Dec. 28, 1926. 1,611,919

G. KILBORN

COMBINATION WEED ERADICATOR AND LAND CULTIVATOR

Filed May 15, 1926

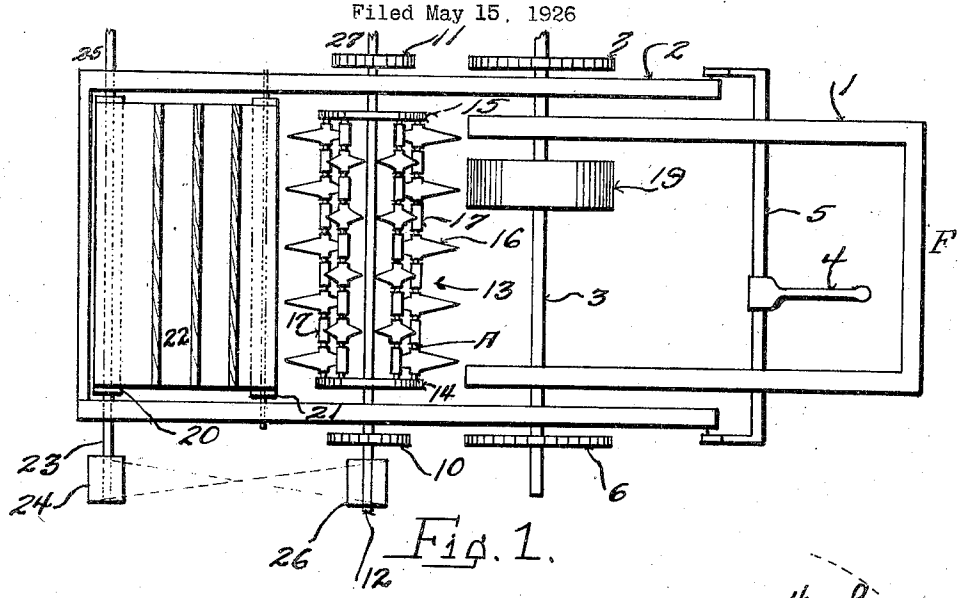


Fig. 1.

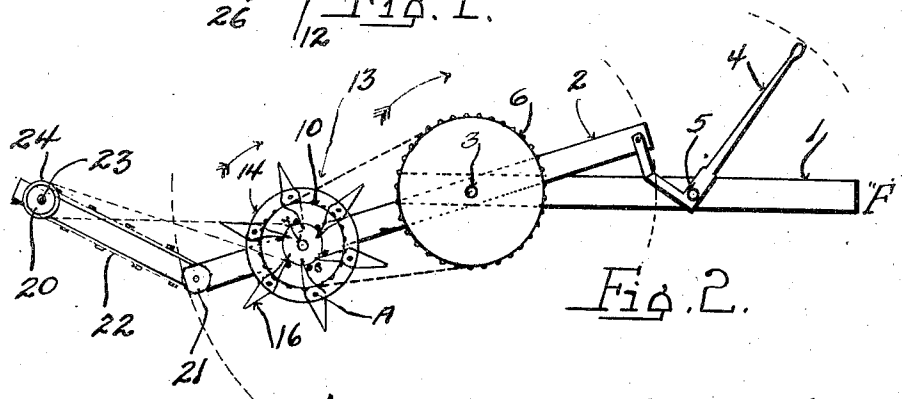


Fig. 2.

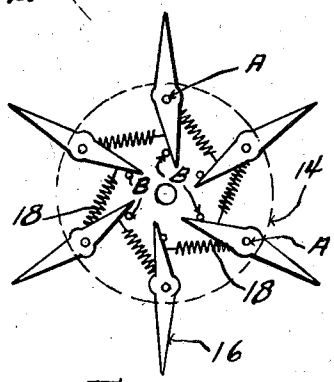


Fig. 3.

