B. G. NELSON.

GRAIN SAVING DEVICE.

APPLICATION FILED JAN. 11, 1910.

976,745.

Patented Nov. 22, 1910.

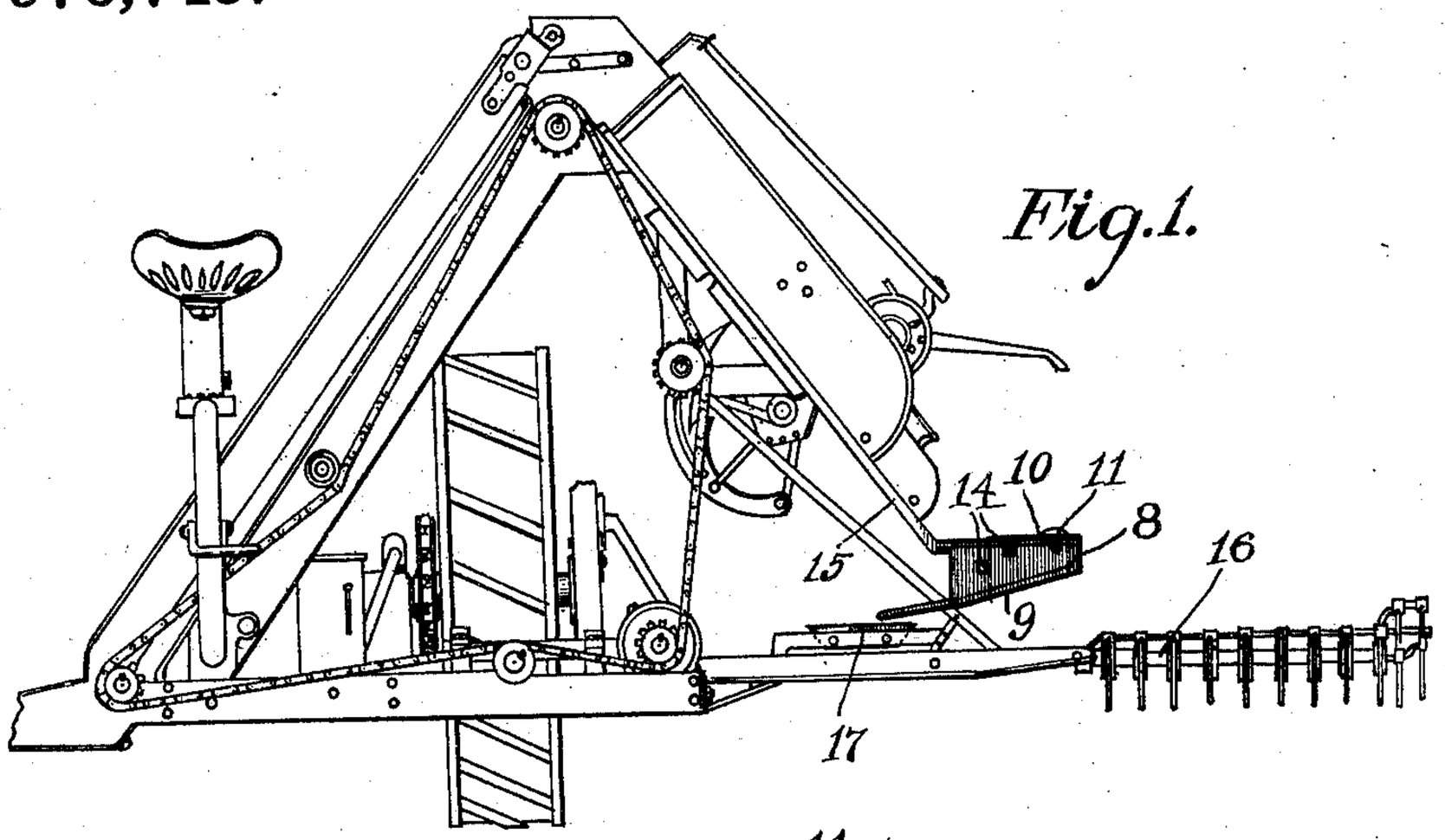

Fig. 1.

