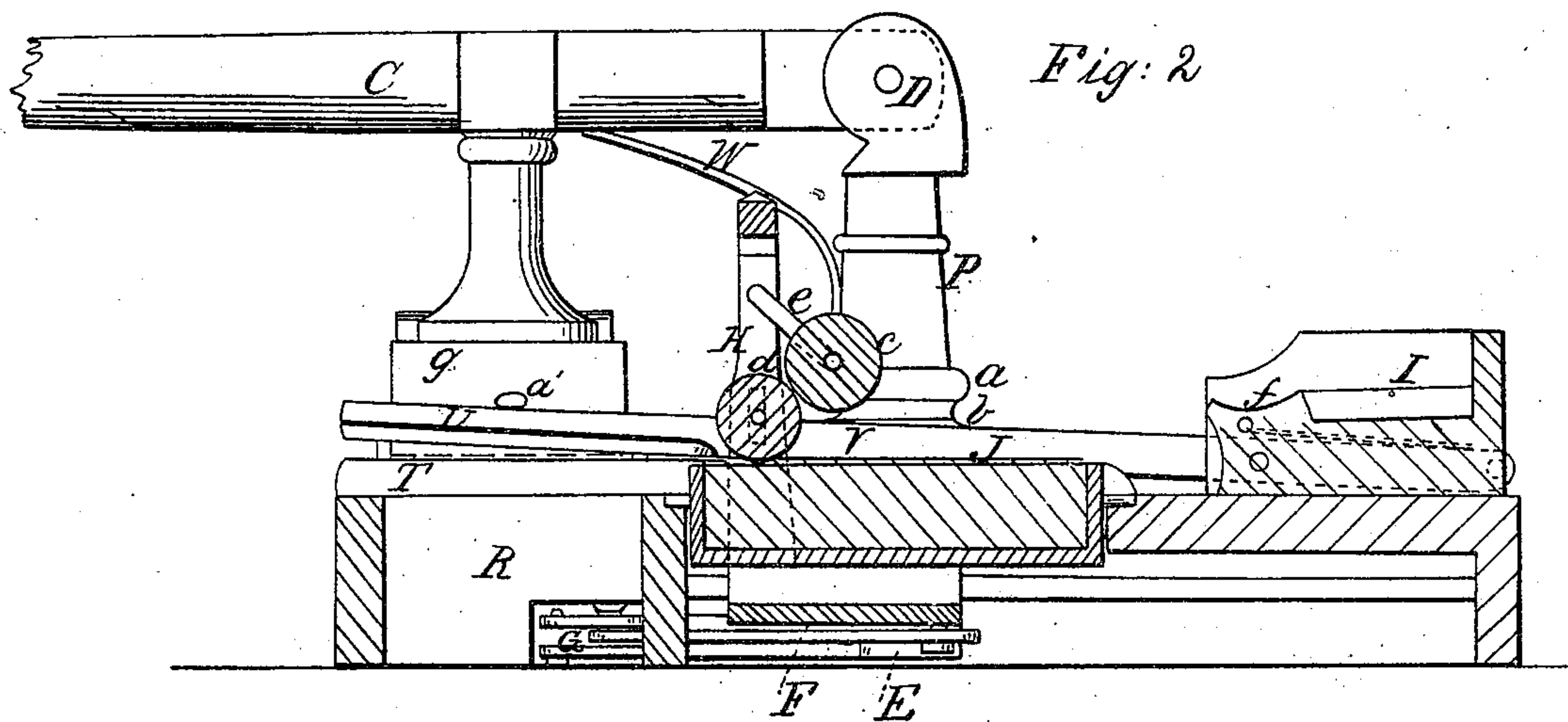
