

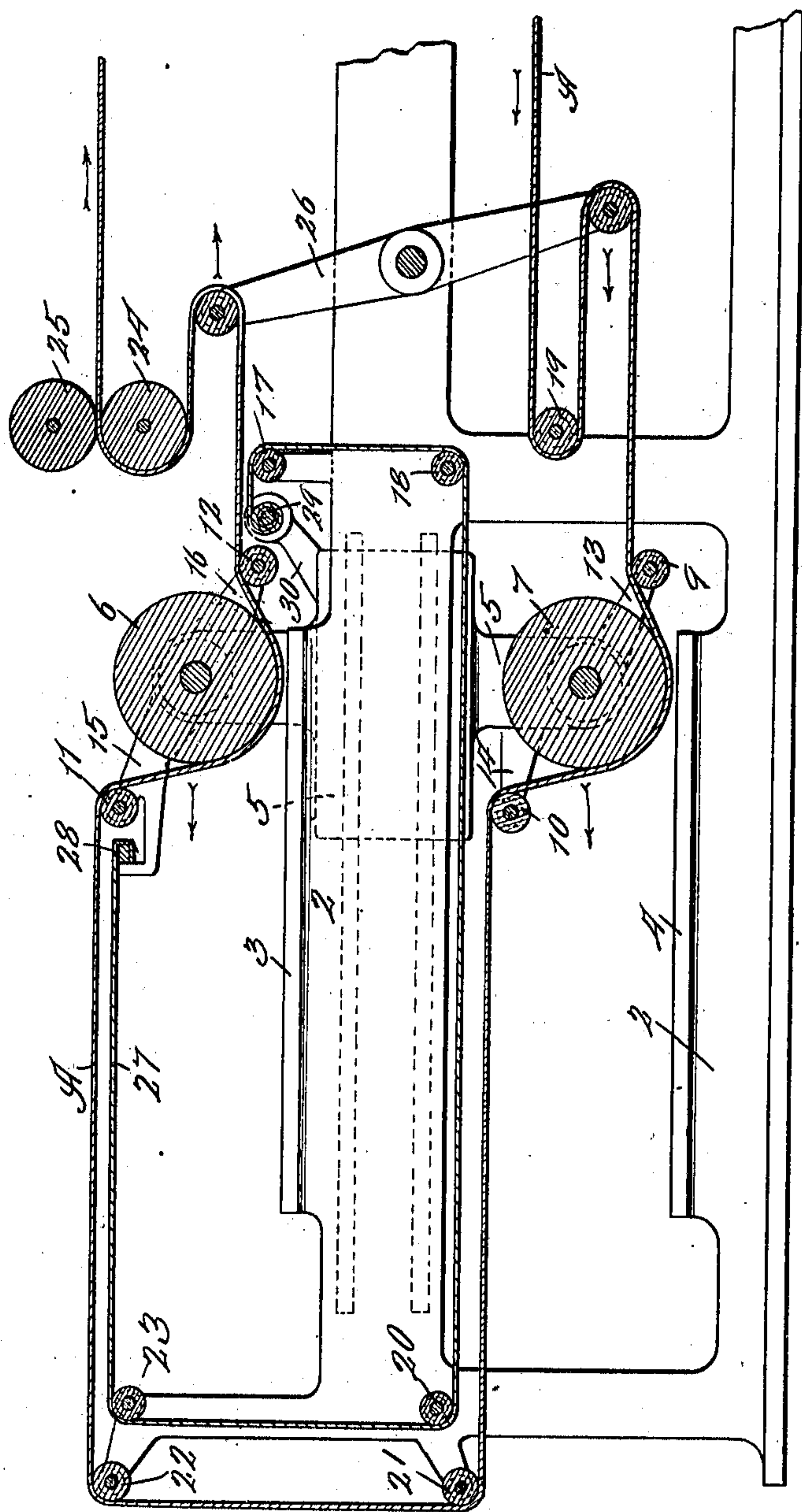
988,549.

