D. K. Winder.

Card Printing Press.

No. 13071. Patented Oct. 9. 1855.

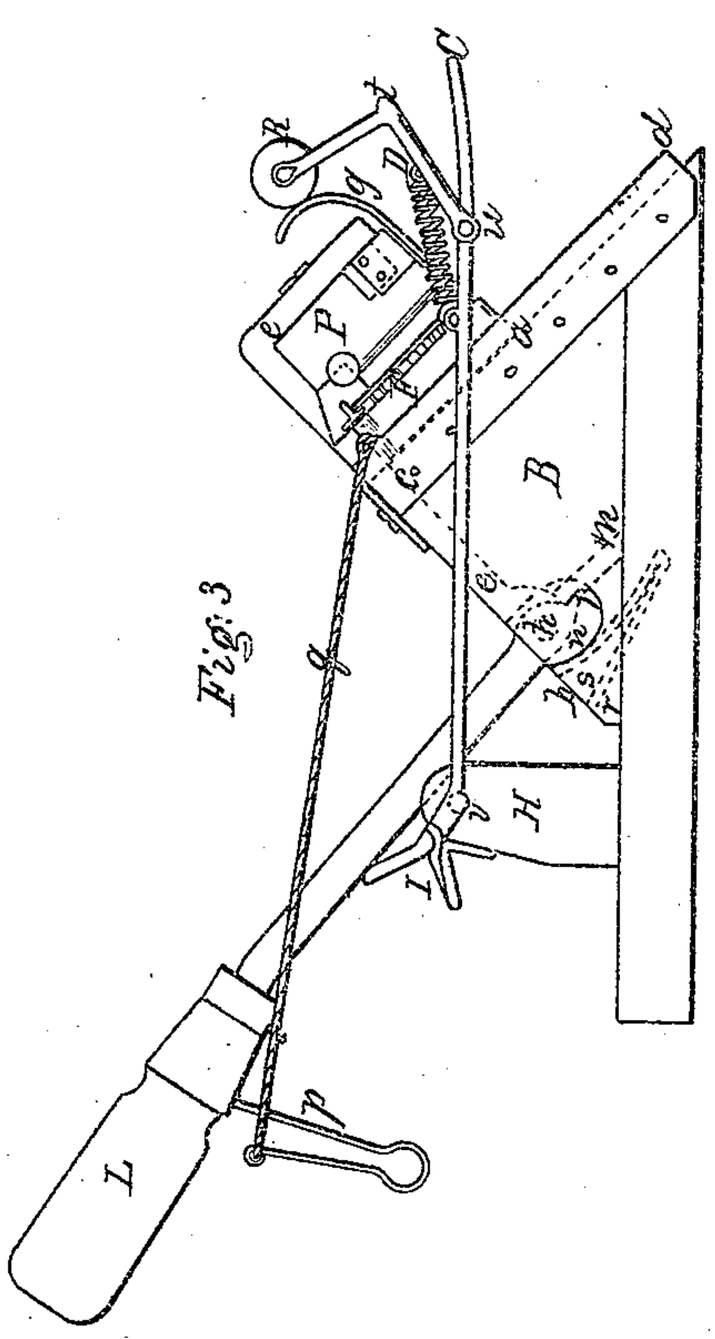

Fig. 3

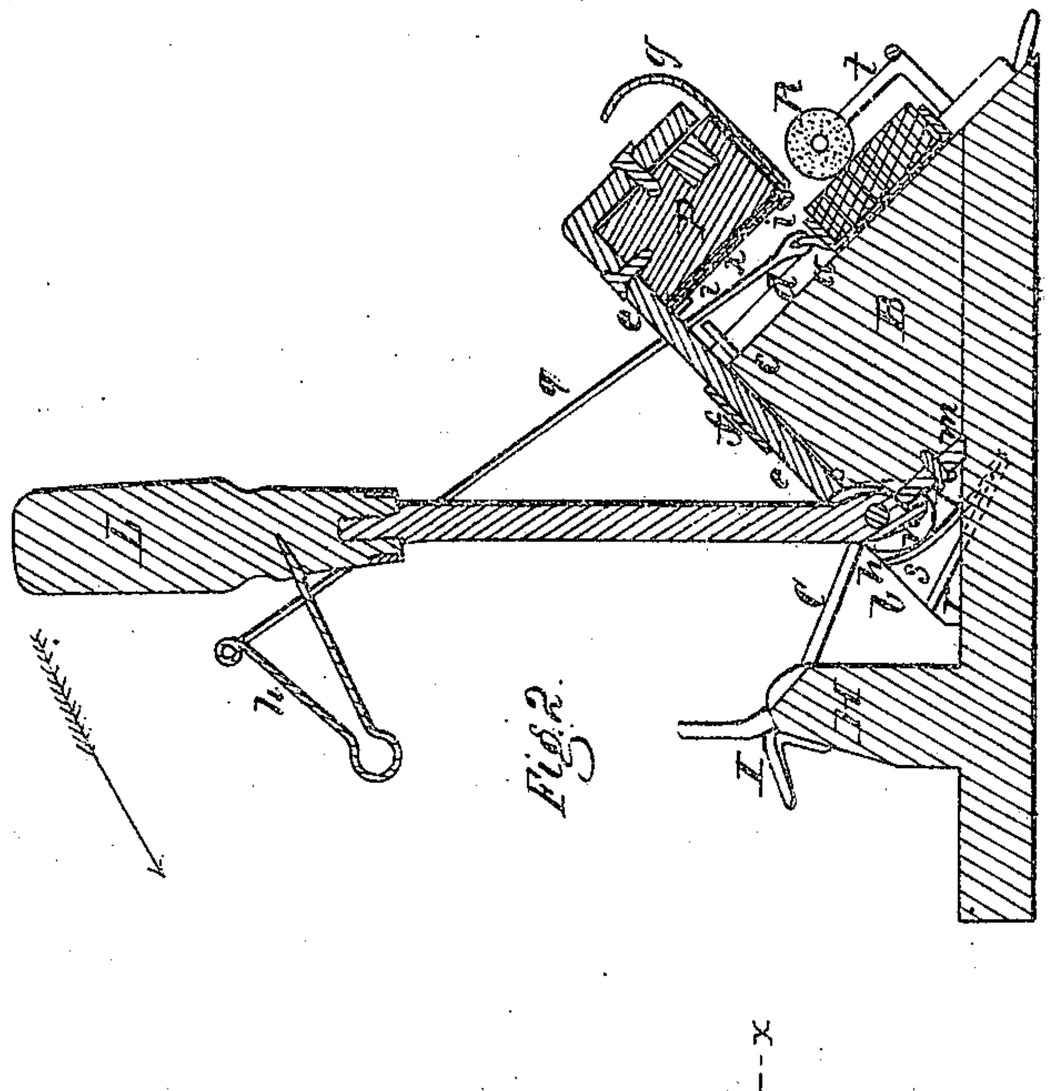

Fig. 2.

Fig. 1.

Fig. 4

UNITED STATES PATENT OFFICE.

DANL. K. WINDER, OF CINCINNATI, OHIO.

CARD-PRINTING PRESS.

Specification of Letters Patent No. 13,671, dated October 9, 1855.

To all whom it may concern:

Be it known that I, D. K. WINDER, of Cincinnati, in the county of Hamilton and State of Ohio, 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 construction and operation of the same, reference being had to the annexed drawing, forming part of this specification, in which—

Figure 1 is a side elevation of the press, during the operation of inking the form. Fig. 2 is a vertical section on *x x;* the press being in position shown in Fig. 1. Fig. 3 is a side elevation of press showing operation of printing and supplying inking roller. Fig. 4 is a plan of the press in position shown in Fig. 3.

Similar characters of reference in the several figures denote the same part of the press.

