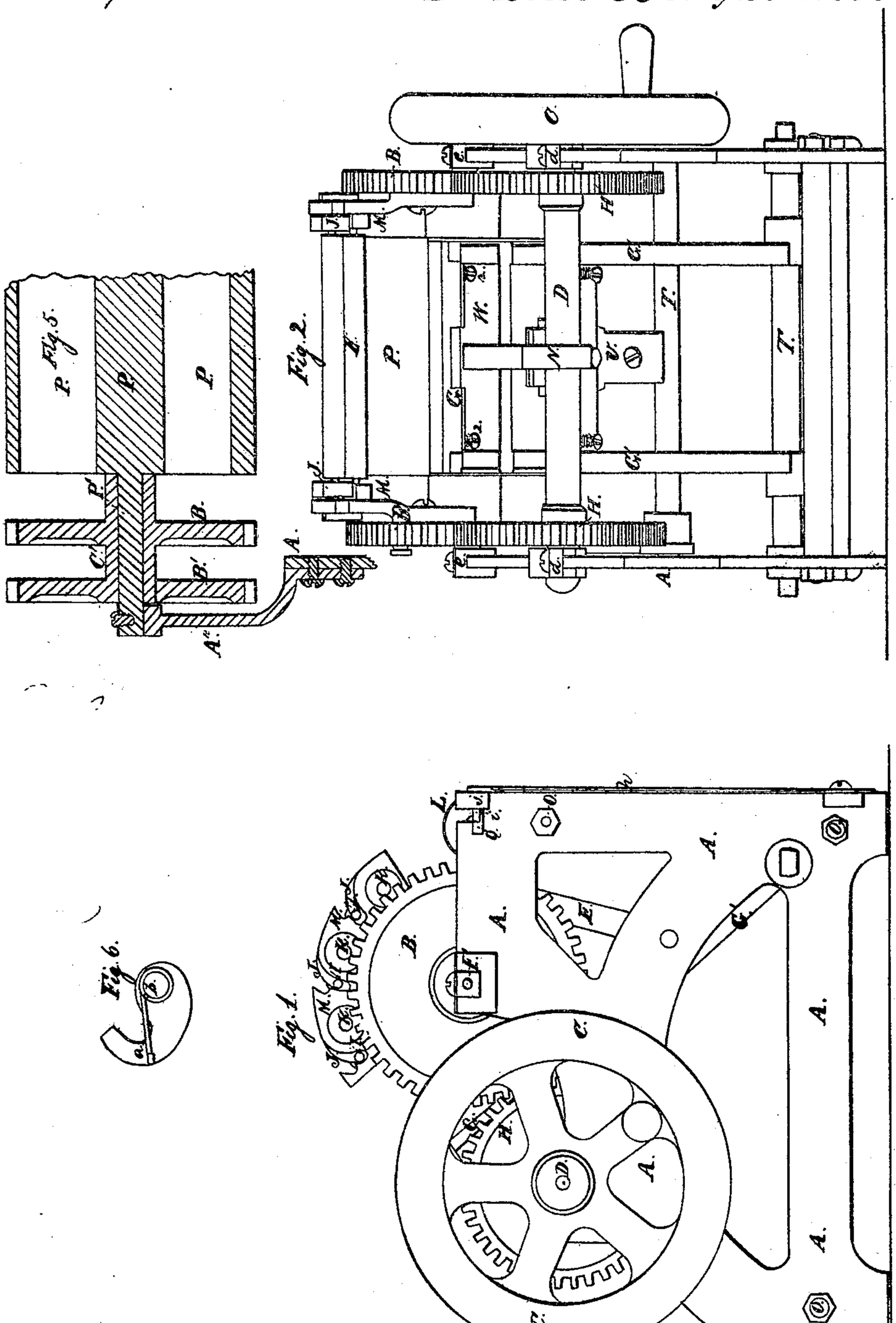
J. E. Priest. Sheet 1. 2 Sheets.

Printing Press

No. 29816. Patented Aug. 28. 1860



Witnesses.

Amos Broadnax

C. E. Gray

Inventor.

J. E. Priest.

Sheet 2. 2 Sheets.

J. E. Priest.

Printing Press.

No. 29816. Patented Aug. 28. 1860

Witnesses.

Amos Broadnax

L. E. Gray

Inventor

J. E. Priest

UNITED STATES PATENT OFFICE.

J. E. PRIEST, OF ST. LOUIS, MISSOURI.

PRINTING-PRESS.

Specification of Letters Patent No. 29,816, dated August 28, 1860.

To all whom it may concern:

Be it known that I, JOSIAH E. PRIEST, of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Printing-Presses; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making part of this specification, in which—

Figure 1 is a side elevation, Fig. 2 a front elevation, Fig. 3 a top view, Fig. 4 a section on the line A′ A′, and Figs. 5 and 6 are parts of the machine to be hereinafter explained.

The following description of my improved printing press will enable any one skilled in the arts to which it appertains to make and use the same.

Similar letters of reference represent corresponding parts of the different figures of the drawing annexed.

