Nov. 7, 1933. G. GOEBEL 1,934,188

MOLD SEPARATING PRESS

Filed Dec. 15, 1931

Fig. 2

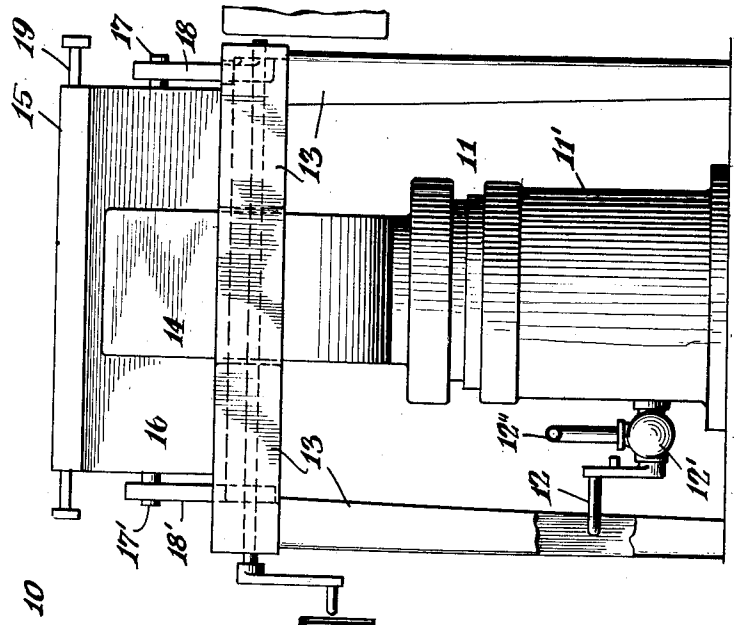
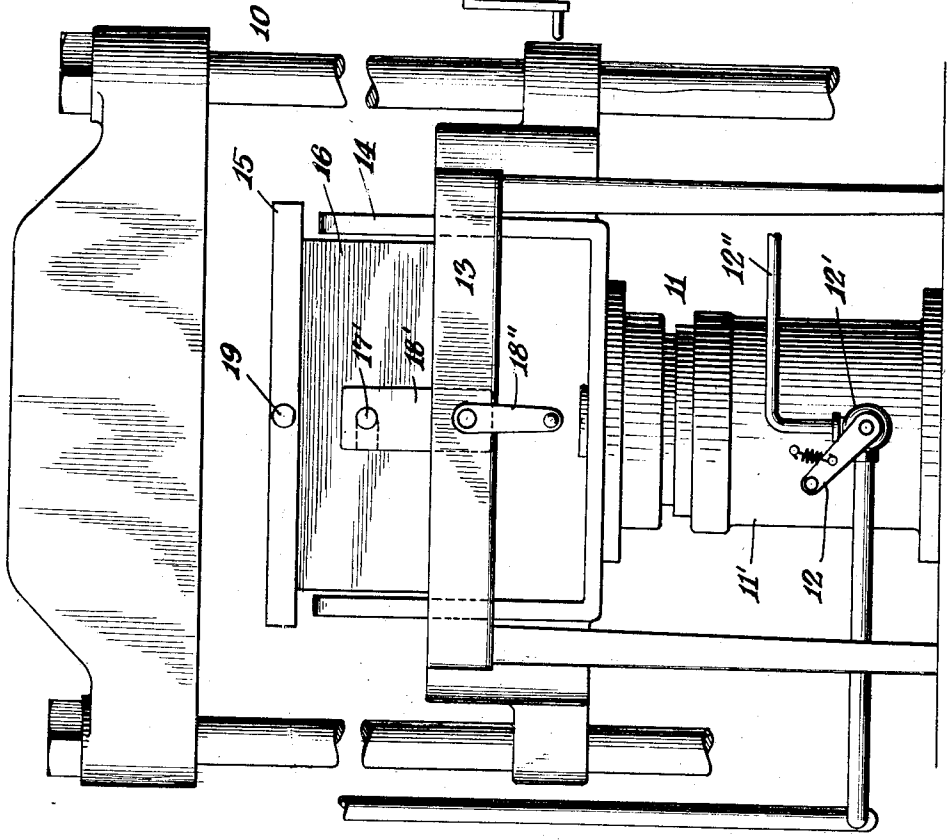


Fig. 1



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MOLD SEPARATING PRESS

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Serial No. 581,165

5 Claims. (Cl. 18—17)

My invention relates to improvements in a simple form of jack having means for positively and quickly separating the parts of separable molds.

