J. R. SCHMITT.

APPARATUS FOR OPENING CIGAR BUNCH MOLDS AND RELEASING THE BUNCHES THEREIN.

APPLICATION FILED MAR. 11, 1908.

925,600. Patented June 22, 1909.

2 SHEETS—SHEET 1.

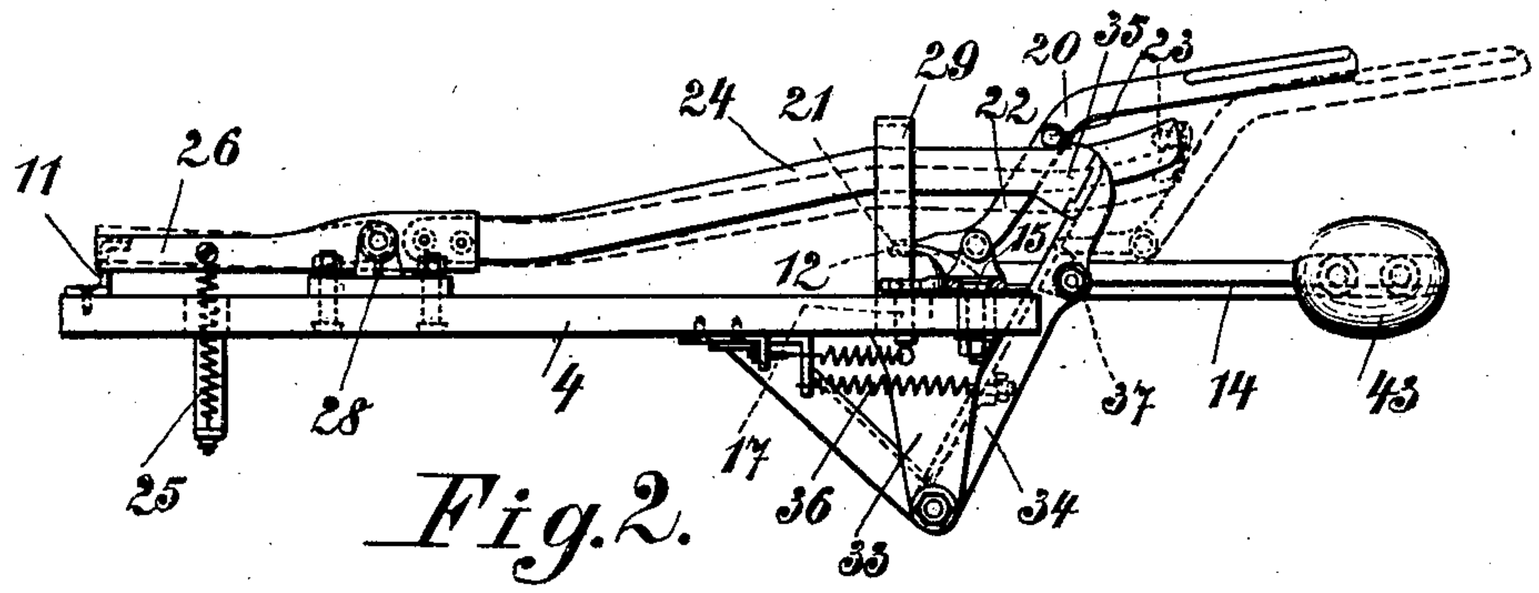

Fig. 2.

