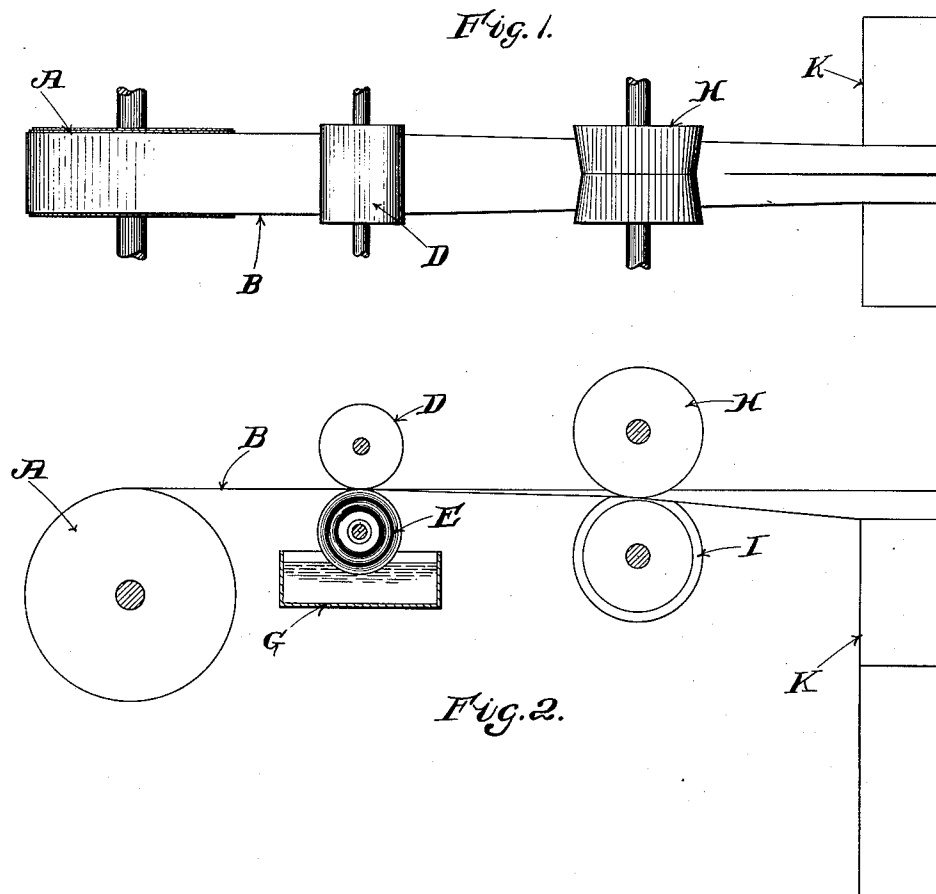
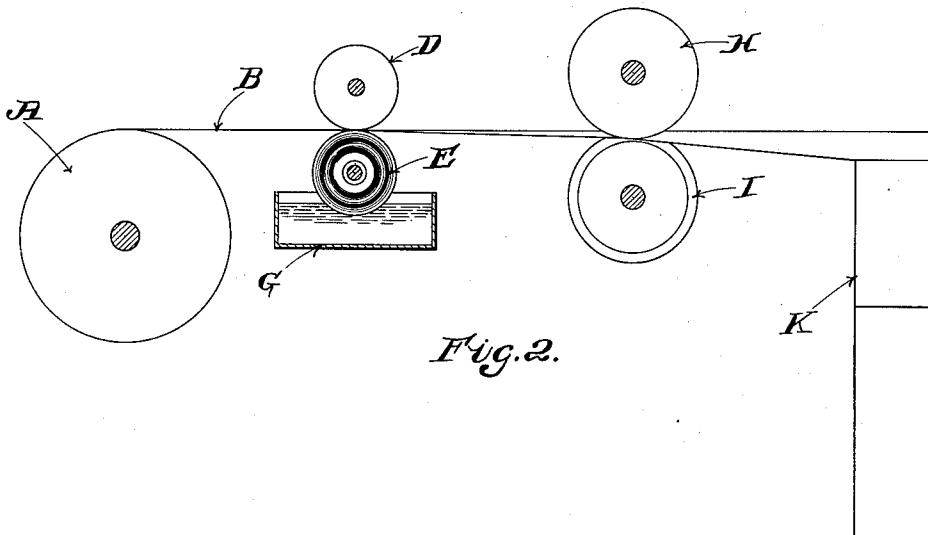
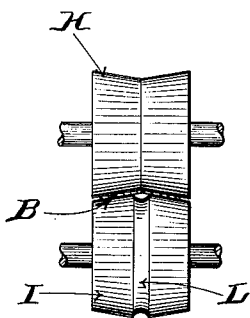
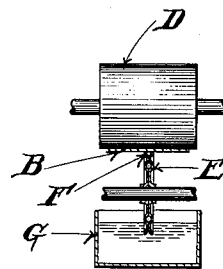


No. 842,823.

PATENTED JAN. 29, 1907.

H. B. WHITE.
STAY STRIP.

APPLICATION FILED AUG. 10, 1906.



