

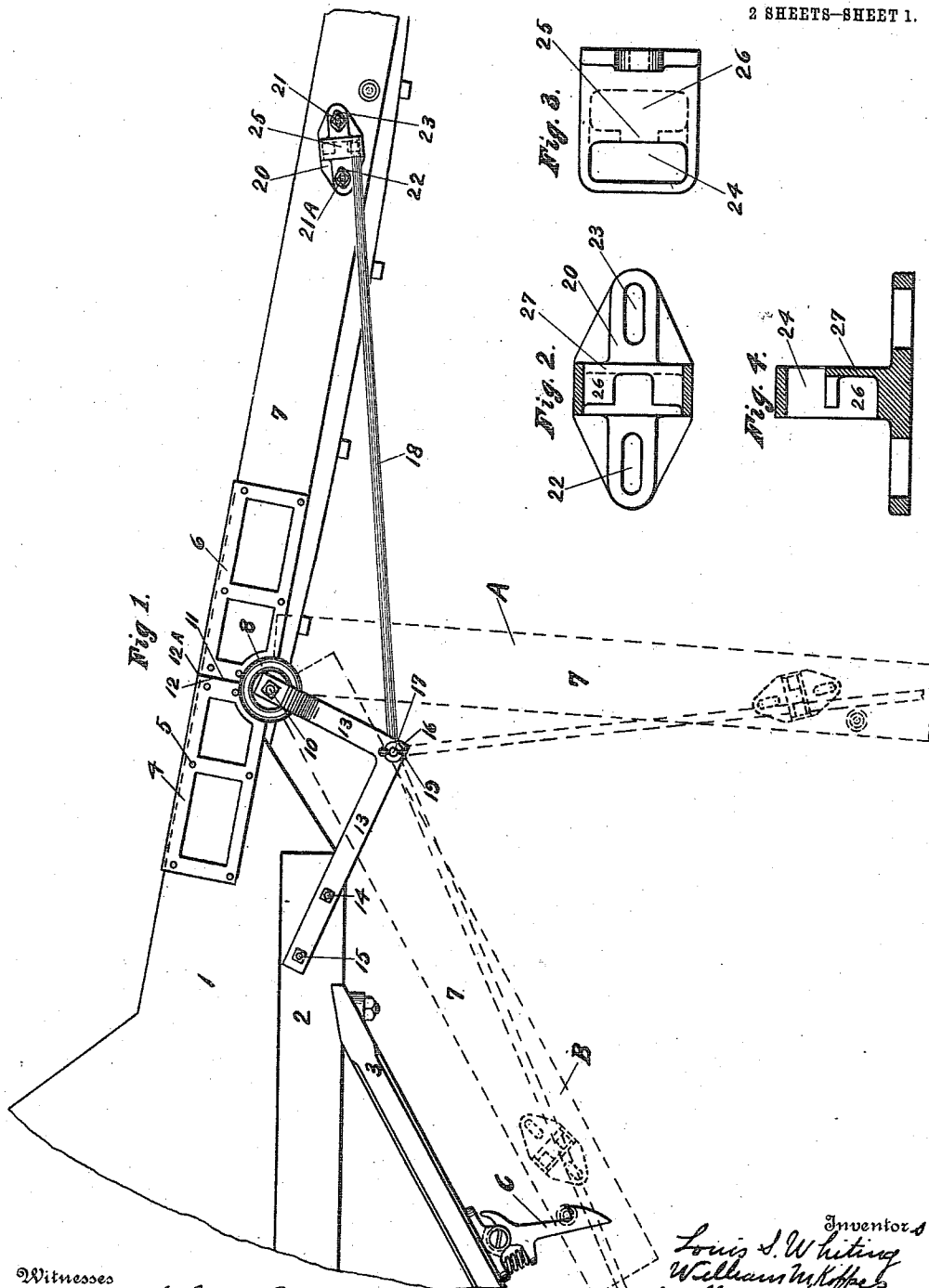
L. S. WHITING, W. M. KOPPE & W. H. GORHAM.
CONVEYER TROUGH.

