

(No Model.)

W. J. JOHNSON.

MACHINE FOR SHAVING STEREOTYPE PLATES.

No.315,794.

Patented Apr. 14, 1885.

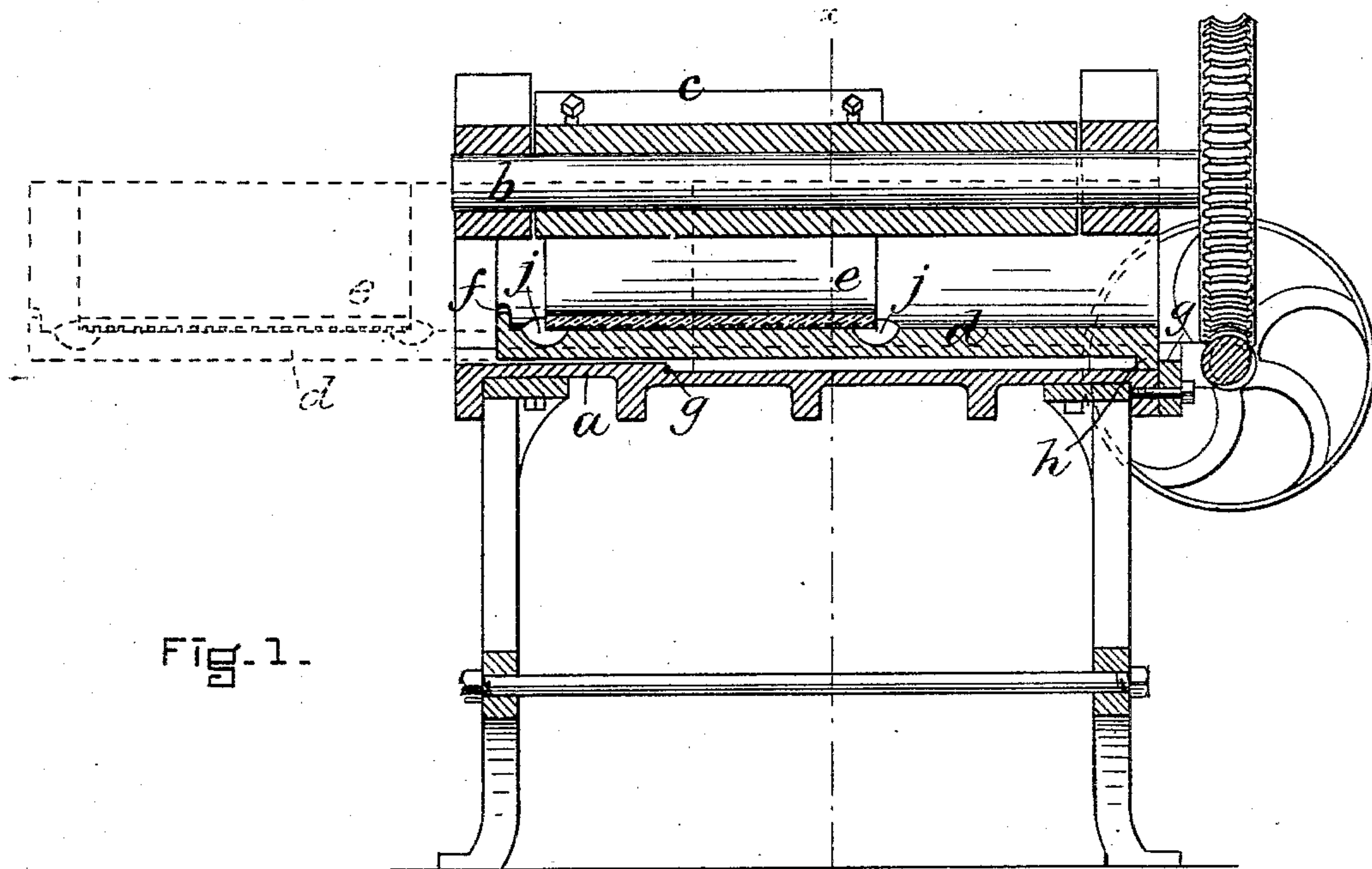


FIG-1.

