HUGGINS.

In presence of—
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