2 Sheets—Sheet 1.

E. PROUTY.

Cylinder-Printing Machine.

No. 206,826. **Patented Aug. 6, 1878.**

Fig. 1.

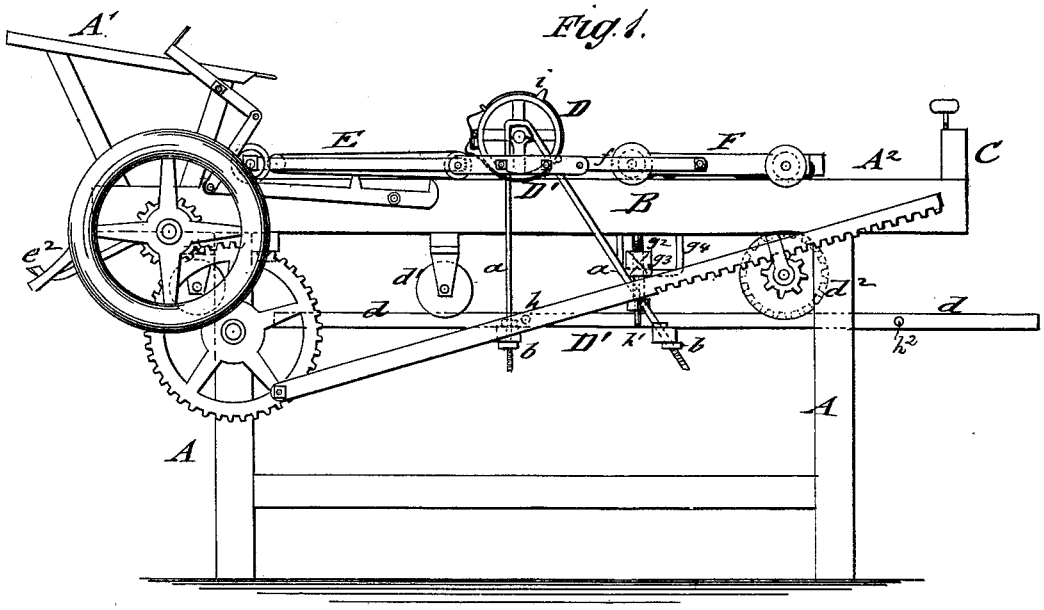
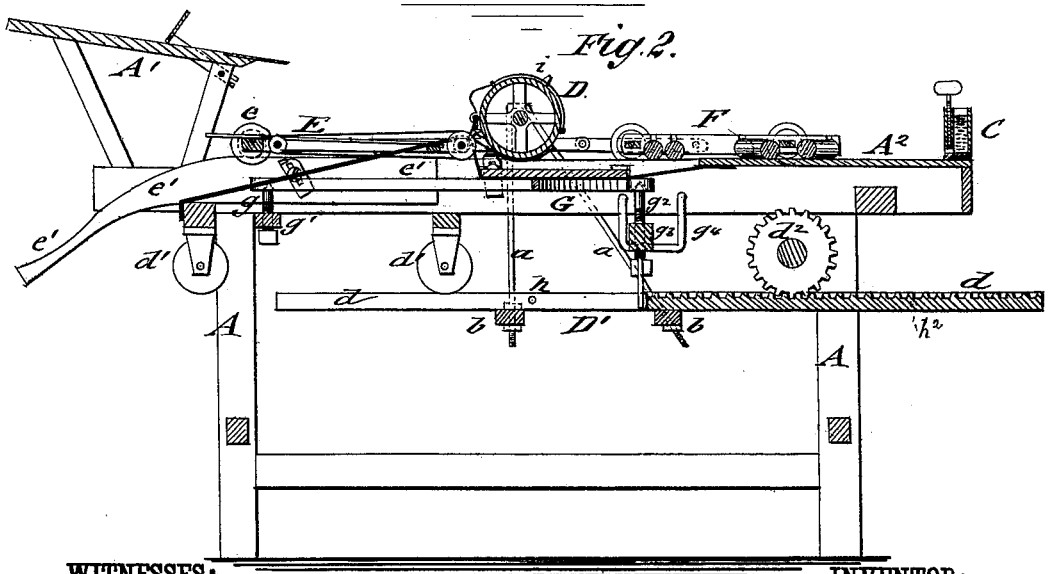


Fig. 2.



WITNESSES:

Francis. McArdle.

J. H. Scarborough.

INVENTOR:

E. Prouty.

BY Munn & Co

ATTORNEYS.

2 Sheets—Sheet 2.

E. PROUTY.

Cylinder-Printing Machine.