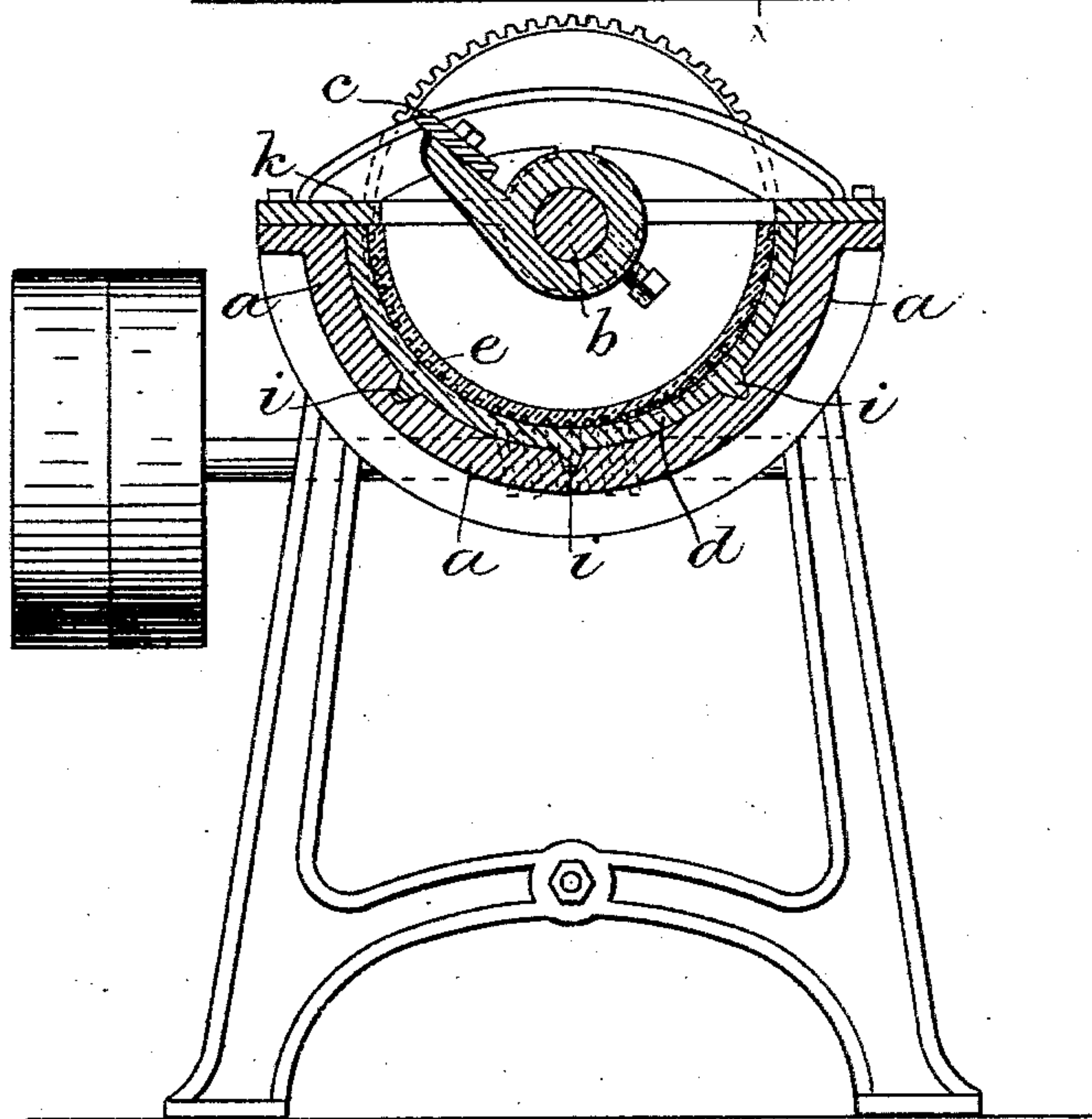


FIG-2.

WITNESSES

A. L. White
W. H. Armstrong

INVENTOR

W. J. Johnson
by Wright & Brown
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM J. JOHNSON, OF BOSTON, MASSACHUSETTS.

