

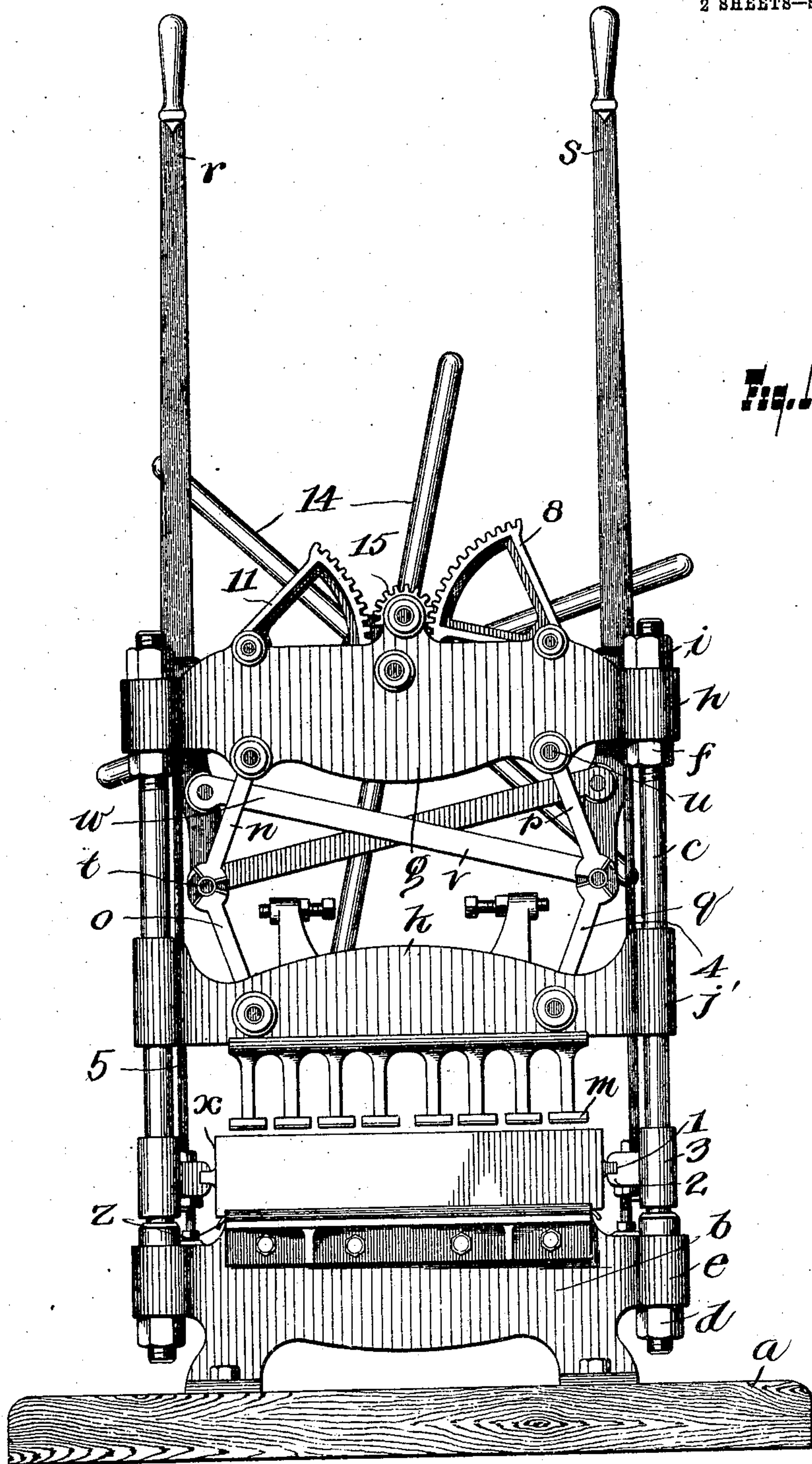
No. 844,166.

PATENTED FEB. 12, 1907.

H. B. MURDOCK.  
HAND BRICK PRESS.

APPLICATION FILED MAR. 13, 1906.

