4 Sheets—Sheet 1.

W. H. WOODCOCK.

PRINTING-PRESS.

No. 189,829. Patented April 17, 1877.

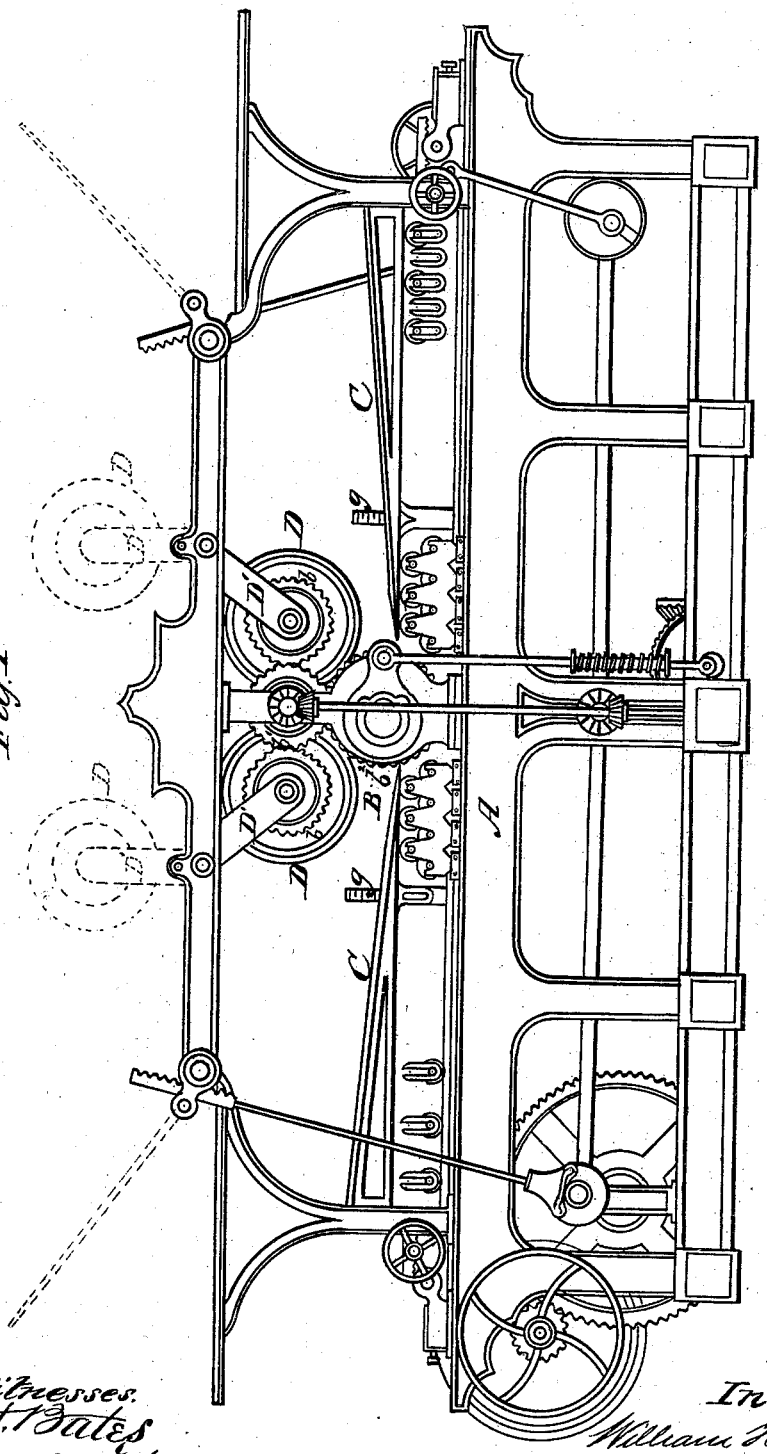

Fig. 1

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4 Sheets—Sheet 2.

