(No Model.) 2 Sheets—Sheet 1.

A. P. PATTERSON.

SWATHING ATTACHMENT FOR BINDERS.

No. 592,252. Patented Oct. 26, 1897.

Fig. 1.

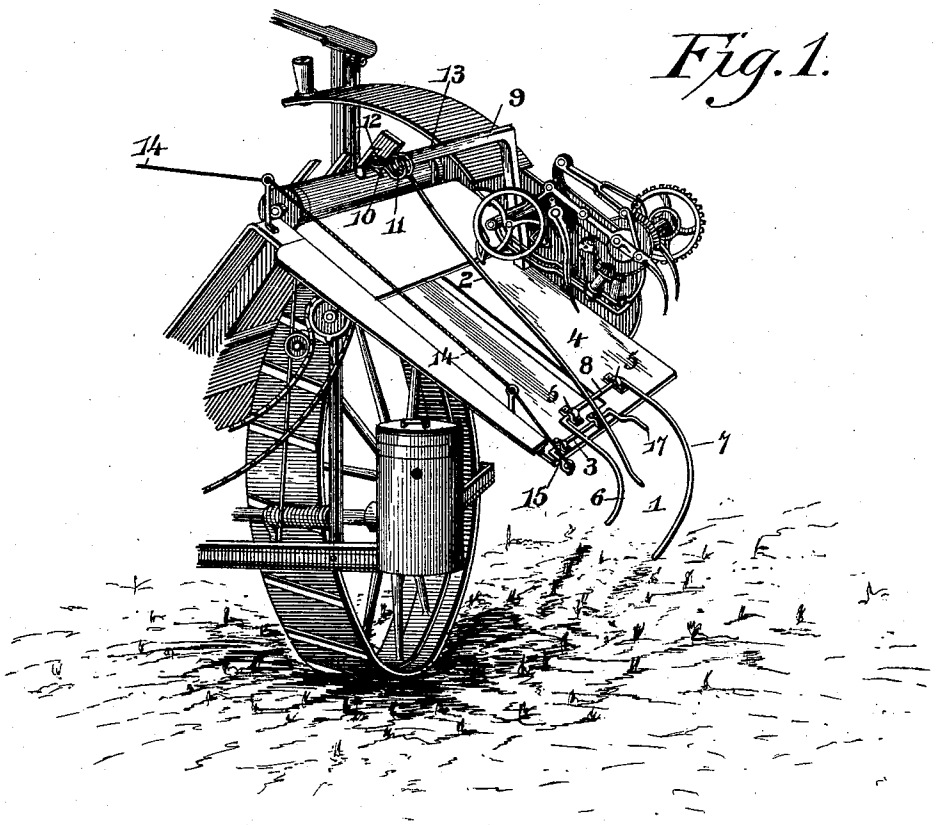


Fig. 4.

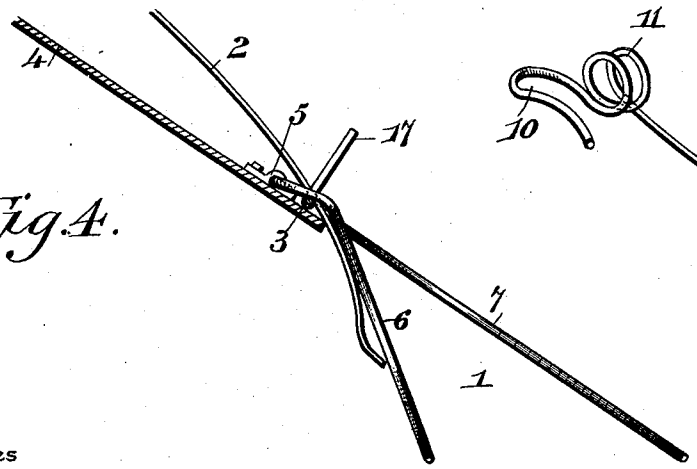
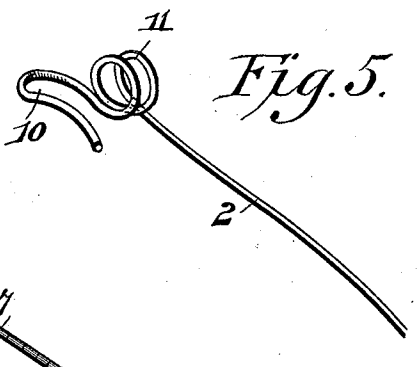


Fig. 5.



