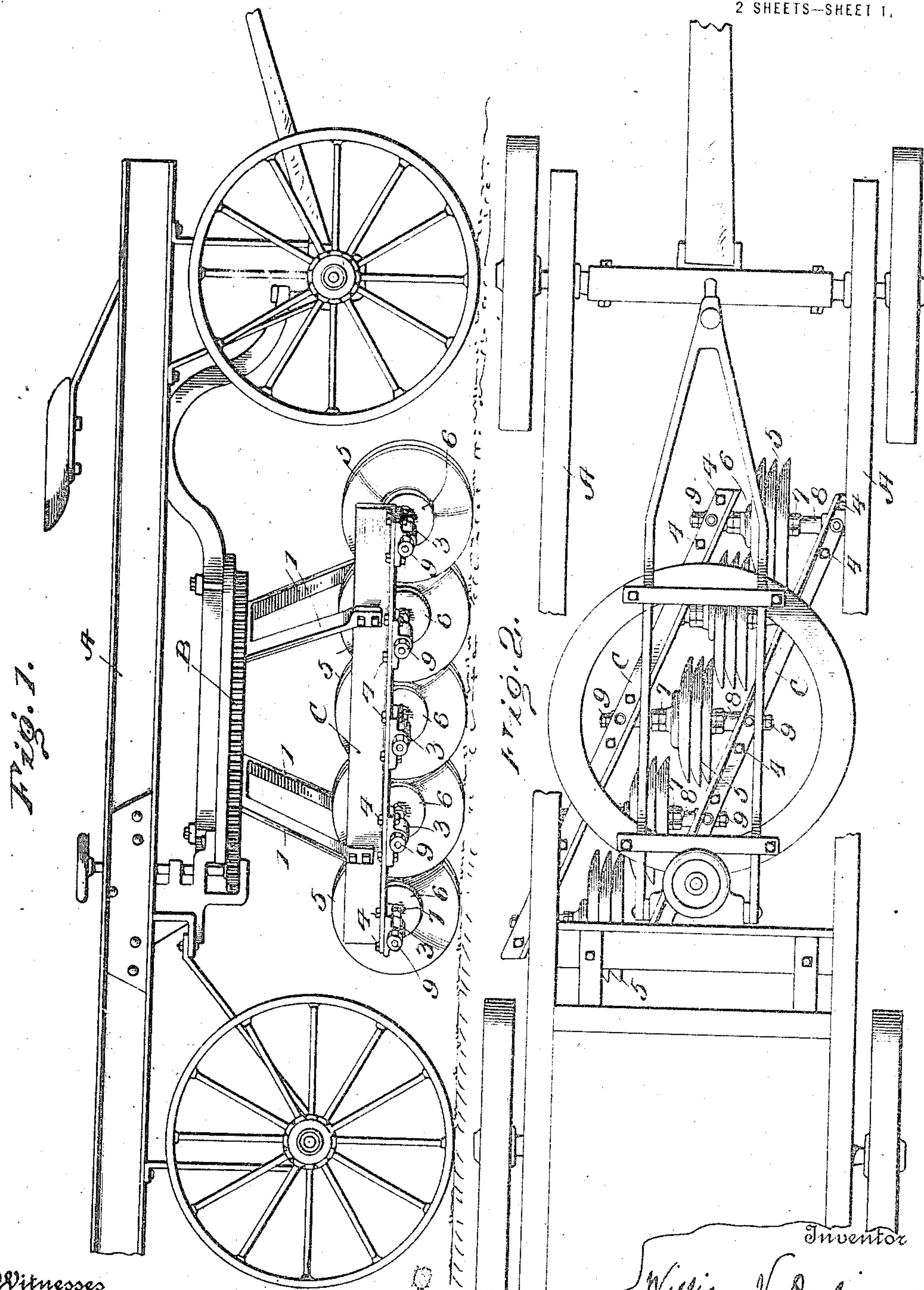


W. V. DARLING.
ROADWAY SCARIFIER.
APPLICATION FILED SEPT. 20, 1912.

1,155,218.

Patented Sept. 28, 1915.

2 SHEETS—SHEET 1.



Witnesses
W. A. Williams.
R. C. Braddock.

