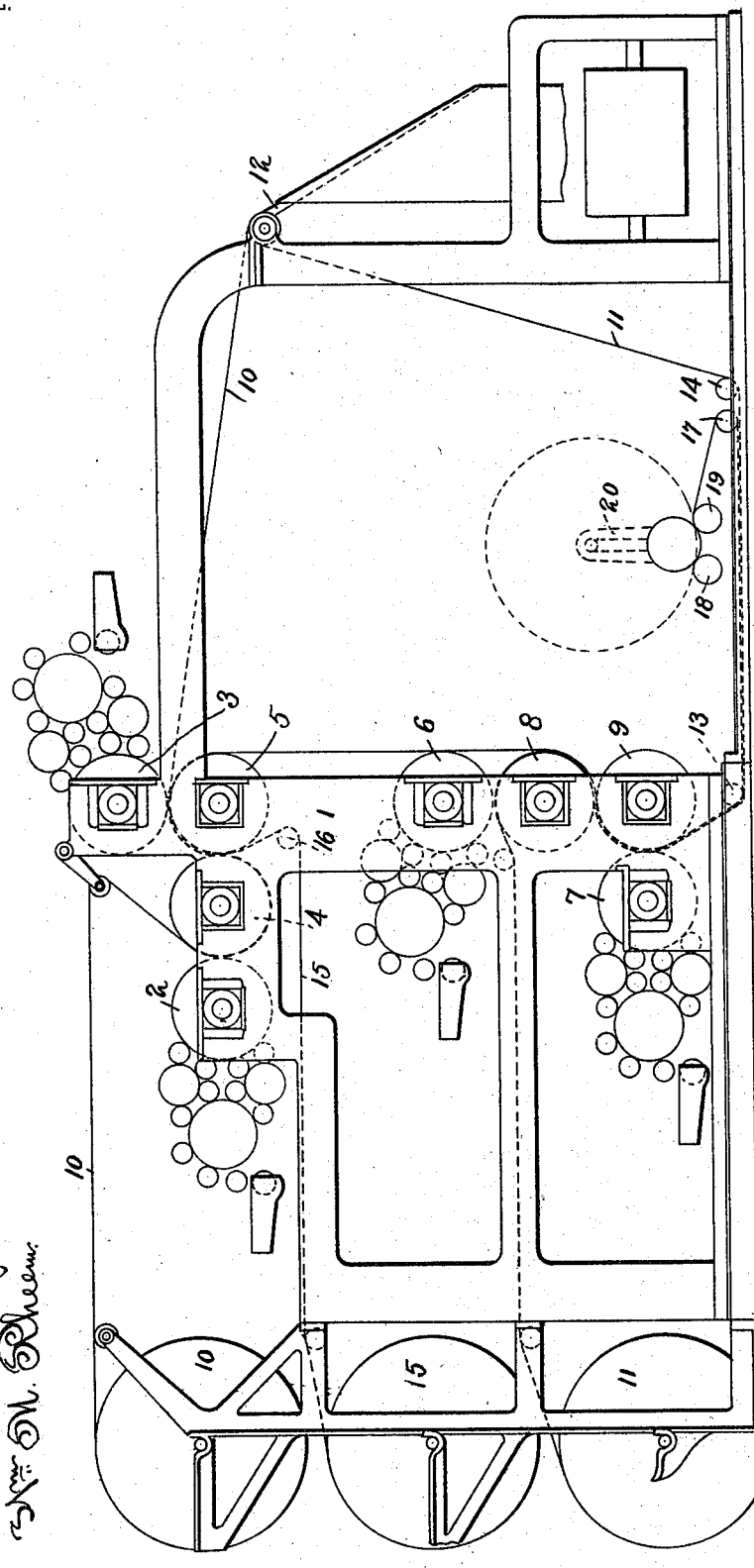
No. 719,324. PATENTED JAN. 27, 1903.

S. G. GOSS.

PRINTING MACHINE.

APPLICATION FILED OCT. 28, 1897.

NO MODEL.



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UNITED STATES PATENT OFFICE.

SAMUEL G. GOSS, OF CHICAGO, ILLINOIS, ASSIGNOR TO GOSS PRINTING PRESS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

PRINTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 719,324, dated January 27, 1903.

Application filed October 28, 1897. Serial No. 656,674. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. GOSS, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Printing-Machines, of which the following is a specification.

My invention relates to apparatus for preventing offsetting in printing where perfecting-presses are used. For this purpose an auxiliary web has heretofore been used in a press having a single set of printing mechanism, the web being conducted through the press between the second impression-cylinder and the surface printed by the first form-cylinder, so that when the second impression is given the surface of the web first printed is in contact with a clean web instead of a soiled impression-cylinder, thus preserving the first impression from blurring and offsetting.

My present invention has to do with providing an auxiliary offsetting-web for presses having a plurality of sets of printing mechanism.

The objects of my invention are to provide for using a single auxiliary web in connection with a plurality of printing mechanisms and to provide for using both surfaces of the auxiliary web in connection with a plurality of printing mechanisms, so that an unsoiled surface of the web may be presented with each printed web. I accomplish these objects as hereinafter specified and as illustrated in the drawing.

