

No. 743,502.

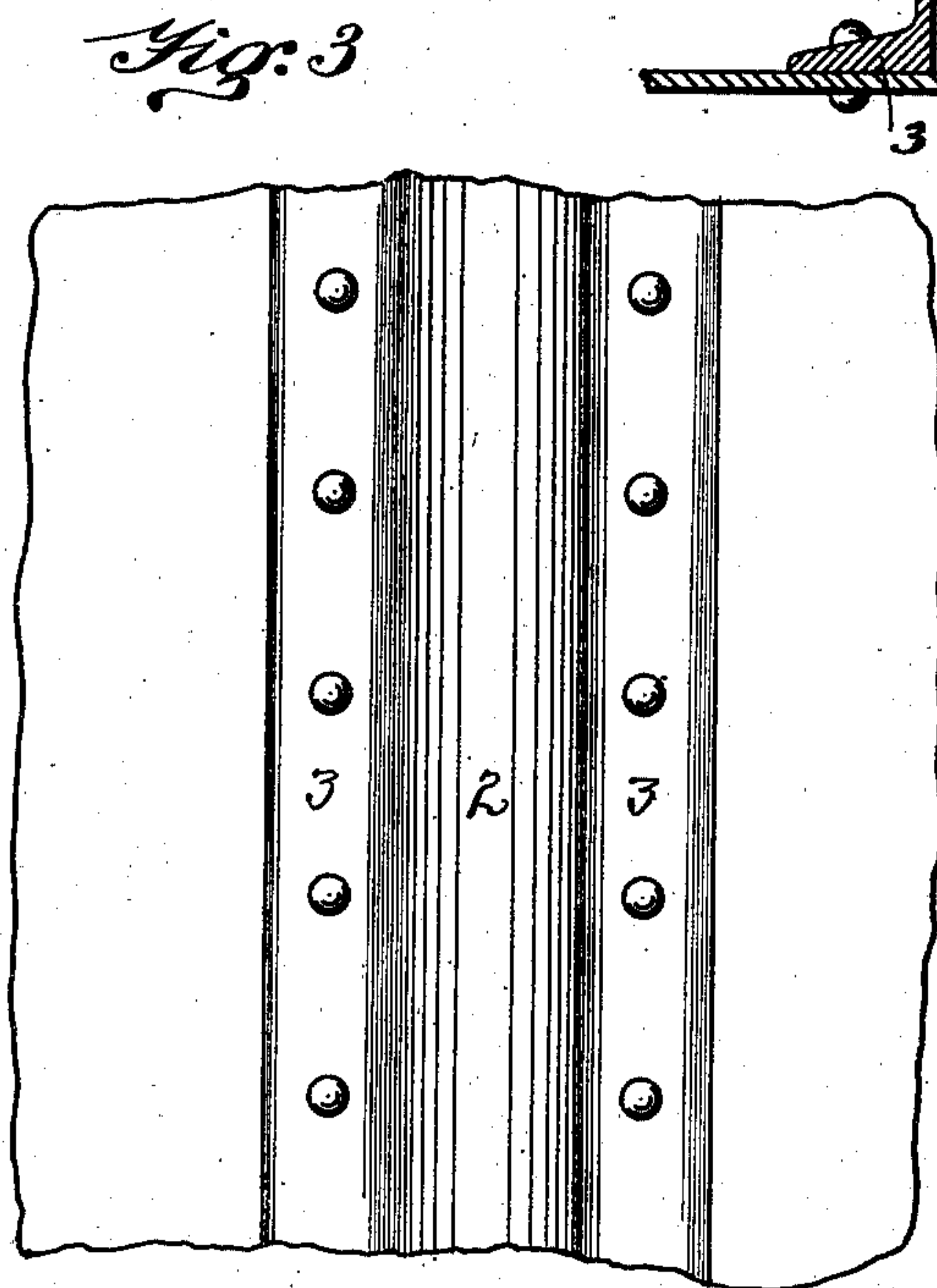