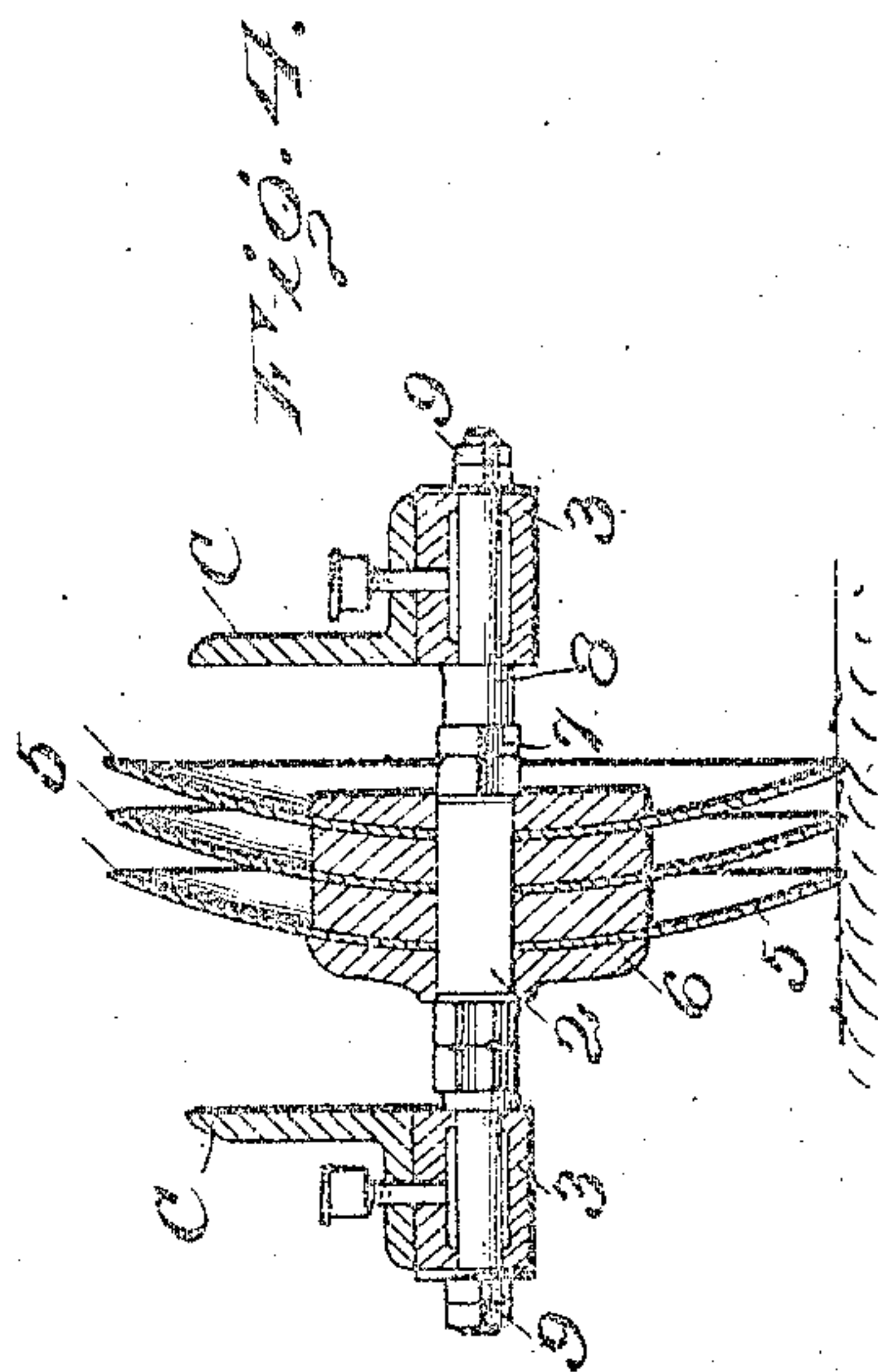
