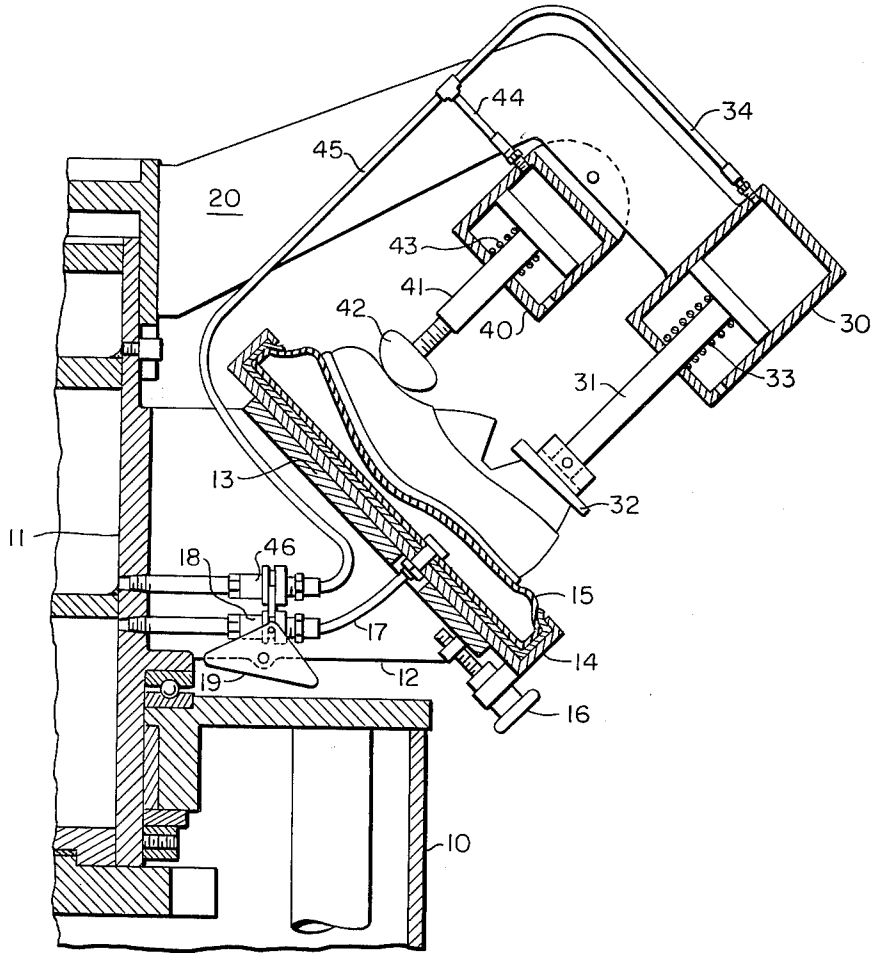
Aug. 24, 1965 H. E. MARASCO 3,201,811

SOLE PRESS

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1

3,201,811

SOLE PRESS

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This invention comprises a new and improved sole press of the type employing a pad box and pad for supporting a sole, in combination with separate toe and heel posts for presenting a lasted shoe to the pad-supported sole and resisting the conforming and attaching pressure of the machine.

In such sole presses it is important to support the lasted shoe securely at both ends of the last when subjected to pressure and to provide immediate and ample clearance at the conclusion of the cycle, thus facilitating removal from the press of the now united shoe and sole and the presentation of new work.

With this end in view the invention, briefly described, consists in separate toe and heel posts for presenting a lasted shoe to a pad-supported sole, means tending at all times to retract and hold both the posts in position of full clearance and fluid pressure connections for simultaneously moving the posts toward the pad. The posts are thus held in positions of pressure by fluid pressure and are retracted automatically and simultaneously at the instant of cut off of fluid operating pressure.

As herein shown the two posts have independent retracting springs and cylinders which are included in a unitary fluid pressure system having a controlling valve. This valve may be operated automatically in the cycle of the machine or at intervals determined by the operator.

These and other features of the invention will be best understood and appreciated from the following description of a preferred embodiment thereof, selected for purposes of illustration and shown in the accompanying drawing, in which the figure is a view of one section or station of the press in longitudinal section.

My invention is herein shown as embodied in a turret type of press that may have as many as six stations, but is not, by any means, limited in its application to that or to any specific type of press.

