

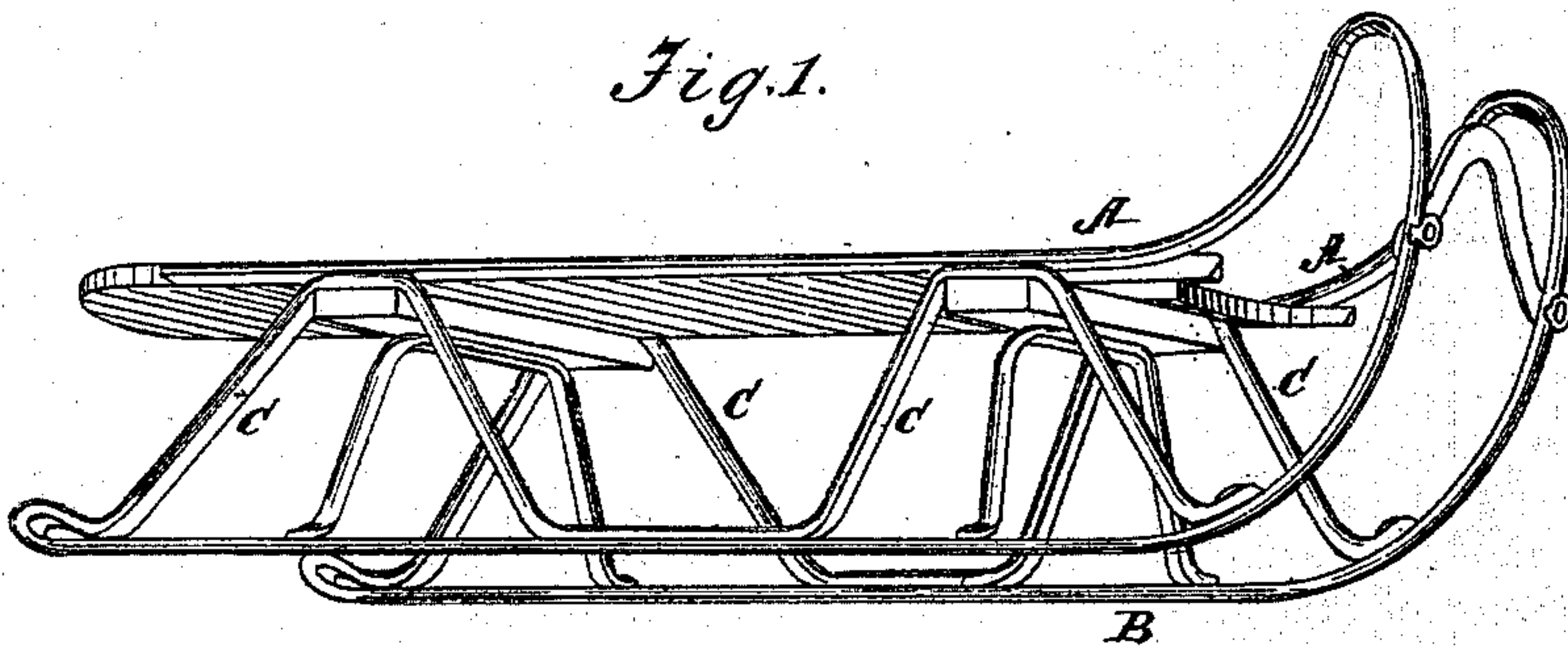
J. W. & E. W. KARN.

Sleigh-Runners.

