

(No Model.)

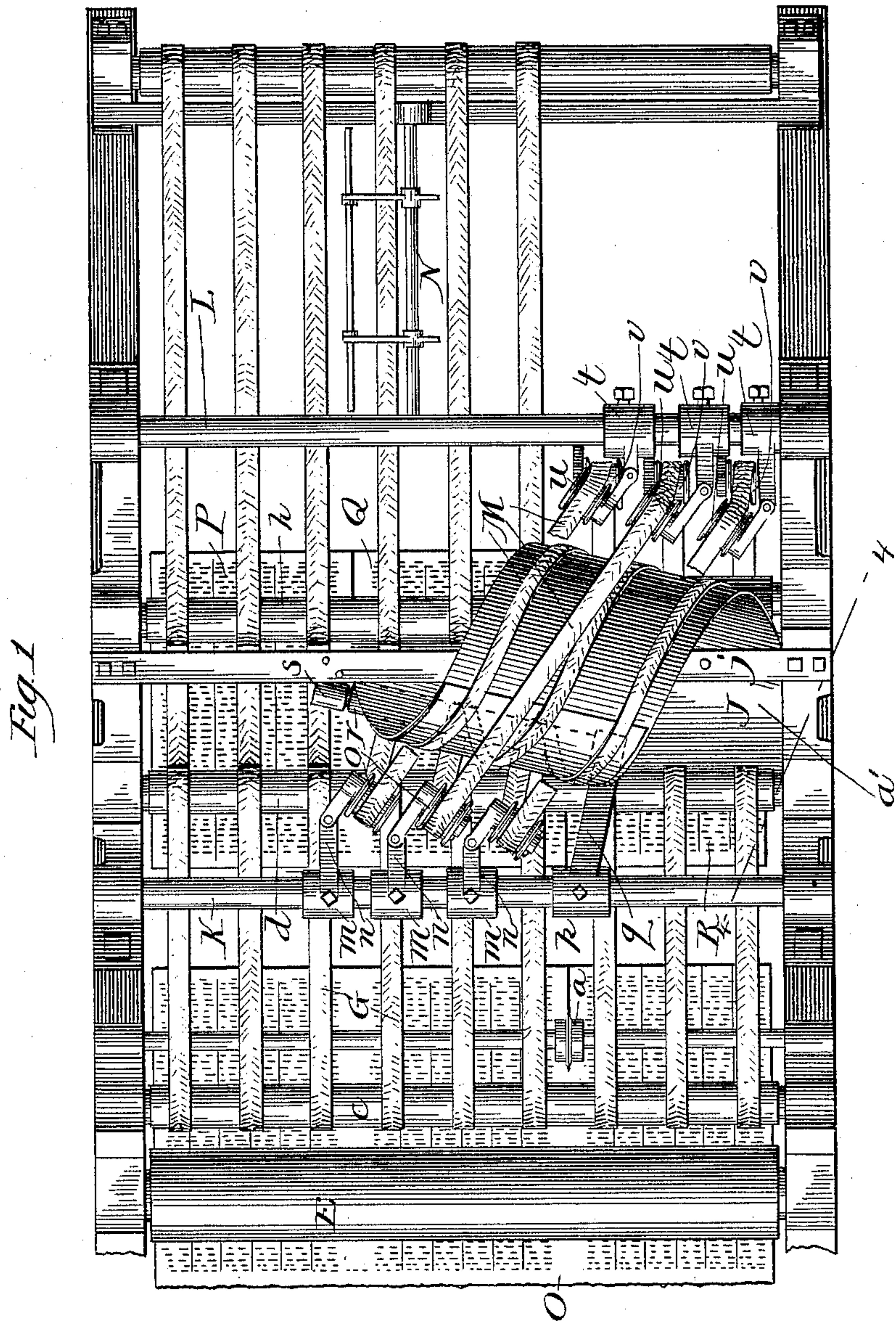
3 Sheets—Sheet 1.

S. G. GOSS.

PRINTING PRESS DELIVERY APPARATUS.

No. 432,035.

Patented July 15, 1890.



