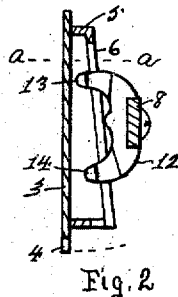
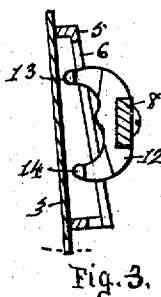
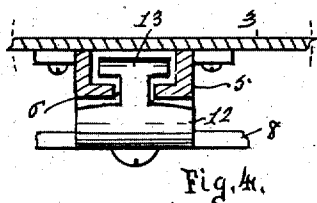
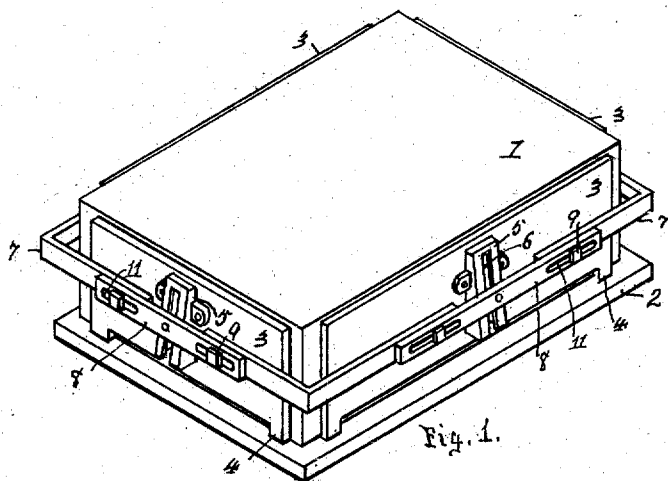


F. J. BECKER.
CLAMPING JACKET.
APPLICATION FILED MAR. 28, 1910.

985,771.

Patented Mar. 7, 1911.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANK J. BECKER, OF HAMILTON, OHIO.

CLAMPING-JACKET.

985,771.

Specification of Letters Patent.

Patented Mar. 7, 1911.

Application filed March 28, 1910. Serial No. 552,098.

To all whom it may concern:

Be it known that I, FRANK J. BECKER, a citizen of the United States, residing at Hamilton, Ohio, have invented a new and useful Improvement in Clamping-Jackets, of which the following is a specification.

My invention relates to clamping jackets adapted for use on sand molds or elsewhere, and the objects of my improvements are to provide means for automatically adjusting the clamping plates to the sides and ends of the molds of different forms; to provide adjustable means for adapting the jackets to molds of different sizes or of different length in relation to their width; to provide means for suspending the clamping plates loosely from the adjustable frame and in a downwardly divergent direction for facilitating their emplacement in operative position without injury to the mold; to provide the clamping plates with short legs for supporting them on the bottom board, and to provide such form and assemblage of the different members as to secure simplicity and durability of construction together with facility of operation and efficiency of action. These objects are attained in the following described manner as illustrated in the accompanying drawings, in which:—

Figure 1 is an isometrical view of a clamping jacket embodying my improvements in operative position on a sand mold; Figs. 2 and 3, transverse sections of a clamping plate with inclined housing attached, and Fig. 4, a plan with parts in section on the line *a—c* of Fig. 2.

In the drawings, 1 represents a sand mold supported on the bottom board 2 after the sand flask has been removed, clamping plates 3 preferably narrower than the height of the mold are formed with feet 4 depending from the end portions of their lower edge adapted to rest on board 2. Said plates are intentionally shorter than the respective ends and sides of the mold to prevent their adjacent ends from conflicting with each other. A housing 5 formed with an open vertical slot 6 and inclined outwardly in a downward direction is secured to the middle portion and on the outside of each of the clamping plates. A rectangular frame adapted to encircle the mold consists of angular corner members 7 extensibly secured to the intermediate members 8 by means of bolts 9 being adjustably secured to the corner members through the longitudinal slots 11 formed in each of the

members 8. A lug 12 formed with top and bottom T heads 13 and 14 which may be removably inserted within slot 6 is adapted to slidably engage with the corresponding housing 5 secured to each of the members 8 of the frame. The sliding engagement of said lugs with the housings is such that the plates will diverge in a downward direction by gravity when they are supported by means of the frame, and said plates are also free to swing laterally on the housings to a limited extent for adapting them to fit snugly against the ends and sides of the mold even though it be not accurately rectangular in shape.

In operation, the frame with the plates depending therefrom in a divergent direction is easily inserted over the mold with the feet of the plates on the bottom board. Downward pressure being then exerted on the frame moves the lugs down and in contact with the inclined face of the housings and simultaneously effects an automatic adjustment and any desired pressure of the clamping plates against the corresponding sides and ends of the mold to prevent the liquid metal poured therein from breaking the mold and running out. It is evident that the clamp is equally adapted for use on molds in form the frustum of a pyramid with upwardly convergent sides and ends, as well as for molds with vertical sides and ends, as shown in Fig. 1.

Having fully described my improvements, what I claim as my invention and desire to secure by Letters Patent of the United States is:—

1. A clamping jacket comprising an adjustable frame, clamping plates, an inclined housing secured on the middle portion of each plate, and sliding swivel connections of the frame therewith.

2. A clamping jacket comprising an adjustable frame, clamping plates, inclined housings secured on the middle portion of the respective plates, and sliding swivel connections detachably engaging the frame therewith.

3. A clamping jacket comprising a frame, clamping plates, inclined housings secured on the respective plates and each formed with an open slot, and lugs secured on the frame and arranged to slidably and removably engage with the slots in the housings.

4. A clamping jacket comprising a plate provided with an inclined housing, and a

frame member provided with a lug adapted to slidably engage with the housing.

5 5. A clamping jacket comprising an adjustable rectangular frame, clamping plates, and inclined slidable connections of the sides and ends of the frame therewith, said connections being arranged to suspend the plates from the frame in divergent angles.

10 6. A clamping jacket comprising a rectangular frame, clamping plates therein, and inclined sliding connections of the respective ends and sides of the frame with the middle portion of the plates, said connections being constructed and arranged to permit the automatic movement of the plates in different horizontal and also different vertical angles.

7. A clamping jacket comprising a slotted housing having an inclined face and a lug formed with a T head adapted to slidably engage through the slot therewith. 20

8. A clamping jacket comprising a frame adjustable in size, clamping plates, and detachable inclined sliding connections of the frame with the middle portion of the plates, 25 said connections being constructed and arranged for permitting the movement of the plates in both vertical and horizontal angles in relation to the frame.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
