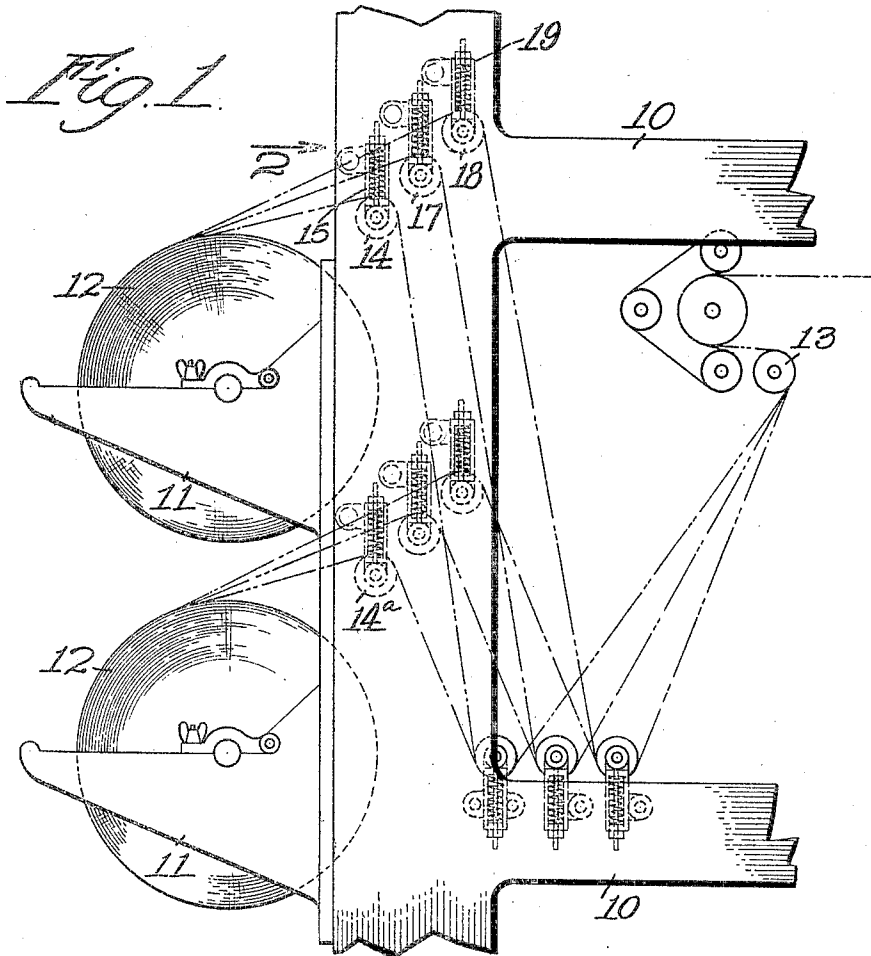
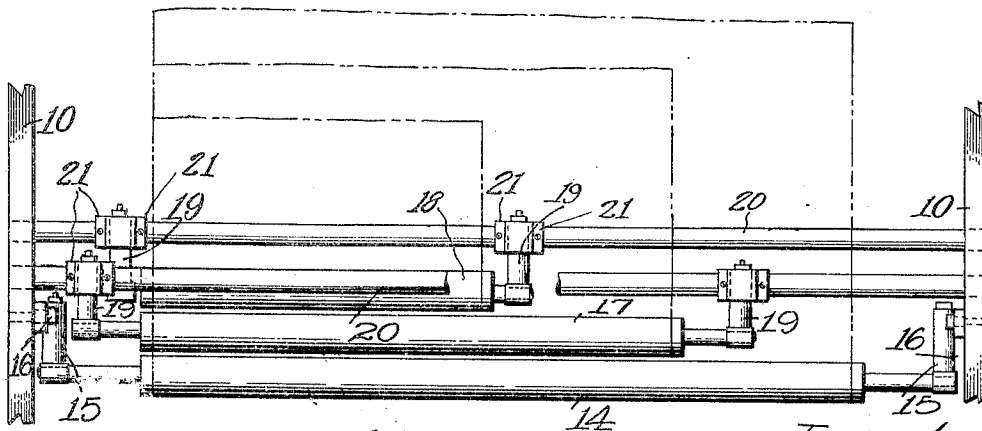


H. A. W. WOOD,
TENSIONING ROLLER FOR WEB PRESSES.
APPLICATION FILED OCT. 18, 1916.

1,319,447.

Patented Oct. 21, 1919.



Witness.
C. F. Mason.

Fig. 2.

Inventor
H. A. W. Wood.
by attorneys
Soultey & Soultey.

UNITED STATES PATENT OFFICE.

HENRY A. WISE WOOD, OF NEW YORK, N. Y., ASSIGNOR TO WOOD NEWSPAPER MACHINERY CORPORATION, OF NEW YORK, N. Y., A CORPORATION OF VIRGINIA.

TENSIONING-ROLLER FOR WEB-PRESSES.

1,319,447.

Specification of Letters Patent.

