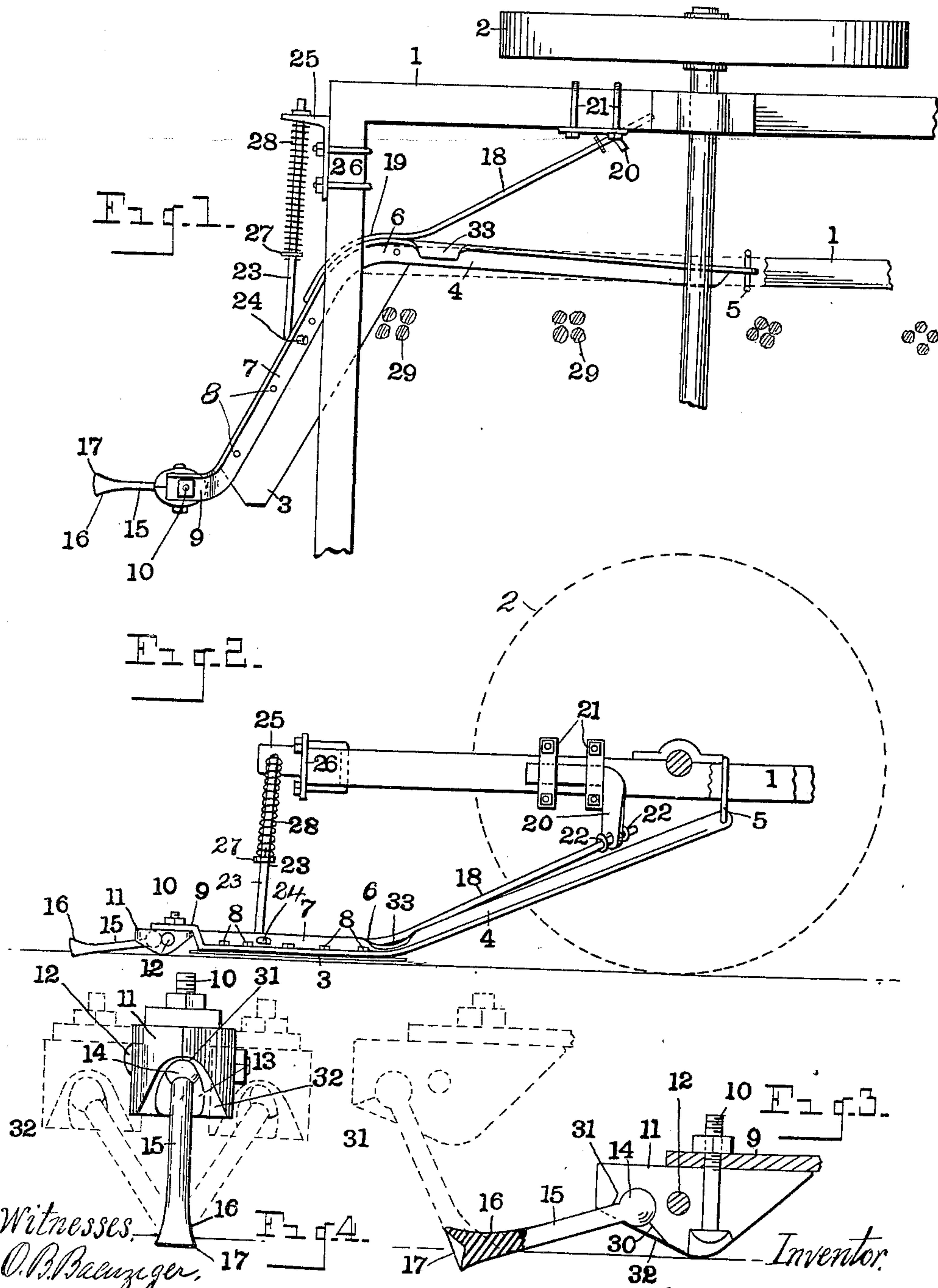


No. 832,365.

PATENTED OCT. 2, 1906.

J. CHAMBERLIN.
STUBBLE CUTTER ATTACHMENT.
APPLICATION FILED MAY 8, 1905.



UNITED STATES PATENT OFFICE.

JOHN CHAMBERLIN, OF FLAT ROCK, MICHIGAN.

STUBBLE-CUTTER ATTACHMENT.