P. F. COX.  
WIND SHIELD FOR PRINTING PRESSES.  
APPLICATION FILED MAY 5, 1910.

Patented Apr. 4, 1911.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:  
J. A. Perry  
E. W. Nelson

Inventor:  
Paul F. Cox  
By Adam P. Jackson  
Att'y.

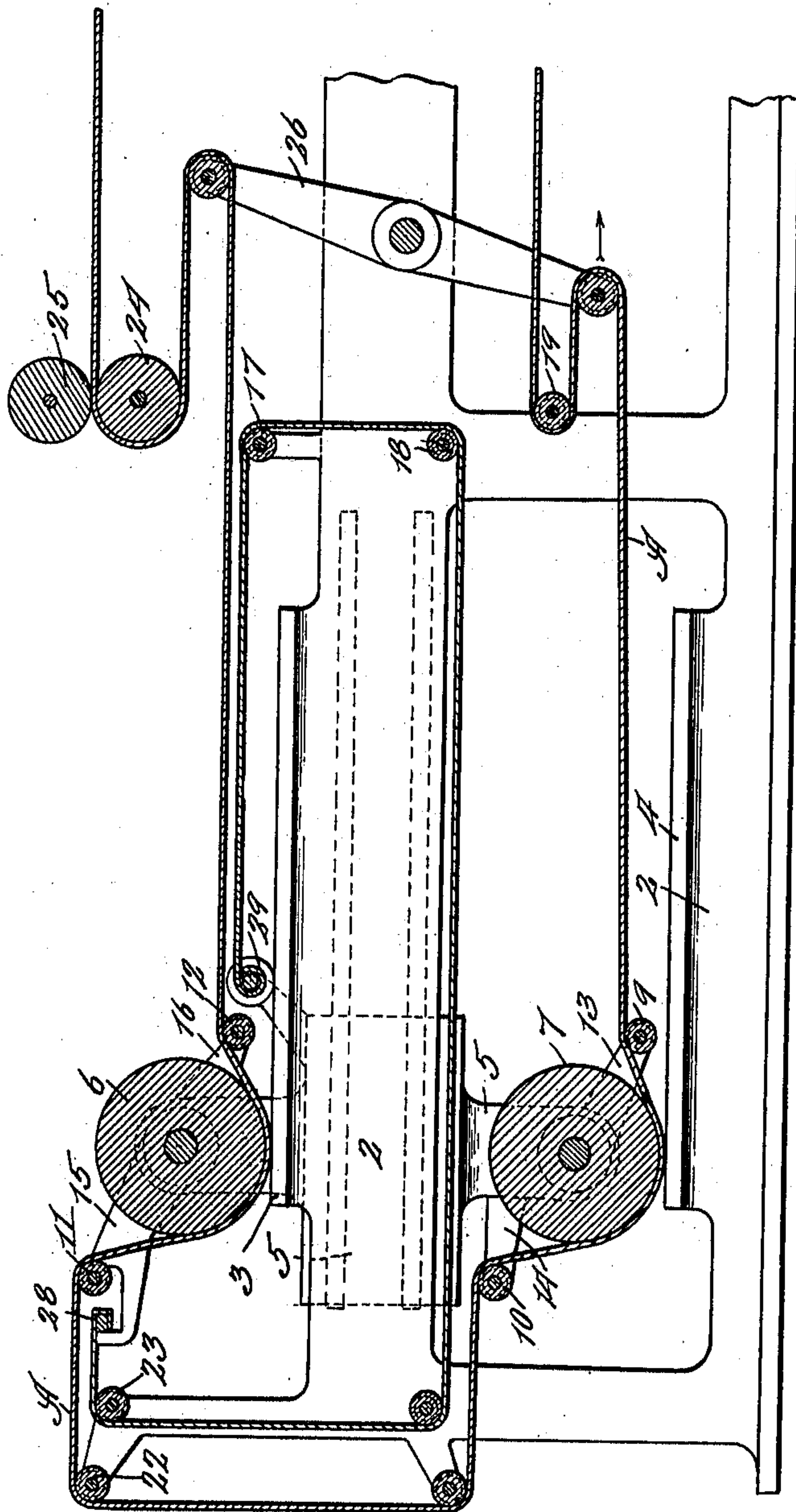
988,549.