Patented Oct. 21, 1919.

Application filed October 18, 1916. Serial No. 126,228.

To all whom it may concern:

Be it known that I, HENRY A. WISE WOOD, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Tensioning-Rollers for Web-Presses, of which the following is a specification.

The principal objects of this invention are to provide means whereby webs of one-half, three-quarters and full-width can be properly tensioned in an even and uniform manner on a newspaper printing or similar machine without danger when the narrow webs are run and without necessitating any complicated adjustments or mechanism.

Reference is to be had to the accompanying drawings in which—

Figure 1 is a side view of a portion of a printing machine showing a preferred embodiment of this invention applied thereto, and

Fig. 2 is an elevation looking in the direction of the arrow in Fig. 1.

It is at present the universal practice so far as I am aware to provide newspaper printing machines and other web presses of a similar character with a spring tensioning roller for each web running the full width of the press. This has to serve also when a web three pages wide or two pages wide is to be run, although the roller is designed for work with a four-page wide web. It is dangerous to run narrow webs in such presses at very high speeds because of the overhanging of the tension roller which throws more of the strain on one side of the web than on the other. This is due to the fact that the long thin roller, receiving its strain from the narrow web on one end, tends to run out of true at the center.

According to my invention a series of tension rollers are provided each in position to take a web from the same web roll and deliver it to the same web guide rolls. One of these rollers is preferably made of a length suitable for a full-size web, one for three-quarter width web and one for a half width web, and the shorter rollers are made so that they can be moved from one side of the press to the other to accommodate a narrow web at either side of the press.

Referring more particularly to the drawings, I have shown the invention as applied

to a newspaper printing machine having a frame 10 provided with supports 11 for the web rolls 12 and with guide rolls 13 for receiving the web or webs and delivering them to the other printing elements, not shown.

For the accommodation of a web of full width rollers 14 are shown. They are journaled in the usual spring-tension brackets 15 pivoted on studs 16 mounted just on the inner sides of the frame-work 10. This allows each of the rollers 14 to have a slight swinging motion around the center lines of the studs so as to accommodate the angular pull caused by the diminishing web roll. It will be noted that for each web there are two of these rollers 14 and 14^a.

In order that it shall be unnecessary to use this long tension roller 14 when the narrow web is being run I have shown two narrow rollers 17 and 18 of a similar character, one for a three-quarter width web and the other for a one-half width web. They are supported on brackets 19 similar to the brackets 15, but instead of carrying these brackets 19 on studs they are supported by transverse supporting rods 20 and held in proper position lengthwise thereon by collars 21 set-screwed to the rod. They are capable of having the swinging motion described above in connection with the roller 14, and furthermore they can be shifted from one end of their respective rods to the other so as to accommodate narrow webs running at the other side of the press. This is of advantage particularly where right and left-hand folders are being used.

It will be seen, therefore, that webs of all ordinary kinds can be accommodated by this simple means and both edges of each narrow web will be subjected to the same tension and strain so that the danger of rupturing the web from one side is avoided. Furthermore, there is no greater pull on one side of the roller than on the other, and no tendency to draw it out of its normal position at one end as is the case where a narrow web is run on a full length roller like the roller 14.

Although I have illustrated and described only a single embodiment of the invention I am aware of the fact that modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims.

Therefore, I do not wish to be limited to all the details of construction herein shown and described but what I do claim is:—

1. In a web press, the combination with
5 swinging spring supported web roll supports and web guide rolls, of a series of web tensioning rollers of different lengths located in position for receiving webs from different web rolls located on said web roll
10 supports.
2. In a web press, the combination with a web tension roller of a length to receive a web of full width, of a shorter web tension roller for a web of less width located
15 in position adjacent to the first named tension roller to receive at a different time a narrow web passing through substantially the same general course as the wide one.
3. In a web press the combination with a
20 web tension roller of a length to receive a web of full width, of a shorter web tension roller for a web of less width, and means whereby said short roller can be supported at either side of the press.
- 25 4. In a web press, the combination of a rod extending across the press, a web tension roller of less length than the rod mounted thereon, and means whereby said roller can be shifted to either end of the

rod to serve to tension a narrow web running on either side of the press.

5. In a web press, the combination of a rod extending across the press, a pair of spring tension brackets pivoted on said rod, a web roller of less length than the width
35 of the press carried by said brackets, and means whereby said brackets can be supported at either end of the rod.

6. In a web press, the combination with a support for a web roll and a guide roll
40 for receiving the web therefrom, of a series of web rollers of different lengths across the press located between the web roll and said guide roll, each one adapted to guide a web from the web roll to the guide roll independently of the others.
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7. In a web press, the combination with a support for a web roll and a guide roll for receiving the web therefrom, of a series of web rollers of full, three-quarters, and
50 half page widths respectively, all located between the web roll and guide roll, and each one adapted to receive the web from the web roll and guide it to the guide roll independently of the others.
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In testimony whereof I have hereunto affixed my signature.

HENRY A. WISE WOOD.

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