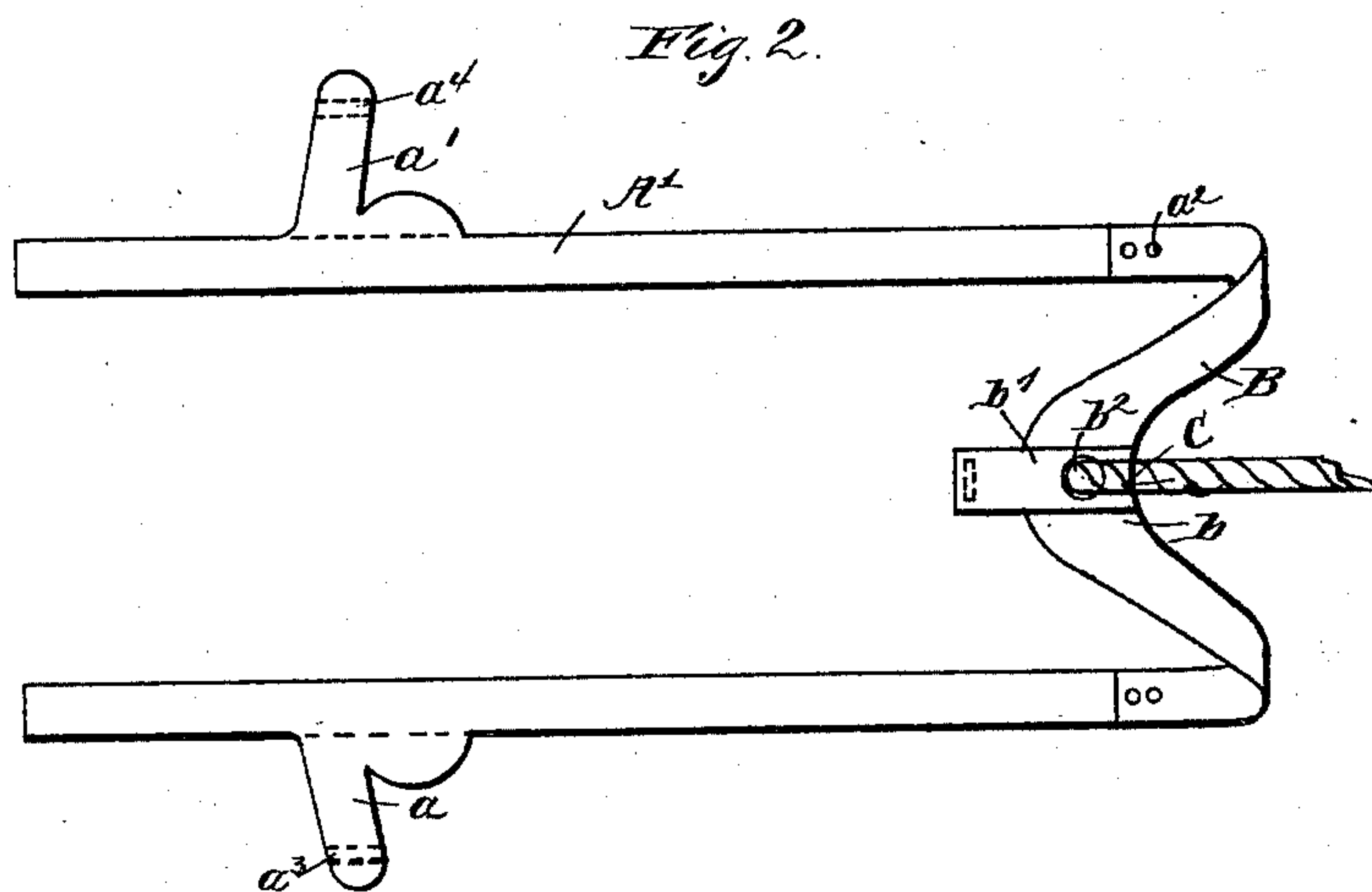
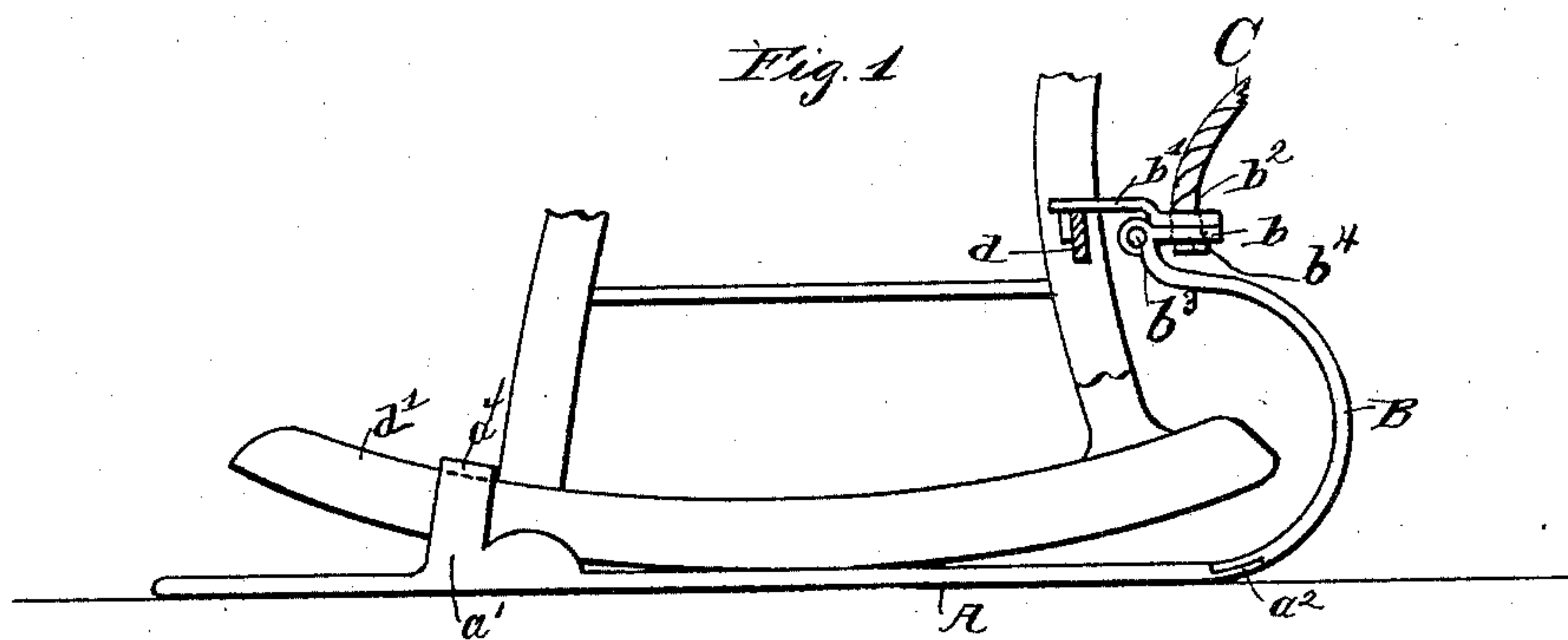


