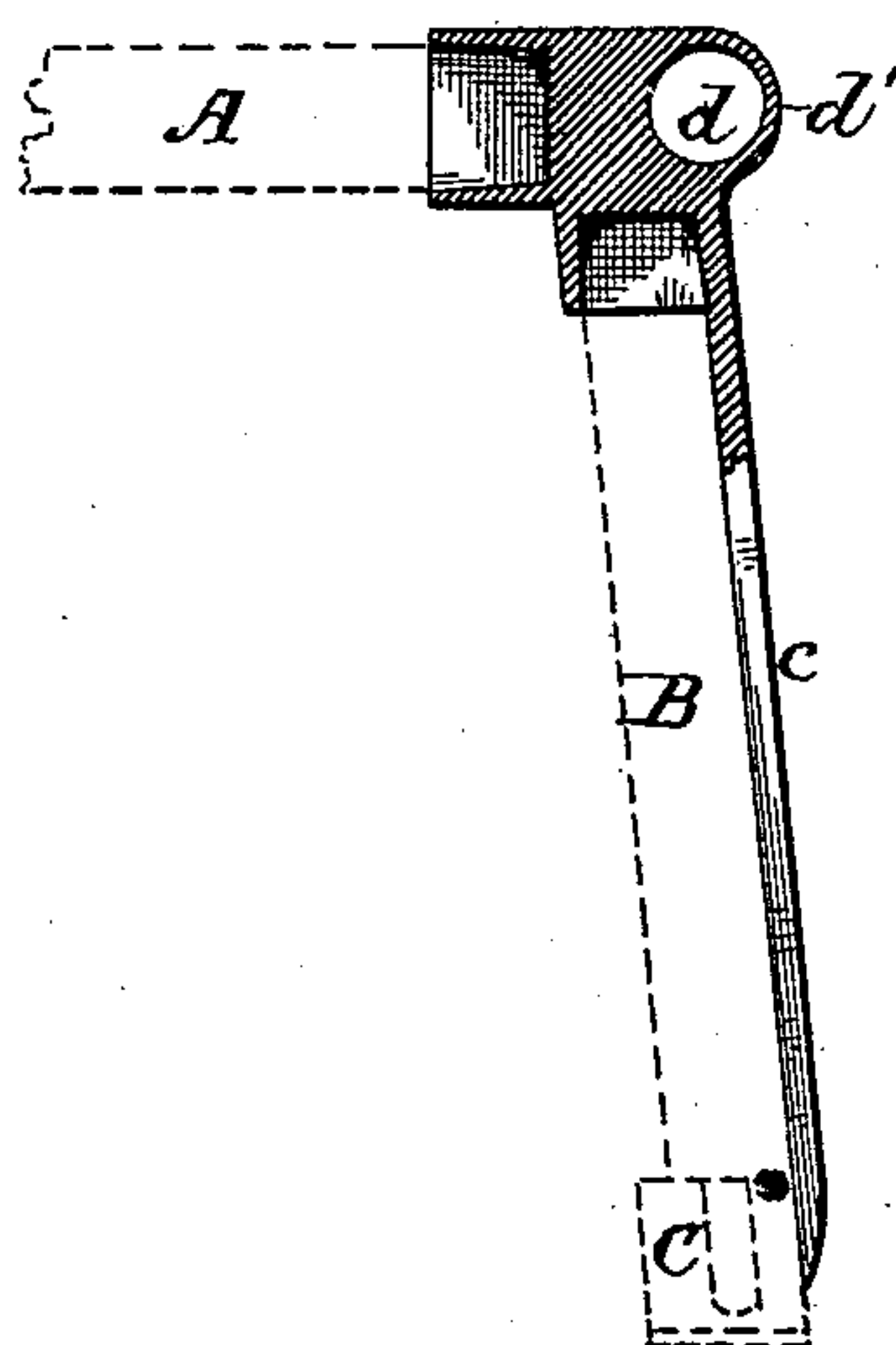