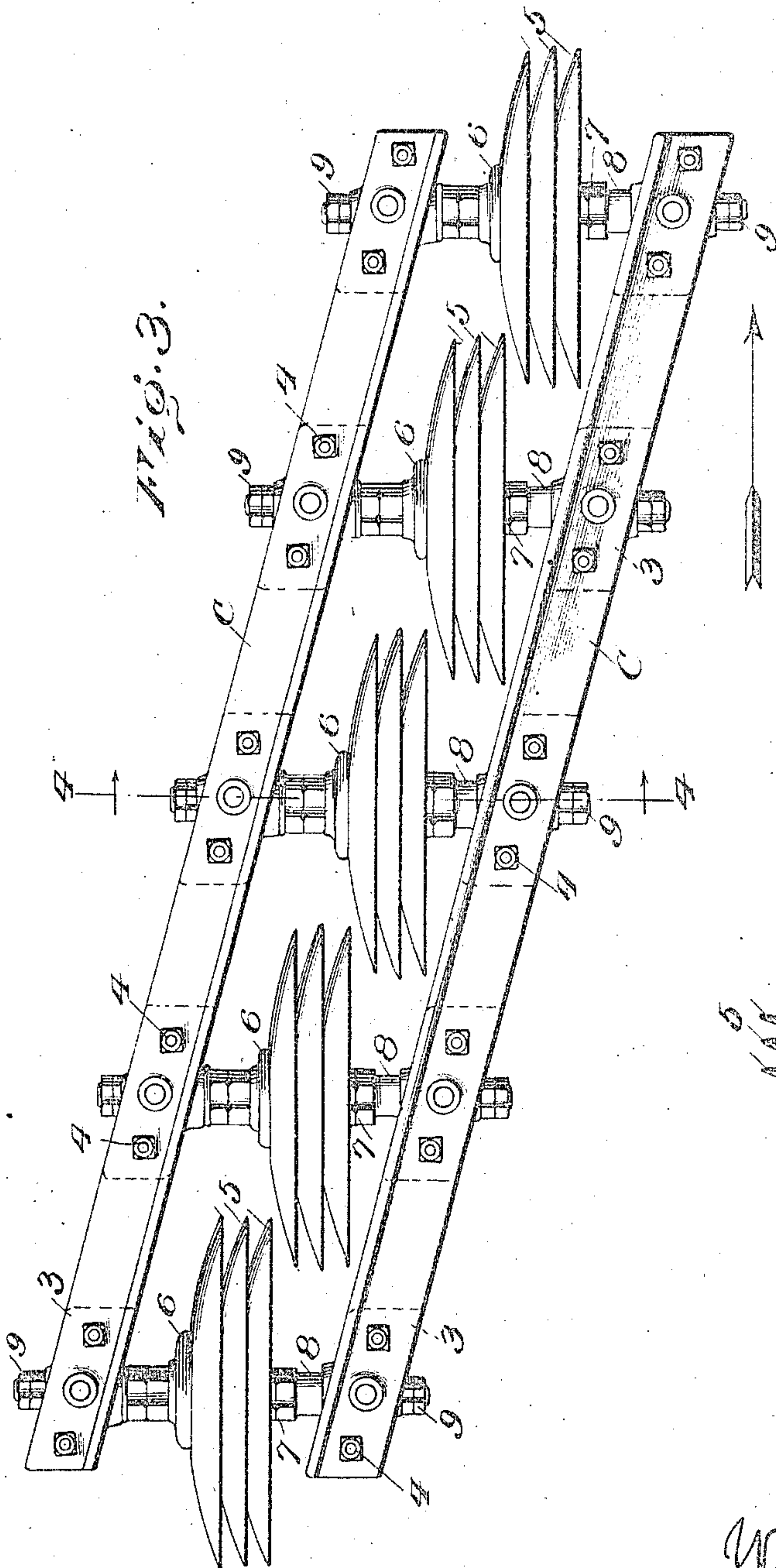
By

