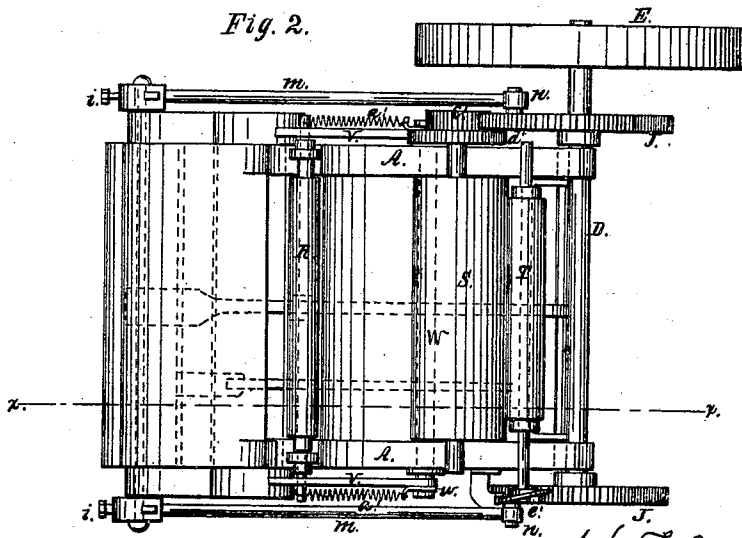
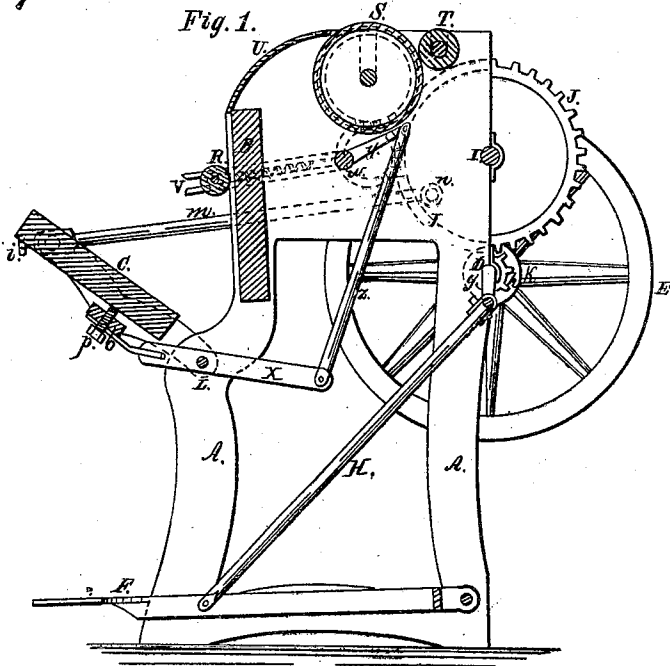


W. F. Morgan.
Printing Press.

Nº 99101.

Patented Jan. 25. 1870.



Inventor.
W. F. Morgan

Per

Attorneys.

Witnesses.

A. Bonneron & Co.
Alex. F. Roberts.

United States Patent Office.

WILLIAM T. MORGANS, OF YOUNGSVILLE, NEW YORK, ASSIGNOR TO HIMSELF, G. J. COLEMAN, AND C. H. SEDGWICK & SON.

Letters Patent No. 99,101, dated January 25, 1870.

IMPROVEMENT IN PRINTING-PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM T. MORGANS, of Youngsville, in the county of Sullivan, and State of New York, have invented a new and useful Improvement in Printing-Press; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to new and useful improvements in printing-presses, of the class designed for printing cards, hand-bills, &c., whereby they are greatly simplified and reduced in expense; and consists in the construction, combination, and arrangement hereinafter described.

In the accompanying plate of drawing—

Figure 1 represents a vertical section of the press, through the line *xx* of fig. 2, showing the general arrangement of parts and the method of operation.

Figure 2 is a top or plan view.

Similar letters of reference indicate corresponding parts.

A is the frame, by which the operating-parts of the machine are supported. The frame consists of two upright sides, which rest upon the floor, between which the bed is securely fastened and the rollers revolve.

B is the bed.

C is the platen.

D represents the driving-shaft, to one end of which the fly-wheel E is attached.

The shaft D may be revolved by any convenient power. In this example of my invention, the press is driven by foot-power, applied to a treadle, F, which is connected with a crank in the shaft, as seen in the drawing at *g*, by means of the connecting-rod H.

Immediately above the shaft D is another shaft, I, with a gear-wheel, J, on each end. This shaft I is revolved by pinion *k*, one or more, on the driving-shaft D.

The platen-frame is pivoted to the frame A, at the point L on each side, and the platen is oscillated and brought up to the bed for giving the impression by means of the rods M M, which are connected to the platen-frame by the pivot-pins, by which the platen is secured to the frame. The other ends of the rods M M are connected with the wheels J J by wrist-pins *n n*.

The ends which are connected with the platen-frame are slotted, and the pivots are contained in boxes, which are adjustable in the slots by means of the set-screws *i i*. By this adjustment, the platen is kept parallel with the bed, or may be made to give a stronger pressure and heavier impression at one side than the other.

There are also set-screws in the bar *o* of the platen-frame, which act against the lower portion of the

platen, by which that portion of the platen may be adjusted with regard to the bed. One of these set-screws is seen at *p*.

R represents the type-roller.

S and T are ink-distributing rollers.

The type-roller R is given a circular movement and traverses the bed B from a point below its centre, or as low as may be desired, upward, till it comes in contact with the roller S, from where it receives its ink.

Ink may be placed upon the curved surface U, over which the ink-roller passes, and from which it receives its supply of ink; but I prefer to take ink from the roller S, which may revolve in a fountain.

The type-roller R is given its traversing-motion by means of the arms V V, which are attached to the end of a cross-shaft, W, seen in dotted lines in fig. 2. This shaft is a rock-shaft, and receives its motion from an arm, X, which is attached to the cross-bar O of the platen-frame, and connected with the arm Y, on the shaft W, by the rod Z. This ink or type-roller R revolves on pivots in its ends, in slots in the arms V, as seen in fig. 1, and is held in position, and is allowed an irregular circular motion over the bed and curved surface U, by means of spiral springs *a'*, as seen in fig. 2.

The roller S is revolved from one of the wheels J, which engages with a stud-pinion, *c'*.

d' is a gear-wheel, on the end of the shaft of the roller S, which meshes into the pinion *c'*.

The stud-pinion is used for the purpose of throwing the roller-wheel *d'* nearer the frame, so that the arm V will pass over it.

The roller T is revolved by friction with S, with which it is brought in contact. Both rollers are dropped loosely on to their bearings in the top of the frame, from which either may be removed, by simply raising them.

The roller T is given a longitudinal motion, in addition to its rotary motion, by means of a perpetual screw on one end of its shaft, which works in a stationary slotted arm, seen at *e'* fig. 2. This motion is given for the purpose of more evenly distributing and spreading the ink on the roller S.

By this arrangement and combination of parts, a simple, cheap, and effective printing-press is produced, one not likely to get out of order, and admirably adapted to the purposes for which it is intended.

Having thus described my invention.

I claim as new, and desire to secure by Letters Patent—

Operating the type-roller R from the platen-frame, by means of the arms X and Y, rod Z, and arms V, substantially as described.

W. T. MORGANS.

Witnesses:

GEO. W. MABEE,
ALEX. F. ROBERTS.