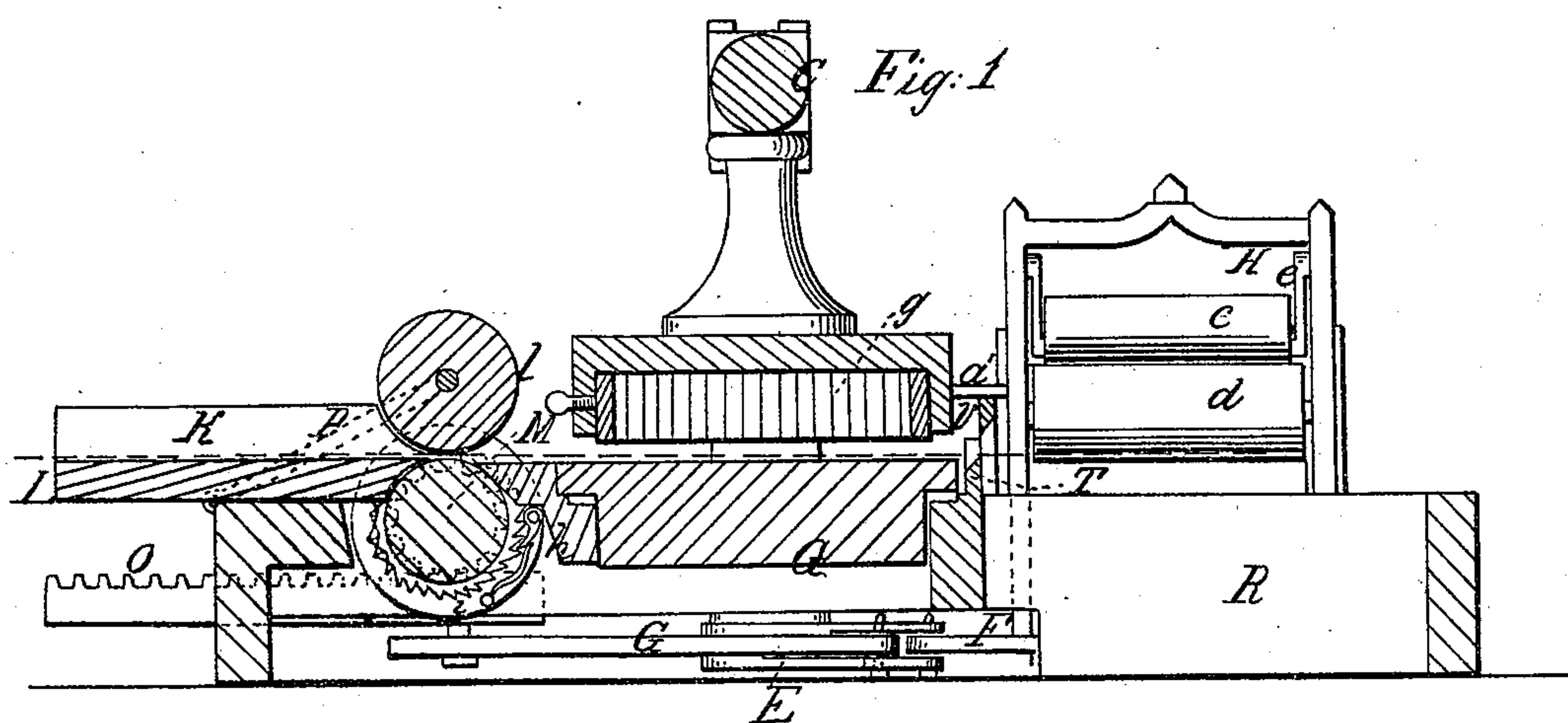


