

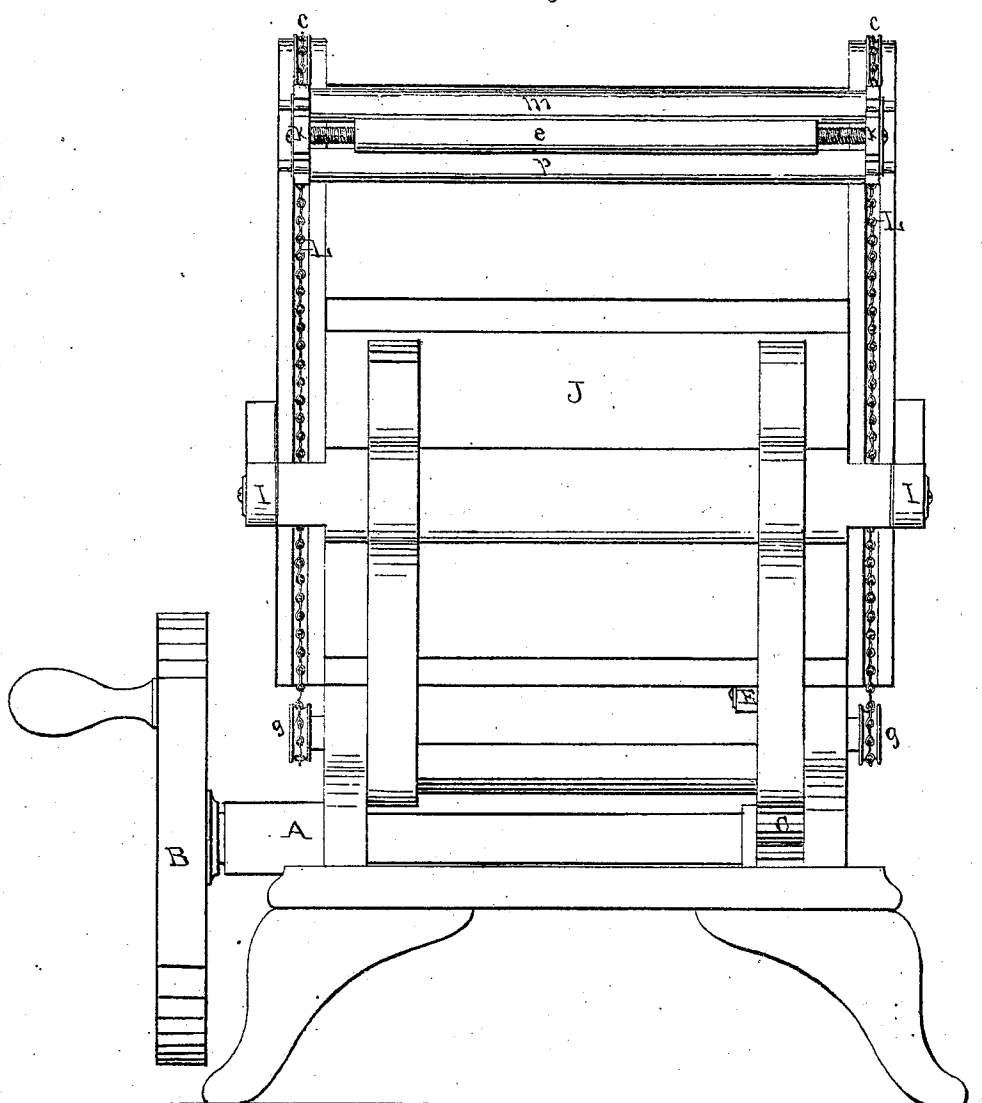
GEORGE W. PROUTY.

Improvement in Printing Presses.

No. 121,256.

Patented Nov. 28, 1871.

