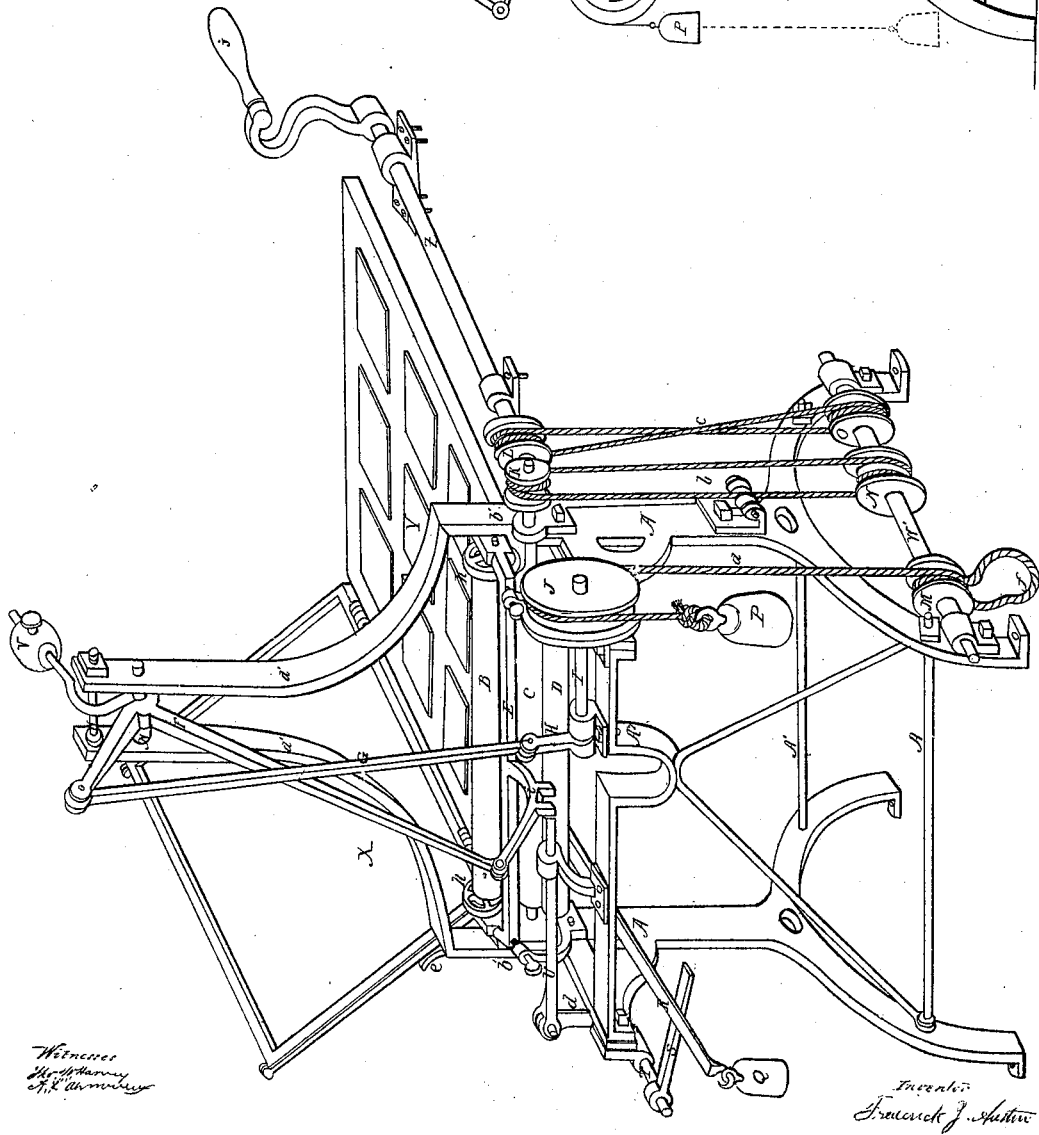
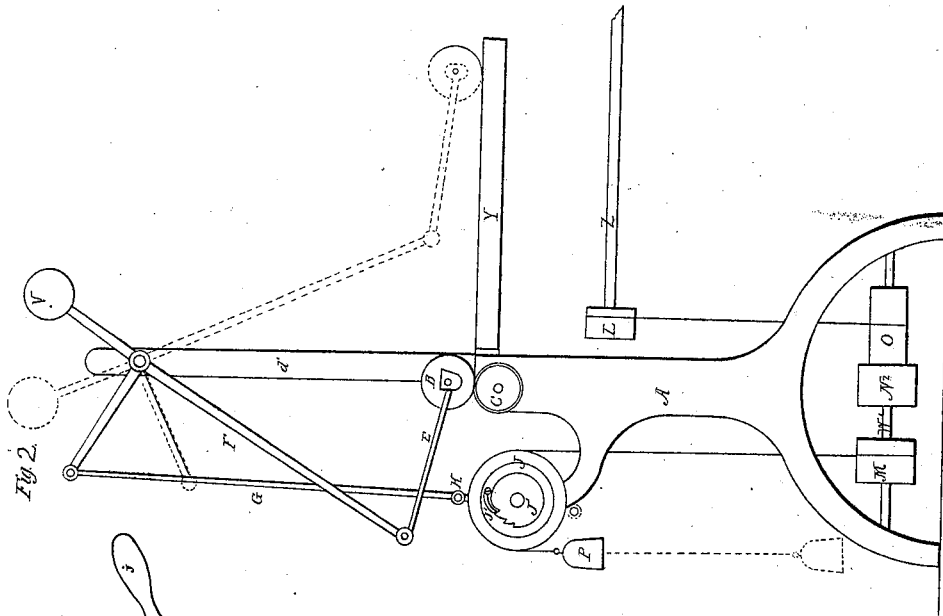


