May 26, 1925. 1,539,207

J. RANKER

RIDGING MACHINE

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Fig. 1.

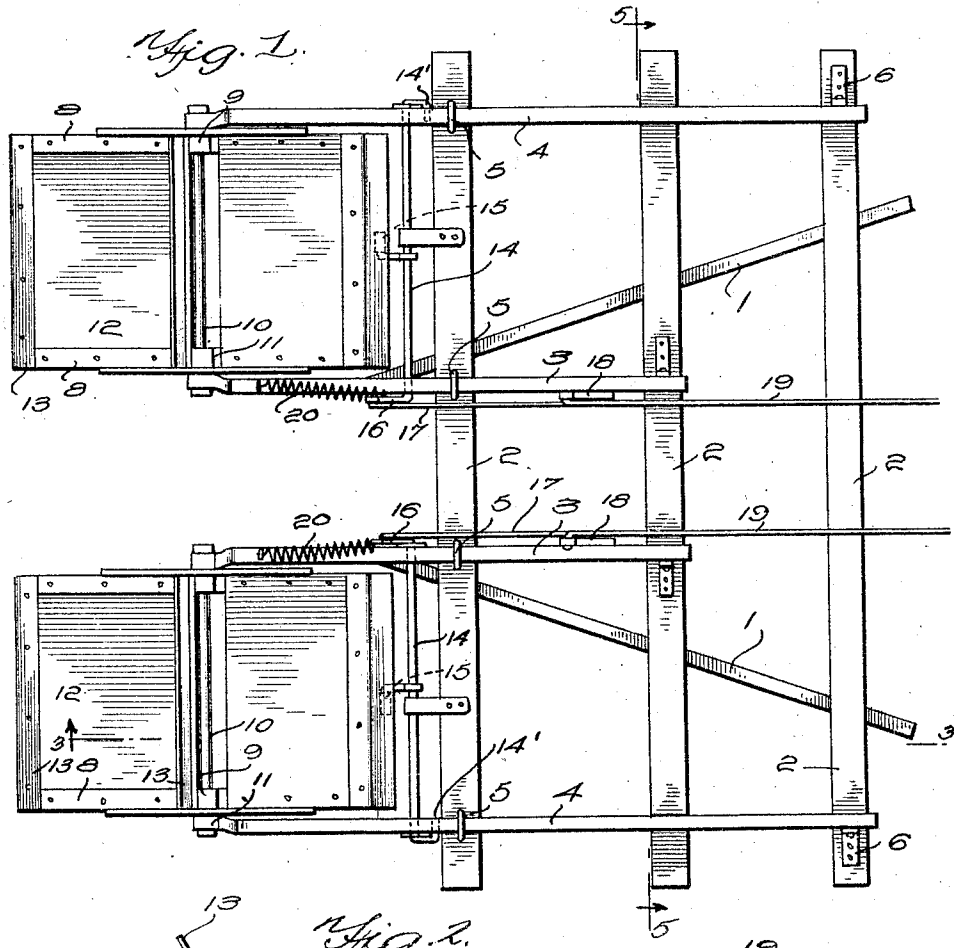
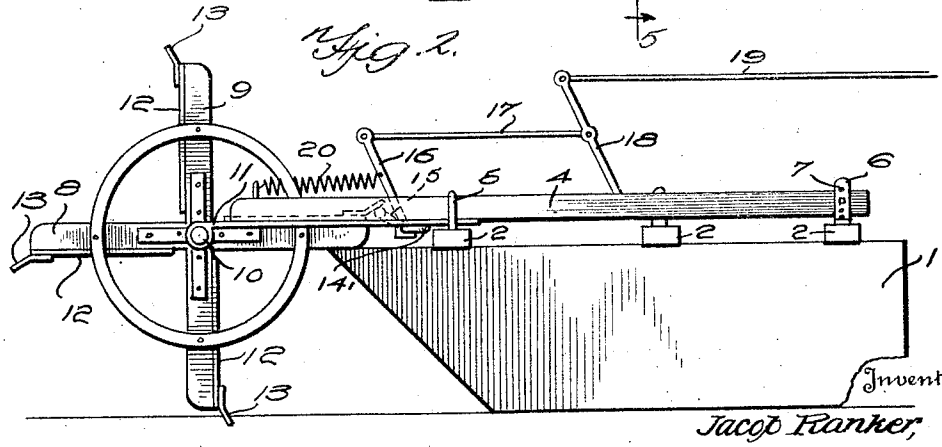


Fig. 2.



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Fig. 3.