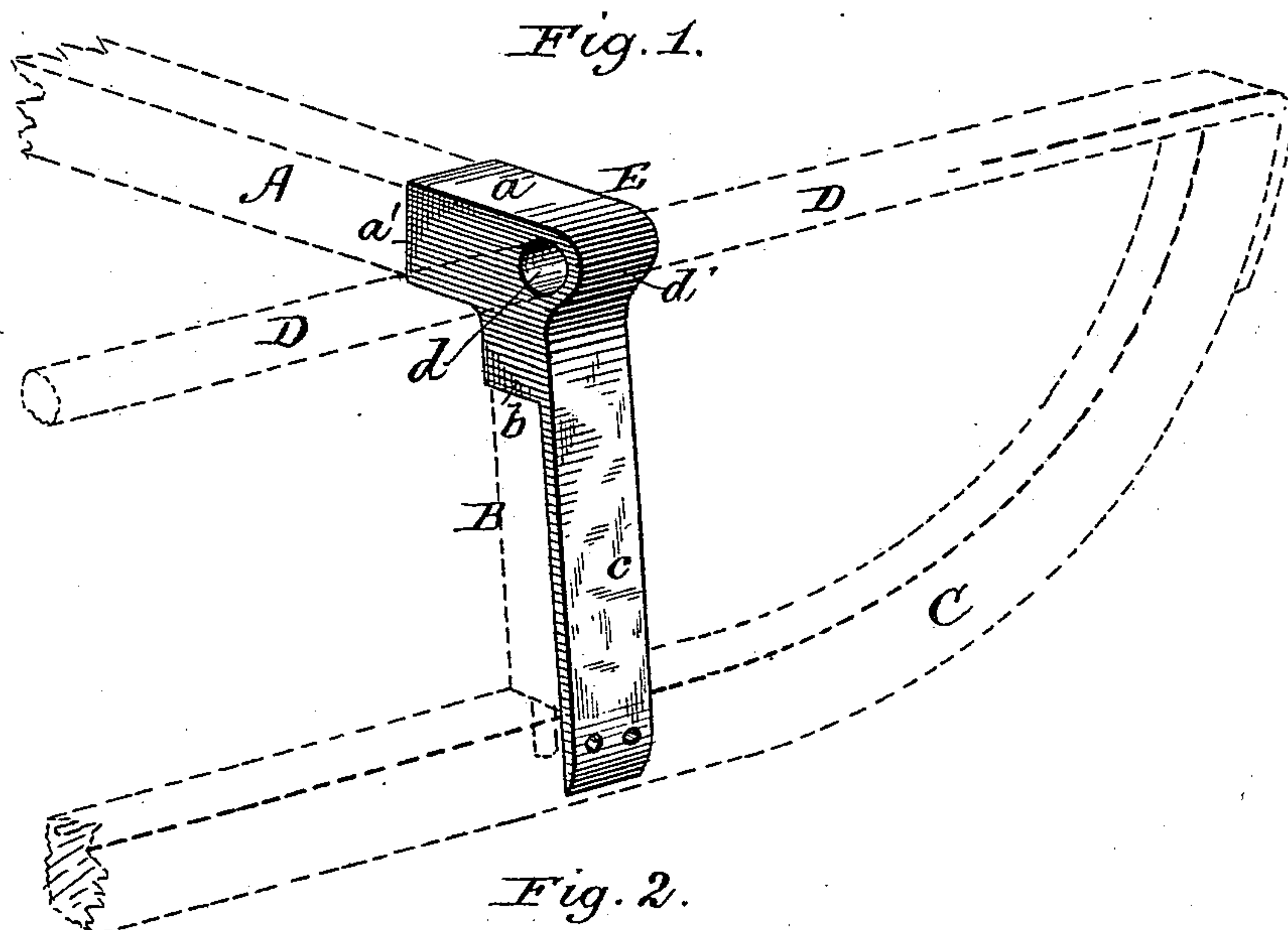


