Nov. 4, 1941. C. F. FEE 2,261,354

SEAT FRAME FOR THINNING AND BLOCKING BEETS

Filed April 4, 1940 2 Sheets-Sheet 1

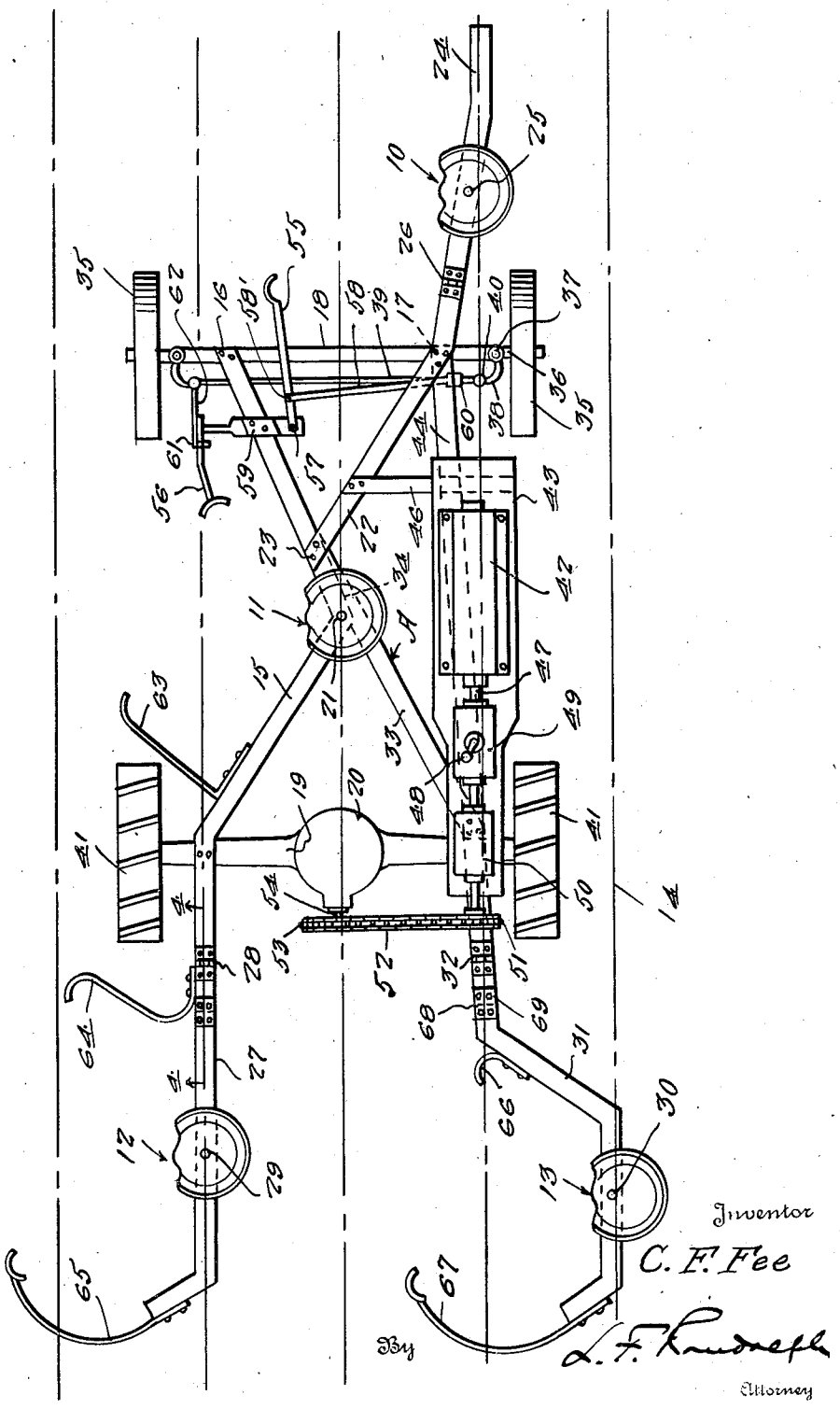


Fig. 1.

