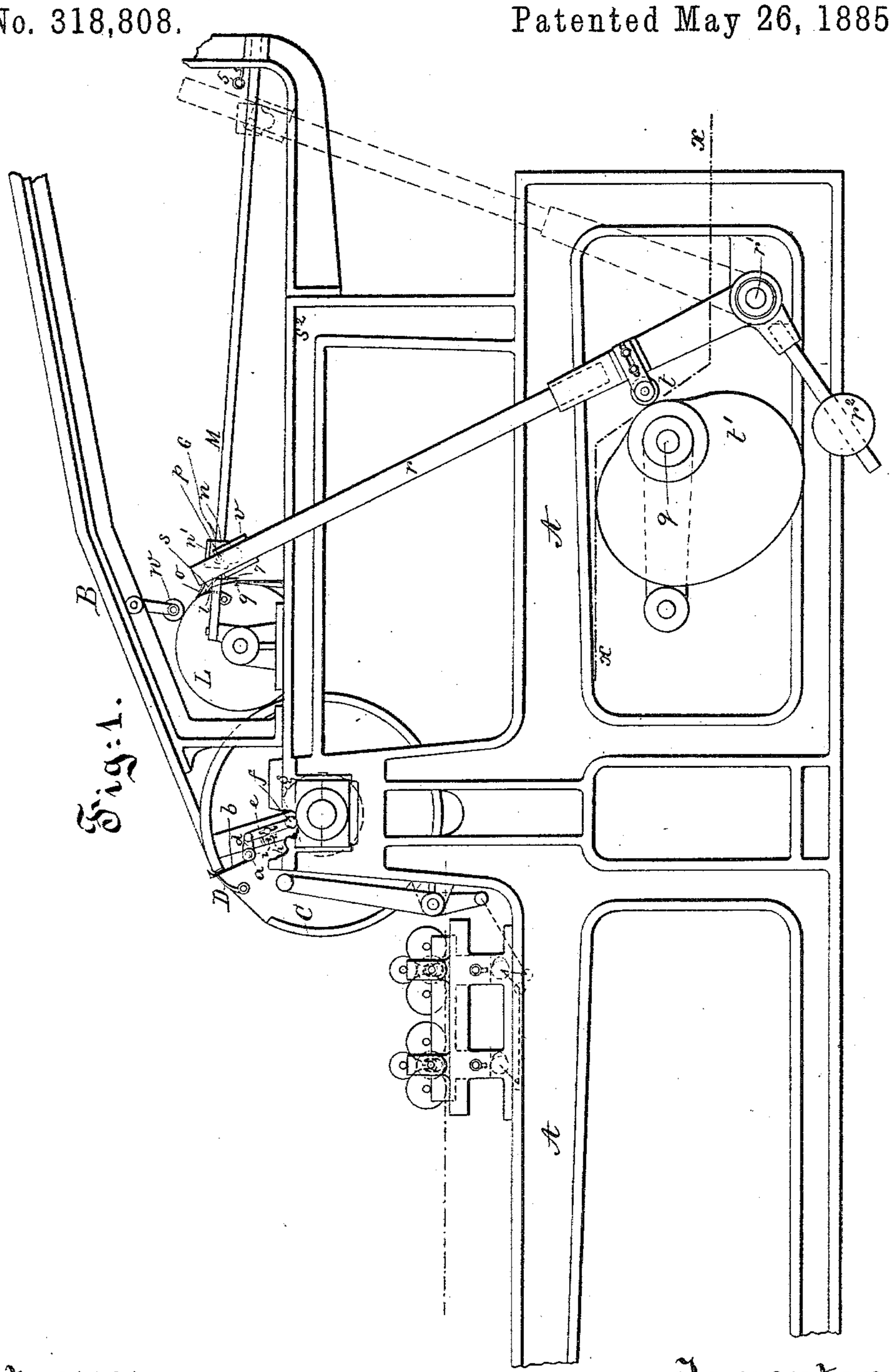
(No Model.) 2 Sheets—Sheet 1.

W. SCOTT.

DELIVERY MECHANISM FOR PRINTING MACHINES.

No. 318,808. Patented May 26, 1885.



Witnesses:
J. Staib
Chas. H. Smith

Inventor:
Walter Scott
per Lemuel W. Serrell Atty.

(No Model.) 2 Sheets—Sheet 2.

W. SCOTT.

DELIVERY MECHANISM FOR PRINTING MACHINES.

No. 318,808. Patented May 26, 1885.

Fig: 2.

