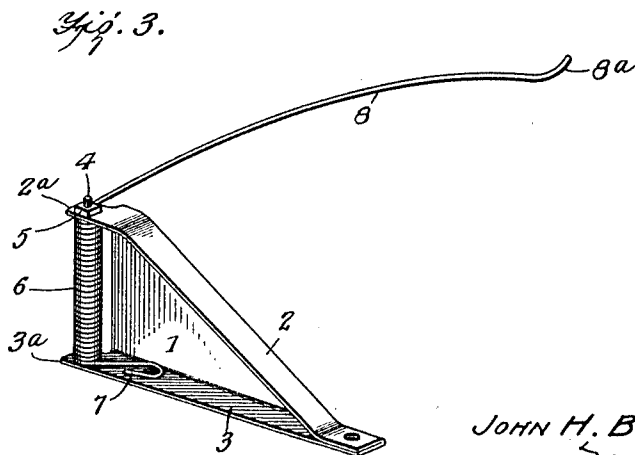
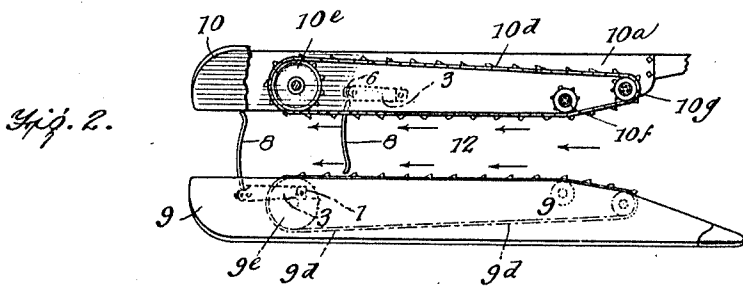
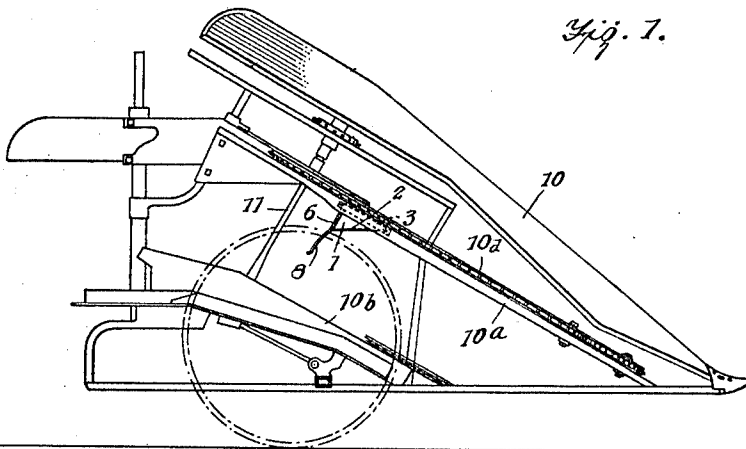


J. H. BREEN.
 SPRING GUARD ATTACHMENT FOR CORN HARVESTERS.
 APPLICATION FILED NOV. 15, 1910.

1,001,577.

Patented Aug. 22, 1911.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN HENRY BREEN, OF EDEN VALLEY, MINNESOTA.

SPRING-GUARD ATTACHMENT FOR CORN-HARVESTERS.

1,001,577.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed November 15, 1910. Serial No. 592,442.

To all whom it may concern:

Be it known that I, JOHN H. BREEN, a citizen of the United States, and a resident of Eden Valley, in the county of Meeker and State of Minnesota, have made certain new and useful Improvements in Spring-Guard Attachments for Corn-Harvesters, of which the following is a specification.

My invention relates to improvements in corn harvesters and it consists in the combinations, arrangements, and constructions herein described and claimed.

In many of the corn harvesters now in use there are inclined guides called dividers, between which the stalks of corn are carried, and which are designed to maintain them in an upright position before delivery to the binder table. The stalks are conveyed by means of sprocket chains. It often happens, however, that the corn is not delivered to the binder table in a vertical position, with the result that the ejectors of the binder are unable to catch all of the bundle, and fail to throw it clear of the binder table, thereby clogging the on-coming corn in the passage-way between the dividers.

An object of my invention is to provide an attachment which may be secured directly to the under side of the dividers, which is in the nature of a spring guard for preventing inclining of the stalks in their movement toward the binder table, or rather for holding them in a vertical position.

