P. K. JENKINS.

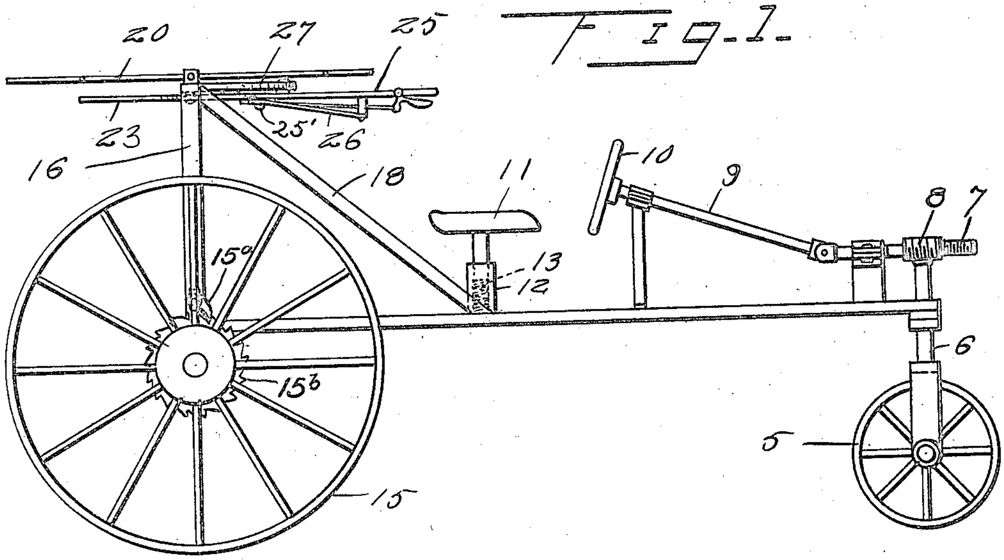
BROOM CORN BREAKER AND TABLER.

APPLICATION FILED MAY 12, 1921.

1,419,262. Patented June 13, 1922.

3 SHEETS—SHEET 1.

Fig. 1.



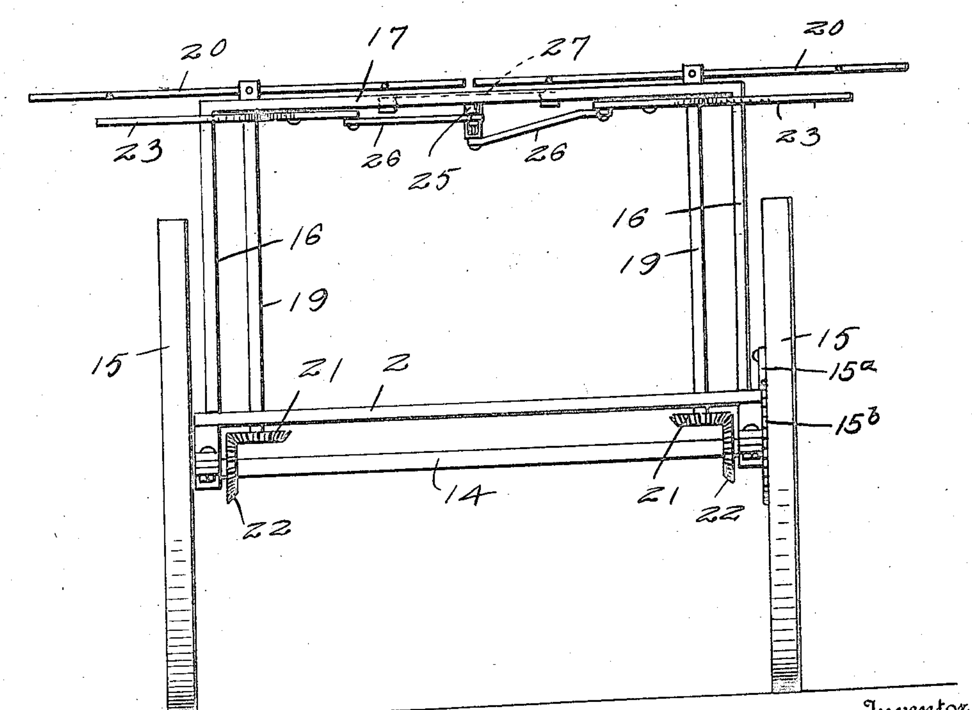


Fig. 3.

Inventor

P. K. Jenkins.

By [signature] Attorney

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3 SHEETS—SHEET 2.

Fig. 2.

