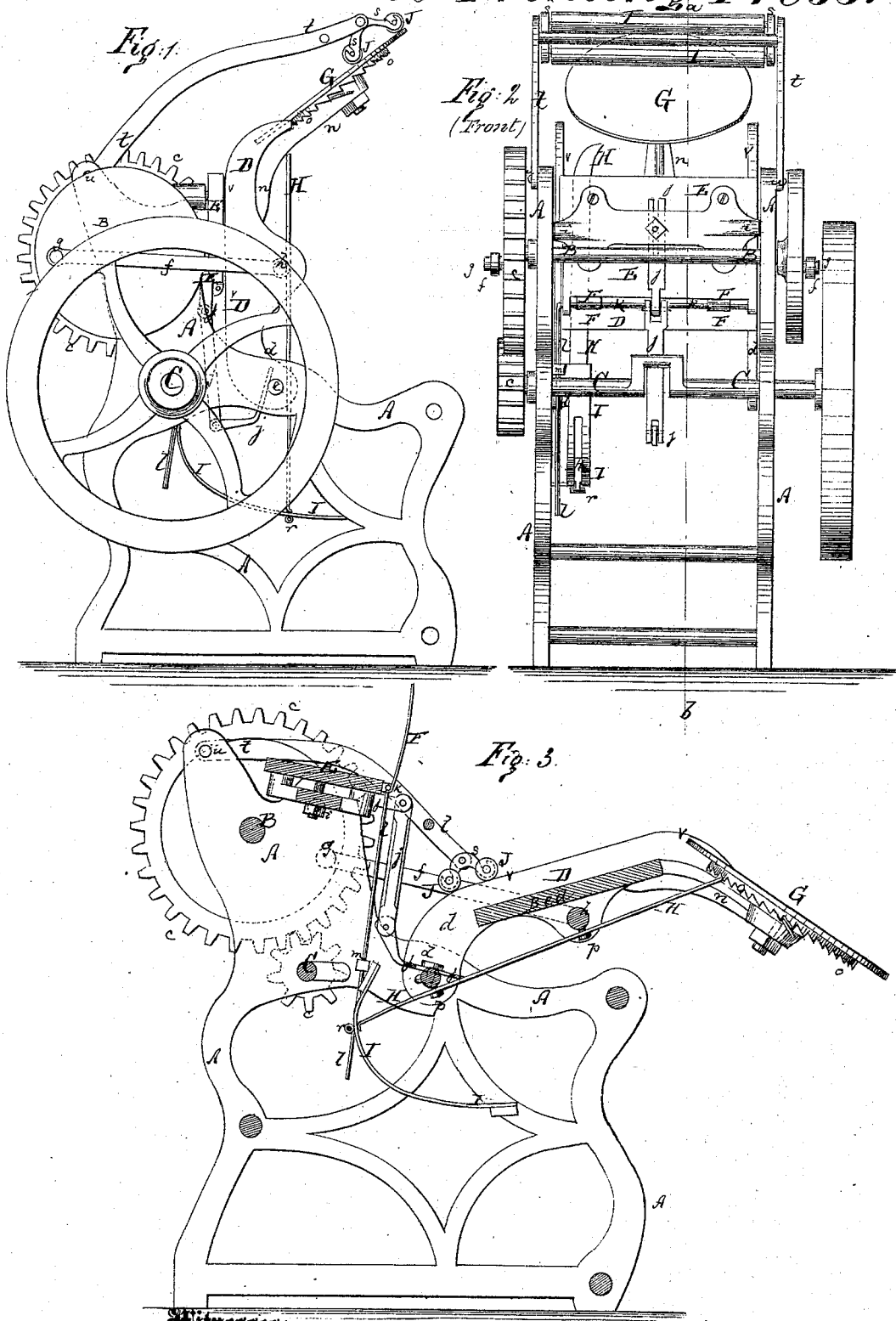


No. 120,040.

Patented Oct. 17, 1871.

R. J. Coons' Job Printing Press.



Witnesses:

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UNITED STATES PATENT OFFICE.

ROBERT J. COONS, OF GREENSBURG, PENNSYLVANIA.

IMPROVEMENT IN PRINTING-PRESSES.

Specification forming part of Letters Patent No. 120,040, dated October 17, 1871.

To all whom it may concern:

Be it known that I, ROBERT J. COONS, of Greensburg, in the county of Westmoreland and State of Pennsylvania, have invented a new and Improved Job-Printing Press; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a side elevation of my improved printing-press. Fig. 2 is a front elevation of the same. Fig. 3 is a vertical longitudinal section of the same taken on the plane of the line *a b*, Fig. 2.

