H. J. & T. H. GRAF.

CLAMP FOR SNAP MOLDS.

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980,869.

Patented Jan. 3, 1911.

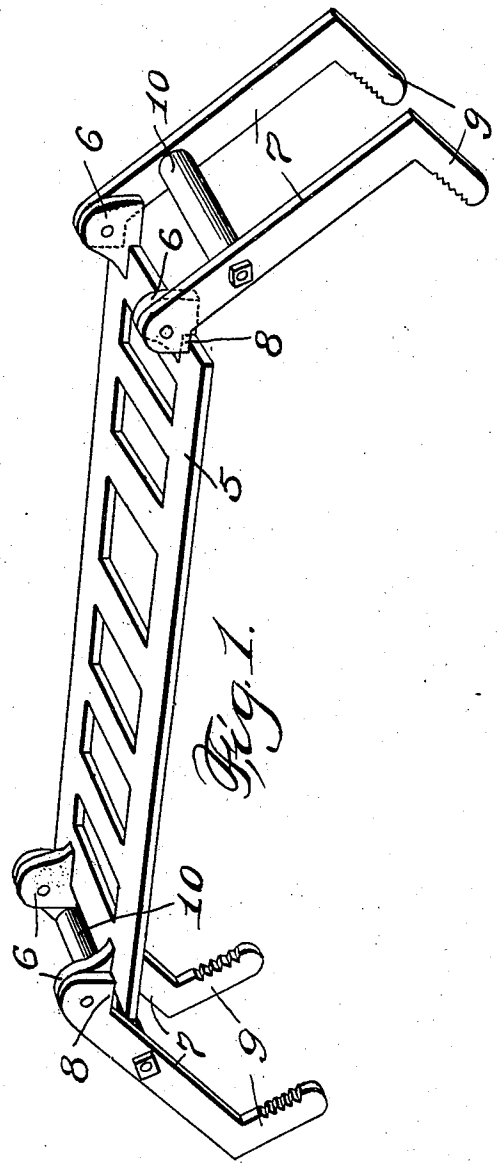

Fig. 1.

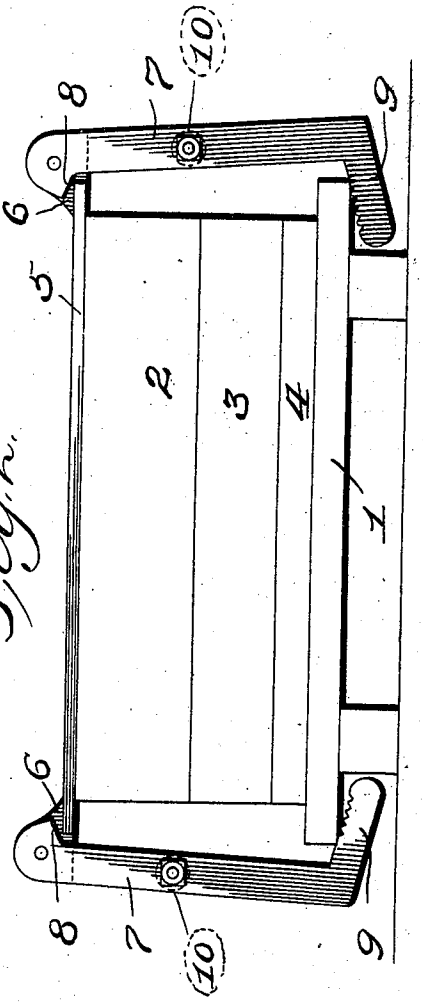

Fig. 2.

Attest:
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UNITED STATES PATENT OFFICE.

HENRY J. GRAF AND THEODORE H. GRAF, OF LOUISVILLE, KENTUCKY.

CLAMP FOR SNAP-MOLDS.

980,869. Specification of Letters Patent. Patented Jan. 3, 1911.

Application filed June 8, 1910. Serial No. 565,820.

