

(No Model.)

S. C. COX.

FEEDING ATTACHMENT FOR CYLINDER PRINTING PRESSES.

No. 317,929.

Patented May 12, 1885.

Fig. 1.

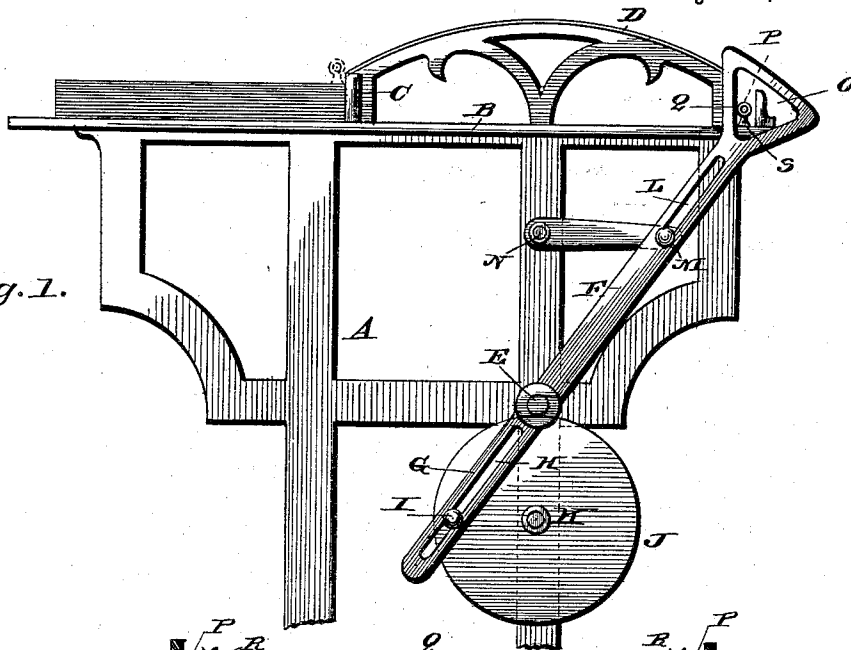


Fig. 2.

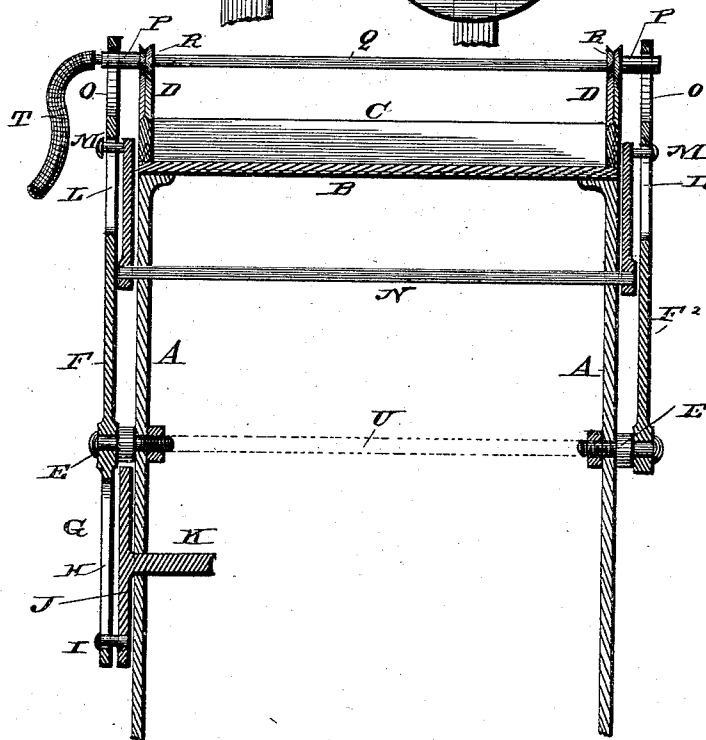


Fig. 3.

WITNESSES *Phil Dietrich* *M. Keyworth* *Sanford Cox* *Alexander*
INVENTOR *by* Attorney

UNITED STATES PATENT OFFICE.

SANFORD C. COX, OF LAFAYETTE, INDIANA, ASSIGNOR TO HIMSELF AND
JOSEPH S. HANNA, OF SAME PLACE.

