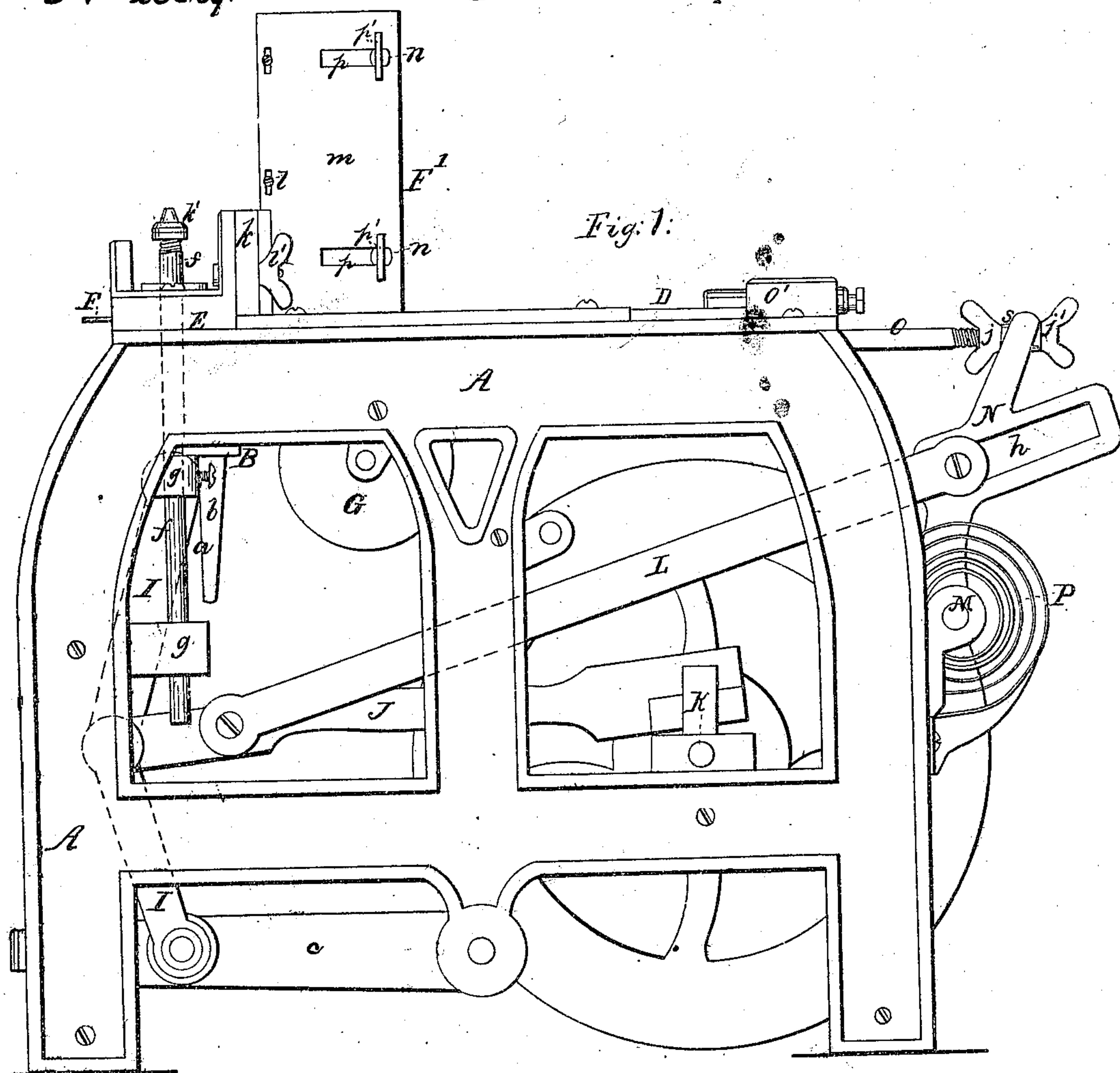


W. W. Clarkson. *Sheet 1 of 2 Sheets*
Card Printing Press.

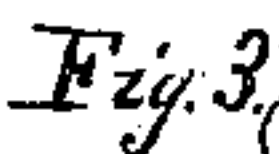
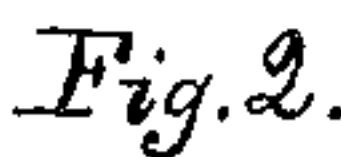
No 20039.

Patented Apr. 27, 1858



N^o 20039.

Patented Apr. 27, 1858.



UNITED STATES PATENT OFFICE.

W. W. CLARKSON, OF BALTIMORE, MARYLAND.

CARD-PRINTING PRESS.

Specification of Letters Patent No. 20,039, dated April 27, 1858.

