No. 735,127. PATENTED AUG. 4, 1903.

H. MORRISON.

ROAD SCARIFIER.

APPLICATION FILED MAY 31, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig: 1.

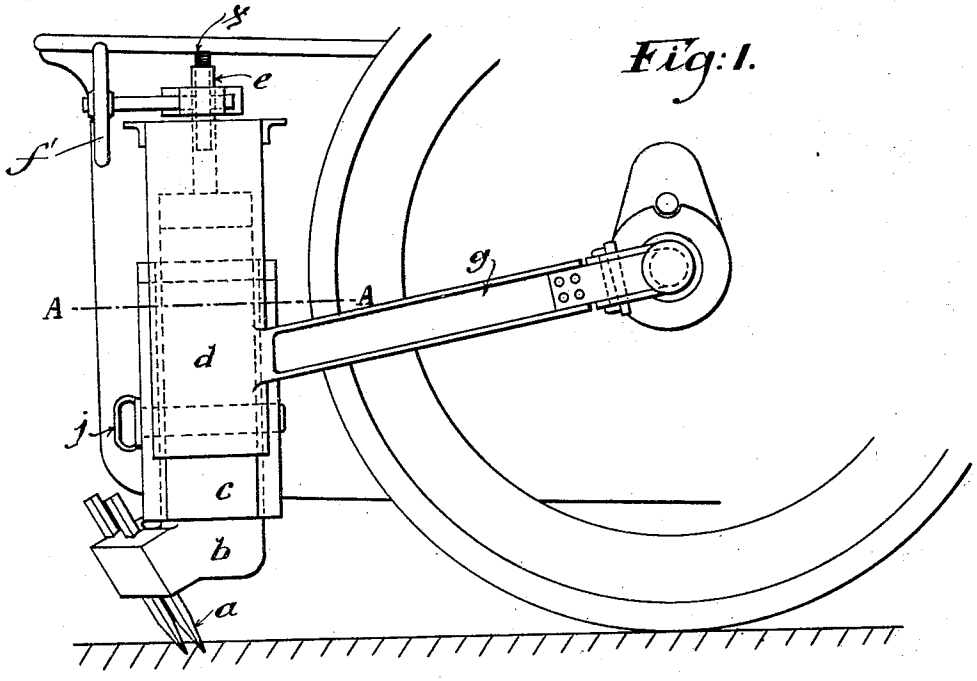


Fig: 2.

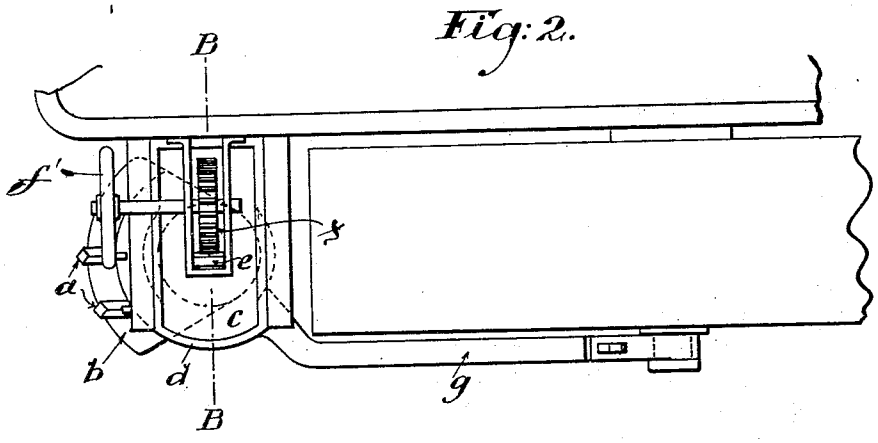


Fig: 3.

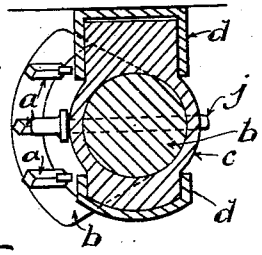
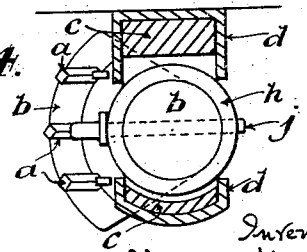


Fig: 4.



Witnesses:-

Benjamin Chalk

Charles H. Briggs

Inventor:-

Harry Morrison.

per: E. Eaton

His Attorneys.

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

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NO MODEL. 2 SHEETS—SHEET 2.

Fig: 5.

