Feb. 14, 1933. F. V. HANDY ET AL 1,897,254

STRAW COLLECTOR

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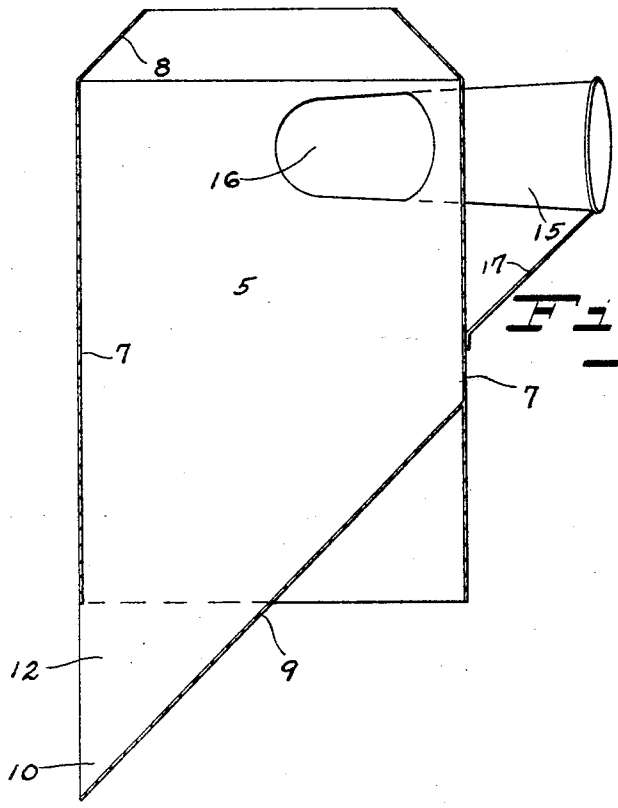

Fig - 1

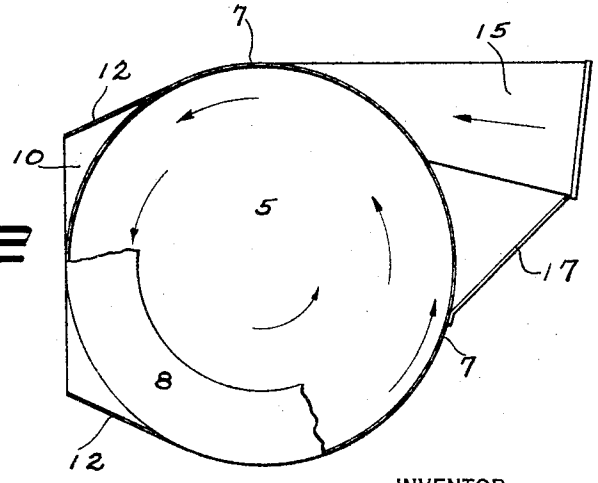

Fig - 2

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Fig. 3

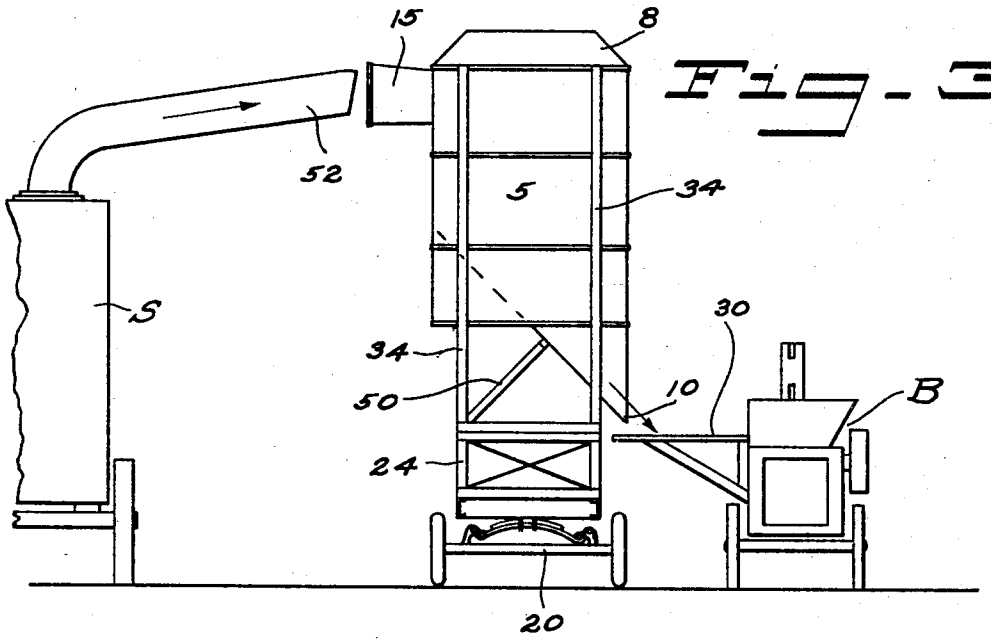
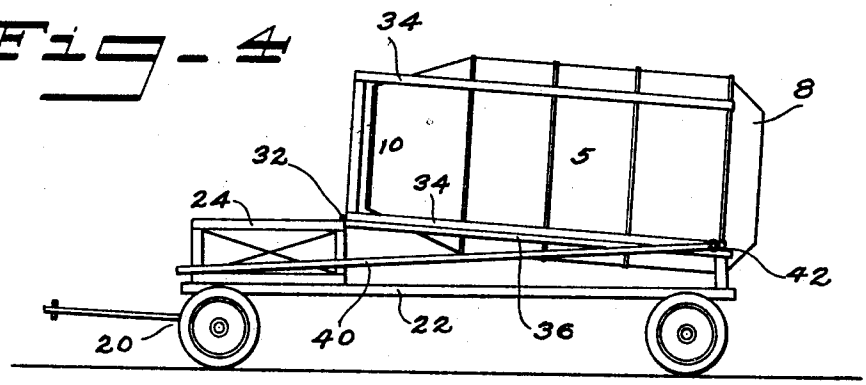


Fig. 4



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UNITED STATES PATENT OFFICE

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STRAW COLLECTOR

Application filed January 8, 1929. Serial No. 331,041.

