Aug. 12, 1924. 1,504,768

W. E. LAMINACK

BINDER ATTACHMENT

Filed March 22, 1923 4 Sheets-Sheet 1

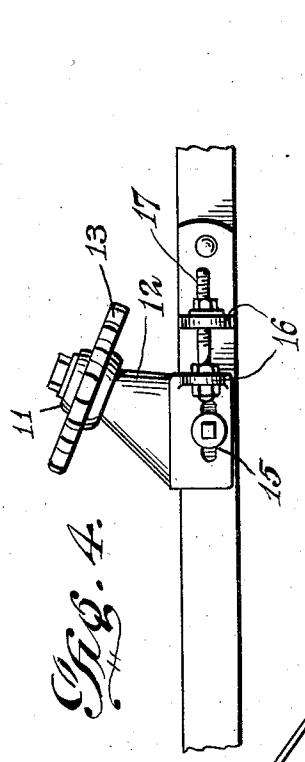


Fig. 4.

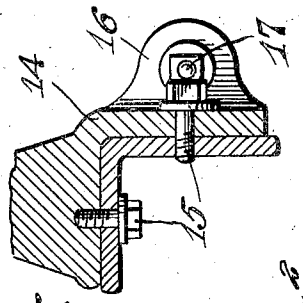


Fig. 5.

Fig. 1.

Witnesses:
F. L. Fox
W. J. Lady,

W. E. Laminack,
Inventor

By Clarence O'Brien.
Attorney

Aug. 12, 1924. 1,504,768

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BINDER ATTACHMENT

Filed March 22, 1923 4 Sheets-Sheet 2

Fig. 3.

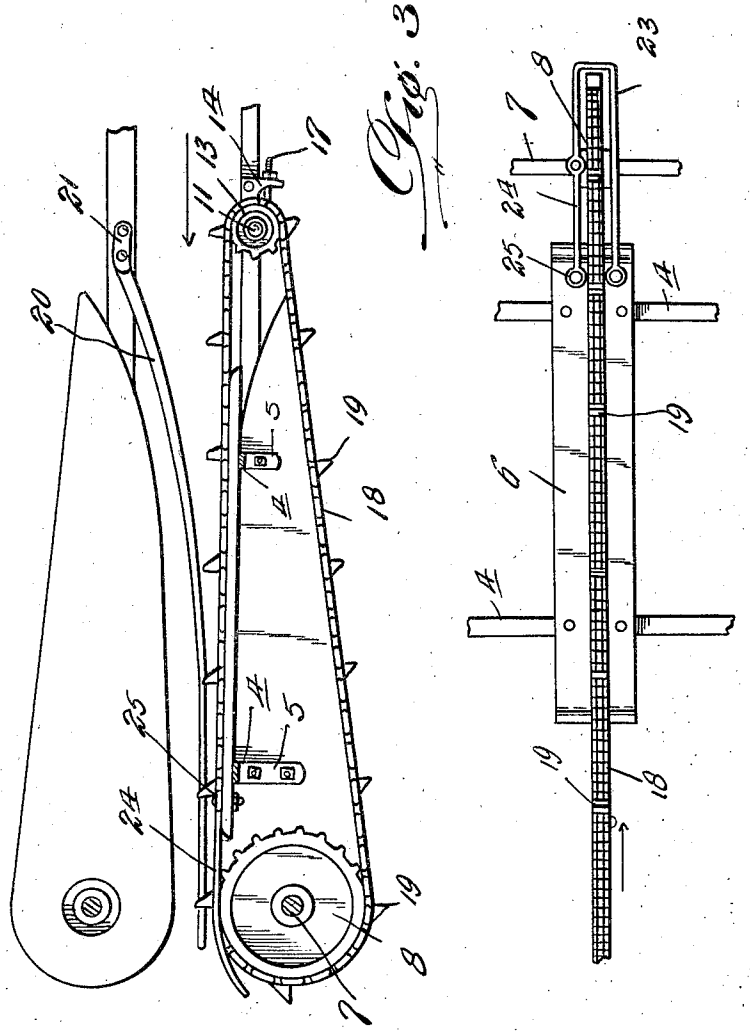


Fig. 2.