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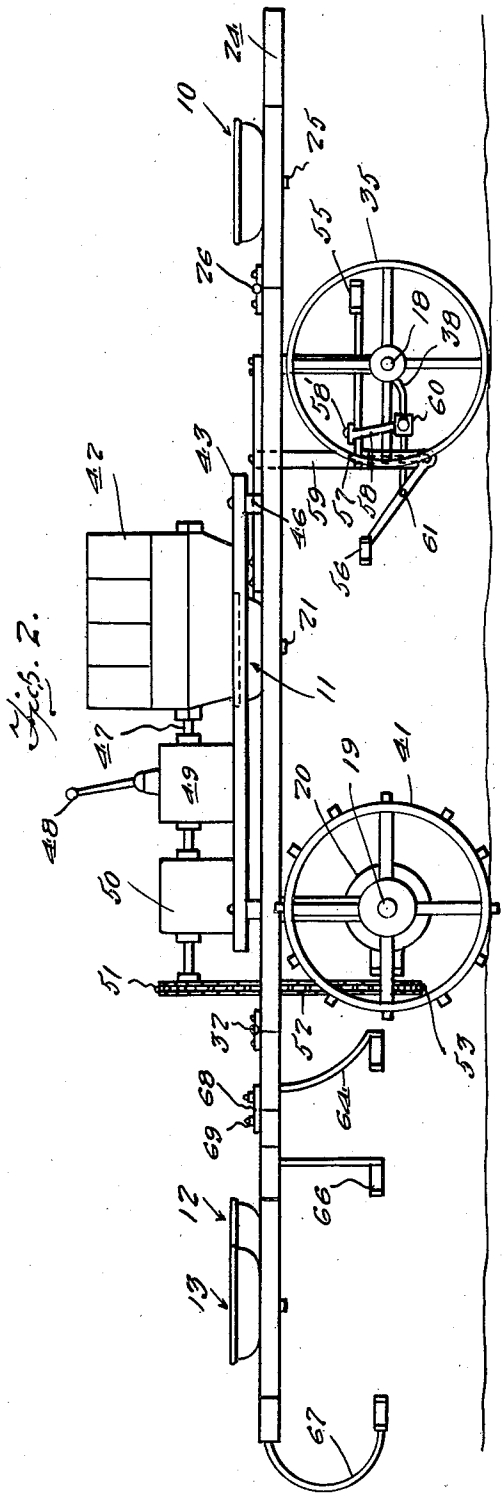


Fig. 2.

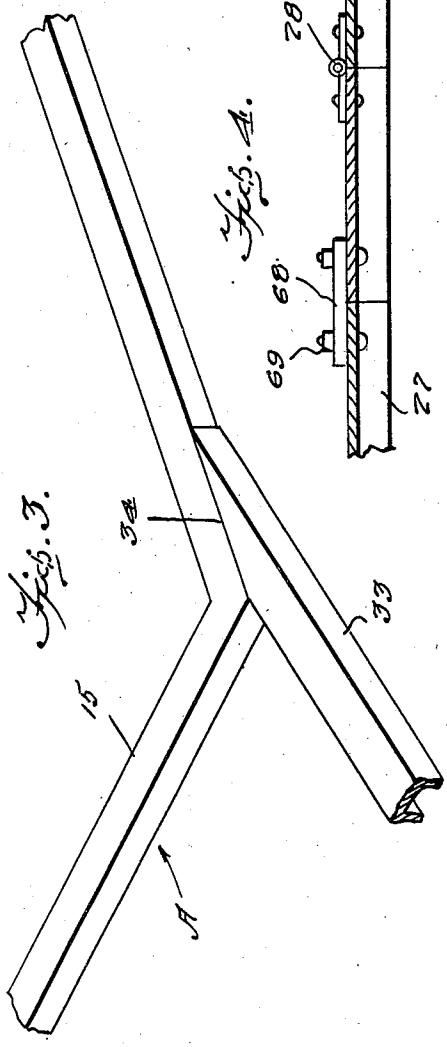


Fig. 3.

