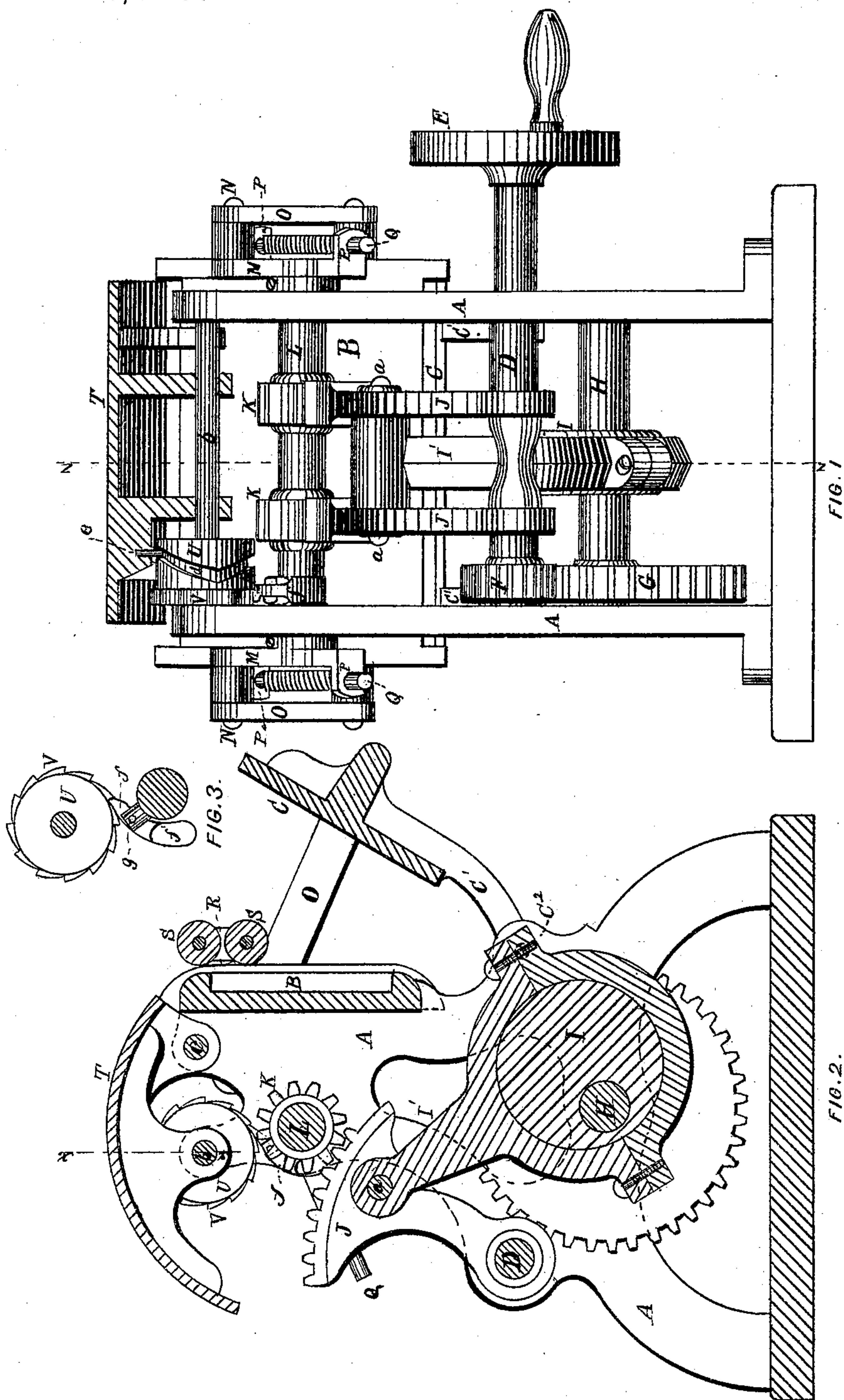


G. W. PROUTY.

Inking Apparatus for Oscillating Printing-Presses.

No. 141,077.

Patented July 22, 1873.



WITNESSES.

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GEORGE W. PROUTY, OF CHARLESTOWN, MASSACHUSETTS.

IMPROVEMENT IN INKING APPARATUS FOR OSCILLATING PRINTING-PRESSES.

Specification forming part of Letters Patent No. 141,077, dated July 22, 1873; application filed April 8, 1873.

