G. W. PROUTY.

Ink-Fountain for Printing-Machines.

No. 220,547. Patented Oct. 14, 1879.

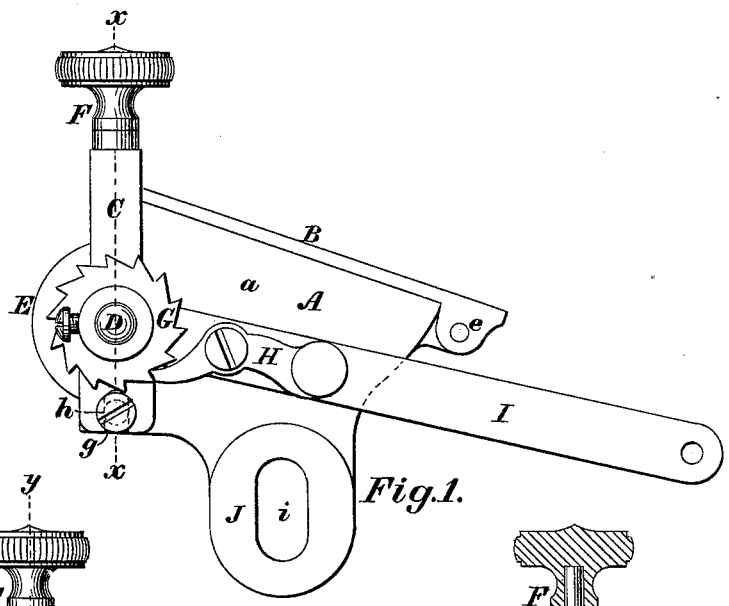

Fig. 1.

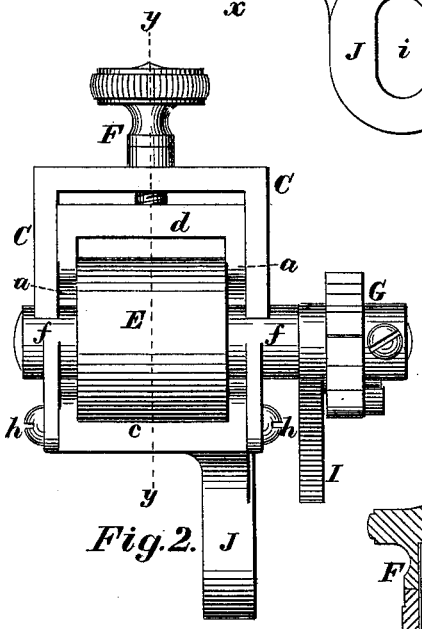

Fig. 2.

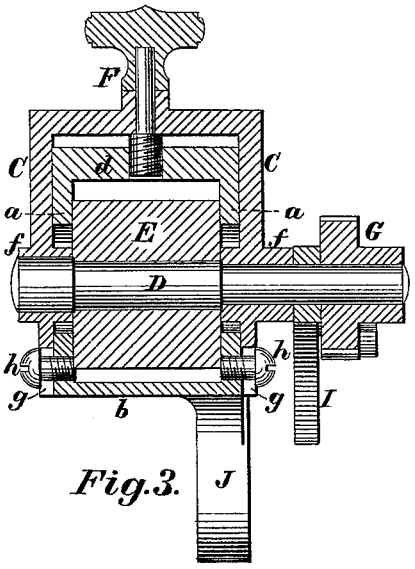

Fig. 3.

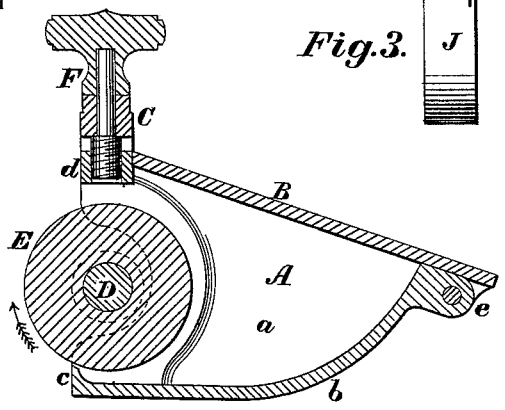

Fig. 4.

Witnesses:

E. A. Hemmenway.

Benj. Andrews Jr.

Inventor:

George W. Prouty

by A. G. Lombard,

Attorney.

UNITED STATES PATENT OFFICE.

GEORGE W. PROUTY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN INK-FOUNTAINS FOR PRINTING-MACHINES.

Specification forming part of Letters Patent No. **220,547**, dated October 14, 1879; application filed February 19, 1879.

