No. 827,874. PATENTED AUG. 7, 1906.

O. F. LINDBERG.

CLAMP FOR FOUNDRY FLASKS.

APPLICATION FILED JAN. 8, 1906.

Fig. 1.

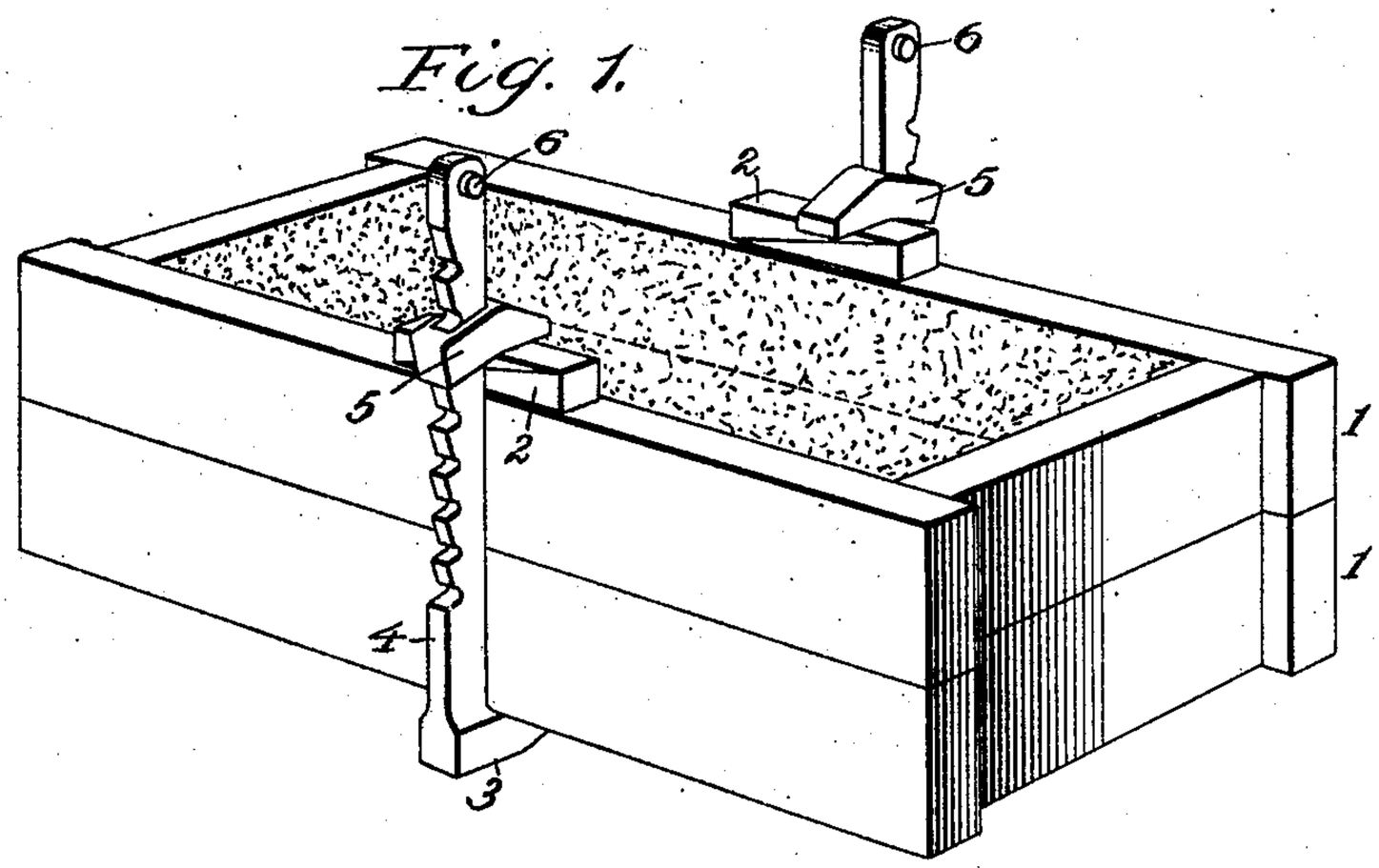


Fig. 3.

