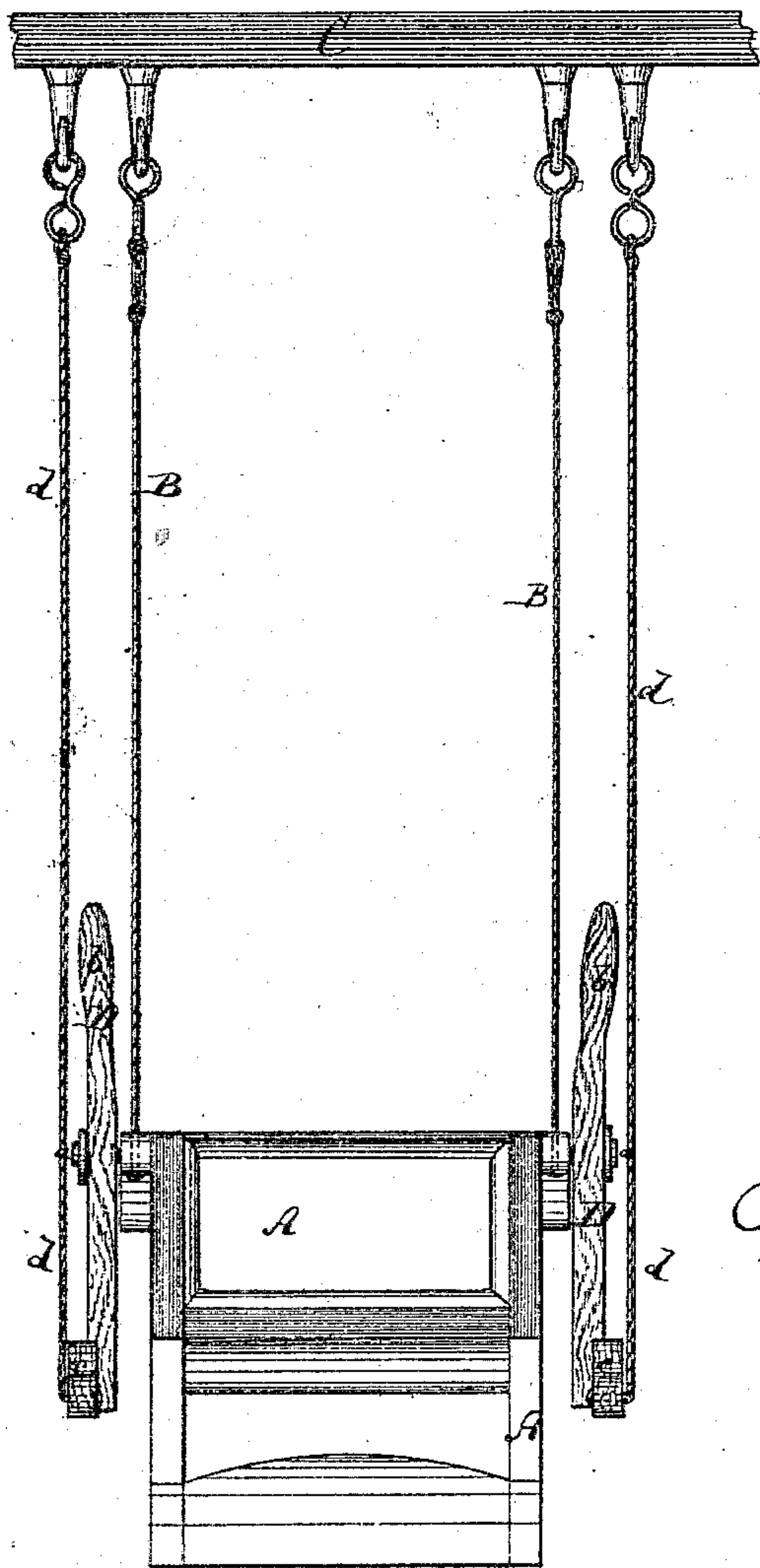


J. A. CRANDALL.  
Improvement in Swings.

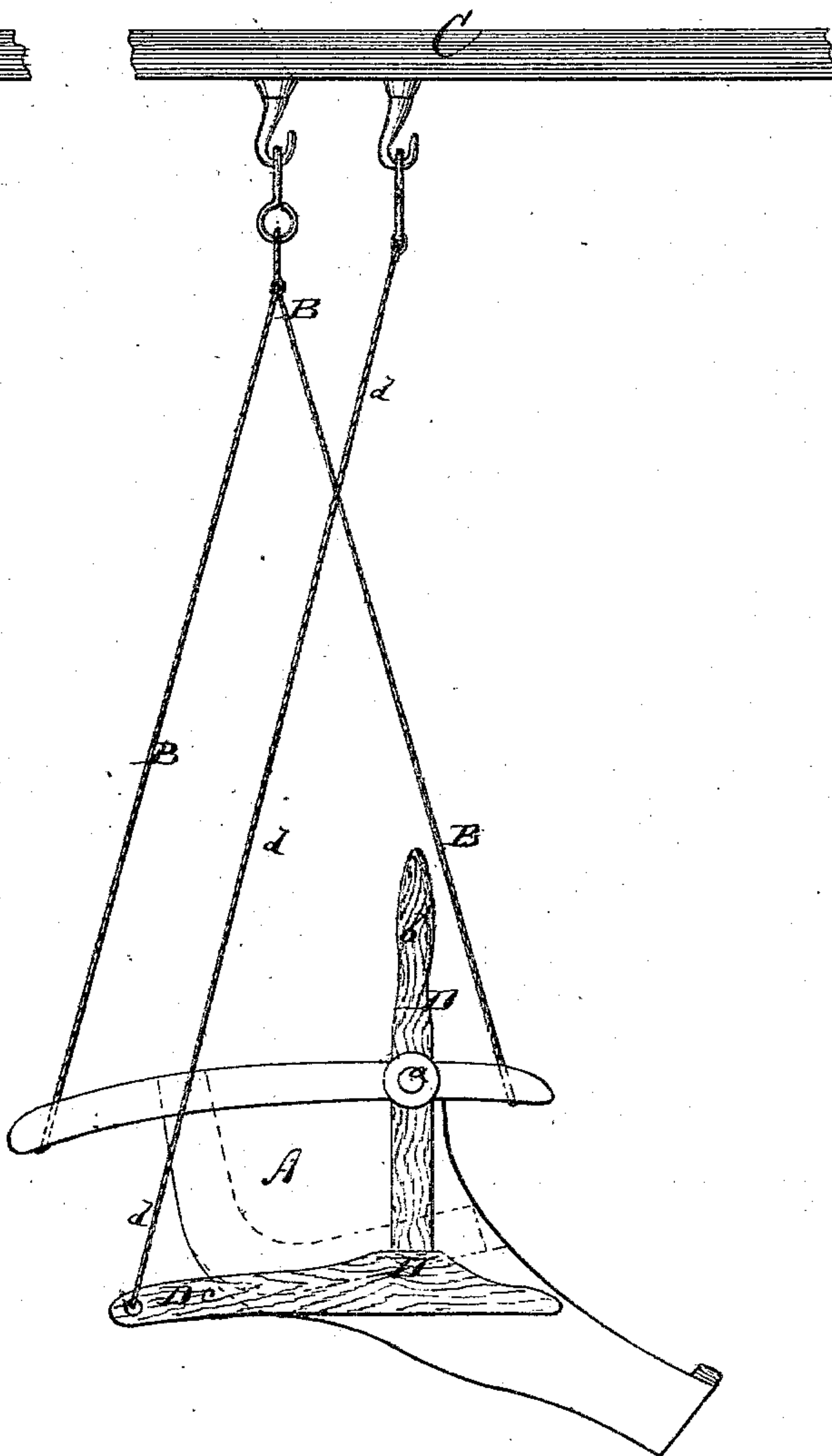
No. 115,825.

Patented June 13, 1871.

*Fig. 1.*



*Fig. 2.*



**Witnesses:**  
*A Benneken Dorf.*  
*Wm H. C. Smith.*

**Inventor:**  
*J. A. Crandall.*  
**PER** *Mum & Co.*  
**Attorneys.**

## UNITED STATES PATENT OFFICE.

JESSE A. CRANDALL, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN SWINGS.

Specification forming part of Letters Patent No. 115,825, dated June 13, 1871.

*To all whom it may concern:*

Be it known that I, JESSE A. CRANDALL, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Children's Swing; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a front view of my improved swing. Fig. 2 is a side view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new mechanism which is applied to a swing for imparting motion to it; and consists in the use of elbow-levers pivoted to the sides of the swing, and diagonal ropes connected therewith and with the supporting-frame, so that by oscillating the levers the ropes will be pulled to carry the swing forward.

A in the drawing represents the body of the swing, carrying a seat of suitable kind, and suspended by ropes B B from the supporting-frame or lintel C. To each side of the swing A is pivoted, at *a*, an elbow-lever, D, whose upper arm constitutes a handle, *b*, while its horizontal arm *c* is, by a diagonal rope, *d*, con-

nected with the frame or lintel C. The lever projects backward from its pivot, while the rope *d* extends forward from the lever. When the swing is carried back the levers D D are by the hands swung back, and thereby pull on the ropes *d*, which will carry the swing forward with increased power. The swing is thus readily kept in motion.

The levers D, instead of being L-shaped, as shown, may as well be curved or of other equivalent form, and may, instead of projecting backward, extend forward, to be used when the swing has been carried forward. In such case the ropes *d* would extend backward from the levers.

I am aware of the Shæffer swing, patented in 1867, and desire to disclaim, as any part of my invention, all that is described or shown by him.

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

The elbow-lever *b c* D and swing-body A, combined with flexible cords B B and *d d*, arranged as and for the purpose specified.

JESSE A. CRANDALL.

Witnesses:

GEO. W. MABEE,

ALEX. F. ROBERTS.