

H. L. BROCKWAY.
 STAY STRIP WIPER FOR BOX STAYING MACHINES.
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1,038,839.

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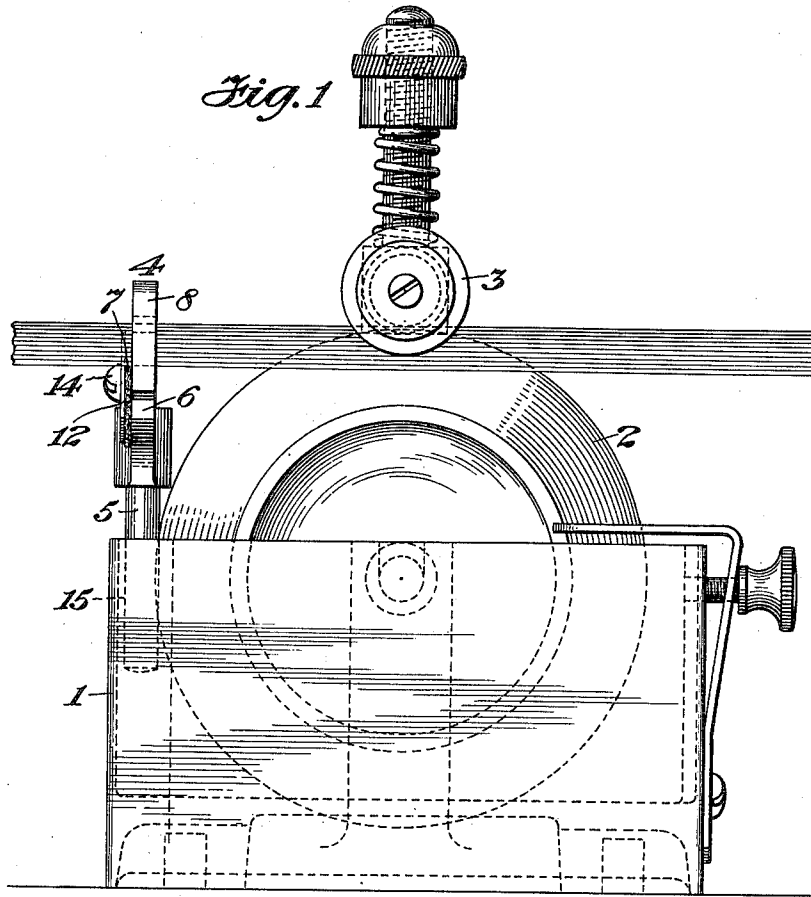


Fig. 3



Fig. 2

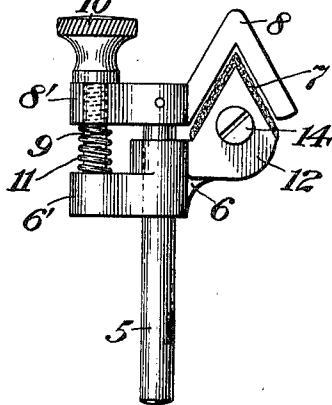


Fig. 4



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UNITED STATES PATENT OFFICE.

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STAY-STRIP WIPER FOR BOX-STAYING MACHINES.

1,038,839.

Specification of Letters Patent.

Patented Sept. 17, 1912.

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To all whom it may concern:

Be it known that I, HERBERT L. BROCKWAY, citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Stay-Strip Wipers for Box-Staying Machines, of which the following is a specification.

In box-staying machines of certain types, a stay-strip of paper or other suitable material is carried by a reel and is fed therefrom by feeding mechanism to a position between clamping dies which operate to press the stay-strip upon the corner of an interposed box; the stay-strip being rendered adhesive during its passage from the reel to the clamping dies in order that it may be caused to adhere to the box corners when pressed thereon. The means for so rendering the stay-strip adhesive varies according to the character of stay-strip employed; that is, a stay-strip having a previously gummed surface is rendered adhesive by the application of moisture to its gummed surface, and a stay-strip with an ungummed surface is rendered adhesive by the application of paste or other suitable adhesive thereto. In either case, however, a means is provided for rendering the stay-strip adhesive comprising a tank for containing either water or paste, and a wheel arranged to have a portion of its periphery at the lower side thereof pass through the said water or paste in the tank so as to become coated with the same and subsequently apply it to the stay-strip guided in contact therewith at its upper side, in usual and well known manner. The water or paste thus applied to one side of the stay-strip is liable to be excessive and as a means for regulating the amount remaining on the stay-strip, a so-called "wiper" is employed for removing any surplus therefrom. This wiper, as heretofore constructed, has comprised two metallic jaws or members arranged with a space therebetween through which the stay-strip may be fed, one of said members being operative to scrape or wipe the surplus moisture or paste from the strip and the other being operative to hold the strip in operative engagement with said scraping or wiping member.

In the use of previously gummed stay material, to which it is only necessary to apply water or moisture to render adhesive, it is found that the coated or gummed surface occasionally has dry or unmoistened spots

after having passed over the moistening roller, caused either by the capillary action of the water after being applied to the gummed surface of the material or else by reason of the non-application of water at such spots by the moistening wheel, and which dry or unmoistened spots results in the subsequent incomplete adherence of the stay-strip to the box corner.