F. J. Austin Street 12, Streets.
Inking Type.
 N^o 1987. Patented Feb. 20. 1841.



Witnesses
Wm. H. H. H. H.
Wm. H. H. H.

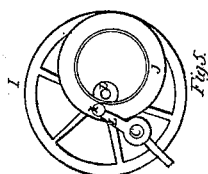
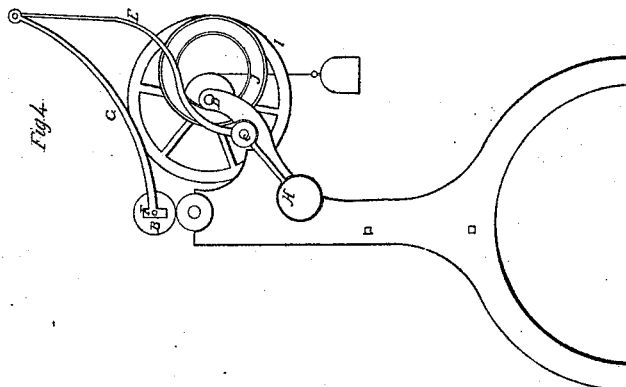
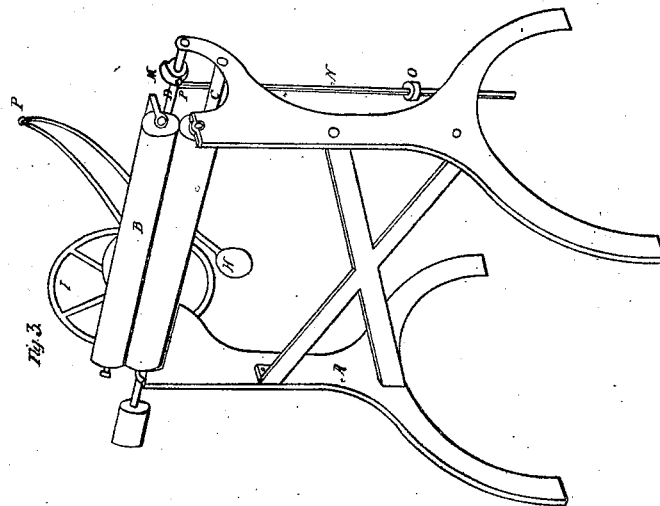
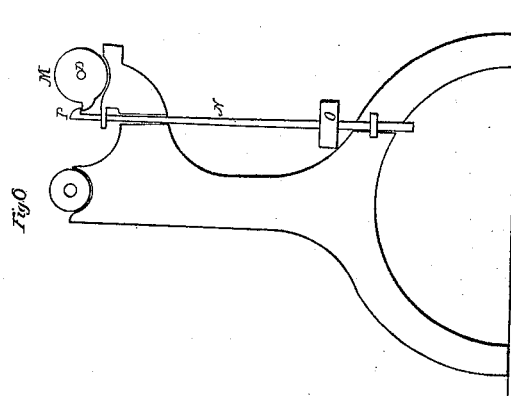
Inventor
Frederick J. Austin

