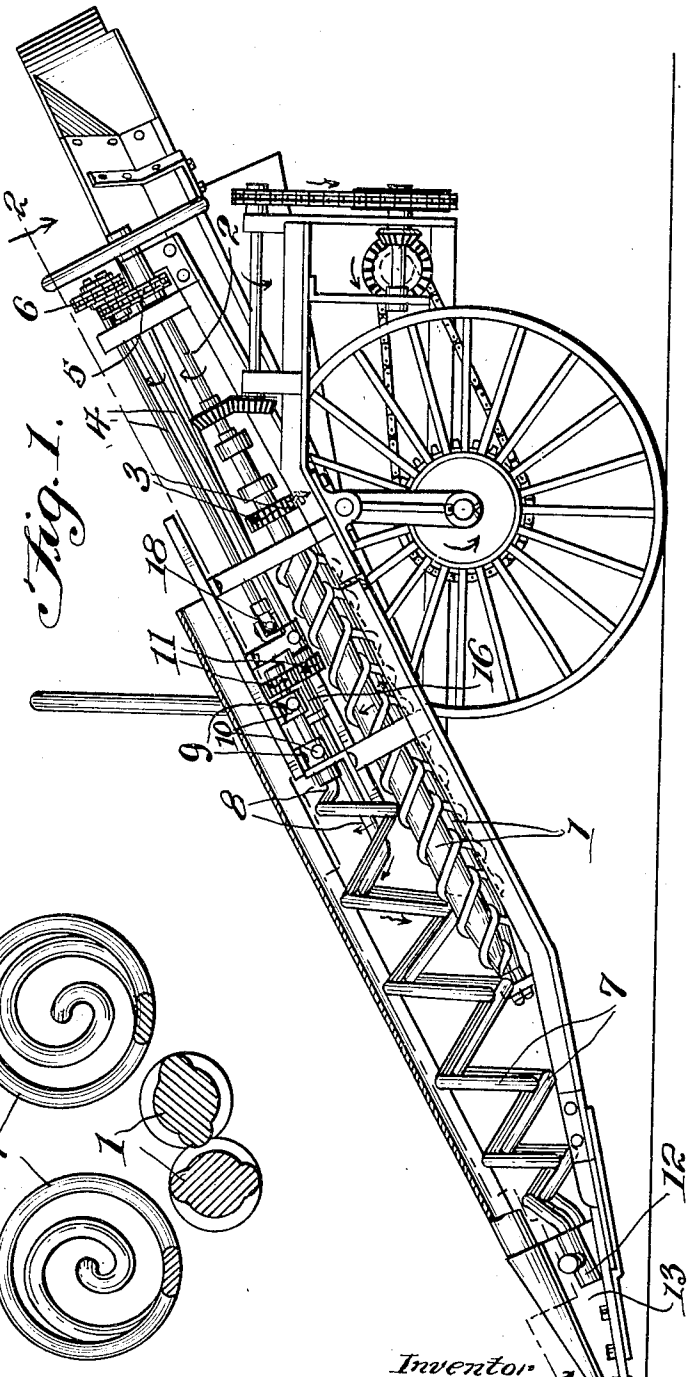
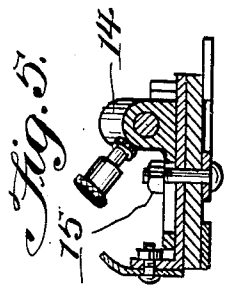
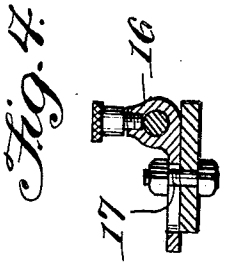
April 19, 1932. L. J. JUSTMAN 1,855,109

SPIRAL GATHERING DEVICE

Filed April 7, 1930 2 Sheets-Sheet 1







Inventor:
Lewis J. Justman
BY Victor J. Evans
ATTORNEY

WITNESS: J. L. Wright

April 19, 1932. L. J. JUSTMAN 1,855,109

SPIRAL GATHERING DEVICE

Filed April 7, 1930 2 Sheets-Sheet 2

Fig. 2.