Similar letters of reference indicate corresponding parts.

My invention consists in the improvement of printing-presses, as hereinafter fully described and subsequently pointed out in the claims.

A represents the frame of my improved press. C is the main or driving-shaft, hung near the front end transversely in the frame. The shaft B derives rotary motion in suitable direction from another shaft, C, hung in the frame by gearing *c c*, or other means, or from other suitable machinery. D is the type-bed of the press. It is, by projecting arms *d d*, rigidly connected with a cross-shaft, *e*, which constitutes its pivot in the frame. By pitmen *f f*, which connect with eccentrics or wrist-pins *g* at the ends of the driving-shaft B, and with projecting pins or studs *h* at the sides of the type-bed, the latter receives its oscillating movement during the rotation of the shaft. E is the platen, pivoted by a cross-beam or shaft, *i*, to the front part of the frame. By jointed links or rods *j j* the platen is connected with the vibrating pivot *e* of the bed, and receives thereby oscillating motion in opposite direction to the bed. The extreme links of the series *j* are slotted, and adjustable on the under side of the platen, and on the pivot *e*, so that the strokes of the platen may be regulated in accordance with the size and wear of types and thickness of paper. The grippers F F project from a cross-pin, *k*, that hangs in ears at the lower edge of the platen, and has a projecting arm, *l*, sliding in an eye, *m*, that is affixed to the inner side of the frame. As the platen moves down toward the bed the arm *l* will slide in the eye *m*, and thereby be so directed as to crowd

the grippers against the platen and firmly clamp the paper. When the platen moves clear of the bed the grippers will gradually slacken their hold and finally release the paper. To an arm, *n*, which projects from the upper edge of the bed D, is pivoted the inking-slab G, which is of circular or other suitable form, and quite flat on the surface. On the under side of the slab are formed ratchet-teeth *o o*, with which the pawl for imparting intermittent rotary motion to the slab engages. This pawl H is made in form of a slotted bar, secured by pins *p p* to the backs of the pivot *e* and bed D, so that it can slide up and down on said pins. The lower end of the bar H passes through a slot in an arched plate, I, which is rigidly affixed to the inner side of the frame A, a head, *r*, being formed at the lower end of H, under I. As the bed D is vibrated the bar H will be swung with it, and will, at the same time, be adjusted lengthwise by the arched plate I. While the bed swings up to meet the platen the pawl will, in the vertical position, be entirely withdrawn from the slab G, as in Fig. 1; but as the bed moves back the end of the pawl will gradually approach the slab, and finally (see Fig. 3) enter between the teeth *o* to impart the desired motion to the slab. The latter is thus moved by automatic apparatus which is also disconnected from the driving-shaft, but merely controlled in its motion by the varying position of the bed. J J are the inking-rollers, hung in suitable number to the vibrating bearings *s s*, which are pivoted to the ends of swinging arms *t t*. The latter are at *u* pivoted to the front part of the frame A. By their own weight the rollers J J rest on rails *v v*, which project from the sides of the type-bed, and, when the form is applied, on the surface of the type.

As the bed swings up toward the platen the rollers will, by the motion of the bed, be caused to move upward over the type, applying ink to the same, and finally, to move over the surface of the slab G to receive ink therefrom. Fig. 1 shows the parts in this last-named position. As the bed moves down away from the platen the rollers will again roll over the type until the parts are in the position shown in Fig. 3. There is thus a double application of ink without any operating machinery, the inking-rollers working entirely by their own weight and the movement of the bed. The bed and platen move simulta-

neously in opposite directions, as aforesaid, and meet, therefore, when they are nearly in a vertical position, as shown in Fig. 1.

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

1. The jointed rods *j j*, connecting the vibrating type-bed with the pivoted platen, and made adjustable at the ends, substantially as and for the purpose herein shown and described.

2. The sliding pawl *H*, secured to the back of the vibrating type-bed, and combined with the arched guide *I*, to be operated by the motion of the bed, substantially as herein shown and described.

3. The inking-rollers *J J*, hung to swinging arms *t t*, and resting, by their own weight, on the surface of the type to be moved over the same by the motion of the bed, as set forth.

4. The vibrating type-bed *D*, combined with the jointed rods *j*, sliding pawl *H*, rotary slab *G*, and roller-arms *t*, to operate all by its own motion, as set forth.

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Witnesses:

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