J. M. DEWEY.

BINDING MACHINE.

APPLICATION FILED AUG. 5, 1911.

1,069,323. Patented Aug. 5, 1913.

Fig. 1.

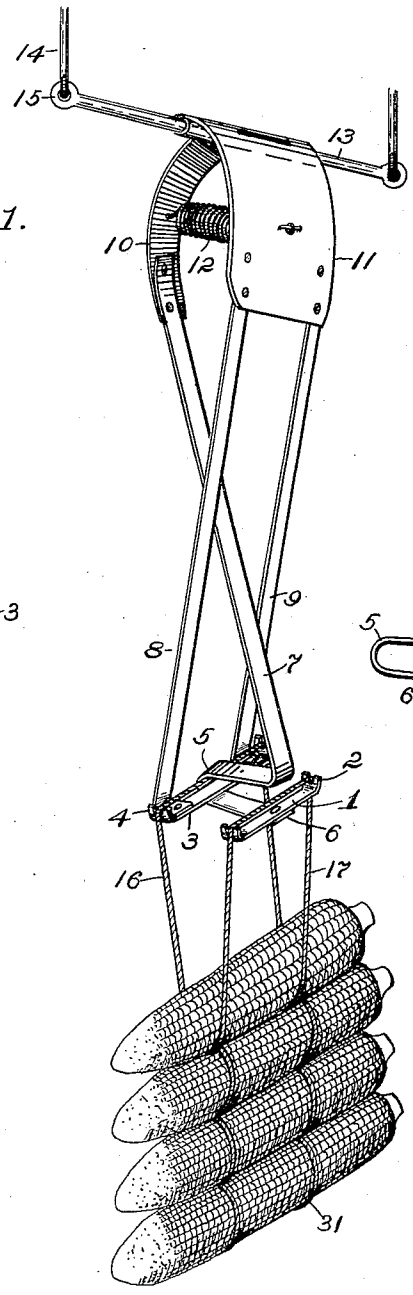
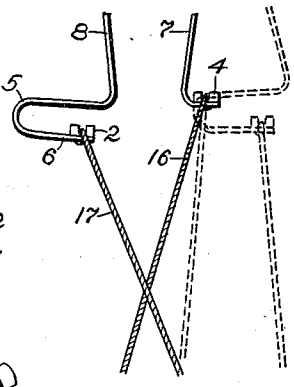


Fig. 2.



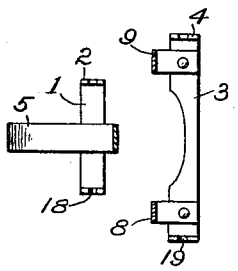


Fig. 3.

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BINDING-MACHINE.

1,069,323. Specification of Letters Patent. Patented Aug. 5, 1913.

Application filed August 5, 1911. Serial No. 642,539.

To all whom it may concern:

Be it known that I, JOHN M. DEWEY, a citizen of the United States of America, and a resident of Albion township, Butler county, Iowa, have invented certain new and useful Improvements in Binding-Machines, of which the following is a specification.

My invention relates to improvements in binding machines, particularly to those adapted for binding seed-corn and the like.

My device, although adapted for binding various articles, is particularly adapted for use in connection with seed-corn ears to bind or string the same so as to permit a free circulation of air around the ears to rapidly dry the same and prevent the ears from decaying or becoming moldy.

For the purpose mentioned, use is made of spring-actuated arms mounted to swing on a main support and loop carriers secured to the lower ends of the arms, a cord being mounted to depend from the said loop carriers and adapted to receive an ear of seed-corn therein, the said cord being crossed by actuating the said arms when a second ear of seed-corn is moved into engagement with the cord, thus securing the first ear of seed-corn and providing a place in the cord for the next ear.

Reference is had to the accompanying drawings constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a perspective view of my device showing the same in operative position. Fig. 2 is a broken away detail, showing the lower parts of the arms with their loop carriers, and as spaced apart from each other, as positioned when crossing the parts of the binding cord, the dotted lines indicating the relative positions of said parts when closed together. Fig. 3 is a plan view of the broken away parts of the said arms which carry the loop carriers, in their spaced apart position.

