C. Potter, Jr.

Printing Press.

No. 68001. Patented Aug. 20. 1867.

Fig. 1

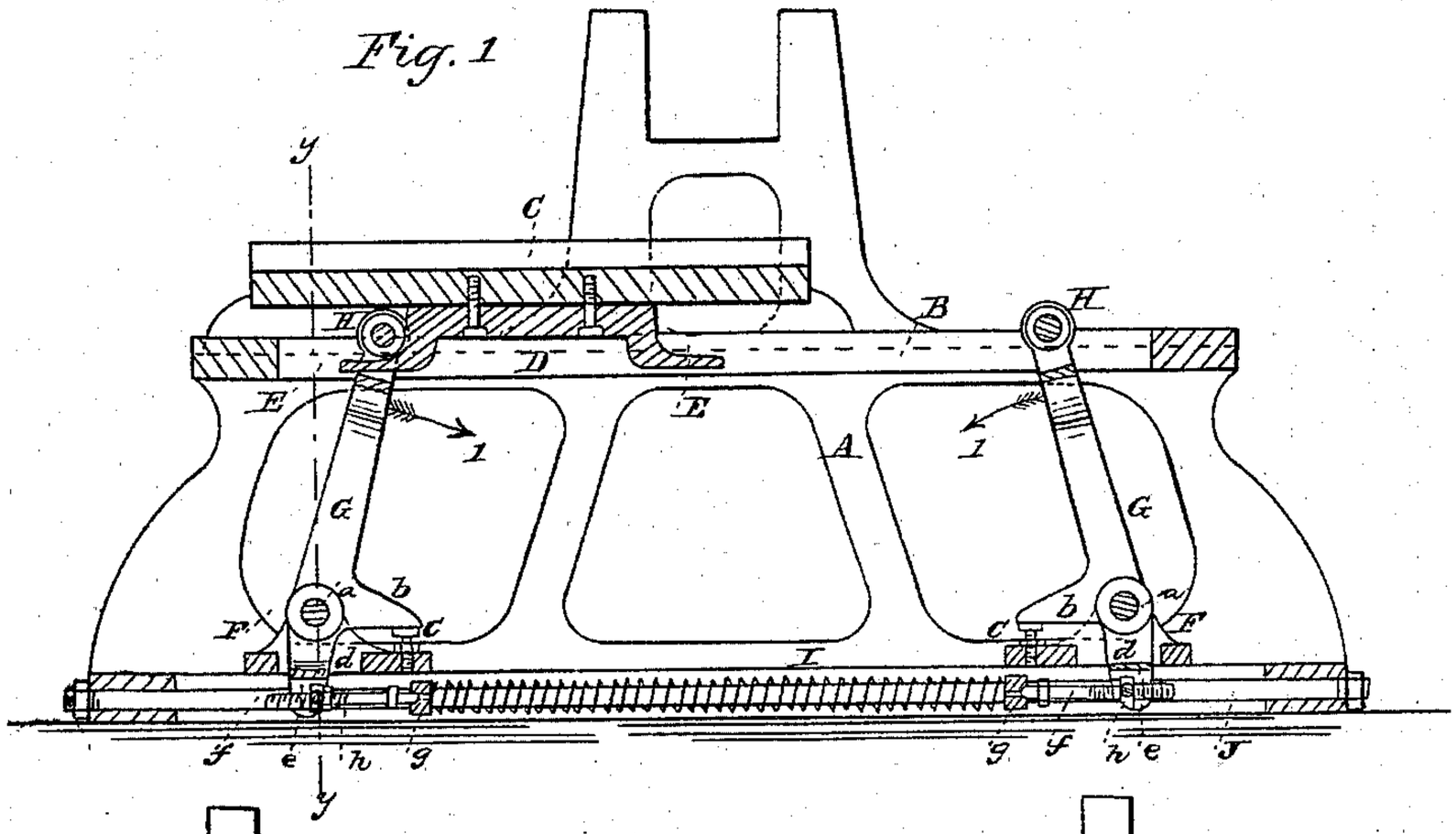
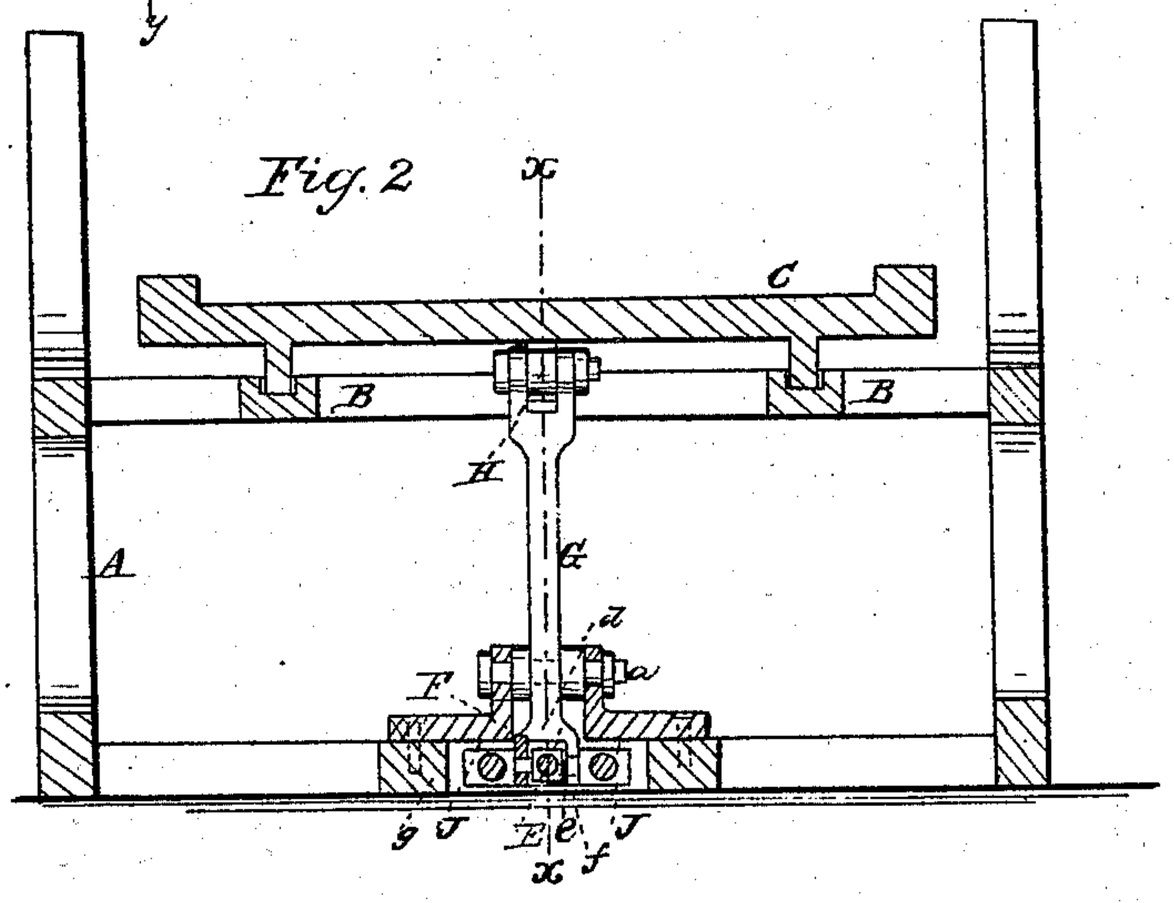


