Dec. 16, 1930.

L. H. A. DUNKER

1,784,895

CONSTRUCTION OF ROADS AND THE LIKE

Filed Aug. 10, 1928

Fig. 1.

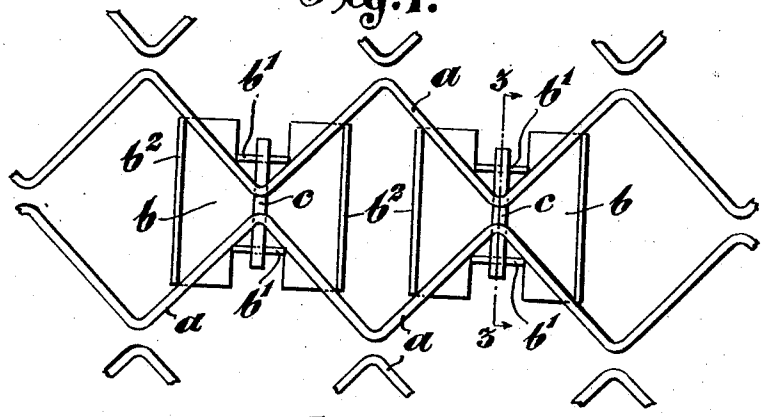


Fig. 2.



Fig. 3.



Fig. 4.

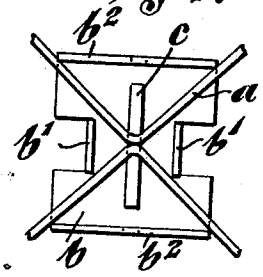
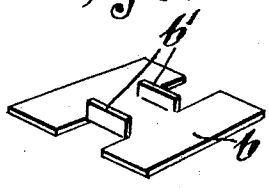


Fig. 5.



Inventor:
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By Atty.

Patented Dec. 16, 1930

1,784,895

UNITED STATES PATENT OFFICE

LOUIS HERMAN ALFRED DUNKER, OF BIRMINGHAM, ENGLAND, ASSIGNOR TO THE STEEL-MESH ROAD SERVICE COMPANY, LIMITED, OF BIRMINGHAM, ENGLAND

CONSTRUCTION OF ROADS AND THE LIKE

Application filed August 10, 1928, Serial No. 298,756, and in Great Britain August 27, 1927.

The present invention has relation to the construction of roads, floors, and the like, more particularly the construction of roads having a concrete or other like foundation whereon a metallic mesh is placed and afterwards consolidated with an asphalt, concrete or other filling constituting a surface covering, the present invention having for its object primarily to provide for a more efficient installation of the mesh upon the foundation.

The present invention consists in the combination with a metallic mesh comprised of strips of metal bent to an undulating, waved, zigzag or equivalent formation and aggregated or adapted to be aggregated together so that the respective crests and depths are in register for reinforcing a surface covering for a road, floor, or the like, of a plurality of metal plates of strips interposed or adapted to be interposed superficially between the mesh and its supporting foundation, to lend vertical support or give a larger bearing surface thereto, and prevent its being forced into the foundation by heavy traffic. A locking engagement of the plates or strips with the mesh may be provided for to prevent relative displacement.

In order that this invention may be clearly understood and readily carried into practice, reference may be had to the appended explanatory sheet of drawings upon which:—

Figure 1 is a plan view of a mesh incorporating plate supporting or reinforcing means constructed according to the present invention.

Figure 2 is an edge elevation of the combination mesh and plate means illustrated in Figure 1.

Figure 3 is a transverse section taken on line 3—3 of Figure 1.

Figure 4 illustrates a mesh fragment utilising a plate such as shown in Figure 1 in a slightly modified manner.

Figure 5 is a plan view of a modified plate.

In a convenient embodiment of the present invention, the mesh is constructed from lengths of strip metal a bent to an undulating, zigzag or waved formation, adapted to be aggregated on a suitable road foundation with their major dimension vertically, and crests and depths in adjacency or engagement (as shown in Figure 1). The plates b may be manufactured from steel, and are conveniently of substantially square formation, being slotted inwardly from two opposed sides, and the tongues of metal b^1 so constituted bent vertically so as to come within a respective crest and depth to hold same in engagement (as shown). The plate is disposed between the foundation and the mesh, and is not only prevented from displacement by its engagement with the mesh strips but assists in holding the said strips together to constitute the mesh.

