

No. 876,134.

PATENTED JAN. 7, 1908.

L. J. BERG.  
METALLIC SHEATHING.  
APPLICATION FILED DEC. 13, 1906.

Fig. 1

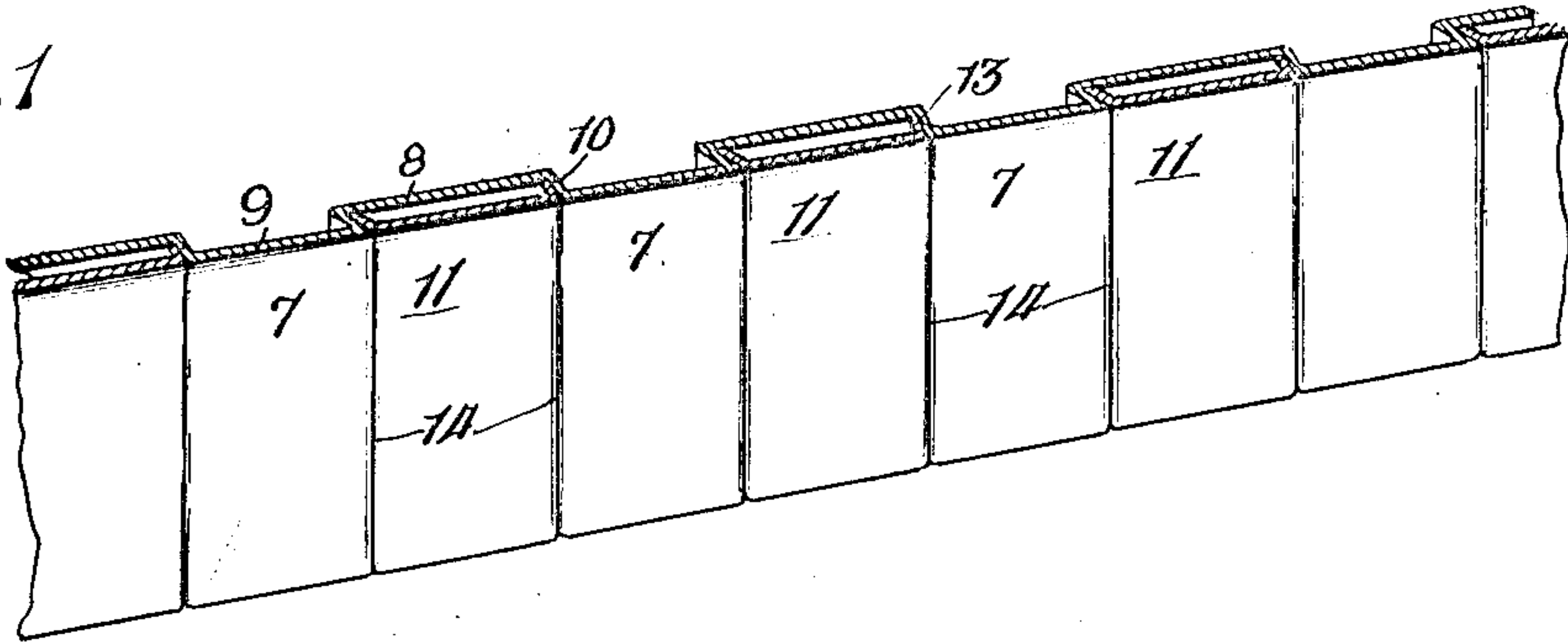


Fig. 2.

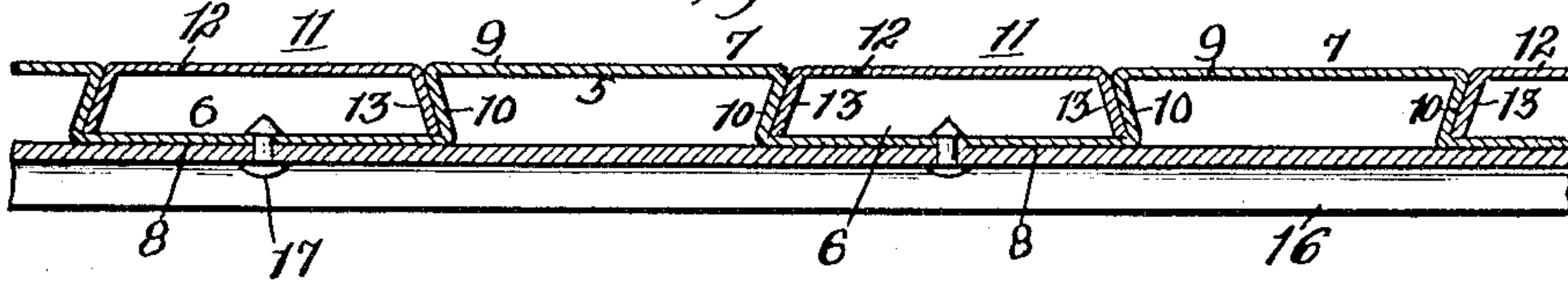


Fig. 3.

