J. M. Wilbur.

Printing Press.

No. 71103. Patented Nov. 19. 1867.

Fig: 1.

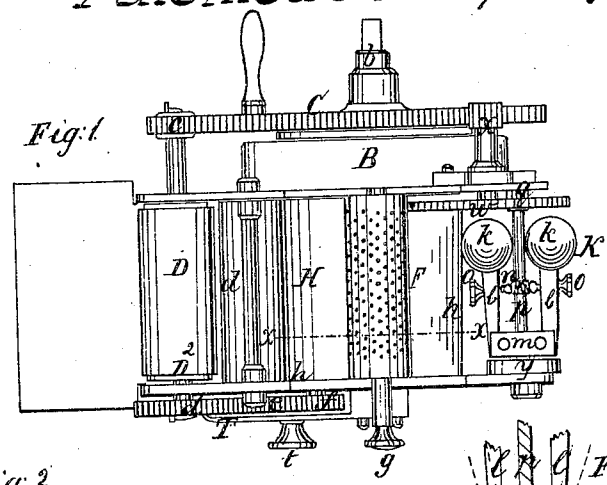


Fig: 6.

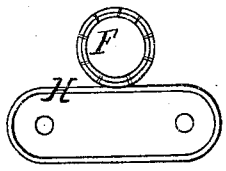
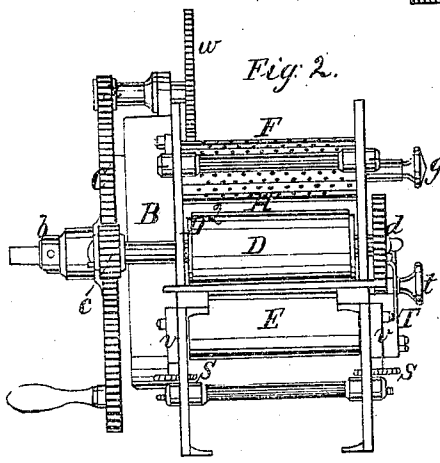


Fig: 2.



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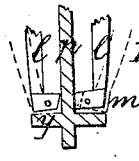

Fig: 4.

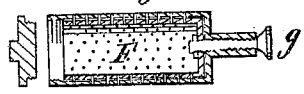

Fig: 3.

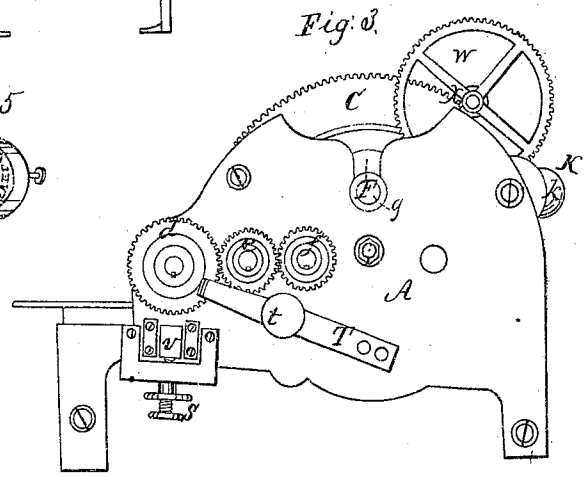

Fig: 8.

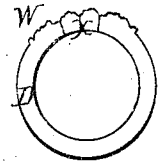

Fig: 5

Witnesses;

Geo Hester

Geo. W. Tibbits

Inventor;

J. M. Wilbur

United States Patent Office.

J. M. WILLBUR, OF CLEVELAND, OHIO.

Letters Patent No. 71,103, *dated November* 19, 1867.

IMPROVEMENT IN PRINTING APPARATUS.

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, J. M. WILLBUR, of Cleveland, county of Cuyahoga, in the State of Ohio, have invented a new and improved Automatic Cylinder Rotary Printing-Press; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a plan view.

Figure 2 is an end elevation.

Figure 3 is a side elevation.

Figure 4 is a sectional view of the ink-holder.

Figure 5 is a detached view of a stereotype-cylinder, with changeable types for changing dates, as in post-office and revenue stamps.

Figure 6 is a section of endless belt and ink-holder, taken on line *x x* of fig. 1.

Figure 7 is a longitudinal cross-section of the governor, levers, and plate, showing the mode of operation in the dotted lines.

