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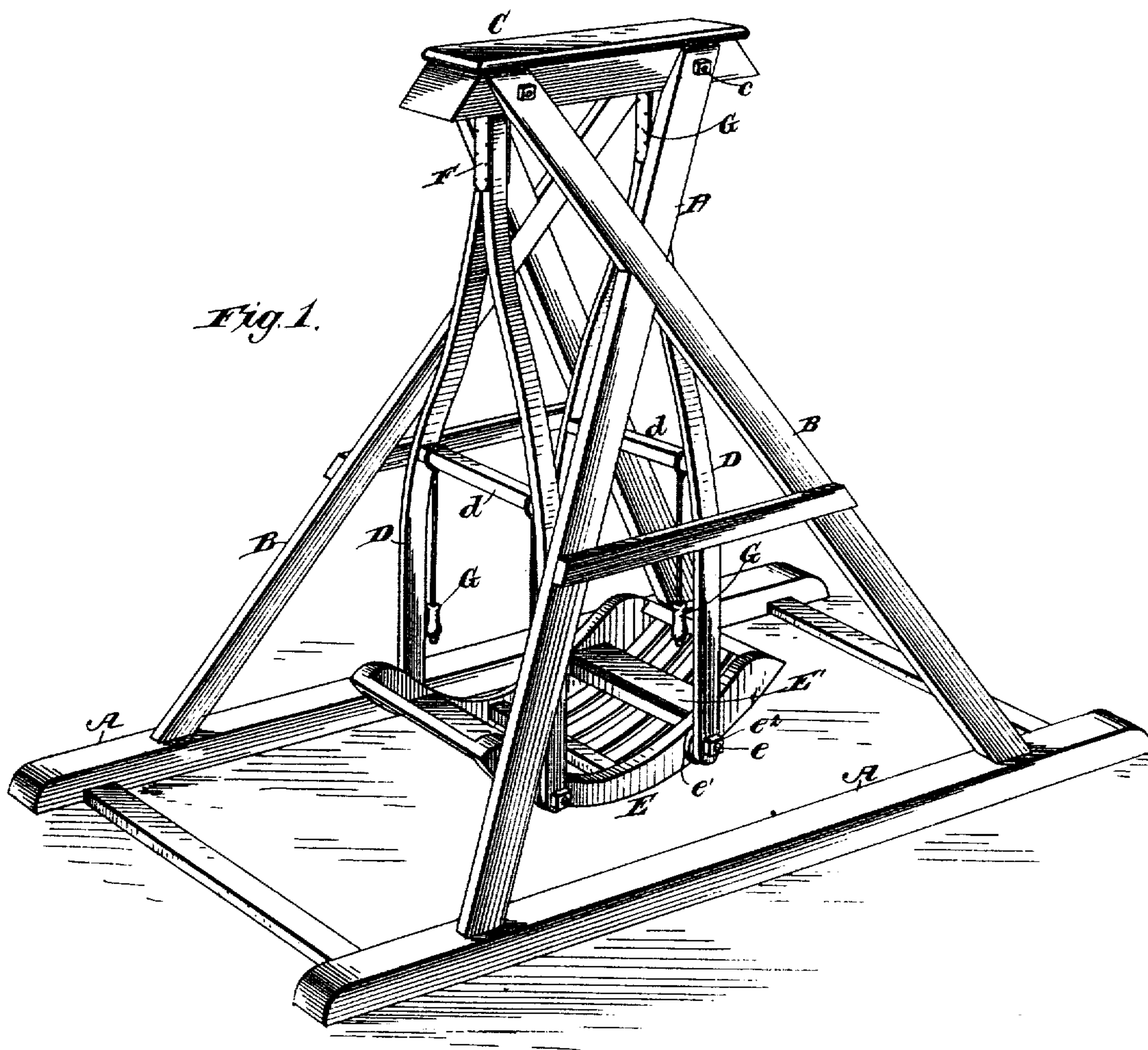
(No Model.)

2 Sheets—Sheet 1.

H. J. WHITE.
SWING.

No. 281,216.

Patented July 10, 1883.



Witnesses,
Robert G. Smith.

J. A. Rutherford

Inventor,
Henry J. White.

By James L. Norris.
Att'y.

