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MEANS FOR HOLDING THE FRONT EDGE OF A PAPER ROLL

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Fig. 1.

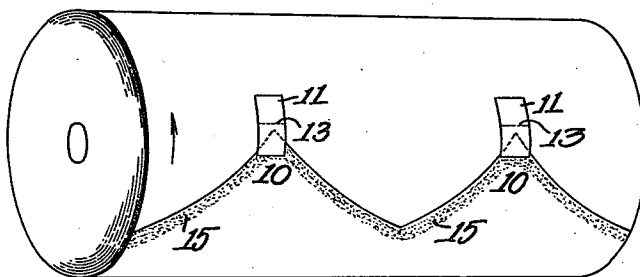


Fig. 2.

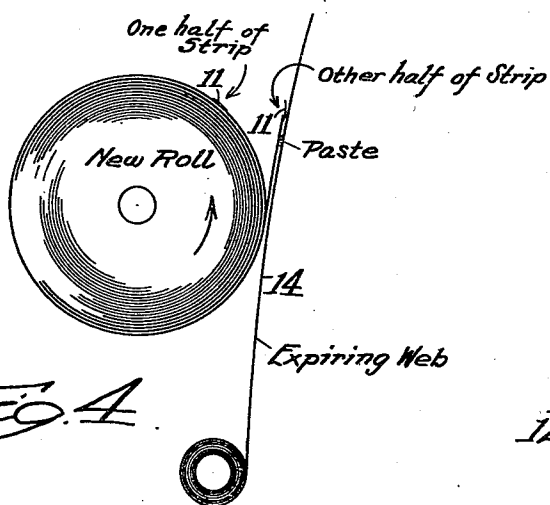
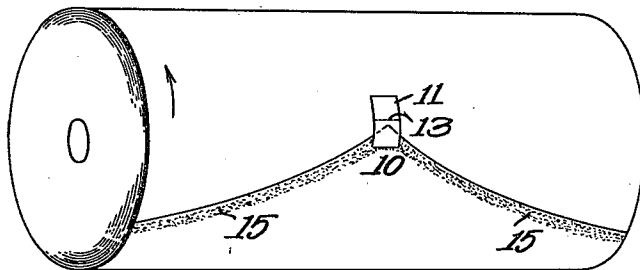


Fig. 4.

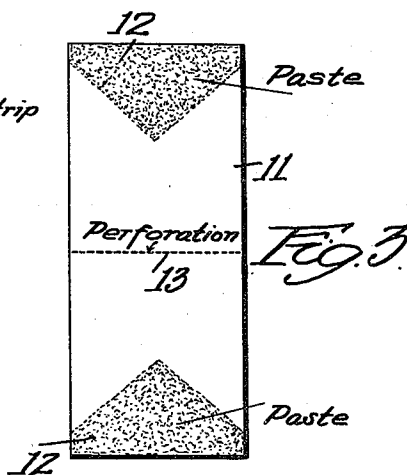


Fig. 3.

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MEANS FOR HOLDING THE FRONT EDGE
OF A PAPER ROLL

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9 Claims. (Cl. 242—58)

This invention relates to the paper rolls which are used for supplying paper to a printing press or the like.

The principal object of the invention is to provide means for holding the front edge of the rotating roll after the paste has been applied to it for attaching the expiring web to the web on the roll; to provide means for holding the front edge against flying off the roll, in place of the grease spots usually employed, which will be broken by the application of the expiring web thereto and yet will hold the front edge for any length of time during which it may remain in position before the paster is made and to provide this device in a simple and inexpensive form.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawing in which

Fig. 1 is a perspective view of a web roll shown as supplied with two devices for holding the front edge in position, constructed in accordance with this invention;

Fig. 2 is a similar view showing the web held by one of these devices;

Fig. 3 is a front elevation of the holding strip itself on enlarged scale, and

Fig. 4 is an end view of the web roll showing the operation.

The present method of making the paster is to cut the end of the paper on the new roll at an angle with the point leading forward and holding it against flying off by little spots of grease at several points under its front edge and then spreading paste the entire length of the cut slightly back from the edge. It frequently happens that this roll, after being prepared in this way, remains in position for some time before the paster is made. In such a case the grease loses its adhesiveness and, when the roll is loaded, wind is liable to get under the front edge of the sheet and cause it to fly off. This entails different kinds of damage and much delay.

Of course, it is necessary to hold the front edge of the web against the roll temporarily in such a way that when the paster is made it will let go of the roll and allow the new web to be fed into the press without any material resistance. This, of course, applies to those cases in which the paster is made without stopping the web or the press. According to this invention a relatively firm means is provided for holding the front edge for any length of time which will

not lose its adhesiveness by the lapse of time. For this purpose paste is provided instead of grease and the strip is perforated so that when the paster is made it will break away.

In Figs. 1 and 2 are shown two ways of applying the invention. The web roll can be provided with two or more points 10 on the leading edge of the web as shown in Fig. 1 or with a single point as shown in Fig. 2. In either case the points are attached to the roll by a strip of frangible material, as paper, 11 to which two spots of adhesive, as paste, 12 are applied at opposite ends and separated from each other. Between these spots and preferably at the center of the strip is a line of perforations 13. These strips are applied to the points so that the line of perforations is beyond the points and the strip is pasted both to the point and to the next course of paper on the roll.

