

(No Model.)

W. H. HODGSON.
MOLD BOARD SHAPING PRESS.

No. 476,271.

Patented June 7, 1892.

Fig. 1.

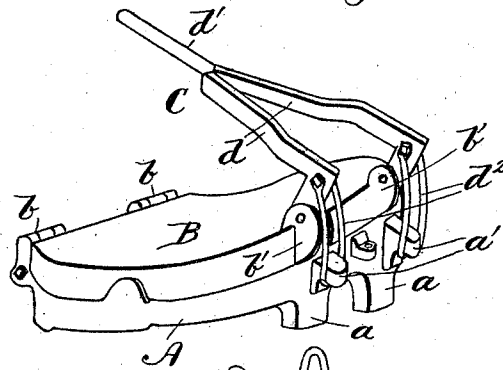


Fig. 2.

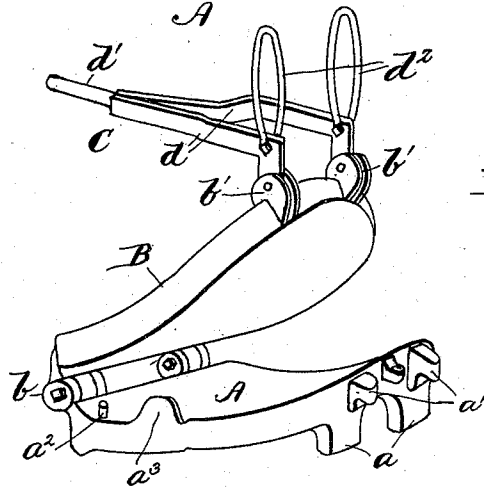
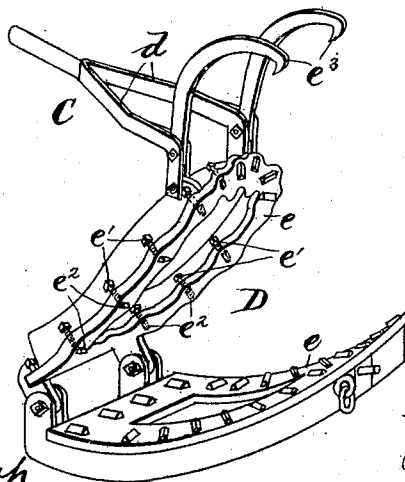


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM HERBERT HODGSON, OF WINONA, MINNESOTA.

MOLD-BOARD-SHAPING PRESS.

SPECIFICATION forming part of Letters Patent No. 476,271, dated June 7, 1892.

Application filed June 13, 1891. Serial No. 396,138. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HERBERT HODGSON, a citizen of the United States, residing at Winona, in the county of Winona and State of Minnesota, have invented certain new and useful Improvements in Mold - Board-Shaping Presses and Hardening-Clamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention pertains to certain new and useful improvements in mold-board-shaping presses; and it has for its object the production of a cheap, simple, and highly-efficient means for bending or shaping a mold-board and securing increased leverage with a minimum amount of pressure.

The invention consists in two die or shaping plates pivotally connected or hinged together and a double or compound lever secured to one of said die or shaping plates and engaging the other one of said plates.

The invention also comprises the detail construction, combination, and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved press. Fig. 2 is a similar view with the parts raised or opened. Fig. 3 is a similar view of a reshaping-press.

Referring to the drawings, A designates the lower die or plate, which is curved or concaved on its inner face, according to the shape it is desired to impart to the mold-board, and from the under side of this plate, at its forward end, project short legs A. At the front edge of this plate, above said legs, are two lugs or shoulders a' , which, like said legs, are preferably formed integral with said plate, and from the upper surface of said plate, at one side, project a stud a^2 and plate a^3 , both of which serve as guides for the upper plate B.

The plate B is pivotally secured by hinged joints b to the rear end of plate A, and from its forward end project parallel plates or ears b' , arranged in pairs. The under side of this

plate B corresponds to the upper surface of plate A.

