A. L. HOOVER.

ENDLESS ELEVATOR.

APPLICATION FILED MAY 28, 1908.

907,364.

Patented Dec. 22, 1908.

2 SHEETS—SHEET 1.

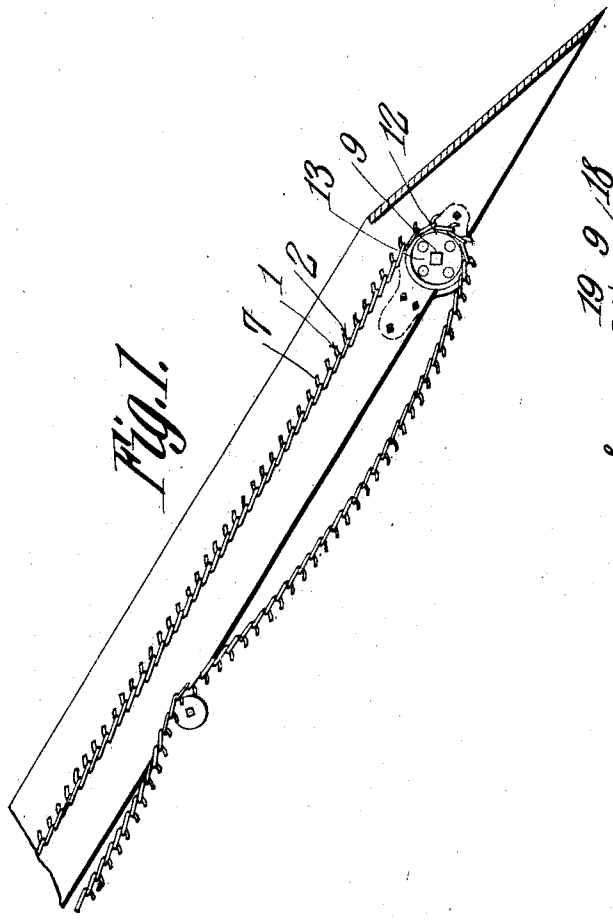


Fig. 1.

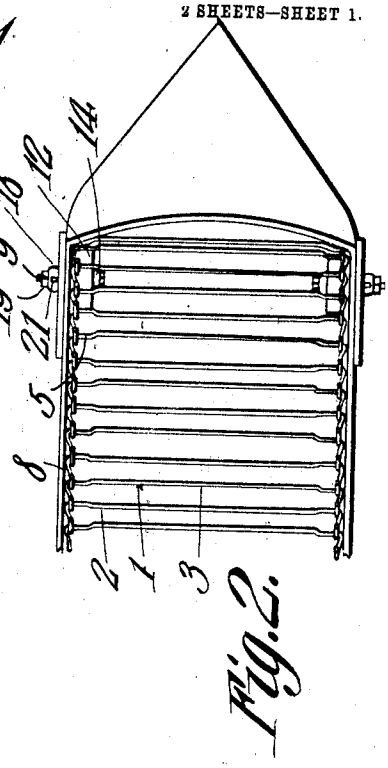


Fig. 2.

Witnesses

E. J. Stewart

E. Daniels

Inventor

Arthur L. Hoover.

By Cushman & Co

Attorneys

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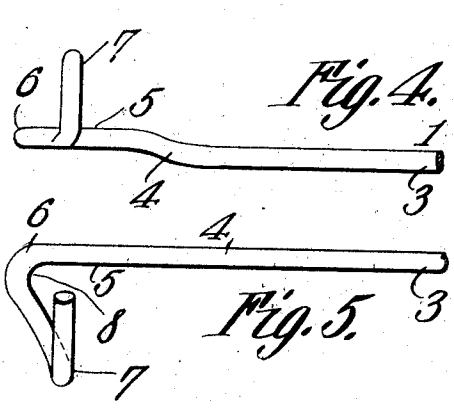


Fig. 4.

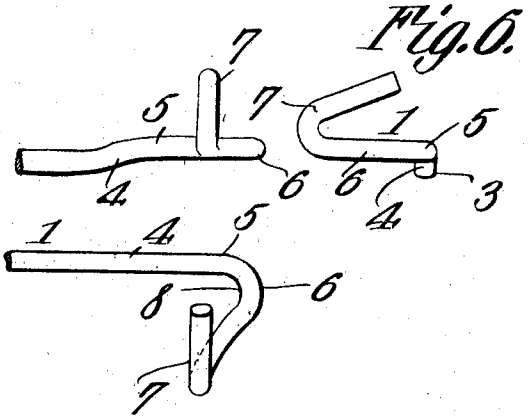


Fig. 6.

Fig. 5.

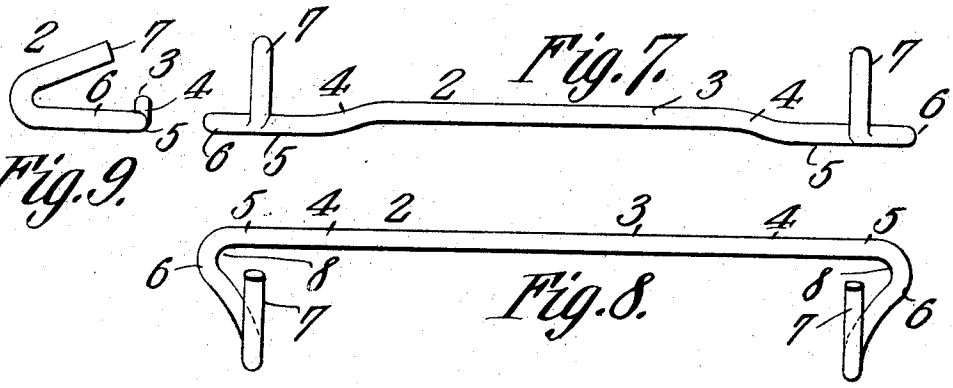


Fig. 7.

