

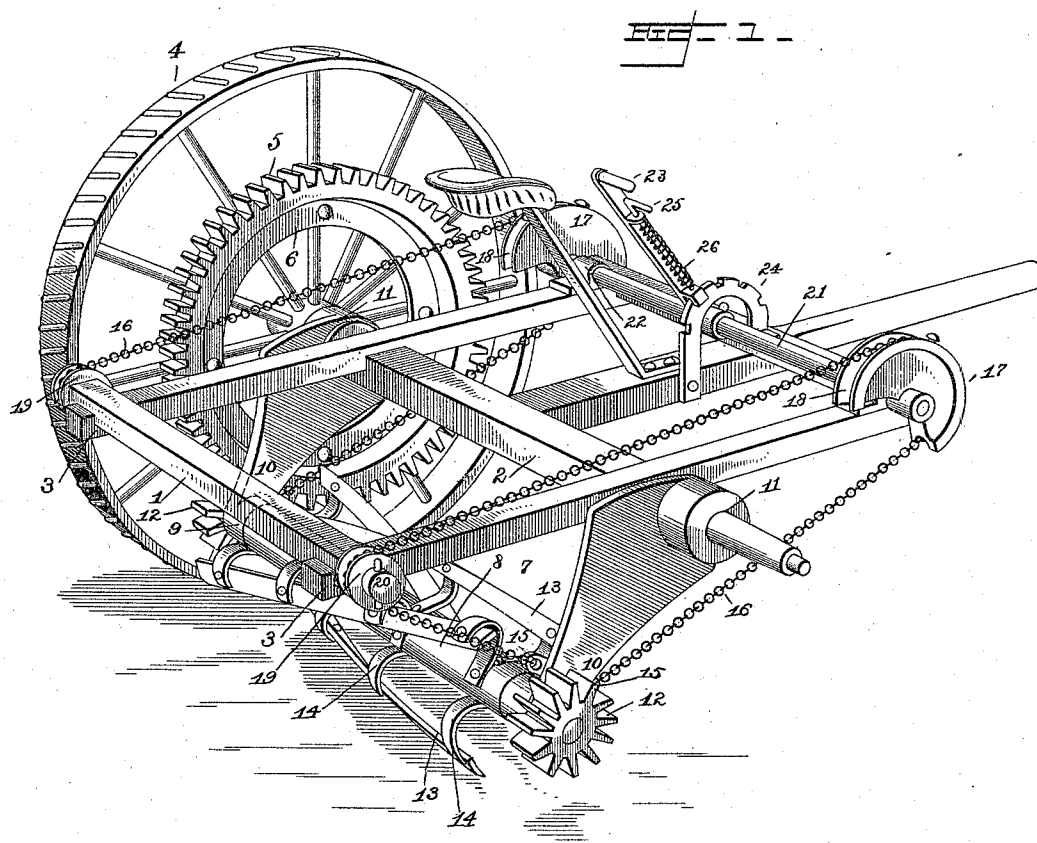
(No Model.)

2 Sheets—Sheet 1

D. ANDERSON, Jr.
SAGE BRUSH GRUBBER.

No. 535,808.

Patented Mar. 19, 1895.



Inventor

David Anderson, Jr.

Witnesses

J. H. Tiggers,
E. D. [Signature]

By his Attorneys,

C. A. Snow & Co.

(No Model.)

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FIG. 2.

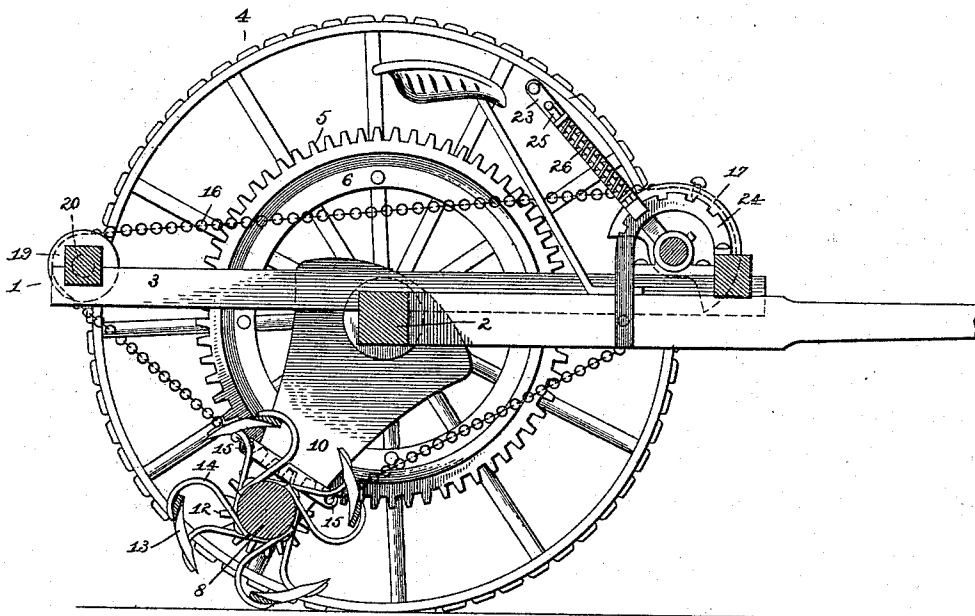
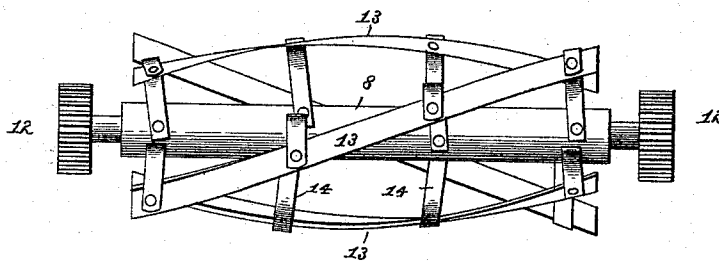


