

(No Model.)

C. W. FOWLER.

NOISE DEADENING COVER FOR OPENINGS IN PAVEMENTS.

No. 469,501.

Patented Feb. 23, 1892.

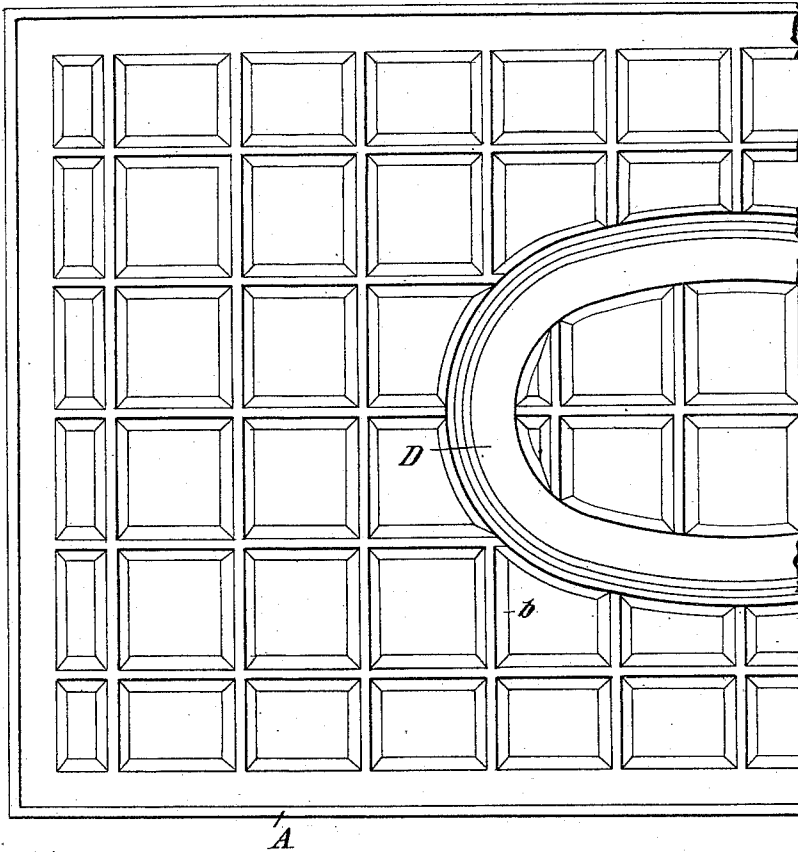


FIG. I.

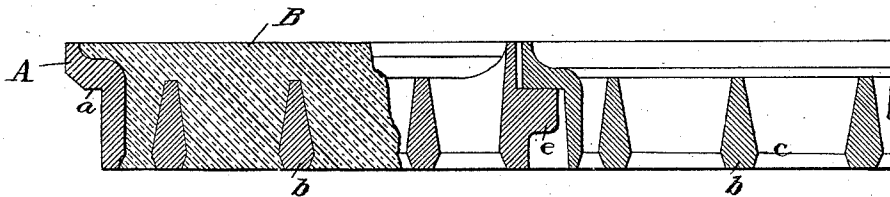


FIG. II.

Witnesses:

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UNITED STATES PATENT OFFICE.

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NOISE-DEADENING COVER FOR OPENINGS IN PAVEMENTS.

SPECIFICATION forming part of Letters Patent No. 469,501, dated February 23, 1892.

Application filed December 2, 1891. Serial No. 413,761. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. FOWLER, a resident of Baltimore, in the State of Maryland, have invented a new and useful Improvement in Noise-Deadening Covers for Openings in Pavements, which improvement is fully set forth in the following specification.

This invention has reference to the construction of removable covers or plates for openings of any sort in the surface of street-pavements, and is particularly designed for covering the man-hole openings to the conduits of cable roads. It is also useful for gutter-coverings and similar purposes.

The object of the invention is to avoid the noise and other objectionable features attendant upon the use of iron plates, which are generally employed for the above purposes; and to this end the cover consists of the combination of an iron frame or support and a cement or other like plastic filling. Structures of these two materials have been heretofore designed, and therefore are not broadly claimed, my invention consisting in the particular construction of the iron frame and its cement filling whereby a strong, durable structure is produced not likely to be injured by frost or by concussion from the wheels of heavy vehicles.

The invention may be most conveniently explained in connection with the accompanying drawings, in which—

Figure I is a plan view showing half of the iron frame of the covering-plate constructed according to the invention, and Fig. II is a vertical section showing part of the cement filling in place.

The iron support consists of an outer surrounding frame A, having a flange *a* to rest on the edge of the opening to be covered and intersecting webs *b*. The openings between the webs extend entirely through the plate, so that the cement filling appears on both sides, and these webs are thickest at the point *c*, from which they taper in both directions. By the projections on both sides of the web the cement filling is held firmly in place.

The webs *b* terminate some little distance below the upper edge of the frame A, whereby a continuous hollow or depression of suitable depth is formed entirely across the plate between the side frames, so that the cement when placed in position covers practically the entire upper surface of the plate, resting on a reticulated bed, the apertures of which are also filled with cement.

In Fig. II a portion of the cement filling is represented at B. It is applied by laying the frame on a flat surface, filling in the cement in a plastic state, and subjecting to compression until it is set. The metal and plastic material are thus combined in a very substantial manner, and the structure is not readily affected by wear or by the action of frost. A minimum of metal surface is exposed to contact with the wheels of vehicles, and noise is consequently to a great extent prevented.

As shown in the drawings, the cover has a central portion D, of oval form, which is removable for purpose of inspection. This portion of the cover is constructed like the main body thereof. It has a flanged edge, which rests on a shoulder *e* of the main frame, from which it can be readily raised when desired.

Having now fully described my said invention, what I claim is—

A noise-deadening plate for street-openings, comprising a metal support having an outer frame and a reticulated central portion composed of intersecting webs tapering in section both upwardly and downwardly and terminating at the top beneath the upper edge of the metal frame, combined with a filling of plastic substance forming a continuous surface over the tops of the webs and filling the spaces between them, substantially as described.

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

CHARLES W. FOWLER.

Witnesses:

PHILIP HISS,
WM. H. JONES.