To all whom it may concern:

Be it known that I, WM. W. CLARKSON, of Baltimore, in the State of Maryland, have invented a new and useful Improvement in Card-Printing Presses; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a card printing press constructed with my improvements. Fig. 2, is a vertical longitudinal section of the same, and Fig. 3, a plan of a detached part of the same.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of my invention consists, 1st, in the combination by a peculiar and exceedingly simple arrangement of mechanism, of the slide which feeds the cards singly from the card box, the bed plate which supports and carries the impression form and the inking roller which inks said form, whereby, with the simple revolution of the driving crank shaft, the inking roller can be moved forward and made to ink the form, and the card at the same time carried forward and left upon the guides below the platen and directly above the form, the inking roller and the card feeder again returned back to their original positions and the form brought up with a heavy pressure and caused to print the card lying upon the platen and then moved down out of the way ready for another operation.

It consists, 2nd, in the combination of the vibrating slide which feeds the cards singly with the grooved guides which receive and retain the cards below the platen, and directly above the impression form, while being printed.

It consists, 3rd, in the peculiar manner of adapting the card box for cards of different widths, lengths and thicknesses, to wit:—by having its side, front and back boards or strips adjustable laterally, perpendicularly and longitudinally by means of slots and set screws.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, represents the frame of the machine; B, the impression form bed; C, the rollers which ink said form; D, the slide to which the inking rollers are attached and which

feeds the cards under the platen and directly above the impression bed; E, the platen and F, the guides which receive the cards from the slide D; F, the card box or hopper; G, the charging ink rollers, and H, the laterally vibrating roller which distributes the ink uniformly over the said charging ink roller.

The combination of the impression form bed B, slide D, and inking rollers C, is accomplished by means of a toggle lever I, I, pitman J, crank shaft K, connecting rod L, rock shaft M, slotted arm N, and connecting rod O, arranged as shown in the drawing.

The upper fulcrum of the toggle lever I, I, is arranged to play freely up and down in a slot *a*, of an extension *b*, of the form bed and the lower fulcrum to a pivoted adjustable bearing *c*. And the front fulcrum or pivot of the connecting rod L, is arranged in a slot *h*, of the rock shaft M, and the pivot of its rear end attached fast to the pitman of the crank shaft K. By thus coupling the upper end of the toggle lever to the form bed and the fulcrum or pivots of the connecting rod L, to the rock shaft M, and pitman J, said lever can, after it has drawn the bed to a proper position to have the inking rollers ink the bed, descend to the position shown in red in Fig. 2, independently of the form bed, and thereby draw the crank shaft K, rock shaft and slotted arm M, N, slide D, and inking rollers C, C, forward to the position shown in red and thus effect the inking of the form which is arranged on the bed B, and the removal of a single card, by means of the lip *d*, of the slide from the card hopper F', and the deposit of the same upon the supporting guides F, F, as illustrated in blue. And by having the lower end of the lever adjustable by means of set screw *e*, of the pivoted bearing *c*, the form bed can be adjusted to rise to a greater height to suit the thickness of the form or any changes which may take place in the relative position of the parts to each other.

The form bed is attached fast to two vertical rods *f*, *f*, which play freely up and down through guides *g*, *g*, and the top of the frame. These rods have screw threads on their upper ends in order to receive adjusting stop nuts *h'*, *h'*. By thus arranging the form it always has a parallel movement and the extent of its descent can be regulated, the nuts and screws on the ends of the rods *f*, *f*, accomplishing this end, and thus

the inking of the form by the rollers C, C, can always be insured.

The rear end of the rod O, of the slide D, is attached to the arm N, of the rock shaft M, by means of a swivel eye S, a screw thread formed on rod, and two thumb nuts *j j'*. By thus connecting the slide the extent of its forward movement can be regulated to suit various sizes of cards, the return or backward movement of said slide being regulated by means of an adjusting stop O¹, of the frame K.

The card box or hopper is attached to a stationary head board *k*, in a manner that its base stands just the thickness of one card above the top of the slide. By this arrangement the lip *d*, of the slide can only take hold of one card at a time. The sides *m, m*, of the card hopper or box are made adjustable laterally and vertically by means of the set screws *l, l'*, so as to suit cards of different lengths and thicknesses. The front guides *n, n*, are also adjustable longitudinally by set screws and slots *p p'* so as to suit cards of different widths.

The rockshaft M, N, owing to being coupled to the connecting rod L, by means of a slot and pin is not capable of returning back after it has effected the forward movement of the slide, and therefore a scroll spring P, is provided, as shown, for throwing it back to its proper position.

What I claim as my invention and desire to secure by Letters Patent, is—

1. The combination, by the peculiar arrangement of mechanism specified, of the slide D, which feeds the cards singly from the card box, the bed plate B, which supports and carries the impression form, and the inking roller C, which inks said form; substantially as and for the purposes set forth.

2. The combination of the vibrating slide D, which feeds the cards singly, with the grooved guides E, F, which receive and retain the cards below the platen, and directly above the impression form while being printed, substantially as and for the purposes set forth.

3. The peculiar manner of adapting the card box F', for cards of different widths, lengths and thicknesses, to wit; by having its side front and back boards or strips adjustable laterally, perpendicularly and longitudinally by means of slots and set screws, substantially as and for the purposes set forth.

The above specification of my improvement in printing press signed by me this 17th day of February, 1858.

WM. W. CLARKSON.

Witnesses:

EDW. F. BROWN,
G. YORKE ATLEE.