

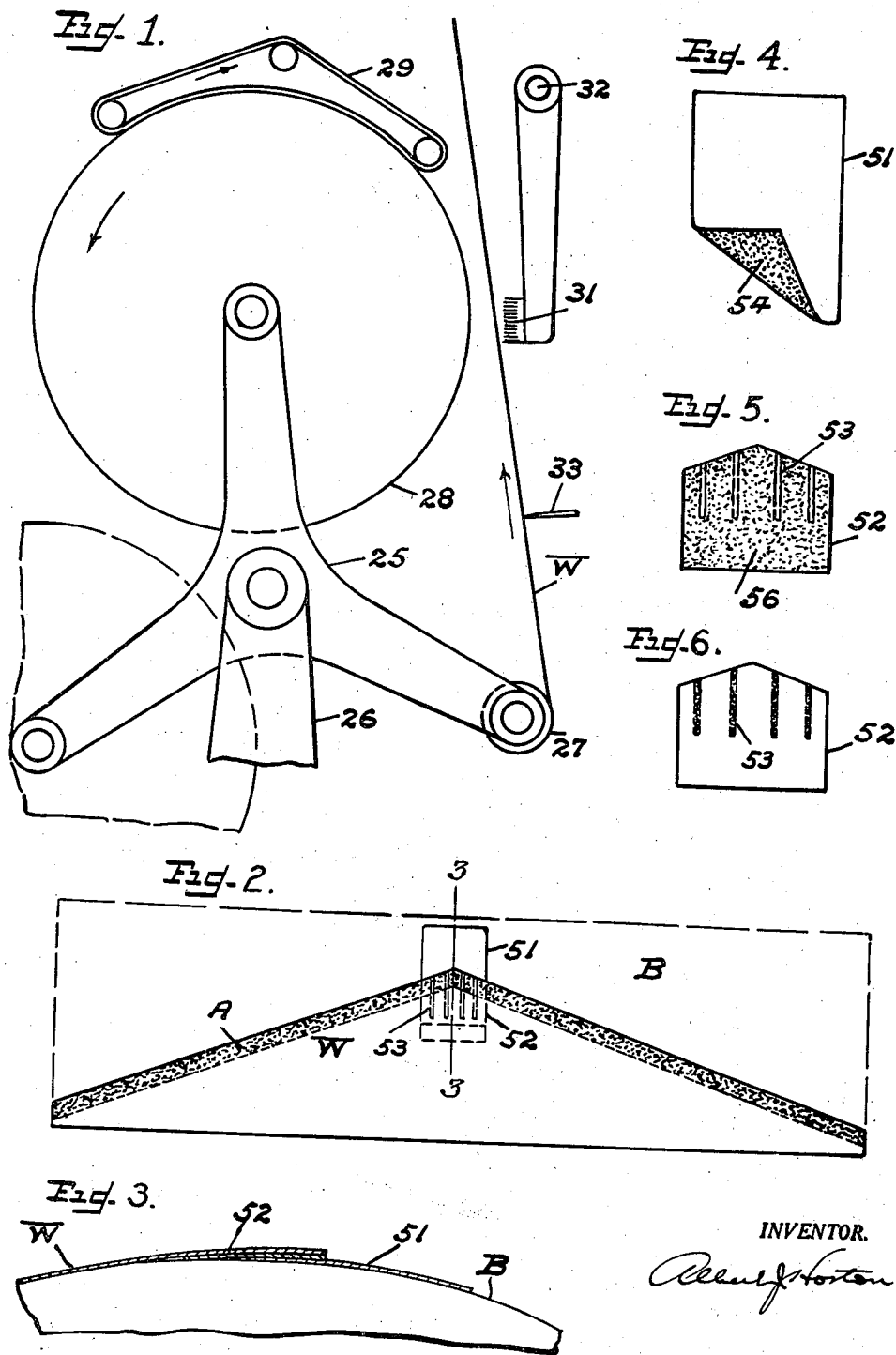
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BINDER TAB FOR WEB ROLLS

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BINDER TAB FOR WEB ROLLS

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5,667. Divided and this application January
27, 1938, Serial No. 187,153

14 Claims. (Cl. 242—58)

The invention disclosed in this application, which is a division of my copending application, Serial Number 5,667, filed February 8, 1935, now Patent Number 2,108,200 of February 15, 1938, relates to means for holding the free end of the web of a web roll, for a printing machine or other machine operating upon a web, against the body of the roll, and more particularly to a tab structure which is secured to both the body of the roll and the web end.