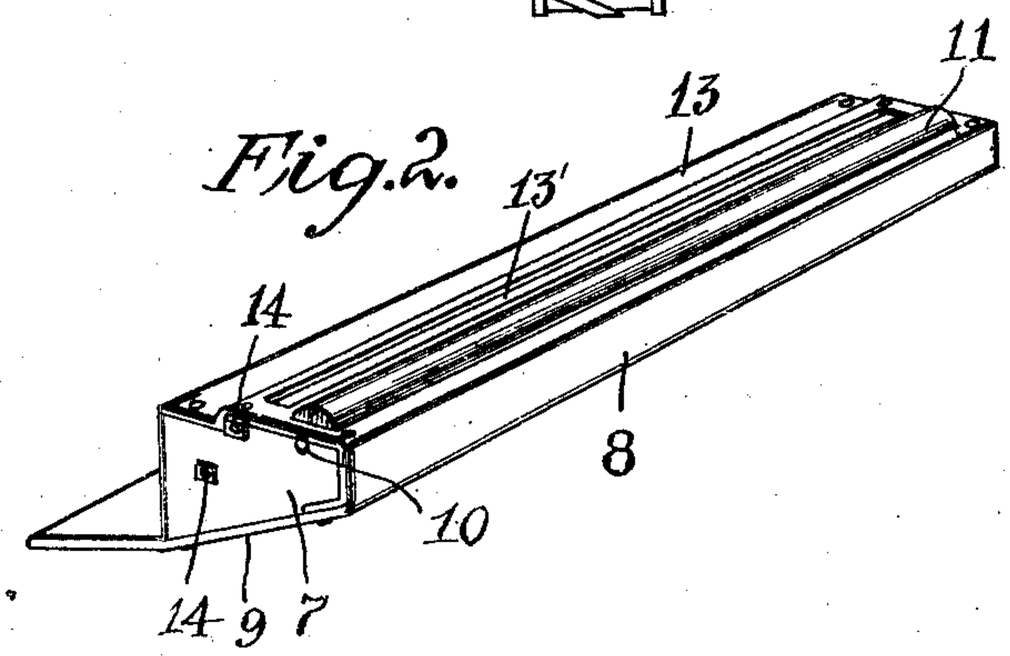

Fig. 2.

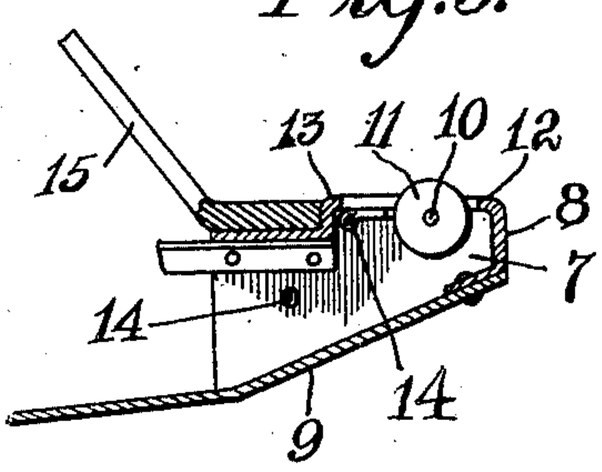

Fig. 3.

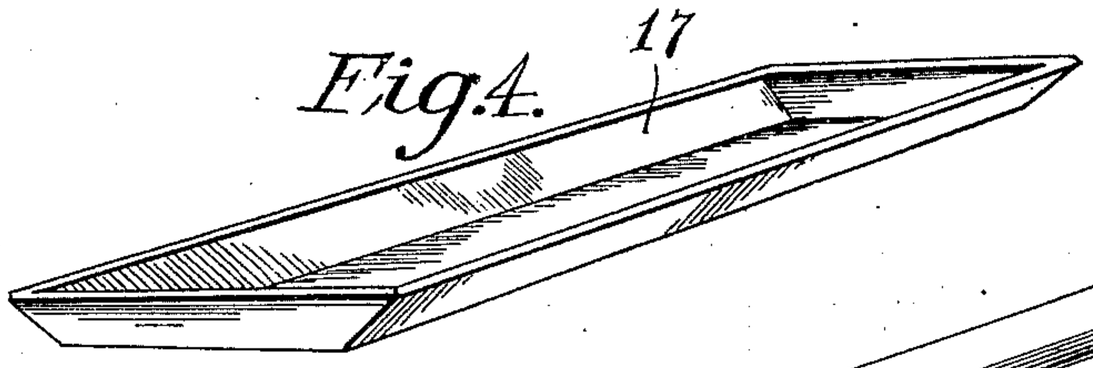

Fig. 4.

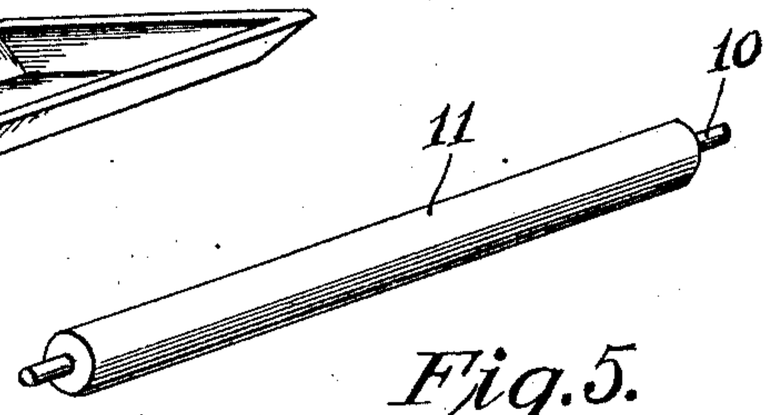

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

BRUCE G. NELSON, OF DEVILS LAKE, NORTH DAKOTA.