To all whom it may concern:

Be it known that I, GEORGE W. PROUTY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Ink-Fountains for Printing-Presses, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to the construction of ink-fountains for printing-presses, and is designed to more perfectly control and regulate the delivery of the ink therefrom, and to render the fountain more readily and easily accessible for cleaning; and it consists in the combination of an ink-receptacle made with an open front end, and provided in the bottom of said opening with a thin upwardly-projecting straight-edged lip, cast with or forming a part of said receptacle; an ink-roll mounted in bearings in an independent bifurcated frame or yoke, detachably secured to said receptacle in such a position that said ink-roll shall close, or nearly close, said open end of the receptacle; mechanism for imparting to said ink-roll a motion about its axis; and means of adjusting said frame or yoke and the roll mounted therein, for the purpose of controlling the amount of ink to be delivered from the receptacle.

Figure 1 of the drawings is a side elevation of my improved ink-fountain. Fig. 2 is a front elevation of the same. Fig. 3 is a vertical section on line *x x* of Fig. 1, and Fig. 4 is a vertical section on line *y y* of Fig. 2.

A is the body of the fountain or ink-receptacle, composed of two vertical side walls, *a*, and a curved bottom, *b*, from the extreme front edge of which bottom rises the thin straight-edged lip *c*, the upper front corners of the side walls, *a a*, being connected by the tie *d*, all cast in one piece, said fountain having an open front end and an open top, which latter is closed by the lid or cover B, hinged at *e* to the fountain A, as clearly shown in Fig. 4. C is a bifurcated frame or yoke, each arm of which has formed thereon a boss or hub, *f*, in which the shaft D, having secured thereon the roll E, has its bearings, as shown in Fig. 3.

In the lower end of each arm of the frame or yoke C is formed an open slot, *g*, dividing said arm into two prongs, which embrace the screw or pin *h*, set in the lower front corner of the side *a* of the fountain, as shown.

F is an adjusting-screw mounted in the cross-bar of the frame C in such a manner that while it is free to be revolved it cannot be moved endwise therein, its threaded end engaging with a corresponding female thread formed in the tie *d* of the fountain A, so that by turning said screw the roll E may be moved toward or from the lip *c*, and thus control the amount of ink which shall be allowed to adhere to and pass out of the fountain upon the periphery of the roll E as it is rotated in the direction indicated by the arrow.

The shaft D has firmly secured to its outer end the ratchet-wheel G, with the teeth of which the toe of the weighted pawl H, pivoted to the radial arm or lever I, engages, as shown.

The arm or lever I is mounted loosely at one end upon the shaft D, and is connected at its other end by a suitable link or connecting-rod (not shown) to any movable part of the printing-press adapted to impart to said arm a vibratory motion about the shaft D, and thereby cause the roll E to be intermittently rotated about its axis and convey a given portion of ink adhering thereto outside of the fountain.

J is a slotted ear cast upon the fountain A as a means of securing the fountain in position on the press. A bolt (not shown) passing through the slot *i*, and screwing into some fixed portion of the frame of the press, effectually secures the fountain in position, while it may be adjusted within certain limits by loosening said bolt and raising, lowering, or turning the fountain thereon, and then screwing in the bolt again, to clamp the ear J hard against the portion of the frame to which it is attached.

The advantages of a fixed "doctor-plate" or scraper forming an integral part of the ink-receptacle, as herein described, are that it saves expense, prevents leakage of the ink, and renders the fountain less liable to get out of order and the cleaning of the same much easier.

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

1. The combination of an ink-receptacle

formed with an open front end and an ink-roll mounted in bearings in an independent bifurcated frame or yoke detachably secured to said receptacle, and adapted to revolve within and take up ink from said receptacle, and to be readily and easily disconnected therefrom, to render the ink-receptacle more easily accessible for cleaning, substantially as described.

2. The combination of the receptacle A, provided with the fixed doctor-plate or scraper *c*, bifurcated frame or yoke C, roll E, mounted in said frame in a position to revolve within and take up ink from said receptacle, and a single adjusting-screw, F, all constructed, arranged, and adapted to operate substantially as and for the purposes described.

3. In combination with an ink-fountain provided with a fixed doctor-plate or scraper, the pins *h*, set in opposite sides of the fountain, the bifurcated frame C, provided with slots *g g*, the ink-roll E, mounted in bearings in said frame and adapted to revolve within and take up ink from said receptacle, and the single adjusting-screw F, connecting said frame at the middle of its width and adapted to adjust said ink-roll bodily toward and from the doctor-plate, substantially as described.

Executed at Boston, Massachusetts, this 17th day of February, A. D. 1879.

GEORGE W. PROUTY.

Witnesses:
N. C. LOMBARD,
E. A. HEMMENWAY.