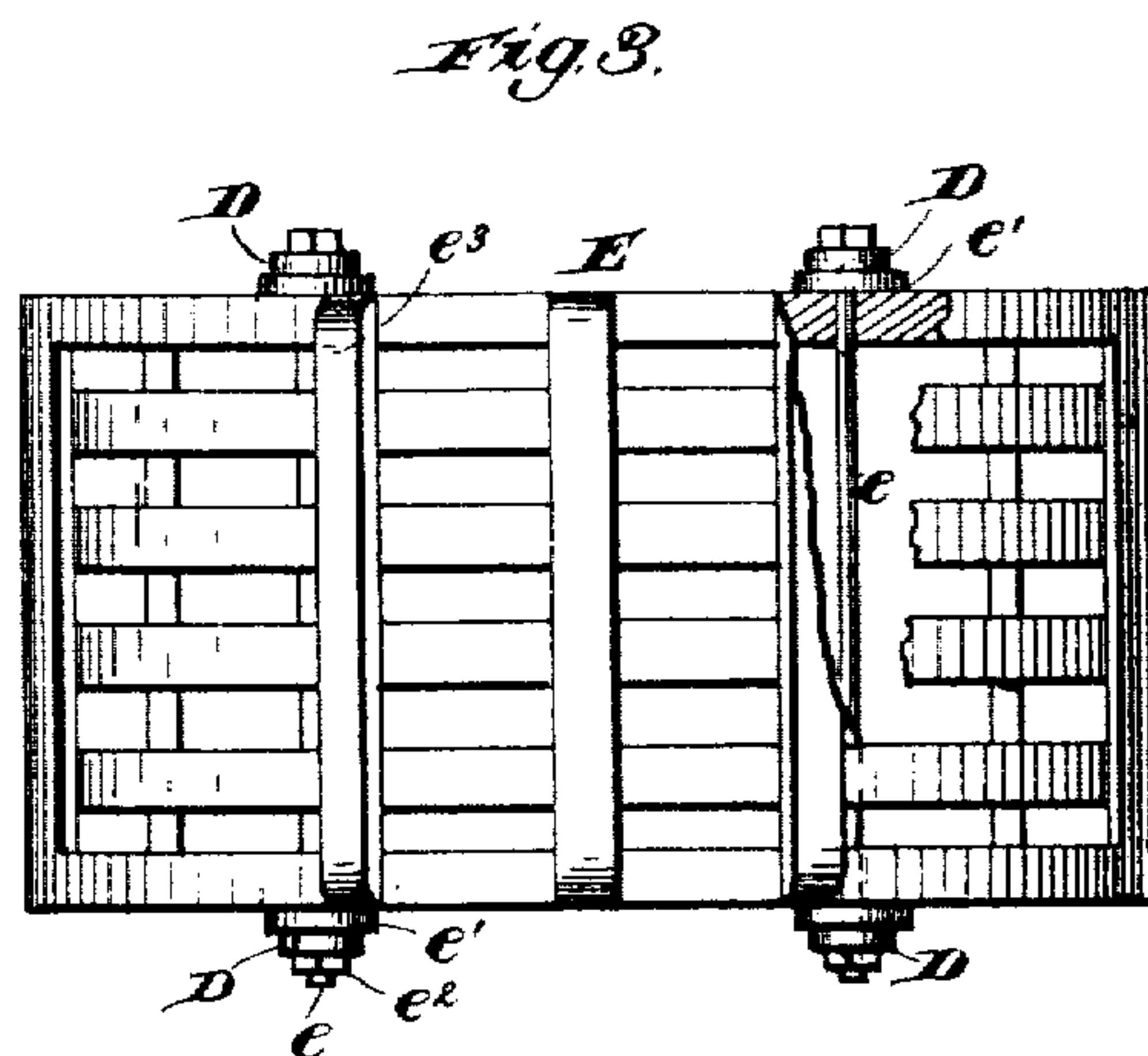
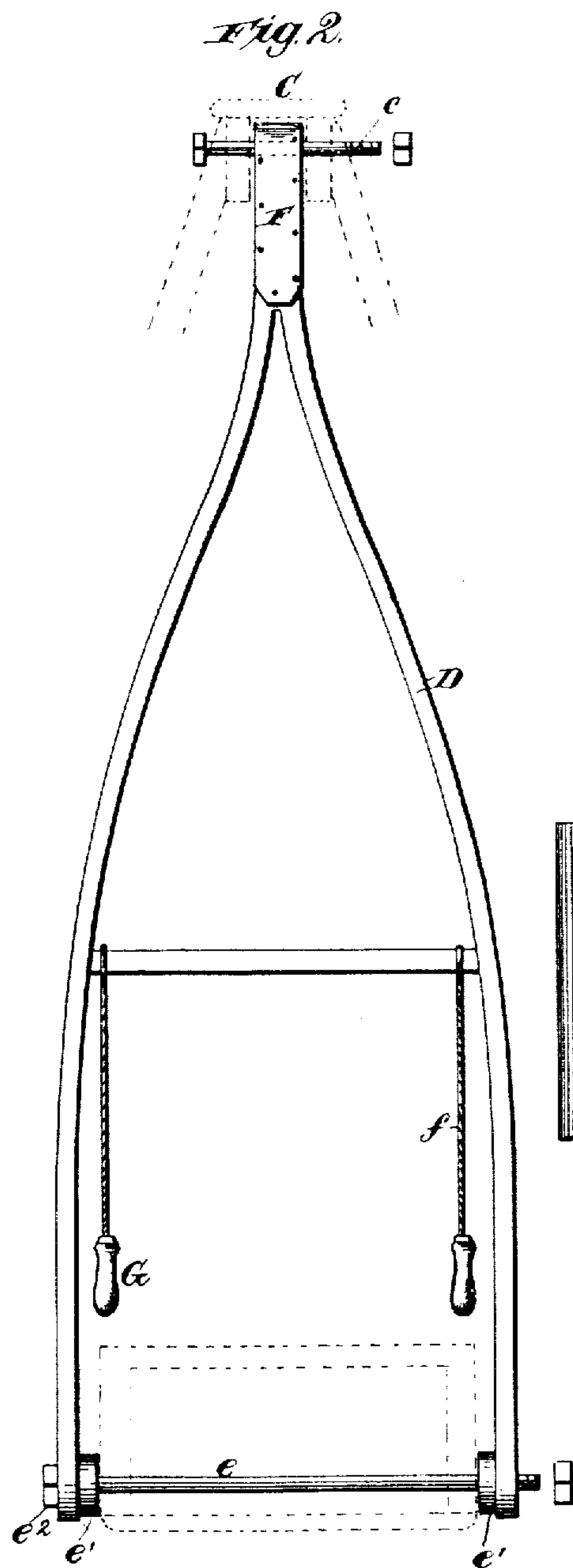
(No Model.)