Fig. 1



WITNESSES

*Wm. T. Tidd.
John E. Kerane*

INVENTOR

George W. Prouty

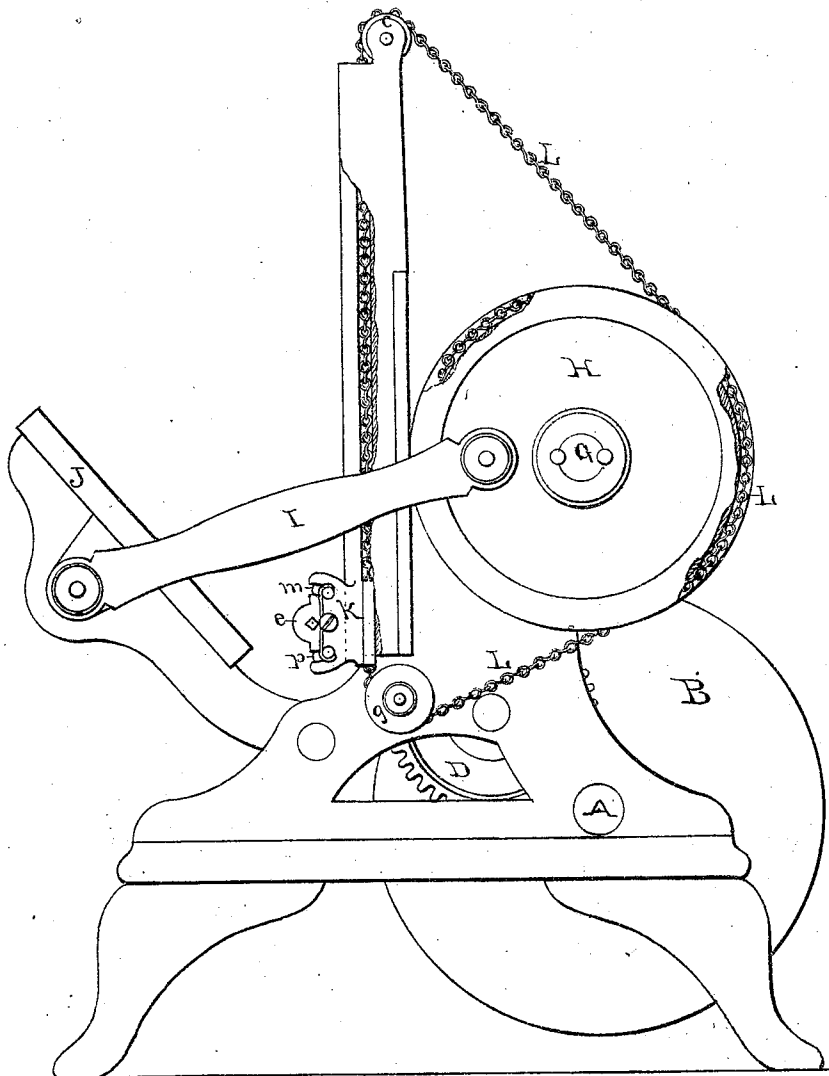
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Fig 2.



WITNESSES

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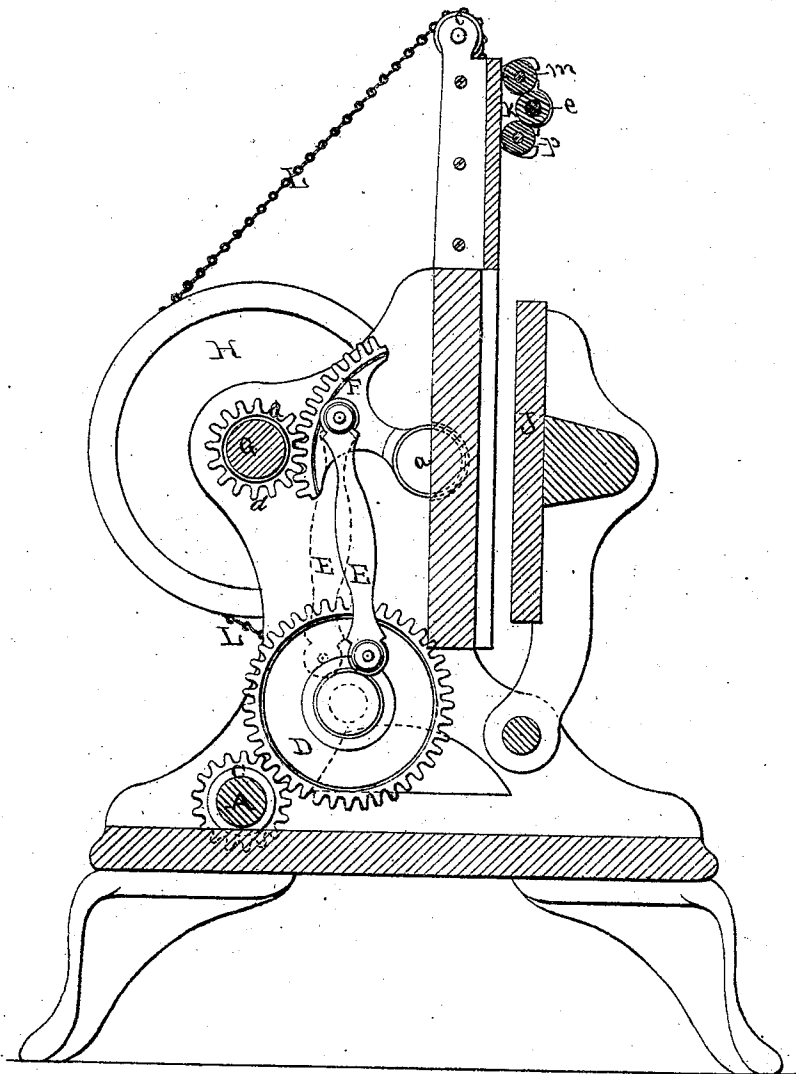
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Fig 3



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE W. PROUTY, OF CHARLESTOWN, MASSACHUSETTS.

