

(No Model.)

A. H. PERKINS.
METHOD OF REPAIRING ASPHALT PAVEMENTS.

No. 501,537

Patented July 18, 1893.

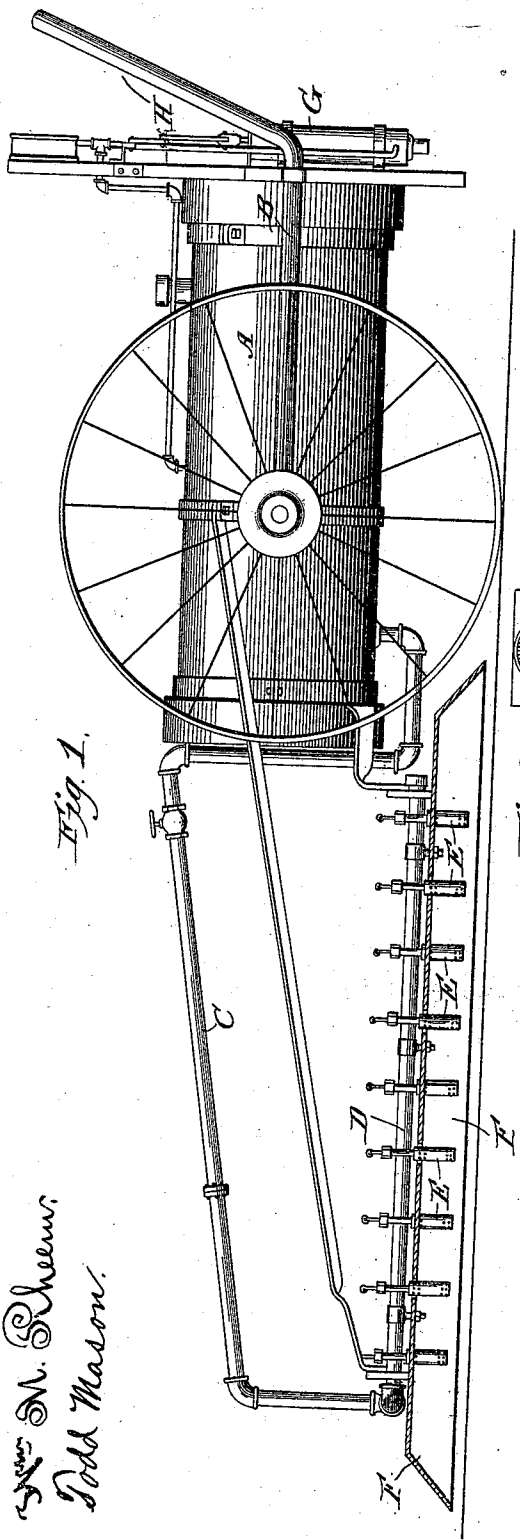


Fig. 1.

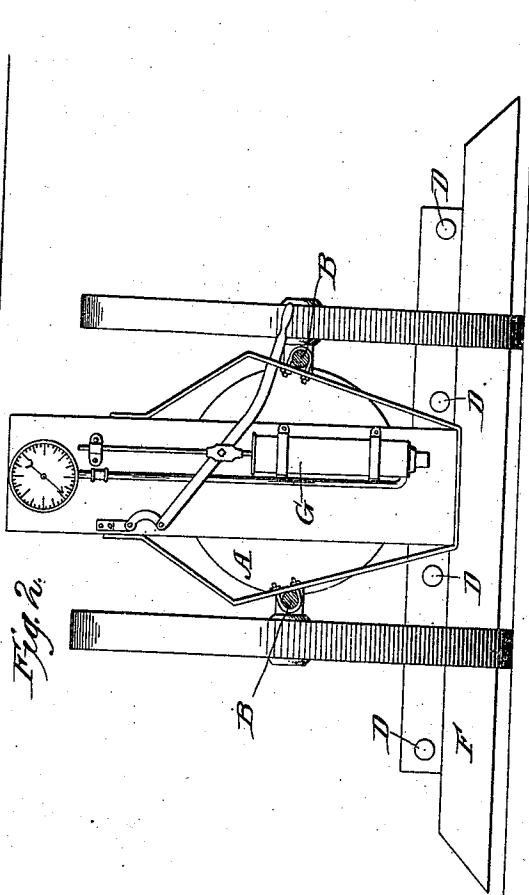


Fig. 2.

