

No. 615,698.

Patented Dec. 13, 1898.

G. HARDY.
ASPHALT CUTTER.

(Application filed July 26, 1897.)

(No Model.)

Fig. 1.

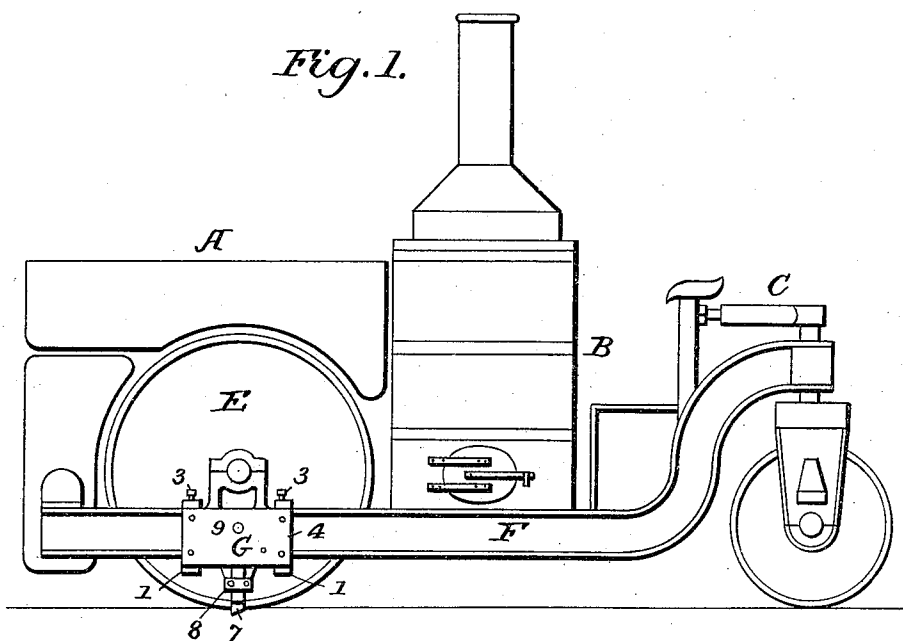


Fig. 2.

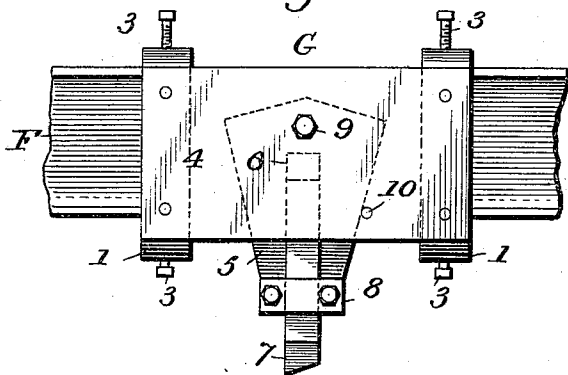


Fig. 3.

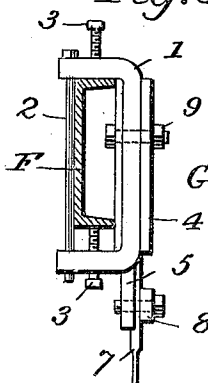
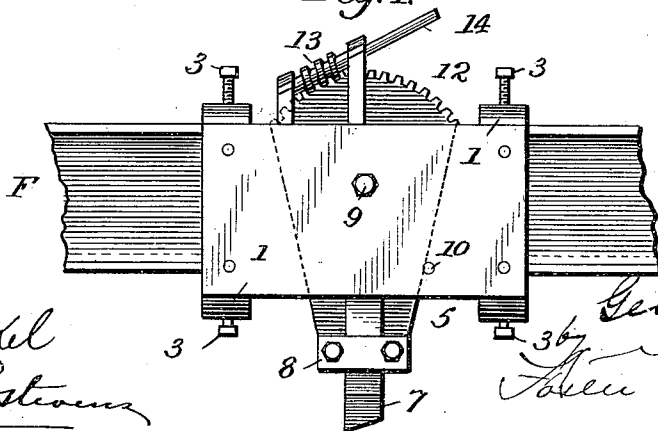


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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ASPHALT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 615,698, dated December 13, 1898.