Witnesses:

*Albert H. Adams.*

*Harry T. Jones*

Inventor:

*Samuel G. Goss.*

(No Model.)

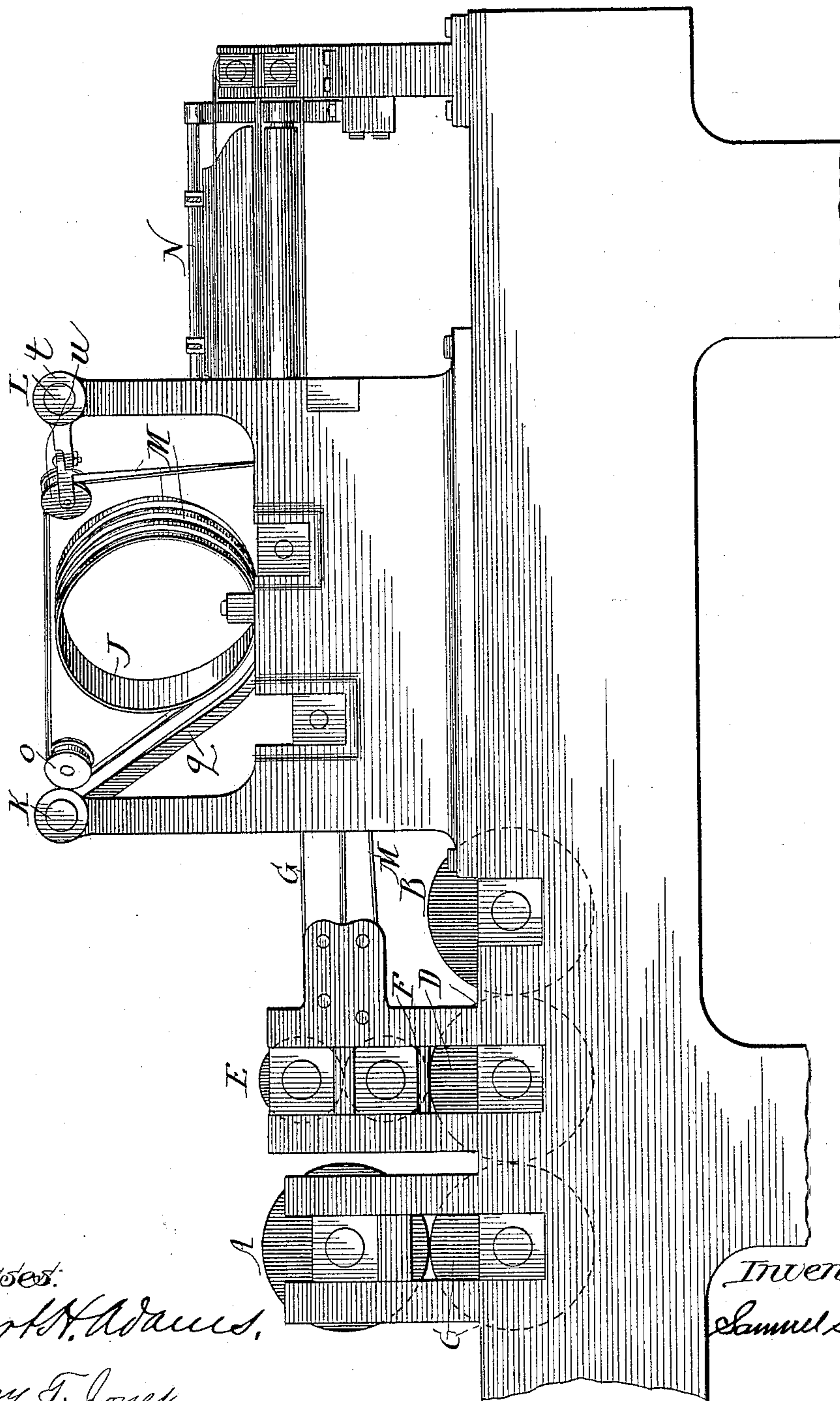
3 Sheets—Sheet 2.

