G. A. ANDERSON.

SCRAPER FOR ROAD ENGINE WHEELS.

APPLICATION FILED DEC. 20, 1909.

983,196. Patented Jan. 31, 1911.

FIG. 1.

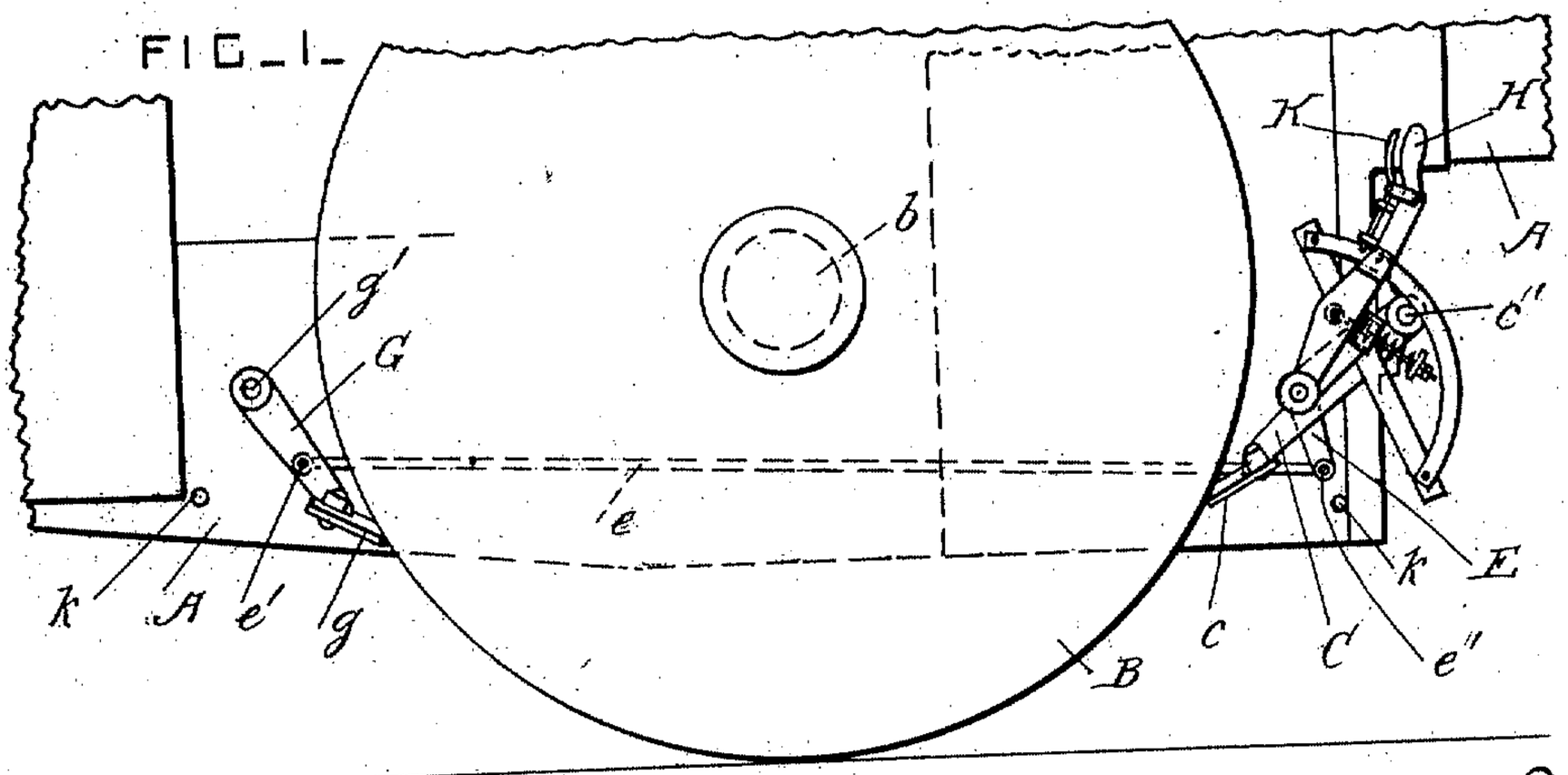


FIG. 2.