P. F. COX.  
WIND SHIELD FOR PRINTING PRESSES.  
APPLICATION FILED MAY 6, 1910.

Patented Apr. 4, 1911.

2 SHEETS—SHEET 2.

Fig. 2.



Witnesses:  
Edw. D. Perry  
John A. Nelson

Inventor:  
Paul F. Cox  
By Adams, Peckard & Jackson

Attys.



# UNITED STATES PATENT OFFICE.

PAUL F. COX, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE GOSS PRINTING PRESS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

WIND-SHIELD FOR PRINTING-PRESSES.

988,549.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed May 5, 1910. Serial No. 559,469.

*To all whom it may concern:*

Be it known that I, PAUL F. COX, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have  
5 invented certain new and useful Improvements in Wind-Shields for Printing-Presses, of which the following is a specification, reference being had to the accompanying drawings.

10 My invention relates to web-perfecting printing presses and particularly to the type of web-perfecting printing presses in which the web is printed upon both sides by means of traveling impression cylinders which  
15 move backward and forward over stationary type beds, and its object is to provide a means by which the web may be protected from breakage from the "wind" which is produced by the travel of the impression  
20 cylinders. In presses of this general type, as is well known, the web after being printed upon one side is led by means of rollers into the second printing mechanism to be printed upon the other side, and, in so being  
25 led, the web forms a loop or pocket which incloses one of the type beds upon three sides. The result is that when the impression cylinder, so partially inclosed by the web, travels forward toward the loop or  
30 pocket of the web, it drives the air ahead of it producing a "wind" against the inclosing loop or pocket of the web; that is to say, it forces the air ahead of it against the partially surrounding web. Particularly when  
35 the press is worked at considerable speed this "wind", or forcing of air ahead of the impression cylinder into the pocket of the web, causes breaks of the web.

40 It is the object, therefore, of my invention to provide a means by which the web may be shielded from the "wind" action and breakages consequent thereon.

45 In the drawings,—Figure 1 is a side elevation representing diagrammatically such parts of such a press as may be necessary to understand my invention, the inking mechanism and operating features of the press being omitted; and Fig. 2 is a similar view,  
50 but showing the impression cylinders in the opposite position.

Referring to the drawings,—2 represents the bed or frame of the press upon which are mounted type-beds 3—4.

55 5 indicates a traveling carriage which is mounted upon the framework 2 so as to re-

ciprocate forward and backward therein. This carriage may be worked by any suitable mechanism and in any well-known way. As such mechanisms for operating a carriage are well known they will be readily  
60 understood, and are omitted from the drawing because they form no part of my present invention and in order not to encumber the drawings with unnecessary illustration of parts. They are well understood and  
65 may be supplied by any one skilled in the art.

6—7 indicate impression cylinders, of the well known type and description, which are mounted upon, and carried by, the carriage  
70 5. These impression cylinders may be of any well known type and operated in any well known manner to cause the web to be printed first upon one side and then upon  
75 the other. As the means for operating these impression cylinders to co-act with the type-beds may be of any appropriate kind, and form no part of my present invention, and will be readily understood by any one skilled  
80 in the art, without illustration or further description, I have omitted them from the drawing in order not to encumber it with unnecessary illustration of well understood parts. The inking mechanisms are not  
85 shown or illustrated for the same reason.

9—10—11 and 12 indicate rollers which are mounted respectively upon suitable arms, as 13—14—15 and 16, on the carriage 5.