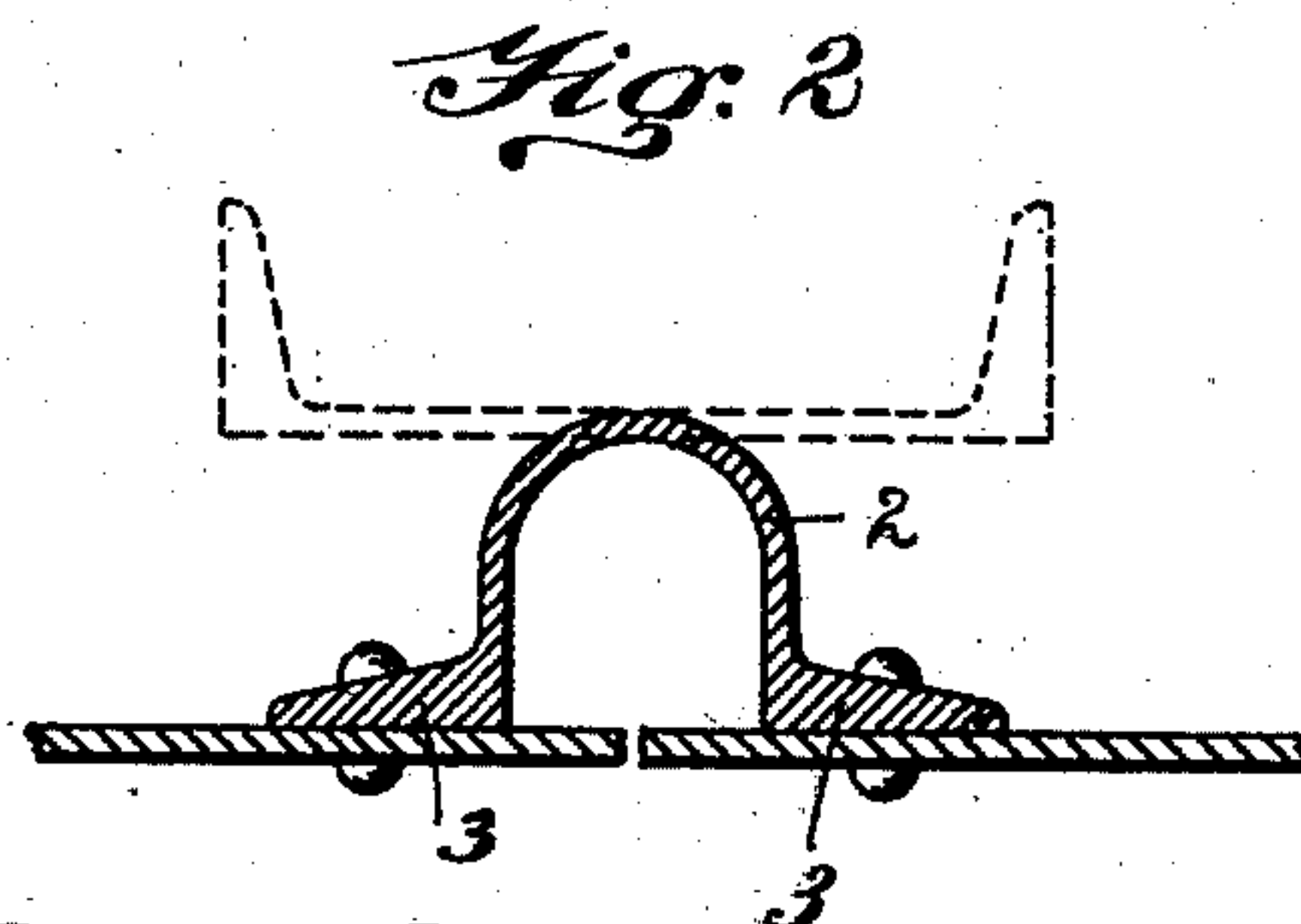