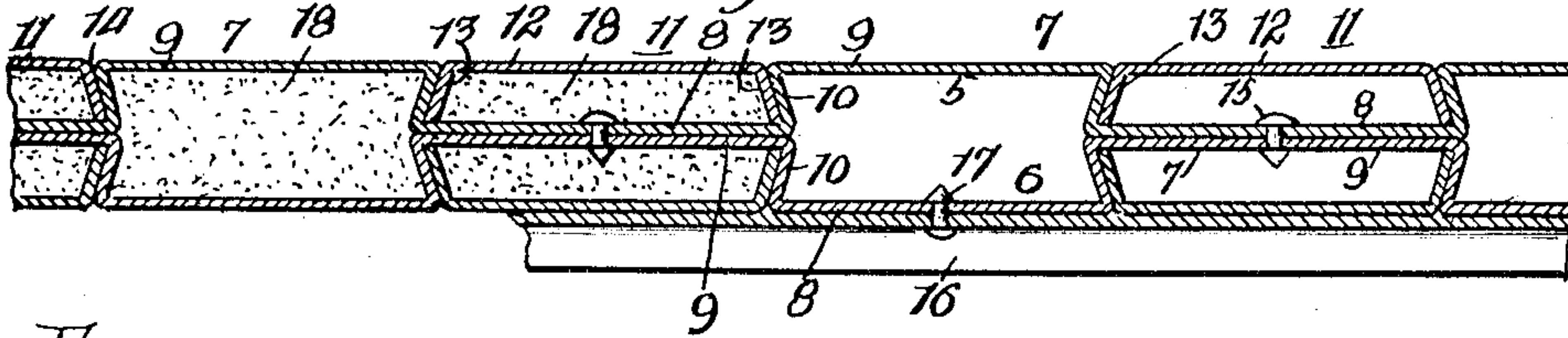


Fig. 4.