2 SHEETS—SHEET 1.



Witnesses:  
*W. H. Hager*  
*J. G. Tucker*

Inventor  
*H. B. Murdock*

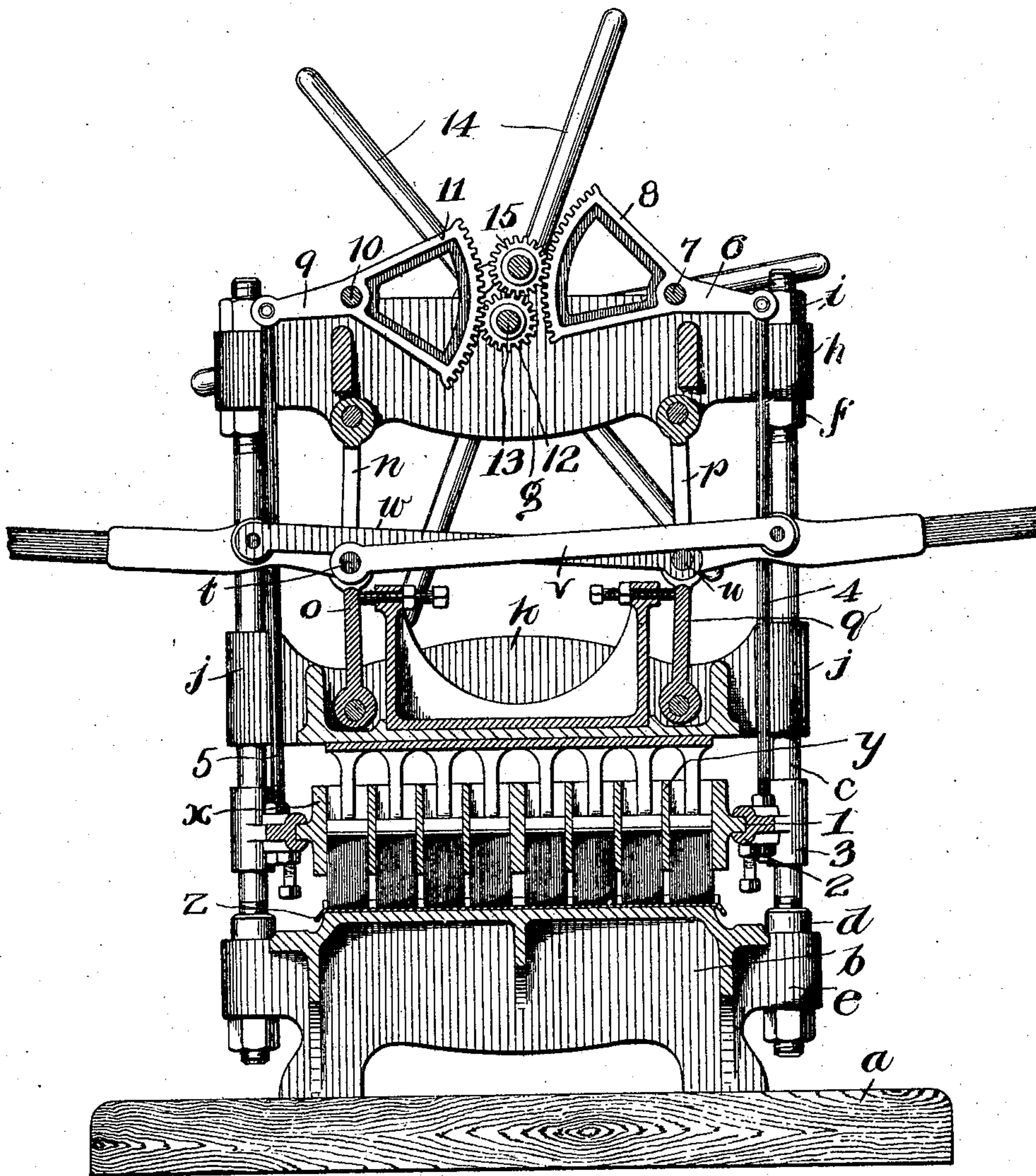
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2 SHEETS--SHEET 2.

**Exp. 2.**



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Inventor  
Horace B. Murdock



# UNITED STATES PATENT OFFICE.

HORACE B. MURDOCK, OF DETROIT, MICHIGAN.

## HAND BRICK-PRESS.

No. 844,166.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed March 13, 1906. Serial No. 305,930.

*To all whom it may concern:*

Be it known that I, HORACE B. MURDOCK, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Hand Brick-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.

My invention relates to an improvement in hand brick-presses; and the object of my invention is to provide a simple and easily-operated hand-press, capable of operation by a single man, and from which the bricks can be readily removed.

With this object in view my invention consists in the construction and combinations of parts as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of my invention, showing the same ready to put in operation; and Fig. 2 is a sectional view showing the same with the pressed bricks in position and in the act of removing the mold.

*a* represents a suitable framing on which is mounted the base-piece *b*. From this base-piece extend upwardly four rods *c*, one at each corner, secured to said base-piece by nuts *d*, the rods *c* passing through ears *e* in the base-piece. The rods *c* are screw-threaded at the top and provided with nuts *f*, on which rests the top framing portion *g*, provided with ears *h*, passing around the rods *c*. Nuts *i* hold the top frame *g* in position. Slidably mounted on the rods *c* by means of ears *j* is the frame *k*, carrying the plungers *m*, one of which is adapted to enter each compartment of the mold. Connecting the frames *g* and *k* are a pair of links *n* and *o*, pivoted to each other and to the frames *g* and *k*, respectively, forming toggle-joints. Near the other side of the frame are a similar pair of links *p* and *q*, forming a second toggle-joint.