Application filed July 26, 1897. Serial No. 645,991. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HARDY, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Asphalt-Cutters, of which the following is a specification.

This invention relates to certain new and useful improvements in asphalt-paving machines, having for its object to provide a machine which will quickly and expeditiously cut through the pavement along any desired line in order that the portions of the pavement between the lines may be removed to permit the laying of sewer, water, and gas pipes, electrical conduits, street-railways, &c.

With this object in view the invention consists in the novel construction and combination of the parts hereinafter more fully described.

In the accompanying drawings, forming a part of this specification, and in which like letters and numerals of reference indicate corresponding parts, Figure 1 is a side elevation of the invention. Fig. 2 is a detail side elevation of the cutter-frame, cutter-holder, and part of the main frame; and Fig. 3 is an end view thereof, the main frame being in section. Fig. 4 is a detail view of a modification.

Referring more particularly to the drawings, A designates an asphalt traction-roller, of any ordinary construction, provided with the usual propelling-engine B, steering mechanism C, and front roller E, and preferably the main frame-bar F is brought low to the ground at the front end of the roller, as indicated.

Mounted upon the frame F, at one side thereof and preferably in line with the axis of the front roller E, is a suitable cutter-frame G, which, as shown, comprises two separated clamping-bars 1, having inwardly-turned ends between which is received the side bar F. The extreme ends of these bars 1 are secured together at the inner side by means of tie-bolts 2, which prevent the lateral movement of the bars 1 upon the frame. The space between the bent ends of the bars 1 is greater than the width of the side bar F in order that the bars may be adjusted vertically with respect to the said bar F. Adjusting-

screws 3 pass through the bent ends of the bars and bear upon the upper and lower sides of the supporting-bar.

The clamping-bars 1 are connected by 55 means of plates 4, which are bolted to the outer and inner faces of the bars to leave a space between them, and within this space is mounted an adjustable tool-holder 5, provided with a socket 6 for reception of a chisel-edged cutting-tool 7, which is held in position by means of a clamp 8 and is adapted to be longitudinally adjusted in the socket 6. As shown, the tool-holder is pivoted at 9 between the plates 4 and is adapted to swing upon its pivot in the line of travel of the roller A. When the roller is moving forward, however, the rearward swinging of the tool-holder is limited by means of a stop-pin 10, which extends across the space between the plates 4, this pin being in such position as to arrest the tool-holder to bring the end of the cutting-tool below the plane of the roller E in order to allow it to penetrate and cut the pavement as the roller travels forward over it. When the movement of the roller is reversed, however, the rear face of the cutting-tool is brought into contact with the pavement and the tool-holder is swung forwardly upon its pivot, thereby bringing the edge of the cutting-tool above the plane of the front roller E and out of contact with the pavement.

From the above it will be apparent that there is combined with the traction-roller a suitable chisel-edged cutting-tool which is made to penetrate and form a continuous clean cut through the pavement as the roller is propelled over it, the tool being caused to penetrate the pavement by the great weight of the front and rear rollers and their frame and in addition by the weight of the engine and other parts carried upon the frame, and the material upon each side of the cut is undisturbed and not broken up, as it would be if the cutter were blunt or presented a comparatively broad front face. It will also be understood that when the roller is to be employed in laying a pavement the cutting-tool may be easily and quickly adjusted out of cutting position without necessitating its removal from the roller-frame.

In order that the adjustment of the cutter-holder and its cutter may be brought directly under the control of the operator, the upper edge of the cutter-holder is carried above the corresponding edges of its inclosing plates, as indicated in Fig. 4, and provided with a segmental rack 12.

Mounted in suitable bearings of the plates 4 is a worm 13, which meshes with the teeth of the rack 12 and is arranged to be operated through a shaft 14 to swing the cutter-holder upon its pivot, the said shaft being extended to a point within easy reach of the operator.

Without limiting myself to the exact construction and arrangement of the parts shown and described, what I claim is:—

The combination with a traction-roller, having the roller E, operating-engine and frame supporting the same, of a frame G rigidly mounted on the roller-frame, and a cutter-tool supported rigidly and adjustably in the frame G in position to operate by the draft upon the apparatus on the surface traversed by the apparatus, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE HARDY.

Witnesses:

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