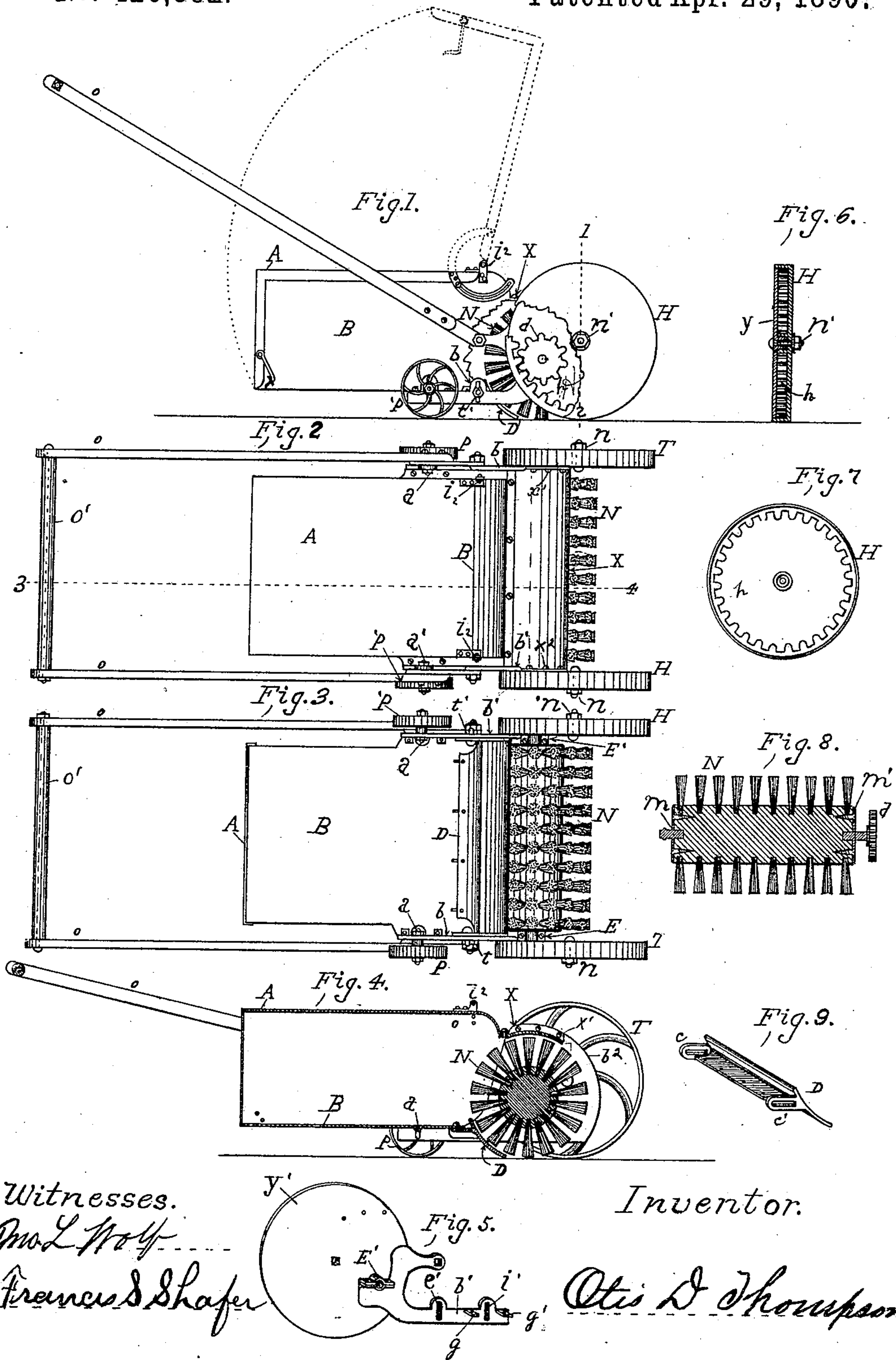


(Model.)

O. D. THOMPSON.
LAWN SWEEPER.

No. 426,882.

Patented Apr. 29, 1890.



Witnesses.

Geo L Wolf

Francis D Shafer

Inventor.

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UNITED STATES PATENT OFFICE.

OTIS D. THOMPSON, OF ELKHART, INDIANA, ASSIGNOR OF ONE-HALF TO
HOWARD F. SMITH, OF SAME PLACE.

LAWN-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 426,882, dated April 29, 1890.

Application filed March 27, 1889. Serial No. 305,024. (Model.)

To all whom it may concern:

Be it known that I, OTIS D. THOMPSON, a citizen of the United States, residing at Elkhart, in the county of Elkhart and State of Indiana, have invented a new and useful Lawn-Sweeper, of which the following is a specification.