Sheet 2. & Sheet 5.

Inking Type.

Nº 1987.

Patented Feb. 20. 1841.



Witnesses
J. H. Harvey
J. L. Ammons

Inventor:

Frederick J. Austin

UNITED STATES PATENT OFFICE.

FREDERICK J. AUSTIN, OF NEW YORK, N. Y.

MACHINE FOR INKING TYPE.

Specification of Letters Patent No. 1,987, dated February 20, 1841.

To all whom it may concern:

Be it known that I, FREDERICK J. AUSTIN, of the city, county, and State of New York, have invented a new and useful Improvement in Type-Inking Machines; and I do hereby declare that the following is a full and exact description thereof.

The nature of my invention is not dissimilar in its general appearance to the other inking machines in use for the purpose indicated by the style and name which I have given to my invention above, but consists in arranging the several parts of the apparatus with more compactness while it works with equal if not improved ease and precision and thereby occupying less space in a printing office when attached to a hand printing press.

To enable others skilled in the art of making and using my invention I will proceed to describe its construction and operation reference being had to the annexed drawings.

The sides of the machine marked A, A, are made of cast iron, spreading at the bottom in the form of an arch, to form the feet and give stability to the machine and rising from thence to the top in a suitable width and form to receive the rolls and other parts therewith connecting.

A' A' are round bars of iron of any size suitable for strength (in the present case $\frac{3}{4}$ of an inch are used) having a collar welded on near each end, (one inch and a half from the end), on the ends a screw is cut and a nut fitted, these screw ends pass through the sides and the nuts secure them fast against the collars and thus forming the frame of the machine.

a', a', are two standards or uprights made to correspond and fit to the top of the sides A A and are bolted fast to them, extending up straight, or in a line with the sides for about ten inches, then curving in toward the center so as to meet within about six inches at the top and there secured by a rod W made like the ones described above.

A² is a piece made of cast iron so as to fit at the ends to the sides A, A, and is bolted to them; this piece is about two inches wide, and in the middle is carried down about two inches, then forming a curve of two inches radius, and thus forming a space for the crank H to revolve in; on this piece is bolted the boxes or bearings, of a shaft I, one at the angle of the loop as seen at λ

and the other at the end hid by the pulley J in the drawing.

I is a small shaft which works in those bearings, having on one end of it a crank H which is keyed fast to the shaft, and on the other end a pulley J which is fitted loose on the shaft or so that it can turn one way without moving the shaft, this is a plain pulley, having on one side of it a recess turned in, into which a small ratchet wheel J' is fitted with a few teeth on its edge, that is to say, the shaft I, passes through the pulley J, and also through the ratchet wheel J', they being side by side on the shaft, the pulley J loose and the ratchet J' keyed fast to the shaft.

J² is a catch made in the usual manner for such purposes and screwed to the pulley J so as to slide over the ratchet wheel one way, but take hold of the teeth or ratchet when it moves the other.

W is a shaft having its bearings in the uprights a' a'; on this shaft is fitted the bent lever F, this lever I make of cast iron, enlarging it at the eye where the shaft W passes through it, and on which it works as a fulcrum; from this point or center of motion of the lever one arm Y of it extends down to, and takes hold of the tail piece of the roller frame, and the other arm X takes hold of the connecting rod G which is a straight piece of light iron connecting the arms X of the lever F to the crank H. The angle Y Z X of the lever is a right angle or nearly so; the roller frame E is similar to those used in other machines bent at each end so as to receive the roller (B which is a composition roll well known among printers) and from the center of it starts an arm, which I call the tail piece extending back and connecting to the lever F by a joint at Y.