Upon the drawing A represents the frame of the machine which consists of two flat plates of iron, which are made in an irregular form, as shown, and secured to each other by means of studs or braces O O O. Across the upper part of the frame aforesaid, the cylinder P is placed, and fixed there by means of trunnions F cast on the said cylinder, or secured to it in some permanent manner. The said trunnions are fixed in the frame at *e* in a square box or bearing and secured by means of a screw, so that the said cylinder stands stationary in the top of the frame.

In front of the cylinder aforesaid and in the upper part of the frame the shaft D is placed, and on it the two cog wheels H H are fixed, in the relation shown. These two cog wheels mesh into corresponding wheels B B, which are placed upon and revolve around the trunnions of the cylinder. To each of the said wheels B a triangular plate M is fixed so as to revolve with the said wheels, and in the upper edge of the said plates small notches or recesses are made, which serve as journal boxes, for the journals of the inking rollers I I I, which reach from one of the said plates to the other and which revolve with them about the cylinder P. The journals of the inking rollers are held in their proper positions by means of dogs or clamps J, made in the form shown in Fig. 6, and the said clamps are secured to the plates M by means of a screw or pin K through each one of them, and to make these clamps perform their proper functions there is a small coil spring *b* wound around each one of the said pins or screws, as shown in Fig. 6. One end of the said spring—that is the end *b*—is fixed in the plate M, and the other end thereof is secured in the dog as shown, which causes the said dogs to press hard enough on the journals of the rollers to keep them in their proper places, and to cause them (the rollers) to hug the type as they pass over them upon their revolution around the cylinder.

Upon one side of the cylinder P a flat place is made, around the edge of which the "chase" *b* is fitted, so as to receive the type, which is to occupy the vacant space shown at P′. The chase above referred to for holding the type, is held in its proper position against the flat place on the cylinder by means of a screw through the top of the said chase and by means of a dove tail groove on the lower side of flat space on the cylinder, into which the said chase fits, as show in Fig. 4.

The "platen" plate upon which the card is printed is shown at G. The said platen is fixed upon the two radial bars G′ G′, the upper ends of which are united by means of a plate W made a part of the said bars, either by casting them with it, or otherwise. The printing table or "platen" aforesaid is thus fixed upon the plate W, through which adjusting screws are made to pass, and act against the said platen plate, that the face thereof may be brought parallel with the face of the type. The plate G vibrates about the shaft *m*, which is located across the bottom part of the frame in suitable bearing so as to support the bars G′ and form a center for them to vibrate about.

The roller L is for receiving and supplying the ink. It is placed upon a shaft Q across the top of the frame, and behind the cylinder P. One end of this roller is made oblique with its axis, so as to form a kind of cam, which works against the roller *t* placed upon a pin fixed in the arm *f*, and in the inside of the said roller a spring is fixed and so arranged, as to press the face of the cam against the roller *t*, whereby the roller L is thrown a given distance to and fro on the shaft Q every time it makes a revolution, which only occurs when the rollers I I

strike it. The object in making the roller L move to and fro endwise is to make it distribute the ink equally over the inking rollers. The shaft Q is fixed against yielding supports, so that the roller L can yield to the action of the rollers I, when they strike it in their course around the cylinder. The said yielding support consists of the spring *h*, fixed against the back part of the frame with the pin *i* in its upper end, so arranged as to pass through the projection *j* on the back part of the frame and thus against the end of the shaft Q.

The receiver and discharger is shown at U. It is fixed to the shaft T which reaches from one side of the frame to the other. The said receiver is made adjustable and is so arranged with reference to the "platen" G as to lie on it and rise with it up to the type bed, where it remains until the impression is made on the card, when instead of being allowed to commence to fall with the "platen" it is held in a given position by means of the lever E, which is fixed on the shaft T and which is acted upon by the pin H in the wheel B, whereby the "platen" is allowed to fall in advance of the receiver so as to allow the card to fall off of the "platen." The drag lever R is also secured to the shaft T, for the purpose of bringing the receiver back to the "platen" as soon as the pin H has passed the lever, and allowed the card to fall.

Upon the shaft D a cam N is secured for the purpose of moving the "platen" up to the type. The said cam acts against an anti-friction roller P″, fixed in the under side of the plate upon which the platen rests.

I design, in case I should find it desirable, to modify the construction of my machine, by lengthening the trunnion on one or both ends of the cylinder, as shown in Fig. 5, so that I can apply a longer sleeve C to the said trunnion, and thus get on an additional wheel or cam for the purpose of conveying motion to additional machinery in case I should need the use of it.

Thus much for the construction of my improved printing press. The following is the mode of operation: The machine being first put in motion the card is placed upon the "platen" G and against the receiver U, which holds it in the proper position until by the action of the cam N the platen has been pressed forward against the type so as to make the impression, the cam then commences to recede, and the platen to fall away from the type, and at the same time the pin H in the wheel B strikes the upper end of the lever E and raises the receiver off of the platen and thus releases the card, that it may fall to the ground.

What I claim as my invention and desire to secure by Letters Patent, is—

The use of the stationary cylinder P when, it is arranged and operated, with reference to the inking rollers I I I and distributing roller L in the manner shown and described.

J. E. PRIEST.

Witnesses:

AMOS BROADNEY,

C. E. GRAY.