Witnesses
Jas. K. McCathran
C. B. Hillyard.

Inventor
By his Attorneys Ashmore P. Patterson
C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

A. P. PATTERSON.

SWATHING ATTACHMENT FOR BINDERS.

No. 592,252. Patented Oct. 26, 1897.

Fig. 2.

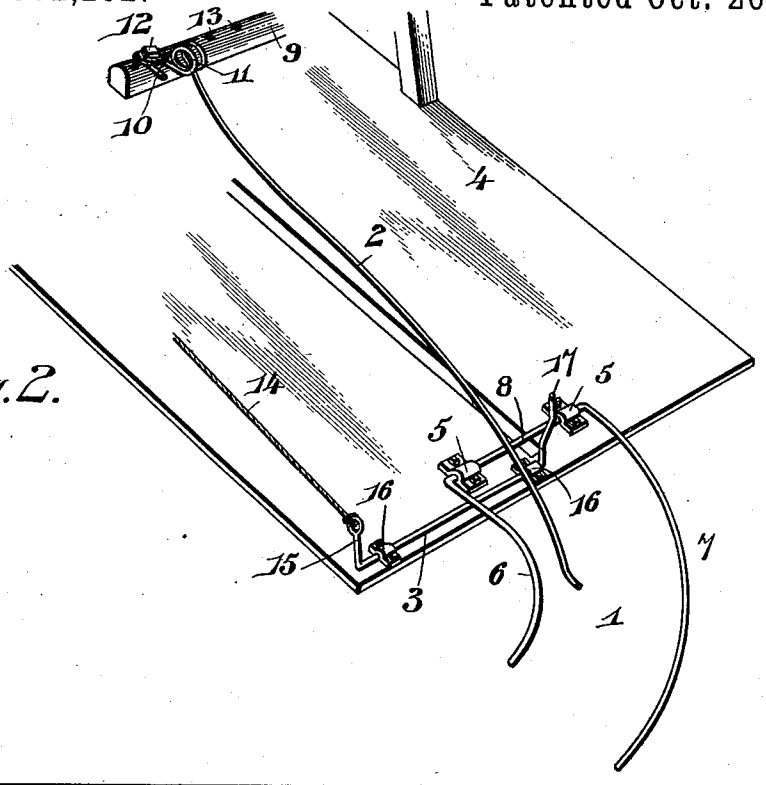
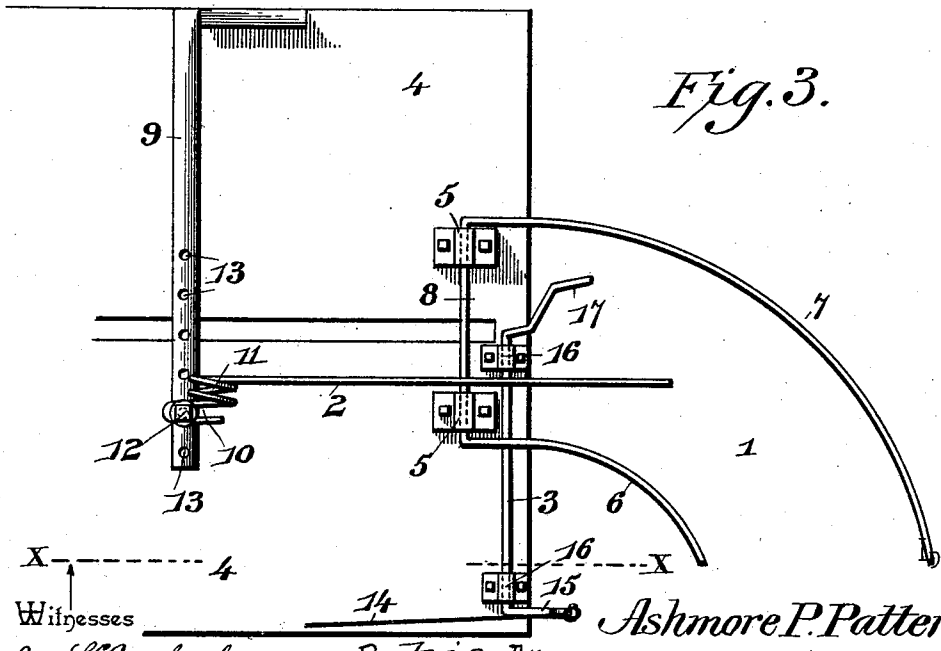