Fig. 4.

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SEAT FRAME FOR THINNING AND BLOCKING BEETS

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9 Claims. (Cl. 180—1)

This invention relates to a seat frame or implement for use in thinning and blocking beets.

It is aimed to provide a novel construction which will accommodate a maximum of operators, enabling beets in a plurality of rows, usually four, to be thinned and blocked as the implement travels over the field.

It is further aimed to provide a novel skeleton form of machine for the purpose stated having minimum parts, with certain of the seating portions being removable and foldable with respect to the remainder.

The more specific objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating an operative embodiment.

In said drawings:

Figure 1 is a plan view of the implement;

Figure 2 is a side elevation thereof;

Figure 3 is a fragmentary sectional view of a portion of the frame, and

Figure 4 is a detail sectional view taken on the line 4—4 of Figure 1.

Referring specifically to the drawings wherein like reference characters designate like or similar parts, the machine is adapted to accommodate four workmen, seats for whom are provided at 10, 11, 12 and 13, transversely disalined, and one in line with each of four lines of beets suggested by the lines 14 in Figure 1, all of which workmen facing the left hand side of the figure.

The said seats 10 to 13 are mounted on a novel frame generally designated A. This frame may comprise a beam having a V portion at 15 which is riveted or otherwise fastened at 16 and 17, to a front axle 18 and a housing or casing 19 for a rear axle and differential structure generally designated 20. At the apex of the V portion 15, the seat 11 is mounted as at 21.

Diverging from one of the portions of the V 15, is a branch beam 22, rigidly secured as at 23 to such V. At the forward portion of the branch beam 22, the seat 10 is fastened as at 25. To permit the seat 10 to be raised and folded onto the machine, when not in use, such portion 24 is connected to the portion 22 by a hinge or the equivalent as at 26.

The V portion 15 has a rearwardly extending branch beam 27 connected thereto in parallelism to the rows of beets, as by means of a hinge or the equivalent 28, similar to and for the same purpose as the hinge 26. The branch beam 27 has the seat 12 secured thereto as at 29.

The remaining seat 13 is fastened at 30, to an irregular beam 31 hinged as at 32 to the rear end of an extension beam 33, riveted, welded or otherwise rigidly secured to the housing 19, and along a plane 34, as best shown in Figure 3.

It will be realized that the skeleton frame and parts are so arranged that each occupant of a seat, may thin and block a different row of the beets or the equivalent and that no undue obstructions are afforded in front of such operators.

Front wheels are provided at 35 which are journaled on spindles 36 arranged to steer on vertical axes 37 and having rearwardly extending arms 38 to which a connecting rod 39 is pivoted as at 40.

The rear wheels of the machine are shown at 41 being driven from the conventional differential 20. The prime mover for the machine is shown at 42 and it may for instance be an internal combustion engine of any suitable size, mounted on a plate 43 secured to a bar or beam 44 fastened to the beams 22 and 33, and braced by a crossbeam 46. Engine 42 drives a shaft 47 under control of a gear shift lever 48, and one or more transmissions 49 and 50, so that the desired reduction of speed may be attained. A sprocket wheel 51 on shaft 47 has a sprocket chain 52 trained thereover which in turn is trained over a sprocket wheel 53 keyed to a shaft 54 of the differential 20.

Operators from either or both seats 10 and 11 may steer the wheels 35 through engagement with lever members 55 and 56, respectively. These members normally serve as rests for the feet of the operators occupying seats 10 and 11. Rest 55, however, is a lever pivoted at 57 to a bracket 59 fastened on the V beam 15. A connecting rod 58 is pivoted to such lever 55 at 58' and at 60 is pivoted to the steering rod 39. Hence when the operator at seat 10 appropriately moves lever 55 with his foot, it will effect steering of the wheels 35. The same result is accomplished by an operator from the seat 11 since rest 56 is a lever pivoted on the bracket 59 and operatively connected at 61 to a connection 62 on the steering rod 39.

