

(No Model.)

B. B. HARRIS.

Casting Bolt Holes in Chilled Mold Boards.

No. 237,182.

Patented Feb. 1, 1881.

Fig: 1.

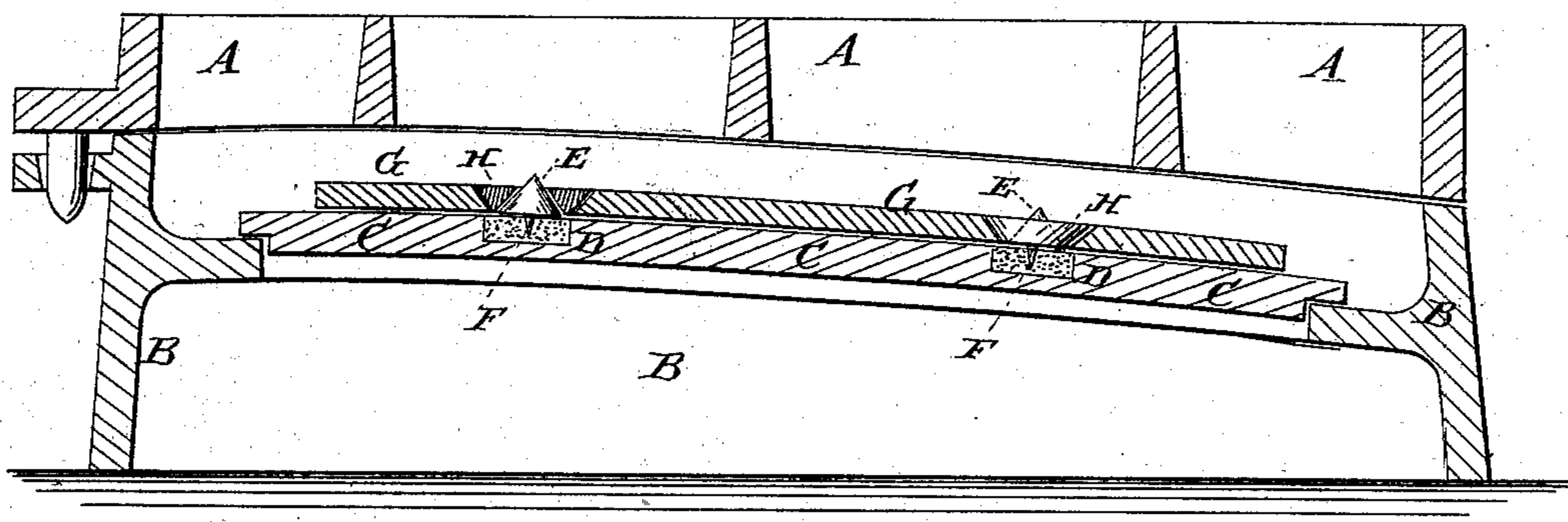
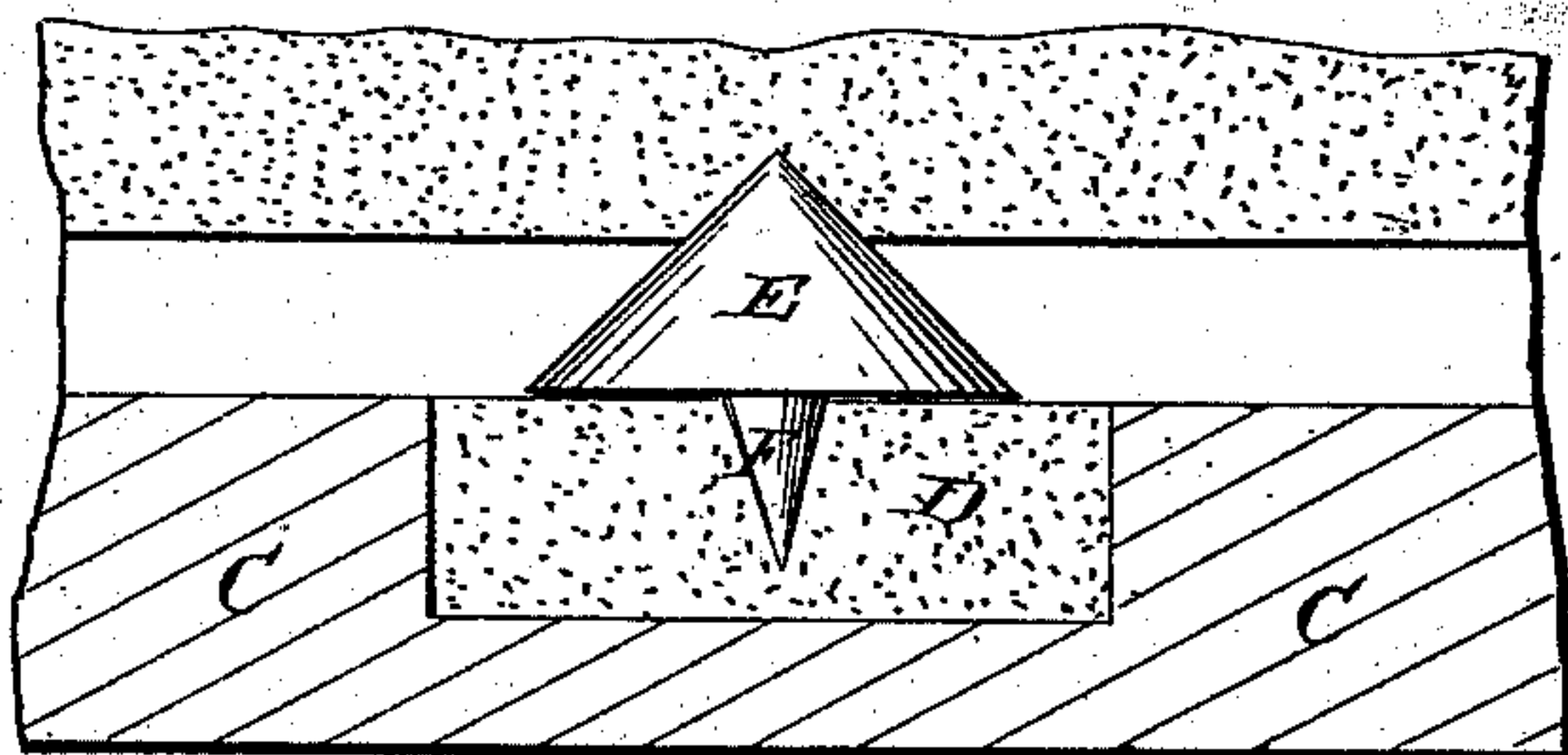


