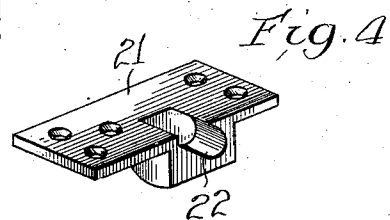
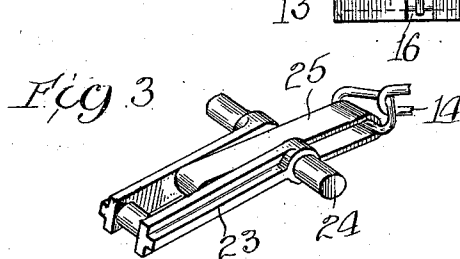
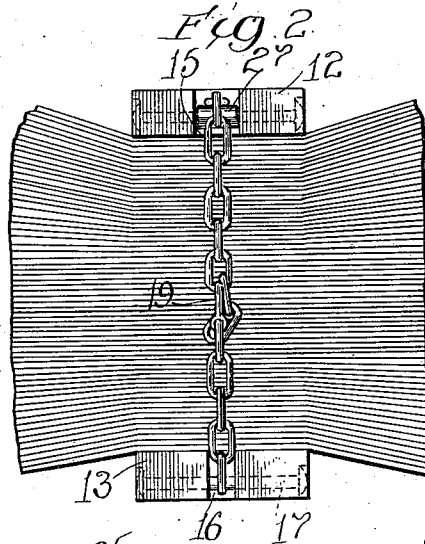
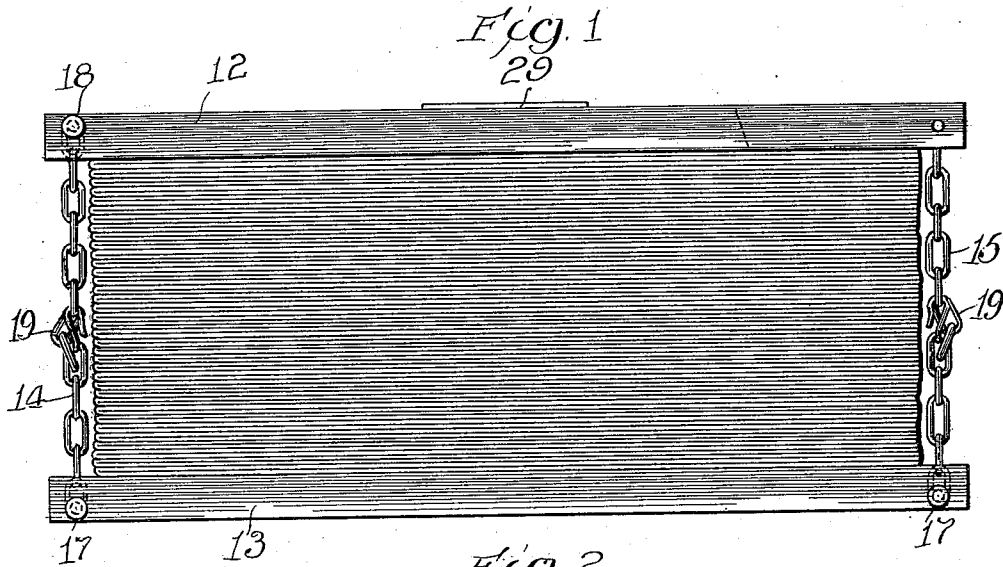


W. M. JENKINS.
BAG BINDER.
APPLICATION FILED OCT. 27, 1909.

1,019,049.

Patented Mar. 5, 1912.