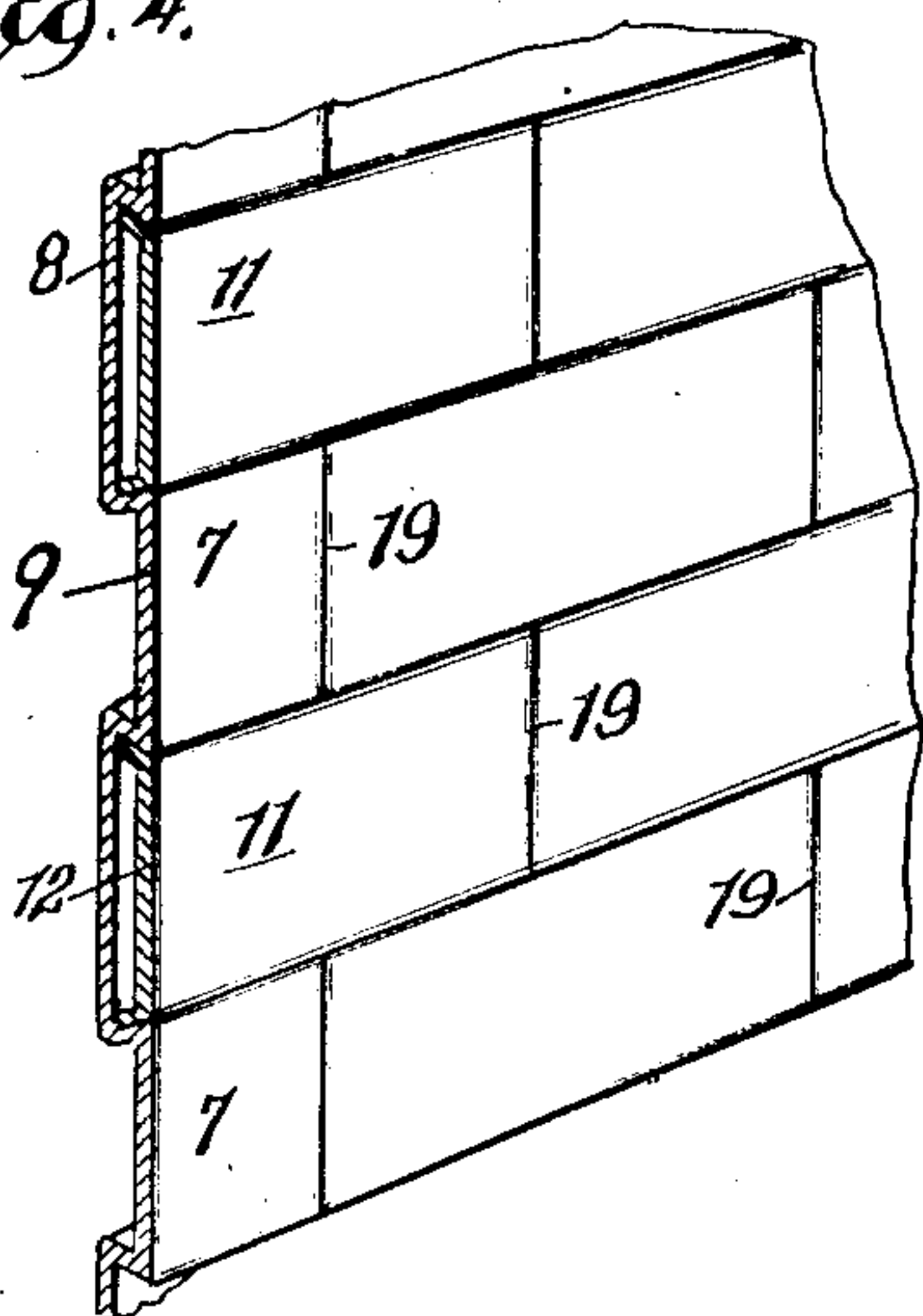


Fig. 5.

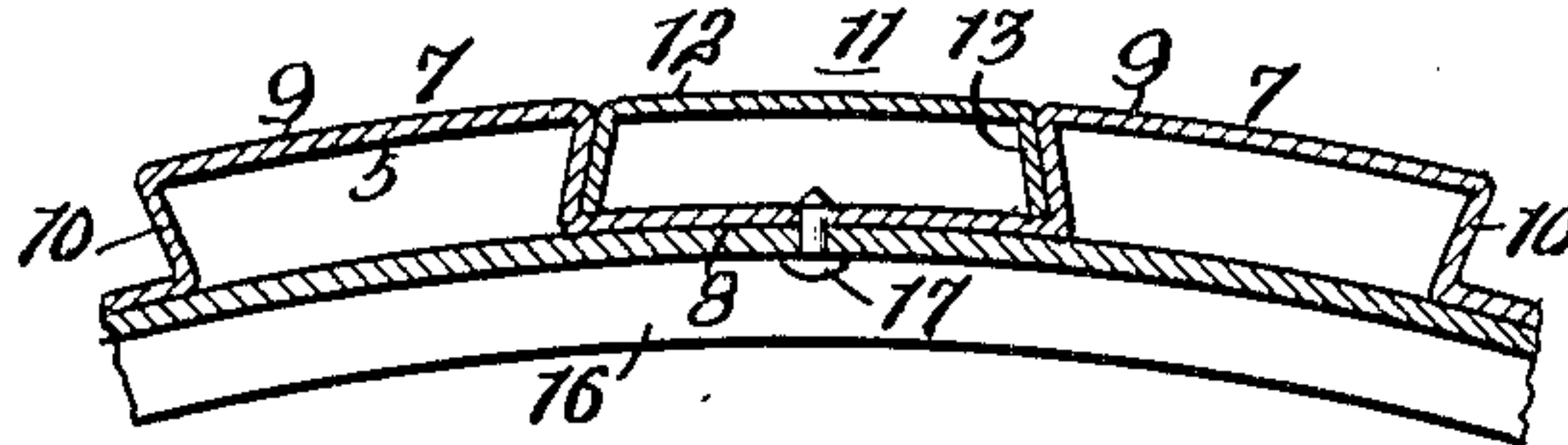
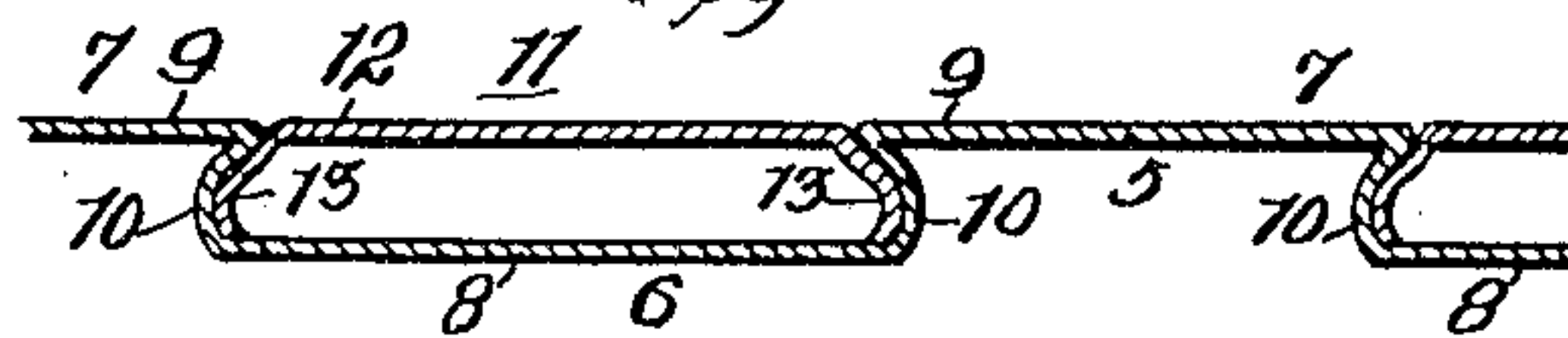


