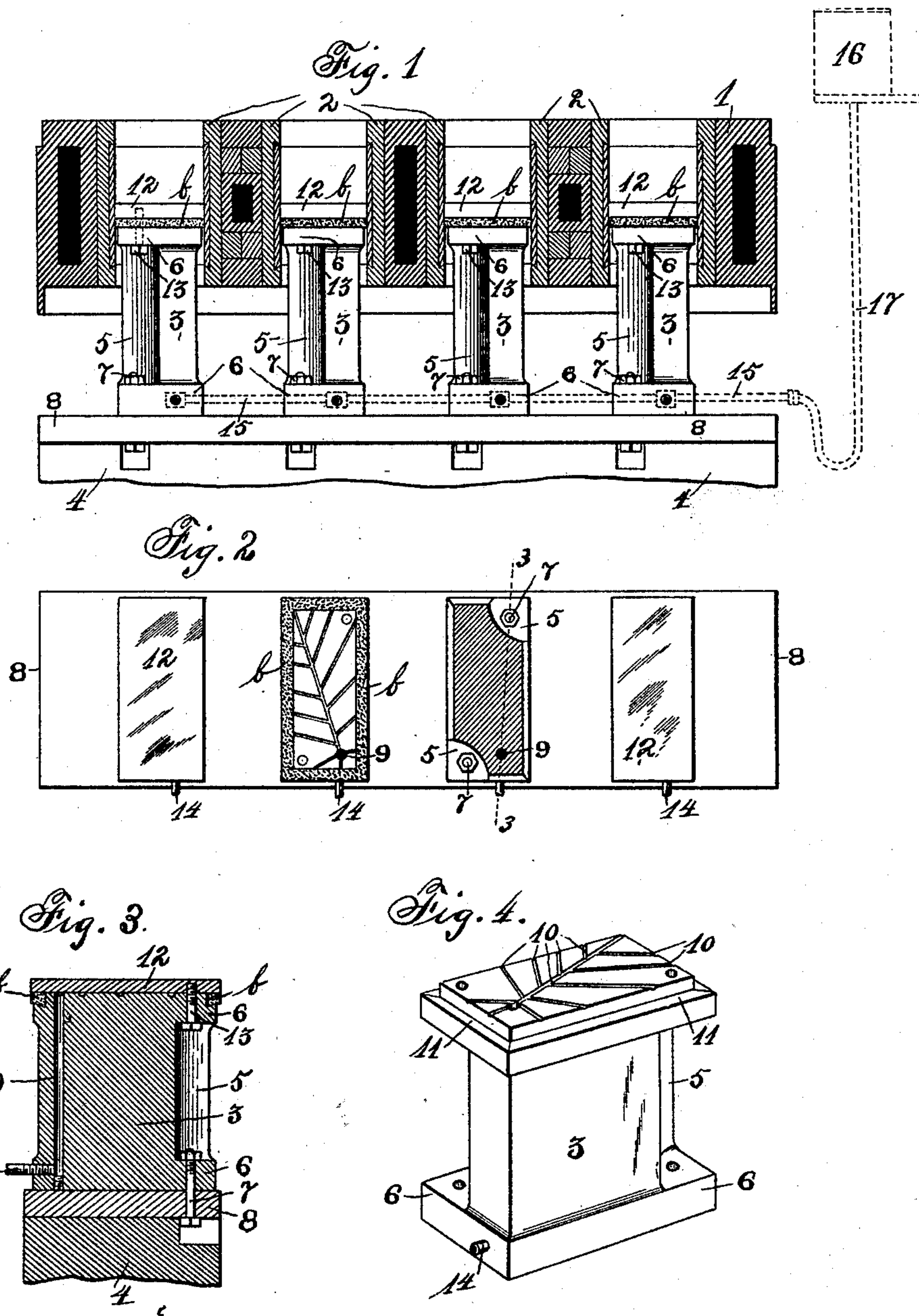


(No Model.)

J. LEONHARDT.
PLUNGER FOR BRICK MACHINES.

No. 518,460.

Patented Apr. 17, 1894.



Witnesses—
W. J. Sankey.
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UNITED STATES PATENT OFFICE.

JACOB LEONHARDT, OF ST. LOUIS, MISSOURI.

PLUNGER FOR BRICK-MACHINES.

SPECIFICATION forming part of Letters Patent No. 518,460, dated April 17, 1894.

Application filed April 10, 1893. Serial No. 469,767. (No model.)