Inventor
William V. Darling
Louis Bagge TC
his Attorneys

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William V. Darling
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UNITED STATES PATENT OFFICE.

WILLIAM V. DARLING, OF RIVERSIDE, CALIFORNIA.

ROADWAY-SCARIFIER.

1,155,218.

Specification of Letters Patent.

Patented Sept. 28, 1915.

Application filed September 20, 1912. Serial No. 721,435.

To all whom it may concern:

Be it known that I, WILLIAM V. DARLING, a citizen of the United States, residing at Riverside, in county of Riverside and State of California, have invented certain new and useful Improvements in Roadway-Scarifiers, of which the following is a specification.

My invention relates to an improvement in roadway scarifiers, and the object is to provide an apparatus which will cut away the thin or uneven portions of the surface of oiled or other roadways so that the usual road grader can follow and remove the cut away portions thereby leaving the road in a smooth and even condition suitable for comfortable travel.

The invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation showing the invention mounted upon a truck; Fig. 2 is a top plan view with certain portions of the truck broken away to show the manner of mounting the frame upon which the invention is suspended; Fig. 3 is a top plan view of the invention; Fig. 4 is a transverse vertical sectional view on the line 4—4 of Fig. 3.

A represents a wheeled truck upon which is mounted a frame B. A rectangular frame consisting of two parallel angle iron bars C is suspended from the frame B by means of yokes 1, 1.

A plurality of axles 2 are journaled on the bars C and are preferably mounted in journal boxes 3 which are connected to the bars C by bolts 4. Mounted upon the axles are a plurality of disks 5, 5, and I have shown three disks mounted upon each axle although this number might be increased, and supporting these disks are washers 6. Nuts 7 having screw threaded engagement with the axle 2 are screwed against the outermost washers 6 for fastening and locking the disks upon the axles. Each set of disks overlaps the adjacent set.

Collars 8 are mounted on the axles between the nuts 7 and the bars C for properly spacing the sets of disks between the bars, and nuts 9 are screwed on the ends of the axles for fastening the axles of the journal

boxes 3 to prevent lateral movement and for locking the axles in place.

It will be seen from the foregoing that by providing a plurality of disks upon each axle and having them overlap each other, that is each set overlapping the adjacent set or the set carried upon the axle in advance of the first set, the disks are capable of being brought into engagement with the surface of the road whereby the uneven surfaces of the road will be cut or broken up into small pieces so that the small pieces of the surface can be brushed or scraped from the road surface, yet these disks will not embed themselves into the road and cannot be forced into the road surface as is the case with the usual road grader for the reason that the several disks being side by side or adjacent to each other, they could not be forced very deep into the road bed. And further, their staggered relation would not permit them to be used as a medium for removing the scarred or broken particles from the road surface as would be possible with a road grader or sweeper.

It is the intention that the frame carrying the disks shall be shifted to any angle desired, but under ordinary working conditions it is generally customary to have the frame extending diagonally of the truck or vehicle carrying the frame of disks.

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

1. In a road scarifier, the combination with a frame having a plurality of parallel axles journaled thereon, of a plurality of disks mounted upon each axle forming a set of disks for each axle, each set of disks offset from the other sets so that a disk on each set lies adjacent to one of the disks of the set on the axle in advance thereof, and the distance between the cutting edges of a forward disk and the disk of a set which lies adjacent to the disk of the set on the axle in advance thereof is the same as the distance between the cutting edges of the disks of each set.

2. In a road scarifier, the combination with a frame having a plurality of axles journaled thereon, of a plurality of disks mounted on each axle and nested together so that the cutting edges of the disks will be prevented from embedding themselves in

the road surface, each set of disks off-set from the other sets, and the cutting edges of each set of disks, and the adjacently lying disks of one set with respect to the other, being the same distance apart.

3. In a road scarifier, the combination with a frame consisting of two parallel members extending diagonally to the line of draft, of a plurality of parallel axles journaled in said members transversely to the line of draft, a plurality of concave disks contiguously arranged mounted on each axle adapted to travel in the line of draft said disks adapted to remove the uneven surface of the roadway without affecting the foundation thereof and for loosening all the earth confined between the adjacent disks.

4. In a road scarifier, the combination with a wheel truck, of a frame suspended therefrom, having axles journaled thereon, a plurality of disks mounted upon each axle, said disks adapted to travel normally in the line of draft, the disks of each axle traversing an area independent of the area

traversed by the other disks, and means for actuating the frame carrying the disks, for moving the disks to a position at an angle to the line of draft.

5. In a road scarifier, the combination with a frame consisting of two parallel members extending diagonally to the line of draft, of a plurality of parallel axles journaled in said members transversely to the line of draft, a plurality of concave disks contiguously arranged mounted on each axle adapted to travel in the line of draft, said disks adapted to remove the uneven surface of the roadway without affecting the foundation thereof and for loosening all the earth confined between the adjacent disks, and means for adjusting the disks on each axle longitudinally thereof.

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

WILLIAM V. DARLING.

Witnesses:

M. ESTUDILLO,

ROSE PATRICK.