The simple plate such as aforedescribed is illustrated particularly in the Figure 5.

In the Figures 1, 2, 3 and 4, however, the edges of the plate are turned, as at b^2, the extreme ends abutting against the mesh (as illustrated) for location purposes. It will be noted from Figure 1 and Figure 4 that the plates may have alternative settings with respect to the mesh. In the Figure 1 the tongues b^1 are accommodated within the waves and crests, whereas in the Figure 4 they are without said waves and crests, the parts b^2 being accommodated therein. Virtually the only difference resides in the fact that in the Figure 1 the waves and crests are spaced a short distance apart, whereas in the Figure 4 they are in contact or substantially in contact. In either instance, loose locating pins c may be utilised in association with the mesh, and to this end the tongues b^1 may be slotted for their accommodation (Figure 1) or the parts b^2 may be slotted (Figure 4).

The mesh, with plates or strips, is placed upon a concrete or other foundation, and is filled with asphalt, concrete or other suitable filling to constitute the desired wear-resisting surface covering. If desired, upturned parts of the plates, such as b^1 b^2 may be directed horizontally to engage respective crests and depths, and such engagement may be of a slot and projection character.

In a still further modification of the present invention, instead of the plates being arranged to connect crests and depths, or in

addition to those plates, certain other plates may have upturned parts engaged with any intermediate parts of the strips constituting the mesh for the purpose of this invention. The plates may have downwardly directed parts, if desired, engaged with the foundation or some super layer thereof.

In operation, the undulating zigzag or other strips are arranged on the foundation to constitute the mesh, the plates or strips being assembled between the said mesh and the foundation proper or a super layer thereof. The filling or surface covering is then applied, consolidating the whole, the plates or strips serving the useful purpose of increasing the bearing surface of the mesh and preventing its being gradually driven into the foundation by heavy traffic.

I claim:

1. In combination with a supporting foundation, a metallic mesh comprising a plurality of bent metal strips loosely disposed in parallel relation, the crests and depressions of said strips being opposed, and metal plates intermediate said strips and said foundation, said metal plates having upturned portions engaging said strips at various points for holding them in fixed relative position.

2. In combination with a supporting foundation, a metallic mesh comprising a plurality of bent metal strips, the crests and depressions of said strips being opposed, metal plates intermediate said strips and said foundation, said metal plates having upturned portions engaging said strips at various points for holding them in fixed relative position, and locating members engaging the opposed crests of adjacent strips.

3. In combination with a supporting foundation, a metallic mesh comprising a plurality of bent metal strips, the crests and depressions of said strips being opposed, metal plates intermediate said strips and said foundation, said metal plates having upturned portions engaging said strips at various points for holding them in fixed relative position, and locating pins loosely extending through apertures in the opposed crests of adjacent strips.

4. In combination with a supporting foundation, a metallic mesh comprising a plurality of bent metal strips, the crests and depressions of said strips being opposed, metal plates intermediate said strips and said foundation, said metal plates having upturned portions engaging said strips at various points for holding them in fixed relative position, and locating pins loosely extending through apertures in the opposed crests of adjacent strips and through apertures in upturned portions of said metal plates.

In witness whereof I have hereunto set my hand.

LOUIS HERMAN ALFRED DUNKER.

CERTIFICATE OF CORRECTION.

Patent No. 1,784,895. Granted December 16, 1930, to

LOUIS HERMAN ALFRED DUNKER.

It is hereby certified that the name of the assignee in the above numbered patent was erroneously written and printed as "The Steel-Mesh Road Service Company, Limited", whereas said name should have been written and printed as The Steel-Mesh Road Surface Company, Limited, as shown by the records of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 10th day of February, A. D. 1931.

(Seal)

M. J. Moore,
Acting Commissioner of Patents.