The invention here considered has reference to the inking of the form and the supply of the inking roller, and consists in the construction of the press with a traversing form so connected with the pressing lever as to be submitted alternately to the action of the platen and of the inking roller; the said roller being carried by the operation of printing over a supply table connected with the platen, and falling ready for the form as the platen rises: the bed to facilitate and admit of these operations being constructed with two opposite inclined faces, on one of which the form traverses while the platen moves in the direction of the other, these motions being in opposite directions on the respective surfaces—the platen moving upward in direction of one as the form moves down the other, and the reverse.

The details of the construction and operation of the press will be readily understood from the following description and annexed drawing, in which the several parts are thus represented:

B, bed, having the opposite inclined faces *a* and *b*, forming at the summit *c* an angle of 90°. On the face *a* traverses the form F, kept in position by side guides *d*, and in the face *b* is movable, in direction of its length, the bar *e*, the cross piece *f* keeping said bar in its position. The upper portion of the bar *e* is turned over at a rightangle and is secured to the platen P. P, platen, secured to bar *e* as seen in Fig. 2; having on its lower face the card holders *i i*, and on its remaining face the curved supply surface *g*. The movement of the platen to and from face *a* of the bed takes place in direction of face *b* of the bed, and is produced by power applied to bar *e*. L, operating lever, turning on bolt *h* between cheeks *n* of bar *e*, and having on its lower extremity a lip *l*, which when the lever is moved in direction of arrow presses against the steel plate *m;* the line of contact then becoming the fulcrum of the lever. This motion of lever L it is obvious will draw the bar *e* downward and operate the platen. Near the upper extremity of the lever is a spring *p* having its free extremity connected by cords *q* with form F, so as to draw the form in position for receiving the platen, by the movement of lever as indicated by arrow. The spring *s* in recess *r* of the bed carries the bar *e* upward when the downward force is removed from the lever. F, form, connected by cords with lever L, and moving into position shown in Figs. 1 and 2 by its weight as the long arm of said lever rises; R, inking roller, turning between arms *t*, which are connected with the lever C at *u* and have a tendency toward the same by reason of springs D; C, lever carrying inking roller, having its fulcrum at *v* on standard H, above which its short arm rises, so as to be pressed upon by lever L, as shown by Fig. 3, the effect of this construction being to throw the lever C into position seen in Fig. 3 at the time of printing, the roller R being carried over the supply surface *g*, against which it is drawn by springs D. The springs I throw the lever C into position of Fig. 1 as soon as pressure is removed from lever L.

The operation of the press is as follows: Taking the press in position shown in Figs. 1 and 2, the card *x* is inserted under the holders *i i*, by hand or in any suitable manner (the feed not being material as regards this invention). Power is then applied to lever L moving it as shown by arrow; drawing the form F from under roller R and to the top of face *a* of the bed, and gradually producing the descent of the platen P. The pressure still continuing the card under the platen is drawn with sufficient force against the form to effect an impression. During which operation the lever L pressing on short arm of lever C, raises its long arm and causes roller R to revolve in contact with

surface *g;* the several parts at this time being situated as shown by Fig. 3. On removal of pressure from lever L an operation the reverse of that just described, will obtain. The springs D keeping roller R in contact with supply surface *g* cause the roller to rotate over it in passing off and insure a full supply of ink. While at the same time spring S raises the platen, and as lever L assumes a vertical position, the form F begins to descend plane *a* by its gravity—its lower edge passing from under the platen at the moment of the roller R dropping from the supply surface. The form thus receives the roller which by reason of springs D presses upon the form and rolls over it as it descends, the several parts coming into the positions shown in Figs. 1 and 2, where the description began. Another card has to be inserted under the platen, driving out the finished card, and the operation will proceed as above described.

Having described my invention and the operation of the same, what I claim as new and of my own invention is—

The double inclined bed B, traversing form F and inking surface *g*, in combination with the lever C spring roller supports *t* and operating lever L, constructed, arranged and operating substantially as, and for the purposes specified.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

DANIEL K. WINDER.

Witnesses:
R. B. BLACK,
A. V. STEWART.