No. 654,487. Patented July 24, 1900.

O. PEDERSON.

SWEEPING MACHINE.

(Application filed Dec. 28, 1899.)

(No Model.)

Fig. I

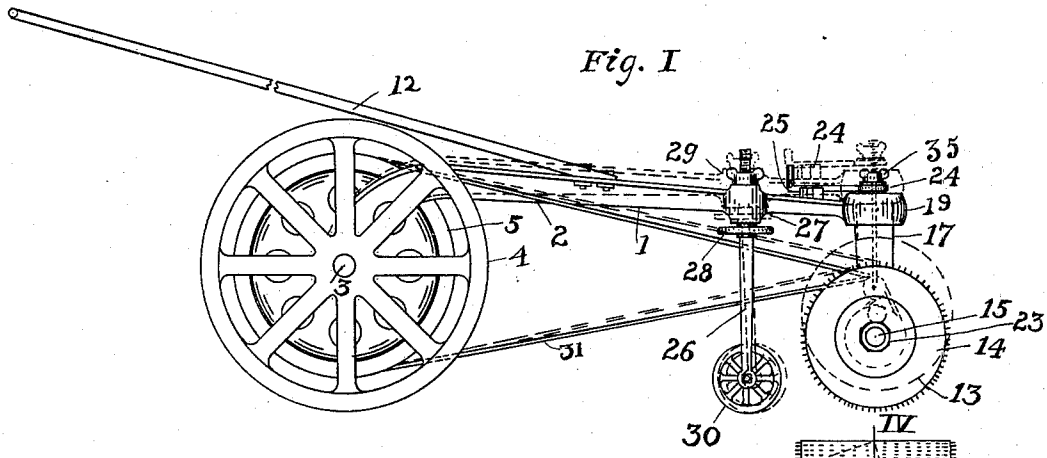


Fig. II

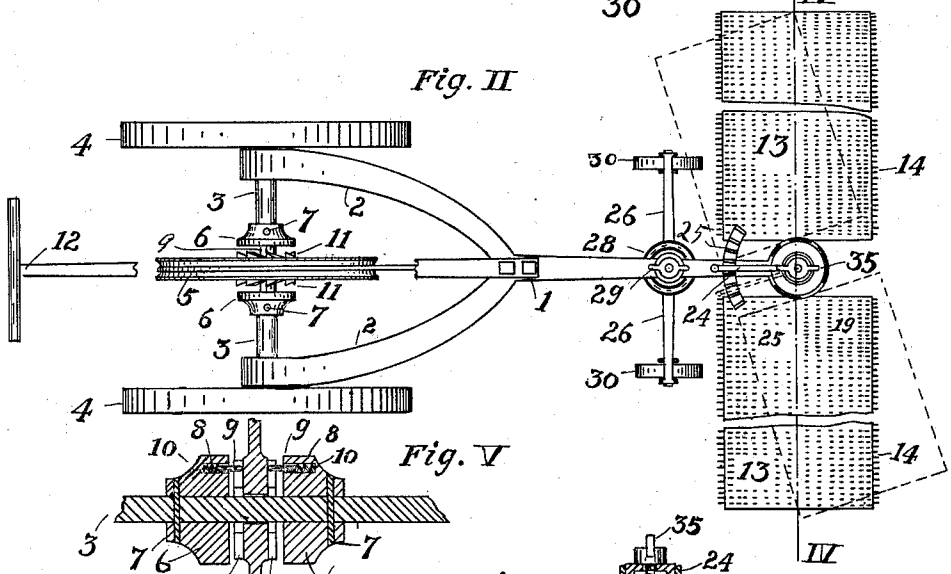


Fig. V

Fig. III

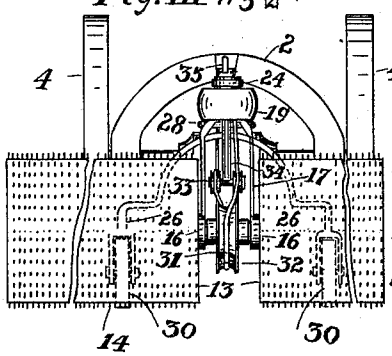
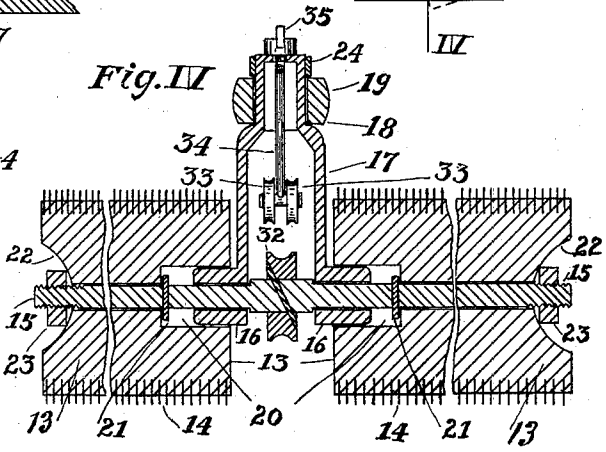


Fig. IV



Witnesses

J. A. Rowlofson

Olin G. McWilliams

Inventor

Ole Pederson

by Munn & Co.

Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

OLE PEDERSON, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO TIMOTHY M. RAYGOSA, OF SAME PLACE.

SWEEPING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 654,487, dated July 24, 1900.

Application filed December 28, 1899. Serial No. 741,856. (No model.)

