A. STEWART.

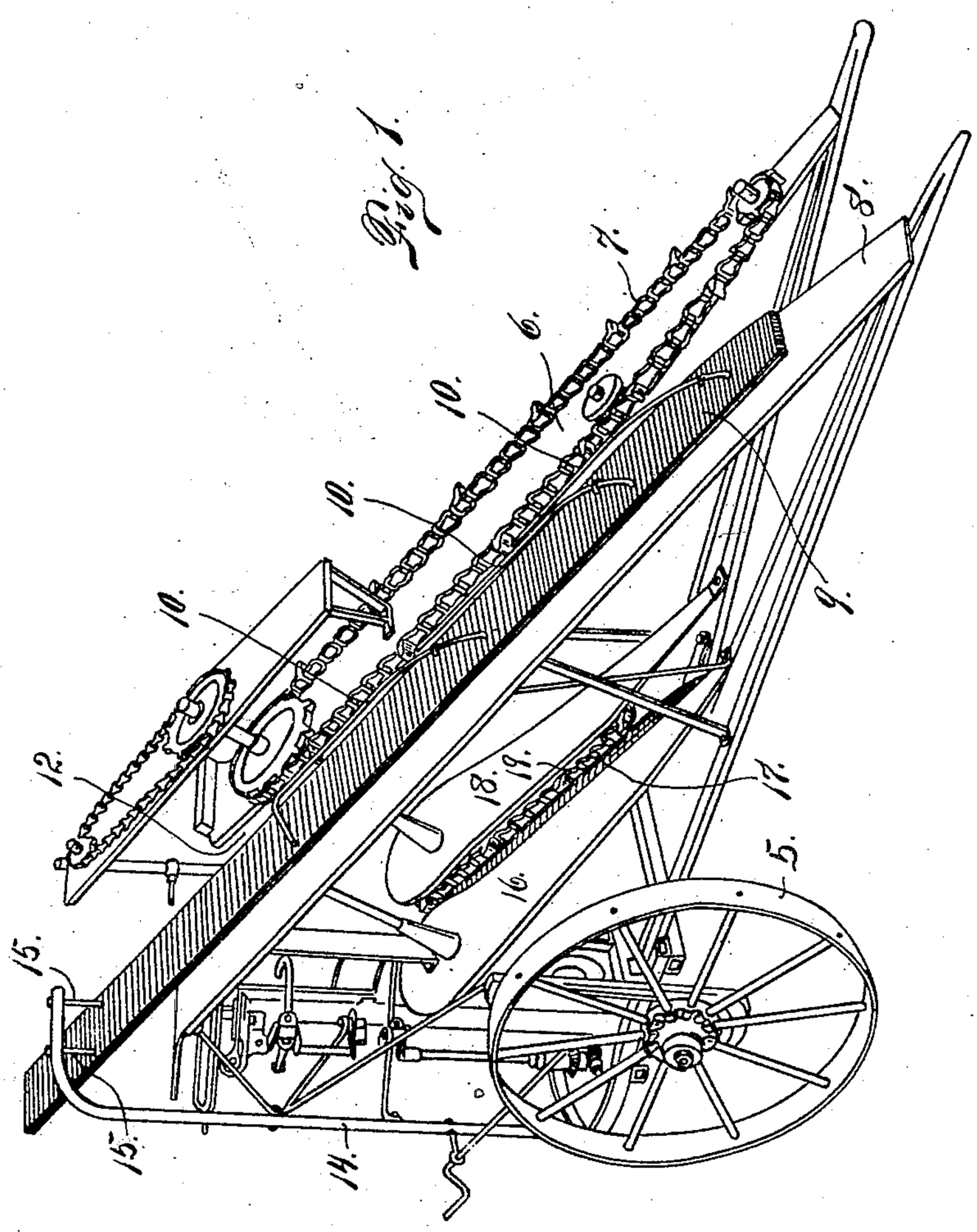
CORN HARVESTER.

APPLICATION FILED DEC. 6, 1907.

917,677.

Patented Apr. 6, 1909.

2 SHEETS—SHEET 1.



Witnesses
Otto E. Hoddick.
Dena Nelson.

Inventor
Alfred Stewart.
By A. J. O'Neil
Attorney

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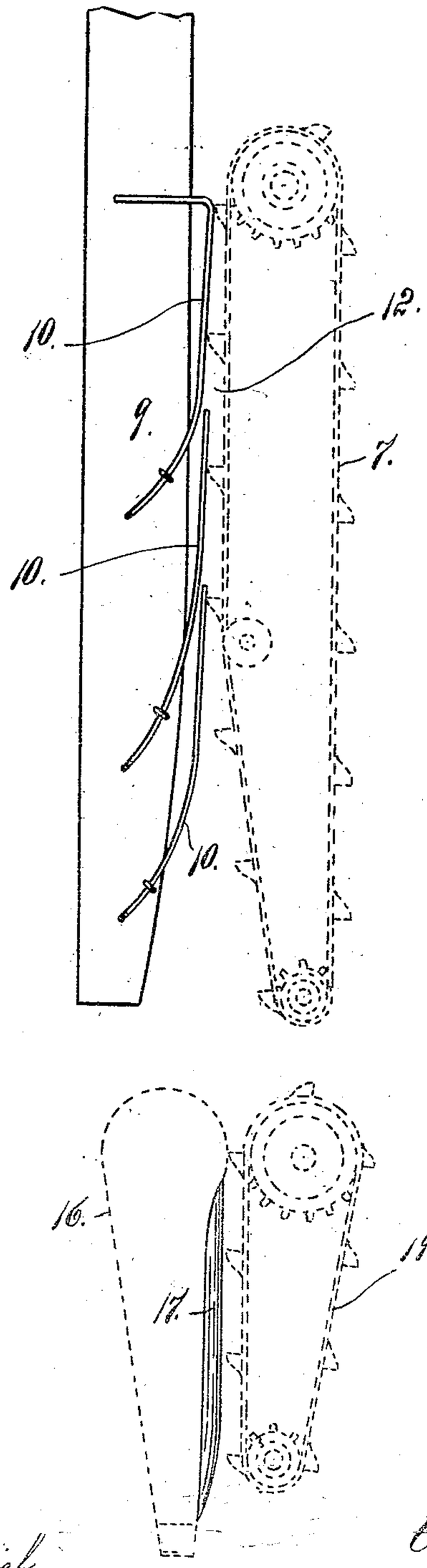

Fig. 2.