W. H. WOODCOCK.

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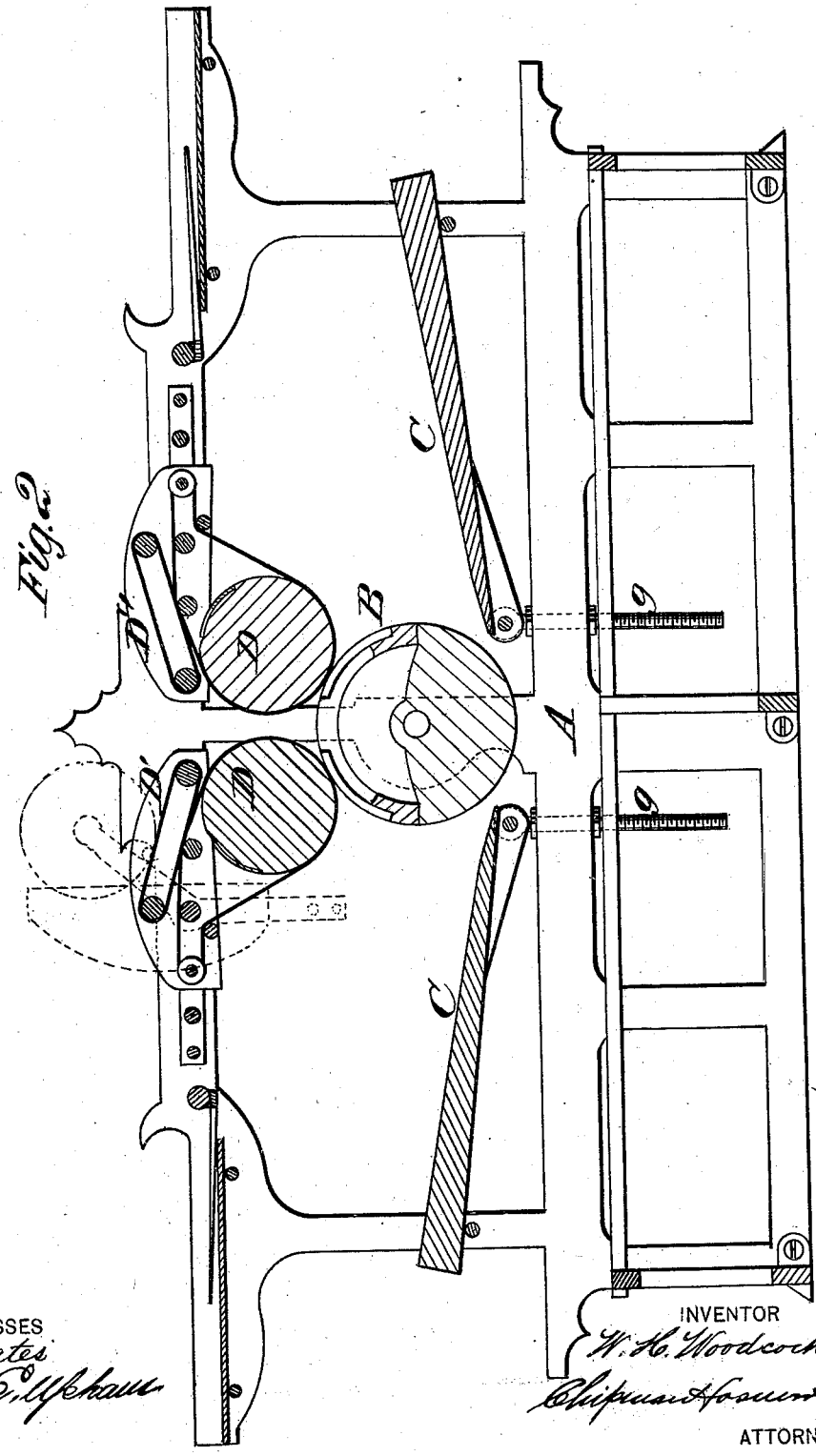

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4 Sheets—Sheet 3.