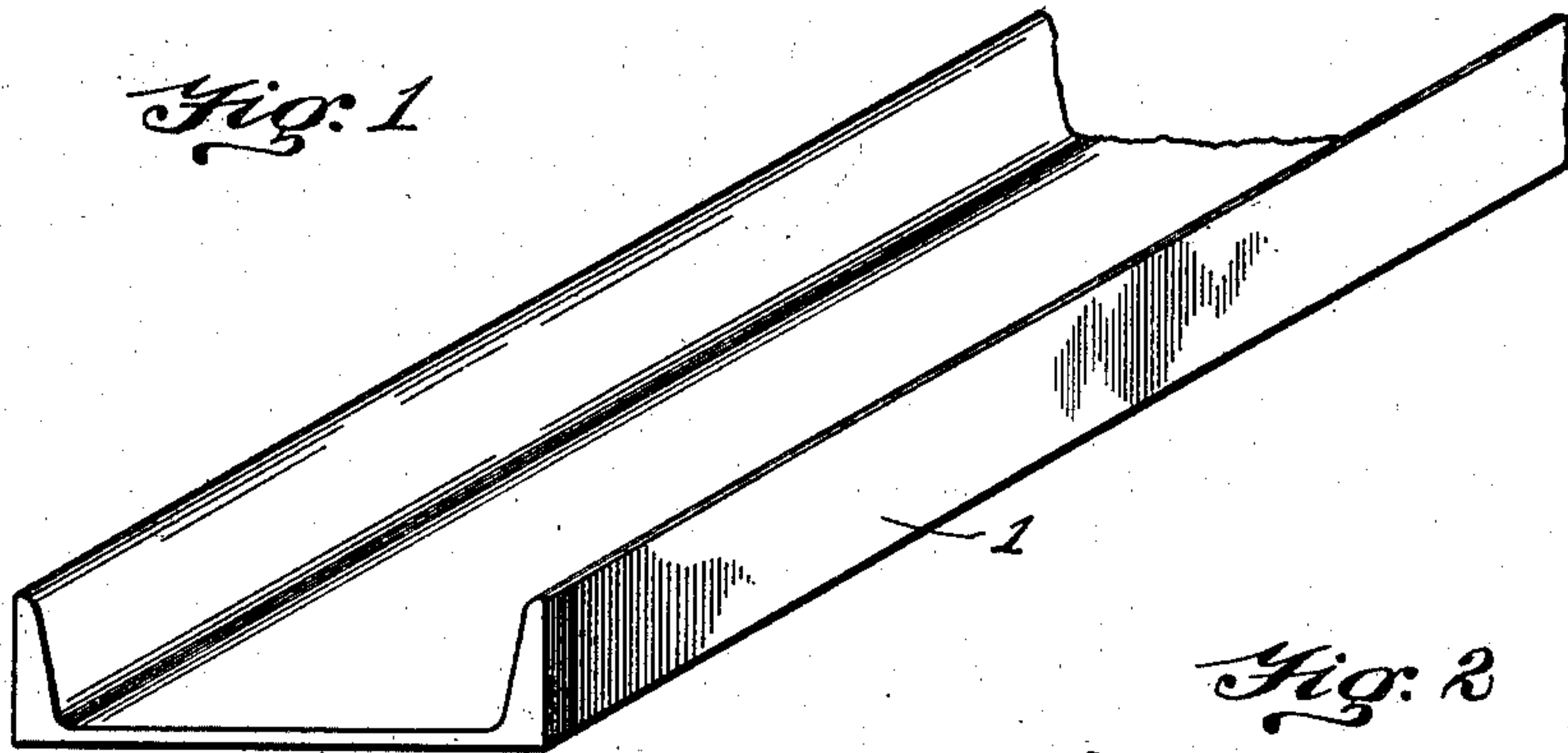
PATENTED NOV. 10, 1903.