The frame **10** of the press is designed to support a rotatable turret in which is included a fluid pressure reservoir in the shape of a vertically disposed cylinder **11** supported by ball bearings upon the frame. Fluid under pressure is supplied to the cylinder **11** and maintained always under working pressure through connections leading to the bottom of the cylinder.

The turret carries a number of sole press units of which one is shown in the figure. A bracket **12** extends radially from the cylinder and carries an inclined plate **13** upon which is mounted the pad box **14** carrying an inflatable pad **15** for supporting the sole. The pad box **14** is mounted for adjustment on the plate **13** by means of a screw **16**. A tube **17** constitutes a fluid pressure connection for the pad with the cylinder and in this connection is placed a valve **18** of the well known Hunt Sliding Sleeve type which is controlled by a triangular rocker **19**. This may be operated automatically in the cycle of the machine or by the operator at any desired intervals for admitting compressed air to inflate the pad or for releasing and exhausting the pad at the completion of each cycle.

2

As described up to this point the press with the pad box **14**, cylinder **30**, valves **18** and **46** connected by a yoke and rocker **19** is identical with the corresponding parts of the machine of my prior Patent No. 2,813,282. Rocker **19** may be operated automatically in the cycle of the machine or by the operator by means described in that patent and the fluid pressure is vented through the valves **18** and **46** as explained in respect to the corresponding valves **26** and **34** of the patent.

The turret is provided with an overhead radial bracket **20** for each station and at the outer end of each bracket is mounted a fluid pressure cylinder **30** having a piston and piston rod **31** which constitutes the heel post of the press and carries a pivoted plate **32** for engaging the crown of the last. Beneath the piston is located a compression spring **33** which tends at all times to retract the heel post and hold the plate **32** in a position of maximum clearance.

A fluid pressure cylinder **40** is also mounted upon the bracket **20** in parallel relation with the cylinder **30** and disposed at right angles to the carrier plate **13** and pad box. The cylinder **40** contains a piston and piston rod **41** carrying an adjustable toe pad **42**. A compression spring **43** beneath the piston tends at all times to move the toe post upwardly to position of maximum clearance. The cylinder **40** is somewhat shorter than the cylinder **30** since the stroke required of its piston is less than that required for the heel end of the shoe.

The machine is provided with a fluid pressure system which includes a pipe **34** leading to the cylinder **30** and a pipe **44** leading to the cylinder **40**. These pipes are connected to a trunk pipe **45** containing a valve **46** located in close proximity to the valve **18** and identical to it and connected through it to the rocker **19**. Accordingly when the rocker is operated to open the valves **18** and **46** fluid pressure is admitted to the pad box though the pipe **17** inflating and elevating the pad **15** and at the same time fluid pressure is admitted to the cylinders **30** and **40** so that the heel post **31** and the toe post **41** are simultaneously advanced to engage the crown of the last and the forepart of the lasted shoe wherever these components of the shoe may be located thus creating the required sole molding and attaching pressure between the sole and the bottom of the lasted shoe.

After a predetermined interval the rocker **19** is operated to cut off fluid pressure to the cylinders **30** and **40** and open an exhaust outlet whereupon the springs **33** and **43** act immediately and simultaneously to retract and elevate the heel post and toe post to a position of maximum clearance and also to release the pad **15** from its elevated position thus facilitating removal of the shoe with the attached sole. The pad box is thus presented in convenient position for the reception of a new sole and shoe.

Having thus disclosed my invention and described in detail an illustrative embodiment thereof, I claim as new and desire to secure by Letters Patent:

A sole press comprising a pad box and pad for supporting a sole in outwardly and downwardly inclined position, an overhead arm carrying two separate fluid pressure cylinders located respectively opposite to the toe and heel ends of the pad box with cooperating toe and heel posts movable therein at substantially right angles to the pad box, means mounting said toe and heel posts in said cylin-

ders so that the stroke of said toe post is shorter than the stroke of said heel post, fluid pressure connections to the pad box for inflating and elevating the pad and fluid pressure connections to each of the said cylinders for moving both posts independently and simultaneously toward the pad until engaged with an interposed shoe, and means for independently retracting the toe and heel posts from the pad to positions of maximum clearance upon release of fluid pressure in their associated cylinders, whereby said heel post moves a greater distance than said toe post to provide immediate and ample clearance between said toe and heel posts and the shoe.

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