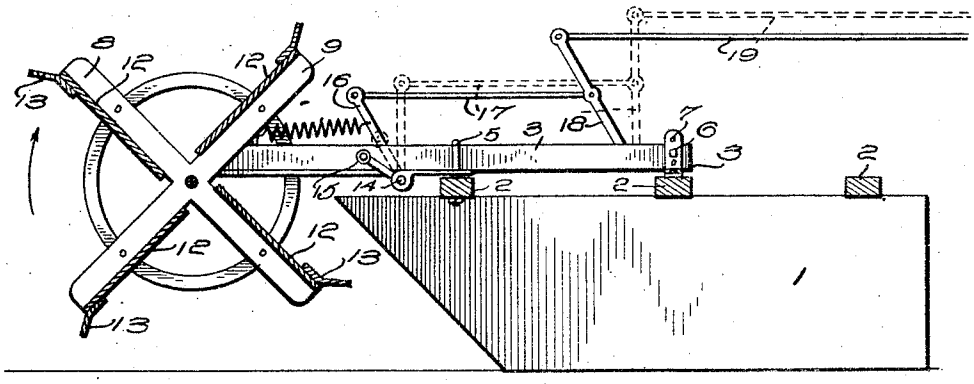


Fig. 4.

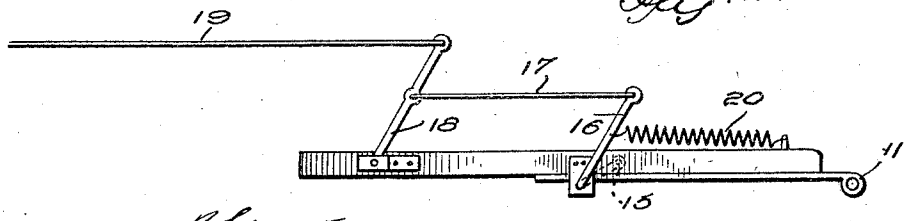


Fig. 5.

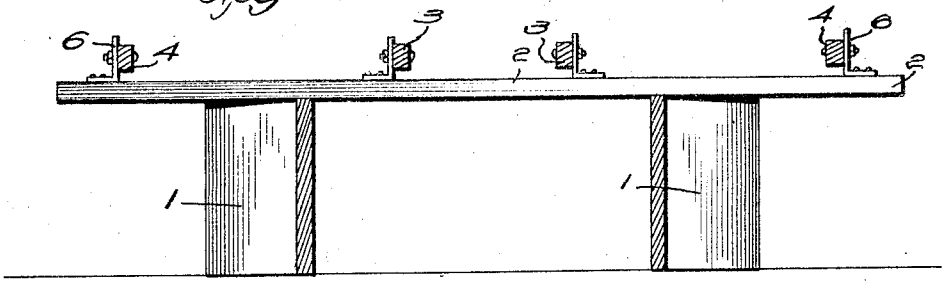
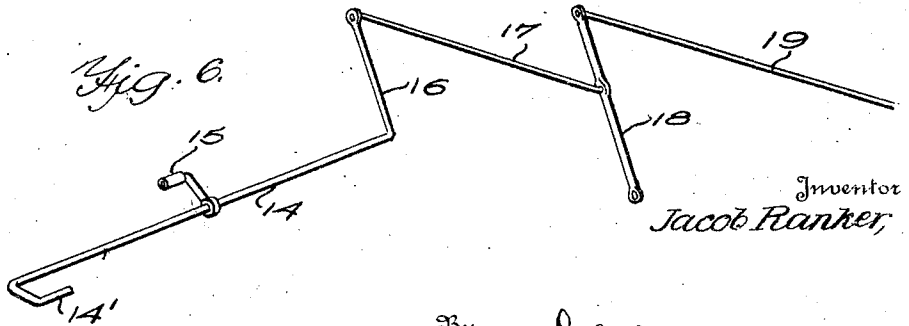


Fig. 6.



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Patented May 26, 1925. 1,539,207

UNITED STATES PATENT OFFICE.

JACOB RANKER, OF ANAHEIM, CALIFORNIA.

RIDGING MACHINE.

Application filed July 26, 1921. Serial No. 487,757.

To all whom it may concern:

Be it known that I, JACOB RANKER, a citizen of the United States, residing at Anaheim, in the county of Orange and State of California, have invented certain new and useful Improvements in Ridging Machines, of which the following is a specification.

This invention relates to ridging machines, and more particularly to a combined ridging and blocking machine.

