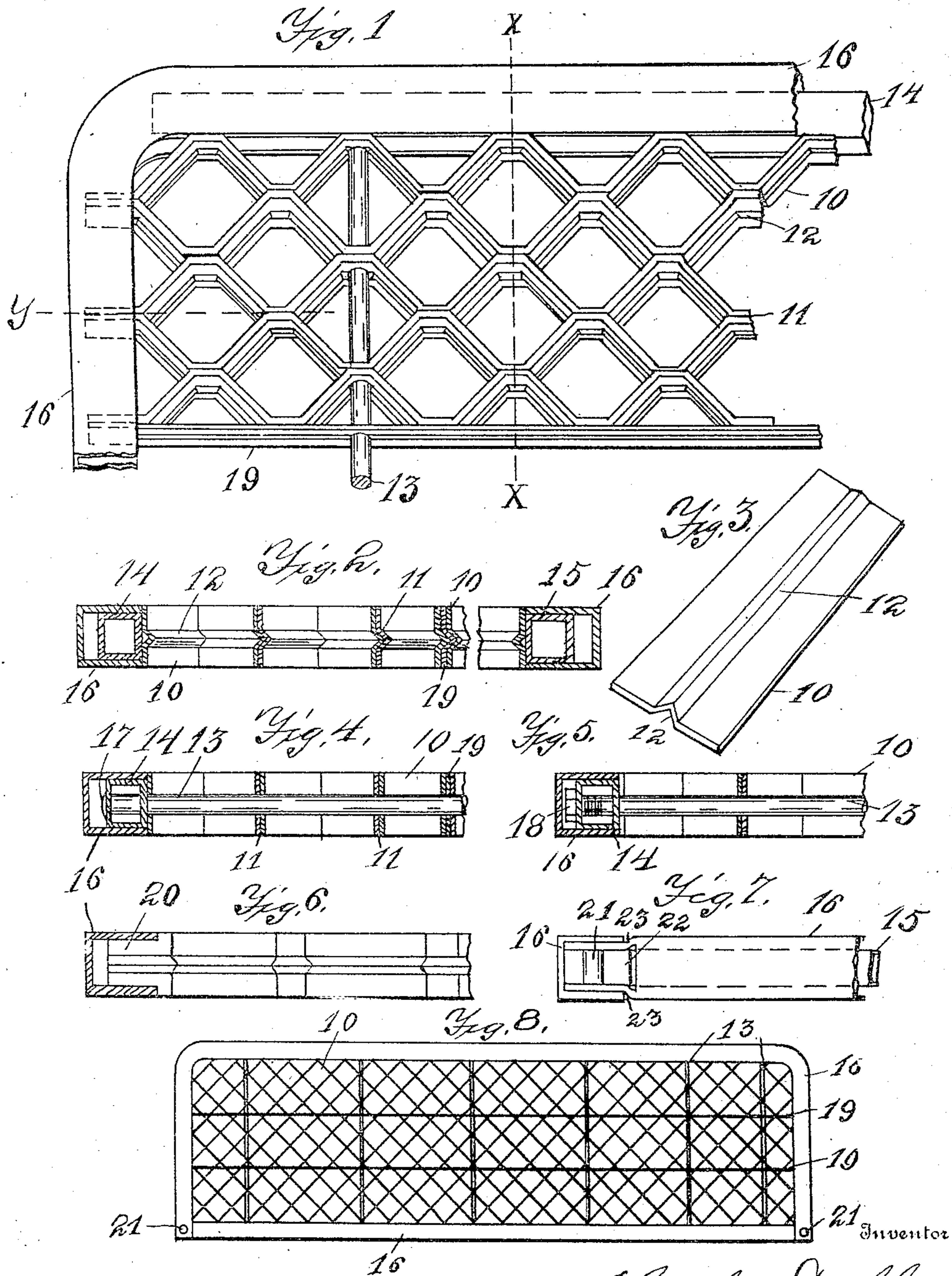


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PATENTED APR. 17, 1906.

C. DAHLSTROM.
STEP OR MAT.

APPLICATION FILED JULY 17, 1905.



Witnesses

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STEP OR MAT.

No. 817,837.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES DAHLSTROM, a citizen of the United States, and a resident of Jamestown, in the county of Chautauqua and State of New York, have invented a new and useful Step or Mat, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to step or mat construction in which the mesh is formed of crimped strips of sheet metal placed edge-wise side by side; and the object of my invention is to make a strong rigid construction out of light sheet-metal strips; and the novelty consists in the lengthwise corrugated or ribbed matching strips, which give the required rigidity without increasing the weight, and also in the combined channel and tubular binding, which gives a stiff smooth edge to the step.

