

(No Model.)

L. EMPIE.
TRACTION WHEEL.

No. 438,411.

Patented Oct. 14, 1890.

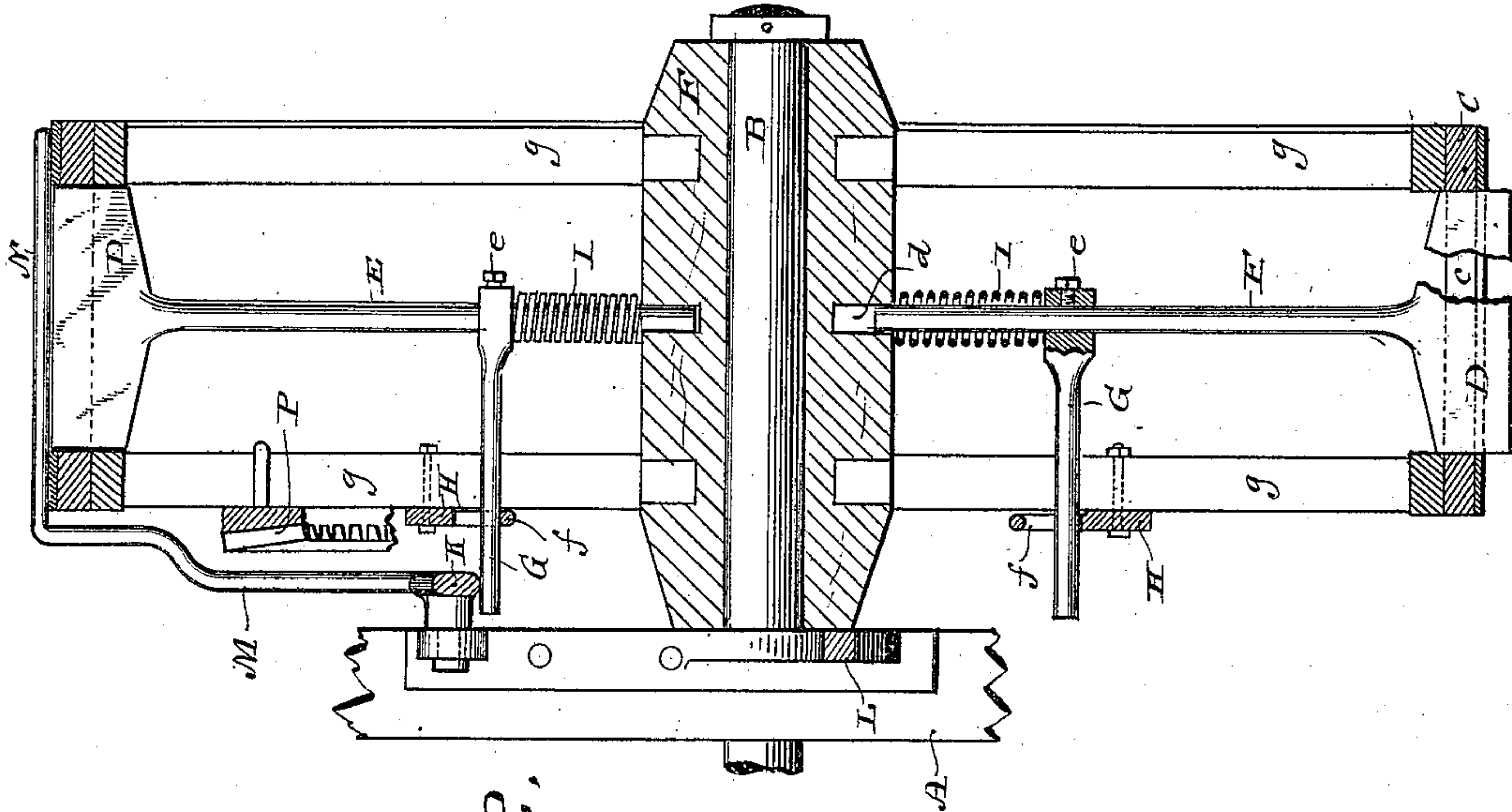


Fig. 2.

