

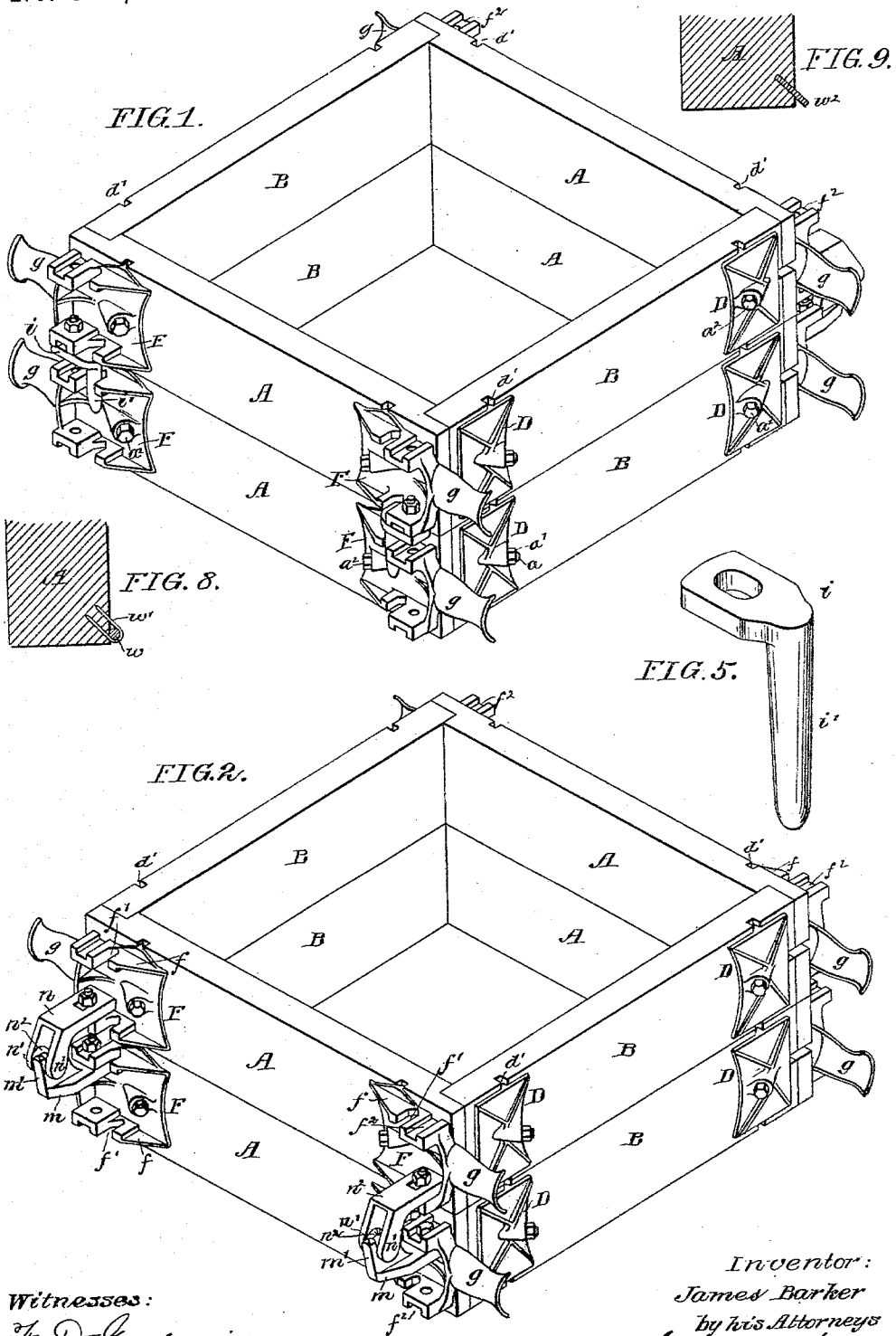
(No Model.)

2 Sheets—Sheet 1.

J. BARKER.
MOLDER'S FLASK.

No. 546,218.

Patented Sept. 10, 1895.