(No Model.)

O. A. THAYER.
BRACE FOR SLEIGH KNEES.

No. 297,316.

Patented Apr. 22, 1884.



Witnesses:

L. B. Hills,
E. M. Johnson.

Inventor
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[Signature]

Attorney

UNITED STATES PATENT OFFICE.

ORLANDO A. THAYER, OF PARIS, MAINE.

BRACE FOR SLEIGH-KNEES.

SPECIFICATION forming part of Letters Patent No. 297,316, dated April 22, 1884.

Application filed November 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, ORLANDO A. THAYER, a citizen of the United States of America, residing at Paris, in the county of Oxford and State of Maine, have invented certain new and useful Improvements in Braces for Sleigh-Knees; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in braces for the cross-bars, standards, and runners of sleds or sleighs, its object being to provide a cheap and effective means whereby the standards, cross-bars, and side rails of a sleigh or sled will be thoroughly and rigidly braced and united to each other; and to this end my invention consists in providing the casting with two sockets—one for the reception of the cross-bars, and the other for the reception of the upper ends of the standards; also, in providing said casting with means whereby a brace and retaining means will be provided for the side rail, and the outer side of the standard will be braced to the runner attached thereto, the casting for performing this function being made in one piece, as will be hereinafter more fully set forth, and pointed out in the claim.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view showing the cross-bar, side rail, standard, and runner in dotted lines. Fig. 2 is a side view, partly in section.

In the annexed drawings, which illustrate my invention, A represents the cross bar or brace of a sleigh or sled; B, the side standards, which extend usually from the cross-bars to the runners.

C represents the runners, and D the side rail.

E represents my improved casting or brace, which is provided on its upper side with a horizontal portion, *a*, and an inwardly-projecting member, *a'*. On the under side of this casting is formed a member, *b*, which projects downwardly, as shown. Each of these members is provided with a socket, preferably rectangular in shape, for the reception of the

tenoned ends of the cross-bar and standard. The casting may be perforated for the reception of securing screws or pins, which will pass from one side of the casting to the opposite side. On this casting, at the upper outer corner thereof, I provide a circular opening, *d*, which has an outer wall, *d'*. This circular opening is for the reception of the side rail, D, and though this opening is shown in the accompanying drawings to be circular in shape, I do not confine myself to this specific form, as the same may be varied so as to conform to the configuration of the side rail. The casting is provided on the outer side, under the opening *d*, with a downwardly-projecting portion, *c*, which is of sufficient length to extend down on the outside of the standards, so as to overlap the runner. This downwardly-extended portion is provided at its end with means for attaching the same to the runner, which means may be perforations for the reception of pins or bolts.

It will be seen from the foregoing that when my improved casting is attached to a sleigh the cross-bars, standards, and runners, as well as the side rails, will be securely and rigidly united to each other.

The casting hereinbefore described may be made preferably of malleable iron, though it is evident that it may be constructed of other metals.

I am aware that prior to my invention brackets were provided with a groove or channel in which a portion of the cross-bar of the sleigh rested and was retained by bolts, while the upper end of the wooden standard was secured by a bolt to the said bracket; furthermore, that solid standards were designed with a groove or channel to receive the side rail, which was retained in position by means of a retaining-bolt, while a recess received the end of the cross-bar which was retained in position by means of a bolt, which also secured the side rail. My invention will be readily distinguished from the above-noted constructions, in that I combine in a single piece a knee adapted to receive and hold the extremities of the standard and cross-bar, preventing the same from projecting and dispensing with the use of securing-bolts, &c. The depending extension formed integral with the knee re-enforces the standard without depending on the bolts for

this purpose, except for the attachment of said extension to the runner.

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

The brace for sleds or sleighs herein described, consisting of a casting made in a single piece, and provided with an under and an inner socket adapted to respectively receive
10 and firmly retain the extremities of the standard and cross-bar, a depending extension

formed integral with said brace and adapted to act as a re-enforce for the standard, a perforation in the body of said brace for the passage and retention of the side rail of the sleigh, substantially as and for the purpose set forth. 15

In testimony whereof I affix my signature in presence of two witnesses.

ORLANDO A. THAYER.

Witnesses:

ALBERT S. AUSTIN,
JOHN F. STANLEY.