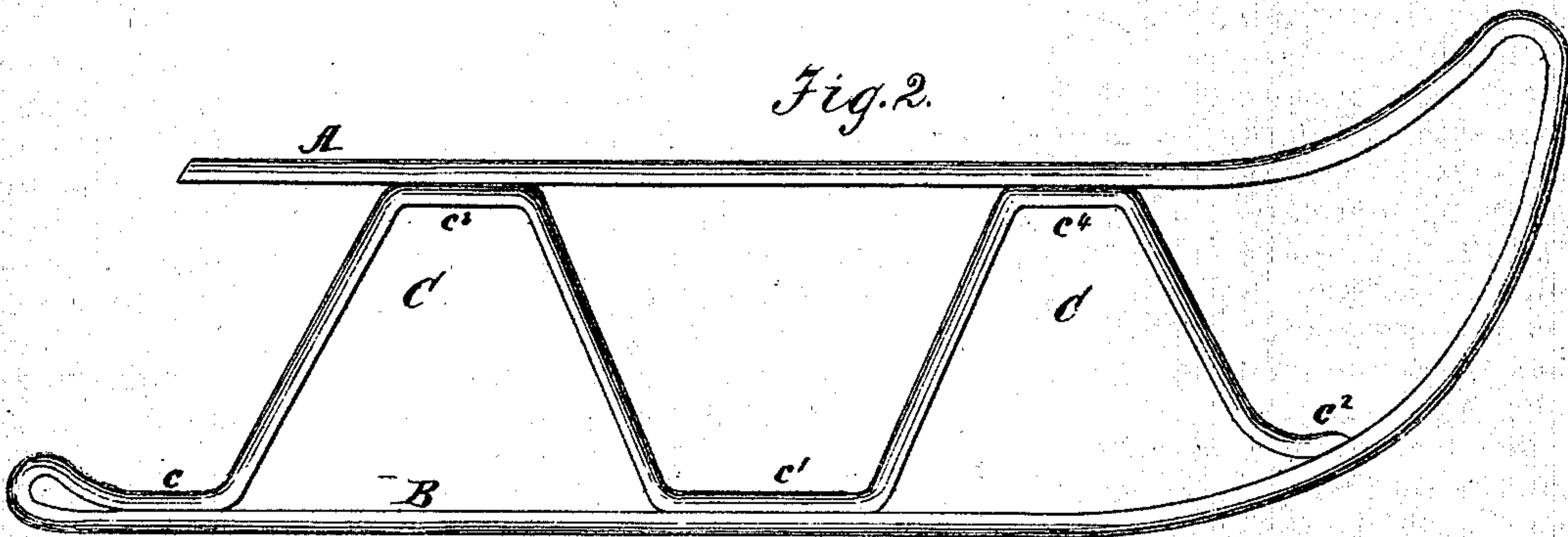
No. 139,396.

Patented May 27, 1873.

*Fig. 1.*



*Fig. 2.*



Witnesses:  
G. M. Harris.  
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# UNITED STATES PATENT OFFICE.

JACOB W. KARN AND EUGENE W. KARN, OF WATKINS, NEW YORK.

## IMPROVEMENT IN SLEIGH-RUNNERS.

Specification forming part of Letters Patent No. **139,396**, dated May 27, 1873; application filed April 9, 1873.

*To all whom it may concern:*

Be it known that we, JACOB W. KARN and EUGENE W. KARN, of Watkins, in the county of Schuyler and State of New York, have invented a new and Improved Sleigh and Sled-Runner; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a perspective view of a sleigh provided with our improved runners. Fig. 2 is a side elevation of the runners.

The invention relates to the construction of sleigh-runners; and consists in making the top-rail, bottom-slide, and intermediate supports of a single rod of metal, as hereinafter fully described and claimed.

In the drawing, A represents the top-rail of the shoe; B, the bottom or part that slides along on the snow; and C C the upright braces or supports, which take the strain and sustain the weight at the proper elevation. We take a rod of half-oval wrought metal (a form well known in the market) and bend it, as shown in the drawing, the parts  $c^1 c^2$  being brought down upon the shoe B so as to coincide with the top thereof and to be conveniently riveted, bolted, or otherwise fastened thereto.

$c^3 c^4$  are horizontal parts, upon which are supported the top-rail A.

By this construction the sleigh has not only a slight and graceful appearance, but is made actually much lighter than those now known to the public, weighing only seven or eight pounds, and with a degree of strength and weight-sustaining power much greater than those now in use.

We are aware that the top-rail and bottom or slide of a sleigh-runner have been connected in front and rear, being thus made in one piece. Hence we do not desire to claim broadly a runner made in one piece, but only when the top and bottom are connected and supported, as pointed out in the above description.

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

In a sled or sleigh the top-rail A, shoe B, and intermediate braces or supports C, all formed of a single continuous piece of metal, substantially as and for the purpose set forth.

JACOB W. KARN.

EUGENE W. KARN.

Witnesses:

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