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METHOD OF REPAIRING ASPHALT PAVEMENTS.

SPECIFICATION forming part of Letters Patent No. 501,537, dated July 18, 1893.

Application filed March 8, 1893. Serial No. 465,137. (No model.)

To all whom it may concern:

Be it known that I, AMOS H. PERKINS, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have invented a certain new and useful Improvement in the Method of Repairing Asphalt Pavements; and I declare the following to be a full, clear, and exact description of the invention, such as it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention is designed to produce a method whereby the repairing of asphalt pavements may be quickly and cheaply accomplished and a neater appearing pavement be obtained after repairing than has heretofore been the case.

Heretofore in the repairing it has been customary to dig out with a pick or other instrument the surface material around the spot to be repaired, sometimes applying heat to the spot to soften the material so that it may be more easily removed. When the material has been removed the depression thus made is thoroughly cleaned and given a coat or dressing of tar. New material in a heated state has then been placed in the depression and been ironed down and smoothed off in the usual manner of finishing, the tar acting as a solder to hold the new material in place. When completed, however, the line or joint between the old hardened material and the new material has been plainly discernible and more often there has been more or less of a ridge. Again this new block of material by reason of frost or from other causes is frequently torn loose from its soldered connection with the old material thus necessitating new repairs. In practicing my invention however I subject the spot to be repaired and the surrounding edges to such a degree of heat that the surface asphalt, not only the exact spot to be repaired but the surrounding portion to a greater or less degree, is reduced to the soft pliable state in which it is originally laid. With a rake or other suitable instrument it is then agitated and mixed with enough new material to fill up the spot to be repaired. It is then subjected to the usual finishing operation of ironing and burnishing. The heat-

ing of the surface may be accomplished in various ways and by means of various forms of apparatus and while I have herein shown but one form for accomplishing the result, yet I would have it understood that I do not limit myself to any particular form of apparatus for carrying out my invention.

In the drawings Figure 1 represents a side elevation; Fig. 2 an end elevation of an apparatus for heating the pavement after it is laid.

In carrying out the invention A represents a suitable tank for carrying gasoline mounted on the wheeled frame B and connected by the pipe C with a series of horizontal pipes D. These pipes D carry a series of burners E which pass through a hood or shield F and project a flame downward against the pavement. Pressure is then obtained upon the gasoline to force it to the burners and to produce a blast by means of an air pump G mounted upon the tank.

The apparatus is also provided with a handle H whereby the operator may readily move it to the desired spot. Now as would be seen by turning on as many of the burners as are desired a strong blast of heat is projected against the surface of the asphalt and readily melts it. As explained above when it is desired to repair a spot the apparatus is moved adjacent thereto with the burners directly above the spot. These soon reduce the surface asphalt both at the spot and at the surrounding edges to a pliable state, the strong blast causing not only the immediate surface, but the particles deep down to be melted and yet not burned. With a rake or other suitable instrument the operator then agitates or stirs up the softened material and by adding new material of substantially the same degree of softness the spot or depression to be repaired is filled up and subjected to the usual smoothing and finishing operation as in the case of a new pavement. This, as will be seen, is done without the use of the tar for the purpose of uniting the parts or sections of material and is done without any distinct dividing line between the old and new material. In fact, there is no dividing line because the new material has been mixed with and be-

comes a part of the old material. As stated above while heating the spot to be repaired the surrounding edges or portions must be heated to a greater or less degree and the new
5 material is worked into these edges as well as in the spot to be repaired so that when hardened it is practically impossible to tell where the pavement has been repaired.

What I claim is—

10 1. The method of repairing asphalt pavements which consists in subjecting the spot to be repaired to heat adding new material

and smoothing and burnishing it, substantially as described.

2. The method of repairing asphalt pavements which consists in subjecting the spot to be repaired to heat until the material is softened, agitating it and mixing with it new material and finally smoothing and burnishing it, substantially as described.

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Witnesses:

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