C is a plain roller of wood and used for distributing the ink.

D is a small roll covered with cloth which presses against C and assists in the distribution of the ink.

T is a small shaft running across the side of the machine A having its boxes bolted to it. On one end of this shaft is an arm S which is a plain piece about six inches long with an eye at one end to fit the shaft to which it is keyed fast. On the other end of the same shaft is a similar arm but a little longer and set at nearly right angles to S. A part of this arm is seen at e with

the tympan resting upon it. There is also another arm similar to S on this shaft a part of which is seen at *d*. This arm takes hold of the clutch bolt U with a joint. This bolt is round and works freely through the guide *N*; the object of it is to take hold of a piece or sort of cam riveted on the roller frame and hold it in its place while the ink is distributed on the roll, and the weight P is wound up as hereafter described.

R is a lever attached to the ink trough, too well known in ordinary machines to need a description here.

Q is a weight hung to it to keep it resting upon S.

W' is a shaft stretching across the bottom of one of the sides to which its bearings are bolted having on it three pulleys M, N', and O.

K is a pulley on the journal of the distributing roll corresponding to the pulley N' and from which pulleys the cord *b* works reciprocally. A cord is wound around the pulley J, one end of which is made fast to the pulley M, and to the other is hung the weight P these parts being distinctly seen in Figure 2.

J represents the pulley, the while line the recess turned into it, and into which the ratchet wheel J' is fitted, both having their bearing on the same shaft, J² the catch that takes hold of the teeth of J' when the weight P acts upon it and as it descends it compels the shaft I to revolve as also the crank H one half revolution of which brings the connecting rod G, the lever F and the roller and frame E in the position marked by the dotted lines which operation throws the composition roll B over the form and the other half revolution brings it back.

The parts marked X Y and Z are parts of a hand printing press, set forth to show the mode of attaching the machine to the same.

Z is the runner shaft of the press with the pulley L fitted on one end of it. From this pulley runs a cord *c* to the pulley O, by which means the motion of the press puts the machine in motion.

V is simply a weight to balance the lever F and hold it in equipose as shown in the drawing.

h h are rollers placed on the roller frame to bear up the roller B as it passes over the frame.

In operating the machine the hand is applied to the runner crank *j* and turning it in the direction of the arrow (the cord *d* being tight or in a straight line from the pulley M to the pulley J and the weight P nearly down to the floor) and through the medium of the cord C the shaft W' is put in motion in the same direction and winds up the cord *d* around the pulley M and thus draws the weight P up to the position shown in the figures, then by a reverse turn of the crank *j* the cord *d* is unwound from the pulley M and left loose as seen at *f* the catch J² having taken hold of the ratchet J' holds the weight P up, the operator then raises the tympan X from the bed of the press or the form of type placed upon the bed Y and presses it upon the lever *e* carrying it back a few inches. This motion also carries back the arm *d*, which draws the clutch bolt U from the cam on the roller frame, leaving the roll B to be acted upon by the weight P through the medium of the crank H, the connecting rod G and the lever F as before described the weight P as it descends takes up the slack of the cord *f* and brings it straight ready to raise the weight as at first.

Fig. 1 was taken from the back of the machine and shows it with the roll just ready to pass over the form.

The proportions of the ink, composition of the rollers, and the general and common features of the machine so far as it respects the use and operation of the ordinary and well known inking machine requires no particular description here to make mine clearly known, but in the above description I have given many parts which are old and for which I do not claim novelty, those parts having been given in order to point out the parts I deem as new.

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

The peculiar mode of throwing the roller across the form by means of the lever F and connecting rod G combined and attached to the crank H on the shaft I of the pulley J; said pulley being operated upon by the weight P.

FREDERICK J. AUSTIN.

Witnesses:

GEORGE W. WICKS,
JOHN E. ANDERSON.