Our invention refers to the art of collecting devices, and more particularly to the type of collector that is adapted to collect straw as it is discharged from a thrashing machine by what is commonly termed a wind stacker.

It has been customary in the past to deposit the wind blown straw on the ground forming a straw stack, or to place same directly into a building, such as a straw loft or mow. Of recent years, however, it has been found quite profitable to bale the straw in order that it may be shipped to distant points of sale. To bale straw after it has become packed in a stack or building requires considerable handling, which oftentimes uses up a large portion of the possible profit of the straw.

With our device it is possible to collect the straw as it is discharged from the thrashing machine and allow it to flow by gravity directly into the baling machine, or upon the feed table. The saving in handling straw in this manner is sufficient to very quickly pay for the simple device we use, therefore:

The principal object of our invention is to provide a straw collecting device that is convenient to use, which is cheaply constructed, is very easily transported, and has no moving parts to get out of order.

A further object is to collect straw as it comes from a separator and retain it until sufficient is on hand to produce a well balanced bale.

A still further object is to provide means that will prevent straw being strewn about over a large area, which, besides being wasteful of the straw is a great annoyance to the farmer.

Another object of our invention is to provide a straw collecting device that admits of very quick setting up, so as not to waste any time of the thrashing crew as they move from one location or set up to another.

We accomplish these objects by the devices illustrated in the accompanying drawings wherein:

Figure 1 is a vertical section through the collecting chamber of our device.

Figure 2 is a top plan view of our collecting chamber, certain parts being broken away to more clearly illustrate the construction.

Figure 3 is a general view of our device in elevation showing its relationship with the thrashing machine or separator and the baling machine.

Figure 4 is a side elevation of our machine as lowered into its moving position.

Referring to the drawings, throughout which like numerals indicate like parts, numeral 5 designates the collecting chamber which consists of the tubular body portion 7, an annular coned deflector 8, a sloping bottom 9, which forms at its lower end the discharge spout 10, having sides 12, which serve to guide the straw and also to strengthen the bottom 9, which, like the entire collecting chamber is constructed of sheet metal and must be supported to prevent its being deformed.

An inlet tube 15 is secured near the top of the collecting chamber, preferably tangent as illustrated in Figure 2 so that the straw as discharged through the opening 16 will be caused to circle about the shell of the collecting chamber as illustrated by the arrows in Figure 2.

In Figure 3 we have illustrated the relative arrangement of the separator S, the collecting chamber 5, and the baler B. Figure 3 and Figure 4 illustrate our preferred method of mounting the collecting device.

We have preferred to mount our device on a light wagon or automobile type trailer as 20. Upon the frame 22 of the vehicle we provide a stationary base frame work 24 which is practically square and of such simple construction, which we believe will be clear from the drawings, that it may be replaced easily with another of different height so as to make it possible to have the discharge spout 10 at just the right height above the baler feed table 30.

Hinged to the rear top edge 32 of the stationary frame work is any suitable frame work that will properly support the collecting chamber 5. We have shown a frame work consisting of four frame members 34, extending the entire length of the collecting chamber and secured thereto by convenient means.

When in the travelling position as shown

in Figure 4, two of the supports 34, are adapted to rest upon the stationary supports 36. In this way there is no danger of the sheet metal drum being deformed while in transit. When it is desired to raise our device into the operating position shown in Figure 3, two men, one on each side of the machine man the raising poles 40 which are pivotably secured to the frame of the collecting chamber by a swivel joint at 42.

As the whole device is comparatively light, not much effort is required to raise it. The raising poles 40 may be used to brace the collector against wind, thus making it rarely necessary to use guide ropes. We have shown a diagonal brace 50 which serves merely to support the wide expanse of bottom surface 9.

Method of operation

In operating our device, as soon as the thrasher separator S has been placed in position we place our collecting chamber in such a position that the discharge tube 52 can be adjusted to discharge into the inlet tube 15. The baling machine B is then placed on the opposite side of the collector in such a way that the discharge spout 10 will deposit the straw in the feed table 30. As the straw is blown with considerable force into the collecting chamber tangentially a very rapidly whirling action takes place as illustrated in Figure 2. As the straw begins to fall due to its weight its velocity becomes less and less until finally it comes to rest upon the sloping bottom 9.

The excess air forced into the collector will pass out through the center of the open top. We have shown our collector as used with a baler but it will be apparent that any disposition might be made of the collected straw.

Other details of the operation of our invention will be so obvious to those skilled in the art that we believe no further description is necessary.

Manifestly changes may be made in the form, proportion, and arrangement of parts of our invention without departing from the spirit thereof.

What we claim is:

In a portable straw collector of the wheeled vehicle type, the combination with a base comprising a rectangular frame, and a pair of rearwardly extending laterally spaced side bars, of a collector frame pivoted at the junction of the rectangular frame and the side bars and adapted to recline on the side bars, a cylindrical collector rigidly supported in the collector frame with its lower portion below and between the side bars when located in reclining position, a pair of lifting poles hinged at the free end of the collector frame, and said poles adapted for use as braces with their free ends on the ground when the collector is supported on the rectangular frame in upright position.

In witness whereof, we hereunto subscribe our names this 16th day of November, A. D. 1928.

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