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 Inking Apparatus for Printing-Presses, of which the following, taken in connection with the accompanying drawings, is a specification:

My invention relates to the ink-distributing table and the mode of operating it; and it consists, first, in giving to the ink-distributing table or surface an intermittent reciprocating motion transversely to the motion of the inking-rollers, said motion to take place while the inking-rollers are passing over the type-form, the ink-table remaining in a state of rest while the rollers are passing over it. My invention further consists in a peculiar adaptation of a cam, ratchet, and pawl for imparting a reciprocating motion to the ink-bed transversely to the motion of the inking-rollers, as will be more fully described.

In the drawings, Figure 1 is an elevation of the back side of the press with the ink-distributing table cut in section on line *x x* on Fig. 2. Fig. 2 is a vertical transverse section on line *z z*, Fig. 1; and Fig. 3 illustrates more clearly the device for imparting motion to the ink-distributing table.

A A are the side frames, to which the type-bed B is secured in a fixed position, and C is the platen, also secured to the side frames by its arms C¹ and studs or fulcrum-pins at C². D is the driving-shaft, mounted in suitable bearings in the frames A, and carrying the pulley E upon its outer end, by which motion is imparted thereto, and the pinion F meshing into and acting upon the gear G to revolve the shaft H, which has mounted thereon the eccentric I, the rod I' of which is connected, by its upper end, to the segments J J mounted loosely upon the driving-shaft D, in such a manner that they may oscillate thereon independently of the revolution of said shaft on its axis, said segments being connected together so as to move as one gear, and to the eccentric-rod I' by the pin *a*. The segments J J mesh into the pinions K K mounted upon the shaft L, which, in its turn, is mounted in suitable bearings in the frame A, and carries at either end the crank-plate M. Each of the

crank-plates M is provided with a crank-pin, N, by means of which and the connecting-rods O O motion is imparted to the platen C in an obvious manner, and also with two ears, P P, which serve as bearings for the rods Q Q, to the outer ends of which are pivoted the oscillating bearing-blocks R, in which are journaled the inking-rollers S S in a well-known manner. The segments J J are so arranged with relation to the pinions which they operate that they are in gear with said pinions during the greater part of their movement, but are disengaged therefrom during the latter part of their upward movement and the first part of their downward movement, for the purpose of allowing the platen to remain in a state of rest while the sheet to be printed is being placed thereon. T is the ink-distributing plate or table, shown as curved to the arc of a circle, but which can be made flat, if desired, mounted, by suitable bearings, upon the rods *b* and *c*, in such a manner that it may be moved thereon in the direction of their length. U is a short cylinder mounted on the rod *b*, and having a cam-path, *d*, formed in its periphery, into which fits a pin, *e*, set in the under side of the ink-table T. V is a ratchet-wheel formed upon or secured to one end of the cylinder-cam U, and *f* is a pawl for operating said ratchet-wheel, pivoted to a stud, *g*, set in the periphery of the rocking shaft L, in such a position that, as the shaft L rotates, the pawl *f* will come in contact with a tooth of the ratchet-wheel V just as the inking-rollers leave the ink-table and pass onto the type-form, the further movement of said pawl by the rotation of the shaft L causing the ratchet-wheel V and the cam U *d* to be rotated a short distance, and, by the action of the cam-path *d* upon the pin *e*, causing the ink-table to move transversely of the machine, in which new position it remains until the ink-rollers have passed up over the table and returned again to the type-form, when the same operation will be repeated. The point of the pawl *f* is kept in a position to insure engagement with the ratchet-wheel by means of a counter-weight, *f'*; or, instead thereof, a spring may be inserted under the forward end of the pawl in a well-known manner.

The ink-distributing table T is so mounted

on its slide-rods that it can move only in two directions, and those transversely to the motion of the inking-rollers; and said motion is variable and intermittent, it requiring several successive movements thereof to complete its motion in either direction.

I am aware that ink-distributing cylinders having a reciprocating and a rotary motion applied thereto have been used before; but, so far as my knowledge extends, no ink-distributing table or plate has been used having a series of successive intervals of rest and motion, alternating with each other in either direction transverse to the motion of the inking-rollers, and having no motion around an axis of revolution.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The ink-distributing table T, in combination with the cam U *d*, so arranged and operated as to impart to said ink-table a succession of rectilinear motions in one direction, and then a succession of similar motions in the opposite direction, substantially as described.

Executed at Boston this 4th day of April, 1873.

GEORGE W. PROUTY.

Witnesses:

DAVID T. PRAY,
S. A. WOOD.