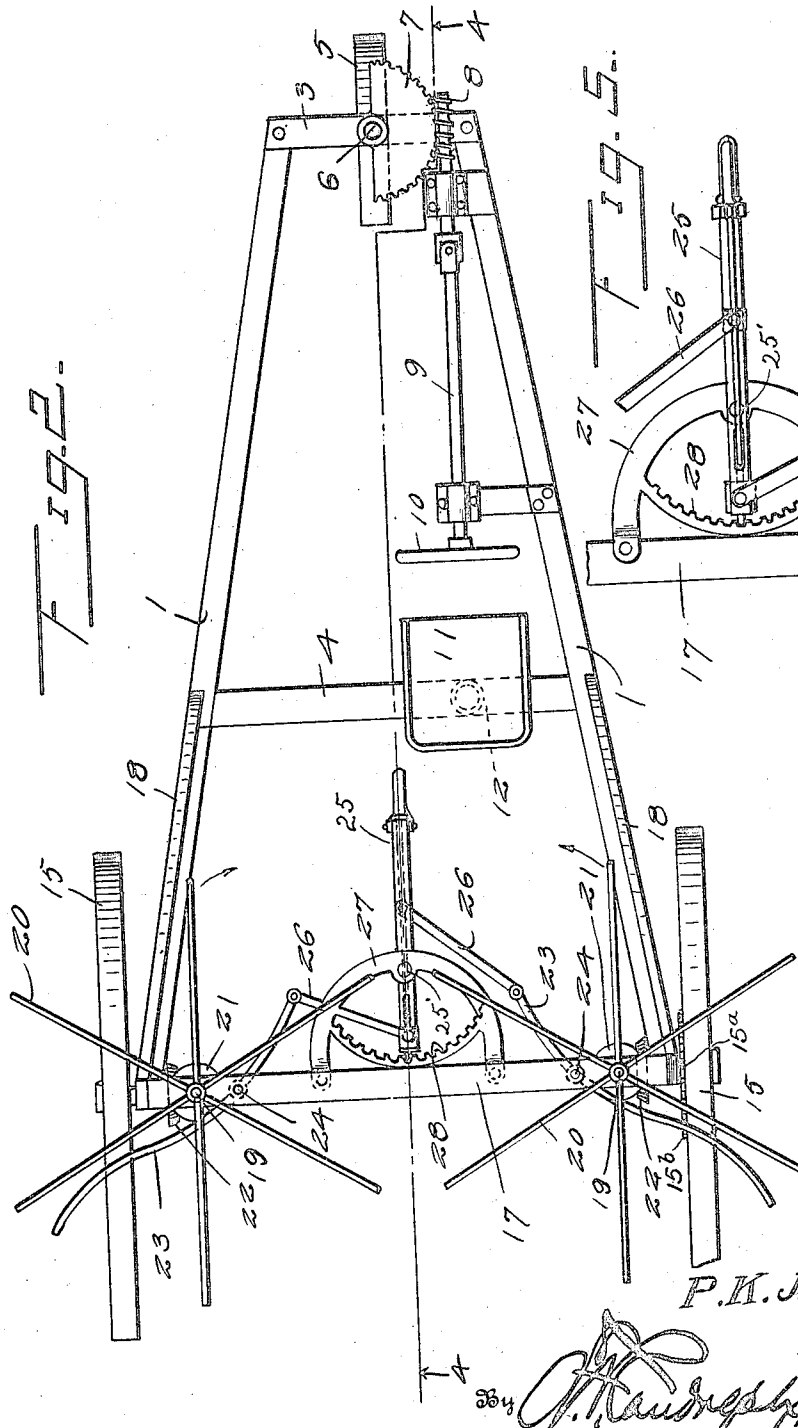
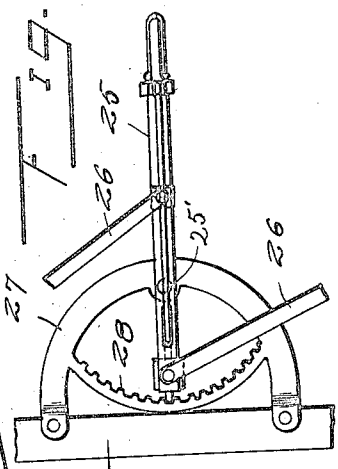


Fig. 5.