Fig. 2



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C. POTTER, JR., OF WESTERLY, RHODE ISLAND.

Letters Patent No. 68,001, *dated August* 20, 1867.

IMPROVEMENT IN PRINTING-PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, C. POTTER, Jr., of Westerly, in the county of Washington, and State of Rhode Island, have invented a new and useful Improvement in Printing-Presses; and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvement, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim, and desire to have secured to me by Letters Patent.

This invention relates to a new and useful improvement in that class of printing-presses known as the "drum-cylinder," and which are provided with a reciprocating form-bed.

The invention consists in an improved means for insuring an easy and smooth movement of the form-bed, by avoiding jars or concussions at the termination of its strokes; said means also serving to hold the form-bed down upon its ways when near the termination of its strokes, the form-bed having a tendency to rise at these points, and which has been hitherto prevented by gibs attached to the form-bed, hooking or projecting under the framework of the press—a rather expensive arrangement. In the accompanying sheet of drawings—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, fig. 2.

Figure 2 a transverse vertical section of the same, taken in the line *y y*, fig. 1.

Similar letters of reference indicate like parts.

A represents the frame of a printing-press, having two longitudinal and parallel ways B B at its upper part, on which the form-bed C is fitted and allowed to slide freely back and forth. To the under side of the form-bed C a plate, D, is secured, having a hook projection, E, at each end of it, as shown clearly in fig. 1, said projections being of wedge or taper form in their longitudinal vertical section, gradually diminishing in thickness from their inner to their outer ends. F F represent uprights, secured in the lower part of the frame A, and in which the fulcrum-pins *a* of levers G work. The upper ends of these levers G are forked to receive rollers H, and their lower ends are also forked; the upper prongs *b*, by coming in contact with vertical pins or screws *c* in the lower part of frame A, serving as stops to limit the movement of the levers G in the direction indicated by the arrows 1. The lower prongs *d* of the levers G are forked to receive nuts *e*, which are provided with journals to fit into said prongs, as shown clearly in fig. 2. These nuts *e* have each a bolt or set-screw, *f*, passing through them and against the inner ends of *f*. Bars *g* are pressed by spiral springs I I, which are fitted on parallel rods J J, in the lower part of the frame A, the bars *g* being also fitted on said rods. The tension of the springs I I may be regulated by turning the screws *f*, the casual turning of the screws being prevented by jam-nuts *h*.

The operation is as follows: The bed C is moved back and forth on the ways B B by any of the means commonly used for that purpose in cylinder printing-presses. A hook projection, E, runs under a friction-roller, H, in the upper end of a lever, G, near the termination of each stroke, and as the bed passes to its extreme throw the upper end of the lever G is moved or acted upon by the wedge shape of the projection E, in the same direction as the bed C, and the springs I compressed and the momentum of the bed overcome, while at the same time the bed is held down on the ways B B by the projection E under the roller H, and the expensive means hitherto employed for that purpose, and which occasion considerable friction, is avoided. The levers G, at each end of the press, operate precisely alike. In order to effect a quiet or silent movement of the levers G G, it is necessary to have the inclination or wedge of the hook projections E, where they first strike the rollers H, very slight, and the position of the upper ends of the levers with the rollers correctly adjusted in relation to them. This is accomplished by adjusting the screws *c*.

In the usual operation of a press it is often required to run it at great variations of speed, in which case the tension of the springs I requires to be altered to correspond to the increased or decreased momentum of the form-bed C. This is readily accomplished by adjusting the screws *f*, either or both of them; the adjustment of one of them will be sufficient. The device, as a whole, is extremely simple and efficient.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. The hook projections E E, at the under side of form-bed C, in combination with the levers G G, when the latter are arranged in such a manner as to admit of being adjusted relatively with the former by the screws or pins *c*, or their equivalents, for the purpose specified.

2. The pivoted nuts *e* in the lower parts of the levers G G, in connection with the screws *f*, arranged as shown, or in an equivalent way, for the purpose of regulating the tension of the springs I, as set forth.

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Witnesses:

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