2 Sheets—Sheet 2.

H. J. WHITE.
SWING.

No. 281,216.

Patented July 10, 1883.



Witnesses,
Robert Everett,
J. A. Rutherford

Inventor:
Henry J. White.
By James L. Norris
Atty.

UNITED STATES PATENT OFFICE.

HENRY J. WHITE, OF AUBURN, NEW YORK.

SWING.

SPECIFICATION forming part of Letters Patent No. 281,216, dated July 10, 1883.

Application filed April 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. WHITE, a citizen of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented new and useful Improvements in Swings, of which the following is a specification.

My invention relates to swings; and the novelty consists in the construction, arrangement, and adaptation of parts, as will be more fully hereinafter set forth, and specifically pointed out in the claims.

The object of the invention is to produce a device which will be inexpensive in manufacture, safe in practice, durable and efficient in service, and simple in design; and to these ends the invention consists in the mechanisms fully illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of the device complete; Fig. 2, a detail view of one of the pendulum-frames, showing the manner of securing the arms, in section; and Fig. 3, a bottom plan view of the carriage, partly in section, to show the continuous securing or pivoting bolts and strengthening-cleats.

In devices of this class as ordinarily constructed several difficulties accrue, among which may be mentioned the tendency of the weight of the parties in the carriage, when the same is near the end of its oscillatory stroke in either direction, to lift the opposite side of the supporting-frame from the ground, or, if it is supported in the ground, to work the standards loose from their bearings. Another difficulty, which frequently is formidable and dangerous, is the liability of children or other careless occupants of the carriage injuring their hands by having them crushed between the pendulum-frames and the sides of the carriage. In my invention I obviate these difficulties, and in my construction I place importance upon the form and arrangement of the pendulum-frames in their relations to the carriage and to the suspension-pivots.