A further object of my invention is to provide a simple device which may be attached to the under side of the dividers of the ordinary corn harvesters, without dismantling the machine or interfering with the working parts thereof.

A further object of my invention is to provide a spring guard, which consists of few parts and is not liable to get out of order, and is of low cost to manufacture.

Other objects and advantages will appear in the following specification and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a central sectional view showing one of the spring guards attached to one of the dividers, Fig. 2 is a plan view of the dividers showing the spring guards attached thereto, one of the upper dividers being cut away to show more clearly the construction of the device. Fig. 3 is a perspective view

of one of the guards, in an inverted position to show attachment of spring.

In carrying out my invention I provide a pair of spring guards such as those shown in Fig. 3. A description of one will suffice for both, since they are precisely the same, except that one is made for the right side and the other for the left. In the drawings I have shown the guard as being constructed of a triangular piece of metal 1 having the flanges 2 and 3, which are turned inwardly from the main body portion. The flanges 2 and 3 are secured together at their contiguous ends and are extended at their opposite ends past the main body portion, as shown at 2^a and 3^a, respectively. A bolt 4 and nut 5 secure the portions 2^a and 3^a together. This bolt extends through a spiral spring 6, one end of which, as shown at 7, is secured to the flange 3, the other end being bent laterally, as shown at 8, and having a slightly curved end 8^a. The guard is made of metal.

In Fig. 1 I have shown one half of the machine. It will be seen that there are three dividers on this side of the machine, an upper one 10, a central one 10^a and a lower one 10^b. On the opposite side of the machine there are three similar dividers oppositely disposed, including the divider 9, other dividers corresponding to 10^a and 10^b, on the opposite side of the passage way. The central dividers are each provided with sprocket chains, such as those shown at 9^a and 10^a, which are carried by sprockets 10^c, 10^d and 10^e. One of the guards constructed as described is secured to the under side of one of the dividers 10^a in front of the shaft of the sprocket 10^c, with its spring arm projecting across the space between corresponding dividers. The other spring guard is secured to the under side of the divider on the opposite side of the passage way corresponding to 10^a at the rear of the axis of the sprocket 9^c. The spring arm of the rear guard member extends across the space between the dividers in the opposite direction. The arrangement of the guards in this manner is so as to catch the corn where it leaves the sprocket conveyer chains.

From the foregoing description of the parts of the device, the operation thereof may be readily understood.

The corn is passing between the dividers as indicated by the arrows in Fig. 2. Any of the corn which has a tendency to fall

down, is caught by the spring guards and held in a vertical position until the pressure is such that the arm yields so as to allow the corn to pass. It is then caught by the second
5 spring arm and held until the pressure is great enough to force the spring arm aside, when it is delivered to the binder table. In practice I have found that the use of two guards, one on each side is essential for the
10 reason that it is impossible for a single guard to hold the corn in a vertical position and to return in time to catch the on-coming stream of corn stalks before they fall. In my device one arm is returning while the
15 other arm is holding and thus the stalks are prevented from falling. The member 1 acts as a shield and a support for the spring arm.

By the use of my invention any material
20 which is harvested, such as weeds, grass, etc., which have loose contact with the conveyer chains, are held in a vertical position until delivered to the packers on the binder table. This prevents the clogging of the binder and
25 the loss of time in stopping and clearing out the obstruction.

I am aware that guards have been placed on the conveyer chains, but these guards do not accomplish the function which mine
30 does. Mine are stationary, and the spring arms hold the corn in a vertical position until the corn has reached the binder table. Moreover the spring guards when once

placed in position require no adjustment whatever.

I claim:

1. The combination with the conveyer chains, front and rear sprockets, and dividers of a corn harvester, of a guard member secured to the under side of one of said
40 dividers in front of the rear sprocket wheel and having a spring arm extending toward the other divider, a second guard secured to the under side of the other divider in the
45 rear of said rear sprocket wheel and having a similar spring arm extending toward the first mentioned divider.

2. The combination with the conveyer chains, front and rear sprockets, and dividers of a corn harvester, of a guard member secured to the under side of one of said
50 dividers in front of the rear sprocket wheel and having a spring arm extending toward the other divider, and a second guard secured to the under side of the other divider
55 in the rear of said rear sprocket wheel and having a similar spring arm extending toward the first mentioned divider, each of said spring arms being provided with a
60 downwardly extending shield portion on the side of the guard from which its arm projects.

JOHN HENRY BREEN.

Witnesses:

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