

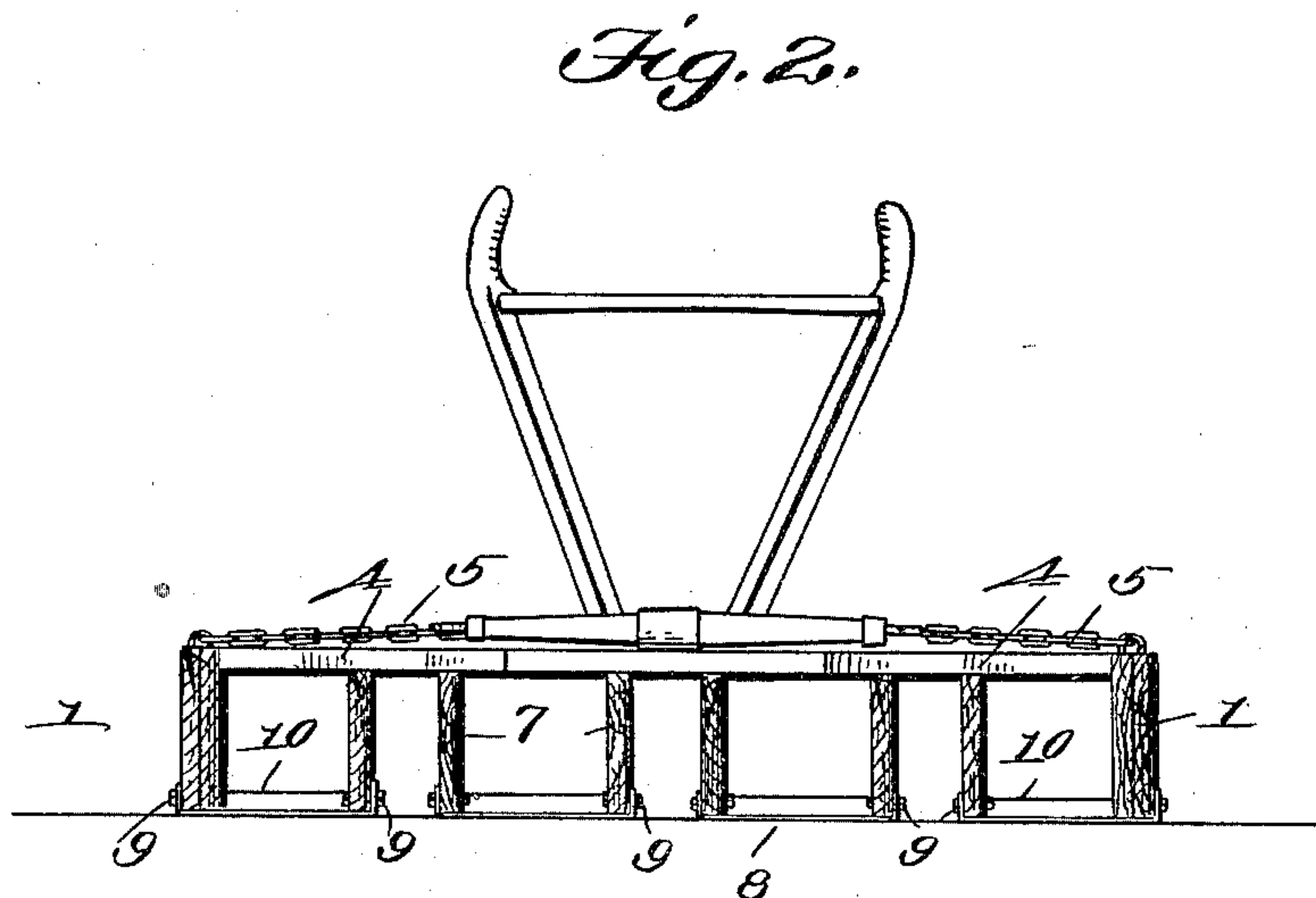
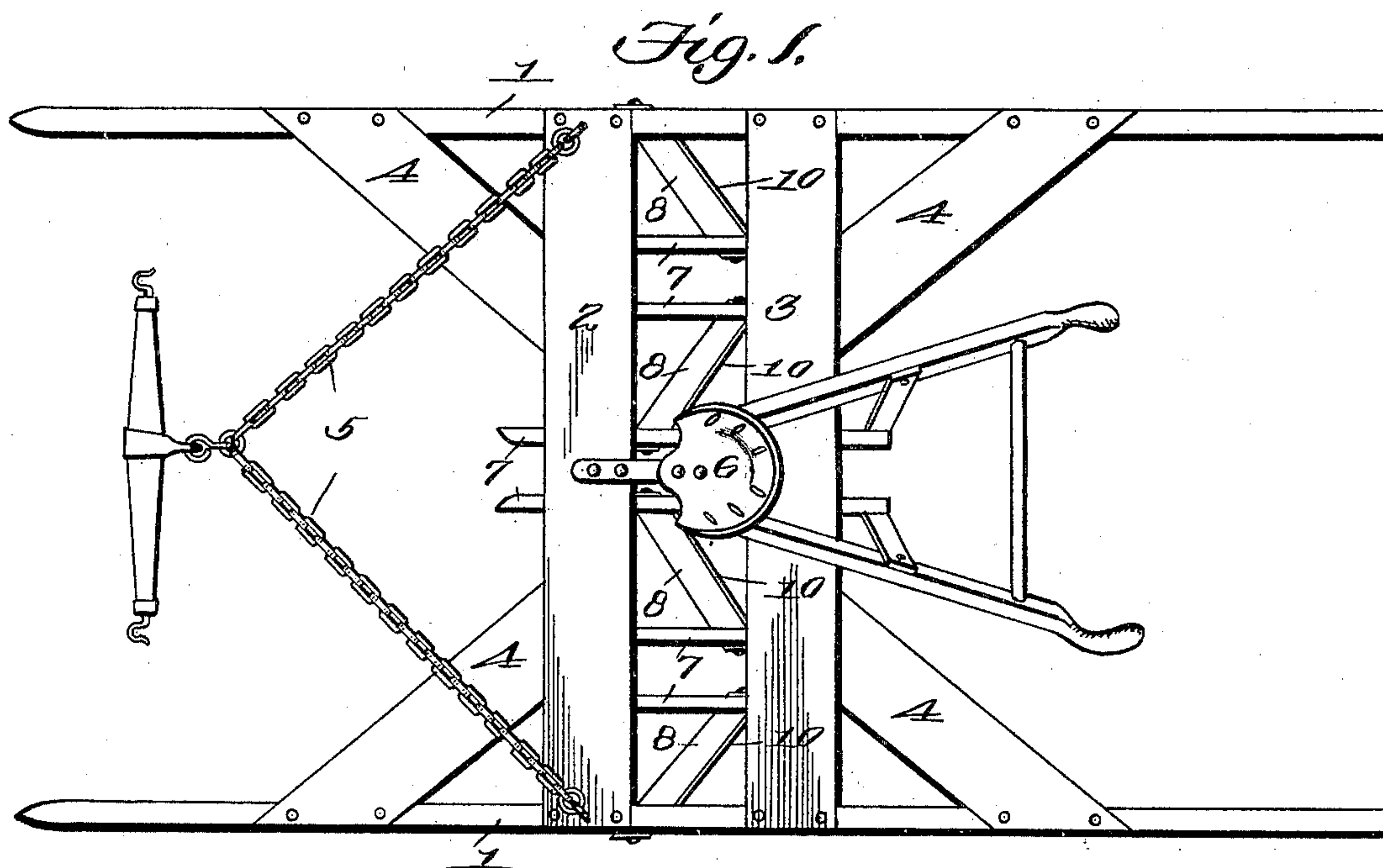
No. 684,690.