Witnesses:

F. D. Goodwin
J. B. Benner

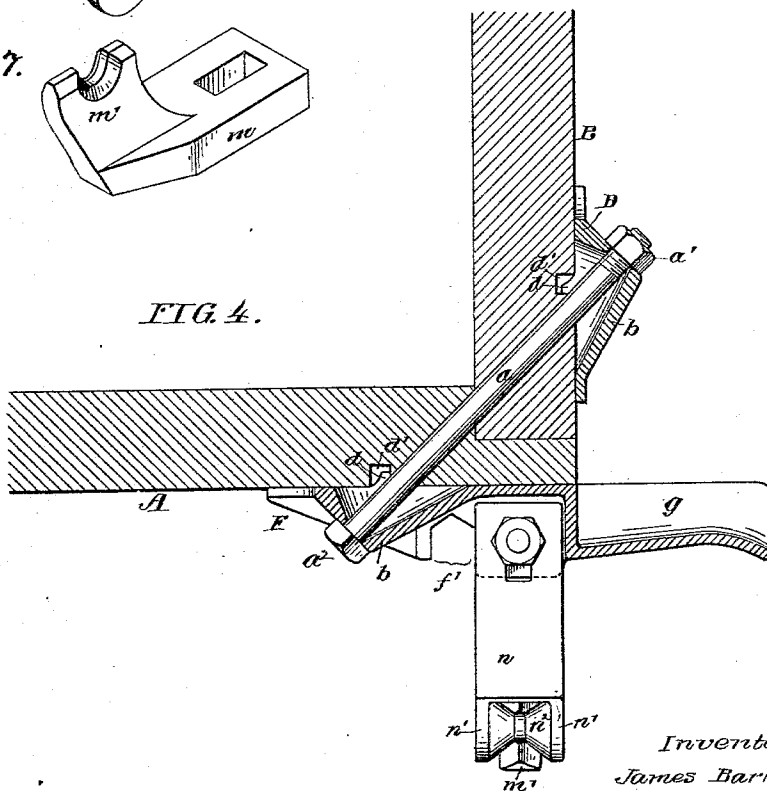
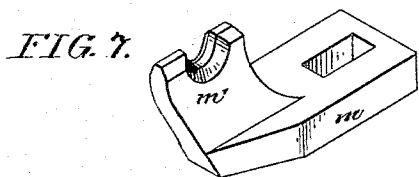
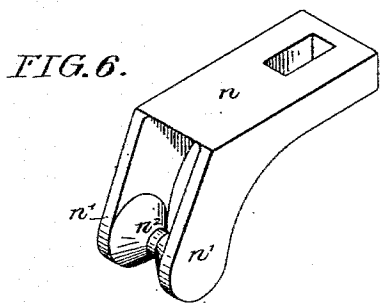
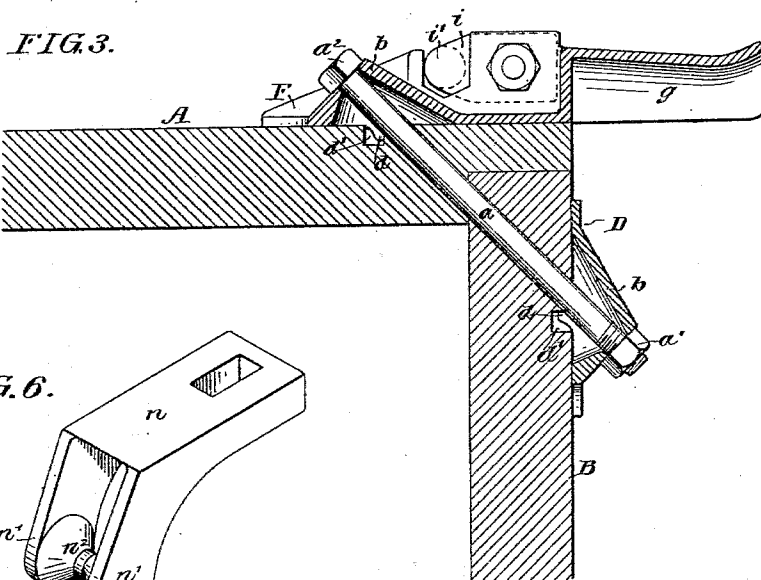
Inventor:
James Barker
by his Attorneys

Howson & Howson

J. BARKER.
MOLDER'S FLASK.

No. 546,218.

Patented Sept. 10, 1895.



Witnesses:

H. D. Gordon
J. C. Benner

Inventor:

James Barker

By his Attorneys

Houson & Houson

UNITED STATES PATENT OFFICE.