2 SHEETS—SHEET 1.



Witnesses:
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M. A. Kiddie

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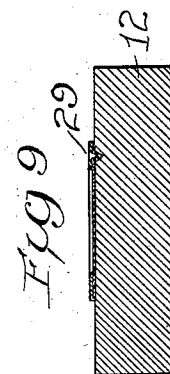
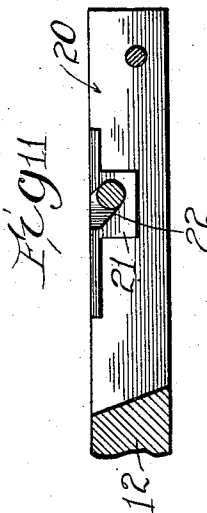
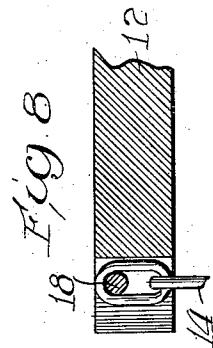
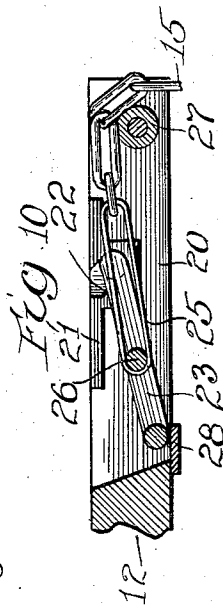
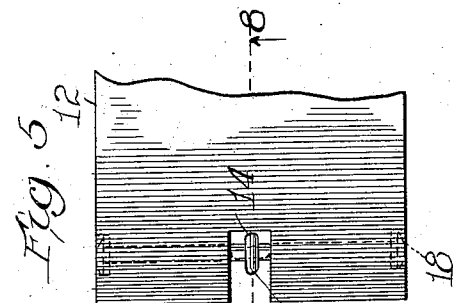
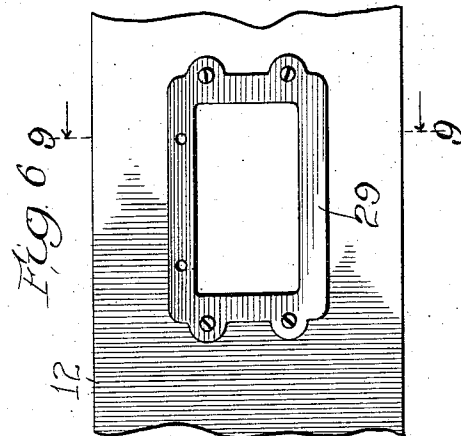
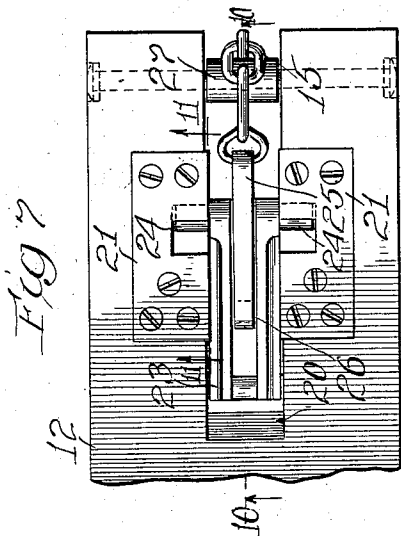
BAG BINDER.

APPLICATION FILED OCT. 27, 1909.

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2 SHEETS—SHEET 2.

1,019,049.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM M. JENKINS, OF CHICAGO, ILLINOIS.

BAG-BINDER.

1,019,049.

Specification of Letters Patent.

Patented Mar. 5, 1912.

Application filed October 27, 1909. Serial No. 524,878.

To all whom it may concern:

Be it known that I, WILLIAM M. JENKINS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Bag-Binders, of which the following is a specification.

Bags which have been employed to hold certain commodities have a considerable commercial value and it is a common practice to return these bags to the manufacturer or dealer for further use. It has been customary to tie a number of bags in a bundle with wire or rope and the railroad companies have required that these bundles shall have at least two ties under the official and southern railroad classification and at least three ties under the western railroad classification to make a compact bundle adapted for safe transportation. The wire ties are difficult to apply, liable to break or become unfastened and the ends of the wire are apt to tear bags or other things with which they come in contact. Any loss or damage incident to the return of empty bags may be the source of trouble or annoyance and expense to either or both the consignor and the consignee of the empty bags, and where large quantities of bags are returned the ties, which are used only once, represent a considerable expense in themselves.

The object of my invention is to provide a convenient binder for empty bags which can be easily and quickly applied to hold a bundle of bags firmly and securely and without injuring them and which is constructed in a strong and substantial manner for repeated and indefinite use.

In the accompanying drawings illustrating my invention Figure 1 shows a bundle of bags with my improved binder applied thereto. Fig. 2 is a similar view at a right angle to Fig. 1 showing the binder in end elevation. Fig. 3 is a detail perspective view of the lock for the binder. Fig. 4 is a detail perspective view of one of the bearings for the lock lever. Figs. 5, 6 and 7 are detail plan views of the two ends and the middle of the upper binder member. Fig. 8 is a detail sectional view on the line 8—8 of Fig. 5. Fig. 9 is a similar view on the line 9—9 of Fig. 6. Fig. 10 is a similar view on the line 10—10 of Fig. 7. Fig. 11 is a similar view on the line 11—11 of Fig. 7.

The drawings show the preferred embodiment of the invention but the details of con-

struction may be varied in many respects without departing from the spirit or exceeding the scope of the invention.

A modified form of lock which may be employed in the general combination set forth in this application, is disclosed in my application Serial No. 547,708 filed March 7th, 1910.

The binder comprises an upper member 12, a lower member 13, and two chains 14 and 15 flexibly connecting these members at their ends. The lower member has at each end a central recess 16 to receive one end of the chain and a bolt 17 is secured transversely in said member and passes through said recess and the end link of the chain.