Previous to making a web join between the running web of an expiring running web roll and the web of a replacement roll, adhesive is applied on the outside of the free end of the web of the replacement roll which is then rotated at the speed of the running web, moved into close proximity therewith, and at the desired time, the said running web is pressed against the replacement roll, whereupon the adhesive portion adheres to the running web and after severing the web from the expired roll, the new web is drawn forward into the machine.

Mechanical devices have been used to hold the free web end against the body of the replacement roll while it is being rotated to make a web join, whereby the web end is released at the moment a web join is made, and paper tabs have been used, which have gummed portions adapted to be pasted to both the body and web end portions of the web roll. Such tabs other than those disclosed in the copending application referred to, are usually formed from paper and the material has a weakened portion between the points of contact with the roll body and web end to facilitate the separation thereof when a web join is being made.

It has been found that although tabs made with a weakened portion will release the web end when making a web join, it is difficult to apply them to the roll so as to hold the web end down properly without tearing them and causing the web end to be released prematurely.

According to the invention, tabs are provided which, due to their peculiar formation, are adapted to be easily separated at chosen points to provide quick and positive release of the web end.

It is the principal object therefore to provide a tab consisting of members which may be easily separated to release the web end from the body of the roll when a join is made.

It is a further object to provide a tab which can be applied to the roll without the exercise of special care on the part of the machine operator.

With the above and other objects in view

which will appear as the description proceeds, the invention resides in the tab form, and in the details of construction hereinafter described.

Figure 1 is a diagrammatic view showing a web roll supporting reel, with an expiring web roll and a replacement roll thereon, also showing means to rotate the replacement roll, a brush to press the running web against the replacement roll when making a web join, and a web severing means;

Figure 2 is a front elevational view showing a portion of a web roll with a tab structure applied to the free end and body portion of the roll;

Figure 3 is a cross sectional view taken on the line 3—3 of Figure 2;

Figure 4 is an enlarged detail view of one member of the tab structure shown in Figure 2 with an adhesive indicated on the rear surface of said member;

Figure 5 is an enlarged detail view of the other of the tab members of Figure 2, showing an adhesive on the front surface thereof; and

Figure 6 is a view showing the opposite surface of Figure 5 in which several thin strips or lines of adhesive are indicated.

In Figure 1, one method is illustrated for mounting web rolls which includes a reel 25, rotatably mounted on a support 26 and adapted to support a plurality of web rolls. In the particular arrangement shown, an expiring web roll is indicated at 27 and a replacement roll is indicated at 28, with the running web of the expiring roll moving close to the replacement roll. Also combined with the roll mounting is a driven endless belt 29 which accelerates the replacement roll to the speed of the running web, and a brush member 31 which is pivotally mounted at 32 and is adapted to be moved against the running web to move the said web into engagement with an adhesive portion on the free web end of the replacement roll to make a web join. Means to sever the web after a join is made is also indicated at 33. An adhesive A of a suitable type is applied along the end of the web W in the manner indicated in Figure 2, except in the limited space where the accelerating belt 29 will engage the roll 28.

As soon as the running web adheres to the adhesive portion on the replacement web end, it is important that the web end is immediately freed from engagement with the body of the roll. This is accomplished by providing a tab means which is adapted to be secured to both the free web end and the body of the roll in a manner which

will cause the said tab structure to be torn or otherwise separated as soon as a strain is applied thereto, such as by the pulling action of the web end when the running web engages the adhesive on the replacement roll.