This is a permanent attachment, so to speak, taking the place of the usual grease spots. No amount of drying out will reduce its effectiveness for this purpose. It is always ready for use and perfectly effective after once being applied.

Fig. 4 shows the operation. The expiring web 14 is pressed against the new roll which is rotating in the direction of the arrow and the usual line of paste 15 placed along the outer edge of the loose end of the web sticks to the expiring web 14. The motion of this web away from the roll, or rather the rotation of the roll to swing the part of the strip 11 that is attached to the roll away from the expiring web, necessarily pulls the strip apart along the line of perforations 13. Half of the strip remains on the paper of the roll and the other half is attached to the leading end of the web on the roll and passes into the press with the expiring web.

This constitutes a simple and effective means for holding the new web roll in proper condition until it is to be used, no matter how long that may be, and affords a sure means for separating the leading end from the roll when the paster is made.

Although I have illustrated and described only one form 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 in this respect but what I do claim is:—

1. A tab for use in holding down the leading edge of a rotating web roll prior to a web splicing operation, having a viscous adhesive on the outer face of the leading edge to attach said leading

edge to a running web whereby the latter is adapted to pull the leading edge free, said tab comprising a strip with a spot of adhesive at each end thereof, said spots of adhesive serving respectively to attach one end of the tab to said leading edge and the other to the next course of the web of said roll, the tab being formed with a transverse line of weakness between said spots of sufficient strength to hold down said leading edge against centrifugal force and the stripping action of the wind due to rotation of the roll.

2. In a web splicing device, a web roll and a new roll, a tab for attachment to the leading end of the new roll and to the next course of the web of said roll, said tab having a weakened portion across the same substantially parallel to the axis of the roll and means for attaching the expiring web to the leading end of the web of the new roll, whereby continued movement of the running web after attachment to the leading edge will cause the tab to be ruptured along said weakened portion.

3. In a web splicing device, a web roll and a new roll, a tab having a weakened portion for attachment to the leading end of the new roll and to the next course of the web of said roll, and means for attaching the expiring web to the leading end of the web of the new roll, whereby continued movement of the running web after attachment to the leading edge will cause the tab to be ruptured along said weakened portion.

4. In a web splicing device, a web roll and a new roll, a tab for attachment to the leading end of the new roll and to the next course of the web of said roll, said tab being of a strength sufficient to hold the leading edge against separation by centrifugal force and the stripping action of the wind during rotation of the roll, and capable of being ruptured through continued movement of the running web after attachment of the running web to the leading edge of the new roll.

5. The combination with a rotary web roll, of a frangible tab securing the leading edge of the web of the roll to the next course on the roll, said tab being of a strength sufficient to hold the leading edge against separation by centrifugal force and the stripping action of the wind during rotation of the roll, an area of viscous adhesive on the outer face of said leading edge, said adhesive having a greater holding power than said tab, and a second web running adjacent to said roll and adapted to be pressed into engagement with said adhesive to effect a stronger attachment to said leading edge than that between the leading edge and said next course, whereby the continued movement of the running web will rupture the tab and free the leading edge from said next course.

6. The combination with a rotary web roll, of a frangible tab securing the leading edge of the web of the roll to the next course on the roll, said tab being of a strength sufficient to hold the leading edge against separation by centrifugal force and the stripping action of the wind dur-

ing rotation of the roll at full press speed, an area of viscous adhesive on the outer face of said leading edge, said adhesive having a greater holding power than said tab, and a second web running adjacent to said roll and adapted to be pressed into engagement with said adhesive to effect a stronger attachment to said leading edge than that between the leading edge and said next course, whereby the continued movement of the running web will rupture the tab and free the leading edge from said next course.

7. A tab for use in holding down the leading edge of a rotating web roll immediately prior to a web splicing operation, having a viscous adhesive on the outer face of the leading edge to attach said leading edge to a running web, whereby the latter is adapted to pull the leading edge free, said tab comprising a strip of paper with a spot of adhesive at each end thereof, said spots of adhesive serving respectively to attach one end of the tab to said leading edge and the other to the next course of the web of said roll, the tab being formed with a transverse line of weakness between said spots having a holding power less than that of said viscous adhesive but sufficient to hold down said leading edge against centrifugal force and the stripping action of the wind due to rotation of the roll.

8. The combination with a web roll, of a tab having one portion permanently attached to the leading edge of the web and another portion permanently attached to the next course of the web on the roll, said tab being formed with a line of weakness separating said portions, an area of viscous adhesive on the outer face of said leading edge, and a second web running adjacent to said roll and adapted to be pressed into engagement with said adhesive so as to become attached to said leading edge, said line of weakness being of sufficient strength normally to hold said leading edge to said next course but of less holding strength than that of said adhesive, whereby continued movement of the running web after attachment to the leading edge will cause the tab to rupture along said line of weakness.

9. The combination of a web roll with the leading edge of the web forming a salient angle, a tab attached at one end to the apex of the angle and at the other end to the next course of the web of the roll, said tab having a transverse line of weakness between its points of attachment and immediately adjacent to said apex, an area of viscous adhesive on the outer face of said leading edge, and a second web running adjacent to said roll and adapted to be pressed into engagement with said adhesive so as to become attached to said leading edge, said line of weakness being of sufficient strength normally to hold said leading edge to said next course but of less holding strength than that of said adhesive, whereby continued movement of the running web after such attachment to the leading edge will cause the tab to rupture along said line of weakness.

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