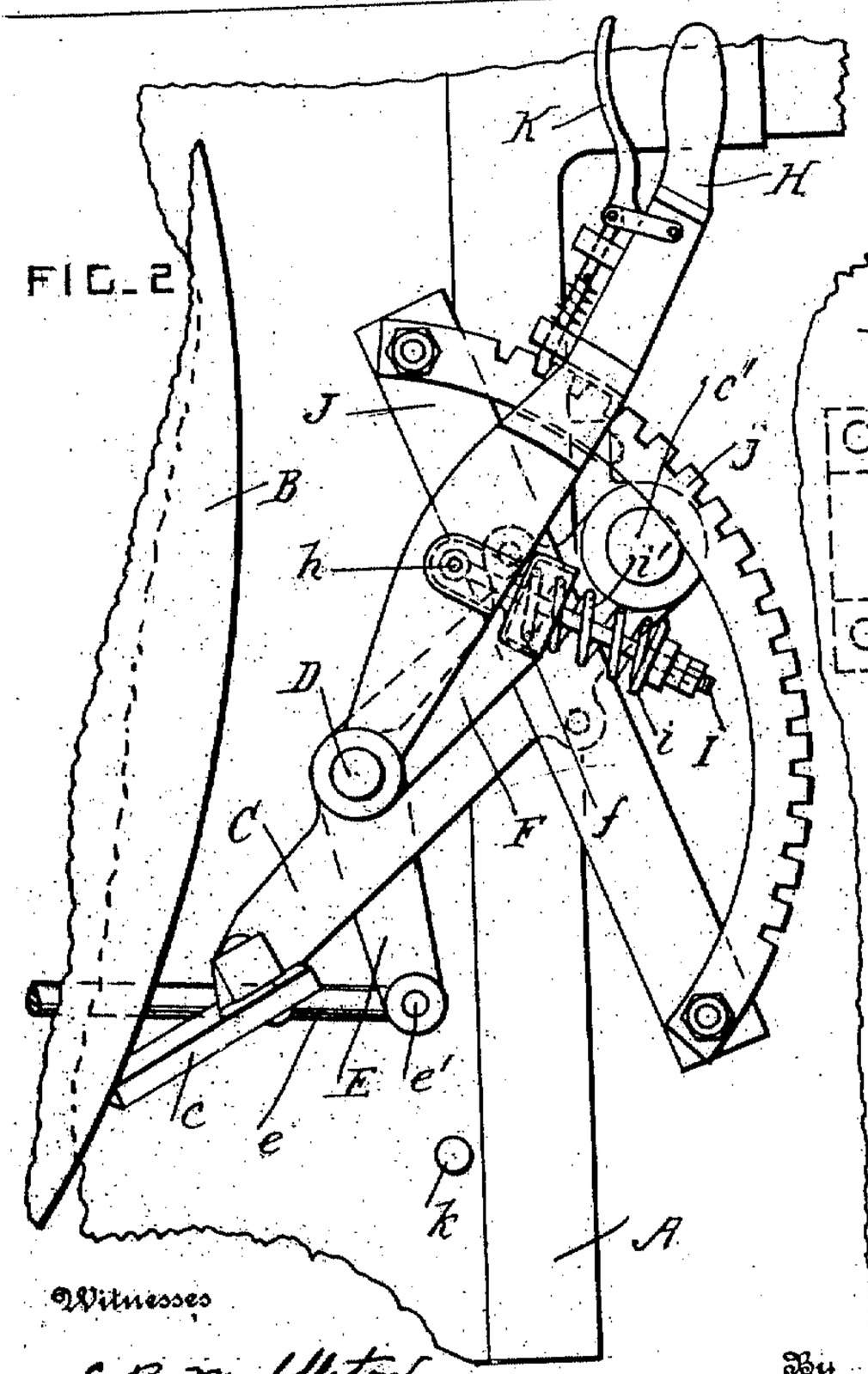
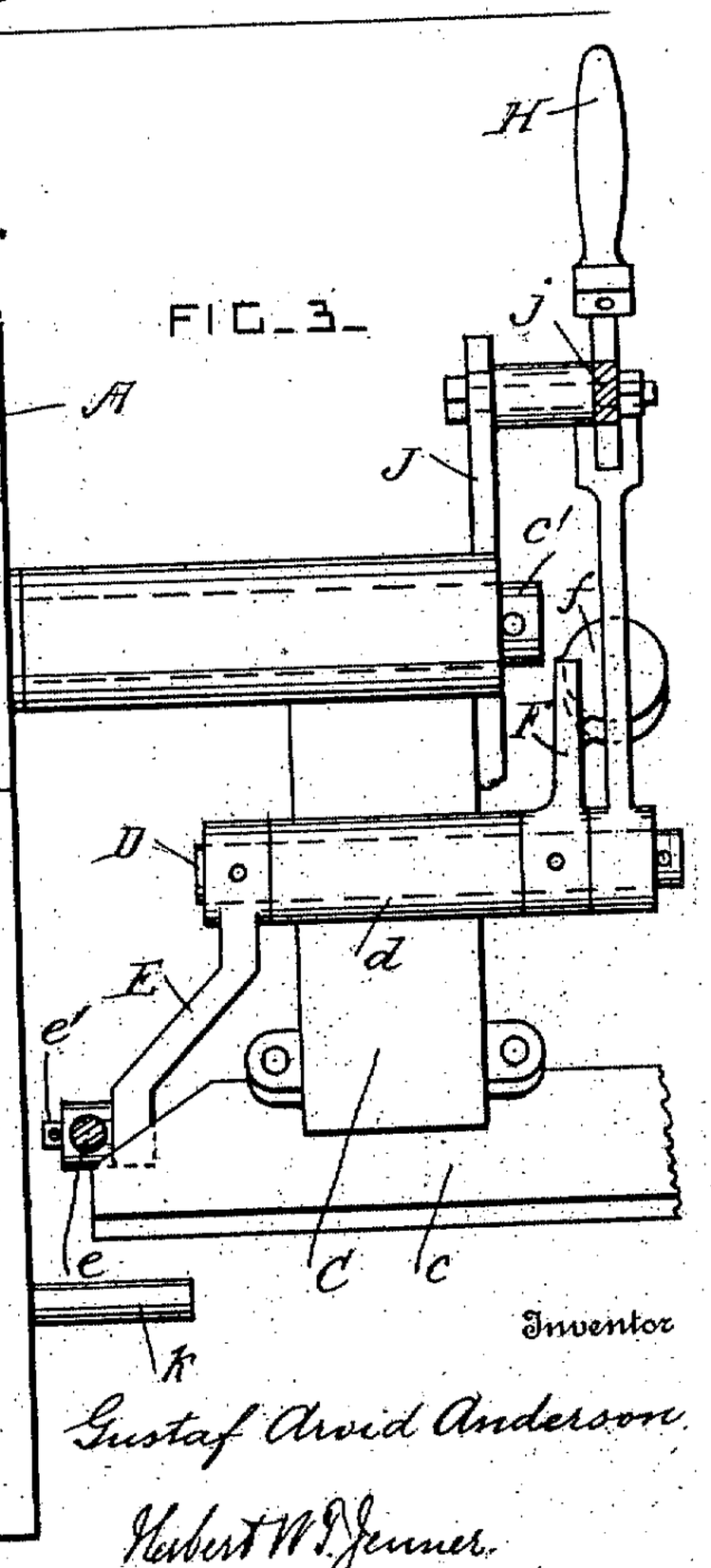