Fig. 3.



Witnesses
Jas. L. McCathran
U. B. Hillyard.

Inventor
Ashmore P. Patterson
By his Attorneys,
C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ASHMORE P. PATTERSON, OF YEADON, PENNSYLVANIA.

SWATHING ATTACHMENT FOR BINDERS.

SPECIFICATION forming part of Letters Patent No. 592,252, dated October 26, 1897.

Application filed November 13, 1896. Serial No. 611,953. (No model.)

To all whom it may concern:

Be it known that I, ASHMORE P. PATTERSON, a citizen of the United States, residing at Yeadon, in the county of Delaware and State of Pennsylvania, have invented a new and useful Swathing Attachment for Binders, of which the following is a specification.

The purpose of this invention is to devise an attachment which can be applied to a binder for swathing grain without necessitating the removal of the binding mechanism, thereby facilitating this work and lessening the labor of the operator, since the binding mechanism remains undisturbed. In attachments of this character the binder is removed and the swather attached directly to the harvester, thereby requiring considerable time and labor in making the changes.

An important feature of the invention is the construction of a swathing attachment which can be quickly applied to or removed from the deck of a binder, and which will be effective and thoroughly reliable for the purpose designed, and which will insure the correct positioning of the grain so it will lie parallel with the binder and have its heads extending toward and the butts facing away from the machine.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptable of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a binder of ordinary construction, showing the invention in position. Fig. 2 is a perspective view of the binder-deck, showing the attachment applied thereto and the holder as it will appear when checking the movement of the grain. Fig. 3 is a top plan view of the parts illustrated in Fig. 2. Fig. 4 is a section on the line X X of Fig. 3. Fig. 5 is a detail view of the retarder.

Corresponding and like parts are referred to in the following description and indicated in the several views of the accompanying drawings by the same reference-characters.

The attachment comprises, essentially, three parts—a swather 1, a retarder 2, and a holder 3—and these parts are applied to any style of binder used in connection with an elevator, so as to deposit the grain in a swath with the heads pointing toward the machine. The binder illustrated is of ordinary construction and is shown for the sake of clearness in explaining the relation and operation of the coördinate parts forming the attachment. The swather 1 is attached to the delivery end of the binder-deck 4 and declines on a spiral plane, so as to deposit the grain in a swath in the required position. This swather is secured to the binder-deck in such manner as to admit of its ready detachment when the binding mechanism is to be brought into service for binding the grain in bundles or gavels, and, as shown, clips 5 are employed for this purpose.

The swather may be of any form so long as it will attain the desired end, and, as shown, it is constructed of a stout wire or rod having its end portions bent, forming arms 6 and 7, and an intermediate connecting portion 8, the latter being held to the binder-deck by the clips 5. The arms 6 and 7 are of unequal length, the rear arm 6 being the shorter, and decline at an unequal pitch corresponding to the side elements of a spiral swath, whereby the grain is turned and deposited upon the ground in the required position.