No. 832,365.

Specification of Letters Patent.

Patented Oct. 2, 1906.

Application filed May 8, 1905. Serial No. 259,281.

To all whom it may concern:

Be it known that I, JOHN CHAMBERLIN, a citizen of the United States, residing at Flat Rock, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Stubble-Cutter Attachments; 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.

This invention relates to new and useful improvements in stubble-cutter attachments for corn-harvesters.

The invention consists in the novel arrangement and combination of parts herein-after fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide simple and efficient means adapted for attachment to a corn-harvester whereby the stubbles may be cut close to the ground and wherein the arrangement is such as to present and hold the knife in proper relation to the stubbles; to provide for automatically raising the knife-carrying frame when the machine or harvester is backing up or turning to prevent the rear of the frame catching in the ground and some of the parts becoming broken, and to provide for supporting the knife-frame, when elevated, in a manner to allow the machine to be run backward or turned from side to side without injury to the parts, the knife-frame-supporting means allowing the knife to fall properly into place when the machine is again drawn forward. The above object is attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a fragmentary plan view of a portion of a corn-harvester, showing the application of my stubble-cutter attachment thereto. Fig. 2 is an elevation of Fig. 1. Fig. 3 is an enlarged sectional view through the head-block attached to the frame, in which is swiveled the ball of the supporting-leg. Fig. 4 is an enlarged rear elevation of said block and leg.

Referring to the characters of reference, 1 designates the frame of the machine, which may be of any suitable construction and which is mounted upon transporting-wheels 2, of which one only is shown. The knife 3

is mounted upon a supporting-bar 4, formed preferably of angle-iron, having at its forward end a straight portion which extends upwardly at an incline and is attached, by means of a link 5, to one of the bars of the frame. At the lower terminal of said straight portion the bar is bent, as at 6, to form the inclined rearwardly-extending portion 7, to the flange of which the knife 3 is bolted, as at 8. The extreme end of the inclined portion 7 is raised, as shown at 9 in Fig. 2, and said raised portion is caused to extend straight rearwardly. Bolted to the under face of said raised end portion by means of the bolt 10 is a head-block 11, formed of two parts secured together by a transverse bolt 12. Formed in the opposite faces of the two parts of said block is a socket 13 of such diameter when the parts of the block are drawn together as to embrace the ball 14 upon the end of the supporting-leg 15 in a manner to prevent said ball dropping therefrom, yet allowing facility of movement therein.

It will be noted that the inclined portion 7 of the angle-iron bar 4, which carries the knife, lies parallel with the ground, thereby presenting the blade close to the surface, the raised portion 9 at the end of said bar being sufficient to allow of the attaching of the head thereto without causing said head to raise the knife from the surface during the forward movement of the machine. The foot portion 16 of the leg 15 is provided with a sharp margin 17, which in a measure prevents the leg slipping when the machine is backing or turning and when supporting the knife-bearing frame, as shown in Fig. 4 and by dotted lines in Fig. 3.

To prevent the twisting of the knife-bar, a brace-rod 18 is employed, the lower end of which is attached at 19 to the curve of said knife-bar, the upper end thereof passing loosely through the depending end of the bracket 20, said bracket being supported on the frame by means of the clips 21. Upon the rod 18 on each side of the bracket 20 are the collars 22, which limit the movement of said rod through said bracket. The rod 18, as will be seen, serves to hold the knife parallel with the ground, yet allows of a certain lateral movement to said knife and frame.

To provide for supporting the knife yieldingly in position, there is employed a rod 23, which is pivotally coupled at 24 to the inclined portion 7 of the knife-frame at one end and at the other end is loosely confined in and

passes through a bracket 25, adjustably secured to the frame by the clips 26 or other suitable means. Upon the rod 23 is a collar 27, and between said collar and the bracket 25 is a compressible spring 28. This spring allows the knife and frame to swing laterally as the knife comes into contact with the stubbles 29, permitting said knife to yield or swing slightly in the arc of a circle, obviating undue rigidity and imparting a slight drawing motion to the knife, which materially aids in cutting the stubbles.