JAMES BARKER, OF PHILADELPHIA, PENNSYLVANIA.

MOLDER'S FLASK.

SPECIFICATION forming part of Letters Patent No. 546,218, dated September 10, 1895.

Application filed April 29, 1895. Serial No. 547,434. (No model.)

To all whom it may concern:

Be it known that I, JAMES BARKER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Molders' Flasks, of which the following is a specification.

One object of my invention is to construct a molder's flask composed of wooden bars and metal fixtures in such manner that the flask can be readily put together or taken apart, and the same fixtures can be used upon flasks of different sizes.

A further object of the invention is to so construct said fixtures that they will insure the accurate registry of the cope and drag of the flask and will provide for the hinging of the two parts of the flask when desired, the fixtures, moreover, being so constructed as to be interchangeable or capable of use upon either part of the flask or either end of the same.

A still further object of the invention is to prevent the burning away of the lower outer corners of the sides of the flask.

These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a molder's flask constructed in accordance with my invention. Fig. 2 is a similar perspective view, but looking at the opposite side of the flask. Fig. 3 is an enlarged sectional plan view of one corner of the flask. Fig. 4 is an enlarged sectional plan view of another corner of the flask. Figs. 5, 6, and 7 are enlarged perspective views of different attachments to be used in connection with the flask-fixtures, and Figs. 8 and 9 are sectional views illustrating the means employed for preventing the burning of the lower outer corners of the flask sides.

Each part of the flask is composed of wooden bars or strips A A and B B, the ends of the strips B B being by preference let into rabbets formed at the ends of the strips A A, as shown in Figs. 1 and 2, although this is not absolutely essential. The rectangular wooden structure formed by the strips A A and B B is provided at each corner with fixtures consisting of plates D and F, whereby, in connection with suitable bolts a and nuts a' , the strips are rigidly secured together. The bolts a pass diagonally through the strips A B at the corners, and each of the plates D and F

has a projecting hollow lug b with inclined face at right angles to the axis of the bolt a , the face of one lug serving as a bearing for the head a^2 of the bolt and the face of the other lug serving as a bearing for the nut a' . Each of the plates D and F also has lugs d , engaging with grooves d' , formed in the strips A B, so as to prevent longitudinal displacement of either of the plates on its respective strip, thus rendering unnecessary the use of any bolts or screws for this purpose. A single bolt at each corner of the structure is therefore all that is necessary in order to firmly secure the strips A and B together in proper relation to each other. Hence the putting together or taking apart of the flask can be accomplished with the greatest facility. Each plate F also has at top and bottom a flange f , in which is formed a notch f' with V-shaped or tapered inner end, the outer face of each flange also having formed in it a groove f^2 , and projecting from each plate F is a segmental web g , which extends beyond the wooden bars or strips of the flask and serves as a handle whereby the flask can be readily lifted or carried.

As shown in the drawings, the lower flanges of the plates F, carried by one side of the cope of the flask, have secured to them plates i , with projecting pins i' , which are adapted to the notches f' of the upper flanges of the plates F of the corresponding side of the drag of the flask, these pins, by engagement with the V-shaped or tapered inner ends of the notches, serving to accurately register the cope and drag of the flask as the two are fitted together.

The plates F of both sides of the cope of the flask may be provided with these plates i when it is desired to separate the two parts of the flask by a direct lift; but I prefer to provide the plates F of one side of the cope and drag of the flask with hinge-plates, such as shown in Figs. 2 and 4.

The hinge-plate m of the drag of the flask is secured to the top flange of the plate F of said drag by means of a bolt whose head or nut is adapted to the groove f^2 of the flange, so as to be prevented from turning, the plate having at the outer end a vertical rib m' with notch having beveled sides, as shown in Fig. 7.

The hinge-plate n , carried by the plate F

of the cope of the flask, is secured to the lower flange of said plate by a bolt whose head or nut is adapted to the groove f^2 of said flange, so as to be prevented from turning, the outer end of the plate n having projecting ears n' , which are connected by means of a V-shaped pivot-pin n^2 , Figs. 4 and 6, this pivot-pin engaging with the notch formed in the rib m' of the plate m , the fitting of the pin into the notch serving to properly register the cope and drag of the flask in one direction, while the beveled sides of the pin engaging with the beveled sides of the notch serve to bring the cope and drag of the flask into proper registry in the other direction. Hence the plates serve not only as means of hinging the two parts of the flask together, but also as a means of bringing the two parts of the flask into accurate alignment one with the other.