An additional foot rest 63 is secured to one of the V portions 15 for the operator at seat 11.

A pair of foot rests are provided on the beam 27 for the operator at seat 12 as at 64 and 65 and a pair of foot rests 66 and 67 are provided on the beam 31 for the operator at seat 13. It will be understood that the beams and foot rests are

shaped according to the available space and working conditions.

Beams 27 and 31 are preferably removable when not in use, in addition to being capable of raising and swinging over the frame of the machine when desired, on the axes of hinges 28 and 32. The detachable connections may be afforded by cleats 68 and bolts 69.

In the operation of the machine, it may be arranged to travel at any desired low speed so as to afford ample opportunity for all of the workmen to properly perform their task. Each workman usually uses a blocking hoe in one hand and with his other hand, picks out the extra beet plants left by the blocking hoe.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

I claim as my invention:

1. A mobile structure of the class described having an axle, steering wheel means mounted thereby, seats for operators on different sides of the axle, a foot rest for an operator of each seat, and means operable to steer said wheel means connected to the foot rest and operable from opposite sides of the axle to steer.

2. A machine of the class described having a mobile frame, front and rear wheel means for said frame, a seat on the frame between said front and rear wheel means, a seat on a portion of said frame forwardly of the front wheel means, a seat on a portion of said frame rearwardly of the rear wheel means, and means mounting the said portions for folding movement over and support on the remainder of the frame.

3. A machine of the class described having a mobile frame, front and rear wheel means for said frame, a seat on the frame between said front and rear wheel means, a seat on a portion of said frame forwardly of the front wheel means, a seat on a portion of said frame rearwardly of the rear wheel means, means hinging the said portions for folding movement over and support on the remainder of the frame, and means to steer the front wheel means by an occupant of each of the first and second mentioned seats.

4. A machine of the class described having a mobile frame, front and rear wheel means for said frame, a seat on the frame between said front and rear wheel means, a seat on a portion of said frame forwardly of the front wheel means, a seat on a portion of said frame rearwardly of the rear wheel means, means hinging the said portions for folding movement over and support on the remainder of the frame, a separable connection between the portions and hinge means and means to steer the front wheel means by an occupant of each of the first and second mentioned seats.

5. A machine of the class described having a frame provided with front and rear wheel means, a propulsion means for the rear wheel means located at one side of the machine, a seat approximately centrally between the front and rear wheel means and laterally opposite said propulsion means, said seat facing the other side of the implement, and steering means for the front wheel means operable by an occupant of said seat.

6. A machine of the class described having a frame provided with front and rear wheel means, a propulsion means for the rear wheel means located at one side of the machine, a seat in the rear of said rear wheel means, a seat forwardly of the front wheel means, a seat rearwardly of the front wheel means, and steering gear operable by occupants of the second and third mentioned seats.

7. A machine of the class described having a frame provided with front and rear wheel means, a propulsion means for the rear wheel means located at one side of the machine, a seat laterally opposite said propulsion means, means mounting a seat forwardly of the front wheel means, rests for the operators who occupy the said seat means, and connections from said rests operable to steer said front wheel means.

8. A vehicle of the class described having a mobile frame, beams arranged substantially in X form, a seat at the junction of said beams, two of said beams having rearward extensions, means pivoting said extensions to the adjacent beams, seats carried by the extensions, and foot rests carried by the extensions.

9. A vehicle of the class described having a mobile frame, beams arranged substantially in X form, a seat at the junction of said beams, two of said beams having rearward extensions, means pivoting said extensions to the adjacent beams, seats carried by the extensions, foot rests carried by the extensions, said extensions being in separable parts, a prime mover on the frame at one side of the machine in the rear of the first mentioned seat, rear wheel means on the frame, and a drive from the prime mover to said rear wheel means.

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