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UNITED STATES PATENT OFFICE.

HENRY B. WHITE, OF MALDEN, MASSACHUSETTS, ASSIGNOR TO CARTER, RICE & COMPANY, INCORPORATED, A CORPORATION OF MASSACHUSETTS.

STAY-STRIP.

No. 842,823.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed August 10, 1906. Serial No. 330,061.

To all whom it may concern:

Be it known that I, HENRY B. WHITE, a citizen of the United States, residing at Malden, in the county of Middlesex and State of Massachusetts, have invented a certain new and useful Improvement in Stay-Strips, of which the following is a specification, reference being had therein to the accompanying drawings.

For various reasons well known to those skilled in the art it is very desirable that the gummed stay-strip, such as used to stay the corners of boxes and similar articles, be formed so that it will fold along any desired line. Great difficulty in accomplishing this has been experienced and various expedients have been used.

My present invention consists in treating the gummed stay-strip with a solvent for the adhesive along the desired line of fold. If, for instance, it is desired that the stay-strip should fold along the median line, so that the two sides of the strip when applied to the box shall be equal, then the stay-strip is treated with the solvent along this line in the manner now to be described. If it is desired to fold the stay-strip along a line at one side of the median line, then the solvent is applied along this line. It is found that by the use of my improved method the stay-strip may even be caused to fold along an irregular line, if desired, without the use of other instrumentalities than the application of a solvent for the gum on the line along which the folding is desired.

The invention will be fully understood from the following description, taken in connection with the accompanying drawings, and the novel features are pointed out and clearly defined in the claims at the close of the specification.

For convenience of explanation of the process of my invention I have shown in the accompanying drawings one particular form of mechanism for practicing the invention. This is, however, shown only for the purpose of illustration, because many different mechanisms may be employed to practice the process of my invention. The drawings illustrate the process of producing a fold along the median line of the stay-strip; but it will be understood that a fold along other lines may be similarly produced.

In the drawings, Figure 1 is a plan view of

the machine adapted to produce a folded stay-strip after the method of my invention. Fig. 2 is a side elevation thereof. Fig. 3 is an end view of the folding-rolls. Fig. 4 is a view of the solvent-applying mechanism.

Referring to the drawings, at A is indicated a roll of gummed stay-strip of the ordinary character. The stay-strip B from the roll A is passed over some convenient wetting device, which deposits on the gummed surface of the stay-strip along the line which it is desired the crease shall follow some solvent for the gum of the stay-strip. This solvent for the gum is ordinarily water; but other liquids may be employed according to the character of the adhesive on the stay-strip. The solvent is deposited in a very narrow line by any convenient means.

In the drawings I have shown a roll E, composed of two disks having between them a slight space which receives a small amount of the solvent from the tank G and deposits the same on the under side of the gummed stay-strip B. By making the space F of a proper size a constant and predetermined amount of the solvent may be deposited.

At D is indicated a roll to support the stay-strip at the point where the roll C acts. After passing the rolls D and E the stay-strip B passes through dies or rolls H and I, which serve to bend the stay-strip slightly along the wetted line ready to be applied by the corner-staying machine to the box K. It is only necessary to commence the bending, as it is found that the crease will follow the line along which the solvent has been applied.

In order that the moistened portion of the stay-strip may not adhere to the dies or cause them to become gummy, it is advisable to form a groove L wide enough to straddle the wetted portion of the stay-strip, so that this portion of the stay-strip may not come in contact with the under die.

I find in practice that gummed stay-strip will bend along the wetted line and that the bending will follow this line even if the line is very considerably irregular, since the wetting serves to soften the gum and bending follows the line of least resistance, which is the line where the gum has been softened by the solvent. If, therefore, it is desired to bend the stay-strip along a line on one side of the median line, it is necessary only to move the solvent-applying roll E slightly to one side,

and it will be found that the bend will follow this line and that no guides or other means for causing the bend to follow the line will be required.

5 The invention therefore affords means for doing away with the necessity of guides on machines using the gummed stay-strip and also by relieving the surface tension along the line of fold permits the use of ordinary uncreased or flat gummed stay-strip
10 which has heretofore been required to be creased or perforated to cause it to bend along the proper line.

The invention also provides means for
15 causing a gummed stay-strip to fold along the desired line without weakening the material, as the softening of the gum gives the stay-strip increased flexibility during the time before the solvent has evaporated, but
20 does not impair its strength in the slightest degree.

In this specification I have used the words "wetted" and "moistened" to signify the

application of the solvent of whatever kind it may be to the gum, it being understood that
25 various solvents may be employed to soften the gum and to destroy its surface tension and cohesion, so that a line of least resistance on the stay-strip is formed.

I claim as my invention—

1. The method of causing gummed stay-strip to fold which consists in applying solvent for the gum to the gummed face of the strip along the desired line of fold.

2. The method of causing gummed stay-strip to fold which consists in applying solvent for the gum to the gummed face of the strip along the desired line of fold and bending the stay-strip along the proposed line of fold while the wetted gum is still soft.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY B. WHITE.

Witnesses:

GEORGE P. DIKE,
ALINE TARR.