Inventor

P. K. Jenkins

By A. Kaufmann Jr. Attorney

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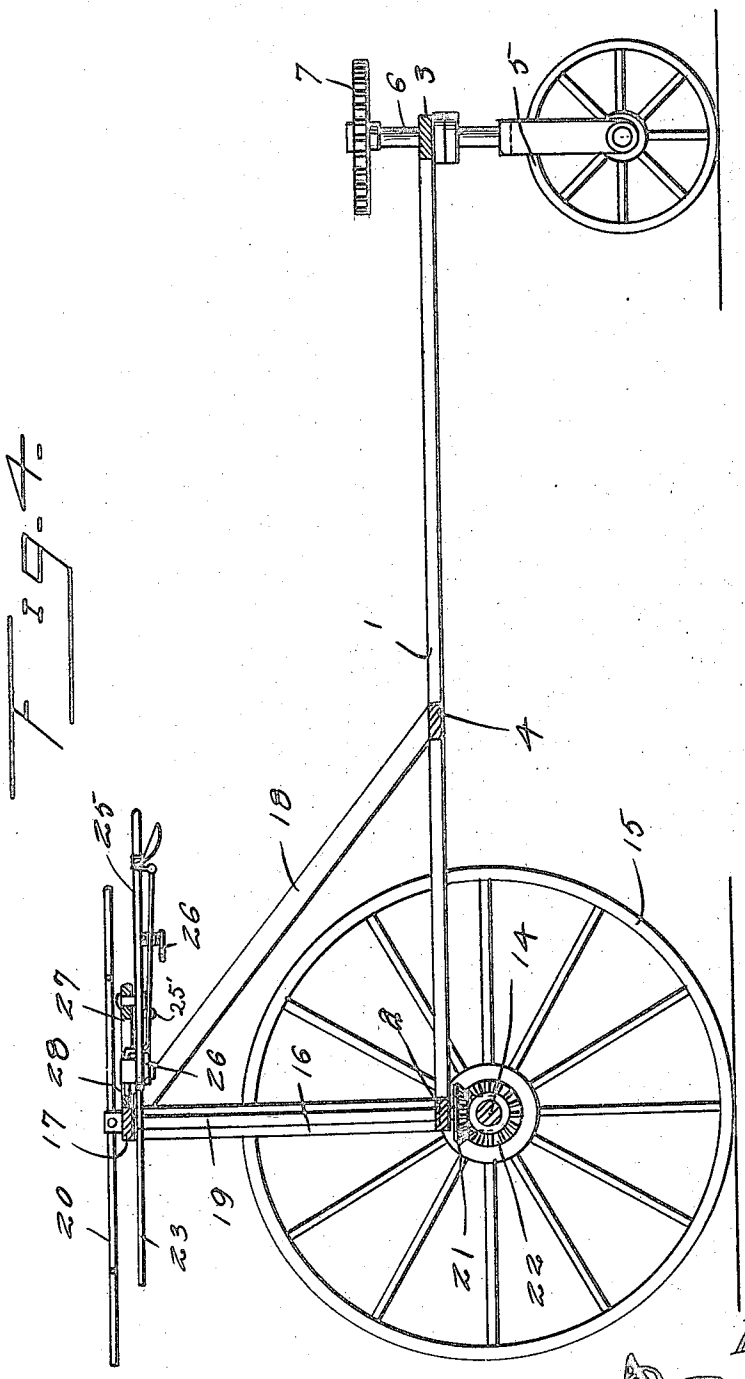
3 SHEETS—SHEET 3.

Fig. 4.



Inventor

P. K. Jenkins

By A. Kaufmann Jr. Attorney

UNITED STATES PATENT OFFICE.

PAUL K. JENKINS, OF MAYSVILLE, OKLAHOMA.

BROOM-CORN BREAKER AND TABLER.

1,419,262. Specification of Letters Patent. Patented June 13, 1922.

Application filed May 12, 1921. Serial No. 468,353.

To all whom it may concern:

Be it known that I, PAUL K. JENKINS, a citizen of the United States, residing at Maysville, in the county of Garvin and State of Oklahoma, have invented certain new and useful Improvements in Broom-Corn Breakers and Tablers; and I do hereby 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.

The invention relates to machinery to facilitate the harvesting of broom corn which preliminary to gathering has the heads bent over and broken so that the subsequent cutting is easily and quickly effected.

The invention consists of a machine of such construction as to be advanced between adjacent rows of broom corn and embodying mechanism to draw opposite heads towards each other and break them over bars which are angularly adjustable.

Other objects and advantages will be apparent and suggest themselves as the nature of the invention is understood.

While the drawings illustrate an embodiment of the invention, it is to be understood that in adapting the same to meet different conditions and requirements, various changes in the form, proportion and minor details of construction may be resorted to without departing from the nature of the invention.

Referring to the accompanying drawings forming a part of the specification.

Figure 1 is a side view of a broom corn breaker and tabler embodying the invention.

Figure 2 is a top plan view thereof.

Figure 3 is a rear view.

Figure 4 is a vertical central longitudinal section on the line 4—4 of Figure 2, looking in the direction of the arrows.