An object of the invention is the provision of a device for turning up the soil in the form of ridges for the purpose of making basins for the reception of the irrigating water.

A further object of the invention is the provision of means for filling the blocks or gaps cut out by the ridger in making intersecting ridges.

In irrigating, and particularly in irrigating orchards, it has been the practice to form ridges parallel with each other between each row of trees and then form a basin by intersecting the parallel ridges at right angles at suitable intervals. In forming the intersecting ridge, a gap is made in the parallel ridges, and it has heretofore been the practice to fill these gaps manually by shoveling in sufficient earth. By the use of the present invention, the gaps or blocks cut out may be filled by a single operation, the blocking attachment being so arranged that it can be operated at any time, as desired by the operator of the machine.

In the accompanying drawings, I have shown one embodiment of the invention. In this showing:

Figure 1 is a plan view,

Figure 2 is a side elevation showing the blocker in its normal position,

Figure 3 is a section on line 3—3 of Figure 1, showing the blocker in released position,

Figure 4 is a detail view of a portion of the blocker control mechanism,

Figure 5 is a transverse sectional view on line 5—5 of Figure 1, and,

Figure 6 is another detail view of the blocker control mechanism.

Referring to the drawings, the reference numeral 1 designates ridger boards which are adapted to turn up the soil over which the machine is passed and form ridges. As shown, the ridger boards converge toward the rear of the machine. The ridger boards are secured to transverse members 2, in any suitable manner, and these transverse members are pivotally connected to inside regulating beams 3, and outside regulating beams 4. As shown, U-bolts 5 are arranged over the regulating beams and secured to the rear transverse members forming a pivotal connection. The forward transverse members are provided with L-shaped brackets 6, having a plurality of openings 7 for the reception of bolts carried by the regulating beams. By changing the position of the bolts in the brackets, the ridger boards may be adjusted.

The blocker attachment is secured in the rear of the ridger boards and, as shown, is substantially cylindrical in shape. The blocker frame comprises a pair of members 8 and 9 secured to each other and provided with a hub adapted to receive an axle or pin 10, mounted in bearings 11, arranged between each pair of regulating beams. Wings or blades 12 are secured to the frame, and these blades are provided with metal shoes 13.

The blocker attachment is normally retained in inoperative position by means of suitable control mechanism. As shown, a shaft 14 is mounted in suitable bearings in the regulating beams. One end of the shaft is provided with an offset end 14′ adapted to engage the under side of one of the beams to limit the movement of the shaft in one direction. The shaft is provided with a trip 15, normally engaging one of the shoes 13 to retain the blocker in the position as shown in Figure 2 of the drawings. A crank 16 is formed on one end of the shaft, the end of the crank being connected to a link 17. The link is connected to a pivoted lever 18, and a control lever 19 is connected to the pivoted lever. A spring 20 is connected to the crank 16, and normally holds the trip 15 in engagement with one of the shoes 13.

In operation, the ridger is employed in the usual manner to turn up the soil and form a ridge between the pair of ridger boards. When several parallel ridges have been formed between a row of trees, intersecting ridges are formed at suitable intervals, whereby basins for the reception of irrigating water are produced. The blocker is normally retained in inoperative position, and the arm or blade extending downwardly drags a quantity of the loosened earth at all times. When a ridge is intersected and a gap is cut therein, the blocker is released by disengaging the trip

15 through the control mechanism and the blocker revolves to the position shown in Figure 3 of the drawings, depositing the earth in the space or gap cut by the ridger.

It will be apparent that the provision of means for mechanically filling the block or gap cut in an intersecting ridge will materially reduce the labor involved from the use of hand shovels heretofore employed for this purpose, and the provision of means whereby the blocker may be actuated at any time at the convenience of the operator is highly advantageous.

It is to be understood that the form of the invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

I claim:

In a ridging and blocking machine, a frame, a ridger board mounted thereon, a blocking device mounted on said frame in the rear of said ridger board, said blocking device comprising a revoluble frame, a plurality of blades mounted thereon, one of said blades being adapted to extend downwardly and collect a portion of the earth cut by said ridger board, a trip lever normally engaging another of said blades, a transverse shaft on which said lever is mounted, a crank formed on one end of said shaft, a spring connected to said crank to normally retain the trip lever in operative position, a link connected to the end of said crank to permit operation of said shaft to release said trip lever, and an offset member formed on one end of said shaft and adapted to engage a portion of said frame to limit the movement of the shaft in one direction.

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

JACOB RANKER.

Witnesses:
CLARA T. RANKER,
ROGER C. DUTTON.