To all whom it may concern:

Be it known that I, OLE PEDERSON, a citizen of the United States, with residence and post-office address at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Sweeping-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to sweeping-machines that may be used on streets, walks, lawns, &c., preferably driven by hand-power, and in which the sweeping-roller is readily adjustable, so as to incline the roller in any desired direction; and my invention consists in certain features of novelty hereinafter described and claimed.

Figure I is a side elevation of my machine. Fig. II is a top view. Fig. III is a front elevation. Fig. IV is a section taken on line IV IV, Fig. II. Fig. V is a detail view showing clutch connected with the driving-pulley.

Referring to the drawings, 1 represents the frame with which the various parts connect, said frame having a rearwardly-extending fork 2, to which the driving-shaft 3 is journaled.

4 represents the driving-wheels secured to the ends of the shaft 3, and 5 represents a grooved driving-pulley centrally located upon the driving-shaft 3, but loosely mounted thereon.

6 represents collars located on the driving-shaft 3 on each side of the driving-pulley 5, said collars being secured to the driving-shaft by means of pins 7.

8 represents recesses in the collars 6, in which are located pins 9.

10 represents coil-springs placed within the recesses 8 at the inner ends of the pins 9.

11 represents ratchet-teeth on the hub of the driving-pulley 5 with which the pins 9 come in contact, the result being that as the machine travels forwardly the pins come in engagement with the ratchet-teeth and cause the driving-pulley 5 to rotate with the driving-shaft. If the machine is drawn backward, the pins 9 slip over the sloping faces of the ratchet-teeth and the driving-pulley remains stationary in its relation with the driving-shaft.

12 represents the handle by which the machine is preferably operated; but I do not confine myself to any special form of power for operating the machine.

13 represents sweeping-rollers, of which there are preferably two, one on each side of the main frame, said rollers being provided with teeth or tufts 14, made of any material found desirable, according to the work to be performed, said teeth or tufts being secured to the periphery of the rollers 13.

15 represents the roller-shaft, which is centrally journaled to hubs 16 of a fork 17, the upper end of the fork 17 being journaled at 18 to a collar 19 on the forward end of the main frame 1. The rollers 13 are provided at their inner ends with circular recesses 20, which fit over the hubs 16 of the fork 17.

21 represents pins or collars secured to the roller-shaft 15, against which the rollers 13 abut at the inner ends of the circular recesses 20, the outer ends of the rollers 13 preferably having countersunk recesses 22, into which the outer ends of the shaft 15 extend, 23 representing nuts placed on the ends of the shaft within said recesses for holding the rollers upon said shaft, the rollers being clamped between the nuts 23 and the collars 21, which cause them to rotate with the shaft 15. Any desired inclination or change of angle of the sweeping-brush is effected by means of a spring-lever 24, having its inner end secured to the fork 17 and its outer end engaging a segmental rack 25, the teeth of said rack holding the lever in the position in which it is placed by the operator.

26 represents a forked standard pivotally connected with a hub 27 near the forward end of the frame 1, said standard being vertically adjustable in the hub by means of a lower hand-wheel 28, having threaded connection with the standard, and by means of a thumb-nut 29 at the upper end of the standard. By adjusting these nuts the standard may be raised or lowered in its relation with the frame.

30 represents wheels journaled to the lower end of the standard. The object of this standard is to raise or lower the sweeping-roller, as may be desired, according to the work to be

performed. The sweeping-brush is rotated by means of a belt 31, that passes over the driving-pulley 5 and over a driving-pulley 32, centrally located on the roller-shaft 15. The tension of the belt 31 is regulated by means of pulleys 33, over which the belt passes, said pulleys being raised or lowered to increase or diminish the tension by means of a vertical rod 34, to which the lower ends of the pulleys are supported, said rod having its upper end extending through the upper end of the fork 17 and being screw-threaded with a thumb-nut 35 thereon for raising or lowering said rod and pulleys.

I claim as my invention—

1. In a sweeping-machine, the combination of a suitable frame, a drive-shaft journaled to the frame, drive-wheels mounted on the drive-shaft, a pulley loosely mounted on the drive-shaft, ratchet-teeth on the pulley, collars secured to the drive-shaft and having recesses, thrust-pins in said recesses, springs in the recesses for forcing the pins outwardly to engage the ratchet-teeth, a sweeping-brush pivoted to the frame and means for connecting the drive-pulley with the sweeping-brush for rotating the same, substantially as set forth.

2. In a sweeping-machine, the combination of a suitable frame, a fork journaled to the frame, hubs on the lower ends of said fork, a shaft journaled in said hubs, collars on said shaft, sweeping-brushes having recesses adapted to fit over said hubs and the fork and abut against said collars and nuts on the ends of the shaft for forcing the brushes in contact with said collars, substantially as set forth.

3. In a sweeping-machine, the combination of a suitable frame, a fork pivoted to the frame, a shaft journaled to said fork, sweeping-brushes secured to the shaft, an adjustable standard secured to the frame, wheels on the lower ends of said standard and means for raising or lowering said standard in order to adjust the sweeping-brushes vertically, substantially as set forth.

4. In a sweeping-machine, the combination of a suitable frame, a fork pivoted to the frame, a shaft journaled to the fork, sweeping-brushes on the shaft, a pulley secured to the shaft, a vertical adjustable rod connected with the fork, tension-pulleys on said rod, a driving-pulley, means for operating the driving-pulley and a flexible driving mechanism passing over the driving-pulley, the tension-pulleys and around the pulley on the shaft of the sweeping-brushes, substantially as set forth.

OLE PEDERSON.

Witnesses:
EMMET H. WILSON,
JAS. E. KNIGHT.