

(No Model.)

H. L. EAMES.
Molding Machines.

No. 229,593.

Patented July 6, 1880.

Fig. 2.

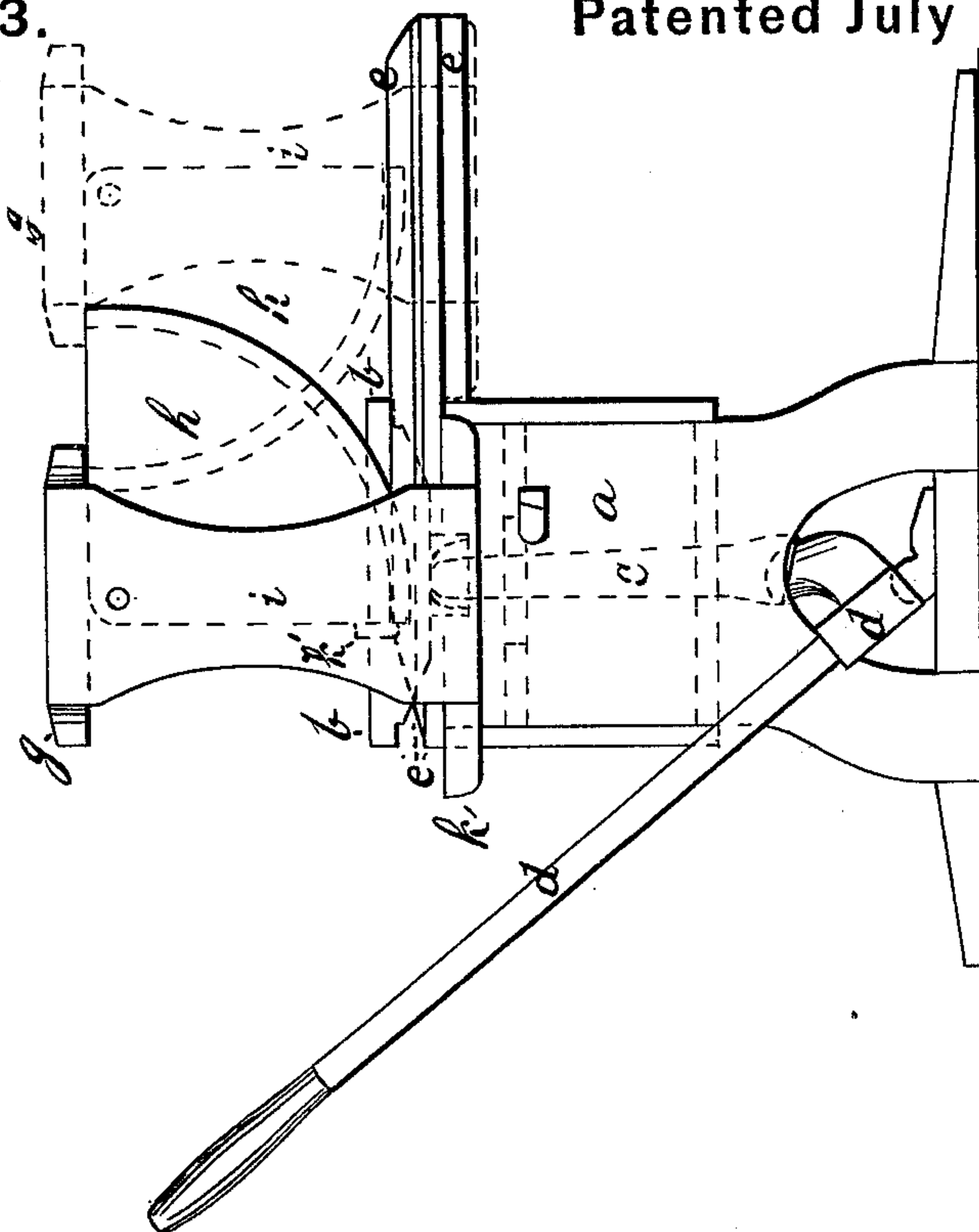
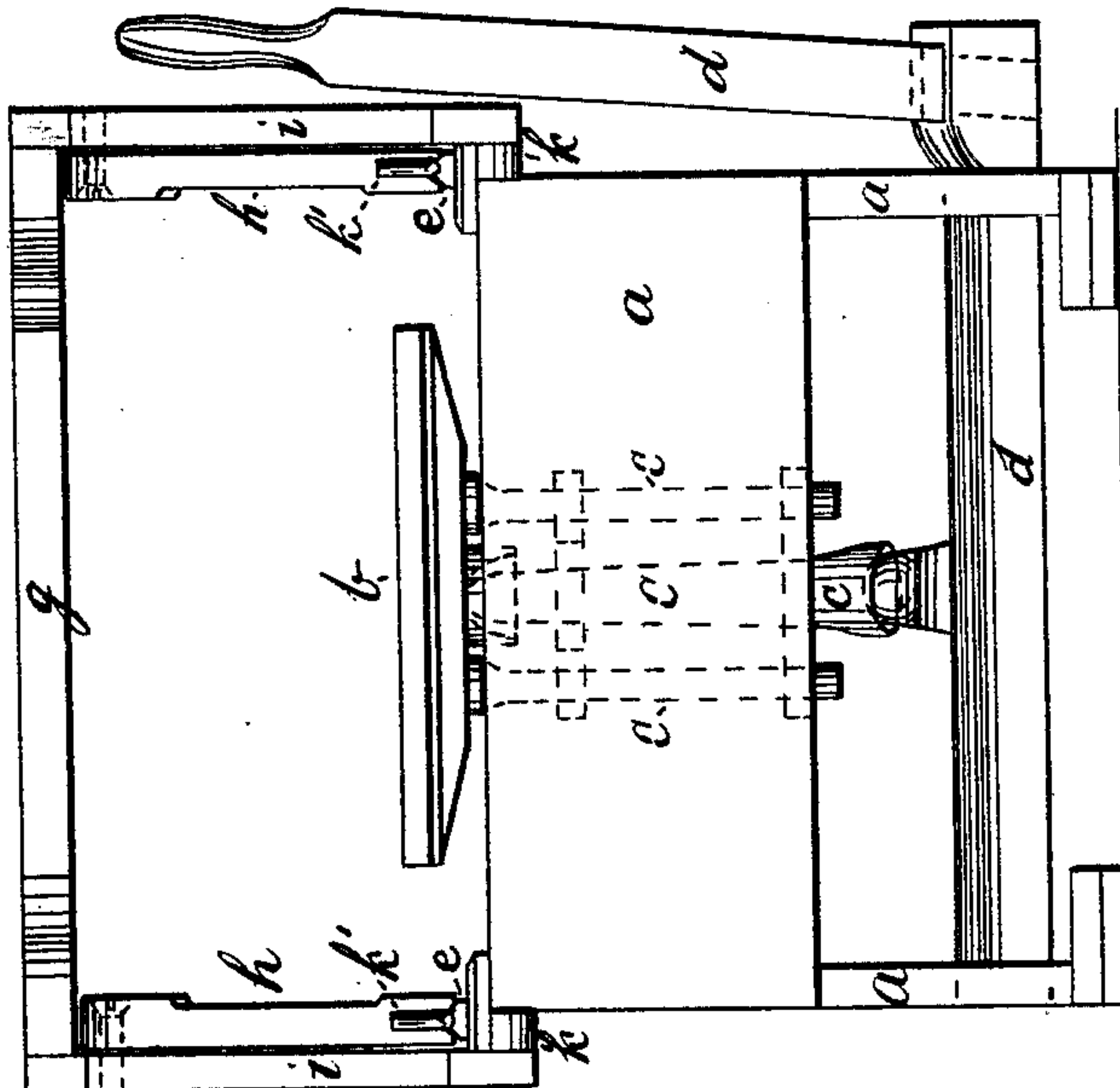


Fig. 1.