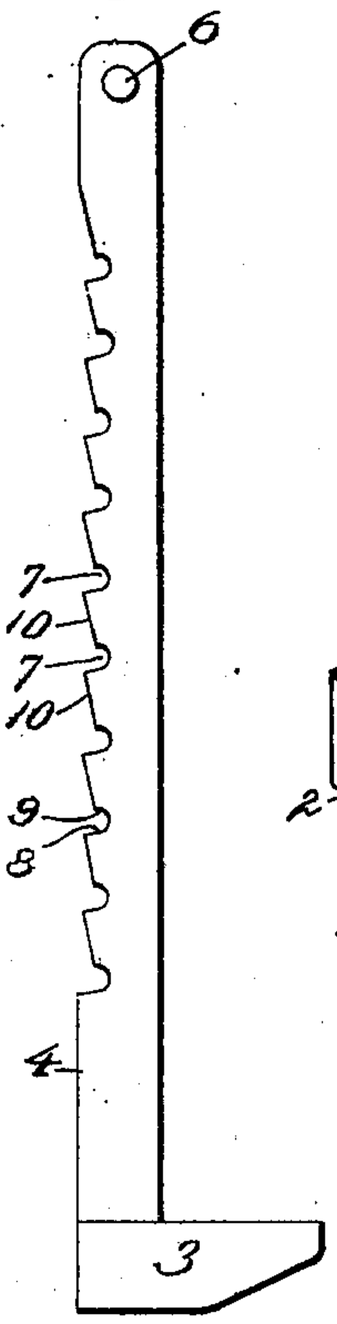


Fig. 4.

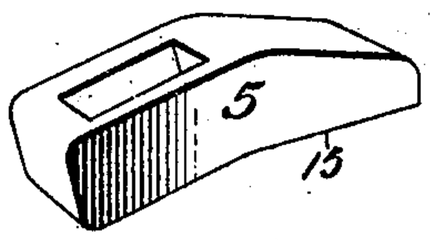


Fig. 5.

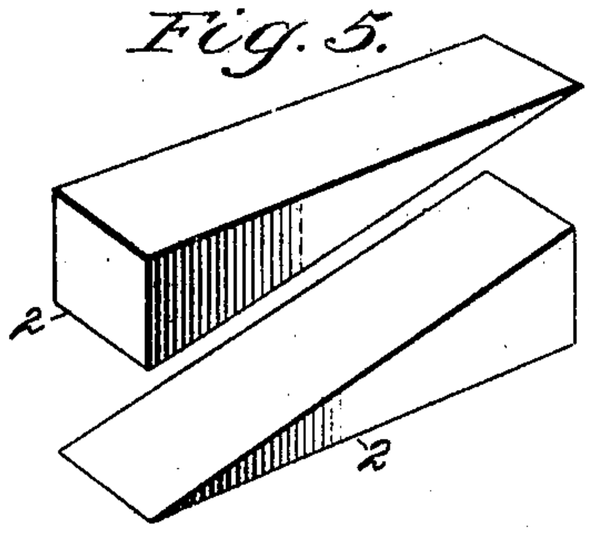
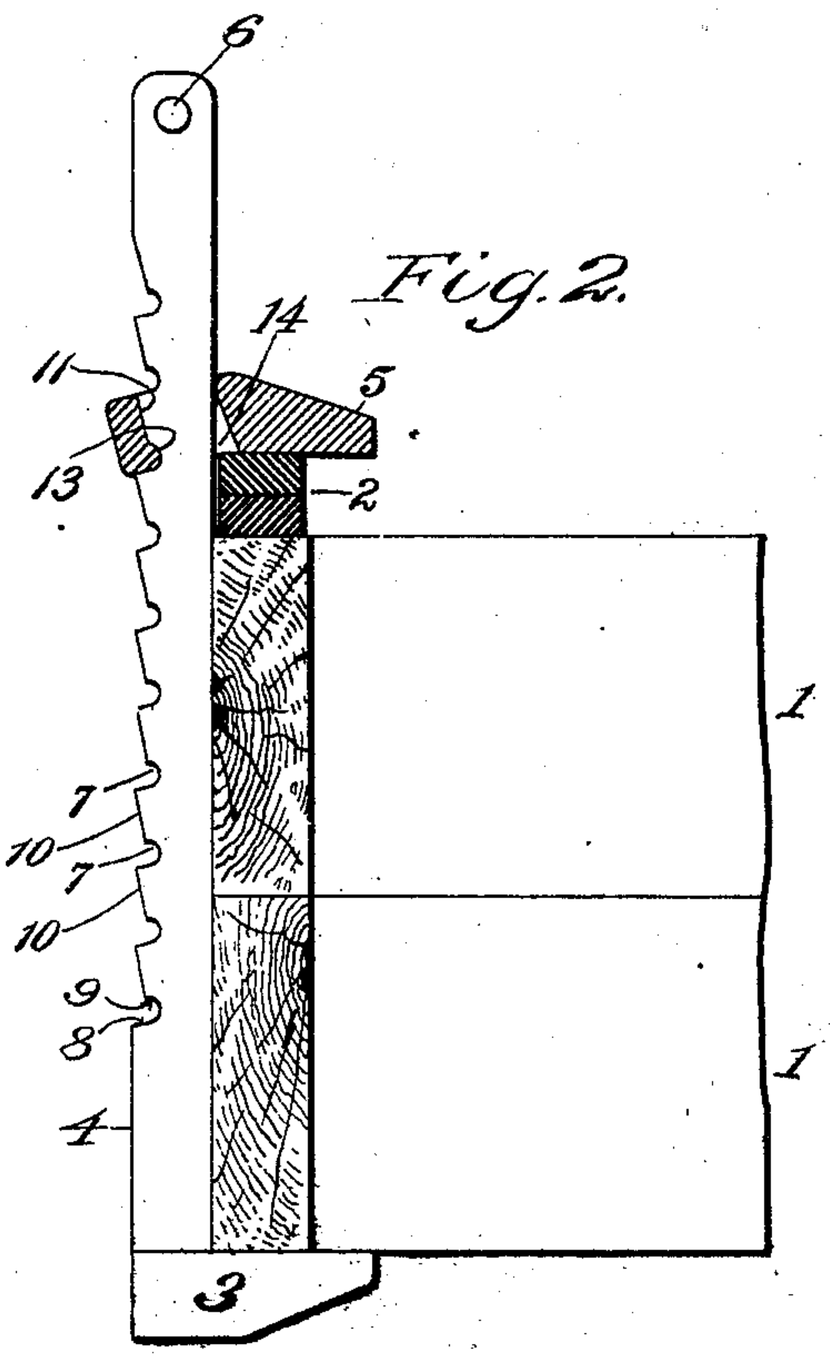


