Sheet 1. 2 Sheets.

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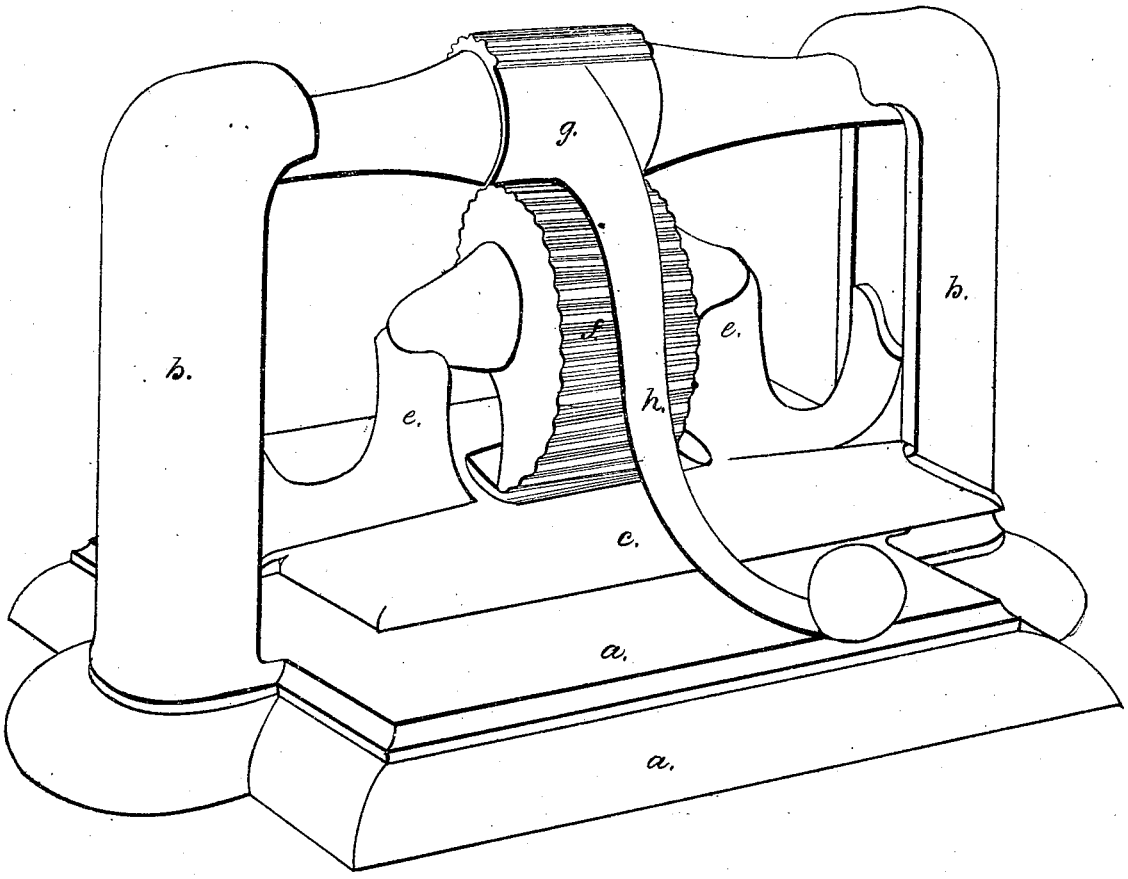
Fig: 1



Witnesses.
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Sheet 2. 2 Sheets.

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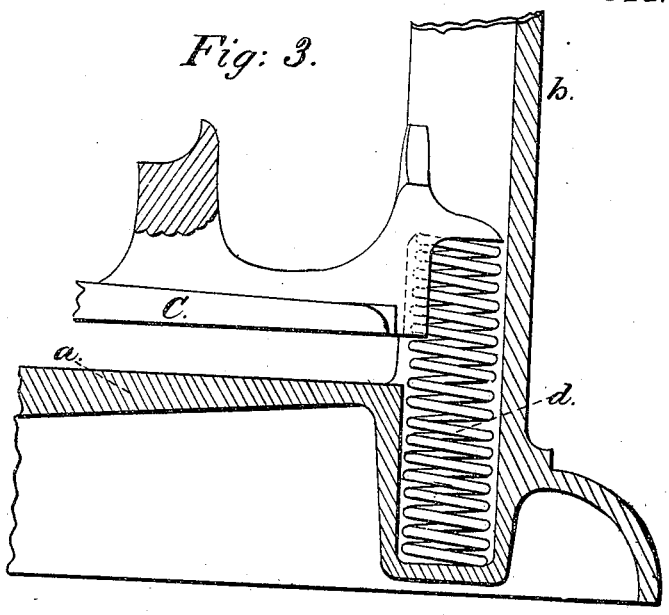
No. 52086. Patented Jan. 16. 1866.