17—18—19—20—21—22—23 indicate rollers which are mounted in the framework 2.

24—25 indicate feed-rollers, diagrammatically illustrated, for feeding the web forward.

26 indicates any suitable looping device,  
95 (preferably of the kind shown and described in a separate application for Letters Patent of the United States, Ser. No. 559,467, but which may be of any other well known kind,  
100 description and method of operating) which serves to loop the web in order to take up and give out the web during the operation of the press, in the well known manner characteristic of such presses. Forming no part  
105 of my present invention, it may be of any well known kind and description, and will be readily understood by any one skilled in the art without any further illustration and description.

A indicates the web which is fed into the 110



press, in the form in which the press is shown in the drawing, from any suitable roll of paper, not shown, and enters the press in the direction of the arrow. The web passing  
 5 over roller 19 and over the looping device 26, passes over roller 9, under impression cylinder 7, and between it and type-bed 4, over roller 10, under and partially around roller 21, over rollers 22 and 11, under impression  
 10 cylinder 6, and between it and type-bed 3, over roller 12, again around the looping device, and between feed-rollers 24 and 25 by which it is fed forward into any suitable folding or delivering mechanism, not shown.  
 15 27 indicates a wind-shield formed of a strip of suitable material such as canvas, or the like, of a width substantially the width of the web A. One end of the strip is suitably secured to bracket 15, as by means of a  
 20 cross-bar 28. This wind-shield 27 is led around rollers 23, 20, 18 and 17 to a winding roller 29, mounted upon a suitable bracket, as 30, on the carriage 5. The end is wound around the winding roller 29, which may be  
 25 operated in any well known manner, so as to suitably tighten the wind-shield. When the impression cylinder 6, which, in the form of press shown, is the one which moves toward the pocket formed by the web, ad-  
 30 vances the wind-shield 27, carried by the traveling carriage, will move over the rollers 17, 18, 20 and 23 and interpose a constant shield between the advancing cylinder 6 and the pocket formed by the web A, and will  
 35 receive the force of the air moved ahead of the cylinder so as to prevent its being forced against the web and preventing breakages of the web.

The wind-shield being formed of canvas,  
 40 or other suitable strong material, is, of course, strong enough to resist the force of the air, or "wind," caused by the cylinder advancing toward the pocket and the wind

escapes out from the open sides without being brought into contact with the web. 45

That which I claim as my invention, and desire to secure by Letters Patent, is,—

1. In a traveling impression-cylinder web-perfecting press, in which the web in being perfected forms a pocket, in combina- 50  
 tion, a sliding carriage, an impression cylinder mounted thereon, and a wind-shield consisting of a flexible curtain operated by said carriage to be constantly between said im-  
 pression cylinder and the pocket of the web. 55

2. In a traveling impression-cylinder web-perfecting press, in which the web in being perfected is led from one cylinder to the other in such a way as to form a pocket to-  
 ward which one of said cylinders moves in 60  
 the course of its travel, a wind-shield consisting of a flexible curtain operated by the movement of one impression-cylinder so as  
 to be constantly interposed between said cyl-  
 65 inder and the pocket of the web as said cyl-  
 inder travels toward said pocket.

3. In a traveling impression-cylinder web-perfecting press, in which the web in being perfected is led from one printing couple to  
 the other in such a way as to form a pocket 70  
 toward which one of the impression cylinders travels in the course of its movement, in combination a reciprocating carriage, an  
 impression-cylinder mounted on said car-  
 75 riage, rollers, and a flexible curtain passed  
 around said rollers and connected at each  
 end to said carriage and adapted with the  
 movement of said carriage to be constantly  
 interposed between the pocket of the web  
 and said impression-cylinder as the same 80  
 travels toward said pocket.

PAUL F. COX.

Witnesses:

CHARLES E. PICKARD,  
 W. H. DE BUSK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
 Washington, D. C."