W. H. WOODCOCK.

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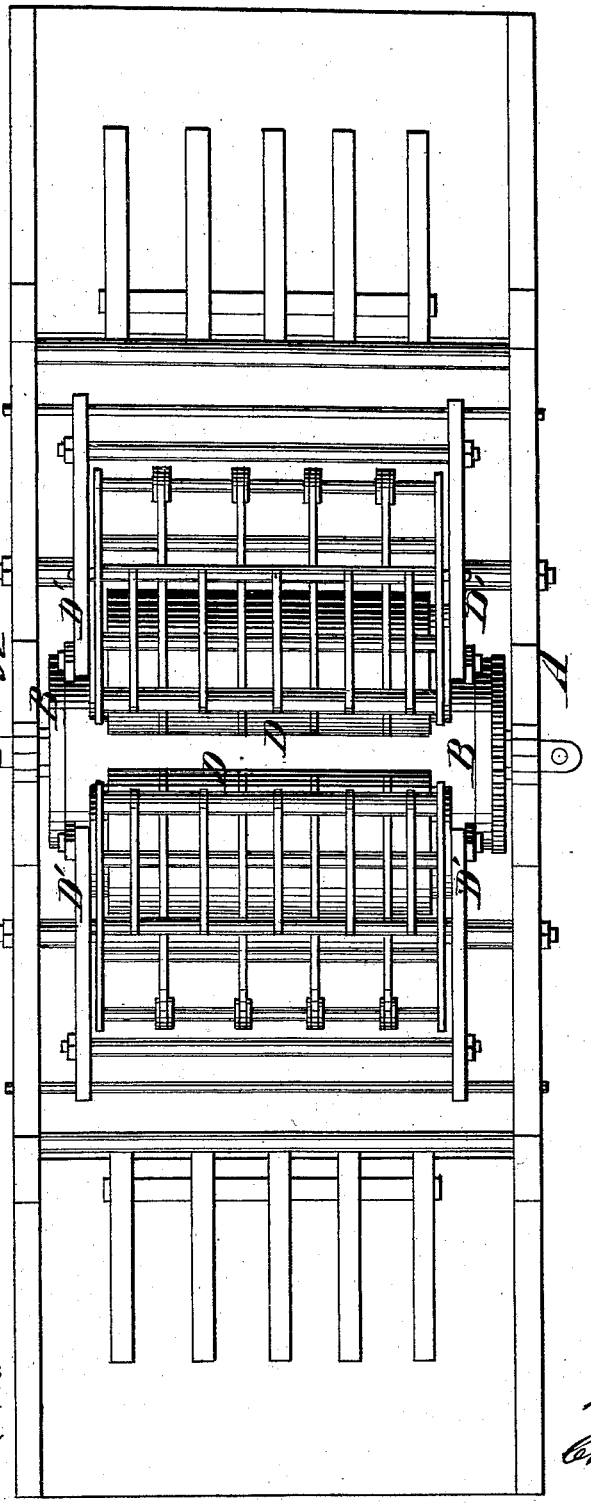

Fig. 3

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4 Sheets—Sheet 4.

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PRINTING-PRESS.

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Fig. 5.

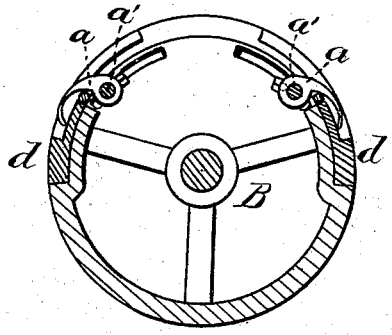


Fig. 6

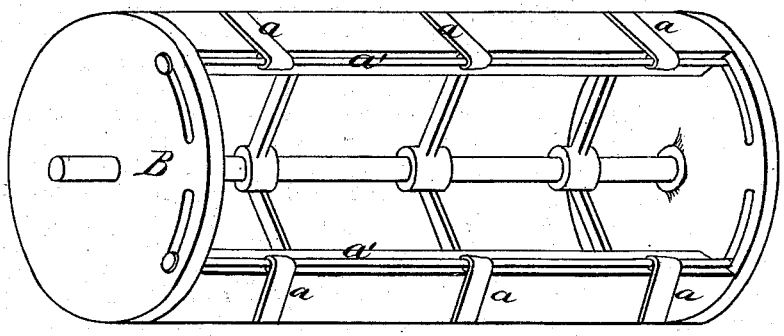


Fig. 7.

