(No Model.)

F. H. CROSS.

PRINTING PRESS FOR IMITATING TYPE WRITING.

No. 582,179. Patented May 11, 1897.

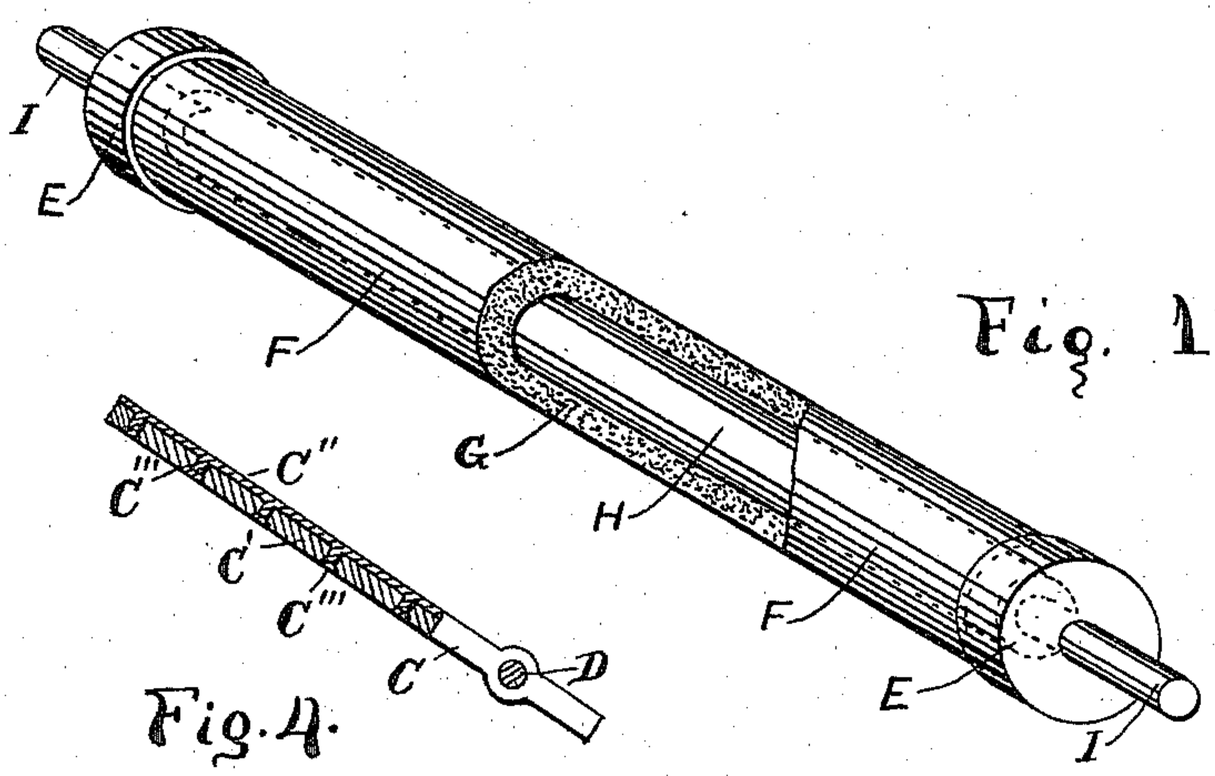

Fig. 1.

Fig. 4.