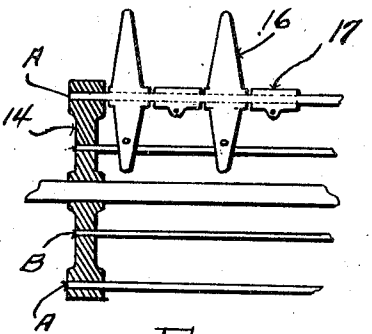


Fig. 4.

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UNITED STATES PATENT OFFICE.

GEORGE KILBORN, OF OCHRE RIVER, MANITOBA, CANADA.

COMBINATION WEED ERADICATOR AND LAND CULTIVATOR.

Application filed May 15, 1926. Serial No. 109,812.

My invention provides a new method of eradicating noxious weeds and cultivating land and is especially designed for the eradication of sowthistle.

I attain these objects by the mechanism illustrated in the accompanying drawings in which—

Fig. 1 shows the top view of the machine.

Fig. 2 shows the side elevation of the machine.

Fig. 3 is an end view of the cylinder with the end casting removed to show the details.

Fig. 4 is the cross-sectional side view of the cylinder showing details.

Similar letters refer to similar parts, throughout the several views.

Referring to the drawings:

1 and 2 are two frames on a common revolving shaft 3 permitting frame 2 to be tilted to different positions by means of the lever 4 on the shaft 5, both ends of which are connected with the ends of frame 2 so as to permit its tilting. 6 and 7 are similar cogged wheels on shaft 3 which are connected by chains 8 and 9 respectively, with the similar cogged wheels 10 and 11 respectively on shaft 12. 13 is the eradicator and cultivator in the form of a cylinder rigid on shaft 12.

The cylinder 13 consists of two metal ends 14 and 15, which are connected by two sets of rods marked "A" and "B" respectively. The steel rods "A" are an equal distance apart connecting the two cylinder ends at similar points on their circumferences. The steel rods "B" are placed parallel to rods "A" and between rods "A" and the shaft 12.

16 are tooth castings, rotating on the rods "A" and placed so that all the teeth are separated by collars 17 as shown on Figures 3 and 4. The teeth 16 are placed on the rods "A" so that the teeth on any rod are placed opposite collars on the preceding rod. Each tooth casting projects inward toward the shaft 12 a little beyond the rod "B" corresponding to the rod "A" on which the tooth is located. In this way the rods "B" serve as stops for the inner projections of the tooth castings holding them against further rotation.

18 are heavy springs connecting the inner ends of the tooth castings 16 to the collars 17 opposite them on the preceding rods "A", thus tending to keep the inner ends of the teeth, close up against the rods "B".

19 is a pulley on the shaft 3 to which the power can be applied from a stationary engine on the machine for the purpose of driving the cylinder 13. If the power pulling the machine is to be the power driving the cylinder also, it will have to be applied to the shaft 3 by means of large traction wheels rigid on the ends of said shaft.

In operation the whole machine is drawn forward in the direction marked "F" while the cylinder 13 is driven in the direction indicated by the arrows. The frame 2 can be tilted so that the teeth 16 will enter the soil to the desired depth. Should the teeth encounter any obstructions such as stones, stumps, etc., they (the teeth) will rotate on the rods "A" so as to pass over the obstructions, when the strained springs 18 will pull them back into position again. As the teeth pass through the soil, the soil is very finely cultivated. At the same time, by virtue of the "combing" action of the teeth, the running roots of the sowthistle, or other weeds, are completely eradicated and cast upon the surface of the ground free from any clinging soil.

What I claim as my invention and desire to secure by Letters Patent is:

In a combination weed eradicator and cultivator, a cylinder comprising two metal ends rigid on a shaft, which ends are connected at similar points on their circumferences by a set of steel rods placed equidistant from each other and on which rods are fulcrumed teeth separated by collars which are connected by heavy springs to the inner projections of the tooth castings opposite them on the succeeding rods so as to hold the inner projections of the teeth close against an inner set of steel rods, similar and parallel to the outer set first mentioned, and placed between and in line with the outer set of rods and the cylinder shaft so as to hold the tooth castings against further rotation.

GEORGE KILBORN.