(No Model.)

F. E. CANDA.

UNDER TRUSSING FOR RAILROAD CARS.

No. 472,854. Patented Apr. 12, 1892.

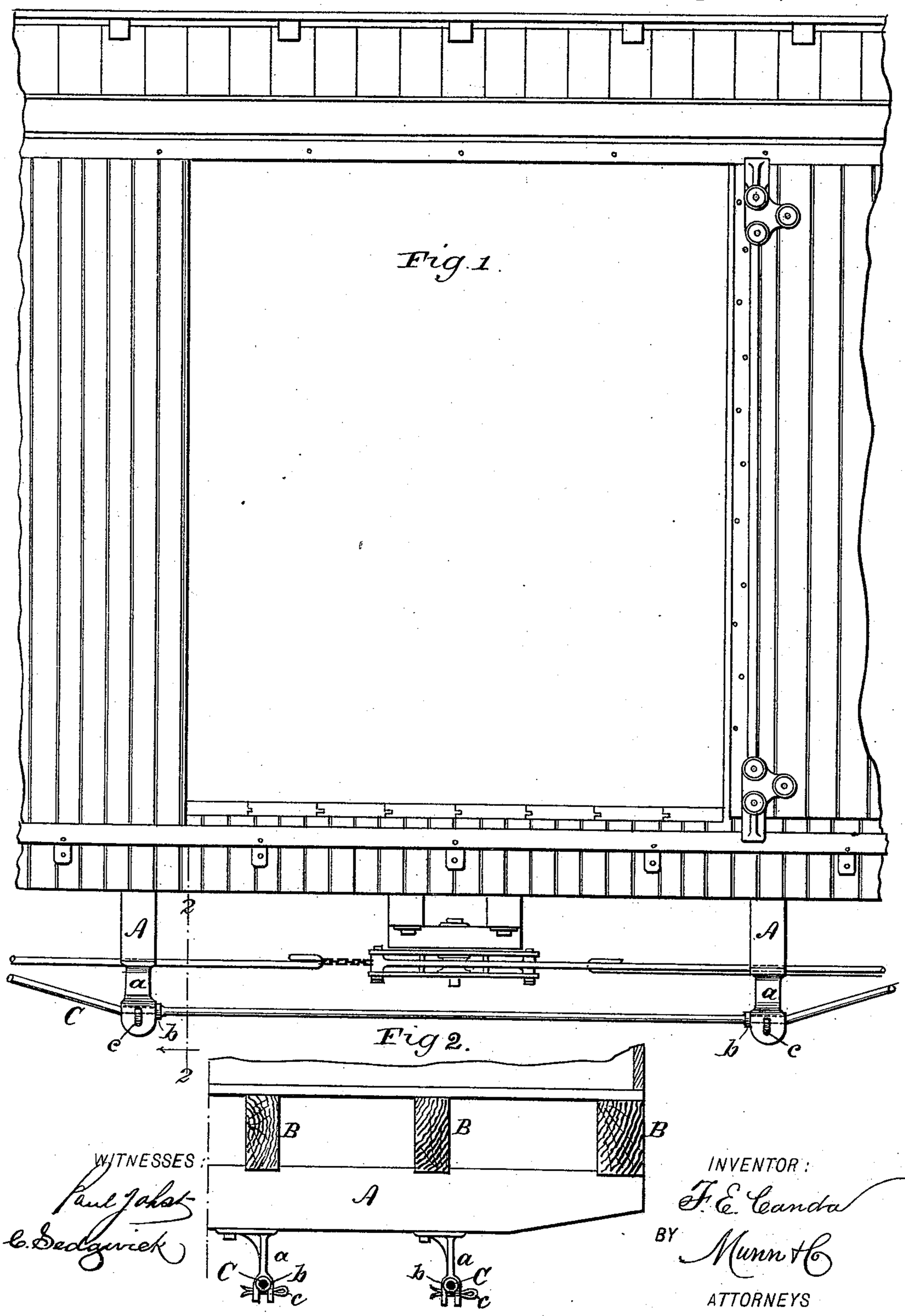

Fig. 1.

Fig 2.

WITNESSES:
Paul Jakst
C. Sedgwick

INVENTOR:
F. E. Canda
BY Munn & Co
ATTORNEYS

UNITED STATES PATENT OFFICE.

FERDINAND E. CANDA, OF NEW YORK, N. Y.

UNDER-TRUSSING FOR RAILROAD-CARS.

SPECIFICATION forming part of Letters Patent No. 472,854, dated April 12, 1892.

Application filed November 27, 1891. Serial No. 413,280. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND E. CANDA, of New York city, in the county and State of New York, have invented new and useful Improvements in Under-Trussing for Railroad-Cars, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side elevation of a portion of a car to which my improvement has been applied, and Fig. 2 is a transverse section taken on line 2 2 in Fig. 1.

Similar letters of reference indicate corresponding parts in both the views.

The increased tonnage or carrying capacity of cars and the varying conditions of load, combined with the severe strains to which they are subjected in ordinary service, has in the past few years necessitated almost radical changes in the size of cars and the distribution of materials used in their construction, and notwithstanding the increased size of materials employed they have failed in certain instances from defective trussing. The under-trussing of a car forms an important factor in its stability and should be relied upon to a greater extent than has been done; but the depth of the truss has necessarily been limited by such an angle in the truss-rods as would form a seat or support to the queen-post and such as would prevent the post from creeping or sliding on the rod; but however light this angle in the truss-rod may be the queen-post continually creeps toward the center of the car, occasioning a slack in the rods and allowing the center of the car to deflect below a horizontal line.

Formerly only two body truss-rods were used; but now it is almost the universal practice to employ four rods, and, while the increased number adds strength to the body, it does not meet the difficulty to which allusion has been made. To overcome this objection and to secure a depth of truss that will properly support the center of the car with a minimum of material and at the same time secure the greatest carrying capacity is the object of my invention; and my invention consists in forming or upsetting a collar on the truss-rod integral with it at a point adjoining the position occupied by the queen-post.

To the sills A, extending across the floor-beams B, are attached the queen-posts *a*, which are forked at their lower ends for receiving the truss-rod C. Upon the truss-rod C, adjoining the seat of the queen-posts *a*, is formed an enlargement *b*, which may be in the form of a collar evenly distributed around the rod, or it may project only upon one or two sides of the rod, the enlargement in this case taking the form of a stop-lug. In either case the enlargement *b* is formed integrally with the rod either by upsetting the rod at this point or by inserting in the rod a section having formed thereon an enlargement or collar.

It will be seen that this construction will form an anchorage for the queen-post which will hold it in place and prevent the creeping, and thereby permit an even tension on the truss-rod. To retain the queen-post in case of breakage or detachment from the timbers of the car, the sides of the fork which embrace the truss-rod extend below the rod and are perforated to receive a pin *c*, which prevents the queen-post from being detached from the rod.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. An imperforate truss-rod for railroad-cars, having formed integrally therewith a projection or circumferential collar adjoining the seat of the queen-post, substantially as specified.

2. The combination, with the queen-posts *a*, of the rod C, furnished with projections or collars *b*, adjoining the seat of the queen-post on the truss-rod, substantially as specified.

FERDINAND E. CANDA.

Witnesses:
E. M. CLARK,
EDGAR TATE.