No. 206,826. Patented Aug. 6, 1878.

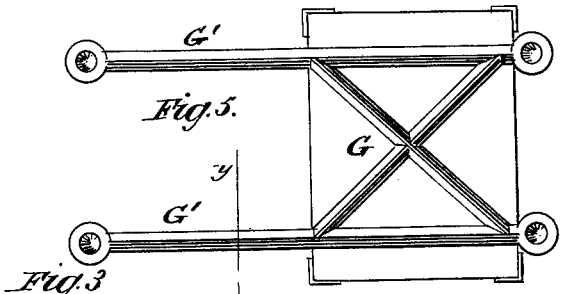


Fig. 3

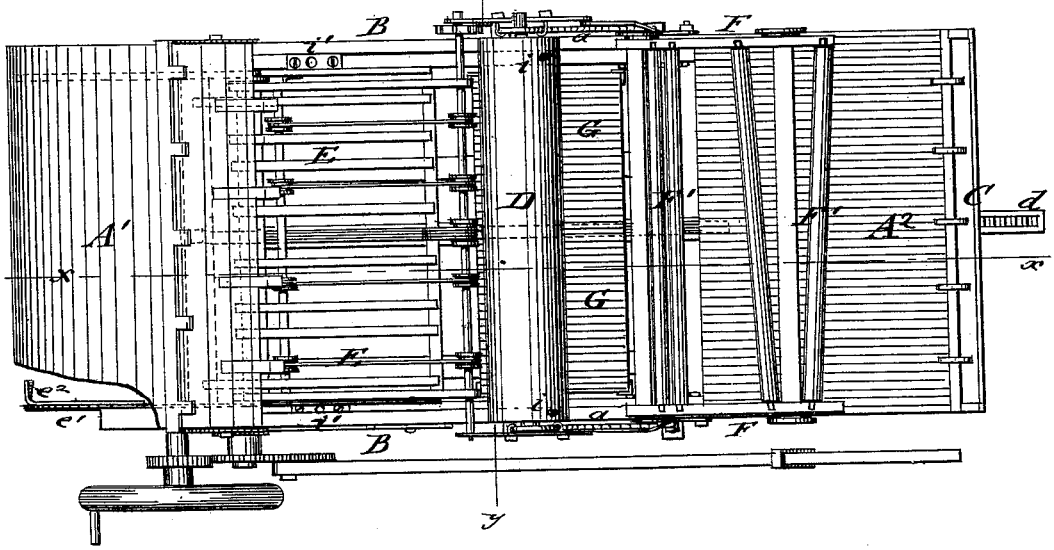
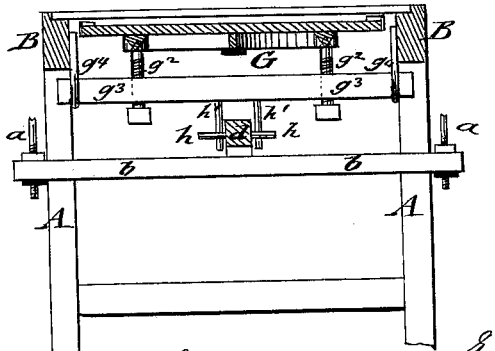


Fig. 4.



WITNESSES:

Francis. McArdle.

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INVENTOR:

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UNITED STATES PATENT OFFICE.

ENOCH PROUTY, OF BOSCOBEL, WISCONSIN.

IMPROVEMENT IN CYLINDER PRINTING-MACHINES.

Specification forming part of Letters Patent No. **206,826**, dated August 6, 1878; application filed September 29, 1877.

To all whom it may concern:

Be it known that I, ENOCH PROUTY, of Boscobel, in the county of Grant and State of Wisconsin, have invented a new and Improved Cylinder Printing-Press, of which the following is a specification:

In the accompanying drawings, Figure 1 represents a side elevation of my improved cylinder printing-press; Fig. 2, a vertical longitudinal section on line *x x*, Fig. 3; Fig. 3, a top view, and Fig. 4 a vertical transverse section of the same on line *y y*, Fig. 3; Fig. 5, a detail bottom view of the type-bed.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved cylinder printing-press, which is adapted as well for newspaper work as for job-printing, admitting the printing of large and small sheets with equal facility, and being therefore specially adapted for smaller offices in which printing of great variety has to be done.