Witnesses:
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W. J. Bady.

W. E. Laminack,
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BINDER ATTACHMENT

Filed March 22, 1923 4 Sheets-Sheet 3

Fig. 6.

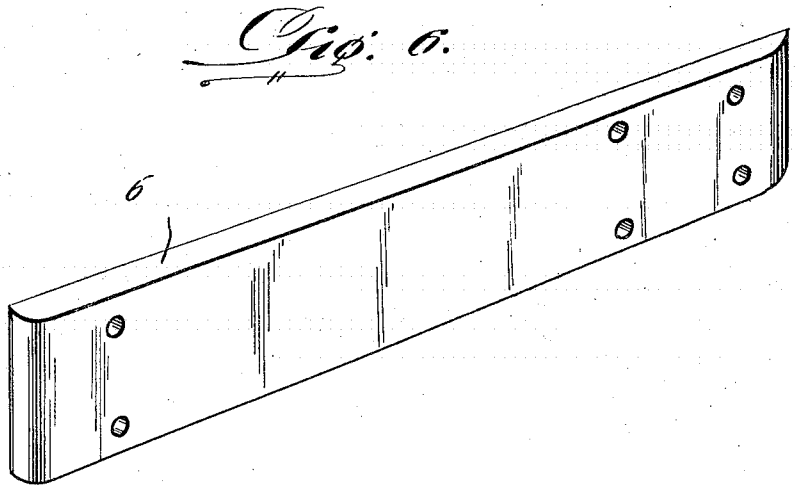
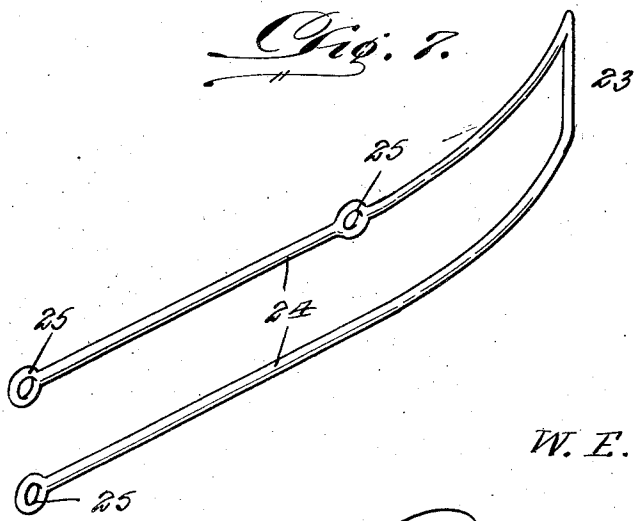


Fig. 7.



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Witnesses:
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Aug. 12, 1924. 1,504,768

W. E. LAMINACK

BINDER ATTACHMENT

Filed March 22, 1923 4 Sheets-Sheet 4

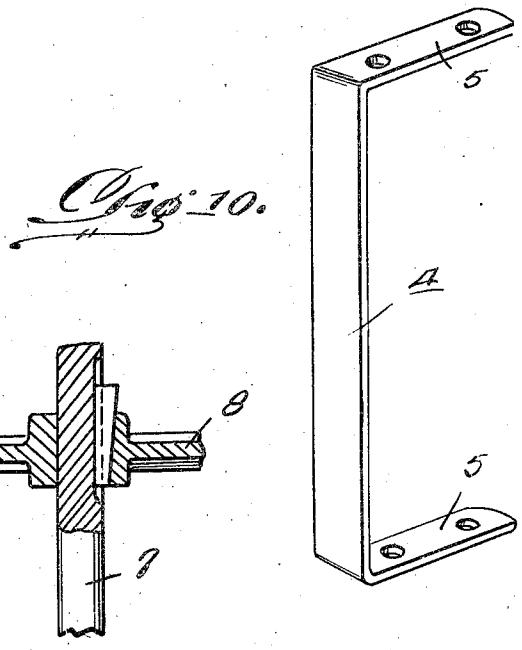


Fig. 8.