APPLICATION FILED JAN. 11, 1910.

985,872.

Patented Mar. 7, 1911.

2 SHEETS—SHEET 1.



Witnesses

John L. Young
Paul C. Sherman

334

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Louis S. Whiting
William M. Koppe
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By *John H. Ross*
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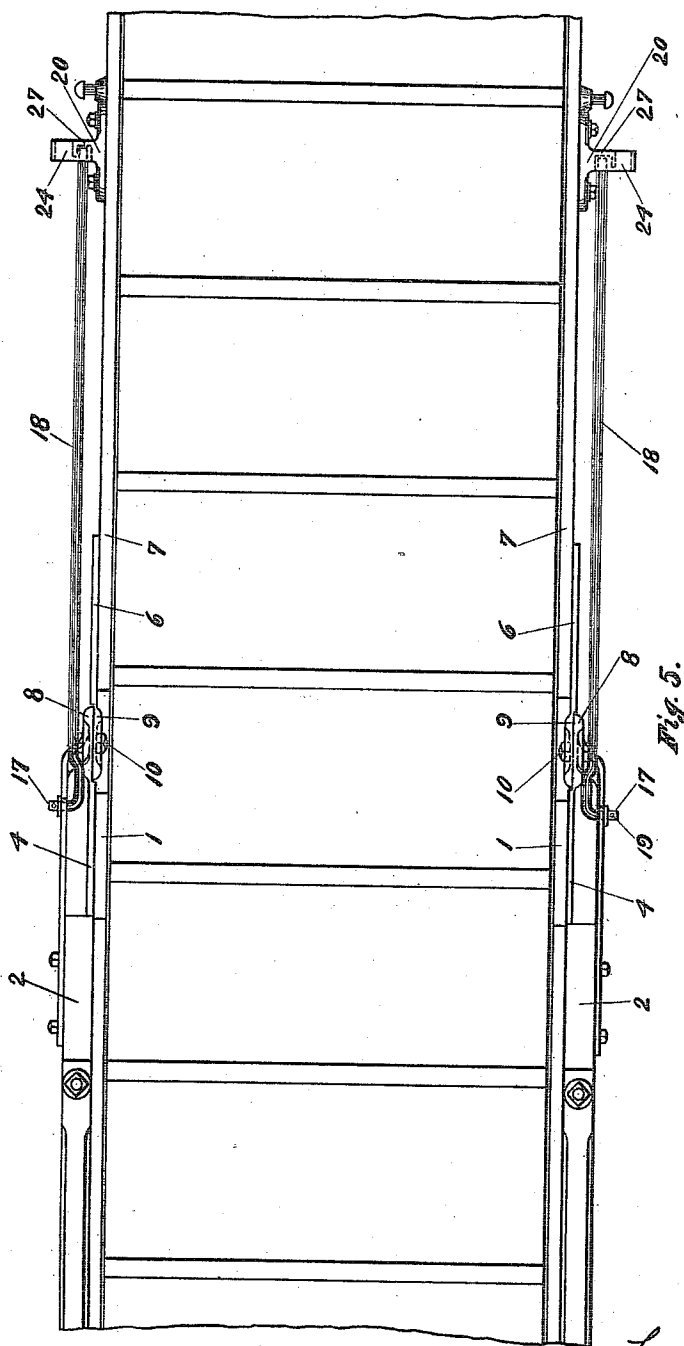
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UNITED STATES PATENT OFFICE.

LOUIS S. WHITING, WILLIAM M. KOPPE, AND WILLIAM H. GORHAM, OF MANSFIELD, OHIO, ASSIGNORS TO THE AULTMAN & TAYLOR MACHINERY COMPANY, OF MANSFIELD, OHIO, A CORPORATION OF OHIO.

CONVEYER-TROUGH.