Fig: 2



WITNESSES:

Chas. Nida
C. Sedgwick

INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

BURNETT B. HARRIS, OF SOUTH BEND, INDIANA.

CASTING BOLT-HOLES IN CHILLED MOLD-BOARDS.

SPECIFICATION forming part of Letters Patent No. 237,182, dated February 1, 1881.

Application filed June 30, 1880. (No model.)

To all whom it may concern:

Be it known that I, BURNETT B. HARRIS, of South Bend, in the county of St. Joseph and State of Indiana, have invented a new and useful Improvement in Casting Bolt-Holes in Chilled Mold-Boards, of which the following is a specification.

Figure 1 is a sectional elevation of the flask. Fig. 2 is a sectional elevation of a part of the chill and mold.

Similar letters of reference indicate corresponding parts.

The object of this invention is to cast bolt-holes in chilled mold-boards with metal dies in such a manner that the contraction of the casting in cooling will not break off the points from the metal dies or crack the mold-boards.

A represents the upper part of a flask, and B the lower part or drag. C is the chill, which is constructed and secured to the drag B in the manner described in Letters Patent No. 228,064, granted to me May 25, 1880.

In the chill C, in the place where a die is to be placed, I drill a hole, D, three-eighths of an inch (more or less) in diameter and depth, and fill the said hole with green sand.

The die E is cast with a sharp point, F, upon its large end, about three-sixteenths of an inch in diameter at its base and three-sixteenths of an inch long. In the mold-board pattern G are formed countersunk or tapering holes con-

siderably larger than the required bolt-holes, and into the said holes are fitted similarly-shaped cups H, which have holes formed through them tapered or flared in the opposite direction and of the size of the required bolt-holes. The dies E are placed in the cups H, and the cups and dies are placed in the holes in the pattern G, the points F of the dies being pressed down into the green sand in the holes D. After the mold has been formed the cups H are removed and the pattern G is drawn, leaving the dies E in place upon the chill, the resistance of the sand to the points F being sufficient to prevent the dies E from slipping out of place. With this construction the contraction of the mold-board in cooling will have no effect upon the dies E, as the sand in the holes D will yield promptly.

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

In chills for casting bolt-holes in mold-boards, the combination, with the chill C, having sand-holes D, and the die E, having point F, of pattern G, having countersunk holes filled with corresponding cups H, as shown and described.

BURNETT B. HARRIS.

Witnesses:

WILLIS A. BUGBEE,
GEO. W. MATTHEWS.