

(No Model.)

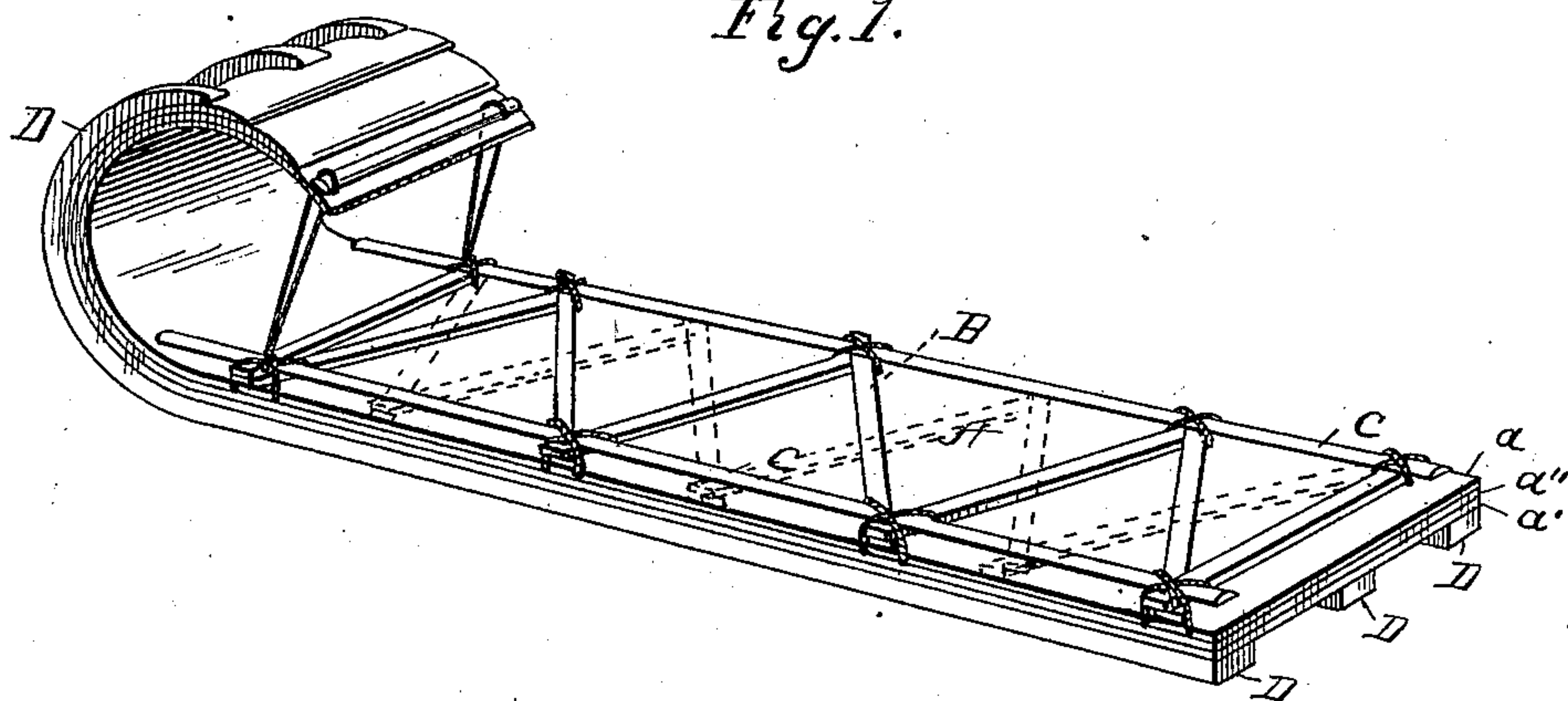
A. PUTNAM, Jr.

TOBOGGAN.

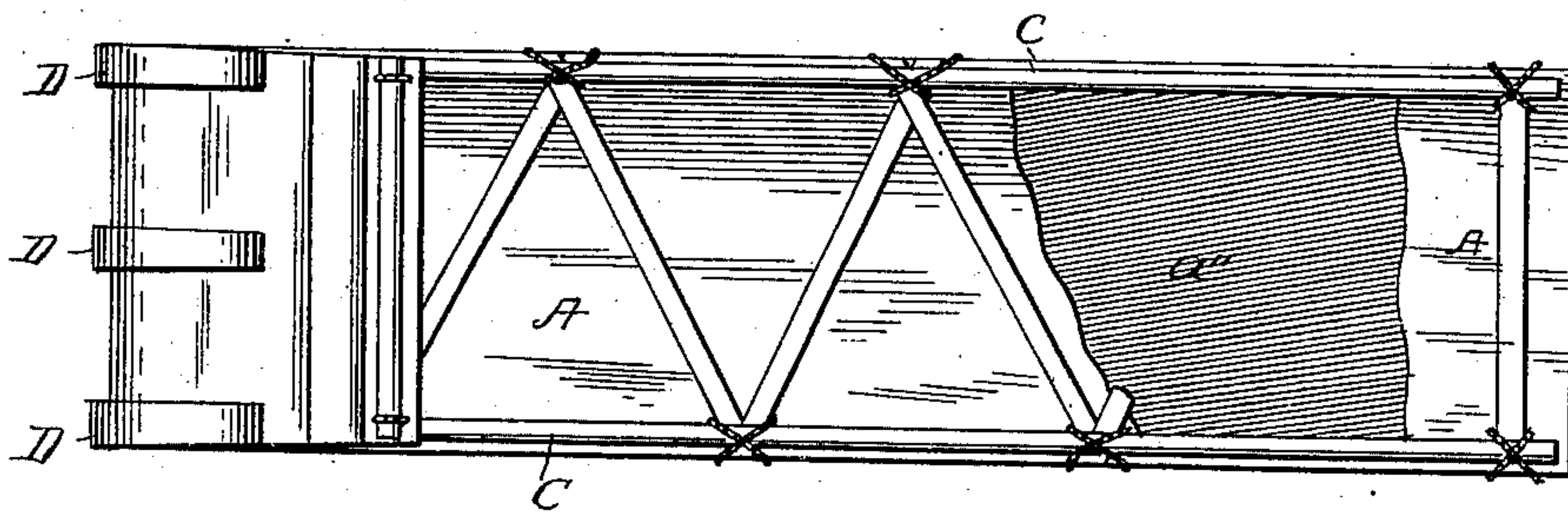
No. 357,132.