Referring to the drawings, A indicates the base, which may be composed of sills, as shown in drawings, or any other suitable construction, from which arise the cross-standards B, which are secured to the cap-box C above, from which the pendulum-frames are suspended, being

connected thereto by any suitable device. The base A extends in either direction sufficiently far to render less liable the force of the carriage to tilt it, and the cross-standards B are inclined inward from the base near to apex, to afford a strong and substantial frame.

D designates the pendulum-frames, each of which in the present example is formed of two flexible pieces of timber; or each may be made from one piece of timber slitted to any desired point, the loose ends of which receive the carriage-rods *e*, and from this point to a point at or near their longitudinal centers they are parallel with each other, or nearly so, and are secured to a cross-bar, *d*. From this cross-bar *d* they incline inward until their upper ends are in contact. The extreme upper ends of pendulum-frames D are strengthened by metal straps *F*, inclosing the ends of each. The straps are to strengthen and prevent the ends of pendulum-frames D from splitting or spreading.

Secured to or formed upon the carriage E, around the carriage-rods *e*, are lugs *e'*, against which the arms of the frames D have a bearing, and which serve to prevent the said parts coming in contact to injure the hands of the occupants of the carriage. The rods *e* pass entirely through each of the arms of each frame D, through the lugs or washers *e'*, through the carriage transversely, and are held in place by a nut, *e''*, or other device.

The carriage E is provided with seats *E'*, and upon its lower surface with transverse strengthening-cleats *e''*.

From the cross-bars D are suspended ropes *f*, each carrying an adjustable handle, which may readily be adjusted up or down to suit different-sized persons, and the handles *G* of one set are adapted to be passed over to the occupant of the opposite seat, and vice versa, whereby the proper oscillations are given to the swing.

Modifications may be made in details of construction without departing from the principle or sacrificing the advantages of my invention, the essential features of which are comprised in the extended base or sills with inclined standards, the swing-frame suspended from the same bolts which secure the standards together, or from other suitable supports, the peculiar construction of the pendulum-frames, and the carriage in its form and adaptation to the concomitant parts.

It will be observed that, due to the construction shown, the swing-carriage will at all times maintain its horizontal position.

Having thus described my invention, what I claim is—

1. A swing composed of the inclined crossing standards B, the cap C, secured to the upper ends of the standards, the pendulum-frames D, having their upper ends hung independently on pivots within and adjacent to the opposite ends of the cap, and their lower ends embracing and pivoted to the carriage E at its end portions, and the base A A, composed of sills secured to the lower ends of the crossing standards and extending beyond the securing-points, substantially as and for the purpose described.

2. A swing composed of the inclined crossing standards B, the cap C, secured to the upper ends of the standards, the pendulum-frames D, having parallel portions embracing the end portions of the carriage E, and having their upper ends hung on pivots within and adjacent to the ends of the cap, the straps F, strengthening the upper ends of the pendulum-frames, and the base A A, composed of sills secured to the lower ends of the crossing bars and extending beyond the securing-points, substantially as shown and described.

3. In a swing, the pendulum-frames D, each

having parallel portions pivoted to opposite sides of the carriage, and then extended inward until their upper ends meet, in combination with the plates F, secured to the meeting ends of the said frames, substantially as and for the purpose described.

4. A swing composed of the standards B, the cap C, the pendulum-frames D, pivoted at their upper ends within the cap, the carriage having rods *e* at its opposite end portions, pivoted between the pendulum-frames, and the lugs *e'* on the rods between the carriage and the pendulum-frames, for separating the frames from the sides of the carriage-body, substantially as shown and described.

5. The combination, with the pivoted pendulum-frames D and the carriage E, connected by rods *e*, of the lugs *e'*, secured to the rods between the carriage and the pendulum-frames, to separate the sides of the carriage from the said frames, substantially as shown and described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HENRY J. WHITE.

Witnesses:

C. M. HOWLET.

JOHN F. HEMENWAY.