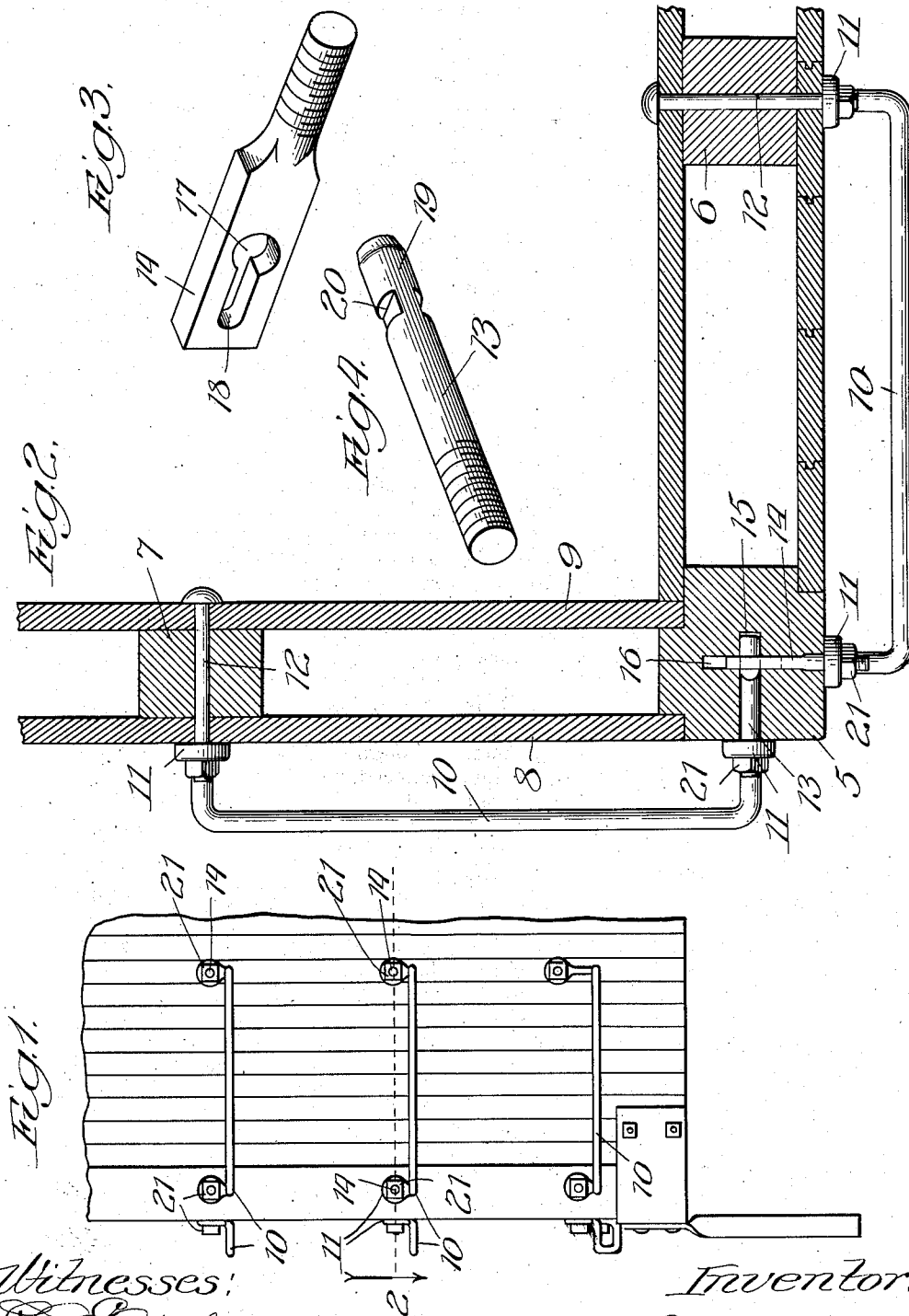


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BOX CAR LADDER.
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Patented Apr. 9, 1912.



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UNITED STATES PATENT OFFICE.

OLOF ANDERSON, OF CHICAGO, ILLINOIS.

BOX-CAR LADDER.