FIG. 3.



Inventor

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Witnesses

J. K. Siggers
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UNITED STATES PATENT OFFICE.

DAVID ANDERSON, JR., OF EVANSTON, WYOMING.

SAGE-BRUSH GRUBBER.

SPECIFICATION forming part of Letters Patent No. 535,808, dated March 19, 1895.

Application filed July 21, 1894. Serial No. 518,229. (No model.)

To all whom it may concern:

Be it known that I, DAVID ANDERSON, Jr., a citizen of the United States, residing at Evanston, in the county of Uinta and State of Wyoming, have invented a new and useful Sage-Brush Grubber, of which the following is a specification.

My invention relates to a sage brush grubbing machine, and it has for its object to provide a cutting or grubbing wheel adapted to cut with a minimum amount of resistance and capable of being readily withdrawn from the ground; and furthermore to provide simple and effective means for elevating the cutting or grubbing wheel, said means being under the control of the operator.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings Figure 1 is a perspective view of a machine embodying my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detail view of the cutting or grubbing wheel.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a rectangular framework, having the central transverse axle 2 which is secured to the side-bars 3 forming parts of said framework, and mounted upon the extremities of the axle are the ground or traction wheels 4, provided upon their inner sides with the gear-wheels 5, which may be formed integral with the ground-wheels or may be provided with inwardly extending flanges 6 which are bolted to the ground-wheels, as shown in the drawings.

The cutting or grubbing-wheel 7 is provided with an axial core or shaft 8 which is journaled at its reduced extremities in bearings 9 formed in the rear or free extremities of the swinging supporting arms 10. These supporting-arms are fulcrumed upon the framework concentric with the ground-wheels, and are preferably provided with eyes 11 which fit loosely upon the reduced portions of the axle adjacent to the inner sides of said ground-

wheels. The extremities of the core or shaft 8 are fitted with pinions 12 which mesh continuously with the teeth of the gear-wheels 5.

The blades 13 of the cutting or grubbing-wheel are flat in cross-section, as shown in Fig. 2, and are arranged spirally around the core or shaft 8 and equidistant at all points therefrom; and the blades are attached to the core or shaft by means of the curved, or rearwardly convexed arms 14, which are disposed at intervals throughout the length of the same. The blades are sharpened or reduced to cutting edges at their front edges to enter the soil with facility, and the rearward curving or bowing of the arms 14 enables the blades to operate without crowding or choking.

The swinging supporting-arms 10 are provided near their free extremities with upper and lower eyes 15 to which are attached the ends of the operating chains 16, and the front or looped ends of these chains are secured to the segment disks 17 and lie in grooves 18 formed in the peripheries thereof. The upper sides of the operating chains extend over direction pulleys 19 mounted upon stub-shafts 20 at the extremities of a rear beam of the framework.

The segment-disks 17 are carried by a rock-shaft 21 mounted in bearings 22 near the front end of the framework, and attached to an intermediate point of the shaft is a hand-lever 23 which operates contiguous to a segmental rack 24. A latch 25 is mounted slidably upon the hand-lever and is provided with a tooth to engage the notches of the segmental rack to lock the lever in its adjusted positions, said latch being provided with an actuating spring 26.

The cutting or grubbing-wheel receives motion from the ground-wheels by the intermediate gearing, described, and the depth to which the wheel cuts may be regulated by means of the hand lever, or said wheel may be elevated entirely from contact with the ground.

Various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, I claim—

5 The combination with a framework and ground wheels, of supporting arms pivoted to the framework concentric with said supporting wheels, a cutting or grubbing wheel having its spindle mounted in bearings at the ex-
10 tremities of said arms and provided with terminal pinions meshing continuously with gears carried by and concentric with the ground-wheels, a rock-shaft mounted in bearings at the front end of the framework, means for turning and locking said rock-shaft,
15 grooved segments fixed to the rocking shaft near the side beams of the framework, direc-

tion pulleys arranged at the rear end of the framework above said cutting or grubbing-wheel, and chains fixed at one end to said segments and at the other end to eyes on the supporting arms, the upper chain passing 20 over said direction pulleys, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DAVID ANDERSON, JR.

Witnesses:

JOHN MCCUAIG,

JOHN ANDERSON.