That which I regard as new will be set forth in the claims.

In the accompanying drawing the figure is a diagrammatic side elevation of a printing-press having two sets of printing mechanism illustrating my invention.

Referring to the drawing, 1 indicates the frame of the press; 2 3, the first and second form-cylinders of the upper set of printing mechanism; 4 5, the first and second impression-cylinders of the upper set of printing mechanism; 6 7, the first and second form-cylinders of the lower set of printing mechanism, and 8 9 the first and second impression-cylinders thereof.

10 11 indicate upper and lower rolls of paper in web form, arranged to supply webs to the upper and lower sets of printing mechanism, respectively.

12 indicates a V-shaped former which receives the webs from the two sets of printing mechanism, guide-rollers 13 14 being provided for the web 11.

15 indicates an auxiliary or offset roll which is suitably mounted in the frame of the press, preferably immediately between the rolls 10 11, as shown in the drawing. In the arrangement illustrated the auxiliary web 15 passes first around a guide-roller 16 to and over the second impression-cylinder 5, lying in contact with the surface of the web 10, printed by the first form-cylinder 2 as said web passes between the second form and impression-cylinders. It will be noted that at this time the upper surface of the auxiliary web will be in contact with the printed surface of the web 10. The web 10 after passing through the upper set of printing mechanism passes to the former 12, the auxiliary web passing down to the second set of printing mechanism, where it passes between the first and second impression-cylinders, meanwhile having its under surface in contact with the printed surface of the web 11, thence passing between the second form and impression-cylinders of the lower set of printing mechanism, thence with said web around the guide-roller 13. The auxiliary web thence passes around a guide-roller 17 to a suitable rewinding apparatus, the web 11 passing around the guide-roller 14, thence to the former 12, where it is associated with the web 10.

The rewinding apparatus shown in the drawing consists of rollers 18 19 and guides 20, which receive the mandrel on which the roll is wound. The guides 20, by which the receiving-roll of the offset-web is held in position, are arranged to hold said roll with its axis parallel with the cylinders of the press, so that the web proceeds without turning over from the printing mechanism to the receiving-roll, as shown in the drawing. The rollers 18 19 are driven from a suitable source of power and frictionally engage the web, rolling it up, as indicated by dotted lines. The speed of the rewinding mechanism is thus automatically regulated with reference to the

speed of the printing mechanism, so that the offset-web is kept taut.

From the above description it will be seen that the two surfaces of the auxiliary web are used and a single web serves for both sets of printing mechanism, the auxiliary web being finally rewound into a roll.

I have described my improvements in detail, but wish it to be understood that I do not limit myself to the specific details of apparatus shown, as my invention includes equivalents thereof.

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

1. A printing-press having a plurality of sets of web-printing mechanism, an auxiliary web, means for conducting said auxiliary web through a plurality of said sets of printing mechanism in contact with the printed surfaces of the printed webs, and rewinding mechanism, said rewinding mechanism being arranged to rewind the auxiliary web upon an axis parallel with the cylinders of the printing mechanism, substantially as described.

2. A printing-press having a plurality of sets of web-printing mechanism, an auxiliary web, means for conducting said auxiliary web through a plurality of sets of printing mechanism without turning said web, and rewinding mechanism for said auxiliary web, said rewinding mechanism being arranged with its axis parallel with the axes of the cylinders of the printing mechanism, substantially as described.

3. A printing-press having upper and lower sets of web-printing mechanism, an auxiliary web arranged between said sets of printing mechanism, means for conducting said auxiliary web, without turning, through said upper and lower sets of printing mechanism in contact with the printed surfaces of the printed webs, and rewinding mechanism, said rewinding mechanism being arranged with its axis parallel with the axes of the cylinders of the printing mechanism, substantially as described.

4. In combination, a plurality of web-printing mechanisms having parallel cylinders and each adapted for perfecting a separate web of paper, an offset-web, mechanism for guiding said offset-web into contact with each web of paper, an offset-web-receiving roll, mechanism for holding said receiving-roll of said offset-web with its axis parallel with said cylinders whereby the web proceeds without turning from the printing mechanism to said receiving-roll, mechanism whereby said receiving-roll is driven and means whereby the speed of said receiving-roll is adjusted relatively to the speed of the printing mechanism, substantially as described.

5. In combination, a plurality of web-printing mechanisms having parallel cylinders and each adapted for perfecting a separate web of paper, an offset-web, mechanism for guiding said offset-web into contact with each web of paper, an offset-web-supply roll, an offset-web-receiving roll and mechanisms for holding said supply and receiving rolls substantially between two of said mechanisms with their axes parallel with said cylinders whereby the offset-web proceeds without turning from said supply-roll to said receiving-roll, mechanism whereby said receiving-roll is driven and means whereby the speed of said receiving-roll is adjusted relatively to the speed of the printing mechanism, substantially as described.

6. In combination, a plurality of web-printing mechanisms, having parallel cylinders and each adapted for perfecting a single web of paper, an offset-web, mechanism for guiding said offset-web into contact with each web of paper, an offset-web-receiving roll, mechanism whereby said receiving-roll is driven and means whereby the speed of said receiving-roll is adjusted relatively to the speed of said printing mechanism, substantially as described.

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