The tab structure embodied in the preferred form of the invention, as shown in Figures 2 to 6 inclusive, comprises a structure consisting of two strips of paper 51—52 or the like placed as best shown in Figure 3, and held together by means of a limited amount of adhesive 53. The amount and method of applying the adhesive may be carried out as suggested in Figures 5 and 6, which shows the adhesive disposed in a few thin lines. With this arrangement, the tab will resist a considerable pull tending to move the smaller section 52 over the larger section 51, as is caused by speeding up the roll, but very little force is required to separate them when it is applied by pulling the point of the smaller section directly away from the larger section, as occurs when a web join is made.

The strip 51 has an adhesive 54 upon the under surface thereof and is secured to the body B of the roll, while the strip 52 has an adhesive 56 upon the upper surface thereof, which is secured to the web end W.

It will be observed that in each of the tab structures disclosed, there are no weak portions in the material structure such as perforations, slits, or the like, but that the full strength of the material structure is maintained throughout the tab.

It will be understood that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and it is therefore desired that the present embodiment be considered in all respects as illustrative and not restrictive, and it will be further understood that each and every novel feature and combination present in or possessed by the mechanism herein disclosed forms a part of the invention included in this application.

What I claim is:

1. A tab for application to a roll from which a web is to be fed to a machine, comprising a portion having adhesive thereon and adapted to be pasted only to the free end of the web of the roll, another portion having adhesive thereon and adapted to be pasted only to the body of the roll, and adhesive means joining said portions together to thereby maintain the free web end in contact with the body of the roll, said adhesive means being arranged to permit one portion to be readily separated from the other portion without tearing, and thereby release the free end of the web from the body of the roll when a web join is made.

2. A separable tab for a web roll from which a web is to be fed to a machine, comprising two tab members arranged in juxtaposed relation, relatively weak adhesive means holding said members together, and relatively strong adhesive means on the outer surfaces of said separable tab, whereby it may be secured between and to both the free end of the web of the web roll and the body of the roll, to hold said web end against the body and whereby said tab members may easily be separated without tearing to release the web end from the body of the roll when a web join is made.

3. The combination with a rotatably supported web roll for a printing machine, of a tab structure, including two tab members arranged in juxtaposed relation, thin lines of adhesive be-

tween said members and adapted to join them together, and adhesive on the upper and lower surfaces of said tab structure, whereby it may be secured to both the free web end and the body of the roll to hold said web end against the roll, and whereby one tab member may be separated from the other to release the web end from the body of the roll when a web join is made.

4. In a tab adapted to secure the free end of the web of a web roll to the body of the roll, a tab member having adhesive on one side whereby it may be secured to the body of the roll, and a second tab member having adhesive on one side whereby it may be secured to the free web end, said first tab member and said second tab member being separably secured to each other in juxtaposed relation by adhesive disposed between limited areas of their juxtaposed surfaces, whereby the members may easily be separated by a strain applied at an edge of one of the members and in a direction substantially normal to its surface.

5. In a tab adapted to secure the free end of the web of a web roll to the body of the roll, a tab member having adhesive on one side whereby it may be secured to the body of the roll, and a second tab member having adhesive on its upper surface whereby it may be secured to the free web end, said first tab member and said second tab member being separably secured to each other in juxtaposed relation by adhesive disposed only at preselected, restricted areas on the bottom surface of the said second tab member, whereby the members may easily be separated by a force applied at an edge of one of the members and in a direction substantially normal to its surface, but are resistant to any force tending to move one member over the other in a direction parallel to their surfaces.

6. In a tab adapted to secure the free end of the web of a web roll to the body of the roll, a tab member having adhesive on one side whereby it may be secured to the body of the roll, and a second tab member having adhesive on one side whereby it may be secured to the free web end, said first tab member and said second tab member being separably secured to each other in juxtaposed relation by adhesive disposed only at restricted, spaced areas of their juxtaposed surfaces, whereby the members are highly resistant to a pull tending to move one member over the other in a direction parallel to their juxtaposed surfaces, but are adapted to be separated by a comparatively light pull applied to an edge of one of the members in a direction substantially normal to their juxtaposed surfaces.

