A. H. FRANK & G. SPIRE.

Molding-Machine.

No. 165,720. Patented July 20, 1875.

Fig. 1.

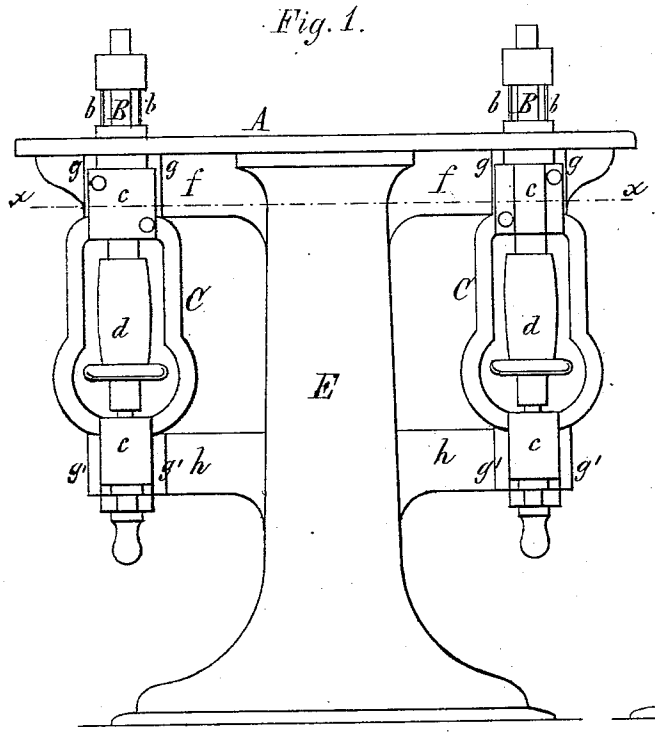


Fig. 2.

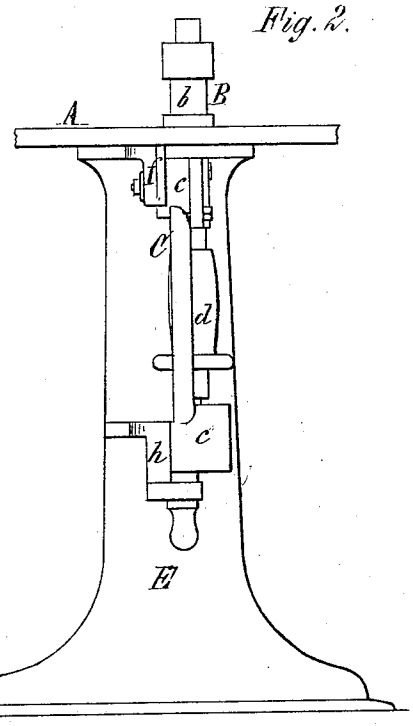
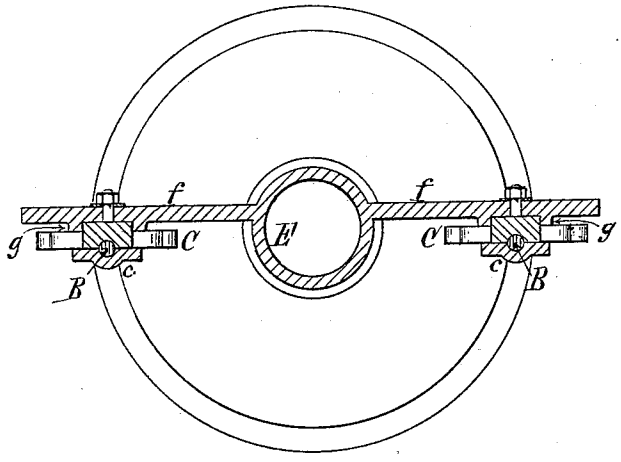


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ANDREW H. FRANK AND GEORGE SPIRE, OF BUFFALO, NEW YORK.

IMPROVEMENT IN MOLDING-MACHINES.

Specification forming part of Letters Patent No. **165,720**, dated July 20, 1875; application filed June 15, 1875.

To all whom it may concern:

Be it known that we, ANDREW H. FRANK and GEORGE SPIRE, both of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Molding-Machines, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

Our invention relates to that class of molding-machines which are provided with two vertical spindles turning in adjustable bearings or frames, and carrying suitable cutters at their upper ends above the bed or table of the machine

Previous to our invention these machines have been constructed with two supporting side frames, between which the spindles were arranged. This construction is objectionable, for the reason that the side frames cover or hide the spindle-bearings, and do not permit ready access thereto, whereby the operation of adjusting the spindles is rendered more or less difficult, while it consumes considerable time. The object of our invention is to remedy this defect; and it consists of the particular construction of a supporting-frame, as will be hereinafter fully described.

In the accompanying drawings, Figure 1 is a front elevation of our improved machine. Fig. 2 is a side elevation thereof. Fig. 3 is a horizontal section in line *x x*, Fig. 1.

Like letters of reference refer to like parts in each of the figures.

A is the bed or table of the machine; B B, the two vertical spindles or mandrels, provided above the bed with cutters *b b*; C C, the adjustable spindle-frames, having bearings *c c* in which the spindles revolve; and *d*, the driving-pulleys, secured to the spindles. All of these parts are old and well known. E is the main part of the supporting-frame, consisting of a hollow column arranged centrally under the bed A and between the spindles B B. The column E is formed at its upper end with two horizontal arms, *f f*, supporting the bed A, and provided near each end with vertical ways *g*, in which the upper end of the spindle-frame C is adjustable. *h h* are two similar horizontal arms, formed with the column E at a suitable distance below the arms *f f* to support the lower ends of the spindle-frames, which are guided in vertical ways *g'* formed with said arms. The foot of the column E is enlarged, so as to form a firm and reliable base-support. The column A is readily cast in one piece with the arms *f* and *h* and ways *g g'*, forming a rigid and secure supporting-frame for the machine, which can be produced at comparatively small expense. The supporting-column being arranged between the spindles, the latter are fully exposed, so that free access can be had thereto when they are required to be adjusted, or for any other purpose.

What we claim as our invention is—

The combination, with the bed A, spindles B, and adjustable frames C, of the supporting-column E, arranged between the spindles, and cast in one piece with the arms *f f*, *h h*, and ways *g g'*, substantially as and for the purpose hereinbefore set forth.

ANDREW H. FRANK.
GEORGE SPIRE.

Witnesses:
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