Fig. 10.

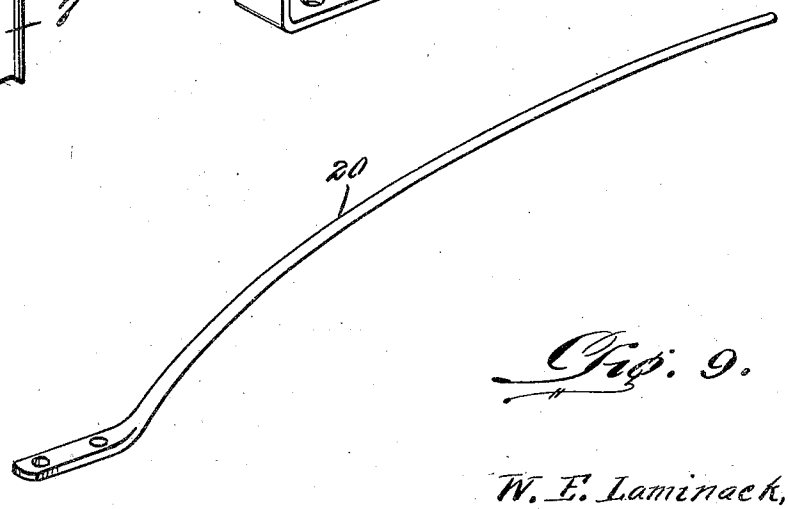


Fig. 9.

W. E. Laminack,
Inventor

Witnesses:
F. L. Fox.
W. J. Cady.

Clarence O'Brien
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Patented Aug. 12, 1924. 1,504,768

UNITED STATES PATENT OFFICE.

WILLIAM E. LAMINACK, OF BLAKE, OKLAHOMA.

BINDER ATTACHMENT.

Application filed March 22, 1923. Serial No. 626,728.

To all whom it may concern:

Be it known that I, WILLIAM E. LAMINACK, a citizen of the United States, residing at Blake, in the county of Greer and State of Oklahoma, have invented certain new and useful Improvements in Binder Attachments, of which the following is a specification.

In carrying out the present invention it is my purpose to provide a binder attachment in the nature of an auxiliary conveyor which may be interposed between the upper and lower conveyors now usually employed in binders, and by means of which the binder may handle short stalks without choking and the consequent loss of stalks and time, and which enables the stalks to be fed properly to the binder so as to insure proper tying.

It is also my purpose to provide a binder attachment which will embrace the desired features of simplicity, efficiency and durability, which may be manufactured and installed at a minimum expense and which will operate effectively and economically for its intended purpose.

With the above recited objects in view, and others of a similar nature, the invention resides in the construction, combination and arrangement of parts set forth in and falling within the scope of the appended claim.

In the accompanying drawings:

Figure 1 is a view in side elevation of a binder equipped with my improved attachment.

Figure 2 is a sectional view on the line 2—2 of Figure 1.

Figure 3 is a longitudinal sectional view through Figure 2.

Figures 4 and 5 are detail views showing the adjustable mounting for the sprocket of the auxiliary conveyor.

Figure 6 is a perspective view of the board used in the auxiliary conveyor.

Figure 7 is a similar view showing the guide employed in connection with the auxiliary conveyor.

Figure 8 is a perspective view of one of the brackets.

Figure 9 is a like view of the tine or finger.

Figure 10 is a fragmentary sectional view showing the mounting of one of the sprockets of my auxiliary conveyor.

Referring now to the drawings in detail, 1 designates the cutter end of a corn binder; 2, 2 the upper and lower feed conveyors and 3 the binding mechanism. As this construction is old and well known, further detailed description is unnecessary.