The jack is intended to be used in connection with a large and usually a hydraulic press in which molds are used for pressing and treating or curing articles generally containing some percentage of rubber. After such use and treatment it is difficult to separate the mold parts to remove the molded articles therefrom, and my present invention is intended to produce a simple structure in the form of jack and cooperating table on which the molds may be placed after being removed from the treating press and by which the mold separation may be easily made.

By such practice I effect a substantial saving in the cost of manufacturing articles of the kind referred to because after treatment in the main press the mold parts adhere strongly and they are with difficulty separated. In carrying out my invention I may use a simple press converted to a jack, preferably controlled by the foot, in which the separable molds can be readily placed and which will operate to effect a quick separation.

Reference is to be had to the accompanying drawing forming a part of this specification, in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a broken front elevation of my mold separating device showing my improvements; and

Figure 2 is a broken elevation broken at right angles to Figure 1.

In carrying out my invention I use a jack and cooperating table 10. The jack is preferably a hydraulic type, having a piston 11 which, as usual, is movable in a cylinder 11' to do the necessary work. The jack and table are preferably placed adjacent the treating press so that molds can be conveniently placed in it, and while the particular type of jack is not important I have shown this standard type with an inlet pipe 12' for the admission of the pressure fluid with a valve 12'' controlling the said inlet and with a treadle 12 for operating the valve. In the machine the platen carried by the piston 11 moves upward through a frame or table structure 13 having legs which are securely anchored or fastened. The piston 11 carries an abutment 14 which is adapted to engage underneath the overhanging cover part 15 of a conventional mold 16. In the form illustrated, the abutment 14 is of a general U shape so that it will straddle the mold and the two arms will engage simultaneously on opposite sides of the cover to lift it from the member 16. To effect this result, it is, of course, necessary to anchor the lower part of the mold against the movement of the piston, and this can be effected in any simple way. In the drawing I have shown the mold provided with a pin 17', see Figure 2, entering a hole in the post 18' on the frame or table 13, while on the opposite side a pin 17 on the lower mold member is engaged by a swinging latch 18 to hold the mold member 16 in position. The latch can be operated by a crank handle 18''. Thus it will be seen that, assuming the mold to be in position on the table and above the jack, the upward movement of the cylinder 11 will cause the abutment 14 to strike beneath the overhanging cover 15 and lift it from the part 16 which is held against movement.

It will be quite apparent that various forms of the lifting abutment 14 can be used without affecting the invention. The particular shape of the abutment can be greatly varied. It can be made of varying or adjustable widths to suit different molds, but it is not necessary to illustrate all the different shapes and abutment constructions because they would all be alike in principle, and as far as my invention is concerned they are merely means for anchoring one part of the mold and the means actuated by the piston for lifting off the second part of the mold.

I claim:

1. A device for opening a mold having upper and lower separable portions after removal from a treating press, said device comprising a table, adjustable means for fastening the lower portion of said mold to said table, a jack beneath said table and mold, and an abutment on said jack extending through the plane of said table and positioned to engage said upper mold.

2. A device for opening a separable mold having projecting studs thereon after removal from a treating press, said device comprising a table, adjustable means connected to said table positioned to cooperate with said studs whereby said lower mold is fastened to said table, a jack beneath said table and mold, and an abutment on said jack extending through the plane of said table and positioned to engage said upper mold.

3. A device for opening a mold having upper and lower separable portions with projecting studs on the lower portion after removal from a treating press, said device comprising a table, adjustable means connected to said table positioned to cooperate with said studs whereby said lower mold is fastened to said table, a jack beneath said table and mold, and a U-shaped abutment on said jack extending through the plane

of said table and positioned to engage the edges of said upper mold.

4. A device for opening a separable mold having laterally projecting upper parts after removal from a press, said device comprising a table, a piston jack, means for anchoring the lower part of said mold against movement by said jack, and an abutment carried by said jack disposed to extend through the plane of said table and to engage the projecting part of the upper mold on opposite sides of said mold and operable to lift said member.

5. A device for opening separable molds having laterally projecting upper parts after removal from a treating press, said device comprising a table, a jack, means for anchoring the lower part of said mold against movement by said jack, an abutment straddling the mold and carried by said jack, said abutment being positioned to extend through the plane of said table and to engage beneath and lift the upper part of said mold.

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