In practice the stubble-cutter is attached to the frame of a harvester at the rear and serves to cut the stubbles off close to the ground as the harvester travels across the field. Should it be desired in the operation of the machine to back the harvester, the foot portion 16 of the leg will engage in the ground as the harvester moves backward and cause the leg to swing to a position nearly vertical, as shown by dotted lines in Fig. 3, thereby raising and supporting the knife-carrying frame and preventing injury to any of the parts thereof. Should the harvester after being backed be turned in either direction, the socket 13 in the head 11 will allow the leg 15 to swing sidewise, thereby accommodating any turning movement of the machine when the knife-frame is elevated.

On referring to Fig. 3, it will be seen that communicating with the ball-receiving socket in the head is an inclined shoulder 30, against which the leg strikes when the parts have assumed the position shown by dotted lines in Fig. 3, thereby forming a support for the leg and causing its lower end to slide over the ground should the backward movement of the machine be continued.

To prevent the rear end of the leg rising from the ground when the machine is moving forward and to maintain the leg always in position to raise the knife-frame when the machine is moved backward or turned sidewise, there is adjacent to the socket which receives the ball of the leg a shoulder 31, (shown more clearly by dotted lines in Fig. 3,) that bears upon the leg and holds the foot thereof at all times in contact with the ground. To allow the leg a free lateral movement within certain limits when supporting the knife-frame in an elevated position, the face of the head 11 around the socket 13 upon its opposite sides is cut away, as shown at 32, allowing said leg facility of movement to accommodate the turning of the machine when the knife-supporting machine is raised.

To enable the inclined portion of the knife-bar which extends from the upper end of the knife to the point of attachment with the frame to lie level with the surface of the ground, the vertical flange of said bar at a point adjacent to the upper end of said knife is bent downwardly, as shown at 33, enabling said bar to be readily bent at that point, so

as to accommodate it to machines of various heights and maintain the knife in proper relation with the surface, as before stated.

It will be noted that the face 32 of the head is inclined, whereby a swinging or turning movement of the transportable frame will cause the leg to engage said inclined face and raise the knife-carrying frame, as well as in a backward movement of the transportable frame.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a stubble-cutter attachment, the combination with a transportable frame, of a knife-carrying frame loosely attached thereto, and means for automatically raising the knife-carrying frame upon a movement of said transportable frame in every direction other than forward.

2. In a stubble-cutter attachment for harvesters, the combination with a transportable frame, of a knife-carrying frame loosely attached to said transportable frame, and a leg jointedly attached to the rear of the knife-carrying frame and resting upon the ground adapted to raise the knife-carrying frame upon a movement of said transportable frame in every direction other than forward.

3. In a stubble-cutter attachment for corn harvesters, the combination with a transportable frame, of a knife-carrying frame jointedly attached to the transportable frame, said knife-carrying frame having a slight lateral movement, and a spring for resisting said movement, and a leg jointedly connected to the knife-carrying frame at one end and resting on the ground at the other end to raise the knife-carrying frame from the ground as the transportable frame moves backwardly and sidewise.

4. In a stubble-cutter attachment for corn harvesters, the combination with a transportable frame, of a knife-carrying frame attached to said transportable frame to have a vertical and a slight lateral movement, a leg at the rear of the knife-carrying frame attached thereto by a ball-and-socket connection, adapted to support the knife-carrying frame in an elevated position, and allow said frame to swing laterally when so supported.

5. In a stubble-cutter attachment for corn harvesters, the combination with a transportable frame, of a knife-carrying frame hinged to the transportable frame to move vertically and have a slight lateral movement, a head-block secured at the rear of the knife-carrying frame, having a socket therein, a leg having a ball at one end adapted to lie in said socket, the other end of said leg lying upon the ground, said head-block having stop-shoulders adjacent to said socket to limit the movement of the leg therein.

6. In a stubble-cutter attachment for corn harvesters, the combination with a transport-

able frame, of a knife-carrying frame hinged to the transportable frame, a block at the rear of the knife-carrying frame having a socket therein, and a supporting-leg having a ball adapted to lie in said socket.

5 7. In a stubble-cutter attachment, the combination with a transportable frame, of a knife-carrying frame movably attached thereto, means for raising the knife-carrying frame
10 above the ground as the machine moves in

every direction other than forward, said means automatically returning the knife-carrying frame into operative position as the machine moves in a forward direction.

In testimony whereof I sign this specification in the presence of two witnesses.

JOHN CHAMBERLIN.

Witnesses:

FRED. BURDEN,
WM. SPEECHER.