J. M. HANSEN.

RAILWAY CAR STAKE AND METHOD OF MAKING SAME.

APPLICATION FILED MAR. 16, 1903.

NO MODEL.



Witnesses.

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JOHN M. HANSEN, OF PITTSBURG, PENNSYLVANIA.

RAILWAY-CAR STAKE AND METHOD OF MAKING SAME.

SPECIFICATION forming part of Letters Patent No. 743,502, dated November 10, 1903.

Application filed March 16, 1903. Serial No. 147,998. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. HANSEN, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Railway-Car Stakes and Methods of Making Same; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to stakes or posts for railway-cars and the like and the method of making the same; and its object is to produce a stake which is simple and cheap of manufacture and which is not only strong, but also has a better distribution of the metal in cross-section than stakes as heretofore made.

To this end the invention consists, generally stated, in making a stake or post from a section of rolled channel-bar by bending the web portion thereof into trough shape, preferably semicylindrical, so as to bring the flanges thereof into parallel planes, preferably the same plane, and projecting in opposite directions to form the securing means for the stake.

Metallic stakes for railway-cars heretofore have generally been either a section of flanged bar or else formed by pressing a plate into the desired trough shape, with outwardly-projecting flanges and tapering toward the top. The simple flanged bars do not possess the same strength as an equal amount of metal formed into the trough shape, whereas the pressed trough-shaped stakes require rather expensive dies for making the same, and even then it is not possible to bring the flanges into true position. Furthermore, the flanges of the pressed stakes are no thicker than the body thereof, so that either the flanges will lack the requisite stiffness to prevent buckling of the car-plates or else the body will contain an unnecessary weight of metal.

My invention overcomes the defects of both of the old forms of stakes and provides a stake which has the maximum strength and stiffness for the amount of metal contained therein and wherein the flanges are perfectly straight and true.

In the accompanying drawings, Figure 1 is a perspective view of a rolled channel-bar from which my stake is made. Fig. 2 is a cross-section showing the same bent into

trough form and riveted to the car-plates, and Fig. 3 is an elevation of a section of the completed stake.

In carrying out my invention I start with a rolled channel-bar 1 of conventional form and of the necessary dimensions for the required stake or post. The web portion of this channel-bar is bent into trough shape 2 in any preferred manner either by using a press or by passing the bar through suitable rolls which will give the desired cross-sectional shape thereto. This bending can be done either hot or cold, but preferably hot, and can be done either in short lengths or at the full length of commercial channel-bars. Where rolls are employed, preferably the full-length bar will be bent into trough form. The bar will be cut into lengths suitable for the stakes or posts either before or after bending, as preferred, and will then be provided with the necessary rivet or bolt holes through its flanges 3. Preferably the web of the bar will be bent into semicylindrical form, as shown in Fig. 2; but obviously any other trough shape—such as a semi-hexagon or semi-octagon or other suitable shape other than semicylindrical—will answer the purpose equally as well. Usually these stakes are employed for riveting to the flat side plates of the car, and consequently the outwardly-projecting flanges will be brought into the same plane, as shown in Fig. 2; but they need not necessarily be in the same plane—as, for instance, where they are to be united to overlapping plates, in which case the flanges will be in different but parallel planes.

The stake described is easy to manufacture, requiring no expensive dies, and the blank is an ordinary standard channel-bar, which can be bought in the open market. The body portion 2 is comparatively thin, thus giving a saving of weight with the requisite strength, whereas the flanges 3 are comparatively thick and give the necessary stiffness to prevent buckling when riveted to the car-plates. Furthermore, the flanges are joined to the web by a thickened portion or fillet, thus giving strength at the point where a pressed plate-stake is weak.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The method of making metallic stakes, &c., for railway-cars and like purposes, which consists in taking a conventional rolled channel-bar and bending the web portion thereof
5 into trough shape to form the body of the stake with the flanges projecting outwardly to form the stake-flanges.
2. The method of making metallic stakes, &c., for railway-cars and like purposes, which
10 consists in taking a conventional rolled channel-bar and bending the web portion thereof into trough shape and bringing the flanges thereof into the same plane and projecting in opposite directions.
- 15 3. A stake or post for railway-cars and the like, comprising a section of rolled channel-bar having its web bent transversely into trough form with the flanges projecting in opposite directions.
- 20 4. A stake or post for railway-cars and the like, comprising a section of rolled channel-bar having its web bent transversely into semicylindrical form with the flanges project-

ing in opposite directions and lying in the same plane.

5. A stake for stiffening or supporting the sides or ends of railway-cars, having a body of trough shape provided with flanges of relatively greater thickness than the body and projecting in opposite directions.

6. A trough-shaped stake for railway-cars having outwardly - projecting flanges of greater thickness than the body of the stake, said flanges tapering in section toward their outward edges.

7. A stake for railway-cars and the like having a body of trough shape provided with outwardly-projecting flanges of relatively greater thickness than the body and joined to the body by a fillet or thickened portion.

In testimony whereof I, the said JOHN M. HANSEN, have hereunto set my hand.

JOHN M. HANSEN.

Witnesses:

WM. BIERMAN,

ROBERT C. TOTTEN.