Patented Oct. 15, 1901.

J. JACKSON.  
COTTON CHOPPER.

(Application filed July 29, 1901.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JOHN JACKSON, OF GRANDCANE, LOUISIANA.

## COTTON-CHOPPER.

SPECIFICATION forming part of Letters Patent No. 684,690, dated October 15, 1901.

Application filed July 29, 1901. Serial No. 70,129. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN JACKSON, a citizen of the United States, residing at Grandcane, in the parish of De Soto and State of Louisiana, have invented new and useful Improvements in Cotton-Choppers; of which the following is a specification.

This invention relates to cotton-choppers, and particularly to that class of such devices that are drawn across a field transversely or at right angles to the rows of plants and are provided with knives that "block out" or "thin" the rows of plants at regular intervals; and it has for its object to provide a machine of the character referred to that will be simple and inexpensive in construction and efficient in operation.

To this end my invention consists in the features and in the construction, combination, and arrangement of parts hereinafter described, and particularly pointed out in the claims following the description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a top plan view of my improved implement, and Fig. 2 is a view in front elevation thereof.

The machine comprises two runners 1, arranged parallel to each other and which may consist of two boards or flat pieces of timber set up on edge, united by two transverse cross-braces 2 and 3, consisting of two boards nailed, bolted, or otherwise suitably fastened at their ends to the upper edges of the runners, and diagonal braces 4, fastened at their ends to the runners and the cross-braces. Draft devices 5 of any suitable or preferred construction are attached to the front cross-brace 2, and supported by the said cross-braces is a driver's seat 6.

