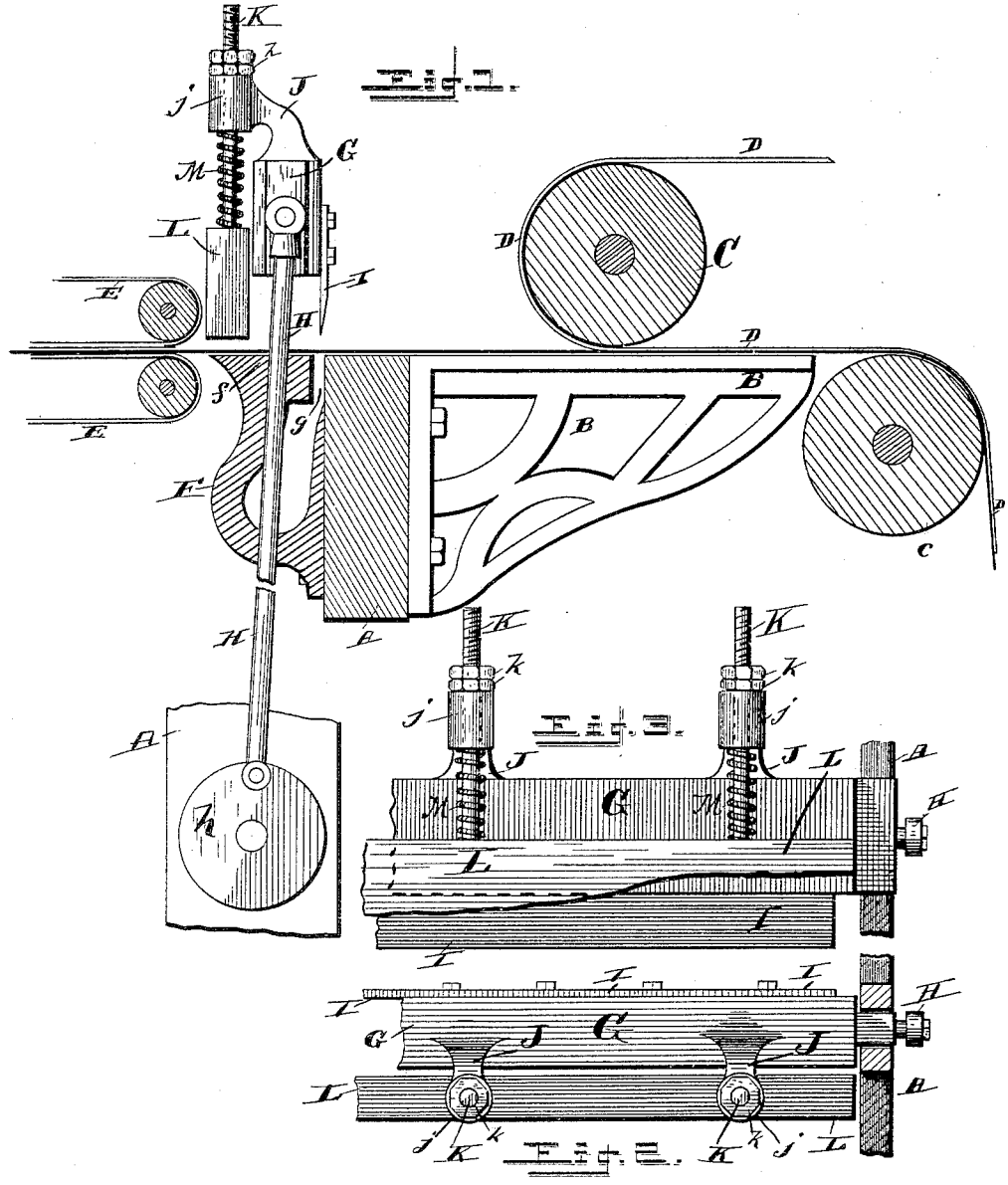
(No Model.)

J. L. COX.

PAPER CUTTER FOR PRINTING PRESSES.

No. 439,479. Patented Oct. 28, 1890.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH L. COX, OF BATTLE CREEK, MICHIGAN, ASSIGNOR TO THE DUPLEX PRINTING PRESS COMPANY, OF SAME PLACE.

PAPER-CUTTER FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 439,479, dated October 28, 1890.