The retarder 2 is a spring-rod secured at its upper end to an arm 9, connected with the frame of the binder, and this retarder coöperates with the swather so as to check the momentum of the head ends of the grain while the butt ends are making the long sweep of the swath, so as to insure the grain being deposited parallel with the binder and with the heads toward the machine. This retarder has a loop 10, formed at its upper end, and a coil 11, adjacent to the loop, said coil 11 increasing the resiliency of the retarder, which is essential in order to secure the advantages thereof. The loop 10 curves slightly in its length, and a bolt 12 or like fastening passes through the loop and connects the retarder with the arm 9. Upon loosening the bolt or fastening 12 the retarder can be

turned to either the right or the left to bring its active end nearer to or farther away from the rear edge of the swather, and, if desired, the retarder can be moved longitudinally, thereby increasing the tension or pressure of the retarder upon the grain as the latter passes over the swather and beneath the active end of the retarder. The arm 9 has a series of openings 13, any one of which is adapted to receive the bolt 12, whereby provision is had for moving the retarder upon the arm toward or from the rear edge of the binder-deck.

After a swath has been cut and in order to prevent the team from trampling down the grain when turning the binder prior to recrossing the field, the holder 3 is thrown into such a position as to prevent the grain from leaving the binder-deck until the machine has been completely turned and is in position for returning across the field. This holder is operated from a convenient portion of the binder by means of a cord or chain 14, which is attached at its outer end to an arm 15 at one end of the rod comprising the holder. This holder consists of a rod secured to the binder-deck, near the lower edge thereof, by means of clips 16, in such a manner as to admit of the rod turning freely, and the end portions of this rod are bent, forming the arm 15 and a retainer 17. The arm 15 and retainer 17 are in the same plane and lie upon the binder-deck, so as not to interfere with the passage of the grain thereover onto the swather; but when turning the binder the holder is operated so as to cause the retainer 17 to extend across the path of the grain and hold the latter in check until the binder has been turned, when the holder is released and the grain being liberated will glide over the swather and be deposited upon the ground in the manner described.

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

1. In a binder, the combination with the binder-deck, of a swathing attachment removably secured to the lower end of the binder-deck, substantially in the manner set forth.

2. In a binder, the combination with a swather, of a holder independent of the swather and secured to the binder-deck, and adapted to be turned to project from the swather and across the path of the grain and hold the latter in check, substantially in the manner and for the purpose specified.

3. In a binder, the combination with a swather, of a holder independent of the swather and comprising a rod secured to the binder-deck and having its end portions bent at right angles in the same direction, the one forming an operating-arm and the other a retainer to be projected from the swather and across the path of the grain, substantially as and for the purpose set forth.

4. In a binder, the combination with the binder-deck, and a swather secured to the lower end of the binder-deck, of a retarder extending over the deck, beyond it and over the swather and coöperating therewith, substantially as and for the purpose specified.

5. In a binder, the combination of a swather, a retarder consisting of a rod having a longitudinally-curved loop at its upper end, and a fastening operating through the loop to adjustably secure it to an arm of the binder, substantially as set forth.

6. In a binder, the combination of a swather, a retarder consisting of a spring-rod having a coil at its upper end and a longitudinally-curved loop, and means for longitudinally and laterally securing the retarder to an arm of the binder and passing through the said curved loop, substantially as and for the purpose set forth.

7. In a binder, the combination with the binder-deck, of a swathing attachment having a spiral declination and formed of a rod bent intermediate of its ends, forming a straight portion and curved arms, the latter being of unequal length and unequal curvature, and means applied to the inner or straight portion of the swather for attaching it directly to the binder-deck, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ASHMORE P. PATTERSON.

Witnesses:
JOHN H. SIGGERS,
V. B. HILLYARD.