T. Harsha. Sheet 1 of 2 Sheets.
Hand Stamp.

N^o 13703.

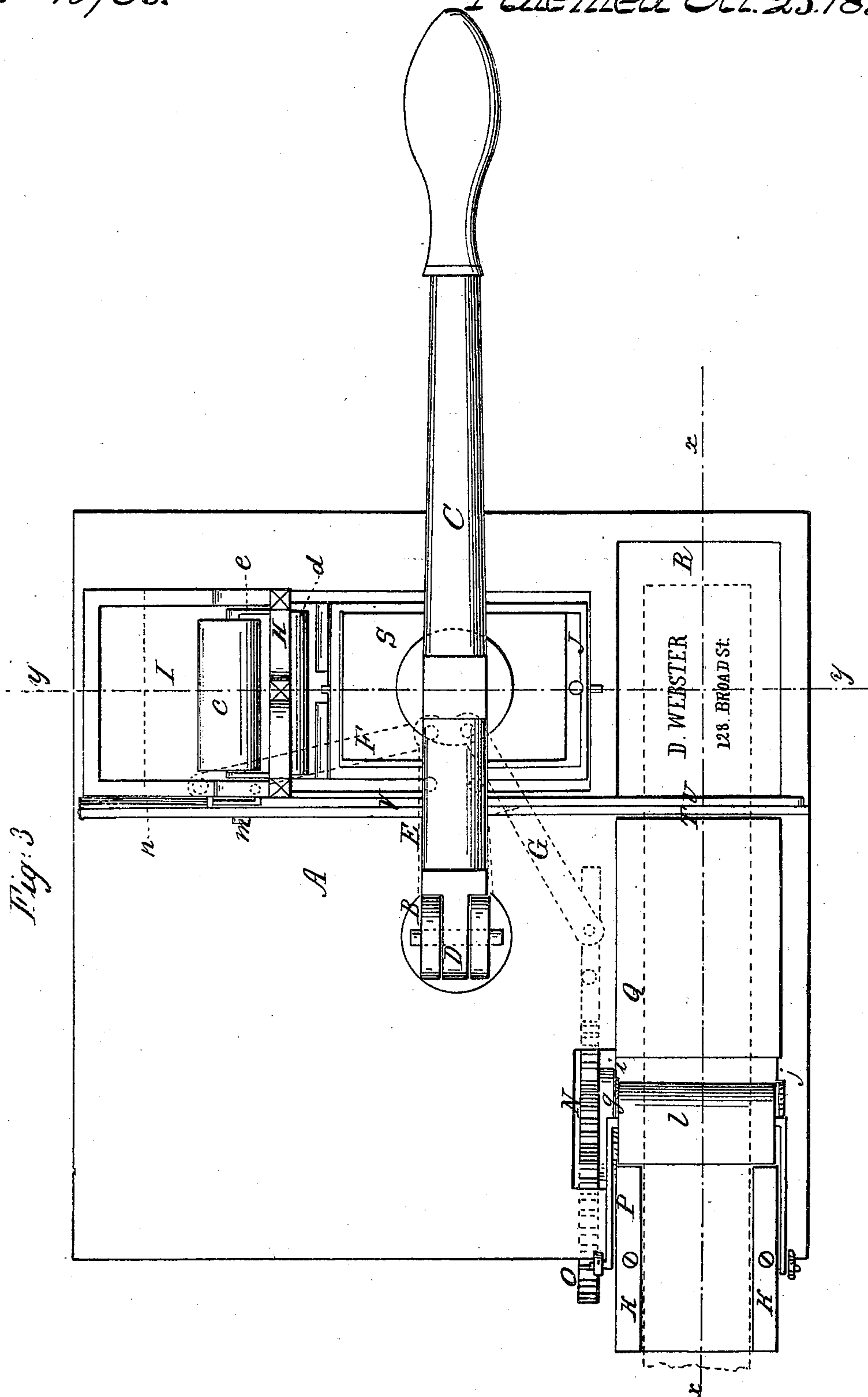
Patented Oct. 23. 1855.



T. Harsha. Sheet 2.2 Sheets.
Hand Stamp.

N^o 13703.

Patented Oct. 23. 1855.



UNITED STATES PATENT OFFICE.

THOS. HARSHA, OF WEST UNION, OHIO.

CARD-PRINTING PRESS.

Specification of Letters Patent No. 13,703, dated October 23, 1855.

To all whom it may concern:

Be it known that I, THOMAS HARSHA, of West Union, in the county of Adams and State of Ohio, have invented a new and
5 Improved Hand-Press Intended Chiefly for Printing Cards; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of
10 this specification, in which—

Figure 1, is a vertical section of my improvement (x) (x) Fig. 3, showing the plane of section. Fig. 2, is also a vertical section of ditto (y) (y) Fig. 3, showing the
15 plane of section. Fig. 3, is a plan or top view of ditto.

Similar letters of reference indicate corresponding parts in the three figures.

The nature of my invention consists in
20 the peculiar construction of the press as will be presently shown and described whereby the ink is properly distributed upon the ink bed, the form inked, the paper fed over the bed, and the cards printed and
25 cut off the proper length by a simple movement of a lever.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

30 A, represents a rectangular block or bed piece, constructed of cast iron or other proper material. Through the center of the block or bed piece, A, there passes a vertical rod, B, to the upper end of which a lever, C, is connected by a joint, D, said
35 joint allowing the lever, C, to be moved up and down. The rod, B, has a shoulder (a) upon it which shoulder rests upon a projection (b) on the bed see Fig. 2, the rod being
40 allowed to turn in the block or bed piece. The lower end of the rod, B, underneath the block or bed piece, A, has a lever, E, attached to it. To the outer end of the lever, E, there are attached by pivots two
45 arms F, G, one of which, F, is attached to a frame, H, the side pieces of which pass up through the block or bed piece, A, and have two ink rollers (c) (d) secured between them, one roller (c) being placed in
50 a small frame (e) which is attached to the side pieces of the frame, H, said frame (e) being allowed to swing so that the roller (c) may rest or bear upon the roller (d).

I, is the ink box placed at one side of the
55 block or bed piece, A. The end of this box facing the rollers (c) (d) is open and a

semi-circular recess (f) is made in the front part of the bottom of the box see Fig. 2. The rollers (c) (d) are formed of the usual material glue and molasses and an ink bed, 60 J, formed of the same material is fitted in the block or bed piece, A, directly in line with the box, I, see Figs. 2 and 3.

