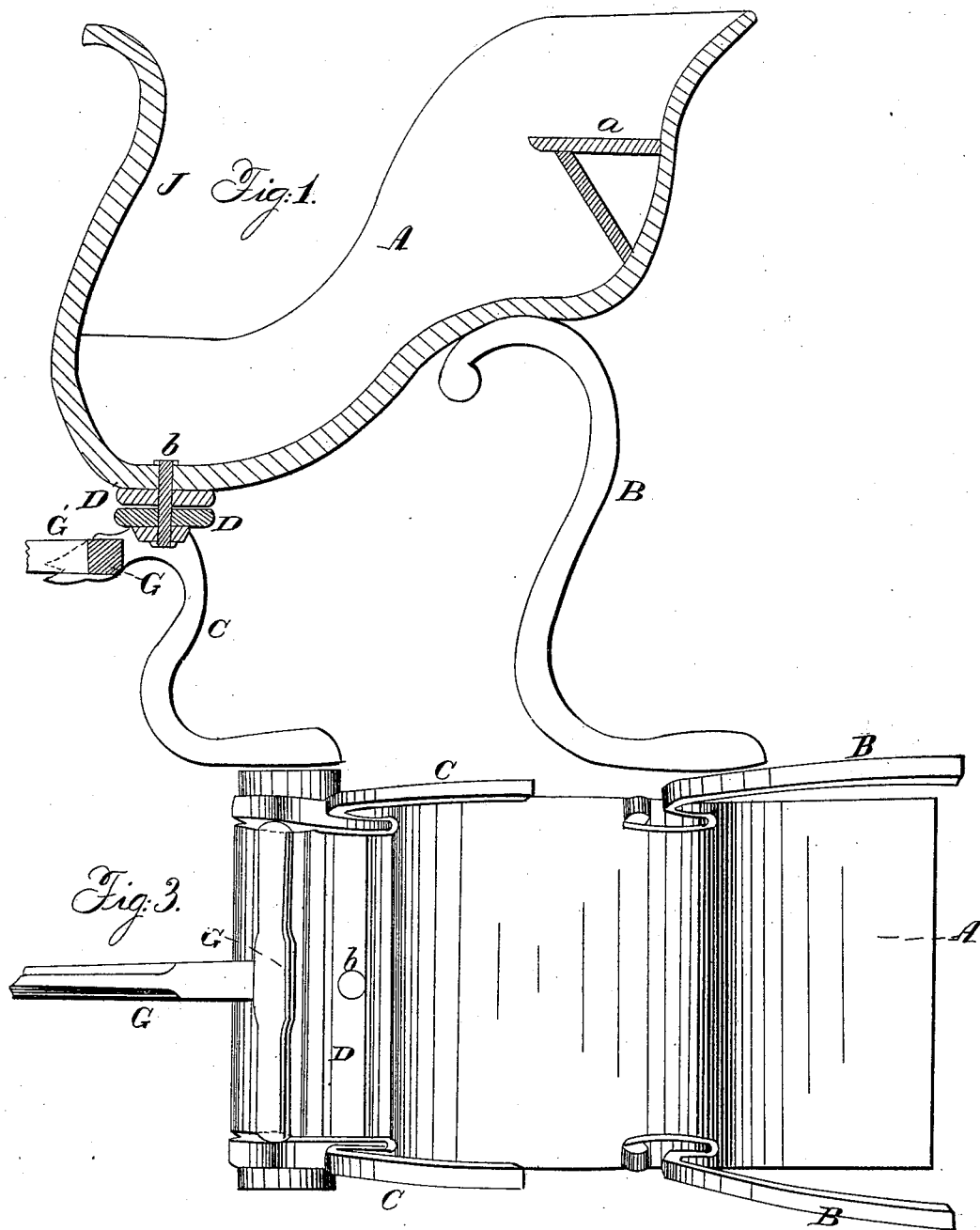


A. ARNEMAN.

Sleigh.

No 50,672.

Patented Oct. 31, 1865.



