H. C. Chandler

Printing Press.

No. 70524. Patented Nov. 5. 1867.

Fig 1

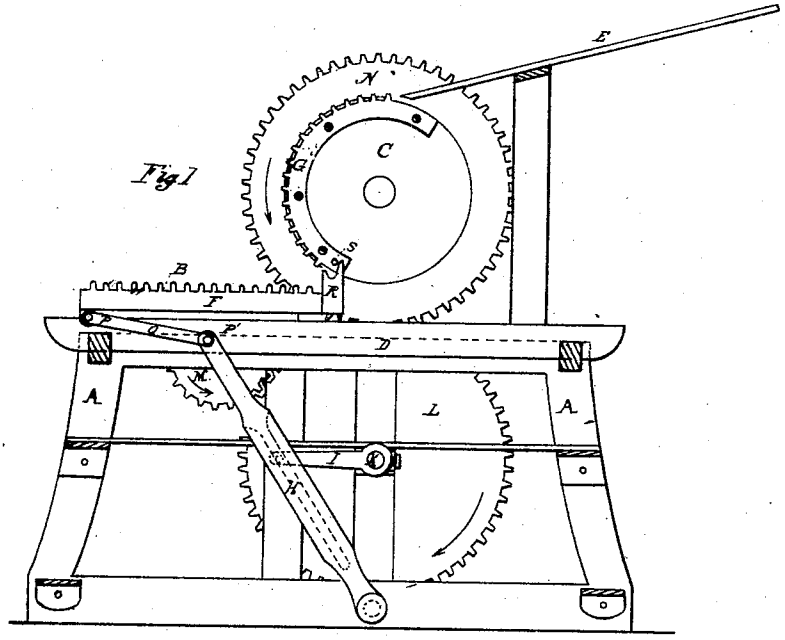
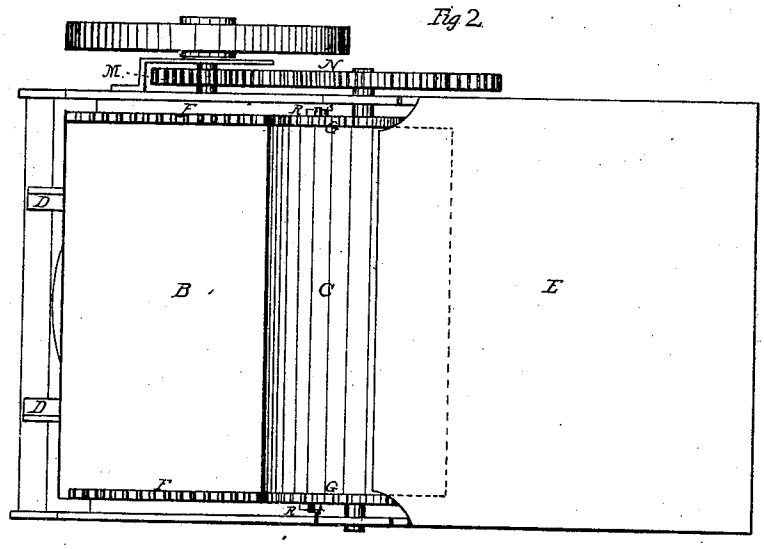


Fig 2.



Witnesses:

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C. F. Mayhew

Inventor:

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United States Patent Office.

HENRY C. CHANDLER, OF INDIANAPOLIS, INDIANA.

Letters Patent No. 70,524, *dated November* 5, 1867.

CYLINDER PRINTING-PRESS.

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, HENRY C. CHANDLER, of Indianapolis, in the county of Marion, and State of Indiana, have invented new and useful Improvements in Cylinder Printing-Presses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification.

My invention relates to the mode of reciprocating the form-bed of printing-presses of the kind known as cylinder presses; and consists in the employment of segmental cog-bars on the ends of the revolving impression-cylinder, which engage with straight cog-bars on the ends of the bed, to carry it under the cylinder in the process of making the impression, by which their conjoint movement is effected with greater precision, and the liability to make blurred or imperfect impressions lessened, and also in giving the bed a quick return-movement by means independent of that which carries it under the impression-cylinder.

Figure 1 is a vertical longitudinal section, and

Figure 2 is a top view of the press.

A is the framework; B the form-bed; C, impression-cylinder; D, carriage-way, and E the feed-board; all of which may be constructed and arranged in any manner common or applicable to presses of this kind. Other parts of the press, not having any particular relation to my invention, are not shown, in order that my improvements may be more clearly exhibited. G are segmental cog-bars attached to the ends of the impression-cylinder C, and F are straght cog-bars attached to the ends of the form-bed B. These cog-bars are arranged in the proper position and relation to engage with each other and carry the bed B under the impression-cylinder at each revolution. In order to provide for the easy and certain engagement of the segmental cog-bars G with cog-bars F, the latter are furnished with notched standards R at their rear ends, with which pins S, in the ends of the cylinder, engage as it revolves, and start the bed on its backward movement. The return of the bed with a quick movement is effected by means of the vibrating arm H, actuated by crank I on shaft K of cog-wheel L, which is intermediate of the driving cog-wheel M and cog-wheel N on the shaft of the cylinder C. The dotted lines on arm H indicate a groove on the opposite side, in which the wrist-pin of crank I travels. The upper end of arm H is connected to the bed by bars O hinged at P P′, as shown.

Motion is imparted to the several parts of the press by power applied to a pulley on the shaft of cog-wheel M, from which it is transmitted to cog-wheel L, and thence to cog-wheel N, on the shaft of the cylinder C. The drawing represents the position of the several parts just before commencing the backward motion of the bed under the cylinder. Pins S engage with standards R and start the bed back, bringing it into position for the cogs of segmental bars G to engage with the cogs of bars F, by which the bed is carried under the cylinder at the time of making the impression. At the termination of the stroke the wrist-pin of crank I, which has, in the action above described, been revolved to a position nearly opposite that shown, engages with the arm H, and returns the bed forward with a quick movement. The arrows indicate the direction of revolution. It is essential to the harmonious movement of the several parts that cog-wheels L and N be of the same diameter or number of cogs.

A marked advantage of my invention consists in the comparative exemption from liability to make blurred or imperfect impressions, in consequence of the peculiar mode employed for the conjoint and reciprocal action of the bed and impression-cylinder, and which also enables me to dispense with much of the complicated and expensive machinery usually employed for this purpose.

I claim moving the bed B under the impression-cylinder C, at the time of making the impression, by means of the pins S and standards R, segmental cog-bars G, and cog-bars F, in combination with the devices for giving the return-movement to the bed by means independent of that which carries it under the cylinder, in the manner substantially as set forth.

HENRY C. CHANDLER.

Witnesses:

JAS. N. MAYHEW,

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