

No. 765,744.

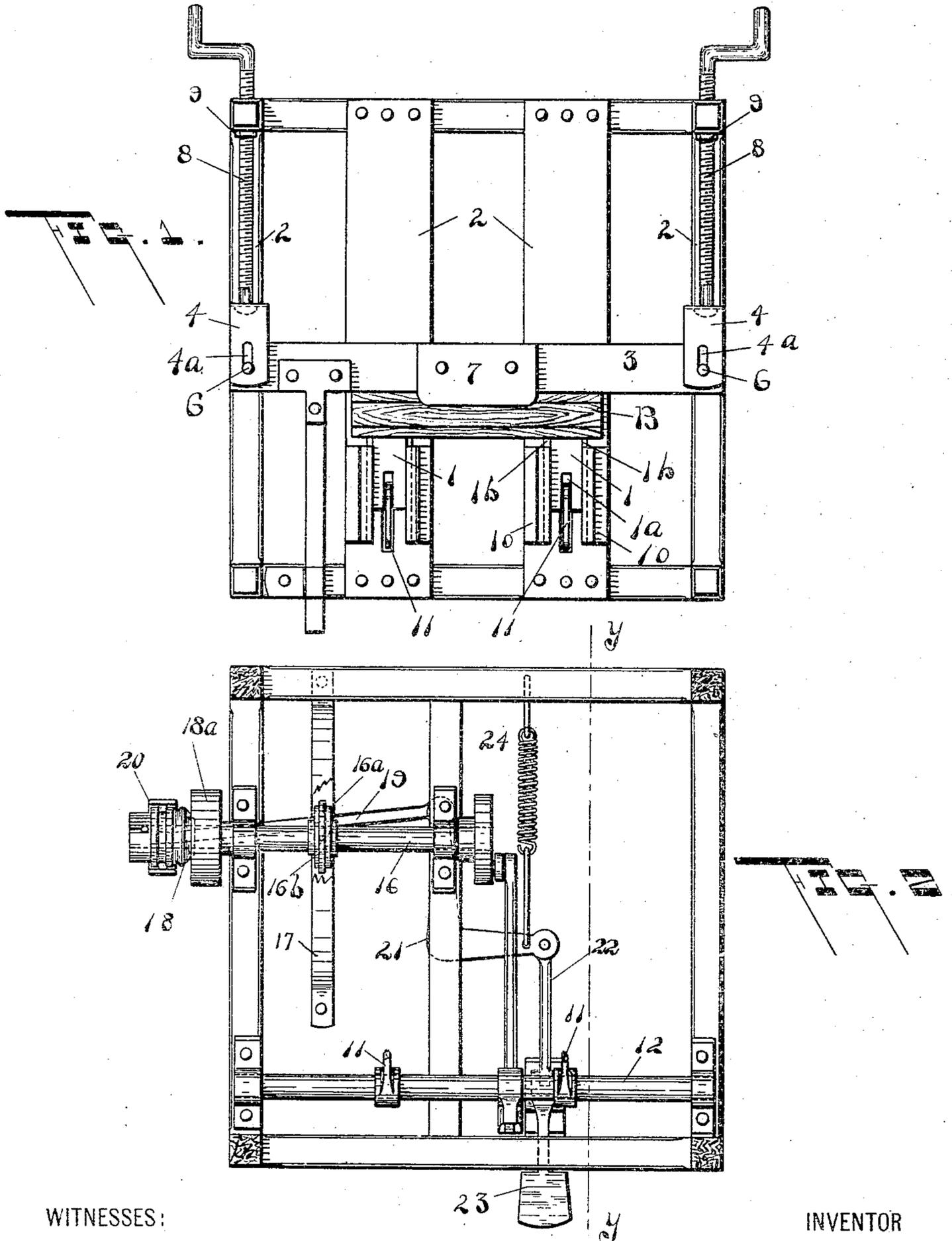
PATENTED JULY 26, 1904.

M. P. MAHAR.
PRESS.

APPLICATION FILED MAR. 19, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

J. S. Lee.
W. J. Cathcart.

INVENTOR

M. P. Mahar.
BY
Geo. B. Hillcox.
ATTORNEY

UNITED STATES PATENT OFFICE.

MALICHA P. MAHAR, OF ROUSE POINT, NEW YORK.

PRESS.

SPECIFICATION forming part of Letters Patent No. 765,744, dated July 26, 1904.

Application filed March 19, 1904. Serial No. 198,959. (No model.)

To all whom it may concern:

Be it known that I, MALICHA P. MAHAR, a citizen of the United States, residing at Rouse Point, in the county of Clinton and State of New York, have invented certain new and useful Improvements in Presses; 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 is a press for use in box-making and similar work; and its object is to receive pieces of tongued-and-grooved or matched lumber the meeting edges of which may have been previously glued and force them together to form one solid piece.

My improvements embody certain constructions and devices whereby I have produced a machine that does this work perfectly and rapidly.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of the machine. Fig. 2 is a horizontal sectional view broken away in parts, the section being taken on the line *x x* of Fig. 3. Fig. 3 is a side elevation broken away in part. Fig. 4 is an enlarged sectional elevation, the section being taken on the line *y y* of Fig. 2. Fig. 5 is a side view of the jaws forming part of the friction-brake, and Fig. 6 is a detail in side elevation of the friction brake-wheel.