Fig. 9.

Fig. 8.

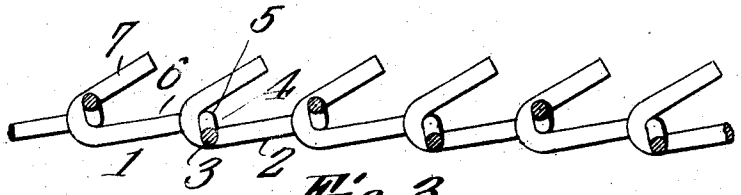


Fig. 3.

Witnesses

E. F. Stewart

E. Daniels

Inventor

Arthur L. Hoover.

By Crosby & Co.

Attorneys

UNITED STATES PATENT OFFICE.

ARTHUR LEWIS HOOVER, OF AVERY, OHIO.

ENDLESS ELEVATOR.

No. 907,364. Specification of Letters Patent. Patented Dec. 22, 1908.

Application filed May 28, 1908. Serial No. 435,576.

To all whom it may concern:

Be it known that I, ARTHUR LEWIS HOOVER, a citizen of the United States, residing at Avery, in the county of Erie and State of Ohio, have invented a new and useful Endless Elevator, of which the following is a specification.

This invention has relation to endless elevators especially adapted to be used upon peanut and potato harvesters and the like and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a simple and durable elevator which consists of a series of bars of similar transverse dimension and configuration connected together at their end portions only and having parallel intermediate portions spaced apart. The intermediate portions of some of the bars occupy one plane while the intermediate portions of other bars occupy different planes. The arrangement being such that it is impossible for the roots which are being elevated to roll down the elevator as they are being lifted from the ground. The peculiar disposition of the intermediate portions of the said rods also facilitates the separation of the soil from the roots so that when they are finally delivered from the end of the elevator they are free of all such undesirable material. In combination with the present form of elevator there is also employed a supporting wheel of especial arrangement and especially adapted to coöperate with the elevator of the form mentioned.

Figure 1 is a longitudinal sectional view of the lower portion of the elevator. Fig. 2 is a plan view of the same. Fig. 3 is a detail enlarged sectional view of several interhooked rods. Fig. 4 is a side elevation of one of the rods having an intermediate portion occupying a relatively low plane. Fig. 5 is a top plan view of the same. Fig. 6 is an end elevation of the same. Fig. 7 is a side elevation of one of the rods having an intermediate portion occupying a relatively high plane. Fig. 8 is a top plan view of the same. Fig. 9 is an end elevation of the same.

The elevator is made up of the rods 1 and 2. The said rods are preferably circular in transverse configuration but may be of any other desired shape. The said rods are of the same transverse dimension. The said rods generally are of the same configuration, however they are provided with a slight converse arrangement at their intermediate portions as will be hereinafter explained.

Each rod 1 is provided at its intermediate portion with the section 3 which merges at its ends into the upwardly inclined sections 4. The sections 4 merge into the sections 5 which lie parallel with the intermediate section 3. The outer portions of the sections 5 are curved as at 6 and lie in a plane at an angle to the longitudinal axis of the section 4. The curved portions 6 merge into the hooked extremities 7 which are disposed in planes vertical to that occupied by the curved portions 6. The hooked extremities 7 are located nearer the middle of the bar 1 than the outer edges of the curved portions 6 and consequently the notches 8 are formed in the curved portions 6 at the bases of the hooked extremities 7.

The several sections and portions of the rod 2 are essentially the same as those described in connection with rod 1 with the exception that the portions 4 are downwardly inclined with relation to the intermediate portion 2 instead of being upwardly inclined as is the case in rod 1. The hooked extremities 7 of the rod are adapted to enter the notches 8 provided at the inner side of the hooked portions 6 of the next adjacent rod. By so connecting the end portion of the said rods together the intermediate portions thereof are spaced apart and held in parallel relation. Inasmuch as the hooked portions 7 are disposed in planes at right angles to the hooked portions 6 the said extremities 7 may swing about the ends of the portions 6 so that the elevator has sufficient flexibility to permit of its readily passing around supporting wheels.

In the arrangement of the bars in producing an assembled elevator the said bars 1 and 2 may be alternately arranged or two bars 1 may be located adjacent each other with one bar 2 interposed between two sets of the bars 1 or the arrangement may be the reverse with respect to the bar 2, thus it will be seen that throughout the length of the elevator that there are bars having intermediate portions occupying different planes and this arrangement presents sufficient obstruction to the roots passing up along the elevator to prevent them from rolling down in response to the force of gravity. Furthermore, the specific arrangement of the intermediate portions of the bars 1 and 2 is such as to agitate the roots and effectually separate

them from the soil so that the soil is sifted down through the elevator and the roots are carried up along the same.

The portions of the rods 1 and 2 occupy the same plane and are adapted to pass around supporting wheels located at the opposite ends of the frame in which the elevator is mounted.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

An elevator composed of rods each having alined end portions with an intermediate laterally bowed portion, said end portions merging into hooked portions which lie in the same plane as the end portions, said hooked portions merging into hooked extremities which occupy planes approximately at right angles to the plane occupied by the hooked portions, the hooked extremities of one rod having linked engagement with the end portions of the adjacent rods and lying within the hooked end portions thereof.

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

ARTHUR LEWIS HOOVER.

Witnesses:
WM. WOLVERTON,
FRED A. ROBERTS