Fig. 3.

Witnesses
Otto E. Hoddick
Dena Nelson.

Inventor
Alfred Stewart.
By A. J. Boies
Attorney

UNITED STATES PATENT OFFICE.

ALFRED STEWART, OF SEDALIA, COLORADO.

CORN-HARVESTER.

No. 917,677. Specification of Letters Patent. Patented April 6, 1909.

Application filed December 6, 1907. Serial No. 405,429.

To all whom it may concern:

Be it known that I, ALFRED STEWART, a citizen of the United States, residing at Sedalia, in the county of Douglas and State of Colorado, have invented certain new and useful Improvements in Corn-Harvesters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in corn harvesters, my object being to do away with one of the top conveyer chains and one of the lower conveyer chains of the machine as heretofore constructed. In the place of the chains which are removed, I provide what I will term tension means which act upon the stalks of corn and press them against the conveyer chains on one side, thus making the one chain in each instance when used in coöperation with the tension means, perform the function of both chains as the machine has been heretofore constructed. As shown in the drawing in the place of the right top chain, I provide a board equipped with a number of springs, the same being secured to the said board at one extremity their opposite extremities projecting into the space between the top divider boards, whereby the stalks of corn are pressed against the left top chain. In the case of the lower chain, I reinforce the inner edge of the right chain guard, whereby the stalks of corn are pressed inwardly against the left lower chain thus making it perform the function of the two chains.

Having briefly outlined my improved construction, I will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a perspective view of a corn harvester equipped with my improvements. In this view only one of the ground wheels is shown. Fig. 2 is a top plan view in detail of the upper board provided with springs. In this view the left conveyer chain and its operating devices are indicated in dotted lines. Fig. 3 is a top view of the right lower chain guard which is indicated in dotted lines, the reinforced part, however, being shown in full lines.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate one of the ground wheels of the machine. The other ground wheel is not shown since such illustration is not necessary in order to bring out the novel features or my improvements.

The numeral 6 designates the left divider board upon which the conveyer chain 7 is mounted. The right divider board 8 is devoid of a chain but upon it is mounted an auxiliary board 9 to which are secured a number of spring rods 10, which normally project into the space 12 between the two divider boards, whereby the stalks of corn as they pass between the two boards, are forced by the springs 10, against the left conveyer chain 7, thus causing the one chain when aided by the tension springs 10, to perform the function of the two chains as heretofore constructed. As shown in the drawing the upper extremity of the board 9 is supported by an upright bar 14 its upper extremity being connected with the board by depending bolts 15. This board, however, may be supported in any suitable manner. As shown in the drawing it forms a support for the tension springs 10. It is evident that these springs may be supported in any suitable manner. The right chain guard 16, is devoid of a chain. Its inner edge, however, is reinforced as shown at 17, whereby the stalks of corn as they pass between the guards 16 and 18, are forced by the member 17, against the conveyer chain 19, thus causing the one chain to perform the function originally performed by two, thus greatly cheapening the construction of the machine.

From the foregoing description the use and operation of the machine so far as my improvements are concerned will be readily understood. When the machine is in use, it is drawn by a team of horses and is in position to straddle a row of corn, whereby the stalks are caused to pass between the upper divider boards 7 and 8 and the lower chain guards 16 and 18.

Heretofore there have been two top conveyer chains mounted upon the divider boards and two lower conveyer chains mounted upon the chain guards 16 and 18. The function of these chains, is to hold the corn in the upright position during the cutting act. In my improvement I do away with one of the upper and one of the lower

chains as heretofore explained, and as the stalks of corn are passed between the divider boards and the lower chain guards, the springs 10 in one instance and the reinforcement 17 in the other instance, force the stalks of corn against the conveyer chains thus causing the one chain above and one chain below to perform the function heretofore performed by two.

Having thus described my invention, what I claim is:

1. In a corn harvester, the combination with the top divider boards, and a conveyer chain mounted upon one of the said boards, a series of tension elements mounted on the other board and each projecting between the two boards and opposite the chain mounted on the other board, the said elements being arranged one in front of another and serving successively to force the stalks of corn against the conveyer chain, substantially as described.

2. In a corn harvester, the combination with top divider boards, and a conveyer chain mounted on one of the boards, a series of elements mounted on the other board and each projecting between the two boards and opposite the chain mounted on the other board, the said elements being arranged one in front of another and serving to hold the stalks in operative relation with the conveyer chain, substantially as described.

3. In a corn harvester, the combination with upper divider boards, lower chain guards, a conveyer mounted on one of the divider boards and another conveyer mounted on one of the chain guards, of a chainless divider board, a series of tension elements mounted on the chainless divider board and projecting into the space between the two boards, a chainless lower guard, and an element mounted on the chainless lower guard and projecting into the space between the two guards.

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

ALFRED STEWART.

Witnesses:

ROBERT HIER,

EMMA FULMER.