J. F. WIXOM.

METALLIC SURFACING.

APPLICATION FILED MAY 13, 1913.

1,089,613. **Patented Mar. 10, 1914.**

Fig. 1.

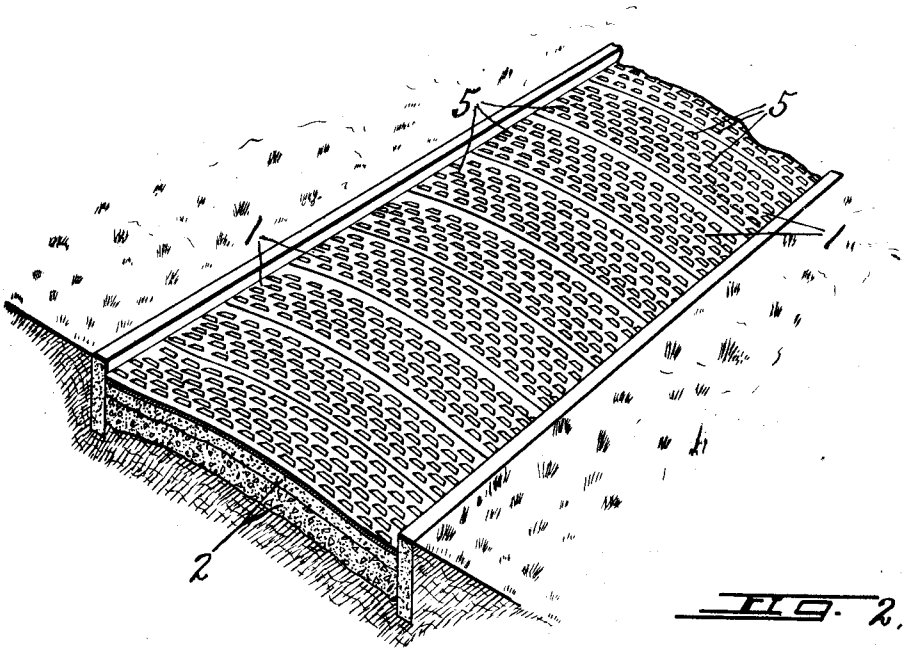


Fig. 2.

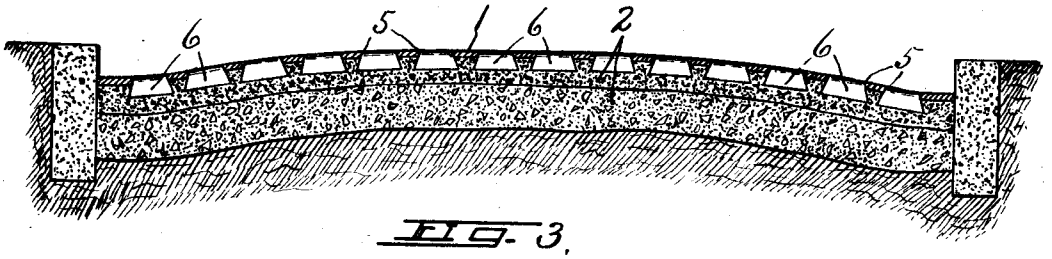


Fig. 3.

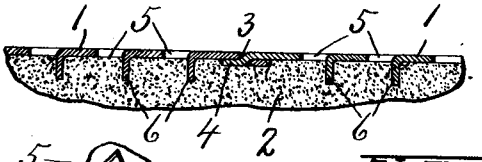


Fig. 4.

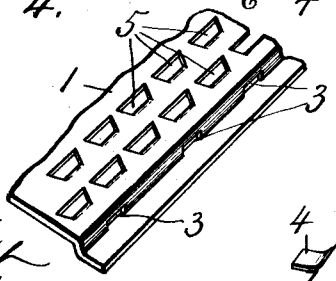
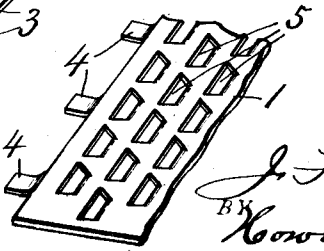


Fig. 5.



WITNESSES:

H. Hurst.

H. E. Chase

INVENTOR.

J. F. Wixom

BY

Howard P. Denison

ATTORNEY.

UNITED STATES PATENT OFFICE.

JOSEPH FRED WIXOM, OF HAMMONDSPORT, NEW YORK.

METALLIC SURFACING.

1,089,613. Specification of Letters Patent. Patented Mar. 10, 1914.

Application filed May 13, 1913. Serial No. 767,314.

To all whom it may concern:

Be it known that I, JOSEPH FRED WIXOM, of Hammondsport, in the county of Steuben, in the State of New York, have invented new and useful Improvements in Metallic Surfacing, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in pavements and refers more particularly to metallic surfacing for roadbeds, sidewalks and other pavements having a cement, concrete or equivalent cementitious foundation.