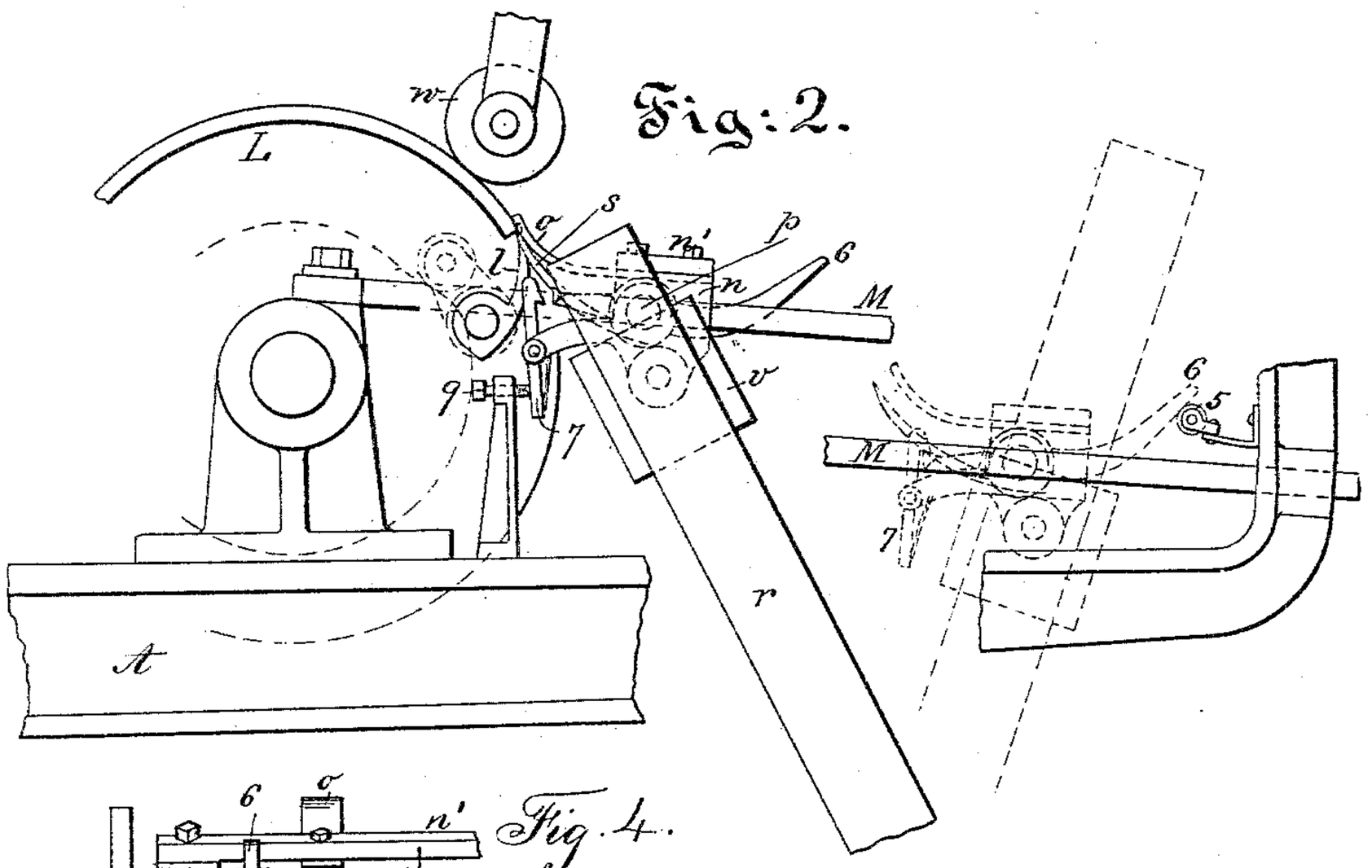


Fig. 4.