As is clearly shown in the drawings, the machine consists in a pair of sliding drive-heads 1, that move back and forth simultaneously on a suitable frame 2, and a back bar 3 to receive the thrust of the drive-heads 1 against the board B being operated upon. The back bar 3 is slidably mounted at each end in a bracket 4. In each of the brackets 4 is provided a rubber cushion 5 or its equivalent to receive the backward thrust of the bar 3, thus permitting the bar to yieldingly resist the pressure of the boards B and to yield slightly at one end or the other to produce uniform pressure on the boards by conforming to any slight variation or unevenness in the width of the boards. The bar 3 carries upwardly-projecting pins 6, which are slid-

ably guided in slots 4^a, formed in the brackets 4.

To hold the board B down upon the frame 2 while it is subjected to pressure, I provide the holding-down plate 7, which is secured to the bar 3, as shown in Figs. 1 and 4. The brackets 4 are slidable on the frame 2 and may be moved along the frame toward or from the drive-heads by means of screws 8, threaded in fixed nuts 9, carried by the frame.

The drive-heads 1 are preferably formed of metal blocks, each having a central longitudinal slot 1^a and two side flanges 1^b, which slidably engage the brackets 10, by which the sliding head 1 is guided. To the pin 1^c, which traverses the slot 1^a, is pivoted the slotted upper end of the rocker-arm 11, carried by the rock-shaft 12. The rock-shaft 12 is actuated by a downwardly-extending arm 13, to the lower end of which is secured the connecting-rod 14. The rod 14 is moved back and forth by the crank 15, mounted on the drive-shaft 16. The drive-shaft is operated by a pulley 18^a, which normally runs loose on the shaft, but may be made to operate the shaft by means of any suitable friction-clutch 18. The clutch is made to grip the revolving pulley 18^a by the system of levers shown in Figs. 2 and 3, where 19 is a link connected to the clutch-stand 20 at one end and pivoted at its opposite end to the bell-crank lever 21. To the bell-crank lever is secured a link 22, operated by the foot-pedal 23. Pressing down the foot-pedal operates the bell-crank lever and draws the clutch 18 into engagement with the pulley 17, thereby revolving the shaft 16 and moving the drive-heads 1 back and forth. When the pedal 23 is released, the spring 24 returns it to its normal position and throws the clutch 18 out of action. It is thus seen that by depressing the pedal 23 when the pulley 18^a is in motion the drive-heads 1 are forced against the board B and then withdrawn, so that the complete built-up board may be taken out and the parts of a new one assembled in place before the drive-heads again move forward. To stop the drive-heads in any desired position and to overcome the inertia of the moving parts, I provide a spring-

pressed friction-brake on the shaft 16. The construction of this brake is illustrated in Figs. 2, 3, 5, and 6, where 16^a is a flanged wheel fixed to the shaft 16. 16^b represents 5 curved shoes, which engage the upper and lower peripheries of the wheel 16^a, being held in place by pins 16^c, formed on the shoes and passing through openings in bowed springs 17. These springs normally hold the shoes 10 16^b pressed against the wheel 16^a, and the friction of the shoes upon the wheel is sufficient to stop the moving parts of the machine as soon as the clutch 18 is released. To regulate the pressure of the springs 17, a bolt 17^a is 15 passed through the meeting ends of the springs, and the coil-spring 17^b, surrounding the bolt, holds the ends of the springs 17 yieldingly together. The tension of the spring 17^b is regulated by adjusting the bolt 17^a.

20 By the means above described I have produced a press for assembling tongued-and-grooved boards that is simple in construction, rapid in operation, and not liable to get out of order.

25 What I claim as my invention, and desire to secure by Letters Patent, is as follows:

1. In a press of the class described, the combination of reciprocating drive-heads; a drive-shaft having a crank; means connecting said 30 crank and drive-heads to actuate them; a friction-wheel on said drive-shaft; yieldingly-pressed friction-shoes engaging said wheel; a

clutch-pulley on said shaft; a foot-pedal and levers to actuate said clutch-pulley; a back bar opposite said drive-heads and adapted to 35 be moved toward or from the drive-heads; brackets for supporting said back bar and cushions carried by the brackets to yieldingly receive the pressure of said back bar.

2. In a press of the class described, the combination of reciprocating drive-heads; a 40 rocker-arm pivotally connected at its upper end to each of said drive-heads; a drive-shaft having a crank and means connecting said crank and rocker-arms adapted to actuate said 45 arms; a friction-brake on said shaft; a clutch-pulley on said shaft; means for throwing said clutch-pulley into and out of operation; a back bar opposite said drive-heads and adapted to be adjusted toward and from the ex- 50 tremity of travel of the drive-heads; slotted brackets for supporting said back bar; cushions carried by the brackets to yieldingly receive the pressure of said back bar; adjusting-screws adapted to move said brackets 55 back and forth; and a plate carried by said back bar and projecting over the material being operated upon, substantially as described.

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

MALICHA P. MAHAR.

Witnesses:

J. H. McDONOUGH,

J. C. CASEY.