Fig. 6.



Witnesses  
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# UNITED STATES PATENT OFFICE.

LARS J. BERG, OF CHICAGO, ILLINOIS, ASSIGNOR TO METALLIC SHEATHING COMPANY, A CORPORATION OF ILLINOIS.

## METALLIC SHEATHING.

No. 876,134.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed December 13, 1906. Serial No. 347,650.

*To all whom it may concern:*

Be it known that I, LARS J. BERG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Metallic Sheathing, of which the following is a specification.

The sheathing of this invention is intended more particularly for use in building steel cars for railroads, although the device may be used in numerous structures as a sheathing for walls, floors, tiling, or in any capacity in which a rigid, durable and fireproof sheathing is required.

The invention is one which is particularly adapted for car building for the reason that in appearance it is indistinguishable from the wooden sheathing ordinarily employed in the building of cars, so that a train composed in part of wooden and in part of metallic cars covered with the sheathing of the present invention will present a thoroughly harmonious appearance.

Another feature of the invention is the ease with which the sheathing can be formed or stamped, and the facility with which it can be applied in place, which renders the building of cars much less difficult than where wooden sheathing is applied in the ordinary manner.

Another object of the invention is to provide suitable openings adapted to receive a filling of deadening material which renders the structure impervious to heat and cold and deadens any sound which might otherwise accompany the employment of metallic cars on railroads.

The invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings Figure 1 is a perspective view of the sheathing of the present invention; Fig. 2 a cross sectional view showing the sheathing applied to a rail or beam; Fig. 3 a cross sectional view showing the method of employing a double sheathing; Fig. 4 a perspective view showing the method of marking the sheathing to represent tiles for use in bath rooms or similar structures; Fig. 5 a sheathing for a curving surface; and Fig. 6 a slightly modified form of dove-tail.

The sheathing in its simplest form consists essentially of a continuous plate provided at uniform intervals with parallel grooves or

channels 6 and intermediate ridges 7. The cross walls 8 of the companion channels are formed from sections of the same plate lying in the same plane, so that a flat attaching surface is provided which adapts the sheathing for attachment to a flat surface, but in cases in which it is desirable to attach the sheathing to a curved surface the cross walls may be given a suitable curvature as illustrated in Fig. 5. The cross walls 9 of the ridges present likewise a uniform surface extending parallel to the portions of the plate forming the cross walls of the channels; but it will be understood that the shape of the sheathing as a whole may be curved or straight, depending upon the structure to which the sheathing is to be applied. The side walls 10 of the grooves or channels diverge toward the bottom, which gives a dovetail formation to the groove and provides an opening contracted with respect to the bottom of the groove.

As shown in Fig. 2, the side walls are straight and extend in an oblique angle to the cross walls or faces, but this formation is not essential, since the side walls may be curved, as shown in Fig. 6, provided only that the contracted opening formation be maintained.

In combination with the continuous channeled plate are employed a plurality of independent strips 11 each having an outer cross wall 12 in alinement with the flat cross walls of the ridges, and having divergent side walls 13 adapted to register with the side walls of the dove-tail grooves or channels, which arrangement permits the independent strips to be inserted into register with the grooves or channels in such a manner as to provide a smooth continuous surface broken at uniform intervals by parallel seams or cracks 14 which, when painted or otherwise finished, presents an appearance to the eye which is indistinguishable from the ordinary appearance of a wooden car sheathed with parallel strips of wood.