Application filed November 1, 1889. Serial No. 328,947. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. COX, of Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Paper-Cutters for 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, in which—

Figure 1 is a side elevation in detail and partly in section of my improved paper web-cutting device for printing-presses. Fig. 2 is a reduced detail plan view thereof. Fig. 3 is a detail rear view of the cutting mechanism.

My invention is an improved cutting device for printing-presses, especially designed for web-printing presses, and its objects are to cut the web of paper truly and accurately, to prevent back movement of the sheet while being served, and to catch the dust and cuttings and prevent their fouling the working parts of the press; and to these ends the invention consists, essentially, in a reciprocating cutter and a clamping-block for automatically holding the paper while being cut, and in certain other novel details of construction and arrangement, hereinafter described and claimed.

Referring to the drawings by letters, A designates a portion of the frame of the printing-press at the delivery end thereof, and B is a table or shelf upon which the web of paper is ejected from the delivery-rolls C *c*, and tapes D coacting therewith, as shown. At the end of shelf B are the carrier-tapes E E, which receive the web or sheets served therefrom and conduct the same to the folder or other desired receiver. Between shelf B and tapes E is a metallic casting that I denominate a "pan" F, which lies longitudinally of the machine and is bolted to frame A. The pan is U-shaped in cross-section, with its opening uppermost. The outer portion of pan F has its upper edge widened and flattened, as at *f*, leaving but a narrow opening or slit *g* between its inner edge and the edge of part A, which slit the knife or cutter enters during the severing of a sheet of paper from the web. The upper surface of part *f* is flush with the surface of shelf B, and the paper rests thereon in passing from the shelf to the tapes E E.

G designates a horizontal bar mounted between suitable guides at the sides of the press, and vertically reciprocated by means of a rod H, which is connected to the end of said bar and to a crank-pin on a disk *h*, rotated by suitable mechanism (not shown) from the main driving-shaft. The bar may be vertically reciprocated by any other convenient means.

To one side of bar G is bolted the blade or cutter I, the lower edge of which depends below bar G, and is just above slit *g* when bar G is elevated.

J J are brackets secured to bar G and rising therefrom, their upper ends projecting rearwardly, as shown, and having enlarged heads *j*, which are vertically bored for the free passage of short rods K K, which are kept from falling and rendered vertically adjustable by means of adjusting and locking nuts *k* on their upper threaded ends, as shown.

L designates a horizontal bar suspended on the lower ends of rods K and lying parallel with bar G, but below the same and the edge of cutter I.

M M are coiled springs on rods K, interposed between the heads *j* and the bar L.

In operation the parts are so adjusted that bar G is vertically reciprocated once for each predetermined length of the web of paper W passed thereunder from the delivery-rolls so as to sever the web into equal sheets. The paper web is moved intermittently, and when the sheet has passed from the delivery-rolls and is moved forward until the line of the severance thereof is directly under cutter I and above slit *g* the bar G is drawn downward, and with said bar descends bar L and cutter I. The bar L, however, being lower than the cutter, first clamps the paper upon the part *f* of pan F and presses thereon. As the bar further descends, the rods K rise through heads *j* of brackets J, the springs M being compressed and holding bar L firmly down on the paper. The cutter, whose edge is preferably serrated, breaks and cuts through the web of paper at

slit *g*. The fibers or cuttings, dust, &c., fall into pan F and collect therein, instead of being permitted to fall into the press; and when desired pan F can be removed and cleaned. The bar L prevents the portion of paper fed past slit *g* being drawn back, and the paper is thus held between the delivery-rolls and bar L, so that the cutter will sever the paper when under tension, and there is no danger of the paper being crowded down into the pan F by the cutter. The pressure of bar L on the paper is regulated by adjusting-rods K. As bar G rises, the cutter is first lifted, then bar L, so that the fresh length of paper can be fed thereunder.

Having described my invention, I claim—

1. The combination of the cutter, the clamping-bar L, and the pan F, having a head *f* coacting with the clamp-bar, substantially as and for the purpose set forth.

2. The combination, in a printing-press, of the vertically-movable bar, the cutter secured thereto, and the brackets J J, the clamping-bar L and rods K and spring M, and the nuts *k* on rods K, all constructed and arranged as and for the purpose specified.

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

JOSEPH L. COX.

Witnesses:
A. E. DOWELL,
P. Z. BROOKS.