In the drawings, Figure 1 is a perspective view of a portion of the step. Fig. 2 is a sectional view at line X X in Fig. 1. Fig. 3 is a perspective view of a piece of a strip, showing the central rib or corrugation. Fig. 4 is a sectional view showing the connecting-rod with riveted attachment to the binding edge, and Fig. 5 is a similar view showing a thread and nut attachment for the connecting-rod to the binding-edge. Fig. 6 is a sectional view at line Y Y in Fig. 1, showing the connection of the channel-binder and the ends of the crimped strip. Fig. 7 is an edgewise elevation of the rear corner of the step, showing the connection of the rear and end channel pieces. Fig. 8 is a plan view of the step for automobiles or car use.

Similar numerals refer to corresponding parts in the several views.

The mesh of the step or mat is formed of strips 10 of sheet metal of suitable width placed side by side and crimped to form V-shaped crosswise corrugations of uniform size, the apexes 11 of the several corrugations of the adjacent strips abutting or being brought into contact, so that a mesh is formed. A lengthwise corrugation or rib 12 is provided throughout the length of strips 10, so that the apexes 11 match or interjoin, as shown in section in Fig. 2, thus preventing all side slipping of the strips, the continuous rib giving great stiffness and added rigidity to the construction. The mesh is also held together by cross-rods 13, which pass through

holes punched in the successive strips and are made fast in square tubes 14 and 15 at the front and rear. Tubes 14 and 15 extend lengthwise of the step and preferably do not extend across the end.

The mesh is preferably arranged with straight ribbed strips 19, placed at suitable distances between the crimped strips in order to hold them stiffly in position, the strip 19 being ribbed and matching with the crimped strips at the points of abuttal. The ends of crimped strips 10 and straight strips 19 are formed with a tongue 20, which fits within the channel-binder 16, as shown in Fig. 6, holding the ends firmly in position and giving a smooth binding edge to the end.

The outer edge of the step is made smooth by means of a channel-shaped binder or cover 16, which embraces tubes 14 and 15 and tongues 20 therein and which has sufficient depth to not only cover the tubes, but also the riveted heads 17 of connecting-rods 13, or the step may be drawn together by means of connecting-rods 13 with thread and nut thereon, as shown at 18 in Fig. 5, nut 18 being entirely covered by the binder 16, thus making a smooth step which cannot catch on wearing-apparel.

The rear edge of the step has the rectangular tube 15 and cover 16. The ends of cover 16 are connected with end binder 16 at each rear corner, as shown in Fig. 7. The rear side of cover 16 is cut away, as shown at 22, and the projecting sides are bent in, as shown at 23, until they just fit within end binder 16, and the parts are connected by a rivet 21.

It is apparent that the parts may be readily assembled by first riveting or otherwise attaching the connecting-rods 13 to rear tube 15. Then the crimped and ribbed strips 10 are slipped onto the connecting-rods 13, the strips 19 being placed at the desired distance between strips 10. The outer tube 14 is slipped onto the end of rods 13 and pressed down onto the mesh. Rods 13 are then headed, binding the whole mesh rigidly together, the matching ribs greatly aiding in the rigidity and stiffness of the parts. The outer binder 16 having been bent to form is next slipped onto the assembled mesh, the tubular edge 14 just fitting within the same. The prepared ends of the rear binding-piece 16 are fitted within the outer piece 16 and riveted firmly in place, locking the whole construction securely together.

I claim as new—

1. The combination of a series of metal strips having lengthwise corrugations and crosswise abutting corrugations of adjoining strips, said lengthwise corrugations matching at said points of abuttal.
2. The combination of a series of metal strips having corrugations lengthwise of the strips, a portion of said strips having return-bends or corrugations crosswise of the strips, the apexes of said crosswise return-bends of adjoining strips placed abutting to form a mesh, said lengthwise corrugations intermatching at said points of abuttal, substantially as and for the purpose specified.
3. A step or mat consisting of a series of metal strips having continuous lengthwise crimps or corrugations, part of said strips having crosswise abutting corrugations, said lengthwise crimps intermatching at said points of abuttal, part of said strips straight and intermatching with said crimps lengthwise of the strips at said points of abuttal, and a suitable binding edge.
4. In a step or mat, a frame consisting of an inner tubular part and an outer cover, and a suitable mesh within said frame.
5. In a step or mat, a suitable mesh of crimped strips of sheet metal, a frame con-

sisting of binding-pieces for the sides of said mesh and connecting cross-rods, and a channel-cover for said binding-pieces and the ends of said strips and rods.

6. A step or mat consisting of a series of metal strips having lengthwise corrugations, a portion of said strips having crosswise abutting corrugations, said lengthwise corrugations fitting into one another at the points of abuttal, tubular edge pieces, and cross connecting-rods for said tubes and intervening strips.

7. A step or mat consisting of a series of metal strips having lengthwise corrugations, a portion of said strips having crosswise abutting corrugations, said lengthwise corrugations fitting into one another at the points of abuttal, tubular edge pieces, cross connecting-rods for said tubes and strips, and a channel-shaped cover around the outer edge and over said tubes.

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

CHARLES DAHLSTROM.

Witnesses:

JOHN A. WESTMAN,
S. ARTHUR BALDWIN.