1,022,765.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OLOF ANDERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Box-Car Ladders, of which the following is a specification:

My object is to provide simple and improved means for the attachment of side and end ladder-rounds to box-cars, whereby the rounds may be secured at their outer ends to the corner-posts of the car-body, and the objection to the use of lag-screws, hitherto employed as such securing means, is overcome.

It is also my object to provide particularly strong and durable means for this purpose, which will permit removal and replacement of the rounds with little difficulty and without danger of injury to the posts or sheathing of the car-body.

Referring to the drawings, Figure 1 is a broken elevation of a corner of a box-car body; Fig. 2, an enlarged plan section taken on line 2 in Fig. 1 and illustrating my improved means for securing adjacent end and side ladder-rounds in place; and Figs. 3 and 4, enlarged perspective views of interlocking bolts or members for securing the ends of adjacent ladder-rounds to a car-body corner-post.

The reference numeral 5 designates the corner-post of a box-car body, 6, one of the end posts, and 7, one of the side posts, to which posts the outer sheathing 8 and inner sheathing 9 are secured, all in the usual way. The ladder-rounds 10 are of stirrup shape, having enlarged flat and perforated ends or eyes 11 at which they are secured in place. It is desirable, particularly in the case of the end ladder-rounds, that they shall extend as nearly as possible to the corners of the car, to be within convenient reach of the brakeman. For this reason it has been usual to secure the outer ends of the ladder-rounds to the corner-posts by means of lag-screws. This mode of fastening has been found in practice to be insecure and the present requirements are that bolts or equally secure means for fastening the rounds in place shall be employed. Bolts passing through to the inner sides of the corner-posts are undesirable, because access thereto necessitates the tearing off of the sheathing of the car-body; and to secure the outer ends of the rounds short of the

corner-posts by means of ordinary bolts necessitates the employment of additional posts or studding through which the bolts may pass.

In carrying out my invention, the inner ends of the rounds are fastened in place with bolts 12 passing through the inner and outer sheathing and the intermediate posts 6, 7, as shown, while the outer ends of the rounds are fastened in place by means of the bolts 13 and 14. Intersecting sockets 15, 16, of approximately the exact size necessary to receive the bolts 13, 14, are cut in the corner-posts; the bolt or attaching member 14 is provided with an enlarged opening or eye 17 from which extends the reduced slot 18; and the bolt or attaching member 13 has a head 19 and reduced neck portion 20. In placing the parts in position, the bolt 14 is passed into the socket 16 to the base of the latter to cause its eye 17 to extend in line with the socket 15. The bolt 13 is then passed into the latter socket and through the eye 17 of the bolt 14 until its reduced neck portion 20 registers with the slot 18. The bolt 14 is then drawn in the outward direction, thereby causing it, at its slot 18, to receive the neck 20 and thus lock the two bolts or members together. The outer eyes 11 of the rounds 10 are passed over the threaded projecting ends of the bolts 13, 14 and secured thereto by nuts 21. This construction of interlocking bolts forms a very secure attaching means for the rounds, and if at any time it becomes necessary or desirable to remove and replace the bolts, this may be done without injury to the posts 5 or the necessity of tearing out the sheathing 9 or 8.

The foregoing description is intended to convey a clear understanding of my improvements in what I now believe to be the best form of their embodiment, and no undue limitation should be understood therefrom.

It is my intention to claim all that is novel in my invention and that the claims shall be construed as broadly as the prior state of the art may warrant.

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

1. In a car-body, the combination of a corner-post provided with intersecting sockets in its outer faces, and ladder-round attaching-bolts extending in said sockets and interlocking therein with each other.

2. In a car-body, the combination of a corner-post provided with intersecting sockets in its outer faces, and ladder-round attaching-bolts extending in said sockets and detachably interlocking therein with each other.

3. In a car-body, the combination of a corner-post provided with intersecting sockets in its outer faces, and ladder-round at-

taching-bolts, extending in said sockets, one 10 having a head and the other having an eye receiving and holding said head in detachable locking engagement at the intersection of the sockets.

OLOF ANDERSON.

In presence of—

R. A. RAYMOND,

O. C. AVISUS.