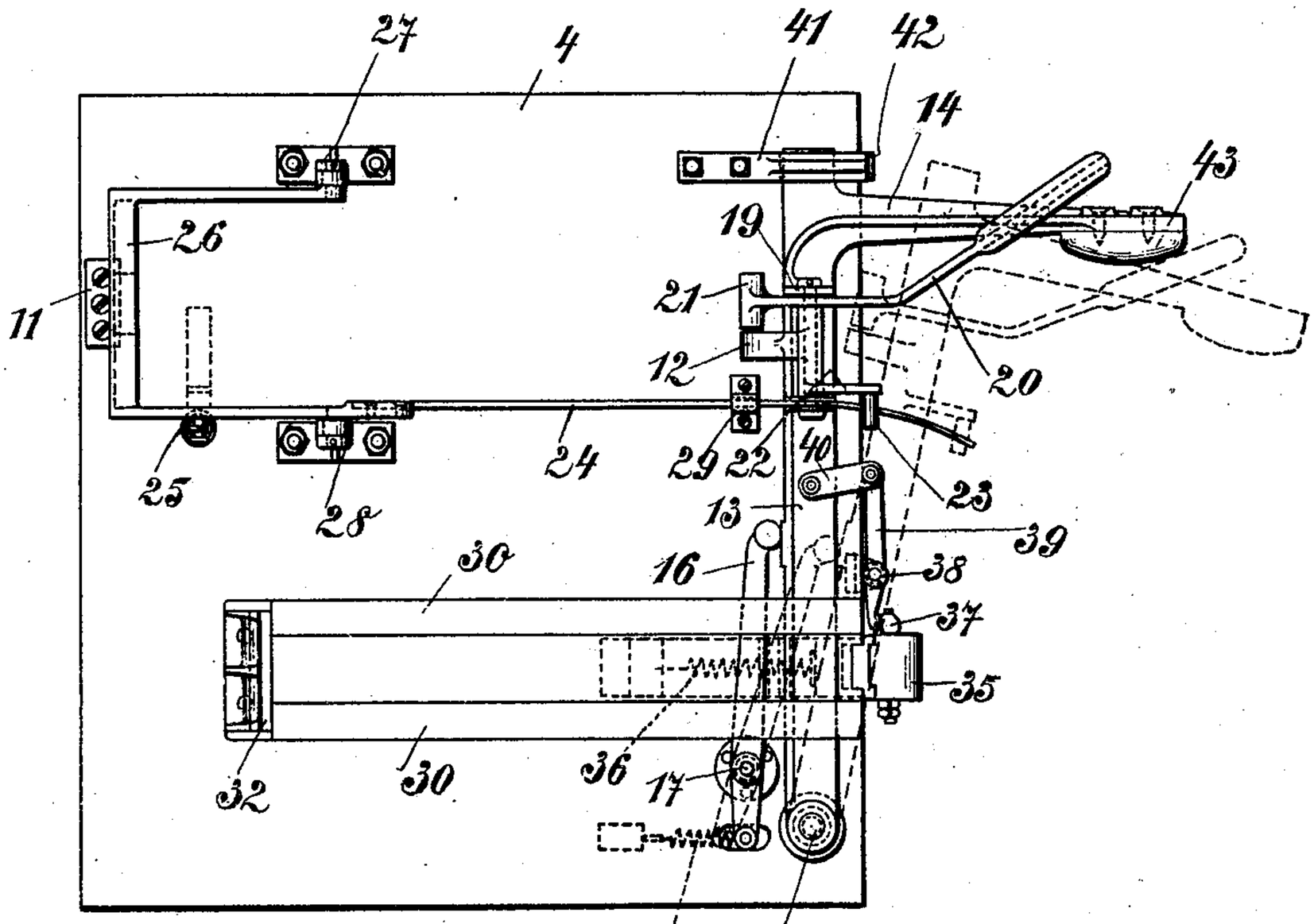

Fig. 1.

Witnesses:-

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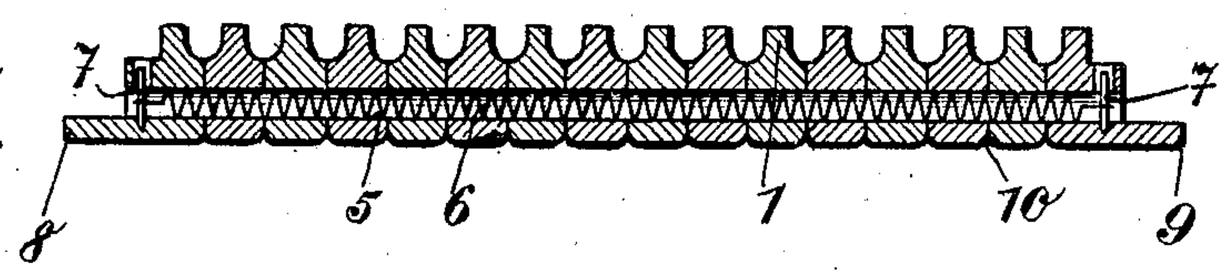
Fig. 3.