(No Model.)

W. MÜLLER.  
SLEIGH RUNNER FOR CHAIRS.

No. 433,535.

Patented Aug. 5, 1890.



Witnesses

B. L. Stevens

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By his Attorneys

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# UNITED STATES PATENT OFFICE.

WENDELIN MÜLLER, OF NEWARK, NEW JERSEY.

## SLEIGH-RUNNER FOR CHAIRS.

SPECIFICATION forming part of Letters Patent No. 433,535, dated August 5, 1890.

Application filed December 28, 1889. Serial No. 335,281. (No model.)

*To all whom it may concern:*

Be it known that I, WENDELIN MÜLLER, a citizen of the United States, and a resident of Newark, county of Essex, and State of New Jersey, have invented a certain new and useful Improvement in Sleigh-Runners for Chairs, &c., of which the following is a specification.

My invention relates especially to devices used in connection with appliances used for transporting persons or articles over snow, and has for its object the provision of a device simple in construction, cheap in manufacture, and efficient in practical use.

To attain the desired end my invention consists in the construction of parts hereinafter described and claimed.

In the drawings which form a part of this specification, Figure 1 is a top view of an article constructed according to my invention, and Fig. 2 is a side elevation of the same applied to a rocking-chair.

Like letters of reference, wherever they occur, indicate corresponding parts in both figures.

Referring again to the drawings, A and A' represent runners provided with vertical ears  $a$   $a'$ , having flanged edges  $a^3$   $a^4$ , and with a bow B, either integral with the same or constructed of another piece of metal and fastened to the runners A A' by means of rivets  $a^2$ . The central part of the bow B is made wider, either preferably integrally extending forward in a horizontal direction, or else, as shown, having a horizontal plate  $b$  secured to the same in such a manner that the entire top surface of the bow and plate shall be level, in order to afford a bearing on which the movable lever  $b$  may be turned. The lever  $b'$  is secured in a movable relation to the top of the plate  $b'$  by means of a pin  $b^3$ . The rear extremity of the lever  $b'$ , fulcrumed at  $b^3$ , is adapted and arranged to pass off and on the top of the chair cross-bar  $d$  when the runners are applied to the rocking-chair, (by which means the forward part of the runners is engaged with the front of the chair,) and the forward portion of the lever  $b'$  is perforated, as at  $b^2$ , which serves to receive a rope C, which orifice also preferably passes through a perforation  $b^4$ , formed in the widened top  $b$  of the bow B.

The free end of the holding-lever  $b'$  serves in practical operation to engage with the cross-bar  $d$  of the chair D, the rockers  $d'$  of which enter beneath the flanged edges of the ears  $a$   $a'$  and are securely held thereby.

By my invention the chair, which in ordinary use serves as a rocker, may be transformed at a moment's notice into a comfortable sleigh by the application of my runners thereto.

Although preferably used with a rocking-chair, the runners may be applied to other objects, if desired, the necessary modifications being made, as required.

My runners are manufactured and sold at a low price, are easily and quickly applied to or removed from the chair without marring the same in any respect, and are not only of great utility, but may be made in as ornamental a form as may be desired.

As it is evident that many slight changes in the construction and relative arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but that I reserve the right to make such changes, and that

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the rockers  $d'$  of a chair and the cross-bar  $d$ , of the runners A A' and bow B, provided, respectively, with the ears  $a$   $a'$  and movable lever  $b'$ , substantially as described.

2. The combination, with the rockers  $d'$  of a chair, the cross-bar  $d$ , and with the runners A A' and bow B, provided, respectively, with the ears  $a$   $a'$  and movable lever  $b'$ , of the perforations  $b^2$   $b^4$  and rope C, substantially as described.

In testimony of the foregoing specification I do hereby sign the same, in the city of Newark, county of Essex, State of New Jersey, this 18th day of October, A. D. 1889.

WENDELIN MÜLLER.

Witnesses:

CHARLES A. FLICK,  
JOSEPH K. FRANKS.