Figure 5 is a detail view showing the operating lever, the links and the toothed bar cooperating therewith.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The machine embodies vertical and horizontal frames and is mounted upon ground wheels one of which constitutes a driver. The horizontal frame comprises longitudinal side bars 1, a rear cross bar 2, a front cross bar 3 and an intermediate cross bar 4. The side bars 1 are forwardly converged whereby to reduce the lateral extent of the portion of the machine which is mounted upon a caster wheel 5 whose stem 6 is pivotally mounted in the front cross bar 3. A worm wheel 7 is fast to the upper end of the stem 6 and cooperates with a worm 8 secured to a longitudinal shaft 9 mounted in bearings applied to one side bar 1 and provided at its rear end with a hand wheel 10 for purposes of steering. The driver's seat 11 is mounted upon the cross bar 4 adjacent the side bar 1 supporting the bearings of the shaft 9 and the steering wheel 10 is conveniently disposed thereto so as to be readily accessible. The driver's seat 11 is yieldably mounted upon a tubular post 12 which receives a spring 13 provided for the yieldable support of the seat 11. The rear portion of the machine is supported by wheels 15 mounted upon the ends of an axle 14 which is parallel to the rear cross bar 2. One of the wheels 15 is fast to the axle 14 to rotate therewith. The other wheel 15 is loose on the axle and is provided with a pawl 15^a which cooperates with a ratchet wheel 15^b fast to the axle. Thus both wheels 15 act as drivers and the ratchet mechanism 15^a—15^b provides for turning of the machine without necessitating a slipping of the drive wheels which would result if both wheels 15 were fast to the axle.

The vertical frame embodies uprights 16 which are secured at their lower ends to the cross bar 2, and a cross bar 17 connecting the tops of the uprights 16. Braces 18 strengthen and reinforce the vertical frame and are interposed between the uprights 16 and the side bars 1. Vertical shafts 19 mounted at their upper ends in the cross bar 17 and at their lower ends in the cross bar 2 are provided at their upper ends with reels 20 the arms of which project beyond the sides of the machine to engage the heads of the broom corn and draw them inwardly as the machine advances over the field. The vertical shafts 19 are geared at their lower ends to the axle 14 and are driven thereby. Bevel gears 21 secured to the lower ends of the shafts 19 mesh with companion bevel gears 22 secured to the axle 14. The shafts 19 are driven in a manner to cause the outer arms of the reels 20 to travel inwardly and rearwardly whereby the heads of the broom corn are drawn inwardly and urged rearwardly.

Breaker bars 23 are mounted upon the cross bar of the vertical frame and are an-

gularly adjustable. The breaker bars 23 are pivotally mounted as indicated at 24 and curve in their length and are reversely inclined so as to cooperate with the arms of the reels 20. An operating lever 25 is connected by links 26 to the forward ends of the bars 23. The inner ends of the links 26 are connected to the lever 25 upon opposite sides of the pivot 25′ and equi-distant therefrom. The outer ends of the links 26 are pivoted to the forward ends of the bars 23. This arrangement admits of the breaker bars 23 being uniformly adjusted when the lever 25 is operated. A plate 27 projects forwardly from the cross bar 17 and the lever 25 is pivoted thereto. The lever 25 is provided with the usual hand latch which cooperates with teeth 28 on the plate 27 to hold the breaker bars in the required adjusted position. The breaker bars 23 are disposed in a horizontal plane and incline outwardly and rearwardly and are located in a plane close to the plane of the reels 20, whereby the broom corn may be effectively broken thereover in the operation of the machine.

In the operation of the machine it is advanced over the field between adjacent rows of the corn. In the progress of the machine rotary movement is imparted to the reels 20 the arms of which engage the heads of the broom corn and draw them inwardly and move them rearwardly, said heads being bent over the bars 23 and their stalks or stems broken by such action.

What is claimed is:—

1. In a machine of the character specified, oppositely disposed breaker bars, an operating lever pivoted intermediate its ends, links connecting the breaker bars with the lever and connected to the lever upon opposite sides of its pivot and distant therefrom and reels in cooperative relation with the breaker bars.

2. In a machine of the character specified, oppositely disposed breaker bars positioned in a horizontal plane and pivoted intermediate their forward and rear ends, an operating lever pivoted intermediate its ends and having the forward ends of the breaker bars connected to said lever upon opposite sides of its fulcrum and equi-distant therefrom, and reels in cooperative relation with the breaker bars.

3. A machine of the character specified comprising vertical and horizontal frames, oppositely inclined breaker bars mounted upon the vertical frame, an operating lever having connection with the breaker bars for uniform adjustment thereof, means for securing the parts in the required adjusted position and reels in operative relation with the breaker bars for breaking the heads of broom corn thereover, braces between the frames, a castor wheel supporting the front end of the frame, steering mechanism therefor and rear supporting wheels constituting drivers for operating the reels.

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

PAUL K. JENKINS.

Witnesses:
S. L. THOMPSON,
J. JACKS.