Fig. 2.



Witnesses

W. Bruce Lee,

H. C. Sinnott

Inventor

Oscar F. Lindberg.

By Knight Bros

Attorneys

UNITED STATES PATENT OFFICE.

OSCAR F. LINDBERG, OF BRADFORD, PENNSYLVANIA.

CLAMP FOR FOUNDRY-FLASKS.

No. 827,874. Specification of Letters Patent. Patented Aug. 7, 1906.

Application filed January 8, 1906. Serial No. 295,122.

To all whom it may concern:

Be it known that I, OSCAR F. LINDBERG, a citizen of the United States, and a resident of Bradford, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Clamps for Foundry-Flasks, of which the following is a specification.

This invention relates to clamps for foundry-flasks. Owing to the rough usage to which clamps of this kind are subjected it is necessary to construct them with a great amount of strength. With clamps that are not adjustable it is not hard to provide a strong and durable construction; but with adjustable clamps a different problem is presented; and the object of my invention is to accomplish this end with this latter type of clamp.

Other and further objects will appear in the following description and will be more particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of a foundry-flask with the sections held together by my improved clamp. Fig. 2 is a sectional view of the flask, showing the movable jaw of the clamp in section. Fig. 3 is a side elevation of the fixed jaw and shank. Fig. 4 is a perspective view of the movable jaw, and Fig. 5 is a perspective view of the usual foundry-wedges.

Referring more particularly to the drawings, 1 indicates the mold-sections, and 2 the foundry-wedges, which coöperate with the clamp to obtain small adjustments. The clamp comprises three parts—the fixed jaw 3, the shank 4, and the movable jaw 5, adapted to slide on the shank and prevented from sliding off of the said shank by lugs 6, extending from opposite sides thereof.

To hold the movable jaw 5 in various positions, thereby providing for its adjustment on the shank, the shank is provided on its rear face with a plurality of notches or grooves 7, preferably semicylindrical in form, one wall 8 of each of which is inclined and is longer than its other wall 9, while the face of the shank between the short wall and the long wall of adjacent grooves is beveled or inclined at 10.

To permit the movable jaw to slide on the shank and to interlock therewith, the movable jaw is provided with a shank-opening having a portion 11 of its rear wall adapted to engage any one of the inclined faces 10 on the shank when a semicylindrical lug 13, also on the rear wall of the shank and at the end nearest the clamping-face of the jaw-opening, enters the notch 7 at the lower end of an inclined face 10. The front or other wall 14 of the shank-opening is formed to permit a movable jaw to turn to throw the lug 13 and portion 11 of rear wall of the shank-opening out of contact with the walls of the groove 7 and the incline face 10. To permit the clamping-face of the movable jaw to be parallel with the clamping-face of the fixed jaw, the movable jaw is deflected or bent at 15.

In operation the rough adjustment of the jaws is first obtained—that is, the movable jaw is moved toward the stationary jaw, but not so far that the mold-sections are clamped between them, as it is desirable to employ the ordinary foundry-wedges 2. The employment of the foundry-wedges makes it possible to secure a greater clamping action, and after the molding operation is completed it requires but a blow of the hammer on the wedges to release the clamp.

The inclined faces 10 assist the notches in holding the movable jaw, and should the lug 13 or the short wall of the notches break or become worn the inclined face alone will hold the jaw against movement. Further, this adjustment is particularly adapted for foundry-clamps, which are subjected to very rough treatment and must be exceedingly strong in all particulars. Another advantage of this adjustment is that there are no small joints or crevices in which sand is liable to stick.

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

In a foundry-clamp, a fixed jaw to engage with one mold-section, a shank provided with a plurality of grooves and inclined faces between adjacent grooves, and a movable jaw having a lug to enter any one of the grooves, and a face to contact with an inclined face on the shank when the lug is in one of the grooves.

The foregoing specification signed at Bradford, Pennsylvania, this 28th day of December, 1905.

OSCAR F. LINDBERG.

In presence of—
F. A. HERPEL,
C. A. FAY.