985,872.

Specification of Letters Patent.

Patented Mar. 7, 1911.

Application filed January 11, 1910. Serial No. 537,538.

To all whom it may concern:

Be it known that we, LOUIS S. WHITING, WILLIAM M. KOPPE, and WILLIAM H. GORHAM, citizens of the United States of America, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Conveyer-Troughs, of which the following is a specification.

Our invention relates to conveyer troughs that are adapted to be used with automatic feeders or the like.

The objects of our invention are to provide a means of making the conveyer trough frame-work in sections and hinging them together so as to permit the end-section to swing downward underneath the machine when not in use, and means to hold the end-section at a proper inclination with reference to the frame work and feeder when the conveyer trough is being used.

The essential feature of our device consists in the use of a pivoted brace rod and a bracket whereby the swinging end-section can be locked at a proper inclination to the frame work of the separator and means whereby the pivotal brace-rod, when it is disengaged from its locking position, is carried by the bracket with the end section as it is swung to its proper position for use, or folded downward beneath the forward end of the separator frame out of the way, when not in use.

In the drawings, Figure 1 represents a side elevation of our device showing it attached to the forward end of a separator frame. Our device in Fig. 1 is shown in position for use in full lines and the position it assumes by gravity in dotted lines when released from its locked position, and also, the position in dotted lines it assumes when it is folded underneath the forward end of the separator and held in place by a hook or like fastening means secured to the separator frame and the swinging end section. Fig. 2 is a plan view partially in section of our bracket showing the outer wall removed to clearly show the pocket or depression of the bracket and also the intersecting opening to the pocket for the end of the pivoted brace

bar to pass through. Fig. 3 is a side view of Fig. 2 showing the slotted end portion of the bracket for the reception of the pivoted brace bar. Fig. 4 is a side elevation in cross section of the supporting bracket. Fig. 5 is a plan view of Fig. 1 showing the frame work of the conveyer trough and part of the separator frame with our device applied thereto retaining and holding the swinging end-section of the conveyer trough at an inclination to the frame work of the separator or feeder frame.

In the drawings, reference numerals 1, 2 and 3 represent parts of the frame work of an ordinary separator. At the rear end of the part 1, a box-like hinged member 4 is securely attached through the medium of screws 5 or other well-known fastening means. A similar hinged member 6 is attached to one end of the side-board 7 of the swinging end section of the conveyer trough. The hinged members 4 and 6 are provided with downwardly depending ears 8 and 9 and are pivotally secured together through the medium of the bolt 10, said hinged members are provided with shoulders 11 and 12 forming a joint 12^a to stop the end section of the conveyer trough when it is raised to the proper inclination to the frame-work of the separator preparatory to locking it in position for use. A bolt 10, is inserted in apertures formed in the ears 8 and 9, pivotally connecting the hinge 6, to the hinge 4, as described. A support 13 (preferably of the shape shown) is attached to the part 2 through the medium of bolts 14 and 15 on one end. The bolt 10 also serves to hold the free end of the angular support in place. The apex 16 of the angular support is provided with an aperture into which the bent end 17 of the pivoted brace or locking bar 18 is inserted and held in place by the cotter pin 19. A bracket 20 is attached to the swinging end-section or side-board 7 of the conveyer trough, and is adjustably held in place through the medium of the bolts 21 and 21^a, and the slots 22 and 23 formed in the bracket.