GRAIN-SAVING DEVICE.

976,745. Specification of Letters Patent. **Patented Nov. 22, 1910.**

Application filed January 11, 1910. Serial No. 537,456.

To all whom it may concern:

Be it known that I, BRUCE G. NELSON, a citizen of the United States of America, residing at Devils Lake, in the county of Ramsey and State of North Dakota, have invented new and useful Improvements in Grain-Saving Devices, of which the following is a specification.

This invention relates to grain saving devices for harvesters, and it has for its prime object to provide a device of simple construction which may be readily attached to and used in connection with harvesting machines of conventional construction for the purpose of saving the shelled corn or grain that becomes detached from the heads due to the handling of the machine and which is usually lost.

Further objects of the invention are to simplify and improve the construction and operation of a device of the character described.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing,—Figure 1 is a rear elevation, showing a portion of a grain binder to which the invention has been applied. Fig. 2 is a perspective view, showing the improved device detached. Fig. 3 is a vertical sectional view of the device. Fig. 4 is a perspective view, showing a receiving pan which may be used in connection therewith. Fig. 5 is a perspective view, showing a roller which constitutes a part of the invention detached.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved device consists of a casing including side or end members 7, a back wall 8 and a bottom member 9, which latter is inclined in a downward and forward direction, as clearly shown in Fig. 3. The side members 7 afford bearings for the ends of a shaft 10 carrying a roller 11 which is thereby supported idly adjacent to the rear wall of the casing, which latter is provided with an inturned flange 12 nearly engaging said roller. The casing also includes a flanged cross piece 13 which is disposed in front of the roller 11 and suitably spaced from the latter to admit of the passage of loose grain between the roller and said cross piece. Cross rods or braces 14 are provided, one of which may constitute means for supporting the device in position for operation adjacent to the lower edge of the grain deck 15 of an ordinary grain binder, a portion of which is shown at G in Fig. 1 of the drawings; the shoulder afforded by the cross piece 13 being disposed to abut upon the lower edge of the grain deck.

In the operation of this device, it may be suspended or attached in any suitable manner by means of bolts, staples or the like in the position indicated. As the sheaves pass from the grain deck to the bundle carrier 16, they will strike the roller 11, which latter will rotate under the impact, thus permitting the sheaves to drop upon the bundle carrier in the usual manner. Loose grain will pass through the space between the roller 11 and the cross bar 13 and drop upon the inclined bottom member of the casing, whereby it is guided into a pan or receptacle 17 which may be supported in a suitable receiving position upon the frame of the binder. The rotation of the roller 11, in addition to facilitating the passage of the sheaves over the grain-saving device on to the bundle carrier, will tend to disengage any bits of straw or other obstructions that may lodge in the space between the roller and the cross bar 13. If desired, the space or opening between the roller 11 and the cross piece 13 may be partly obstructed by a valve 13′ which may be mounted upon one of the rods 14, as will be best seen in Fig. 3 of the drawings. Said valve may be retained in position frictionally, by tightening the nut 14′ upon the end of the bolt or connecting rod 14, or other suitable means may be provided for retaining said valve in position.

By this simple device much loose or shelled grain which has heretofore been lost

will be saved; the device is simple in construction and may be produced and applied at a very moderate expense.

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

1. The combination with a grain binder, of a grain saving device comprising a casing including a front cross bar, and a roller idly supported in the casing and spaced from the front cross bar.

2. The combination with a grain binder, of a grain saving device including a casing having a downwardly and forwardly inclined bottom, and a roller supported for rotation adjacent to the rear wall of the casing, the latter being provided with a front cross bar spaced from the roller.

3. The combination with a grain binder, of a grain saving device including a casing supported adjacent to the lower edge of the grain board and having a downwardly and forwardly inclined bottom, and a roller supported for rotation adjacent to the rear wall of the latter.

4. The combination with a grain binder, of a device of the class described consisting of a casing including side pieces, a downwardly and forwardly inclined bottom, and a rear wall having an inturned flange at its upper edge, a roller supported for rotation adjacent to said flange, and a front cross bar spaced from said roller.

5. The combination with a grain binder, of a grain saving device comprising a casing including a front cross bar, a roller idly supported in the casing and spaced from said cross bar, and a valve supported adjacent to the space between the roller and the front cross bar.

6. The combination with a grain binder, of a grain saving device, comprising a casing including a front cross bar, a roller idly supported in the casing and spaced from the front cross bar, a bolt extending through the casing adjacent to the space between the roller and the front cross bar, and a valve supported upon said bolt to partly obstruct the space between the roller and the front cross bar.

In testimony whereof I affix my signature in presence of two witnesses.

BRUCE G. NELSON.

Witnesses:

ROSINA R. MERRITT,

HENRY G. MIDDAUGH.