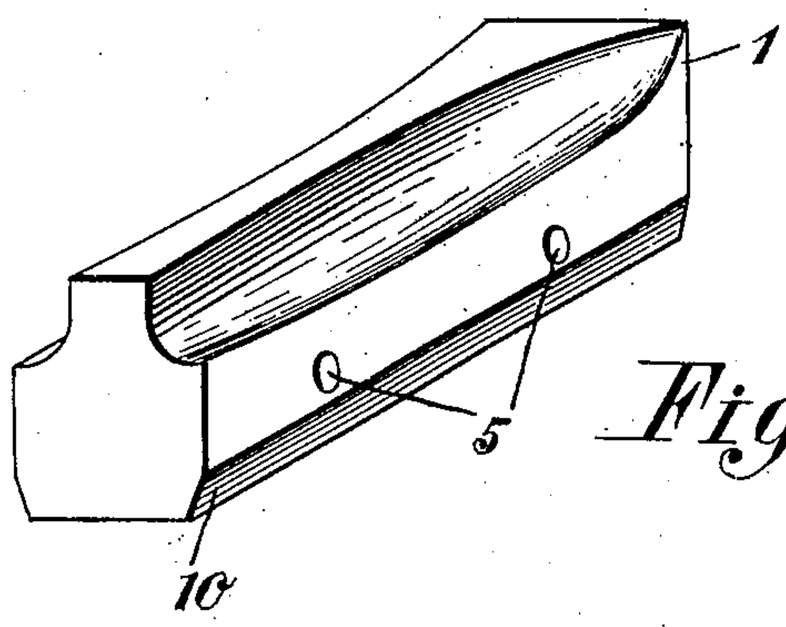


Fig. 4.

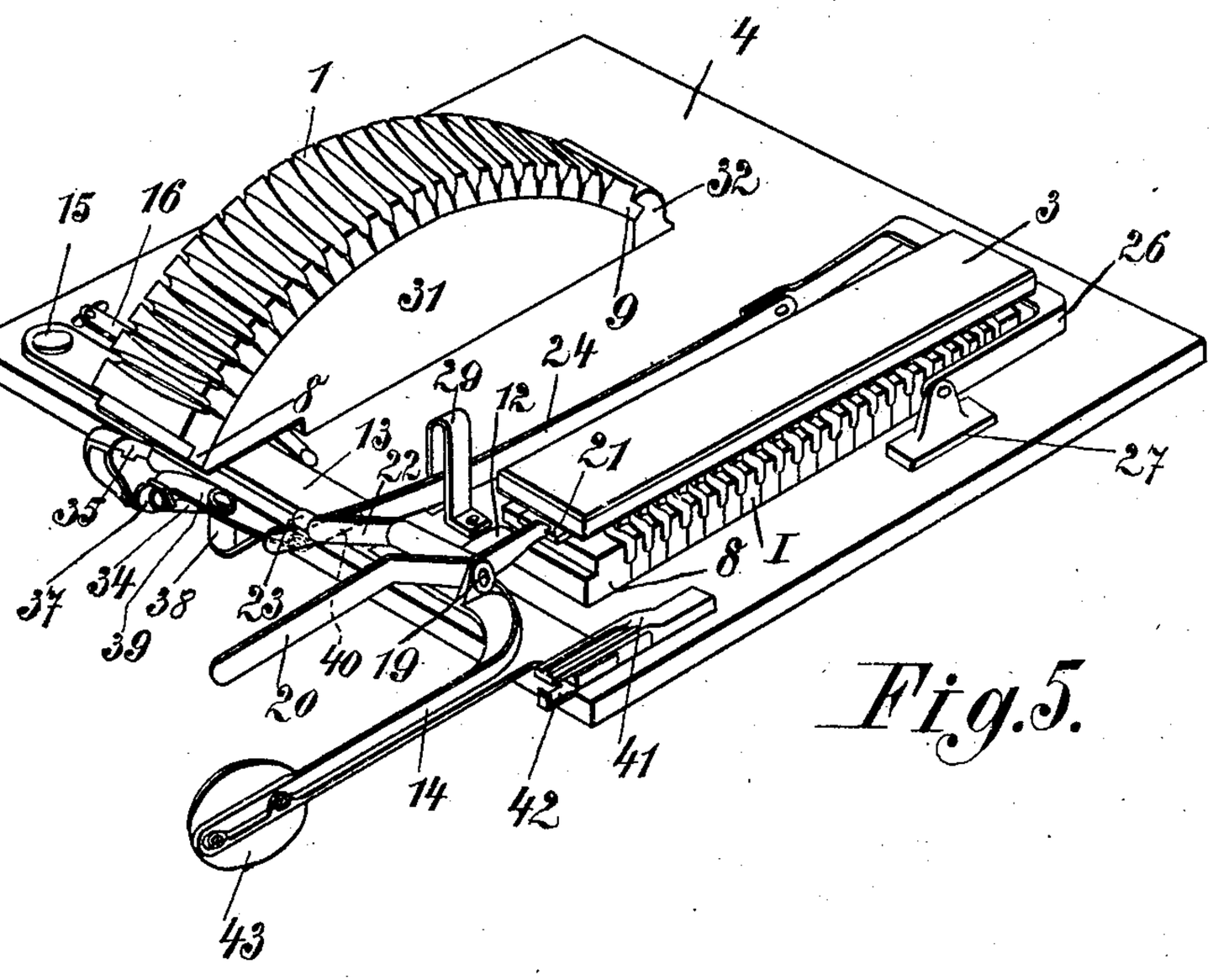


Fig. 5.

