

W. F. BONNESS.
METALLIC SIDING.
APPLICATION FILED JAN. 30, 1909.

978,834.

Patented Dec. 20, 1910.

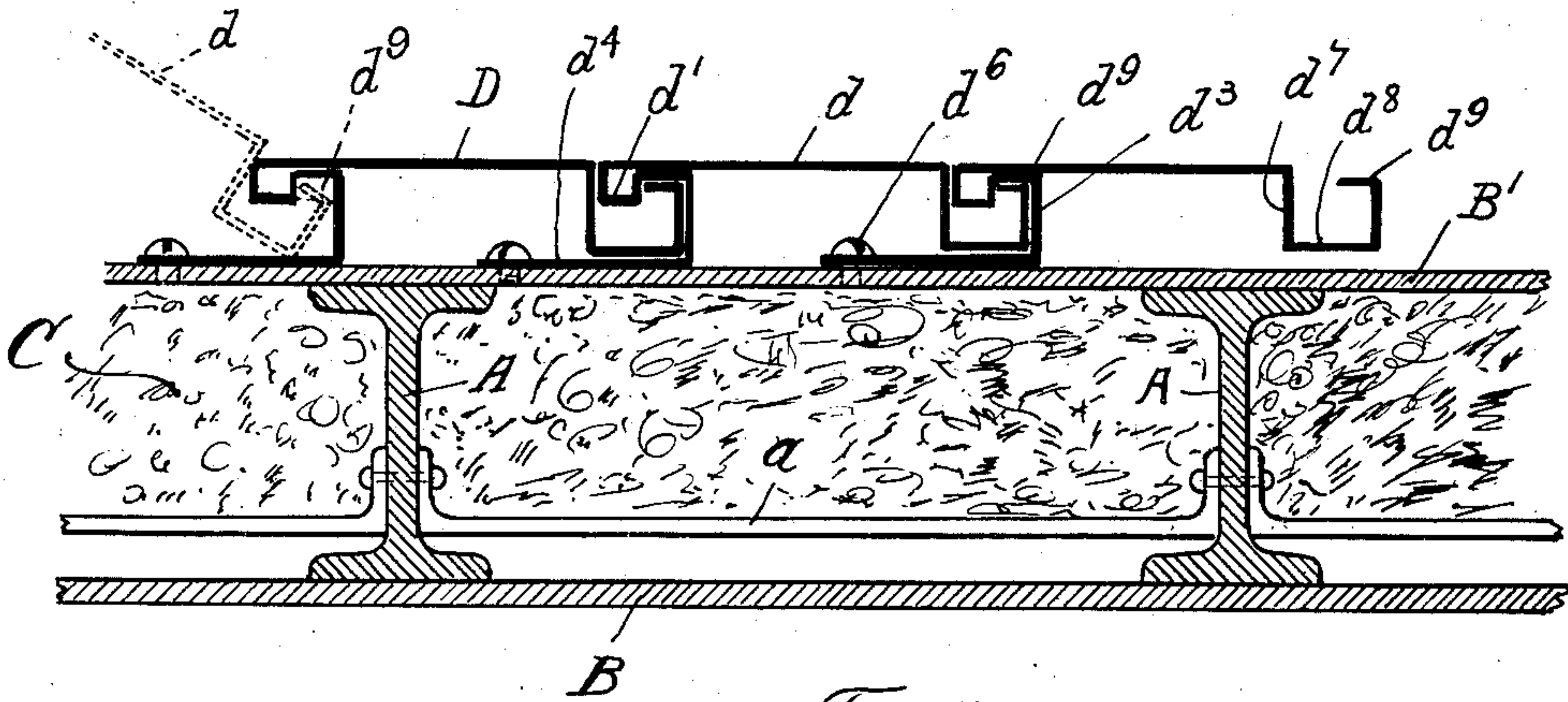


Fig. 1

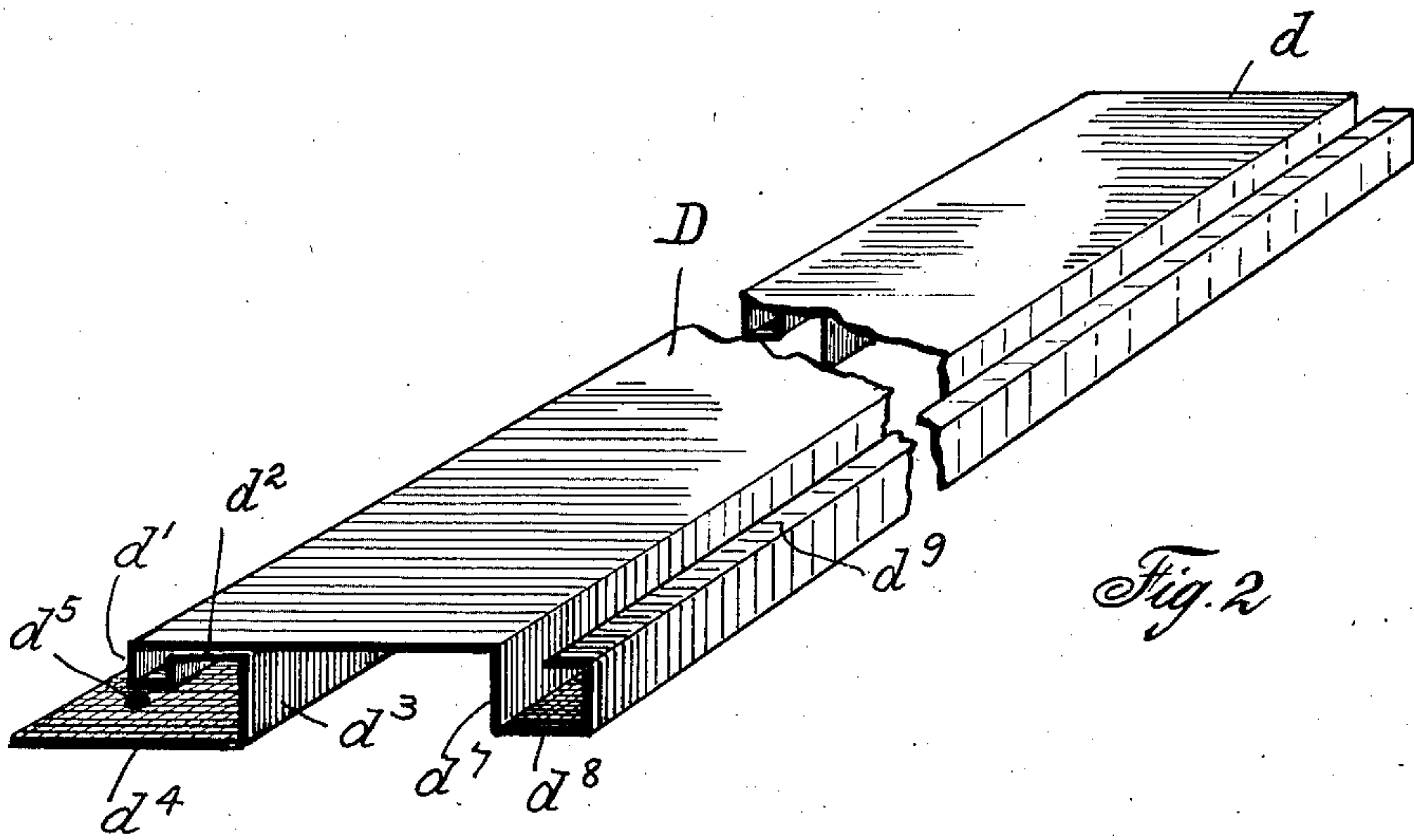


Fig. 2

WITNESSES
Joseph Schlenker
Chas. Davidson

INVENTOR
Wilhelm F. Bonness
By Robt. Klotz
Atty.

UNITED STATES PATENT OFFICE.

WILHELM F. BONNESS, OF CHICAGO, ILLINOIS.

METALLIC SIDING.

978,834.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed January 30, 1909. Serial No. 475,122.

To all whom it may concern:

Be it known that I, WILHELM F. BONNESS, a citizen of the United States, and residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Metallic Siding, of which the following is a complete specification.

This invention relates to improvements in metallic siding and more particularly to metallic siding for railway cars, though obviously it is equally well adapted for use upon other structures where siding is ordinarily employed.

Heretofore, steel freight cars have usually been equipped with metal sheathing, on the outer surface of which the metallic siding had been applied. Such siding has usually been constructed in large sheets, and for the purpose of strengthening the same and affording the desired finish it has been provided with deep grooves or corrugations in which have been secured wooden strips or stays. Such construction is more or less objectionable, owing to the expansion and contraction of the metal due to changes in temperatures, which causes the wooden strips to become loosened and to rattle when the car is in motion.

The object of this invention is to provide a metallic siding especially adapted for use on railway cars, the strips of which are adapted to be secured together by a lock seam or joint, which not only affords the desired rigidity and prevents rattling, but also provides a very neat exterior finish.

A further object of the invention, is to provide a metallic siding so constructed as to provide air spaces between the same and the outer sheathing of the car, and in which the joints between adjacent strips are insured of a tight fit by reason of the resiliency of the metal.