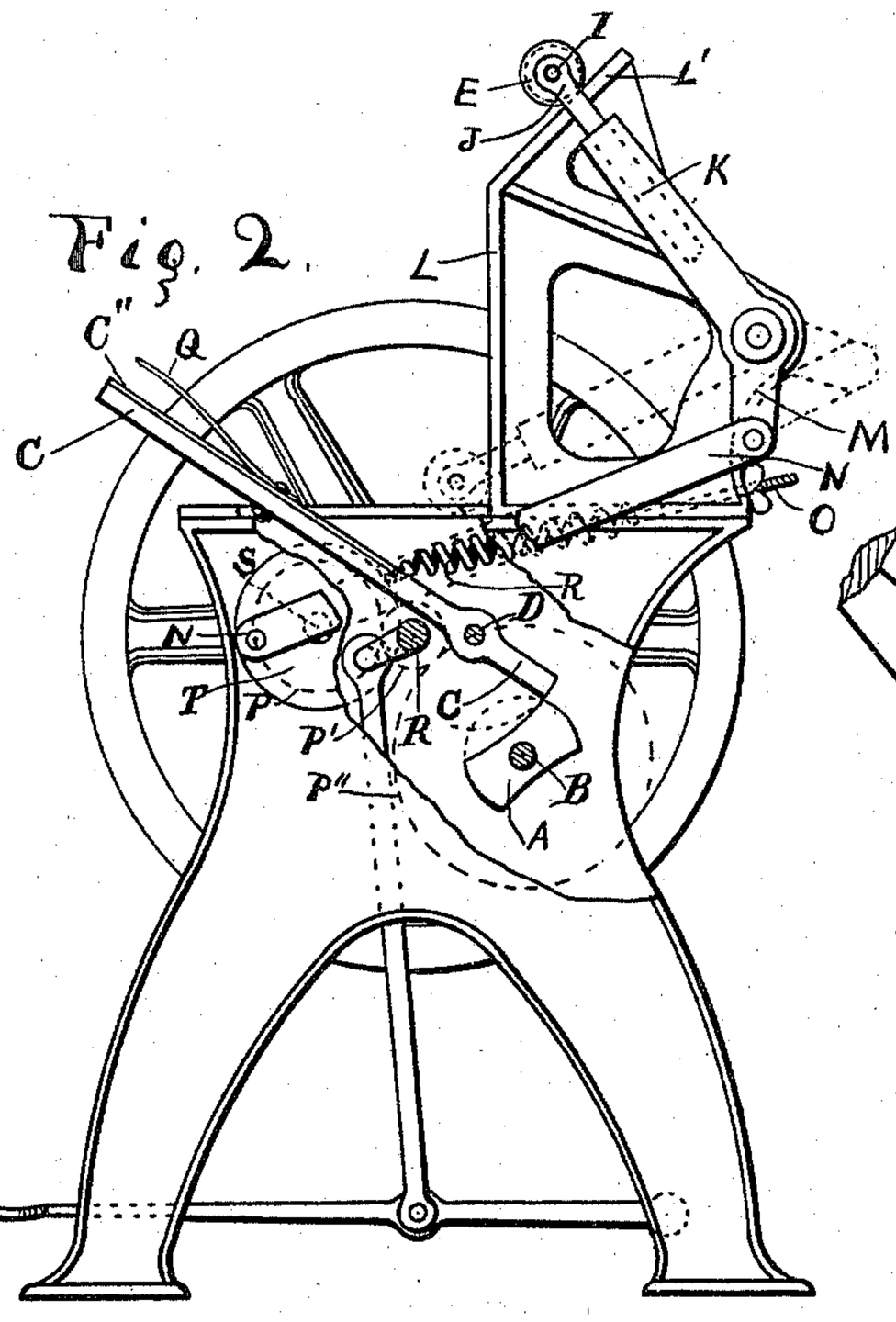

Fig. 2.

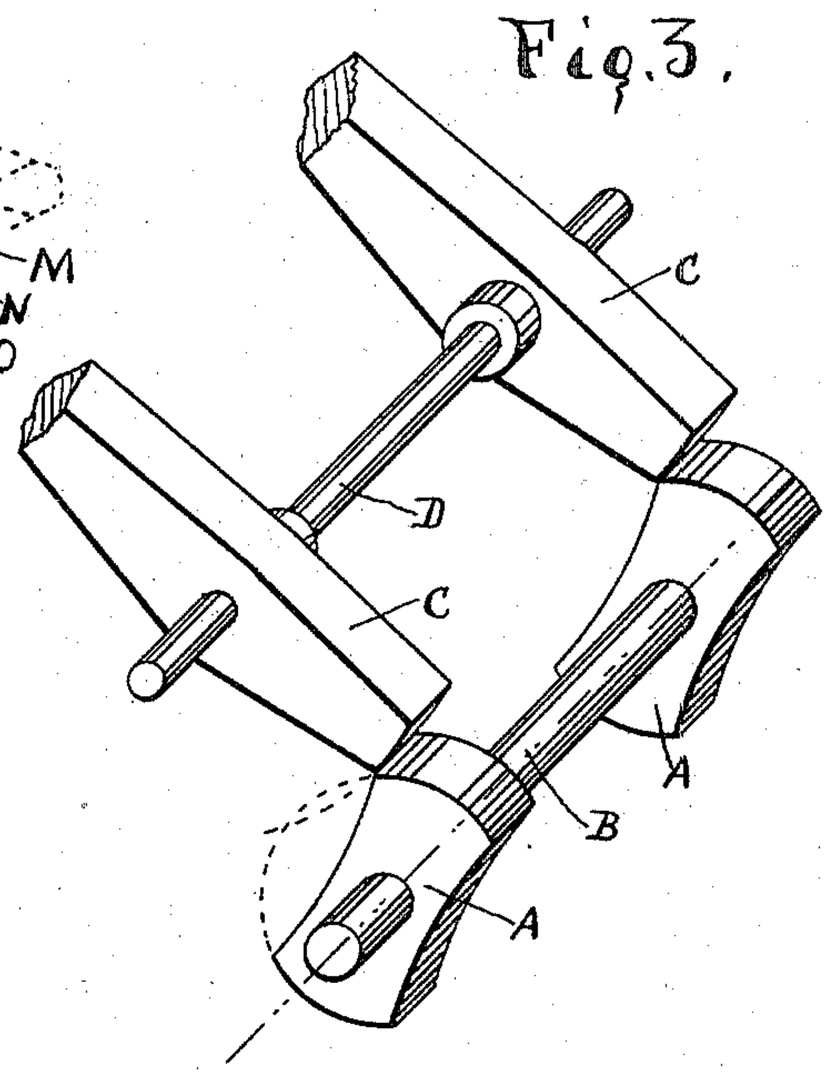

Fig. 3.