To avoid possibility of such incomplete moistening of the coated or gummed surface of the stay-strip has been the object of my present invention; which object I attain by forming the lower or distributing surface of the wiper of an absorbent material, such as felt, which will operate to effect a complete and uniform moistening of the gummed surface of the stay material by collecting any surplus moisture thereon and applying the same to any dry or unmoistened spots.

Referring now to the accompanying drawings forming part of this specification,—Figure 1 is a side elevation of a water or paste containing tank having supported thereon a water or paste applying wheel and my improved wiper, the latter being shown in side elevation. Fig. 2 is a view of the wiper in front elevation removed from the tank. Figs. 3 and 4 are detail views to be hereinafter referred to.

The tank 1, the water or paste applying wheel 2 supported in bearings on said tank, and the presser wheel 3 supported above the wheel 2 for holding the stay-strip in operative contact therewith, are all of usual construction and arrangement. Also supported on the tank 1 and in position forward of the wheel 2 is the wiper, indicated generally by the reference numeral 4. This wiper comprises a main supporting spindle 5 having mounted thereon the two jaws or members between which the stay-strip is adapted to be fed, the lower member 6 being provided with a pad 7 of absorbent material for wiping engagement with the under adhesively-coated surface of the stay-strip, and the upper member 8 being adapted to engage the stay-strip at its upper side and hold the same in operative engagement with said wiping surface of the pad 7. The adjacent or opposing surfaces of the pad 7 and member 8 are shown in the present case as having a V-shape form in order to conform to the shape of the stay-strip as it passes from the wheel 2, and the space between said op-

posing surfaces is made adjustable in order that the lower or wiping surface may be caused to remove the proper amount of moisture or paste from the stay-strip; such adjustment being provided in the present case by slidably mounting the lower member 6 on the spindle 5 and adjustably connecting the same with the upper member 8 by means of a threaded stem 9 fixedly attached at one end to an arm 6' of the member 6 and at its opposite or upper end extending loosely through an opening in an arm 8' of the member 8 and being engaged by an adjusting-nut 10. By turning said nut 10 in the proper direction the lower member 6 will be raised toward the upper member 8 to decrease the strip-receiving space therebetween and by turning said nut in the opposite direction the lower member will be moved downward to increase said space by the action of a coiled spring 11 located on the stem 9 and normally expanding between the arms 6'—8' of the members 6—8.

The pad 7 of absorbent material carried by the member 6 may be formed of felt or any other suitable material and may also be attached to said member 6 in any desired or suitable manner, the same as shown in the present case being in the form of a piece of felt removably secured to the member 6 by means of a clamping plate or member 12 held to said member 6 by a screw 14. The clamping plate 12 has its upper end of inverted V form, on one edge of which is a slight projection intended to bear against a shoulder formed on one side of the member 6, said member having an upward projection similar in shape to the plate 10 to serve as a backing for the pad 7. As thus constructed the V-shaped edges of the plate when in position, lie parallel to the wiping surface of the pad and a short distance within the same, so that when said clamping plate is secured to the member 6 by screw 14, the lateral projection on the plate will bear against the shoulder previously referred to and prevent the plate from rotating as the screw is tightened, thus keeping the pointed upper portion of the plate in proper relation to the pad. Attention is also called to the fact that as the plate covers the greater portion of the pad 7, its density, and therefore its property of absorption may be increased or decreased by tightening or loosening said screw 14.

The wiper may be secured in operative position on the tank or other support in any desired manner, the same in the present case being supported with the lower end of its spindle 5 removably secured in a suitable seat 15 formed in the wall of the tank.

What I claim is:

1. In a device of the class described, means for coating a strip with a moist substance, a V-shaped absorbent pad for evenly distributing said substance over the strip, a supporting member for said pad, a clamping plate for holding said pad on the supporting member, a projection on said plate arranged to bear against said supporting member for retaining said plate in proper relation to the pad, and a complementary V-shaped member adjacent the operating surface of said pad to hold the strip in contact therewith.

2. In a device of the class described, means for coating a strip of material with a moist substance, an absorbent pad adapted to evenly distribute such substance over the strip, a supporting member for said pad on which it is adapted to slide, a complementary member fixed to said supporting member, and means for positively moving said pad to and from the complementary member and holding it in fixed position after adjustment.

3. In a device of the class described, means for coating a strip with a moist substance, a V-shaped absorbent pad for evenly distributing said substance over the strip, a supporting member for said pad, a plate for holding said pad against said member, a complementary V-shaped member adjacent and overlying the operating surface of said pad to hold the strip in contact with said surface, a post to which said complementary member is fastened and on which the supporting member is adapted to slide, and adjusting means between said members for regulating the width of the strip space.

4. In a device of the class described, means for coating a strip with a moist substance, a V-shaped absorbent pad for evenly distributing said substance over the strip, a supporting member for said pad, a plate for holding said pad against said member, a complementary V-shaped member adjacent the operating surface of said pad to hold the strip in contact therewith, a post to which said complementary member is fastened and on which the supporting member is adapted to slide, positive means for moving said pad toward the complementary member, and a spring for moving the same in opposite direction.

Signed at Rochester, in the county of Monroe and State of New York this 9th day of Nov. A. D. 1906.

HERBERT L. BROCKWAY.

Witnesses:

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