To all whom it may concern:

Be it known that I, JACOB LEONHARDT, of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Plungers for Brick-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved plunger for brick-machines, particularly adapted for use in the class of machines in which the bricks are molded by the force of reciprocating plungers, and it consists in the novel construction, arrangement and combination of parts hereinafter described and claimed.

The principal object of my invention is to provide a plunger, or a series of plungers carried by a common reciprocating head, with improved means whereby the same will be efficiently and automatically lubricated during operation.

In the drawings, Figure 1 is a sectional side-elevation of portions of a brick-machine, having my invention applied thereto. Fig. 2 is a sectional plan-view of a reciprocating head carrying a series of plungers. Fig. 3 is a section on line 3—3 of Fig. 2. Fig. 4 is a perspective view of a plunger detached from its head, and shown incomplete.

1 indicates an improved brick-mold constructed with a series of press-boxes 2, which are engaged by the plungers 3 of the machine, when the machine is constructed with more than one plunger. This mold, however, I do not claim herein, as I have made it the subject of a separate application filed by me of even date herewith, Serial No. 469,768.

4 indicates a head, which is adapted to be reciprocated during use, and upon which the series of plungers 3 are mounted so as to engage said press-boxes.

As each plunger is constructed identical with all the others of the series, I will limit my description to one of them. The plunger consists of a solid rectangular block of metal and is provided upon diagonally opposite corners with vertical recesses 5, terminating in shoulders or flanges 6. The plunger is secured to the head 4 by means of bolts 7 passed through the lower flanges 6 and through a flange 8 formed upon said head, or in any known equivalent manner. The plunger has

ample height to permit its passing into a press-box of the mold a sufficient distance to perform the work required of it. The plunger is provided with a vertical feed-passage 9, which has a closed lower end and an upper end communicating with a series of oil ducts 10 formed upon and extending in various directions in the upper face of the plunger. A marginal angular groove or rabbet 11 is formed in the upper end of said plunger, with its lower wall inclined inward and downward. A packing or gasket *b* of felt or other suitable porous material, is located in this rabbet 11 and held in place therein by means of the face-plate 12, which latter is placed in contact with the upper end of the plunger and said packing and held in place by bolts or screws 13, passed through the upper shoulders or flanges 6 of said plunger and threaded into, but not through said face-plate. The upper surface of this face-plate should be retained smooth and unbroken, for an obvious purpose, and is so retained.

14 indicates a supply-pipe or pipe-connection, which communicates with the vertical feed-passage 9, to supply oil or other lubricant to the plunger.

15 indicates a main oil supply pipe, which is in communication with the pipe or passage 14 of each plunger of the series, when the series of plungers is made use of. Oil or other lubricant may be supplied to this main pipe from a tank or reservoir 16, situated properly to supply oil to said plunger or plungers and force same up through the vertical passage 9 into the several oil ducts 10 and into the interstices of the packing *b*, from whence it is distributed upon the various surfaces of the press-boxes, by frictional contact and the capillary attraction.

It is obvious that the passage 9 could be located upon the exterior of the plunger, or in a different position from that here shown, and the operation would be substantially the same in each case, providing the upper end of said passage be connected to distribute the lubricant to the parts which require it.

From the foregoing it will be observed that I have provided improved means for automatically lubricating one or a series of reciprocating brick-machine plungers during their reciprocative movement, for if the tank 16 or

other supply be fixed upon some stationary object, the result will be as above described, for in such case I connect such source of supply to the main pipe 15 by means of a flexible hose or tube 17. In some cases I locate the tank or other supply of lubricant upon the reciprocating head 4, the same being elevated or otherwise properly arranged to accomplish the above described function.

10 What I claim is—

A plunger for brick-machines and the like, consisting of a solid rectangular block of material provided upon diagonally opposite corners with vertical recesses 5 terminating in
15 flanges 6, in combination with a head, bolts 7 passed through the lower flanges 6 and through holes in said head and securing the plunger

to the head, said plunger having a vertical feed-passage 9, the lower end of which is closed, and the upper end of which communicates with a series of oil ducts or passages extending in various directions in the upper portion of the plunger, a marginal packing "b" carried by said plunger and arranged to be supplied with lubricant by way of said
25 ducts, and a face-plate 12 mounted upon the upper face of said plunger, substantially as herein specified.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB LEONHARDT.

Witnesses:

E. EVERETT LONGAN,
JNO. C. HIGDON.