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MOLDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 229,593, dated July 6, 1880.

Application filed May 21, 1880. (No model.)

To all whom it may concern:

Be it known that I, HORACE L. EAMES, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Molding-Machines; and I do hereby declare that the following, taken in connection with the drawings, is a full, clear, and exact description thereof.

In the drawings, Figure 1 is a front elevation, and Fig. 2 is a side elevation, of the contrivance.

Prior to the date of my invention molding-machines or presses, for compressing sand around patterns in flasks were well known. These machines may be divided into two classes—one in which the flask is laid upon a carriage and then run under the platen of a press, which then is caused to descend to compress the sand, the top of the carriage being the bed of the press; the other in which the flask is laid upon the platen of the press, the press being provided with a bed which can be swung over the platen after the flask is in place, the sand being compressed by the upward movement of the platen. In the former case the flask is moved laterally prior to removal and replacement. In the latter case the facilities for removal and replacing the flask are afforded by the lateral movement of the bed of the press, which lies above the flask.

My improvements are in the latter class of machines, and relate to the mechanism for supporting the bed and aiding its lateral motion.

In the drawings, the frame of the press is represented at *a a*, the platen at *b*, its supporting and guide rods at *c c*, and the lever and rock-shaft by means of which it is raised and lowered at *d*.

Any known way of supporting, guiding, and actuating the platen may be used in place of those represented in the drawings.

At the upper part of the press-frame there are two rails, *e e*, so shaped, substantially as shown, that they may support the wheels of the bed *g*, and may also, through the intervention of proper clasps, prevent the bed from rising when the platen is forced upward to compress the sand in the flask.

A platform, *g*, which is the bed of the press, rests upon two segments of wheels or two seg-

mental wheels, *h h*, represented in the drawings as grooved on their treads, which are pivoted to hangers or cheeks *i i*, properly secured to the platform. These cheeks or hangers project downward, and have attached securely to their lower ends long clasps *k k*, the upper sides of these clasps underlying the rails before named, the whole construction being such that the platform can move laterally on the wheels (of which there are only two) over the rails, while at the same time the long clasps prevent any tilting movement of the platform; and these same clasps prevent the platform from rising when the sand in the flask is compressed between the carriage and the lower side of the platform. The clasps are necessary to prevent the platform from rising, as described, and by making them long enough, as shown, I am enabled to use two wheels only.

In the rails are two stops, *k' k'*, against which the front radial faces of the segmental wheels abut when the platform is in place over the platen, and at the same time the two other radial faces strike against the under side of the carriage, thus insuring the stoppage of the platform in its proper position. When the carriage is moved out of the way sufficiently in order to remove or put in a flask, as shown by dotted lines in Fig. 2, the front sides of the radial wheels strike against the bottom of the platform and stop the movement thereof.

I prefer to make the segmental wheels of such size and form that they will thus be stopped by striking against the platform; but they may be made otherwise if still segmental, some other plan of stopping the carriage (which is the platform with its wheels) being employed.

I also intend at times to use stops other than the platform itself, but attached either to the platform or to the hangers. The flask, or part thereof, is to be laid upon the platen; the carriage is then to be run over it; the lever is next to be worked and the sand compressed; the platen is then to be lowered, the carriage run out laterally, so as to leave the flask exposed, and the flask can then be removed.

I claim as of my own invention—

1. The combination of two segmental wheels and two long clasps with a platform and with

the platen of a press by means of rails, the combination being substantially such as described.

2. The combination, substantially as described, of a platform provided with two segmental wheels with rails, clasps, and stops for the wheels, whereby the carriage is sup-

ported and its extent of motion regulated, as specified.

HORACE L. EAMES.

In presence of—

ROBERT M. HOUSTON,
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