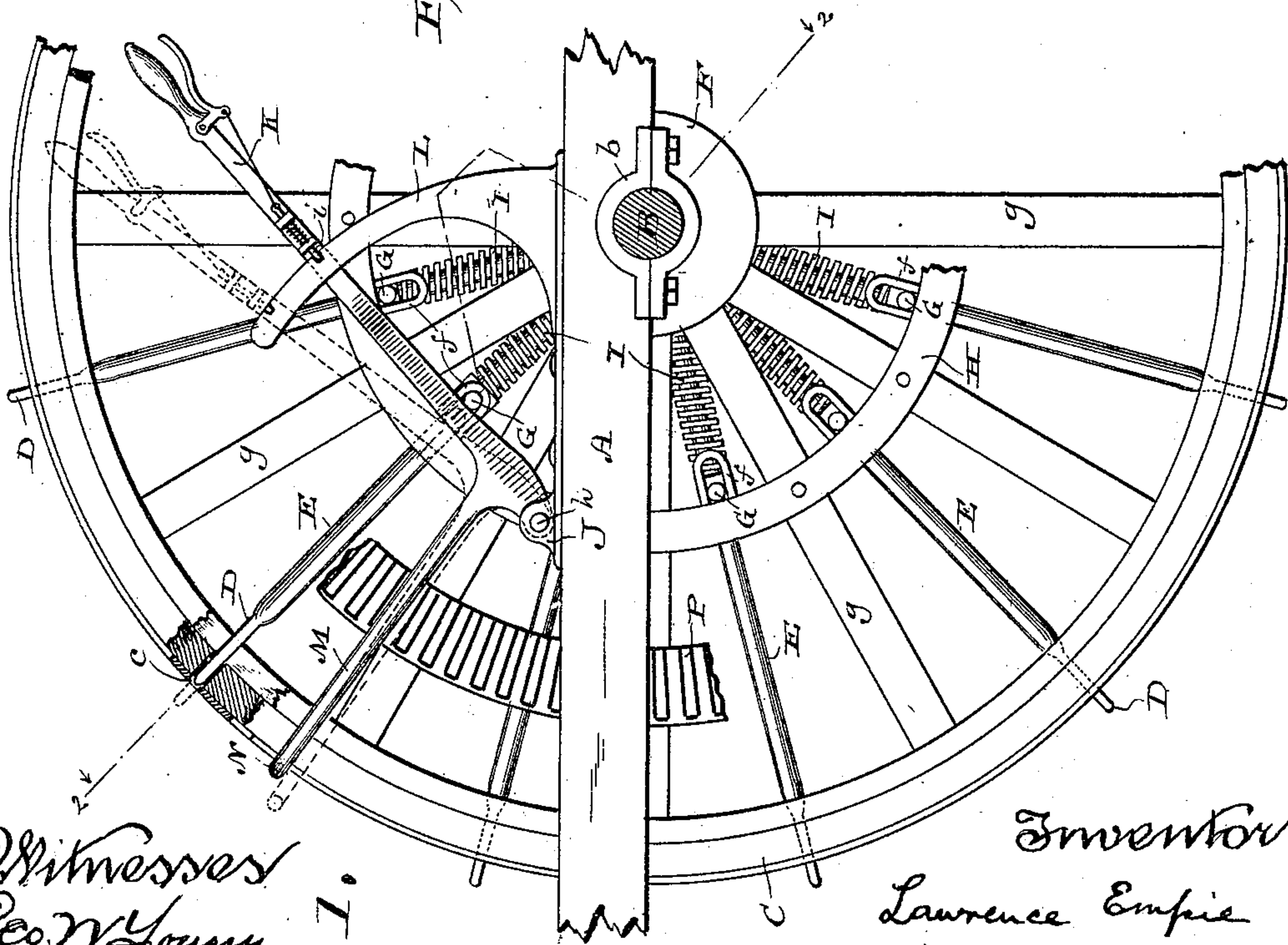


Fig. 1.