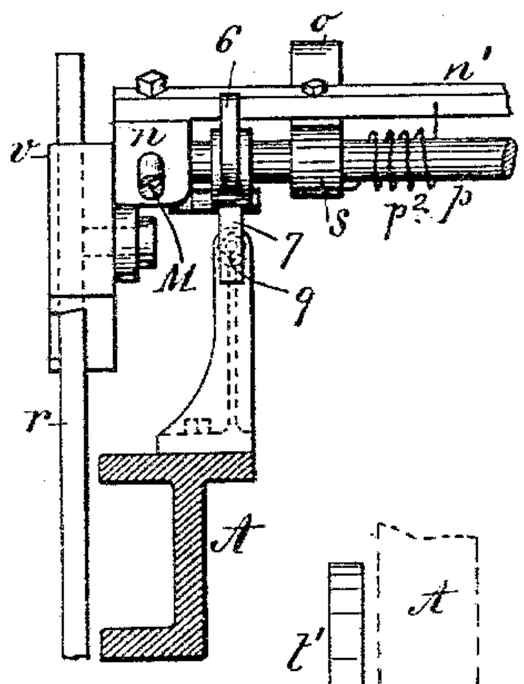
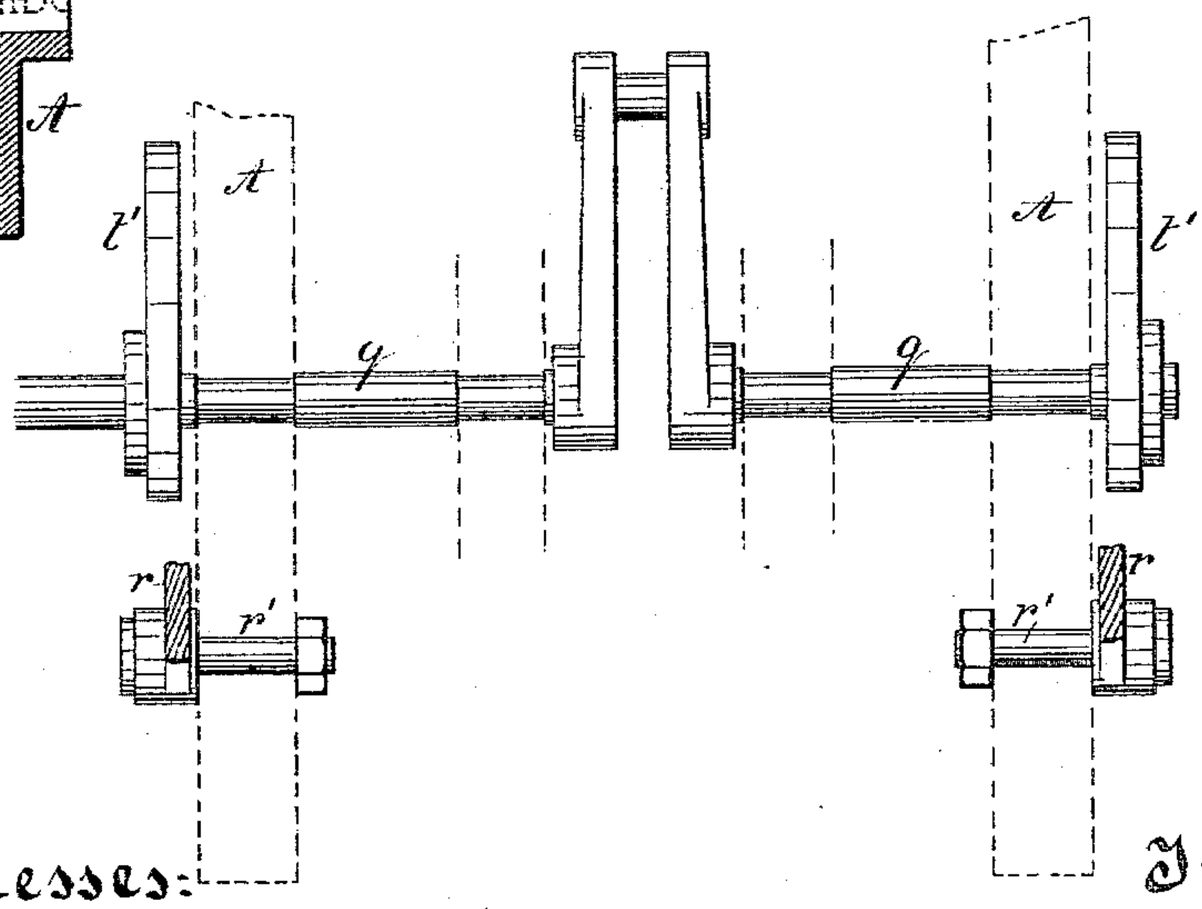


Fig: 3.



Witnesses:

J. Stair

Chas. A. Smith

Inventor:

Walter Scott

per Lemuel W. Serrell atty

UNITED STATES PATENT OFFICE.

WALTER SCOTT, OF PLAINFIELD, NEW JERSEY.

DELIVERY MECHANISM FOR PRINTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 318,808, dated May 26, 1885.

Application filed January 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, WALTER SCOTT, of Plainfield, in the county of Union and State of New Jersey, have invented an Improvement in Delivery Mechanism for Printing-Machines, of which the following is a specification.

I take the sheet off from either the impression-cylinder or a delivery-cylinder by means of grippers that are moved in a horizontal or nearly horizontal direction and travel upon guide-rods and are moved by levers swung by cams on the crank-shaft of the press.

