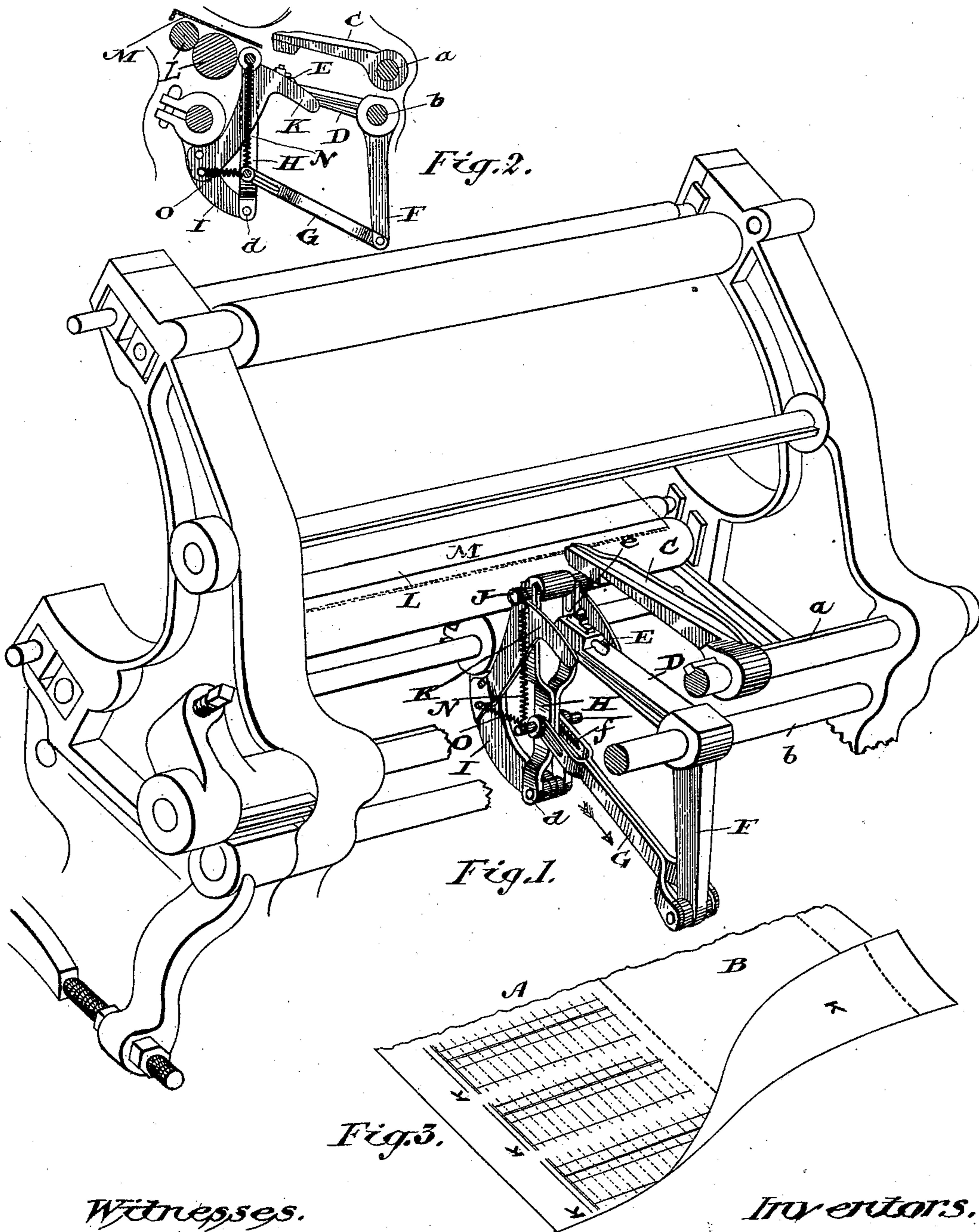


(No Model.)

E. CARNEY & J. H. DIXON.
PRINTING MACHINE.

No. 420,436.

Patented Feb. 4, 1890.



Witnesses.

L. B. Fehretonhaug
W. G. McMillan

Inventors.

Edward Carney
J. H. Dixon
By Donald C. Ridout & Co.
Attys.

UNITED STATES PATENT OFFICE.

EDWARD CARNEY AND JOHN H. DIXON, OF TORONTO, ONTARIO, CANADA;
SAID DIXON ASSIGNOR TO SAID CARNEY.

PRINTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 420,436, dated February 4, 1890.

Application filed November 1, 1888. Serial No. 289,734. (No model.)

To all whom it may concern:

Be it known that we, EDWARD CARNEY, printer, and JOHN HENRY DIXON, machinist, both of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have jointly invented a certain new and useful Improvement in Printing-Machines, of which the following is a specification.

The invention relates to that class of printing-machines designed to print an endless web of paper, and the object of the present invention is to arrange a device by which a number or symbol may be imprinted upon the reverse side of the endless web of paper at regular intervals without interfering with or in any way affecting the ordinary printing mechanism of the machine.