To all whom it may concern:

Be it known that we, HENRY J. GRAF and THEODORE H. GRAF, citizens of the United States, and residents of Louisville, Jefferson county, Kentucky, have invented certain new and useful Improvements in Clamps for Snap-Molds, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to improvements in clamps for snap molds, the object of our invention being to construct a simple, durable, easily operated clamp for retaining the parts of a sand mold in proper registration relative each other after they are removed from a flask. Heretofore, ordinary weights were employed for simply holding the parts of the mold together and in the use of which frequent destruction of the molds ensued and the handling of which was of considerable effort and which weights were constructed of materials that might be readily employed otherwise. It was necessary to employ weights of different sizes on different molds and consequently a considerable number of weights were usually kept on hand.

For the above purposes our invention consists in certain novel features of construction and arrangement of parts as will be hereinafter more fully described, pointed out in the claims and illustrated by the accompanying drawing, in which:

Figure 1 is a perspective of the complete clamp; and Fig. 2 is an elevation of a molding platform with a sand mold thereon and the clamp in position for holding the mold in proper position.

Referring by numerals to the accompanying drawing: 1 designates the molding platform which is of ordinary construction and 2, 3 and 4 designate members of the mold, which were formed in a snap flask and, as shown, are placed upon the platform 1.

5 designates a barred skeleton frame to be placed upon the uppermost mold member with its ends projecting preferably slightly beyond the ends of the mold members. At the ends of the skeleton frame are up-standing, perforated ears 6 preferably projecting beyond the ends of the frame and formed integral with the frame.

7—7 designate arms which are pivotally secured to the ears 6 and which arms are each provided with a lug 8 for engagement with the frame to limit the outward movements of the arms. At their free ends the arms are provided with extensions 9 preferably formed integral therewith and which extensions occupy positions at an angle greater than ninety degrees relative the arms, the uppermost, inner margins of each extension being serrated. Intermediate the ends of the arms are the handles 10 preferably arranged for rotation so that there may be rotary movements about their axes to facilitate the handling of the arms.

In practical use assuming the mold members to be placed upon the platform 1 after being removed from a flask and it be desired to hold them in perfect registration relative each other the frame 5 is placed upon the uppermost mold, as shown in Fig. 2, and the arms 7 are moved so that the extensions 9 engage underneath the ends of the platform.

By reason of the angle of the extensions 9 it is obvious that the clamp may be applied to molds with slight differences in heights, and by reason of the serrated margins of the extensions the arms are firmly held against freeing from the platform.

By the employment of such a clamp all of the cumbersome and uselessly numerous weights now employed are dispensed with.

We claim:

1. In a device of the class described, the combination with a mold platform of a frame arranged to overlay the mold, and arms constructed of a single piece pivotally secured at one end to said frame and adapted to hook under said platform for securely holding the members of the mold together.

2. In a device of the class described, the combination with a mold platform of a frame arranged to overlay the mold, and arms arranged in pairs pivotally secured to said frame and arranged to hook under said platform for securing the mold members together, each of said arms being constructed of a single piece of metal.

3. In a device of the class described, the combination with a mold platform of a skeleton frame arranged to overlay the upper mold member, connected pairs of arms pivotally secured to said frame and having integral angular extensions arranged to hook underneath said platform for securing

the mold members together, each of said arms and its angular extension being formed from a single piece of metal.

4. A snap mold clamp, comprising a skeleton frame having pairs of integral, perforated ears, arms arranged in pairs pivotally secured to said ears and an annular integral extension at the free end of each arm.

5. A snap mold clamp, comprising a skeleton frame, integral ears adjacent each end of each frame, an arm pivotally secured to each ear, an extension on each arm at its free end arranged at an angle greater than ninety degrees relative the arm and means for limiting the movements of said arms.

6. In a snap mold clamp, a skeleton frame, perforated ears formed integral with said frame adjacent the ends of the frame, arms pivotally secured to said ears, angular extensions at the free ends of said arms, handles connecting the arms in pairs and integral lugs on said arms for engagement with said frame for limiting the movements of the arms.

In testimony whereof, we have signed our names to this specification, in presence of two subscribing witnesses.

HENRY J. GRAF.
THEODORE H. GRAF.

Witnesses:
WM. H. JOHNSTON,
C. J. GRAMIG.