K, K, are two guides attached to a board, L, which is secured to the upper surface of 65 the block or bed piece, A, and, M, is a roller inserted in the block or bed piece directly in front of the board, L. One end of the roller, M, has a pinion, N, attached to it, which pinion gears into a rack, O, under- 70 neath the block or bed piece, A. The pinion, N, is placed loosely on the shaft of the roller M, and a circular disk (g) is attached to the inner side of the pinion, N, to which a pawl (h) is attached. Said pawl catches 75 into or between the teeth of a ratchet (i) attached to the end of the roller. The opposite end of the roller has a ratchet attached to it, into which a pawl catches.

P, is a frame attached to the edge of the 80 block or bed piece A. This frame is allowed to swing and has a roller (l) placed in it which roller rests upon the roller M, see Figs. 1 and 3.

The arm, G, at the lower end of the rod, 85 B, is attached by a pivot to the rack, O.

Directly in front of the roller, M, there is placed a bed Q, shown in Figs. 1 and 3. And through one corner of the block or bed piece, A, there is made a rectangular open- 90 ing, R.

To the under side of the lever, C, there is attached a box S, in which the form is placed, and properly secured by set screws.

To the side of the opening R, adjoining 95 the bed, Q, there is attached a stationary knife, T, over which a knife, U, works, the knife being at the end of a lever V, which works upon a pivot (m) the knife U, being kept above the stationary knife, T, by a 100 spring (n) shown in Fig. 3. The lever C, and box, S, are kept up or above the block or bed piece, A, by a spring W, as shown in Fig. 2.

Operation: A requisite quantity of ink 105 is placed in the box, I, and the card paper is cut into strips of the proper width and one end of a strip is inserted between the rollers, M, (l). The strip of paper is shown in red. The form is secured within 110 the box S. The lever, C, is then grasped by the hand and the box, S, is brought di-

rectly over the ink bed, J. By this movement of lever, C, the rack, O, is moved by the lever, E, and arm G, and the frame, H, is moved by the lever, E, and arm, F. The
 5 rack, O, in moving turns the rollers, M, (l) and feeds the end of the card paper over the bed, Q, and as the frame, H, is moved the lower roller (d) passes over the ink bed J, distributing the ink thereon, the
 10 lower roller (d) passing into the recess (f) and receiving an additional supply of ink from the box, I. The form being now directly over the ink bed J, the lever, C, is depressed by the hand and the form is
 15 pressed upon the ink bed, J, and properly inked thereby. The lever, C, is then relieved from the pressure of the hand, and is raised by the spring, W. The lever is then moved in a reverse direction and the
 20 box S, brought directly over the bed Q. By this movement the frame, H, is moved back again over the ink bed, J, which is thereby charged with ink, and the rack, O, is moved back without turning the rollers,
 25 M, (l) as the pawls slip over the ratchets. The form is then pressed down upon the card paper on the bed, Q, and its impression formed upon the paper, and a projection (a') at the side of the box, S, depresses
 30 the upper knife, U, and cuts off the card printed at the previous movement of the lever, C, the paper being between the two knives T, U, and the cards as they are cut off drop into the opening or receptacle, R.
 35 The above invention is extremely simple, works rapidly, and requires but little attention or care. All that is required is to keep the box, I, properly supplied with ink and to supply the rollers M, (l), with the strips
 40 of paper. These rollers however may be

supplied from a coil or spool on which a great length of paper may be wound, so that any reasonable number of cards may be printed before a fresh supply of paper would be required. Different sized cards 45 may be printed by varying the adjustment of the arms F, G, to the lever, E, and changing the position of the guides K, K.

Having thus described my invention, what I claim as new and desire to secure by 50 Letters Patent, is.

1. Attaching the box, S, which contains the form, to the lever, C, and connecting said lever with the ink rollers (c) (d) and feed rollers, M (l) as shown, so that when 55 the lever, C, is moved, and the form brought over the ink bed J, the paper will be fed over the bed, Q, on which the paper is printed, and when the lever is moved over the bed, Q, in order to print the paper or 60 cards the charged ink rollers will pass over the ink bed, J, whereby the ink bed is kept properly charged with ink, and the paper fed over the bed on which the paper is printed and the paper or cards printed by 65 simply moving or operating the lever, C, as described.

2. I also claim passing the paper between two knives, T, U, arranged substantially as shown in relation with the lever, C, so that 70 the printed paper or cards will be cut off in proper lengths as the form is pressed upon the paper the knives cutting off a previous impression at each depression of the lever.

THOMAS HARSHA.

Witnesses:

JAMES MOORE,
 JAMES E. SMASHED.