Witnesses
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UNITED STATES PATENT OFFICE.

LAWRENCE EMPIE, OF BIRNAMWOOD, WISCONSIN.

TRACTION-WHEEL.

SPECIFICATION forming part of Letters Patent No. 438,411, dated October 14, 1890.

Application filed July 25, 1890. Serial No. 359,894. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE EMPIE, of Birnamwood, in the county of Shawano, and in the State of Wisconsin, have invented certain
5 new and useful Improvements in Traction-Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to traction-wheels; and it consists in certain peculiarities of construction and combination of parts, to be hereinafter described with reference to the accompanying drawings, and subsequently claimed.

15 In the drawings, Figure 1 represents a side elevation of a portion of my traction-wheel, and Fig. 2 a section on line 2 2 of the preceding figure.

Referring by letter to the drawings, A represents a portion of a machine-frame provided with bearings *b* for the axle B of a wheel, the rim C of the latter being provided at regular intervals with transverse slots *c* for engagement with spurs or blades D, formed
25 on the outer ends of shanks E, that have their inner ends arranged in radial sockets *d* in the hub F of said wheel. Sleeved on the shanks and secured thereto by means of set-screws *e* are lateral arms G, that project through loops
30 *f* on a ring H, that is bolted to spokes *g* of the wheel, as best illustrated in Fig. 2, and arranged on said shanks between the arms thereon and the hub F of said wheel are spiral springs I, that exert sufficient power to
35 hold the traction-blades D to their work and at the same time allow said blades to yield when coming into contact with a stone or other unusually hard substance, the loops *f* on the ring H acting as stops to limit the
40 movement of said arms in either direction.

The frame A is provided with a bearing J for a stud *h* on a lever K, and the latter is held in its adjusted position by a spring-latch *i*, engaging a notched bracket L on said
45 frame. The lever K is provided with an arm M, having a right-angle portion N extended across the periphery of the wheel, and said lever being depressed the extended portion of its arm comes close to said periphery of

the wheel in the path of the blades D and 50 acts as a scraper to remove mud or other accumulations, said blades being drawn in out of the way, by the arms G on the shanks E coming into contact with the aforesaid lever. Raising of the lever K brings it out of the 55 way of the shank-arms G and elevates the scraper to clear the traction-blades.

Bolted to the spokes *g* of the wheel is a gear-wheel P, designed to mesh with a pinion, (not shown,) whereby power is communi- 60 cated to the machine.

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

1. A traction-wheel having the rim thereof 65 provided at intervals with transverse slots, blades engaging the slots and having continuous shanks loosely arranged in the wheel-hub, sleeves fast on the shanks, and spiral springs arranged on said shanks between the 70 sleeves and said wheel-hub, substantially as set forth.

2. A traction-wheel having blades normally extended through the rim thereof and provided with spring-controlled shanks, lateral 75 arms on the shanks, a lever arranged to be brought in and out of the path of the arms, and a scraper-arm fast to the lever and extended across the periphery of said wheel, substan- 80 tially as set forth.

3. A traction-wheel having blades normally extended through the rim thereof and provided with spring-controlled shanks, lateral arms on the shanks, a ring secured to the wheel-spokes and provided with loops en- 85 gaging the arms, a lever arranged to be brought in and out of the path of said arms, and a scraper-arm fast to the lever and extended across the periphery of said wheel, substantially as set forth. 90

In testimony that I claim the foregoing I have hereunto set my hand, at Birnamwood, in the county of Shawano and State of Wisconsin, in the presence of two witnesses.

LAWRENCE EMPIE.

Witnesses:

G. H. FULLER,
M. H. DREIER.