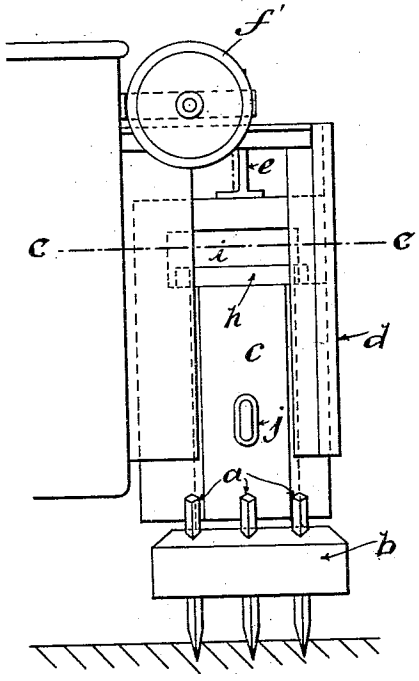
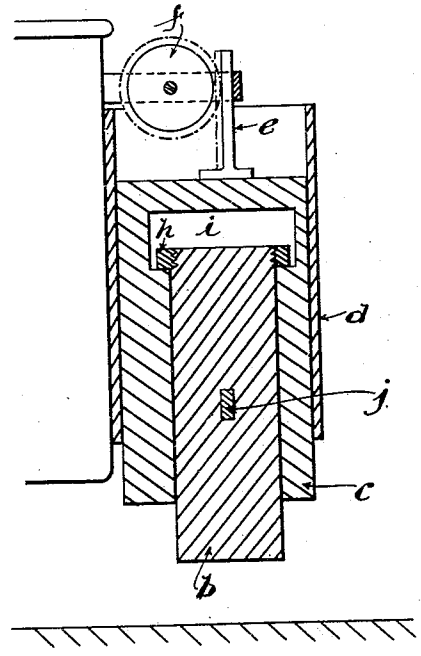


Fig: 6.



Witnesses:—

Benjamin Black.

Charles. W. Briggs.

Inventor:—

Harry Morrison.

per:— Z. Eaton

His attorney.

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

No. 735,127. Patented August 4, 1903.

UNITED STATES PATENT OFFICE.

HARRY MORRISON, OF FOREST GATE, ENGLAND.

ROAD-SCARIFIER.

SPECIFICATION forming part of Letters Patent No. 735,127, dated August 4, 1903.

Application filed May 31, 1902. Serial No. 109,719. (No model.)

To all whom it may concern:

Be it known that I, HARRY MORRISON, a subject of the King of Great Britain, and a resident of Forest Gate, in the county of Essex, England, have invented certain new and useful Improvements in Road-Scarifiers, of which the following is a full, clear, and exact specification.

This invention relates to a new or improved method or means for breaking up the surfaces of roads and other hard surfaces, the implement therefor being attached to the road engine or roller instead of being formed separately and dragged by the road engine or roller behind same.

Referring to the annexed drawings, Figure 1 is a side elevation of my invention, only part of the road engine or roller to which same is attached being shown; Fig. 2, a plan view of Fig. 1. Fig. 3 is a section on line A A, Fig. 1. Fig. 4 is a section on line C C, Fig. 5; Fig. 5, an end view of my invention. Fig. 6 is a section on B B, Fig. 2.

The tools *a* are carried by the holder *b*, which engages with the sliding piece *c*, sliding in the guide *d* and operated vertically by the rack *e* and pinion *f* for the purpose of regulating the depth of the cut, said pinion *f* being operated by a hand-wheel *f'*, the guides *d* being rigidly secured to the side of the road engine or roller by bolts and nuts, rivets, or other suitable and well-known means and further supported by means of a stay *g*, as shown in Figs. 1 and 2.

The tool-holder *b*, the upper portion of which is circular in cross-section, may be revolved or turned in the sliding piece *c*, so as to operate when the engine is traveling in either direction, and being held rigidly in these positions by means of a suitable pin *j* passing through slots in the sliding piece *c* and holder *b*.

The tool-holder *b* is supported within the sliding piece *c* by means of a collar *h*, (attached to the top of the tool-holder *b* by screwing or other suitable means,) which engages with a projecting surface formed by the recess *i* in the sliding piece *c*, as shown clearly in Figs. 4 and 5. Thus by operating the pinion *f* aforesaid the sliding piece *c* and together with same the tool-holder *b* and tools *a* are raised or lowered, as the case may require. When in their raised position, the tool-holder *b* may be turned into the opposite position to that shown in Fig. 1 by removing the pin *j* aforesaid.

If desired, a pair of such implements may be employed, one attached to either side of the road engine or roller.

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

An implement, rigidly attached to a road-engine and the like for breaking up the surfaces of roads or other hard surfaces, comprising a guide, a sliding piece free to vertically slide within said guide, a rack attached to said sliding piece and a pinion gearing therewith, a tool-holder free to revolve within said sliding piece and supported thereby, a collar attached to the top of said tool-holder and resting upon a projecting surface formed by a recess or cavity within said sliding piece, a removable pin passing through slots in said sliding piece and tool-holder, all in combination, substantially as described and illustrated herein.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of March, 1902.

HARRY MORRISON.

Witnesses:

BENJAMIN CLARK,

PERCY READ GOLDRING.