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PRINTING-PRESS FOR IMITATING TYPE-WRITING.

SPECIFICATION forming part of Letters Patent No. 582,179, dated May 11, 1897.

Application filed February 27, 1895. Serial No. 539,870. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. CROSS, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Printing-Presses for Imitating Type-Writing; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in printing-presses, and more especially to such presses for producing imitations of type-written matter; and its object is to provide the same with certain new and useful features hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a detail perspective, with parts broken away, showing the construction of the inking-roller; Fig. 2, a side elevation of a device embodying my invention, having parts broken away to show the construction; Fig. 3, a detail perspective showing the mechanism for operating the platen and; Fig. 4, a central vertical section of the platen, showing its construction.

Like letters refer to like parts in all the figures.

R is any suitable driving-shaft rotated by any suitable means, the shaft shown being provided with a crank, connecting-rod, and treadle. (Not lettered.)

B is a cam-shaft on which are oppositely-projecting cams A A, which cams engage the respective parallel arms C C, mounted on a rock-shaft D. Between said arms and connecting the same is a platen C′, having a rubber facing C″, secured by integral lugs C‴, having enlarged ends and passing through countersunk openings in the platen C′. Said facing may also be secured by dovetail tongues engaging corresponding grooves in said platen. Said facing is applied while in a plastic state and forced into said openings by pressure. A contractile coiled spring R is attached to each arm C and terminates in a threaded bolt O, passing through the frame of the machine and provided with an adjusting-nut, whereby the bolt may be longitudinally adjusted to determine the tension on the spring R.

L is a vertical bed to which the type is secured in the usual way, and against which type the platen is forced by the springs R. Springs Q, attached to the arms C, engage the bed L and hold the platen slightly removed from the surface of the type and prevent a rebound and second blow against the said type.

S is a shaft journaled in the frame and provided with crank-wheels T, having crank-pins N, connected by rods N′ to the lower arms M of pivoted levers K, in the upper ends of which levers are longitudinally-movable bearings J for the journals I of the ink-roller F, which roller is constructed of a central rigid and non-porous core H, having said journals I I at its ends and rolls E E adjacent to said journals and of greater diameter than said roll F.

G is a porous and absorbent inking body surrounding said core H and between the heads E and of slightly less diameter than said heads. The driving-shaft R is provided with a pinion P′, engaging gears P and P″, connecting said driving-shaft with the respective shafts B and S, and said gears and pinion are so proportioned and connected that the shaft B rotates twice to the shaft S once.

L′ is an inclined extension of the bed L and receives the roll F while the impression is being made.

As the shaft B revolves, the cams A engage the lower ends of the arms C and turn the platen back away from the type in position to receive the sheet to be printed. While the curved outer surfaces of the cams are traversing the ends of said arms the platen remains stationary in this position and the ink-roll traverses the type and inks the same. The said roll being porous is adapted to contain a large amount of suitable ink, and also does not require to be constantly inked, as does the usual printing-press roll, and it also applies the ink to the type in the peculiar manner necessary to imitate the type-writer impression. As the cams A release the arms C the springs R suddenly bring the platen in contact with the type, the resultant blow forming an impression exactly resembling

that made by the stroke of the type upon the paper in the process of the usual type-writing machine. This result is further assured by the facing C″ of the platen, which facing is of the same texture and elasticity of the roll of a type-writing machine.

What I claim is—

1. In a printing-press, pivoted arms, a platen supported by said arms, springs attached to said arms and forcing the same toward the type, buffer-springs to hold the platen away from the type, and cams to engage and move said arms away from the type, and suddenly release the same, substantially as described.

2. In a printing-press, the combination of a driving-shaft and means for rotating the same, a cam-shaft, cams on said shaft, a pitman-shaft, and crank-pins connected to the same, pivoted arms, an inking-roll connected to said arms, rods connecting said arms and crank-pins, a platen pivoted to contact the face of the type, springs attached to said platen, to move the same toward the type, and gears connecting the driving-shaft with the cam-shaft and pitman-shaft, substantially as described.

3. In a printing-press, the combination of a fixed bed to which the type is secured, a porous and absorbent inking-roll and mechanism for operating the same and a platen having an elastic facing, and mechanism for moving said platen away from the type and suddenly releasing the same, and springs for forcing said platen against the type, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK H. CROSS.

Witnesses:

LUTHER V. MOULTON,

M. C. WARE.