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Fig 2.



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(No Model.)

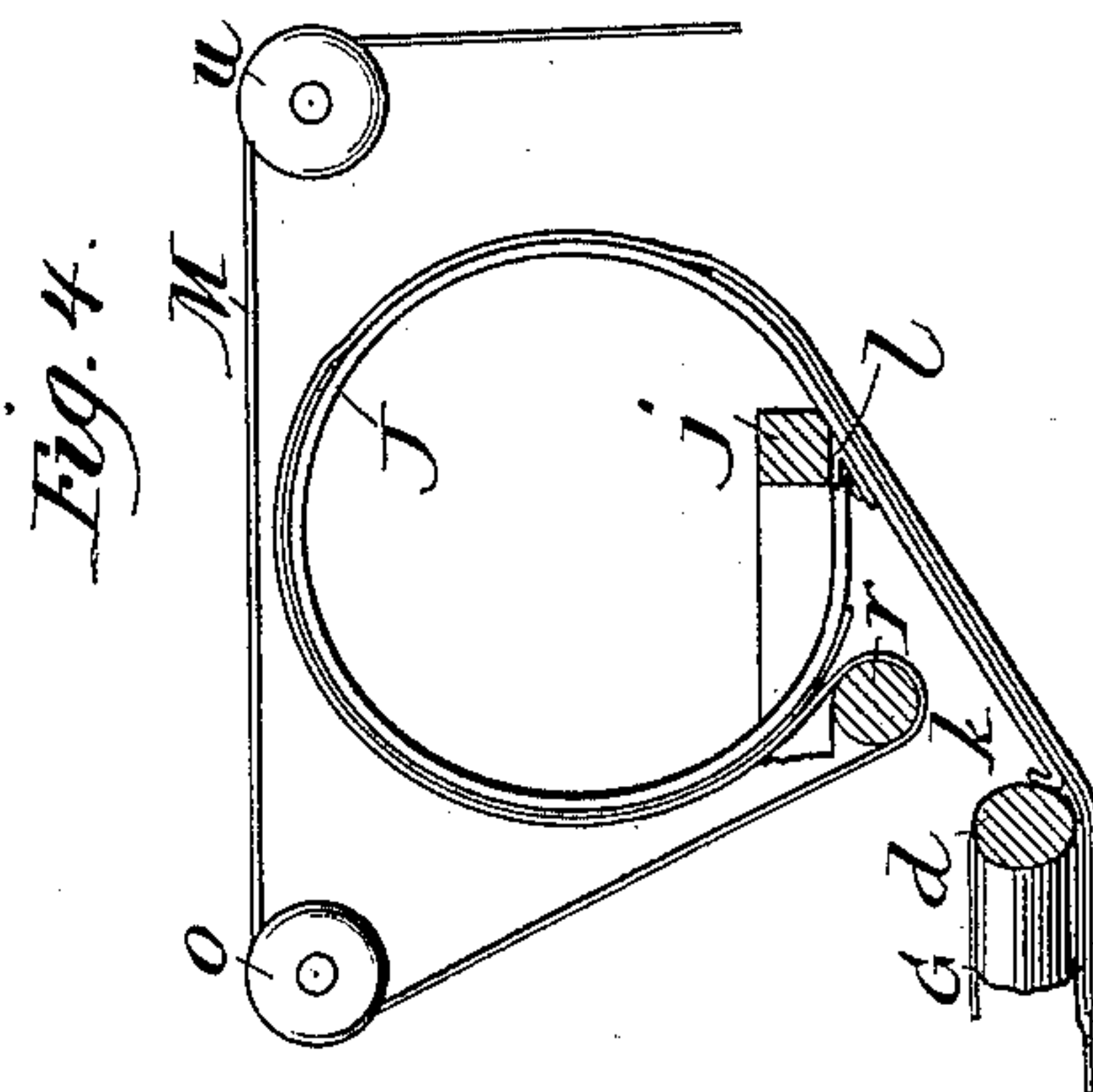
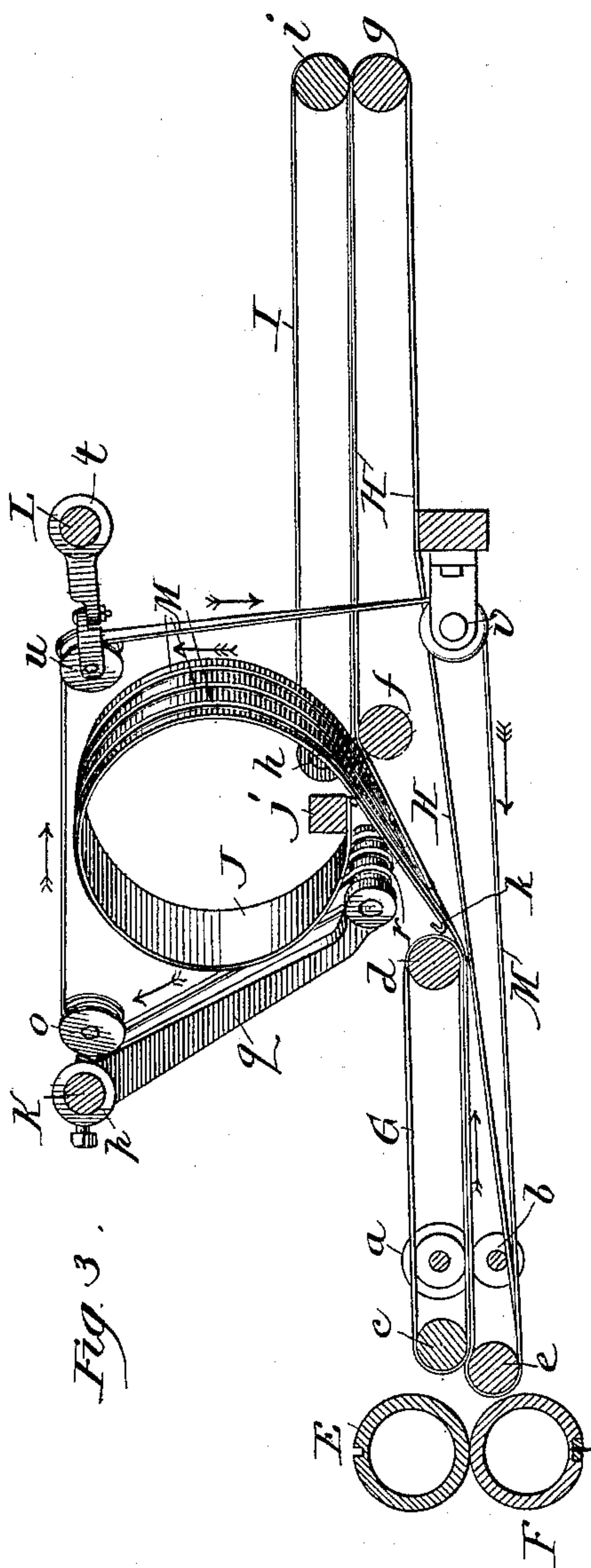
3 Sheets—Sheet 3.