The invention consists of the matters hereinafter described in the specification, and more fully pointed out and defined in the appended claims.

In the drawings, Figure 1 is a fragmentary, horizontal section of a car body provided with siding embodying my invention. Fig. 2 is a fragmentary, perspective view of a strip of siding embodying my invention.

As shown in said drawings: A—A indicate the posts or other upright members of a car frame, and which, as herein shown, are constructed of I beams, and are secured together by means of braces or girders α . On

the inner face of said I beams, is secured in any preferred manner, the inner sheathing B, and on the outer face thereof, is secured the outer sheathing B', which is preferably constructed of sheet steel. The space formed between the outer and inner sheathings may be filled with any of the usual composition fillings, indicated by C, which are ordinarily used in such structures to afford a nonconductor of heat.

On the outer face of the outer sheathing is secured the siding, which is formed in strips of the desired width, and indicated as a whole by D. Said strips are preferably secured in vertical position upon the car and each comprises a central portion d , which affords the outer face or finish, and an outer and an inner locking or joint member, one on each margin thereof. The outer joint member comprises a bead d' formed by folding the metal back upon the inner face of said portion d , with the part beneath the margin of said portion left out of contact therewith, and the part inwardly of said margin brought into contact with said portion, as shown at d^2 . The metal is then turned inwardly toward the sheathing B', as indicated at d^3 for a sufficient distance to space the portion d the required distance from said sheathing, and is then turned laterally beneath and beyond the bead to provide the attaching flange d^4 . Said flange is provided with apertures d^5 through which screws d^6 may be inserted, to secure the strip to the sheathing, as shown more clearly in Fig. 1. The inner joint member, which is provided on the opposite margin of the portion d , is formed by turning the metal inwardly to provide a web d^7 , parallel with and corresponding to the web d^3 , and then laterally in the plane of the flange d^4 , but oppositely therefrom to provide a base portion d^8 , and then outwardly and laterally toward the web d^7 to provide a tongue d^9 adapted to engage behind said bead. The hook thus formed, is adapted to be inserted in the space formed between the bead d' , the portion d^2 , the web d^3 , and the flange d^4 , as shown more clearly in Fig. 1.

In operation, one of the strips of siding is secured to the car body by means of the screws d^6 engaging through the apertures d^5 , and the hook or inner joint member of the next adjacent strip is then inserted in the space formed behind the bead d' , and as the strip is swung into place, the hook is

forced into said space where it form a sufficiently tight joint to prevent the siding from becoming loosened by changes in temperature. The structure thus formed affords
 5 a very neat exterior finish, and may be applied to other structures as well as car bodies on which it may be desired to place siding material.

Obviously, a siding constructed in accordance with my invention is adapted to not
 10 only afford a neat exterior finish, but to obviate all the annoyance caused by rattling as is the case where wooden reinforcing strips have been employed, and obviously,
 15 also many details of form and construction may be varied without departing from the principles of my invention.

I claim as my invention:

1. A metallic siding strip comprising a
 20 central face portion, a hollow bead on the inner face thereof adjacent one lateral margin, a reinforcing strip extending from one side of said bead parallel and in close contact with the face portion, a spacing web
 25 extending inwardly from one margin of said strip, an attaching flange extending from the inner margin of the web outwardly from beneath the bead and providing a recess between the same and said bead, strip
 30 and web, a web extending inwardly from the opposite margin of the face portion, a base extending laterally from the inner

edge thereof, and a hooked portion extending upwardly from said base and laterally toward the face portion and adapted to fit
 35 closely behind the bead on the adjacent strip.

2. A metallic siding strip comprising a sheet of metal folded to provide a central face portion d , a hollow bead d' beneath the margin of said face portion, a reinforcing
 40 strip d^2 extending laterally from said bead in close contact to the inner side of said face portion, a spacing web d^3 extending inwardly from the margin of said reinforcing strip, a flange d^4 extending laterally from
 45 the inner margin of said spacing web to a point beyond said bead, an inwardly directed web d^7 on the opposite margin of said face portion adapted to abut against the bead on the adjoining strip, a base portion
 50 d^8 adapted to lie flat on the flange d^4 , and an outwardly and laterally directed tongue d^9 adapted to lie in close contact with the web d^3 and strip d^2 of an adjoining siding strip
 55 and abut at its edge against the inner side of the bead on said strip.

In testimony whereof I have hereunto subscribed my name in the presence of two witnesses.

WILHELM F. BONNESS.

Witnesses:

JOSEPH SCHLENKER,
 H. VOGEL.