Witnesses:-
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UNITED STATES PATENT OFFICE.

JOHANN RUDOLF SCHMITT, OF FRANKFORT-ON-THE-MAIN, GERMANY.

APPARATUS FOR OPENING CIGAR-BUNCH MOLDS AND RELEASING THE BUNCHES THEREIN.

No. 925,600. Specification of Letters Patent. Patented June 22, 1909.

Application filed March 11, 1908. Serial No. 420,419.

To all whom it may concern:

Be it known that I, JOHANN RUDOLF SCHMITT, a subject of the German Emperor, and resident of Frankfort-on-the-Main, Germany, have invented a certain new and useful Improvement in Apparatus for Opening Cigar-Bunch Molds and Releasing the Bunches Therein, of which the following is a specification.

This invention relates to apparatus for opening cigar bunch molds and releasing the bunches therein. It is usual for the bunches to be forcibly wedged into the shuttle of the base of the mold so that ribs are formed on the bunch which disappear on the bunch being turned and pressed again.

In order that it may be easily turned the base of the mold, according to this invention, consists of separate shuttles divided longitudinally, the members of which are held together by helical springs. After the pressing operation the mold is opened, the cover is lifted and the base of the mold laid on a curved block. The shuttles are thus opened out so that the bunches can be easily turned.

In the accompanying drawing Figure 1 is a plan of the apparatus: Fig. 2 is an end view, Fig. 3 is a section through the base of the mold; Fig. 4 is a perspective view of a member of the base of the mold. Fig. 5 is a perspective view of the entire apparatus.

The bunch mold consists of the base I and the cover 3 (Fig. 5). The shuttles 1 (Fig. 4) are divided longitudinally at the deepest part of the curve and have two transverse orifices 5 through which are passed helical springs 6. The springs are secured by means of pins 7 inserted into the strips 8, 9 forming part of the end shuttles and passed through their ends. The base portions of the mold preferably consist of two layers of wood in order to prevent warping and are beveled along the sides near the lower edge. The springs must be drawn through the orifices 5 in the shuttles and must be distended so that the part I of the mold may be held in the usual position. The lower part of the mold is secured by a hook 11 on a bed plate 4 engaging the strip 9. A bell crank lever 13, 14 is rotatable about a pivot 15 on the bed plate 4 which lever has a hook 12 adapted to engage the strip 8 in one position of said lever. Against this lever is pressed a double armed lever 16 which is rotatable about the pivot 17 so that a spring 18 will force it into the dotted position of Fig. 1. By the action of the lever 16 the lever 13, 14 usually assumes the inclined position (dotted in Fig. 1). In an eye 19 of the arm 13 is pivotally mounted a hand actuated lever 20 provided with a widened finger 21. The lever 20 has an arm 22 with a pivot 23. The pivot 23 bears downwardly against the arm 24 of a U-shaped strap 26 actuated by a tension spring 25 which strap is adapted to swing in bearings 27 and 28. A holder 29 limits the upward stroke of the arm 24. To the bed plate 4 adjacent the strap 26 is secured a curved block 31 formed of two disks 30 which at one end has a dovetailed or undercut strip 32. On a bracket 33 on the under side of the bed plate is mounted a lever 34 having a jaw 35 which lever is actuated by a spring 36. Against the pivot 37 of the lever 34 rests a double armed lever 39 pivotally mounted at 38 which lever is connected with the arm 13 by a link 40. A slotted holder 41 on the bed plate 4 serves to hold the knee of the bell crank lever 13, 14 while a hook 42 forms a stop for the lever 13, 14 when it is pushed into the holder 41.