FEEDING ATTACHMENT FOR CYLINDER PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 317,929, dated May, 12, 1885.

Application filed July 25, 1884: (No model.)

To all whom it may concern:

Be it known that I, SANFORD C. COX, of Lafayette, in the county of Tippecanoe and State of Indiana, have invented certain new and useful Improvements in Feeding Attachments for Cylinder Printing-Presses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to feeding attachments for cylinder printing-presses; and it has for its object to provide a device which shall be simple, inexpensive, entirely automatic in its operation, and which may be easily attached to any cylinder-press of ordinary construction.

The invention consists in the construction and combination of parts, hereinafter described, and pointed out in the appended claims.

In the drawings, Figure 1 is a side view of a machine embodied in my invention. Fig. 2 is a front part-sectional view of the machine, and Fig. 3 is a sectional view of the carrying-cylinder.

The same letters refer to the same part in all the figures.

A designates the frame of the machine, of suitable construction; B, the platform or bed for the imprinted paper, and C the transverse gage-board against which the edges of the sheets rest before being delivered to the press by the suction-cups, hereinafter described. The frame is provided to each side with parallel segmental-shaped tracks D, provided with upwardly-beveled edges, V-shaped in transverse section, as shown in Fig. 2, and having for their centers a pair of studs, E, secured in the sides of the frame and carrying levers F and F², the former of which is provided with a downward-extending arm, G, having a slot, H, in which works a crank-pin, I, secured to a wheel or disk, J, mounted upon one end of the operating-shaft K. The levers F and F² are provided near their upper ends with slots L, receiving pins M at the ends of a double crank-shaft, N, which is mounted transversely in the frame, and which serves to

convey the oscillating motion imparted to lever F by the operating-shaft to the lever F². The upper ends of the levers F and F² are provided with triangular slots O, into which pass the ends of the rollers P, journaled on the ends of the tubular carrier Q and carrying the roller-wheels R. The said roller-wheels are provided with circumferential grooves V-shaped in section, and are thereby adapted to travel over the V-shaped edges of the ways D. The under side of the carrier Q is provided with the suction-cups S, which communicate with its hollow interior, and have secured around their edges the rubber rings s, to cause them to adhere to the paper when the air is exhausted from the carrier and cups. One end of the tubular carrier is closed, and the other end is connected by a flexible tube, T, with an air-pump, which is not shown in the drawings, but which is operated from the cylinder or operating-shaft of the press, and which is so constructed and arranged that it shall exhaust the air from the carrier when the latter reaches the paper-table, and cease operation and permit air to enter the carrier when the latter reaches the end of its stroke. The ends of the segmental tracks D are vertical or abrupt, and the triangular slots O in the carrying-levers will permit the carrier to descend the required distance at either end and will again raise or lift it at the beginning of the movement in the opposite direction. By this construction the suction-cups will always descend squarely upon the paper, and will never fail to deliver it evenly and smoothly.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation of my invention will be easily understood by those skilled in the art to which it appertains.

I will state that when desired and when rendered possible by the construction of the frame the levers F and F² may be mounted upon a transverse shaft U, as shown in dotted lines in Fig. 2, said shaft taking the place of the studs E.

I claim and desire to secure by Letters Patent of the United States—

1. In a feeding attachment for printing-presses, the combination of a frame having

segmental tracks, a tubular carrier traveling upon the said tracks and provided with suction-cups, as set forth, a pair of levers provided with triangular slots at their upper
5 ends, through which extend boxes journaled upon the ends of the carrier, and operating mechanism, substantially as set forth.

2. The combination of the frame A, ways D D, carrier Q, rollers P, and roller-wheels
10 R with the vibrating levers F F², pivoted on the bosses E and provided with the slots L and O, substantially as specified.

3. The combination of the frame A, levers F F², having the slots H, L, and O, double
15 crank-shaft N, rotating disk J, having the

wrist-pin I, and tracks D D with the carrier Q, provided with the suction-cups S and moved back and forth over the ways D D by means of the engagement of the levers F F² with the
20 rollers P, journaled on the ends of the carrier, and the roller-wheels R, secured to said rollers, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

SANFORD C. COX.

Witnesses:

JOS. S. HANNA,
H. B. DAVIS.