IMPROVEMENT IN PRINTING-PRESSES.

Specification forming part of Letters Patent No. 121,256, dated November 28, 1871.

To all whom it may concern:

Be it known that I, GEORGE W. PROUTY, of Charlestown, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Printing-Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 represents a front-side elevation. Fig. 2 represents a side view with certain portions of the chain-wheel cut away to show the chain and the mode of connecting it with the other parts of the press. Fig. 3 represents a transverse section on the line A B of Fig. 1.

This invention relates to that kind of printing-presses which is generally operated by hand or foot-power, and wherein the oscillating or swinging platen is pivoted to the frame-work and operated by cranks and connecting-rods to give the impression. This invention consists of an arrangement and combination of gears and suitable connections for operating the crank-shaft which connects with and operates the platen, thereby imparting to the latter the regular motions, and a positive period of rest at each end of the stroke—that is, while taking the impression—and at the opposite end of the stroke sufficient time for the removal of a printed card or sheet and for replacing a blank to be printed, both periods of rest being about equal. In connection with the above-described mechanism, this invention consists of an arrangement and combination of chains and wheels for operating the inking-rolls and the distributing-roll, both ends of each chain being connected to the stands which carry the rolls, at opposite ends thereof, while the central portion of each chain or cord passes one or more times around a chain-driving wheel of suitable circumference to traverse the ink-rolls across the bed and the type and out of the way of the platen, the chain-wheels serving the twofold purpose of operating the ink-rolls and also the platen, and both receive their motion from the operating mechanism first above referred to.

In the drawing, let A represent the driving-shaft provided at one end with a crank or pul-

ley, B, and near the opposite end with a spur-pinion, C, which meshes into a spur-gear, D, arranged upon a stud, and all these have a continuous rotary motion. One end of a connecting-rod, E, is loosely pivoted or applied to a crank-pin projecting from the gear D. The upper end of the rod E is connected, by a similar crank-pin, to a segmentary-gear, F, moving on a stud, *a*. Above the shaft A is the chain-wheel shaft G, arranged in suitable bearings on the back of the frame-work. Near one end of this shaft G is a pinion-gear, *d*, the teeth of which intersect with the teeth of the segment F, which gives the pinion and its shaft and wheel their motion. On the opposite ends of the shaft G I secure the chain-wheels H, and to these wheels I pivot the arms I, which connect with and operate the platen J. Roller-stands K are arranged to move in vertical grooves formed in the front of the frame-work; and the inking-rolls *m* and *p* and the distributing-roll *e* are arranged in these stands in the usual way. Each chain-wheel H has a grooved rim sufficient to receive the chain or cord L, which passes one or more times around and is led in opposite directions, one end leading upward and over a pulley, *c*, thence downward and connected to the roller-stand K, the opposite end of said chain leading downward under a pulley, *g*, and upward, connecting with the roller-stand K, all as clearly shown in the drawing.

Rotary motion being imparted to the shaft A and pinion C causes the spur-gear D to rotate, and this operates the connection E and the segment F. The latter having a reciprocating or oscillating motion imparts the same motion to the pinion *d* and its shaft G, and the chain-wheels H thereon. Each motion of the chain-wheels and the connected chains carries the inking-rolls across the bed and the type first in one direction, then in the opposite direction, or upward by one motion and downward by the other. The periods of rest for the platen are predetermined and provided for by the connecting-rod E and by its pivoted connection with the gear D while passing over the center at each end of the stroke. The different positions of the connection E while passing the center of the upper stroke are clear-

ly shown in Fig. 3, one in full lines and the other in dotted lines. The connection E assumes the same positions on the lower stroke, which will be well understood by persons acquainted with this kind of machinery.

I claim as my invention—

1. The arrangement and combination of the pinion C, spur-gear D, connecting-rod E, segmentary-gear F, and pinion *d* with the shafts A and G, the chain-wheels H, and inking-roller carriage

K, all constructed, combined, and operating in the manner and for the purpose specified.

2. The combination of the gear D, the connection E, the segment F, the connecting-rod I, and platen J, as herein described.

GEORGE W. PROUTY.

Witnesses:

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