Fig: 3.



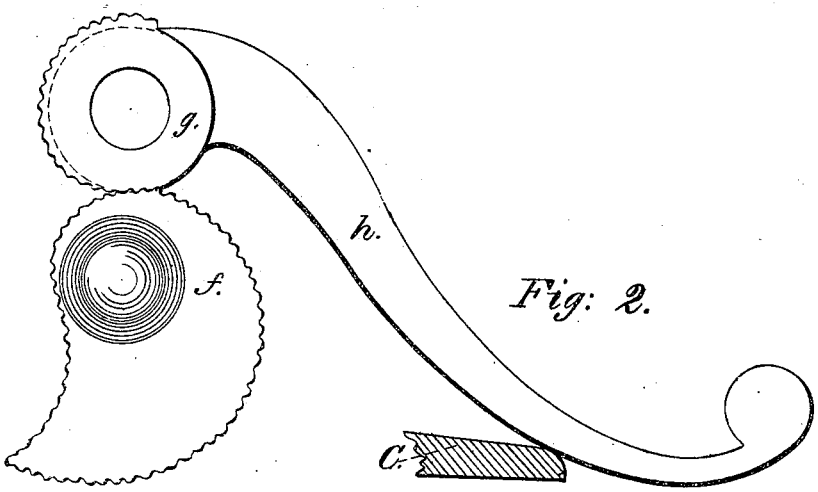


Fig: 2.

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UNITED STATES PATENT OFFICE.

IRAH D. SPAULDING AND DAVID N. B. COFFIN, JR., OF BOSTON, MASS.

COPYING-PRESS.

Specification forming part of Letters Patent No. **52,086**, dated January 16, 1866.

To all whom it may concern:

Be it known that we, IRAH D. SPAULDING and DAVID N. B. COFFIN, Jr., both of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Presses for Copying Letters and like Purposes; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, which make part of this specification, and to the letters of reference marked thereon.

With reference to the drawings, Figure 1 is a perspective view of the press. Fig. 2 is a profile view of the cam, rolling beam, and lever. Fig. 3 is a sectional view, showing the relation of the springs to the other parts, &c.

Like letters refer to the same or corresponding parts in all the figures.

The bed-piece *a* is made with the posts *b* permanently fast upon it by casting or otherwise. The posts have each a chamber opening inward and terminating at the top in a suitable bearing for a journal and at the bottom in a socket suitable to receive a coiled wire or other suitable spring for lifting the follower. The follower *c* is furnished with projecting ends, of a form to be easily slipped into and guided by the chamber and its sides, and to form a bearing on the springs. The spring *d* may be of coiled wire or other suitable material and construction, and is seated in the socket at the post's base. These springs (one in each post) support the follower and throw it up from the bed whenever it is relieved from pressure. The follower is also furnished with bearings *e* for supporting cam *f*. The cam *f* has a gradual gain, a fluted, waved, or ribbed surface, and is provided with journals. These journals terminate in hemispheres, and the bearings *e* are of a corresponding concave shape, and terminate at the height of their center, for the purpose of producing a neat finish without fitting and finishing. The rolling pressure-beam *g* is furnished with the lever *h* or other suitable stop, and has that part of its surface which comes into action just before the stopping-point decline toward the center, so counteracting a part of the gain of the cam and increasing the purchase at the last part of the movement. It also has a fluted, waved, or ribbed surface, corresponding to that on the cam, suitable to insure the rolling together simultaneously of the two.

By throwing the lever *h* forward and down to the follower the follower is forced downward. By throwing it upward and backward the follower is relieved from pressure, and the springs *d* throw it up. The cam *f* furnishes the means for adjustment to different thicknesses—as, for instance, if a thick book is used the small part of the cam is brought into use; if a thin one, then the large part, &c. The adjustment is made by holding the cam from turning and throwing the lever backward or forward, as the case may require. The ribs on the rolling beam and cam serve also to make the moving parts remain at any desired point of their movement, each wave or rib passing the center like a toggle-joint, and serving, with the necessary friction, to prevent the rolling back of the cam.

The parts except the springs may all be made of cast-iron, and that without any other fitting than the ordinary cleaning of castings, if desired, for economy.

Having described our invention, what we claim, and desire to secure by Letters Patent, is as follows:

The adjustable cam *f*, in combination with the rolling beam *g*, constructed and applied substantially as and for the purposes set forth.

IRAH D. SPAULDING.
D. N. B. COFFIN, JR.

Witnesses:
LEWIS S. SOULE,
ARTHUR A. BURR.