Witnesses  
*P. Campbell,*  
*Echochaps*

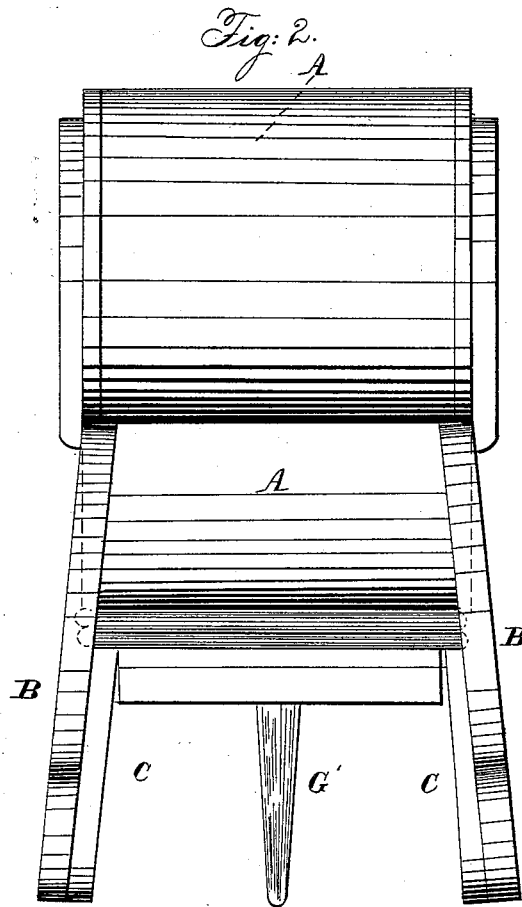
Inventor.  
*Alfred Arneman*  
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# UNITED STATES PATENT OFFICE.

ALFRED ARNEMAN, OF GUTTENBERG, IOWA.

## IMPROVEMENT IN CUTTER-SLEIGHS.

Specification forming part of Letters Patent No. 50,672, dated October 31, 1865.

*To all whom it may concern:*

Be it known that I, ALFRED ARNEMAN, of Guttenberg, in the county of Clayton and State of Iowa, have invented a new and Improved Sleigh; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal section through the center of a "cutter" sleigh. Fig. 2 is an elevation of the rear end of my improved sleigh. Fig. 3 is a bottom view of the sleigh.

Similar letters of reference indicate corresponding parts in the three figures.

The object of this invention is to construct a light-riding sleigh or cutter with two pairs of disconnected runners of different heights for the purpose of elevating a person sitting in the back seat of the sleigh above the drifting snow, and to combine with this arrangement a means for moving the lower or forward runners about a fixed center for the purpose of obtaining facility and safety in turning the sleigh quickly, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents the box or body of the cutter, which has its sides and bottom curved, as represented in Fig. 1, with a view of adapting it to runners of different heights, so that a person sitting upon the elevated seat *a* will be mounted over the highest pair of runners, B B. The depressed portion of the box A is mounted upon two runners, C C, which may be about one-half the height of the rear runners, and which are secured in a suitable manner to a transverse bar, D, that is of sufficient width to afford a firm support for the front portion of said box.

At a suitable point on the bottom of the box A, for attaching the forward runners to it, a transverse bolster, D', is bolted, through the middle of the length of which a king-bolt, *b*, is passed, which is inserted through the center of the bar D, so as to connect the forward run-

ners to the box A by a pivot-connection, which will admit of these runners being turned either to the right or to the left.

Both pairs of runners are curved so as to resemble the letter S, which form is peculiarly adapted to the arrangement of the box A, besides giving a neatness and beauty to the sleigh which could not be obtained by any other form. These S-shaped springs present comparatively little resistance to the forward movement of the sleigh through the snow, and they will admit of the quick turning of the sleigh without liability of upsetting. The upper ends of these runners may be terminated in some fancy ornament. Those of the forward runners are projected forward and have a transverse bar, G, pivoted to them for receiving a draft-pole, G', or, if desirable, thills for a single horse may be attached to the goose-necks of the runners C C.

From this description of my improved sleigh it will be seen that the weight of a person sitting on the seat *a* will be supported directly upon the rear runners, which are rigidly secured to the body of the sleigh, said runners being of sufficient height to elevate the head of the person above the drifting snow and admit of the dash-board J being carried up a sufficient height to protect the lower portion of the person sitting in the sleigh. Thus a person can ride in my sleigh very comfortably without being annoyed by snow drifting upon him.

The runners may be strengthened, if desirable, by means of braces.

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

The combination of two pairs of S-shaped runners of different heights, with a sleigh the body of which is constructed of the form substantially as described.

ALFRED ARNEMAN.

Witnesses;

ALEXANDER BLIEDIENG,  
JOHN TROESTER.