In the drawings, Figure 1 is a side view illustrating the press with the present improvements. Fig. 2 is a detached view of the sheet-delivering device. Fig. 3 shows the crank and cams below the line $x\,x$, Fig. 1; and Fig. 4 is an elevation at one end of the sheet-delivering grippers and sectionally of the frame.

The frame A, feed-board B, and impression-cylinder C are of ordinary construction; and I remark that my improvement may be used with a stop-motion or other cylinder press.

The grippers D upon the cylinder C are of any usual or desired character, and I use gage-fingers *b* for the edge of the sheet, the said fingers being upon a shaft, *a*, that is moved to throw the fingers out of the way of the moving sheet by the action of a cam, *g*, upon the roller *f* and slide *e*, that is connected to the arm *d* upon the shaft *a*, and the screw *i* in the stud *h* serves to adjust the fingers.

In order to deliver the sheets after being printed, I prefer to make use of the delivery-cylinder L and grippers *l;* but the sheet-delivery apparatus next described may take the sheet direct from the impression-cylinder if the positions of the parts are reversed so as to be placed in front of the impression-cylinder.

Above the edge of each side frame, A, there is a stationary bar, M, and upon the same a slider, *n*, with a gripper-bar, *n'*, extending across from one slider to the other and bolted to the same. The fingers *o* of the grippers extend out from this bar *n'* toward the impression or delivery cylinder, and the rock-shaft *p*, carrying the gripper-fingers *s*, has its journals in holes or boxes in the sliders *n*. In order to give motion to these sliders *n*, I employ the side levers, *r*, that are pivoted at *r'*, and provided with adjustable weights r^2 or springs to press the rollers *t* toward the cams *t'* upon the crank-shaft *q*. In consequence of the space occupied by the crank in revolving, and in order to be out of the way of the other parts of the press, the pivots *r'* are studs instead of a rock-shaft; hence the cams T' must be alike in order to give the sliders and gripper-bar a parallel movement.

There is a grooved block, *v*, pivoted to each slider and receiving one of the levers *r*, so that the lever may move the slider; but a link may be used between each slider and its lever instead of the pivoted block *v*. The rollers *t* should be upon studs having plates that are slotted and bolted to the levers, so as to be adjusted for regulating the positions of the grippers to the delivery-cylinder.

The grippers *o* and *s* are closed by a spring, p^2, and opened for dropping the sheet upon the table s^2 by the stationary roller or stud 5, acting upon the end of the lever 6, that extends backwardly from the rock-shaft *p*, said lever being upon such rock-shaft, near one end thereof. There is a spring-latch, 7, pivoted to an arm upon the slider *n*, that catches the forward end of the lever 6 and holds the grippers open during the return movement, and this latch is moved to liberate the lever and allow the grippers to close at the proper moment. This may be effected by a projection upon the delivery-cylinder coming into contact with the latch, or by a screw, 9, through a standard upon the frame, into contact with which screw the latch is brought by the return movement of the sliders and grippers.

It is desirable to prevent the printed sheet touching the sheets that lie in a pile on the table s^2 as the sheet is drawn along over them. To effect this I use one, two, or more rollers *w*, that are narrow and act upon the margins or unprinted portions of the sheet to hold the same in contact with the cylinder L and prevent the sheet drawing over the same and to cause the sheet to travel at the speed of the surface of the cylinder L, and as the speed of the gripper is to be the same, or nearly so, the sheet will be held up as drawn off, and will fall upon the pile as its rear end passes clear of the rollers *w* and the grippers release their hold.

It is to be understood that the levers *r* and cams *t'* may be used with any suitable grippers—such, for instance, as the swinging grippers upon a cross-shaft between the upper ends of levers, as shown in an application heretofore made by me, No. 115,826, filed December 28, 1883.

I do not herein lay claim to the gage-fingers or devices for moving the same, as such features form the subject of a separate invention, for which I hereby reserve the right to make separate application for patent.

I claim as my invention—

1. The sliders *n*, bars M, cross-bar *n'*, and gripper-fingers *o*, in combination with the rack-shaft *p*, gripper-fingers *s*, lever 6, latch 7, and stop 9, substantially as set forth.

2. In combination with the sheet-delivery cylinder and grippers, the lever-arms *r*, pivots *r'*, weights r^2, the rollers *t*, and adjustable connections between the rollers and levers, substantially as set forth.

Signed by me this 8th day of January, 1884.

WALTER SCOTT.

Witnesses:
GEO. T. PINCKNEY,
HAROLD SERRELL.