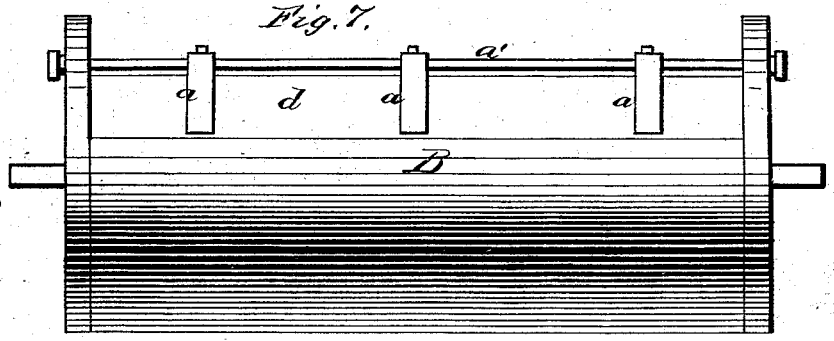
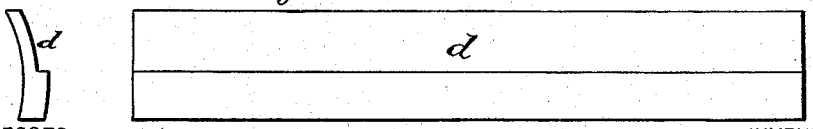


Fig. 4



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM H. WOODCOCK, OF WILLIAMSBURG, NEW YORK.

IMPROVEMENT IN PRINTING-PRESSES.

Specification forming part of Letters Patent No. **189,829**, dated April 17, 1877; application filed May 9, 1874.

To all whom it may concern:

Be it known that I, WILLIAM H. WOODCOCK, of Williamsburg, in the county of Kings and State of New York, have invented new and valuable Improvements in Printing-Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view, and Figs. 2, 3, and 4 are detail views of my printing-press. Figs. 5 and 6 are sectional views.

This invention has relation to printing-presses wherein is employed a rocking cylinder, or a cylinder which does not rotate, and which is fed from both sides.

The nature of my invention consists in constructing the impression-cylinder of a printing-press with removable sections, for the purpose of enabling me, by using sections of different widths, to increase or diminish the capacity of the cylinder for sheets of different sizes.

It also consists in the combination of adjustable gripers and removable impression-sections with a rocking impression-cylinder.

In the annexed drawings, Figs. 1, 2, and 3, A designates the frame of a printing-press, and B the impression-cylinder thereof, which cylinder receives a rocking or oscillating motion, while the press-bed reciprocates beneath it in the usual well-known manner.

This cylinder is adapted for double feeding, and to this end it is provided with a double set of gripers, *a a*, and two feed-boards, C C, arranged on opposite sides of it.

D D designate two fly-cylinders, which are applied in the free ends of frames D′ D′, which frames are hinged or pivoted to the press-frame A, so that they can be thrown up to the position indicated in dotted lines, Fig. 1, when it is desired to afford access to the impression-cylinder, or to allow the operator to conveniently "make ready" the "form."

The sheets are taken from the impression-cylinder by the fly-cylinders, and delivered to the flies in the usual well-known manner—that is to say, by means of gripers and tapes; and when these cylinders are in working positions they are rotated by means of spur-wheels *b b*, which receive their motions from a spur-wheel, b^2, through the medium of a spur-wheel, b^1.

The rods *a′ a′* have their end bearings in the ends of the cylinder B, and are adjustable to or from the impression part of this cylinder, for the purpose of having the ends of the gripers reach more or less over said surface, according to the size of the sheets which are to be printed. The ends of the griper-rods *a′ a′* have collars and nuts on them, for confining them after they are adjusted.

The impression-surface of the cylinder B can be enlarged or diminished to adapt it for sheets of different sizes. This I do by means of removable segments or sections *d*, which are suitably secured in their places, and which can be conveniently removed and their places supplied by other sections, presenting a greater or less area for impression.

The adjustment of the griper-rods for sheets varying in size, and the use of removable sections *d*, necessitates the employment of feed-boards C C, which are vertically and longitudinally adjustable, and to this end the lower ends of these boards are connected to screws *g*, which are adjustable up and down by means of nuts, and which are also adjustable in a direction with the length of the press-frame A. The upper ends of the boards C C rest upon rods or rollers.

Having described my invention, what I claim as new is—

1. The rocking impression-cylinder B, having removable impression-sections *d*, applied to it for the purpose described.

2. The combination of adjustable gripers *a* with sections *d*, removably applied to the cylinder B, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM HENRY WOODCOCK.

Witnesses:

D. D. KANE,

GEORGE E. UPHAM.