Figure 8 is a cross-section of the cylinder D, showing the mode of changing dates.

The nature of this invention relates to the construction of a small printing machine which may be self-operating, it having a spring and clock-work movement attached, which may be wound up and employed to run said machine. This machine has removable cylindrical stereotype plates, which enable it to be used for a variety of small job work, such as cards, circulars, envelopes, bill-heads, druggists' labels, and so forth. The cylindrical stereotype plates may also have changeable types for changing dates, as in post-office or revenue stamps, which enable it to be used for post-office letter-stamping and cancelling.

The following is a description of the machine, and its manner of operation.

A is a frame, which supports all the mechanism. B is a case or chamber attached to one side of the frame, which contains a coiled spring, employed as the motive power for running the machine, and is secured to the shaft *b*; and upon this shaft is placed the driving-wheel C, which connects with the small wheel *c*, and runs the other machinery through the gear-wheels *d*, *e*, and *f*. D is a cylindrical stereotype plate, which is first cast flat and afterwards bent and formed into a cylinder, and may be placed upon the roller D^2, and being removable, gives opportunity for doing a variety of printing. The circumference may have any reading matter upon it. The said type-cylinder may also be arranged with changeable type, (see fig. 5,) for changing dates for stamping and cancelling purposes. Underneath the cylinder D there is an adjustable impression-cylinder, E, there being adjustable journal-boxes *v v* and set-screws *s s* attached to the frame A for that purpose. F is an ink-holder or reservoir, and consists of two cylinders, (see fig. 4,) one fitted closely inside of the other, each being perforated alike. In one end of the outside cylinder there is a set-screw, *g*, by which the inside cylinder may be made to slide lengthways, and cause the openings in the two cylinders to be opposite, and open through or closed, as may be desired, to regulate the supply of ink. Underneath this ink-cylinder is an endless belt, H, of cloth, covered with rubber or other suitable material, and which is placed upon the two rollers *h h*. This belt is used as an ink-distributing surface, and between it and the type-cylinder D is placed an inking-roller, J, for inking the type on the cylinder D. K is a device for regulating the motion of the machine, and consists of two balls, *k k*, attached to the levers *l l*, which are pivoted to the cross-bar *m*. Between the levers *l l* there is a spiral spring, *n*, attached to the set-screws *o o* in the levers, by which the levers may be adjusted to control the spread of the balls when revolving. This device is placed upon the shaft *p*, which derives its motion from the pinion *q*, turned by the wheel *w*, which is connected by the shaft and pinion *x* with the main driving-wheel C. It will be seen that when revolving, the balls *k k*, by the centrifugal force, are inclined to spread, by which the levers *l l* are made to bear against the plate *y*, (as shown in fig. 7 in dotted out lines,) which causes sufficient friction to regulate the motion of the machinery, as the power of the coiled spring is greater when coiled up than when nearly uncoiled. T is a brake upon the side of the frame, having a thumb-screw, *t*, which may be used to bear against the wheel *d*, and stop the machine whenever desired.

This machine is very useful for printing small job work, as the stereotype cylinders may be readily removed and others placed instead by having the roller arranged so as to be taken out; and by having changeable types for changing dates, may be useful for cancelling and stamping letters and papers in post offices.

The journals D^2 of the roller D may be placed in boxes set in springs, so as to yield to the inequalities that may arise while stamping letters or papers of unequal thickness.

By the use of this machine for post-office stamping and cancelling, purposes there would be a great saving of labor, and the work would be much more perfectly done, as the impressions would be clean and perfect, as the ink is well distributed and the plates are well inked.

Having thus described my invention, what I desire to secure by Letters Patent, is—

1. I claim the governor-device *k*, constructed in the manner described, to operate as and for the purpose set forth.

2. I claim the cylindrical ink-holder F, constructed in the manner described, to operate in the manner shown, as and for the purpose set forth.

3. I claim the driving mechanism, when regulated by the governor-device *k*, constructed as described, and combined with a printing machine, substantially as and for the purpose set forth.

4. The cylindrical removable stereotype D, provided with the changeable dating-type X and permanent inscription W, when used in combination with the automatic printing machine described, as and for the purpose set forth.

J. M. WILLBUR.

Witnesses:

GEO. HESTER,

GEO. W. TIBBITTS.