The object of this invention is to provide a new and improved machine for sweeping lawns. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, partly sectional, of the entire machine. Fig. 2 is a plan view from the top of the same. Fig. 3 is a plan view from the bottom of the machine. Fig. 4 is a longitudinal sectional elevation on the line 3 4 of Fig. 2. Fig. 5 is a detailed view of the drive-wheel hanger in perspective. Fig. 6 is a detailed sectional view of the drive-wheel divided transversely on the line 1 2 of Fig. 1. Fig. 7 is a side elevation of the drive-wheel with the disk or dust-shield removed. Fig. 8 is a detailed longitudinal sectional view of the brush. Fig. 9 is a detailed view of the shoe in perspective.

Similar letters refer to similar parts throughout the several figures.

The hanger *b'* carries the disk *Y'*, which is provided with an aperture for the spindle upon which the drive-wheel *H* is journaled. This wheel has a peripheral rack *p*, which is inclosed by the disk *Y* to prevent its becoming obstructed with the sweepings. The hanger *b* is provided with a segmental disk or guard *b²*, as shown in Fig. 4, which carries a spindle upon which the companion wheel *T* is journaled. The hangers *b b'* are provided with the journal-boxes *E E'*, respectively, also the vertical slots *e'*, respectively, also the vertical slots *i'*, respectively. The fender *X* is transversely convex on its upper surface and transversely concave on its under surface. One end of the fender *X* is bent up and firmly secured to the disk *b²* by suitable bolts or screws *X'*. The other end is bent up and firmly secured to the disk *Y* by screws *X²*, giving strength and rigidity to the frame-work of the machine and keeping the particles gathered by the brush from flying

upward, as more fully explained hereinafter. The shoe *D* has one surface transversely concaved and the opposite surface transversely convexed, and it also carries the transverse slots *c c'*. When the hangers *b b'* are in their proper position, the shoe *D* is suspended between them in a manner to bring the slot *c'* of the shoe *D* in juxtaposition to the slot *e'* of the hanger *b'*, and with lower longitudinal edge of the shoe *D* resting upon or near the surface to be swept. The longitudinal diameters of the said slots *e c* and *e' c'* being at right angles with each other when the shoe *D* is in position, means for the accurate adjustment of the shoe *D* relative to the ground and to the axis of the brush *N* is provided, and the proper adjustment thereof is retained by the threaded bolts *t t'*, as plainly shown in Figs. 1 and 3 of drawings. The shaft of the brush *N* is provided with flexible strands of metal or equivalent, with the outer ends trimmed equidistant from the axis of the revolution. Said shaft carries the metal spuds *m m'*, each provided with a journal. The metal spud *m'* is mounted with the pinion *d*. The brush *N* is suspended between the hangers *b b'* and freely revolves on its journals, which are mounted in journal-boxes *E E'*, care being taken to place the journal of the spud *m'* in the journal-box *E'*. The end of this journal is extended through an opening in the disk *Y*, in order that the pinion *d* shall engage with the rack of the drive-wheel *H*. The vertical slots *i i'* of the hangers *b b'* carry the trolley-wheels *P P'*, respectively, the axles *a a'* of the said trolley-wheel being vertically adjustable within the slots *i i'*, providing means for the accurate adjustment of the shoe *D* and brush *N* relative to the ground simultaneously, and the proper adjustment thereof may be retained.

The box *B* is provided with a lid *A*, hinged at *i²*, capable of being opened to remove the contents of said box. An opening is left in the front end of said box for the reception of the particles gathered by the brush. The top of the fore end of the box *B* is secured to the fender *X*, and the bottom of the fore end rests upon the lateral plate of the shoe *D*, flexibly following the adjustment thereof. The box

is further supported by the transverse lugs *g* and *g'* of the hangers *b b'*. (Shown in Fig. 5.) The handles *o o* are provided with suitable cross-bar *o'* and hinged to the hangers *b b'*.

5 The operation is as follows: The machine is propelled forward by the handles *o o*. The cylindrical brush *N* is revolved by the drive-wheel *H* through the medium of the rack and pinion. Particles of grass, stones, sticks, and
10 the like are caught by the brush *N* and forced backward over the shoe *D* into the receptacle *B*. The lower longitudinal edge of the shoe (if necessary serrated) will prevent the escape underneath it of the particles to be swept,
15 and the fender *X* will prevent them from flying upward beyond the opening of the box or receptacle.

I claim as my invention—

1. In a lawn-sweeper, the combination, with
20 the hangers having vertical slots, of the shoe having horizontal slots and bolts for securing the shoe to said hangers, substantially as described.

2. The combination of the box, hangers

supporting the same formed with vertical 25 slots therein, and one of which is formed with a disk, a wheel having a rack in its periphery, a brush mounted between the hangers, a pinion keyed to one end of the brush and engaging said rack, and a shoe having horizontal 30 slots therein, and bolts for securing the shoe to hangers, substantially as described.

3. The combination, with the box, of the hangers *b* and *b'*, formed with vertical slots therein, and one of which is formed with a 35 disk and the other having a segmental projection, a wheel having a rack thereon mounted on said disk and a wheel mounted on said projection, a brush journaled in the hangers, having a pinion on one end engaging with the 40 said rack, and a vertically and horizontally adjustable shoe having horizontal slots therein, and bolts by which the shoe is secured to the hangers, substantially as described.

OTIS D. THOMPSON.

Witnesses:

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