The above described sheathing may be used in a single thickness, as shown in Fig. 2, or in a double thickness, as shown in Fig. 3. In the latter case two sections of sheathing similar in all respects to that hitherto described, are employed, the continuous sections being laid face to face, bringing the cross walls of the channels of each section into register with one another and thereafter



securing the parts together by means of rivets 15 or similar securing means. This arrangement affords a sheathing having a flat inner as well as a flat outer surface, and gives a double thickness to the sheathing as a whole, which is highly desirable in some cases. Either form of sheathing may be attached to an I-beam 16 or other supporting structure by means of bolts or rivets 17 which are passed through the cross walls of the adjacent grooves and thereafter the attaching bolts or rivets are entirely concealed by the insertion of the independent sections so that the appearance of the finished sheathing will not be disfigured in any way by bolt or rivet heads or other attaching means. This method of attachment enables the sheathing to be applied with great ease and rapidity and facilitates the building of cars to a very marked degree. If desired, the spaces within the sections of sheathing may be filled with any suitable fireproof non-conductive filling 18 which serves to increase the fire-proof qualities of the sheathing to deaden the sound and to prevent the ingress of heat or cold.

Where it is desirable to employ the sheathing for the lining of bathrooms or similar tiled structures, the strips can be divided up by a series of cross marks 19 arranged in staggered relation and intended to indicate tiling. By finishing the sheathing with a suitable enamel a perfect imitation of glazed tile can be made.

From the foregoing description it will be apparent that the sheathing of the present invention possesses the qualities of being strong, neat and durable and easy of manufacture and application. It possesses the further qualities of being fireproof, noise proof, and proof against changes in temperature. It can be manufactured very cheaply, and the continuous formation of the sheathing enables it to be attached to wide areas by the employment of a few bolts or rivets which is a much easier method of attachment than that employed in attaching wooden sheathing to cars, in which case it is necessary to attach each section separately to the car structure.

A further advantage pertaining to the use of the sheathing of the present invention lies in the fact that the corrugated nature of the sheathing permits expansion and contraction without any warping or buckling of the sheathing. This is very important in the building of steel cars in which the sheathing is attached to a rigid steel frame, and if no provision were made for expansion and contraction there would be danger of warping or distortion of the sheathing. In the present case the channels of the sheathing body are permitted to open and close under the influence of atmospheric changes to a sufficient extent to prevent any injury.

What I claim as new and desire to secure by Letters Patent is:

1. A metallic sheathing comprising a continuous body section having formed therein a plurality of dove-tailed channels leaving exposed sections between the channels and a plurality of independent strips of dove-tail formation adapted to be inserted into the dove-tailed channels and locked therein, intermediate the exposed sections of the body substantially as described.

2. A metallic sheathing comprising a continuous body section having formed therein a plurality of dove-tailed channels and a plurality of independent strips of dove-tail formation adapted to be inserted into the dove-tailed channels and locked therein, the exposed surfaces of the independent strips and the continuous section being in alinement, substantially as described.

3. A metallic sheathing comprising a continuous body section having formed therein a plurality of dove-tailed channels, leaving exposed sections between the channels a plurality of independent strips of dove-tail formation adapted to be inserted into the dove-tailed channels and locked therein, and forming in conjunction with the exposed sections of the body an attaching surface to which the sheathing is applied, and attaching means, as rivets, passed through the walls of the channels and into the attaching surface and positioned to be concealed when the independent strips are inserted, substantially as described.

4. A metallic sheathing comprising a continuous body section having formed therein a plurality of dove-tailed channels, a plurality of independent strips of dove-tail formation adapted to be inserted into the dove-tailed channels and locked therein, the exposed surfaces of the independent strips and the continuous section being in alinement, an attaching surface to which the sheathing is applied, and attaching means, as rivets, passed through the walls of the channels and into the attaching surface and positioned to be concealed when the independent strips are inserted, substantially as described.

5. A metallic sheathing comprising a body section having a plurality of parallel channels formed therein, each channel having a dovetail formation, a plurality of independent metallic strips each having a cross wall adapted to register with the raised sections between the channels and having side flanges of dove-tail formation adapted to enter the dove-tail channels, and a filling entered into the openings on the interior of the sheathing, substantially as described.

6. A metallic sheathing comprising two continuous sections of metal each having formed therein a plurality of parallel dove-tailed channels having contracted openings, attaching means, as rivets, for securing the



abutting channel walls of the two sections  
together, and independent metallic strips  
of dove-tail formation entered into the  
channels on both sides of the sheathing as a  
5 whole and having cross walls adapted to  
register with the exterior surface of the  
grooves between the channels to provide a

sheathing having finished inner and outer  
surfaces, substantially as described.

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Witnesses:

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