Fastened to the under side of the cross-braces 2 and 3 are guard-runners 7, said guard-runners consisting of boards or flat pieces of timber set up on edge and arranged in pairs between the runners 1 and parallel with the latter. The bottoms of the guard-runners lie in the same horizontal plane with the bottoms of the runners 1, and they are secured at their upper edges to the under sides of the cross-braces 2 and 3 by any suitable fastenings. As before stated, the guard-runners are arranged in pairs—that is to say, the space

between each two adjacent guard-runners is less than the space on either side of said runners, and the said guard-runners extend at their ends slightly beyond the front and rear edges of the cross-braces 2 and 3, respectively.

Arranged in the spaces between the pairs of guard-runners and between the outer pairs of guard-runners and the runners 1 are knives 8. As shown, the knives are straight blades and are arranged at angles to the line of draft, the knives being alternately inclined in opposite directions—that is to say, all the knives are arranged at approximately forty-five degrees to the line of draft, the alternate knives being parallel to one another or extending in the same direction, while the intermediate knives are also arranged parallel to one another, but extend substantially at right angles to the first-named knives. The ends of the knives lie against the lower edges of the runners and are bent up against the sides of the latter and are secured thereto by bolts 9. The rear edge of each knife between the runner is bent upwardly and rearwardly, as at 10, for the purpose of stiffening and strengthening the knives. As shown, the runners 1 are much longer than the guard-runners 7, whereby an extended bearing is given to the said runners, so that the machine will not be affected by irregularities of the ground, but will be stable and run evenly.

The operation of my improved machine will be readily understood. The machine is drawn over the field transversely or at right angles to the rows of growing plants. As the machine is drawn across the rows the knives 8 engage the plants at the ground and cut down and block out or thin the plants at regular distances apart, leaving the plants standing and uninjured between such thinned-out parts. The guard-runners pass on opposite sides of the standing portions of the plants and protect the latter from the clods and soil and the plants and weeds that are cut by the knives. By arranging the knives diagonally they act on the plants with a draw or shear cut. In machines of this class, wherein are employed knives arranged at right angles to the line of draft, the knives operate to chop down the plants by the sheer weight or force applied to the knives, and oftentimes the knives merely operate to break



down the plants or drag them from the earth by the roots, and under any circumstances such knives offer a great resistance to the draft of the machine. In my improved machine the knives, owing to their diagonal arrangement, operate on the plants with a drawing or shearing cut that slices off the plants with ease and certainty and offers but slight resistance to the draft. Moreover, by inclining the knives in opposite directions, as shown and described, one set of knives counteract the other set. In other words, should all the knives be inclined in the same direction as they engage the plants there would be a tendency of the machine to move laterally to one side; but by arranging them oppositely or alternately inclining them in opposite directions one set of knives will have a tendency to thrust the machine to the right and the other set will have a like tendency to thrust it with equal force to the left. Hence the two sets of knives will counteract or neutralize each other.

It will be manifest to those skilled in the art that various modifications or alterations may be made in the construction of the details of my invention without departing from the spirit thereof, and I do not wish, therefore, to be understood as confining myself to such details, excepting as hereinafter specifically pointed out in the appended claims.

Having described my invention, what I claim is—

1. In a cotton-chopper, the combination with a frame, of a plurality of horizontal knives carried thereby and arranged at uniform distances apart transversely of the frame and diagonal to the line of draft, said knives being alternately inclined in opposite directions, and vertically-depending guard-runners arranged between each pair of knives and in alinement with the line of draft, substantially as described.

2. In a cotton-chopper, the combination with a frame comprising two parallel runners, of longitudinal guard-runners arranged in

pairs between the said runners and parallel to the latter, and horizontal knives arranged diagonally to the line of draft on the opposite sides of each pair of said guard-runners, substantially as described.

3. In a cotton-chopper, the combination with a frame comprising two parallel runners, of longitudinal guard-runners arranged in pairs between the said runners and parallel to the latter, and horizontal knives arranged diagonally to the line of draft on the opposite sides of each pair of said guard-runners, the knives on the opposite sides of each pair of guard-runners extending diagonally in opposite directions, substantially as described.

4. In a cotton-chopper, the combination with a frame comprising two parallel runners and cross-beams fastened to the upper edges thereof, of longitudinal guard-runners consisting of boards set up on edge in pairs between and parallel to said runners and fastened to the under sides of the cross-beams, and diagonal knives seated against the lower edges of the guard-runners and having upturned ends bolted to the sides of the guard-runners, substantially as described.

5. In a cotton-chopper, the combination with a frame comprising two parallel runners and cross-beams fastened to the upper edges thereof, of longitudinal guard-runners consisting of boards set up on edge in pairs between and parallel to said runners and fastened to the under sides of the cross-beams, and diagonal knives seated against the lower edge of the guard-runners and having upturned ends bolted to the sides of the guard-runners, the rear edges of said knives being bent upwardly and rearwardly between the guard-runners, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN JACKSON.

Witnesses:

W. H. HOELL,  
J. H. HOELL.