The invention consists of a cylinder that revolves freely but tightly on the main track of the supporting-frame, turning in bearings or brace-rods that connect the cylinder with transverse bottom pieces of a reciprocating frame. To the reciprocating frame of the cylinder are applied at one side the fliers that deliver the printed sheets, and at the opposite side a carriage with the inking and distributing rolls. The cylinder takes up the paper from a feed-table and exposes it to the action of an oscillating type-bed that is raised and lowered by suitable mechanism.

Referring to the drawings, A represents the supporting-frame of my improved printing-press, which frame is of oblong shape and provided with longitudinal side rails B for the reciprocating parts. At one end of frame A is arranged, at some height above the frame, the inclined feed-table A^1, and at the opposite end the horizontal inking plate or table A^2, with the ink-fountain C, from which the supply of ink is regulated in the customary manner, by set-screws enlarging or diminishing the openings of the fountain. A cylinder, D, revolves in bearings of a reciprocating frame, D′, by which it is held together on the side rails B of frame A, so as to traverse forward and backward over the same. The frame D′ is constructed of side brace-rods *a*, that are screwed at the ends to cross-bars *b* affixed to a longitudinal rack-bar, *d*, that is guided along rollers d^1 at the under side of frame A, the rack-bar, and thereby the cylinder-frame, being reciprocated by a cogged roller, d^2, that engages the toothed end of the rack-bar, the shaft of the cogged roller receiving rotary reciprocating motion from a pitman and rack-bar, of which the latter is eccentrically and adjustably pivoted to the revolving crank-wheel operated by suitable gearing, by hand or steam power.

In place of the mechanism described any other approved reciprocating mechanism may be used, as I do not confine myself to the one shown in the drawings.

To the reciprocating cylinder-frame D′ is pivoted, at the side toward the feed-table, a flier-carriage, E, that travels by end rollers *e* on separate rails e^1, which are curved downward at the outer ends and provided with arms e^2 for engaging the oscillating fliers and depositing the printed sheets on a table below. To the other side of the cylinder-frame is connected by pivot-rods *f* the carriage F with the inking and distributing rollers F′. The carriage F runs by flanged wheels on the main track B of frame A, the distributing and inking rollers passing over the ink-table A^2, so as to take up the required quantity of ink for the type in the type-bed G. The type-bed G rests on levers G′, which are supported at the outermost hollowed ends on pointed adjustable screws *g* of a fixed cross-bar, g^1, while the opposite hollowed ends of the levers G′ rest on the pointed ends of adjustable screws g^2 of a movable cross-bar, g^3, that are supported in side staples or bands g^4 of frame A. The cross-bar g^3 slides by means of grooves on the horizontal part of the bands g^4, and tilts the screws g^2 into inclined position whenever projecting side pins *h* of the longitudinal rack-bar *d* engage downward-extending pins h^1 of the cross-bar g^3.

The type-bed is lowered by the action of the pins *h* of the rack-bar after the cylinder has made the impression. Pins h^2 on the rack-bar serve to raise the type-bed after the return motion of the cylinder, so that it shall be in position to be inked and for the next operation.

The oscillating motion of the type-bed, which swings on the supporting and fixed screw-points, secures the inking of the type and the printing of the paper at the proper time, and the lowering of the type-bed for the return of the cylinder. The cylinder D takes up the paper from the feed-table, when arriving below the edge of the same, by suitable griping devices attached to the cylinder, whose exact position at that point, for the effective taking hold of the paper, is secured by projecting cogs or pins i that enter registering-sockets i' between the main guide-rails and the rails of the flier-carriage, and produce the accurate position of the cylinder at the end of the frame.

The machine may be run at great speed, taking up the paper when the cylinder arrives below the feed-table, printing the same during the forward motion over the inked type-bed, and delivering it on the return motion to the fliers, which throw the paper off on a table at the end of the machine.

All kinds of work, large or small, may be done on the machine, the forms being firmly secured to the angle-irons of the type-bed, and the machine enabled to print sheets of all sizes, from newspapers of considerable size down to business circulars and cards, being thereby specially useful for smaller printing-offices.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of the type-bed G, levers G′, fixed supporting-screws g, rocking bar g^3, screws g^2, pins h^1, and the reciprocating frame having pins h h^2, with the reciprocating roller D, as and for the purpose set forth.

2. In a printing-press, the oscillating type-bed G, having levers G′, with fixed screw-posts g at one end and movable screw-posts g^2 and rocking bar g^3 at the other end, in combination with a mechanism, substantially as described, for raising and lowering the type-bed, and a reciprocating cylinder located above the latter, as and for the purpose set forth.

ENOCH PROUTY.

Witnesses:
O. E. FLINT,
W. W. HART.