The upper member has a recess 17 at one end (Fig. 5) and a bolt 18 passes transversely through said end and the recess 17 and the upper end link of the chain 14. Thus the two members are permanently connected together at one end by the flexible chain 14. Either of the chains may be provided with a hook 19 engaged with one of its links, preferably about midway between its ends, which is adapted to be engaged with another link to shorten the length of the chain, as indicated in Fig. 1, although the length of the chain may be varied by simply twisting the chain, in which instance the hook may be dispensed with.

The locking device is located at the other end of the upper member 12 which is provided with an elongated recess or slot 20 to receive the same (Figs. 7, 10). Bearing blocks or plates 21 are seated in the side walls of the recess 20 and are provided with angular bearings 22 (Figs. 4, 11). A lever 23 is arranged to operate in the recess 20 and this lever is made in the form of a yoke and provided at its ends with trunnions 24 which are adapted to seat and operate in the angular bearings 22. An elongated link 25 is engaged with a cross bar 26 (Fig. 10) on the yoke and with the upper link of the chain 15. This chain is arranged to travel on a roller 27 mounted in the recess 20 adjacent to the outer end thereof. A stop 28 of any suitable form is arranged at the inner end of the recess 20 to limit the throw of the yoke lever 23. The upper member is preferably provided with a label holder 29 of any suitable character adapted to receive a shipping label or card and permit the insertion and removal thereof. The bearings 22 extend upward through the top of the blocks

21 to enable the engagement and disengagement of the yoke lever therewith and these bearings are inclined upwardly and rearwardly away from the adjacent end of the upper member 12 to prevent the accidental disengagement of the yoke lever when the binder is locked on a bundle of bags. It is contemplated that the manufacturers or producers of a commodity which is used in large quantities, such as cement, will furnish their customers with a supply of these binders and that the customers will use the binders in returning the empty bags to the manufacturer or producer. A card bearing the addresses of the consignor and consignee may be inserted in the label or card holder when the binder is sent to a customer; a similar card with the addresses reversed may be used in returning the bags. The manufacturer may print his address conspicuously on the upper member and use the card merely for the address of the consignee; and in returning the bags the customer would make out the card to indicate that he was the consignor, the bundle being directed to the printed address.

In practice the locking lever is disengaged from its bearings so that the chain 19 may be thrown in open position to the right and the upper member 12 thrown to open position to the left. A bundle of bags is then placed upon the lower member and the upper member is swung into position upon the bundle. The hooks 19 are then adjusted in the links to make the chains of proper length so that the binder will hold the bags securely and tightly when locked. The locking lever is then engaged with the bearings and swung to locked position, as shown in Fig. 10, in which the center of the cross bar 26 is below the center of the trunnions 24 which constitute the fulcrum for the lever, the chain being engaged on the roller 27, the center of which is also below the fulcrum of the lever, and, in the form illustrated, in approximately the same plane with the center of the cross bar when the locking lever is in locked position. During the closing movement of the locking lever the cross-bar travels in an arc about the trunnions as a center, and it will be evident that the length of the chain between the binder members will be decreased by an amount approximately equal to twice the distance between the trunnions and the cross-bar. Thus, a compression is exerted upon the bundle by the locking action of the locking lever. The locking device is simple in construction and can be easily and quickly operated, both to lock and unlock. The tension on the chain is sufficient to hold the lever in locked position until it is swung on

its fulcrum and some manual manipulation is necessary to effect this movement. The two members 12 and 13 are preferably made of wood sufficiently strong to stand the usage to which they will be subjected and they are also preferably made broad to firmly and securely engage and hold the bundle of bags fixedly in place.

What I claim and desire to secure by Letters Patent is:

1. A bag binder comprising a plurality of binding members flexibly connected together at one end, one of said members having a recess in its other end and the other member having a flexible connecting means attached to its other end, bearings oppositely disposed in the side walls of said recess, and a lever secured between its ends to said flexible connecting means, and having laterally projecting trunnions near one end adapted to be engaged in the bearings in the side walls of said recess, whereby rotation of the lever upon its trunnions in the bearings, will draw the members toward one another and securely lock them together.

2. A bag binder comprising two rigid members flexibly connected together at one end, one of said members having a flexible connecting means attached to its other end, and the other member being provided with a longitudinal slot at its other end, bearing members disposed in the side walls of said slot, a guide over which the flexible connecting means is adapted to pass positioned near the outer end of said slot, a locking lever provided with laterally extending trunnions adapted to be engaged in said bearings, means for attaching the flexible connecting means to the locking lever between its ends, and means for limiting the rotation of the locking lever on its trunnions when said lever has been moved to locked position.

3. A bag binder comprising two members flexibly connected at one end, the other end of one member having a recess therein, a chain engaged with the other end of the other member, bearings in the side walls of said recess, said bearings being angular and inclined upwardly and rearwardly from the adjacent end of the member, a yoke lever having trunnions on one end adapted to be seated in said bearings to fulcrum the lever, a cross bar on said lever between its fulcrum and its outer end, and a link engaged with the free end of the chain and said cross bar.

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Witnesses:

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