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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SCRAPER FOR ROAD-ENGINE WHEELS.

983,196. Specification of Letters Patent. Patented Jan. 31, 1911.

Application filed December 20, 1909. Serial No. 534,042.

To all whom it may concern:

Be it known that I, GUSTAF ARVID ANDERSON, a citizen of the United States, residing at Waynesboro, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Scrapers for Road-Engine Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to scrapers for removing dirt from the main road-wheels of road-rollers; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of portions of a road-roller showing the scrapers. Fig. 2 is a side view of the front scraper drawn to a larger scale. Fig. 3 is an end view of the front scraper.

A is a stationary support, such as the frame or boiler of a road-roller.

B is one of the main road-wheels of the road-roller, which is mounted to revolve on an axle *b* carried by the said support.

C is a holder for the front scraper-blade *c*. The upper end portion of the holder C is pivoted to the support A by a pin *c'*, and the scraper-blade *c* is secured to its lower end portion so that its edge can bear at a suitable angle against the periphery of the wheel B.

D is a shaft which is journaled in a bearing *d* formed on the middle part of the holder C. An arm E is rigidly secured on one end of the shaft D, and projects downward; and an arm F is rigidly secured on the end of the shaft D and projects upward.

G is an arm for the rear scraper having the rear scraper-blade *g* secured to its lower end portion and arranged to bear against the periphery of the road-wheel on the other side of its shaft from the scraper-blade *c*. The arm G is pivoted to the support A by a pin *g'*. A coupling-rod *e* is pivoted to the arm G and the arm E by pins *e'*.

H is an operating-lever which is mounted loose on one end portion of the shaft D adjacent to the arm F which projects upward, and the arm F is provided at its free end with a lug or cup *f* which overlaps the lever H.