MACHINE FOR SHAVING STEREOTYPE-PLATES.

SPECIFICATION forming part of Letters Patent No. 315,794, dated April 14, 1885.

Application filed July 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. JOHNSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Machines for Shaving Stereotype-Plates, of which the following is a specification.

This invention relates to machines for shaving the backs of curved or semi-cylindrical stereotype-plates for cylinder printing-presses, to enable such plates to fit accurately on the cylinders of the press, and give the printing-surface the proper height. The machine used for this purpose has a shaving-knife attached to an arbor rotating in fixed bearings and receiving a revolving motion from said arbor, and a concave semicircular bed located under said arbor and arranged to support a stereotype-plate in such position that the knife in revolving will shave its concave back. The printing-face of the plate bears on the bed or on an interposed sheet of press-paper while it is sliding in and out, and the printing characters are liable to be scratched or marred by the friction attending the sliding movements of the plate.

My invention has for its object to obviate this objection; and it consists in providing the machine with a sliding bed adapted to slide within the main concave frame of the machine, so as to move the stereotype-plate to and from the position it occupies while being shaved, wear and friction on the plate being thus avoided, as I will now proceed to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a longitudinal section of a shaving-machine provided with my improvements. Fig. 2 represents a transverse section on line *xx*, Fig. 1.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents the supporting concave frame of a stereotype-plate-shaving machine; *b*, the arbor supporting the revolving shaving-knife *c*, and *d* the bed on which the stereotype-plate *e* is supported while being shaved.

In carrying out my invention I make the bed *d* longitudinally movable on the supporting-frame, so that it can be drawn from its position under the knife, as indicated by dot-

ted lines in Fig. 1, thus enabling the stereotype-plate to be laid directly upon the bed, moved under the knife to be shaved, and moved out again for removal without being subjected to sliding contact with the bed; hence the printing-surface is not marred or injured in the slightest in the operation of inserting and removing the plate. The bed is preferably provided with a handle or lug, *f*, at its outer end, to enable the operator to conveniently grasp and move it. Suitable stops or shoulders, *g g*, are provided on the portion of the frame *a* on which the bed slides to limit the outward and inward movements of the bed *d*, a lug or flange, *h*, on the inner end of the bed striking said stops when the bed reaches one extreme or the other of its movement. The bed is prevented from slipping laterally on the supporting concave frame by longitudinal ribs *i* entering grooves formed in the frame, as shown in Fig. 2.

j j represent cavities formed in the upper surface of the bed at the ends of the portion thereof on which the plate *e* rests, to enable the workman to insert his fingers under the plate for the purpose of raising the plate from the bed.

I have shown the bed and the frame supporting it considerably longer than the stereotype-plate, in order that when the bed is drawn out, as shown in dotted lines in Fig. 1, it may have a sufficient bearing on the frame to support it solidly when the plate is wholly removed from the frame. The stop or flange *k*, which bears against one edge of the plate and supports the plate against the pressure exerted on it by the knife, is attached rigidly to the frame *a*, the bed *d* sliding under it, so that when the bed is drawn out said stop or flange does not constitute an obstruction to the direct downward movement of the plate into the bed.

I claim—

1. In a stereotype-plate-shaving machine, the combination, with the revolving shaving-knife, of the concave frame *a* and the concave bed *d*, guided therein by longitudinal ribs, substantially as described.

2. The combination, with the rotating cutter, of the concave frame *a* and the concave bed *d*, guided therein by longitudinal ribs, said bed *d* provided with cavities *j j* and lug *f*, substantially as described.

3. In a stereotype-plate-shaving machine,
the combination, with a longitudinally-mova-
ble bed having a concave face free from flanges,
of a supporting-frame having flange *k*, which
5 extends slightly over the concavity in the bed,
to hold the plate down in the operation of
shaving, substantially as described.

In testimony whereof I have signed my

name to this specification, in the presence of
two subscribing witnesses, this 2d day of July, 10
1884.

WILLIAM J. JOHNSON.

Witnesses:

C. F. BROWN,
A. L. WHITE.