The lug b and handle g of each plate F are disposed centrally between the top and bottom of the plate, and the upper and lower flanges of the plate are exactly alike. Hence the plates can be used indifferently upon either the cope or the drag of the flask and upon either side of the same, thus avoiding objectionable rights and lefts in the plates, and the same is true of the plates D . The plates D and F also very materially strengthen the flask at the corners and thus increase the life of the same.

The lower outer corners of the sides of the cope of the usual flask are rapidly burned or charred by the flame or hot gases escaping between the cope and drag of the flask on the separation of the same after making a cast, and in order to prevent this I armor the lower outer corners of the sides of the flask by means of a metal bar applied to the side of the flask close to said corner.

In Fig. 8 I have illustrated the armoring-bar in the form of a wire w , secured to the side of the flask by staples w' , and in Fig. 9 I have shown a flat metal strip w^2 let into an inclined saw kerf or slot formed adjacent to the lower outer corner of the side of the flask. In both cases the bar projects beyond the side of the flask close to the lower outer corner and serves to throw outward away from the side of the flask flame or hot gases issuing between the cope and drag, so as to prevent the ignition or rapid charring of the flask, which always begins at said lower outer corner.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A molder's flask comprising wooden bars or strips connected at the corners by means of diagonal bolts passing through the strips, and metallic plates bearing upon the outer sides of the strips at the corners of the flask, upon which plates the said bolts have their bearings, substantially as specified.

2. A molder's flask consisting of wooden bars or strips, each grooved in its outer face

near the corners of the flask, metal plates bearing upon the outside of the strips near the corners and having abrupt lugs engaging with the grooves in the strips and diagonal bolts passing through the strips and plates and having their bearing upon the latter, substantially as specified.

3. A molder's flask consisting of wooden bars or strips connected at the corners by diagonal bolts passing through said strips and metal plates on the outer sides of the same through which said bolts pass, one of said plates having a projecting web serving as a handle, substantially as specified.

4. The combination of the two parts of a molder's flask, each connected at the corners by means of a bolt passing diagonally through the wooden strips of the flask and outer metal bearing plates thereon through which the bolt passes, plates of one part of the flask having projecting flanges with tapered notches, and the corresponding plates of the other part of the flask having projecting flanges to which are secured plates having pins adapted to said notches, substantially as specified.

5. The combination of the two parts of a molder's flask each connected at the corners by means of bolts passing diagonally through the wooden strips of the flask and outer metal bearing plates thereon through which the bolts pass, plates of one part of the flask having secured thereto projecting plates with notched ribs and plates of the other part of the flask having secured thereto projecting plates with ears connected by transverse pivot pins adapted to said notched ribs, substantially as specified.

6. The combination of the two parts of a molder's flask, plates on one part of the flask having projecting flanges with tapered notches, plates on the other part of the flask having projecting flanges and pins adapted to the notches of the plates of one part of the flask, said pins having right angled heads pivoted to the projecting flanges of the plates on the other part of the flask, substantially as specified.

7. The within described bearing plate for a molder's flask, said plate having a central bearing with inclined face for a securing bolt and upper and lower flanges each having a tapered notch in it, substantially as specified.

8. The within described bearing plate for a molder's flask, said plate having a central bearing with inclined face for a securing bolt, and upper and lower flanges each having a tapered notch and a groove formed in it, substantially as specified.

9. The within described bearing plate for a molder's flask, the same having a central bearing with inclined face for a securing bolt, and projecting lugs with abrupt faces for engagement with a groove in the wooden strip or bar of the flask, substantially as specified.

10. The within described bearing plate for a molder's flask, said plate having a central bearing with inclined face for a securing bolt,

and a central projecting web serving as a handle, substantially as specified.

11. The combination of the wooden strip of a molder's flask, with a metal bar rigidly secured thereto adjacent to the lower outer corner and projecting beyond the outer face of the strip, substantially as specified.

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

JAMES BARKER.

Witnesses:

JOSEPH H. KLEIN,
FRANK E. BECHTOLD.