I is a pin which is pivoted to the lever H by a pin *h* and which has a plate *i* on its free end portion. A coiled spring *i'* is interposed between the lug *f* and plate *i*, and normally presses the lug *f* against the lever H.

J is a crossbar which is rigidly secured to the holder C, and *j* is a notched quadrant-plate secured to the crossbar and arranged concentric of the shaft D.

K is a spring-actuated catch pivotally connected with the lever H and engaging with the notched quadrant-plate. Stops *k* are provided on the support A to prevent the scraper-blades from being moved too far away from the wheel, and to prevent them from vibrating.

In moving the operating-lever pivotally toward the wheel to apply the two scrapers, the spring bears against the arm F and operates the shaft D. The arm E on the shaft D operates the rear scraper by means of the coupling-rod, and the rear scraper-blade *g* is pressed against the wheel. As soon as the blade *g* bears against the wheel, the continued motion of the operating-lever lifts the front scraper-blade into engagement with the wheel, the scraper holder C being turned on its pivot *c'*. The two scraper-blades are held in engagement with the wheel by the pressure of the spring *i'* so that they adapt themselves to slight irregularities on its surface. As the blades become worn away it is necessary to move the operating-lever to a different position, and the quadrant-plate is provided with a series of notches for holding the operating-lever in different positions.

When the operating-lever is unlocked from the quadrant-plate and moved pivotally away from the wheel, the said lever bears against the lug *f* and turns the shaft D backward, and both scraper-blades are then moved away from the wheel by the operating-lever and by gravity. The scraper-blades can be held in against the wheel by the quadrant-plate and catch, or they can be allowed to rest against their stops. When spurs are inserted in the road wheels, either to climb a hill or to tear up an old road, the scrapers are held against the stops so that they cannot vibrate and are always clear of the spurs. If the stops were not provided the scrapers would oscillate when the roller is started and stopped suddenly, and would be injured by contact with the spurs.

What I claim is:

1. The combination, with a support, and a road-wheel; of a scraper-holder pivoted to the said support and provided with a scraper-blade, a shaft journaled in the said scraper-holder and having two arms secured on it, means for coupling one of the said arms with the said support, and an operating-lever mounted loose on the said shaft and operatively connected with the other arm.

2. The combination, with a support, and a road-wheel; of a scraper holder pivoted to the said support on one side of the road-wheel and provided with a scraper-blade, a shaft journaled in the middle part of the said holder and having two arms secured on it, a scraper pivoted to the support on the other side of the road-wheel, a coupling-rod between the said scraper and one of the said arms, and an operating-lever mounted loose on the said shaft and operatively connected with the other arm.

3. The combination, with a support, and a road-wheel; of a scraper-holder pivoted to the said support and provided with a scraper-blade, an arm pivoted to the said scraper-holder, means for coupling the said arm with the said support, an operating-lever also pivoted to the said scraper-holder, and connecting devices interposed between the said operating-lever and arm, whereby the scraper-blade is pressed against the road-wheel when the operating-lever is moved in one direction.

4. The combination, with a support, and a road-wheel; of a scraper holder pivoted to the said support on one side of the road-wheel and provided with a scraper-blade, a shaft journaled in the middle part of the said holder and having two arms secured on it, a scraper pivoted to the support on the other side of the road-wheel, a coupling-rod between the said scraper and one of the said arms, an operating-lever mounted loose on the said shaft, a spring-connection between the other arm and the operating-lever whereby both scrapers are held against the wheel by spring-pressure when the operating-lever is moved in one direction, and catch-mechanism for locking the operating lever to the said holder.

5. The combination, with a support provided with a stop, and a road wheel; of a scraper-holder pivoted to the said support and provided with a scraper-blade, an arm pivoted to the said scraper-holder, means for coupling the said arm with the said support, an operating-lever also pivoted to the said scraper-holder, connecting devices interposed between the said lever and arm, and catch-mechanism for locking the operating-lever to the said holder and thereby retaining the scraper in engagement with the said stop when desired.

6. The combination, with a support provided with stops, and a road wheel; of a scraper-holder pivoted to the said support on one side of the road wheel and provided with a scraper-blade, an operating-lever also pivoted to the said scraper-holder, connecting devices interposed between the said lever and arm, a scraper pivoted to the support on the other side of the road wheel, a coupling device between the last said scraper and the said arm, and catch-mechanism for locking the operating-lever to the said scraper-holder and thereby retaining the scrapers in engagement with the said stops when desired.

In testimony whereof I have affixed my signature in the presence of two witnesses.

GUSTAF ARVID ANDERSON.

Witnesses:

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H. E. KUHNER.