I am aware that many forms of metal surfacing have been heretofore proposed for these purposes, but so far as I am aware no adequate provision has been made to prevent slipping or skidding of horses and vehicles, and the primary object of my present invention is to provide a sheet metal road surfacing laid upon a bed or foundation of cement or concrete in such a manner that it will afford ample gripping elements for horses' feet and vehicle wheels to prevent slipping or skidding, without rendering such surface undulatory or rough so that pedestrians, horses and vehicles may travel over the same with perfect safety and without inconvenience.

Another object is to provide means whereby the metal plates may be accurately and expeditiously laid in sequence in relatively large squares or sections, upon the surface of a previously prepared bed or foundation of cement or concrete while still in a partially green or plastic state, with the assurance that when so laid it will be permanently held in position by the cement when the latter is seasoned or set.

In other words, I have sought to provide the meeting ends of the plates with integral interlocking members capable of being permanently interlocked by the simple operation of placing the plates consecutively in proper position upon the concrete or cement bed, and also to accomplish the permanent securement of said plates to the surface of the cementitious bed by providing such plates with integral flaring pendant flanges or projections stamped or pressed from the main body, thereby forming corresponding apertures of relatively small area symmetrically distributed throughout the area of each plate and left open through the thickness of the metal to afford the desired grip referred to.

Other objects and uses will be brought out in the following description:

In the drawings Figure 1 is a perspective view of a portion of a roadbed or pavement equipped with my improved metal surfacing. Fig. 2 is an enlarged transverse sectional view of the same roadbed. Fig. 3 is an enlarged longitudinal sectional view of a fragment of the same pavement, showing the manner of interlocking the consecutively arranged plates. Figs. 4 and 5 are perspective views of portions of the interlocking ends of adjacent plates.

This pavement comprises a series of sheet metal plates —1— laid in sequence, edge to edge, upon the surface of a previously prepared bed or foundation —2— of concrete, while said surface is still in a more or less green or plastic condition, said plates having their meeting edges provided respectively with slots —3— and tongues —4— spaced uniform distances apart so that the tongues of one plate may readily enter the slots of the adjacent plate for establishing a positive interlocking connection between said plates against relative movement.

The tongues of one plate and adjacent longitudinal edge of the other plate are depressed to a plane beneath that of their respective plates a distance corresponding to the thickness thereof so that the tongues extend under the adjacent plate when interlocked therewith while the edge of the other plate underlies the edge of the one having the tongues, thereby bringing the surfaces of the adjacent plates in the same horizontal plane and affording a close joint and substantially continuous surface without appreciable break. Each plate is provided with a plurality of rows of perforations —5— preferably elongated in one direction and having diverging or flaring end walls formed by cutting and depressing integral portions of the plate downwardly, thereby producing a corresponding number of pendant ribs or flanges —6— having similar flaring or divergent ends which are embedded in the concrete as the plates are progressively placed in operative position upon the surface of the cementitious bed. The form of these ribs is shown more clearly in Fig. 2 and the object of flaring the ends is to produce a firm interlocking grip with the

concrete or cement. That is the flaring ribs afford a dove-tailed interlocking connection with the concrete when embedded therein, thereby rigidly holding the plates in position against upward displacement when the concrete is set without additional or extra fastening means. By this method the metal surfacing is completed as the plates are progressively laid upon the surface of the concrete, leaving the openings —5— in the metallic surfacing the full depth thereof and, inasmuch as these openings are in close juxtaposition and relatively small as compared with the area of the plates, it is evident that they afford ample grip for horses' feet and also prevent skidding of vehicle wheels, the plates being usually cut in such lengths as to reach from curb to curb although it is clearly evident that they may be made in smaller sections, if necessary, without departing from the spirit of my invention or in any way reducing the efficiency or smoothness of the metal surfacing.

It will be seen from the foregoing description that the important features of my invention are the simple interlocking connections whereby the plates may be progressively attached to each other in the operation of laying and also in the flaring ribs and correspondingly formed apertures, whereby the plates are interlocked with the cement with a dove-tailed connection leaving the openings free from fillings to prevent slipping of horses' feet or skidding of vehicle wheels.

What I claim is:

1. A pavement comprising a bed of cementitious material and a metal surfacing therefor consisting of plates arranged edge to edge and having their meeting edges provided with interlocking connections, said plates being also provided with pendant projections embedded in the concrete.

2. A pavement comprising a bed of cementitious material and metal plates arranged edge to edge on the surface of said bed, the adjacent edges of the plates being provided respectively with a series of apertures and tongues passed through said apertures whereby the plates are locked to each other.

3. A pavement comprising a bed of cementitious material and a metal surfacing therefor consisting of a series of sheet metal plates arranged edge to edge and having their meeting edges provided with interlocking connections, each plate having a series of integral pendant ribs stamped therefrom forming a corresponding number of apertures, the ribs being embedded in the concrete leaving the apertures open the full depth of the plates.

4. A pavement comprising a bed of cementitious material, metal plates applied to the surface of said material and each provided with a series of apertures having flaring ends, said plates being also provided with pendant ribs integral with the shorter sides of the apertures and having flaring ends embedded in the concrete leaving the apertures open the full depth of the plates.

In witness whereof I have hereunto set my hand this 5th day of May 1913.

J. FRED WIXOM.

Witnesses:
EMMA E. GOLD,
W. W. BRUNDAGE.