The operation of the apparatus is as follows:—In order to open the cover 3, the lever 13, 14 is moved from the dotted position in Fig. 1 into the position shown in Fig. 5 by the operator pressing with his hip against the plate 43 of the arm 14. The extension 21 of the lever 20 is moved between the cover and the base portion of the bunch mold the end strip 8 of which is engaged by the hook 12 of the lever. If the lever 20 is now depressed the extension 21 is raised and the cover released at this point. By the depression of the lever 20 the arm 24 is moved downward by means of the arm 22 and pivot 23, in consequence of which the strap 26 and that of the bearing 27 is turned upward and therewith releases the cover at the rear end. When the plate 43 is released by the operator, in consequence of the action of the spring 18 and the lever 16 the lever 13 is forced back into the dotted position, the base of the mold is released by the hook 12 and can therefore be lifted from the table. It is then with its strip 9 inserted below the strip 32 of the block 31 and by depression of the end strip 8 is curved in such manner that it is engaged and held only by the claw 35 of the lever 34. By this stretching on the block 31 the shuttles are separated so

that the bunches therein are loosened and therefore can be easily turned by the operator. In order that the claw 35 may hold the base of the mold it must be under the action of the spring 36 in the almost perpendicular direction when the bell crank lever is released by the operator so that his hands are left free for turning the bunches. The gripping action is obtained by swinging the lever 39 outward in consequence of the release of the lever 13, 14. When the bunches are turned then the lever 13, 14 is again pushed in and the lever 39 is swung out in such manner that it raises the lever 34 and the base of the mold is released. The operator grips the strip 8 of the base at the moment of release and thus prevents the raising of the base by the action of the springs 6. The bunches in the support are then provided with a wrapper and are pressed again. They are then placed in the opening device while another base portion replaces the first one.

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

1. In apparatus for opening cigar bunch molds and releasing the bunches therein, the herein described bunch mold support consisting of divided shuttles and helical springs passing through said shuttles and forming the sole means for holding the same together.

2. Apparatus for opening cigar bunch molds and releasing the bunches therein comprising in combination a base portion consisting of longitudinally divided shuttles, spiral springs forming the sole means for connecting said shuttles, a table for holding said base portion, and a curved block on which said shuttles are laid, as and for the purpose set forth.

3. Apparatus for opening cigar bunch molds and releasing the bunches comprising, in combination a bed plate, a base portion consisting of longitudinally divided shuttles adapted to be secured thereto, a cover for said base portion, a curved block on said bed plate, claws at the end of the curved block, a bell crank lever pivoted to said bed plate, a claw carried by said lever, levers for releasing said cover and levers for releasing said claws on the curved block.

4. An apparatus of the class described comprising in combination, a bed plate, a flexible bunch mold, a curved opening support for said bunch mold disposed on said bed plate and provided with a mold retaining element for engagement with one end of said mold, a movable mold retaining element mounted on said bed plate for engagement with the other end of said mold for holding it upon the curved support, a mold engaging member on said bed plate for engaging one end of said mold, and an operating lever provided with an element engaging said mold and coöperating with said bed plate member, said lever being operatively connected with said immovable mold retaining element to automatically release the mold from said curved support.

5. An apparatus of the class described comprising in combination, a bed plate, a flexible bunch mold, a mold engaging member on said bed plate for engaging one end of said mold, a bell crank lever mounted on said bed plate provided with a mold engaging member for engaging the other end of said mold and hold the same flat upon said bed plate, an opening bunch mold support disposed upon said bed plate and provided with a mold engaging member for engaging one end of said mold, a movable mold retaining element engaging the other end of said mold and holding the same upon said support, and means operatively connecting said retaining element with said bell crank lever serving to throw said element out of engagement with said mold when said lever is operated.

6. An apparatus of the class described comprising in combination, a bed plate, a curved opening mold support disposed on said bed plate and provided with a mold engaging member for engaging one end of said mold, a spring actuated lever provided with a mold engaging member engaging the other end of said mold on said support, a rigid mold engaging member on said bed plate, a spring actuated bell crank lever normally held in an inoperative position and provided with a mold engaging member coöperating with said bed plate member, and means connecting said bell crank lever with said mold engaging lever to throw said mold engaging lever into a non-operative position when said bell crank lever is in an operative position and release said mold engaging lever when said bell crank is in an inoperative position.

7. An apparatus of the class described comprising in combination, a bed plate, a bunch mold, a cover for said bunch mold, an element fixed to said bed plate for engaging one end of said mold, an operating lever provided with a member engaging the other end of said mold to hold the same upon the bed plate, a cover lifting lever mounted upon said bed plate for lifting one end of said cover, and an element mounted on said operating lever and provided with a cover lifting projection engaging the other end of said cover and a part engaging said cover lever and serving when actuated to lift both ends of said cover simultaneously.

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

JOHANN RUDOLF SCHMITT.

Witnesses:

BERNHARD KAISER,

JEAN GRUND.