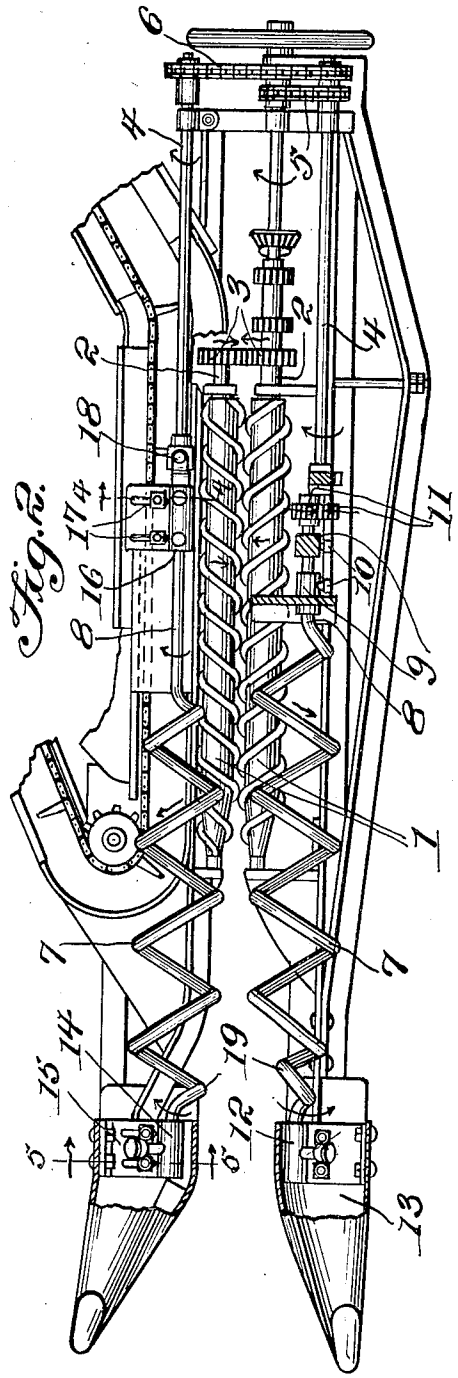
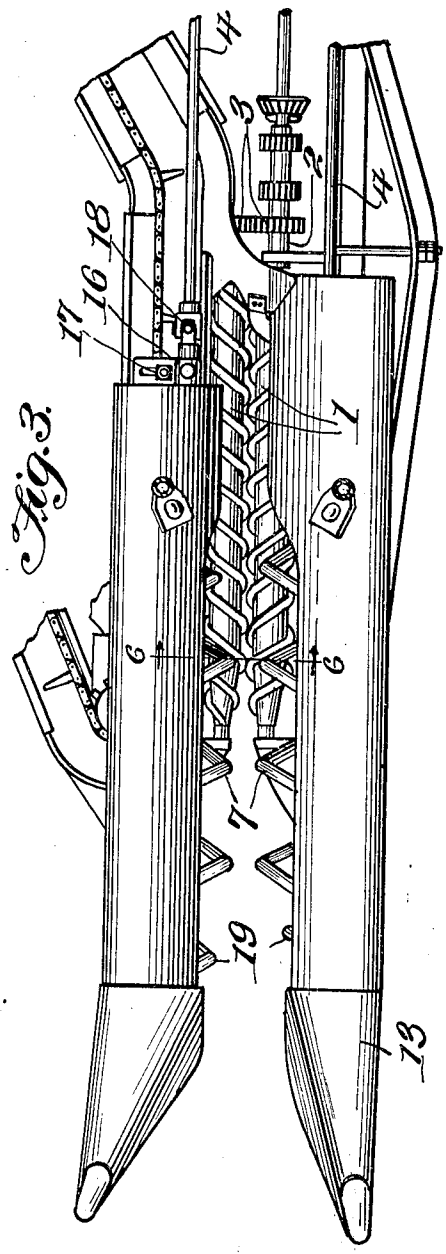


Fig. 3.