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# UNITED STATES PATENT OFFICE.

SAMUEL G. GOSS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE GOSS PRINTING PRESS COMPANY, OF SAME PLACE.

## PRINTING-PRESS DELIVERY APPARATUS.

SPECIFICATION forming part of Letters Patent No. 432,035, dated July 15, 1890.

Application filed October 15, 1889. Serial No. 327,130. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL G. GOSS, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Printing-Press Delivery Apparatus, of which the following is a specification, reference being had to the accompanying drawings, in which—

10 Figure 1 is a plan. Fig. 2 is a side elevation. Fig. 3 is a detail, being a side elevation of the sheet-delivery devices. Fig. 4 is a detail showing the devices which transfer the half-sheet, looking at the same in a direction at right angles to the line 4 of Fig. 1.

15 The object of my invention is to provide improved devices by the use of which one sheet can be transferred laterally and brought into juxtaposition with another sheet, so that the two can be manipulated together, which I accomplish by means of a transfer-guide and tapes running over such guide, which transfer-guide is placed obliquely to the line of travel of the sheets, all as illustrated in the drawings and as hereinafter described.

25 That which I claim as new will be pointed out in the claims.

My improvement is primarily designed or adapted to be used in connection with a printing-press, by means of which a wide web is printed upon both sides, which web is then divided longitudinally, and in the drawings one of the two sheets shown is supposed to be a four-page sheet, and the other a sheet of two pages.

30 In the drawings, A B represent two plate-cylinders.

C D are two blanket-cylinders. (Indicated by dotted lines.)

40 E F are cutting-cylinders, between which the web passes after the printing has been done, and by which the web is severed into sheets.

a is a slitting cutter or knife arranged on a shaft, which cutter acts in conjunction with a shaft b beneath it, which is provided with a groove to receive the cutter.

50 G are a series of delivery-tapes, nine of which are shown, which tapes run over tape-rollers c d, as usual.

H are another series of delivery-tapes, which run over the rollers e d f g, of which there are six.

I are tapes, which run over the rollers h i. There are six of these tapes, as shown. 55

J is a transfer-guide, which is arranged somewhat diagonally to the line of travel of the paper. This guide is made of sheet metal, bent into the form shown in the drawings, one end of which sheet is secured to a bar j. The other end a' of this guide terminates as shown at k, and is there bent over, so as to furnish no obstruction to the passage of the paper. The guide J is also riveted or otherwise secured to a block l, which block is secured to the bar j. 65

K is a fixed shaft.

m are collars upon the shaft K and adjustable thereon. Each of these collars carries an arm n, to the outer end of each of which is connected a support for a pulley o. 70

p is another collar, adjustably secured upon the shaft K, from which collar an arm q depends, in the lower end of which arm one end of a roller r is supported, the other end of which roller is supported in a bearing s, secured to the bar j. 75

L is another shaft, on which collars t are adjustably secured, each of which collars is provided with an arm, to which is connected a support for a pulley u. 80

M are tapes, which pass over the roller e, under the roller d, over the guide J, under the roller r, over the pulleys o and u and roller v, and back to the roller e. There are three of these tapes, and a portion of two of each is cut away in Fig. 1. 85

N is part of a folding device, which is no part of this invention.

O (see Fig. 1) represents a web; P, a sheet of four pages, which has been severed; Q, a half-sheet, which has been severed longitudinally from the web by the cutter a; R, another half-sheet. 90

In use sheets will be severed from the web by the cutting-cylinders E F, and the sheet will be divided into two parts by the cutter a. The large sheets P, for example, will be carried along by the tapes G, H, and I, passing beneath the transfer-guide, but the half- 100



5 sheets will be carried by the tapes M and a portion of the tapes G to the transfer-guide, over and around which such sheets will be carried by the three tapes M, and such sheet will be brought into juxtaposition with one-half of the large sheet P, as shown in Fig. 1, and then will be carried along with such sheet.

10 In Fig. 1, to prevent confusion, I have not shown the forward end of the half-sheet, which is marked R. In this figure the transfer-guide is a little larger in proportion to the size of the sheets shown than it ought to be. Of course this transfer-guide must be of such  
15 size that the half-sheet will be brought to the large sheet at the proper moment. After the half-sheet passes the roller *d* it goes in between the forward extension *a'* of the guide J and the tapes M, and this extension *a'* of  
20 the guide aids in guiding the sheet to the main part of the transfer-guide.

What I claim as new, and desire to secure by Letters Patent, is as follows:

In a printing-press delivery apparatus, the combination, with the traveling delivery- 25 tapes G, H, and I, of the bar-support *j*, the oblique transfer-guide J, composed of a sheet bent into circular form, having its end portions connected to the bar-support and one portion extending in an inclined plane past 30 and beneath said bar-support to a point at or near the delivery part of the tapes G to form a guide end for the advancing paper, and the transfer-tapes M, traveling under the tapes G, and also under the guide end of the 35 transfer-guide and round the latter, substantially as described.

SAMUEL G. GOSS.

Witnesses:

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