It consists in the peculiar construction, arrangement, and combination of parts herein after more particularly described, and then definitely pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of our improved printing attachment, sufficient of the printing-machine being shown to indicate its application. Fig. 2 is a side elevation of the said mechanism on a reduced scale. Fig. 3 is a view of a sheet of paper having a portion of it turned over to show the indicating number or symbol printed on its reverse side.

Black-leaf check-books now very extensively used in stores or shops are employed for giving each purchaser a memorandum of his or her purchase and to keep a duplicate of the said memorandum to be filed in the counting-house, and it is important that easy means should be devised for identifying the salesman writing the said memorandum. With that view it is customary to have a letter or symbol on the book by which the salesman may be known. The sheets forming the check-book are printed on an endless web, and are, after the printing, cut into sheets to form the book. Each sheet is made substantially like that shown in Fig. 3, one half A of the sheet having the name of the firm printed upon it and ruled and marked to receive the memorandum. The other half B is plain and is folded below the portion marked A, a black leaf being placed between the two halves, so that what is written on A

is transferred onto the portion marked B; and the object of our invention is to devise simple mechanism by which the number or symbol may be printed so as to appear on the top surface of the half B when folded below the half A, and with that view it is necessary to provide mechanism by which the said number or symbol may be printed on the side of the sheet opposite to that on which the bill-head is printed. As our invention only relates to this particular printing attachment, it is not necessary to show or describe the whole machine. It will suffice to say that the shafts *a* and *b* are caused to rock, so as to bring the ends of the arms C and D together at the same time that the bill-head is being printed on the sheet. The outer end of the arm C acts as a platen, and is located above the sheet of paper being printed, while the outer end of the arm D has a type-box E placed on it to receive the number or symbol. The arm F is fixed to the shaft *b*, and is connected by the rod G to a vertical bifurcated arm H, which is pivoted at *d* on the bracket I. The upper bifurcated end of the arm H has slots *e* made in it to receive the journals of the roller J, which journals extend over and rest upon the track K, attached to or forming part of the bracket I, as indicated.

L represents the ink-rollers which revolve while the machine is in motion.

M is an apron extending over the ink-rollers L and sufficiently beyond them to cover the roller J when it is held against the rollers L.

N is a spiral spring arranged, as shown, to elastically hold the roller J on the track K and against the type in the type-box E when the said roller is carried over the surface.

O is also a spiral spring, connected at one end to the bracket I and at the other end to the bifurcated arm H, the said spring N being designed to pull the bifurcated arm H toward the ink-rollers L when not otherwise acted upon. The web of paper being printed passes between the arms C and D, and during the period that the web of paper remains stationary to have the bill-head or other printed matter printed on its top surface the outer ends of the arms C and D move toward

each other until the type strikes the platen on the arm C, thus printing on the bottom surface of the paper the number of symbol desired. The moment that this is accomplished the ends of the arms C and D separate, the shaft *b* rocking so as to carry the arm D down, and as the arm F is attached to the same shaft it moves in the direction indicated by arrow and draws the bifurcated arm H toward it, thus carrying the roller J over the surface of the type-box E, and thereby conveying the ink from the roller L onto the type in the box E. When the arms move in the reverse direction, so as to once more print upon the bottom surface of the paper, the movement of the arm F permits the bifurcated arm H to be drawn back by its spring O until the roller J comes in contact with the revolving ink-rollers L. The slot *f* in the rod G permits the arm F to move a little distance before it again draws the bifurcated arm H toward it.

From this description it will be seen that the mechanism we have described is extremely simple and effectually accomplishes its object.

What we claim as our invention is—

1. In a printing-press, a type or embossing die supplementary to the ordinary printing mechanism and carried by an oscillating shaft and arranged upon the opposite side of the paper from that being printed by said ordinary printing mechanism, and a reciprocating inking device moving over said die, substantially as shown and described.

2. The combination of the arms C D, supplementary to the ordinary printing mechanism and arranged upon opposite sides of the path of the paper and carried by rocking shafts, the type-holder carried by the free end of one of said arms, and the supplemental inking device actuated by connection with one of said arms, substantially as shown and described.

3. The supplemental printing apparatus, consisting of the arms D and C and type-box E, carried on the arm D, which is fixed to the rocking shaft *b*, having an arm F connected to it, in combination with the pivoted arm H, connected to the arm F by the rod G and carrying an inking-roller J, the whole being arranged to operate substantially as and for the purpose specified.

4. The supplemental printing apparatus, consisting of the arms D and C and pivoted arm H, the spring N, arranged to elastically hold the roller J, and the spring O, arranged to elastically hold the pivoted arm H, in combination with the rod G, arranged to connect the pivoted arm H to the rocking arm F, a longitudinal slot being made in the said rod, so that the arm F may move a given distance without rocking the arm H, substantially as and for the purpose specified.

Toronto, October 22, 1888.

EDWARD CARNEY.
JOHN H. DIXON.

In presence of—

CHARLES C. BALDWIN,
W. G. McMILLAN.