Referring more particularly to the views, I provide supporting cords 14 adapted to be suspended from any overhead supporting structure, and whose lower ends are secured to the eyes 15 in a horizontal bar 13. Upon the latter the oppositely-disposed plates 10 and 11 are mounted to swing to and from each other, said plates being connected by means of a yieldable tension spring 12, of a helical form. Secured to the plate 11 are depending spaced apart arms 8 and 9, and secured to the other plate 10 is a single depending arm 7, adapted to swing into and out of the interspace between the first-mentioned arms 8 and 9. The lower end of the arm 7 is bent to form a U-shaped stop-member 5, and the outer end 6 of the stop-member 5 has a loop carrier 1 medially and transversely secured to it, the ends of said loop carrier being bent upwardly to form lugs 2 and said lugs having transverse grooves 18. The lower ends of the arms 8 and 9 have a relatively longer transverse bar 3 secured thereto, and provided with upstanding lugs 4 at its ends having transverse grooves 19, thus forming a loop carrier similar to the other loop carrier 1 and lying parallel to the latter. The arms 8 and 9 are rigid with each other, and the other arm 7 is normally by the action of the spring 12 kept in a crossed position to said other arms at their medial portions. In this position, which is shown in Fig. 1, and also in the dotted lines in Fig. 2, the loop carrier of the arms 8 and 9 is received between the upper and lower sides of the stop-member 5 and retained against the inner end of the stop-member. Thus it is seen that the stop-member 5 acts as a means for limiting the separation of the lower ends of the arms 8 and 9 from the arm 7 when said arms are crossed.

In the use of my device the same is in the position mentioned and a binding-cord 31 is passed over the notched lugs 4 of the loop carrier 3, and also over the notched lugs 2 of the loop carrier 1 with the intermediate parts hanging between the loop carriers as shown. A seed-corn ear is then passed into the suspended loops 16 and 17 of said cord so as to lie therein. A second ear is then positioned between the arm 7 and the oppositely located arms 8 and 9, above their crossing. When the ear is pushed downwardly it slides over the flattened surfaces of said arms and pushes them apart to the position shown in the full lines in Fig. 2, the act crossing the loops 16 and 17 in advance of the moving ear. The ear is then moved downwardly moving the crossing of said loops before it, till received on top of the first ear. The arms are then allowed to swing back to their first position under the actuation of the stretched spring 12, and this reaction of the parts recrosses the loops 16 and 17 over the last-

manipulated ear. Then another ear is positioned between the said loops below said device, but above the crossing of the loops, and brought downwardly upon the second ear. In this manner the loops are successively crossed and recrossed, till the cord is filled. Since the loop carrier 3 is longer than the loop carrier 1, said movements are permitted to take place without interference.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. A device of the class described, comprising arms mounted to swing on supporting means and normally disposed in relatively crossed position, supporting means for said arms, a spring secured between the said arms to keep the same in crossed relation, a stop-member formed on the lower end of one of the arms, a loop carrier on the said stop-member, a second loop carrier secured to the other arm and normally positioned in the said stop-member, said loop carriers being adapted to support a binding cord.

2. A device of the class described, comprising arms mounted to swing on supporting-means, said arms being normally disposed in relatively crossed position, supporting-means for said fingers, a spring secured between said arms to retain the same in crossed relation, a stop-member formed on the lower end of one of the arms, a loop carrier on said stop-member, notched lugs formed on the said loop carrier, a second loop carrier secured to the other arm and normally positioned in the said stop-member, notched lugs integrally formed on the second loop carrier, the notched lugs on said loop carriers being adapted to support a binding cord.

3. A device of the class described, comprising arms mounted to swing on a supporting-bar and disposed in crossed relation, a supporting-bar, a spring for retaining the said arms in crossed relation, a U-shaped stop-member formed on the lower end of one of the said arms, a loop carrier secured to the said stop-member, a second loop carrier secured to the other arm and normally positioned within the said stop-member, said loop carriers being adapted to support a binding cord.

4. In a device of the class described, a spring actuated arm mounted to swing on a supporting bar, a stop member integrally formed on the arm, a second arm mounted to normally extend through the said stop member to limit the movement of the first mentioned arm, said arms being adapted to be connected to a binding cord, the said binding cord being adapted to be crossed when the first mentioned arm is operated relatively to the second mentioned arm.

5. In a device of the class described, a spring-actuated arm mounted to swing on a supporting bar, a stop member formed on the said arm, a second arm mounted to extend through the said stop-member to limit the movement of the first mentioned arm, a loop-carrier secured to the first mentioned arm, said loop carrier and said second-mentioned finger being adapted for connection to a binding cord, said binding cord being adapted to be crossed when the first mentioned arm is operated to reciprocate the said loop-carrier relatively to the second mentioned arm.

Signed at Waterloo, Iowa, this 21st day of July, 1911.

JOHN M. DEWEY.

Witnesses:
WIRT P. HOXIE,
G. C. KENNEDY.