Lewis J. Justman
INVENTOR

BY Victor J. Evans
ATTORNEY

WITNESS: J. L. Wright

56- HARVESTERS.
119
Search Roo

Patented Apr. 19, 1932 1,855,109

UNITED STATES PATENT OFFICE

LEWIS J. JUSTMAN, OF PLANKINTON, SOUTH DAKOTA

SPIRAL GATHERING DEVICE

Application filed April 7, 1930. Serial No. 442,422.

This invention relates to improvements in corn pickers and binders, the general object of the invention being to provide spirals instead of gathering chains so that the use of chains, which are expensive and subjected to excessive wear, is eliminated, the spirals being much more efficient than chains in gathering corn stalks that are broken down or leaning.

Another object of the invention is to provide novel means for actuating the spirals from one of the snapping rollers.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a vertical sectional view through a corn picker, showing the invention in use thereon.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a top plan view of the gathering and snapping means.

Figure 4 is a section on line 4—4 of Figure 2.

Figure 5 is a section on line 5—5 of Figure 2.

Figure 6 is a section on line 6—6 of Figure 3.

In these drawings, the snapping rollers are shown at 1 and their shafts at 2. One of the shafts is extended and is driven from one of the ground wheels in the usual manner, as shown in Figure 1, and the two shafts are geared together, as shown at 3. Parallel shafts 4 are arranged in the gathering structure of the machine, one on each side of the gathering rollers, and one of these shafts is driven from the extended shaft 2 by the chain and sprockets, shown generally at 5. The other shaft 4 is driven from the first shaft 4 by the chain and sprockets, shown generally at 6.

The spirals are shown at 7, and each spiral terminates in a straight part 8 at each end thereof, the rear part 8 of the outer spiral being supported in the bearings 9 provided with the grease cups 10, and this part 8 is geared to the end of the outer shaft 4 by the gears 11 so that the spiral will be driven in an opposite direction from the shaft 4, as shown by the arrows in Figure 2. The outer end of the outer spiral is rotatably supported in the bearing 12 carried by the outer shoe 13 of the machine. The outer or front end of the inner spiral is journaled in the bearing member 14 which is adjustably connected with the opposite shoe by the slot and bolt connection, shown generally at 15 in Figures 2 and 4. The inner end of the inner spiral is journaled in the bearing member 16 which is also adjustably connected to a part of the machine by the bolt and slot connections shown generally at 17. The inner end of the inner spiral is connected with the inner shaft 4 by the universal joint 18. Thus the inner spiral can be adjusted toward and away from the other spiral by the adjustable bearing members and the universal joint permits the said inner spiral to be rotated from the inner shaft 4 while in any adjusted position. The front end of each spiral has its convolutions 19 smaller than the other convolutions so that a wide space is left between the front ends of the spirals for the entrance of the stalks so that the larger convolutions will readily pick up the stalks and pass them to the snapping rollers.

Thus it will be seen that I have provided a simple arrangement of spirals for carrying the corn stalks to the snapping rollers, with means for adjusting one spiral toward and away from the other and for driving the spirals from a shaft of one of the snapping rollers.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts,

provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. In combination with a corn picker and its snapping rollers, shafts rotatably supported, one on each side of the snapping rollers and parallel therewith, the intermediate portions of said shafts having convolutions forming spirals for moving the corn stalks to the snapping rollers, means for rotating the shafts in opposite directions, and adjustable means fore and aft for the shafts for adjusting the same toward and away from the rollers.

2. In a corn gathering machine, including snapping rollers, a pair of shafts rotatably supported in the machine one on each side of the snapping rollers, the intermediate portions of said shafts having convolutions forming spirals, certain stretches of the spirals being of less diameter than the remaining stretches thereof, means fore and aft of the shafts for adjusting the same relative to the rollers, driving shafts for the first named shafts, universal joints between the said driving and first named shafts, gear connections between the first named shafts, and means for rotating the driving shafts.

In testimony whereof I affix my signature.

LEWIS J. JUSTMAN.