*r* and *s* represent the operating-levers for the toggles. These are pivotally mounted on the pins *t* and *u*, which form the pivots for the toggle-joints. The lever *s* is provided with a link *v*, running from a pivot on said lever to the pin *t*, and the lever *r* is similarly provided with a link *w*.

*x* represents the mold, divided into compartments by means of partitions *y*, and *z* represents a palette used underneath said

mold. The palette being placed in position on the base *b*, the mold filled with the material to be pressed is placed in position on said palette, the plungers being in the position shown in Fig. 1. The mold is slid into position on the palette, the projections 1 on said mold entering a corresponding groove 2 on ears 3, mounted on the rod *c*, from which construction it is obvious that an upward movement of the ears 3 will lift the mold. Connected to the ears 3 are vertical rods 4 5, the rod 4 being connected to a lever 6, mounted on a shaft 7, a sector-gear 8 being also mounted on said shaft opposite to said lever 6. Similarly the rod 5 is pivoted to a lever 9, mounted on a pin 10, on which is also mounted a sector-shaped gear 11. The gear 11 meshes with a pinion 12 on the shaft 13, journaled in the upper frame *g*, which shaft is provided with a pilot-wheel having spokes 14 for operating the same by hand. The pinion 12 meshes with another pinion 15, which in turn meshes with the sector-gear 8, so that the operation of the shaft 13 will move both of said gears, raising the rods 4 and 5 and lifting the mold, thereby stripping it from the pressed bricks.

The operation is as follows: The mold is placed on the palette, filled, and then both are put into the press; the parts then being as shown in Fig. 1. The levers *r* and *s* are then brought down to a horizontal position, as indicated in Fig. 2, and the material in the mold is pressed. The levers are then released to take the strain off from the bricks while still holding them in position, thereby allowing the bricks to be stripped. The pilot-wheel is then operated, lifting the mold by means of the upward movement of the rods 4 and 5, the plungers *m* serving to prevent the bricks from rising with the mold. After the mold has become disengaged from the bricks the levers *r* and *s* are brought to their vertical positions, and the palette on which rest the pressed bricks is removed. The operation may then be repeated indefinitely.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a hand brick-press, the combination of a base, rods secured thereto, a frame carrying plungers slidably mounted on said rods, hand-levers and toggle-joints for operating said frame so arranged as to lock said frame after the hand-levers have been operated, a



mold adapted to be placed in position beneath said plungers, and means for lifting said mold while keeping the pressed bricks in position, substantially as described.

5 2. In a hand brick-press, the combination of a base, rods secured thereto, a frame secured to said rods near their upper ends, a frame carrying plungers supported on said rods, operating-levers, toggle-joints connect-  
10 ed to said frames and said operating-levers said levers and toggle-joints being so arranged as to lock said frame after the levers have been operated, a mold adapted to be placed in position beneath said plungers, se-  
15 curing devices on said rods with which said mold engages, and operating means for raising said rods, substantially as described.

3. In a hand brick-press, the combination of a base, rods secured to said base, a frame  
20 secured to said rods near their upper ends, a frame carrying plungers mounted on said rods, means for operating said plungers, securing devices mounted on said rods, a mold adapted to engage with said securing de-  
25 vices, and means for operating said securing devices and raising said mold consisting of vertical rods, sector-shaped gears operating said rods, pinions engaging with said gears respectively, and a pilot-wheel for operating  
30 said pinions, substantially as described.

4. In a hand brick-press, the combination of a base provided with an upwardly-projecting rod at each corner, a frame secured to

said rods near their tops, a palette adapted to be placed in position on said base-piece, a  
35 frame carrying plungers, said frame being slidably mounted on said rods, means for moving said last-named frame, securing devices slidably mounted on said rods, a mold adapted to engage with said securing de-  
40 vices, means for raising said securing devices and therefore raising said mold, consisting of a pilot-wheel, pinions operated thereby, sector-shaped gears operated by said pinions re-  
45 spectively, and rods operated by said gears and connected to said securing devices, substantially as described.

5. In a hand brick-press, the combination of a base, vertical rods secured thereto, a frame having plungers thereon, said frame  
50 being slidably mounted on said rods, a support connecting said rods at their upper ends, toggle-joints connected respectively to said support and to said frame, hand operating-levers, each of which is connected to both of  
55 said toggle-joints and so arranged that when the levers are operated to press the bricks the parts will be locked in that position by the toggle-joints, substantially as described.

In testimony whereof I affix my signature 60  
in presence of two witnesses.

HORACE B. MURDOCK.

Witnesses:

H. H. HAGER,  
JOHN A. STEEN.