The operation of our folding conveyer trough is as follows: When it is desired to

retain the side-boards or frame work of the trough comprising the swinging end section at the proper inclination to the frame work of the separator or feed board of the automatic feeding device for use, the pivoted brace or locking bar 18 is inserted in the slotted end 24 of the bracket block and when the shouldered portions 11 and 12 forming the joint 12^A contact with each other, the end of the brace bar is forced through the intersecting opening 25 in the bracket into the pocket or depression 26 of the bracket-block and the end of the pivoted brace bar 18 abuts against the rear wall 27 of the pocket, holding, retaining and locking the swinging end section of the conveyer trough at its proper position when in use. When it is desired to fold the swinging end section of the conveyer trough to a position underneath the forward end of the frame work of the separator, the pivoted bar 18 is passed back through the intersecting opening 25 into the slot 24. The swinging end section of the conveyer trough is then swung downward to the position shown by the dotted lines marked "A". If desired, however, the swinging end section can be swung to a point farther underneath the frame work of the separator to a point indicated by the dotted lines "B", and held in place by the hook "C" which has its ends engaged with suitable apertures in the bar 3 of the frame work, and the side board or boards as shown.

It will, of course, be understood that a duplication of the parts is necessary, and that the same arrangement is applied to each side of the conveyer trough therefore it is not thought necessary to describe the application of our device to both sides as the parts are exact duplicates of each other and perform the same functions on both sides of the frame work.

Attention is called to the fact that when the pivoted brace or locking bar is removed from the pocket 26 into the slot 24 which incloses it, that it moves with the frame work of the swinging end section of the conveyer trough to any position without any hand-manipulation by the operator. In other words, it automatically moves with the side boards or frame-work of the swinging end section conveyer trough.

It is obvious that immaterial alterations may be made in the structure and parts of our device without deviating from the principle of our invention.

Having fully described our invention, what we claim and desire to secure by Letters Patent is:

1. In a hinged conveyer trough for separators comprising a stationary and a movable hinged member, the combination of an angular support having one end attached to said hinged members and the opposite end attached to the frame of the separator; of

a swinging brace bar pivotally attached to the apex of said angular support, and a supporting bracket rigidly attached to the movable hinged member of the conveyer trough and adapted to provide an abutment for the end of the swinging brace bar to maintain the movable hinged member at the same inclination as the stationary hinged member when in use.

2. In a hinged conveyer trough for separators comprising a stationary and a movable hinged member, the combination of an angular support having one end attached to said hinged members and the opposite end attached to the frame of the separator; of a swinging brace bar pivotally attached to the apex of said angular support, and a supporting bracket rigidly attached to the movable hinged member of the conveyer trough and adapted to provide an abutment for the end of the swinging brace bar to maintain the movable hinged member at the same inclination as the stationary hinged member when in use; said supporting bracket also being provided with an opening adjacent to its outer extremity to engage with the swinging brace bar whereby the brace bar is carried with the movable member when the movable member is folded.

3. In a hinged conveyer trough for separators comprising a stationary and a movable member, a support, a brace bar pivotally attached to said support, a supporting bracket having a slot and a recess formed therein, the end of the brace bar being adapted to abut against the bottom of the recess to maintain the movable member in position.

4. In a hinged conveyer trough for separators comprising a stationary and a movable member, a support, a brace bar pivotally attached to said support, a supporting bracket having a slot and a recess formed therein, the end of the brace bar being adapted to abut against the bottom of the recess to maintain the movable member in position, and the brace bar being adapted to engage with the slot whereby the brace bar is carried with the movable member automatically when it is folded or moved to its proper position when in use.

5. In an attachment for hinged conveyer troughs comprising a stationary and a movable member, the combination of a support, a pivotally attached brace and a supporting bracket provided with a slot and a recess intersecting with said slot, the bottom of the recess forming an abutment for the end of the supporting brace to maintain the movable member in place and the end of the swinging brace being adapted to engage with the slot whereby it is automatically carried with the movable member.

6. In a separator trough comprising a stationary and a movable member, the combination of

nation of a support; a brace bar pivotally
attached to said support, a bracket secured
to said movable member provided with a re-
cess and an intersecting slot whereby the
5 movable member is maintained in position
for use when the end of the brace bar is
made to abut against the bottom of the re-
cess and carried with the movable member
when released.

In testimony whereof we affix our signa- 10
tures in presence of two witnesses.

LOUIS S. WHITING.
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WILLIAM H. GORHAM.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