7. A tab for application to a web roll from which a web is to be fed to a machine, said tab including a member having adhesive thereon for pasting to the free end of the web of the roll, another member having adhesive thereon and arranged to be pasted to the body of the roll, and additional adhesive for holding said members together, said last mentioned adhesive being arranged between opposing faces of the said members and being disposed only at restricted, comparatively narrow, spaced areas thereon, whereby one of the members may be bodily separated from the other without tearing in order to release the web end from the body of the roll when a web join is made.

8. In a tab for application to a web roll from which a web is to be fed to a machine, two members each having adhesive on one side thereof and adapted to be pasted respectively to the body of

the web roll and to the free end of its web, the other sides of said members being joined together in face to face relation by a plurality of narrow strips of adhesive so disposed that the strips of adhesive will be curved about the roll when the tab is applied thereto.

9. A separable tab for detachably securing the outer web end of a web roll to the body portion thereof, including a first tab member having adhesive on one side for securing it to the body of the roll only, a second tab member having adhesive on one side for securing it to the web end only, said first and second tab members being lightly secured to each other in face to face relation so as to hold the web end against the body of the roll when it is rotated rapidly, but permit the members to be separated without tearing when the web end is spliced to a running web.

10. A separable tab for detachably securing the outer web end of a web roll to the body portion thereof, including a first tab member having adhesive on one side for securing it to the body of the roll, and a second tab member having adhesive on one side and secured only to the web end, said first and second tab members being secured to each other by an adhesive disposed to resist movement of one tab member over the surface of the other tab member, but to permit easy separation of the members without tearing, by a force tending to lift one tab member from the surface of the other, whereby the web roll may be rotated at relatively high speed without loosening the web end and the web end may be separated from the roll without tearing either the web or the tab when the web end is spliced to a running web.

11. In a means for holding a web end to the body of a web roll preparatory to rotating the roll for splicing its web end to a running web, a tab having first and second tab members arranged to be secured respectively to the web end and to the body of the roll adjacent the web end, and adhesive means disposed to hold said tab members in face to face relation and resist slipping, and easily separable by lifting the edge of one tab member from the other when it is desired to separate the web end from the body of the roll.

12. In a means for holding a web end to the

body of a web roll preparatory to rotating the roll for splicing the web end to a running web, a tab structure including a first tab member arranged to be secured to the web only at the web end by relatively strong adhesive means, and a second tab member arranged to be secured to the web only on the body of the roll by relatively strong adhesive means, the members of the said tab structure being held together in face to face relation by a relatively weak bonding means embracing a relatively large area, whereby to prevent a slipping motion of one member relative to the other, while offering minimum resistance to separation of the members from each other without tearing, when the edge of one member is lifted from the surface of the other, to separate the web end from the body of the roll.

13. The combination with a rotatably supported web roll, from which a web is to be fed to a machine, said web roll having adhesive applied to its outer web end, of a separable tab detachably securing the said web end to the body portion of the web roll, said tab comprising two tab members arranged in juxtaposed relation, relatively weak adhesive means holding said members together, and relatively strong adhesive means securing the tab to the free end of the web of the web roll and to the body of the roll, to hold the said web end against the said body; the said tab members being easily separated without tearing, to release the web end from the body of the roll when a web join is made.

14. The combination with a rotatably supported web roll, from which a web is to be fed to a machine, the said web roll having adhesive applied to its outer web end, of a separable tab detachably securing the said web end to the body portion of the web roll, the said tab comprising a plurality of tab members lightly secured to each other in face to face relation, and including a first tab member firmly secured to the body of the roll, and a second tab member firmly secured to the web end; whereby the web end is held against the body of the roll so as to withstand rapid rotation, and the tab members will be separated from each other without tearing, and the web end thereby freed from the body of the roll when a running web is pressed against it.

ALBERT J. HORTON.

CERTIFICATE OF CORRECTION.

Patent No. 2,212,937.

August 27, 1940.

ALBERT J. HORTON.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 3, first column, line 24, claim 10, for the words "and secured only" read --for securing it--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 22nd day of October, A. D. 1940.

(Seal) .

Henry Van Arsdale,
Acting Commissioner of Patents.