C is a lever, which consists of two angular arms d , pivotally mounted at their widened ends between the plates or cheeks b' , and a handle-bar d' , to which said arms are secured at their meeting ends. To the angular arms d at their bent portions are pivotally secured the ends of hook-loops d^2 , which when plate A is closed down are designed to engage lugs or shoulders a' , whereby by the operator pressing rearwardly and downwardly on the handle-bar of the lever the die-plates will be firmly bound or held together. By reason of the plates being hinged together, as shown, a firm hold is obtained on the mold-board and greater pressure is secured. By placing the mold-board between the plates at varying angles to the jointed or hinged edges the same can be shifted to obtain the desired roll or shape for the mold-board. The die-plates remain the same; but to obtain the peculiar curvature required for a mold-board the latter can be adjusted to secure the desired roll or form.

It being generally necessary to reshape a mold-board before hardening the same, and since in being cooled it is apt to lose its curvature and straighten out, I have provided the reshaping-press D, (shown in Fig. 3,) which permits the mold-board to be readily immersed in water and other hardening bath and yet holds the same to its proper curvature. This reshaping-press D is substantially after the same form as that above described. The plates are of skeleton form and are provided on their inner surfaces with plates e , in the protruding side edges of which work screws or bolts e' , having inner pointed chisel-like ends e^2 . By means of these screws or bolts the mold-board can be adjusted to the curvature desired. The lever C is secured to the upper plate; but in lieu of the loops I employ hooks e^3 , pivotally secured between parallel portions of the angular arms d . The outer ends of these hooks are designed to engage the under side of the lower plate, whereby by bearing down on the lever, the plates will be firmly held together.

The desired shape of the mold-board is obtained by the shaping-press first above de-

scribed, and while cold the mold-board is placed in the reshaping-press, the set-screws and bolts being adjusted to the curvature imparted by the shaping-press. The reshaping-press is ready to act upon the mold-board when the latter is taken out of the furnace for the purpose of hardening. This press being of skeleton formation and having numerous passages formed between the ends of the screws or bolts, a free ingress of the water or hardening bath is permitted.

I claim as my invention—

1. The herein-described mold-board press, comprising the lower section having the curved upper surface, the upper section pivoted at its rear end to the rear end of the lower section and having its under surface curved to correspond to the curved upper surface of the lower section, an operating-lever pivoted to the upper section near its forward end, a lug or shoulder carried by the lower section at its forward end, and an engaging device pivoted to the lever and adapted to engage the said lug and to clamp the sections together when the lever is swung rearwardly and downwardly in the manner and for the purpose specified.

2. The herein-described mold-board press, comprising the lower plate having the curved upper surface, the upper plate hinged at one end to said lower plate and having its under surface curved to correspond with the curvature of the upper surface of the lower plate, an operating-lever consisting of the bar d' and the angular arms d , pivoted to the upper plate, lugs integral with the lower plate at its forward end, and hook-loops pivoted to the angular arms and adapted to engage with the said lugs to cause the plates to be clamped together when the lever is operated, in the manner described, for the purpose specified.

3. The herein-described improved mold-board press, comprising the lower curved plate, the upper curved plate pivotally secured to

said former plate at its rear end, and the compound lever having angle-bars pivotally secured to said upper plate, and the hooks secured to said angle-bars and engaging said lower plate at their outer ends, substantially as set forth.

4. The herein-described mold-board press, comprising the lower section having a curved upper surface, a guide carried by said section near one of its lateral edges, feet supporting the forward end of the section, the upper section pivoted at its rear end to the rear end of the lower section and having a curved lower surface corresponding to the curved upper surface of the lower section, an operating-lever pivoted to the upper section near its forward end, a lug or shoulder carried by the lower section at its forward end, and an engaging device pivoted to the operating-lever and adapted to engage the said lug and to clamp the sections together when said lever is swung rearwardly and downwardly, in the manner and for the purpose specified.

5. The herein-described improved mold-board press, comprising the plates of skeleton form, said plates being curved, as described, and hinged together at one end, the screws or bolts having their inner ends projected over the inner surfaces of said plates, and the lever connected to one of said plates and having hooks engaging the other one of said plates, substantially as set forth.

6. The herein-described mold-board press, comprising the curved plates hinged together at one end, the curved plates e , carried by said plates, and adjusting screws or bolts working in the lateral edges of the plates e , for the purpose specified.

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

WILLIAM HERBERT HODGSON.

Witnesses:

ALEX. SIMPLOT,
P. S. WEBSTER.