In accordance with my invention I arrange between the conveyors 2, 2 an auxiliary conveyor which enables the binder to handle short stalks without choking and the consequent loss of stalks and time and enables the stalks to be fed properly to the binder so as to insure proper tying. This auxiliary conveyor, in the present instance, comprises supporting brackets 4, 4 spaced apart in parallelism and each formed with right angled end pieces 5, 5 as in Figure 8, by which the brackets may be fastened to the guide boards of the conveyors 2, 2.

Fastened to the brackets 4, 4 by bolts or the like is a board 6 shown in detail in Figure 6, arranged parallel with the conveyors 2, 2 as clearly shown in Figure 1 of the drawings. Keyed to the main drive shaft 7 of the binder, as shown in Figure 10, is a sprocket 8, and journaled upon a pin 11 carried by a post 12 is a sprocket 13, that is arranged at the cutter end of the binder and in alinement with the sprocket 8. The lower end of the post 12 is formed to provide a right angled bracket 14, as in Figures 4 and 5, which fits upon the angle iron lower side member of the frame of the binder. The legs of the bracket 14 have bolt and slot connections 15 with the angle iron side member, so that the post may be adjusted longitudinally on the frame in order to adjust the sprocket 13 with respect to the sprocket 8. In the present instance the vertical leg of the bracket and the corresponding side of the angle iron side member are equipped with lugs 16 respectively formed with alining holes through which is passed a take up bolt 17 by which the bracket 14 may be adjusted after the bolts of the bolt and slot connections have been loosened.

Over the alining sprockets 8 and 13 is trained an endless chain 18, the inner run of which rides along the inner face of the board 6. This chain is equipped with teeth 19 and cooperates with a finger or tine 20 that lies in a plane parallel with the chain 18 and is fastened at its lower end to the other lower side bar of the binder frame, as at 21.

Connected to the inner end of the board 6 is a guide 23, clearly shown in Figures 3 and 7 of the drawings. This guide comprises a single length of wire bent upon itself

between its ends to provide parallel arms 24. The free ends of the arms 24 are formed with eyes 25 that are bolted or otherwise fastened to the board 6. This guide is arranged around the sprocket wheel 8, as clearly shown in Figure 2 of the drawings, and co-acts with the tine or finger 20 in order to direct the short stalks to the binding mechanism.

By means of the adjustable bracket 14 carrying the post 12, the lower sprocket wheel 13 may be adjusted to tighten or loosen the chain 18, thereby enabling any slack in the chain to be taken up when necessary.

In practice, the drive shaft 7 operating the upper and lower conveyors 2 drives the chain 18 and the latter co-acting with the tine 20 acts to carry the short stalks into the binding mechanism, thereby preventing choking of the binding mechanism and the consequent loss of the short stalks.

While I have herein shown and described one preferred form of my invention by way of illustration, I wish it to be understood that I do not limit or confine myself to the precise details of construction herein described and delineated, as modifications and variations may be made within the scope of the claim and without departing from the spirit of my invention.

Having thus described the invention, what is claimed as new, is:—

In a binder attachment, the combination with the upper and lower conveyors, of an auxiliary conveyor interposed between the upper and lower conveyors and arranged centrally of the space between the upper and lower conveyors, whereby the short stalks may be taken care of and choking of the machine eliminated, said conveyor comprising sprockets spaced apart in line with each other, an endless chain travelling over said sprockets, a tine parallel with said chain and cooperating therewith to direct the short stalks into the binding mechanism, a board lying adjacent to the path of movement of the inner run of said chain and cooperating with said chain and tine to assist in the travel of the short stalks, and a guide fastened to said board and surrounding the sprocket wheel at the delivery end of said auxiliary conveyor and comprising a single length of wire bent upon itself between its ends to provide parallel arms.

In testimony whereof I affix my signature.

W. E. LAMINACK.