Patented Feb. 1, 1887.

*Fig. 1.*



*Fig. 2.*



WITNESSES

*Chas. H. Raeder,*  
*E. J. Robertson,*

INVENTOR

*Abel Putnam Jr.*  
*By T. J. W. Robertson*  
Attorney



# UNITED STATES PATENT OFFICE.

ABEL PUTNAM, JR., OF SARATOGA SPRINGS, NEW YORK.

## TOBOGGAN.

SPECIFICATION forming part of Letters Patent No. 357,132, dated February 1, 1887.

Application filed February 11, 1886. Serial No. 191,631. (No model.)

*To all whom it may concern:*

Be it known that I, ABEL PUTNAM, Jr., a citizen of the United States, residing at Saratoga Springs, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Toboggans, Sleds, &c., of which the following is a specification, reference being had therein to the accompanying drawings, in which—

10 Figure 1 is a perspective view of a toboggan constructed according to my improvement, and Fig. 2 a plan with parts represented as broken away.

The object of this invention is to make toboggans, sleds, and similar articles so that they shall have the maximum of strength with the minimum of weight; and the invention consists in the peculiar construction, arrangement, and combination of parts hereinafter described, shown in the drawings, and more particularly pointed out in the claims.

Referring to the drawings, which show the preferable form of my improvement, A represents the bed of the toboggan, preferably made of three layers of thin wood glued together, the outer ones, *a a'*, having the grain running lengthwise, and the intermediate one, *a''*, set so as to have the grain arranged diagonally to the others, by which the bed is so strengthened that there is no danger of its splitting.

As a further means of strengthening the toboggan, I secure a series of bars, B, above the top layer, which bars are arranged diagonally and in opposite directions, as shown in Fig. 1. These bars may be either glued fast to the bed or they may be lapped and fastened to the bed, as shown, by rivets, screws, nails, or other convenient means. When the bars B are glued fast, they may have their ends cut at an angle, so as to butt against each other; or their ends may be "halved" one over the other, so as to allow the bars to have a bearing for their whole length.

45 The side bars, C, may be secured to the ends of the diagonal bars in the usual or any convenient way.

I may sometimes use a second line of diagonal bars, as shown in dotted lines.

50 Underneath the bed I preferably fasten, in any convenient way, two or more flat bars, D, the bottom or lower edges of which may be slightly rounded. By the use of these bars the

bed proper may be made much lighter with the same amount of strength, and besides this the bars take most of the wear, and when worn they can be easily changed for a new set.

I do not wish to limit myself to the exact arrangement of the bed shown, as I may sometimes use only two thicknesses of wood—one with the grain running straight, or nearly so, and the other with the grain set diagonally to it; or I may use two thicknesses, with the grain of each piece arranged nearly but not quite parallel with the sides of the toboggan, and with the grain inclined toward its opposite sides, whereby the grains of these two pieces will cross each other, and thus each thickness will act to prevent the other from splitting.

I am aware that it is not new to make toboggans with two or three layers of wood, one of which is arranged with the grain crosswise of the toboggan, and make no claim to this, for I regard my invention as essentially different from the construction referred to. When the grain is arranged at right angles (substantially so) to the length of the toboggan, it gives little or no strength in the opposite direction. In other words, with a toboggan supported on its ends, as it is sometimes, in passing over a very hollow place all the strain would come on the wood having the grain running lengthwise of the toboggan, as the cross-grained wood would form little or no support under these circumstances. With my arrangement of the grain, however, all three thicknesses would help to support the load.

What I claim as new is—

1. A toboggan or sled formed of two or more sheets of wood, all of which are arranged with the grain running toward the front and rear, or substantially so, but with the grain on one piece at an angle to the other, as set forth.

2. A toboggan or sled provided with diagonal cross-bars, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 28th day of January, 1886.

ABEL PUTNAM, JR.

Witnesses:

WM. HAY BOCKES,  
WALDO L. RICH.