

No. 875,184.

PATENTED DEC. 31, 1907.

C. E. KILBOURNE.
BED.

APPLICATION FILED FEB. 4, 1907.

3 SHEETS—SHEET 1.

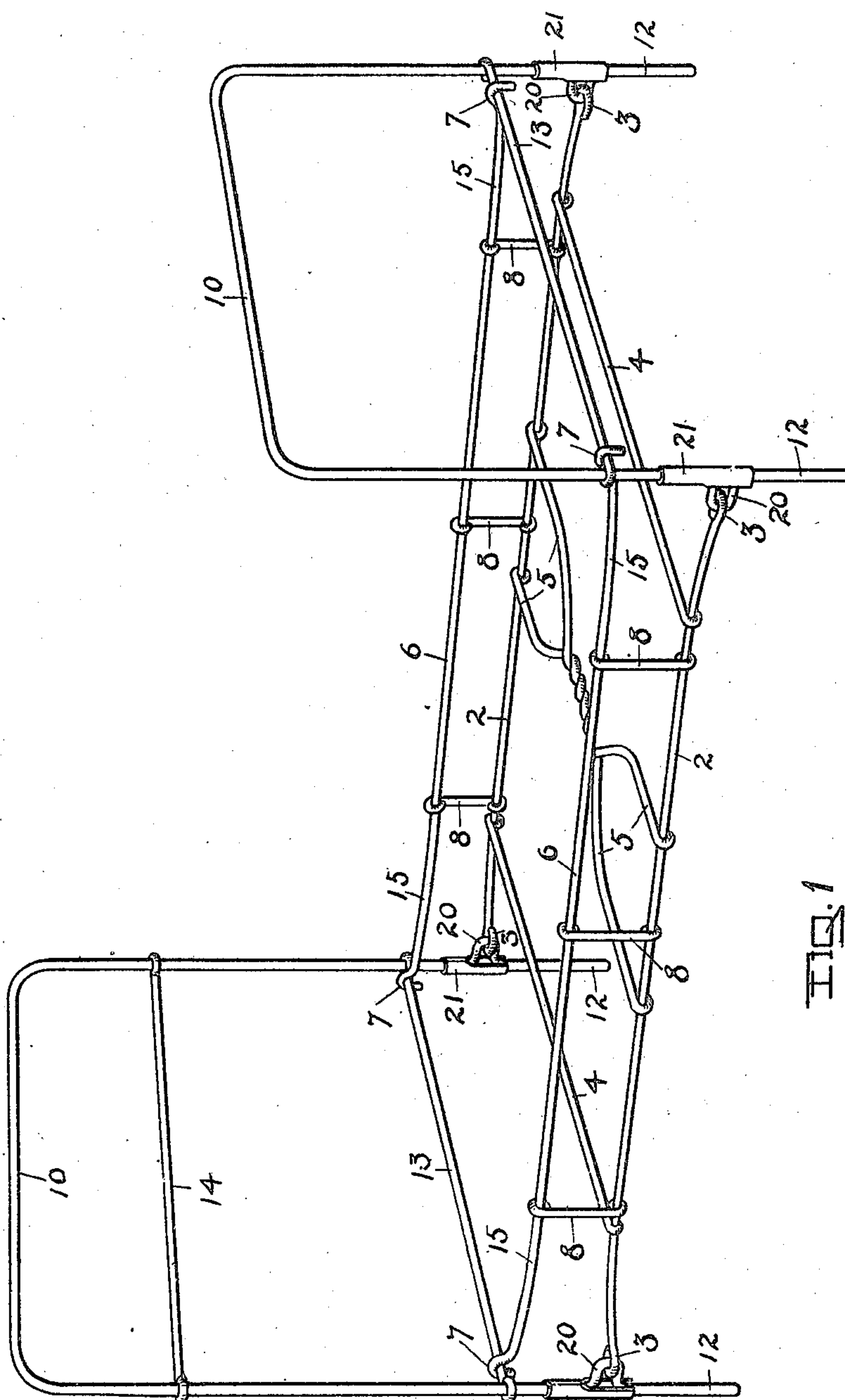


FIG. 1

WITNESSES
E. M. O'Reilly.
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3 SHEETS—SHEET 2.

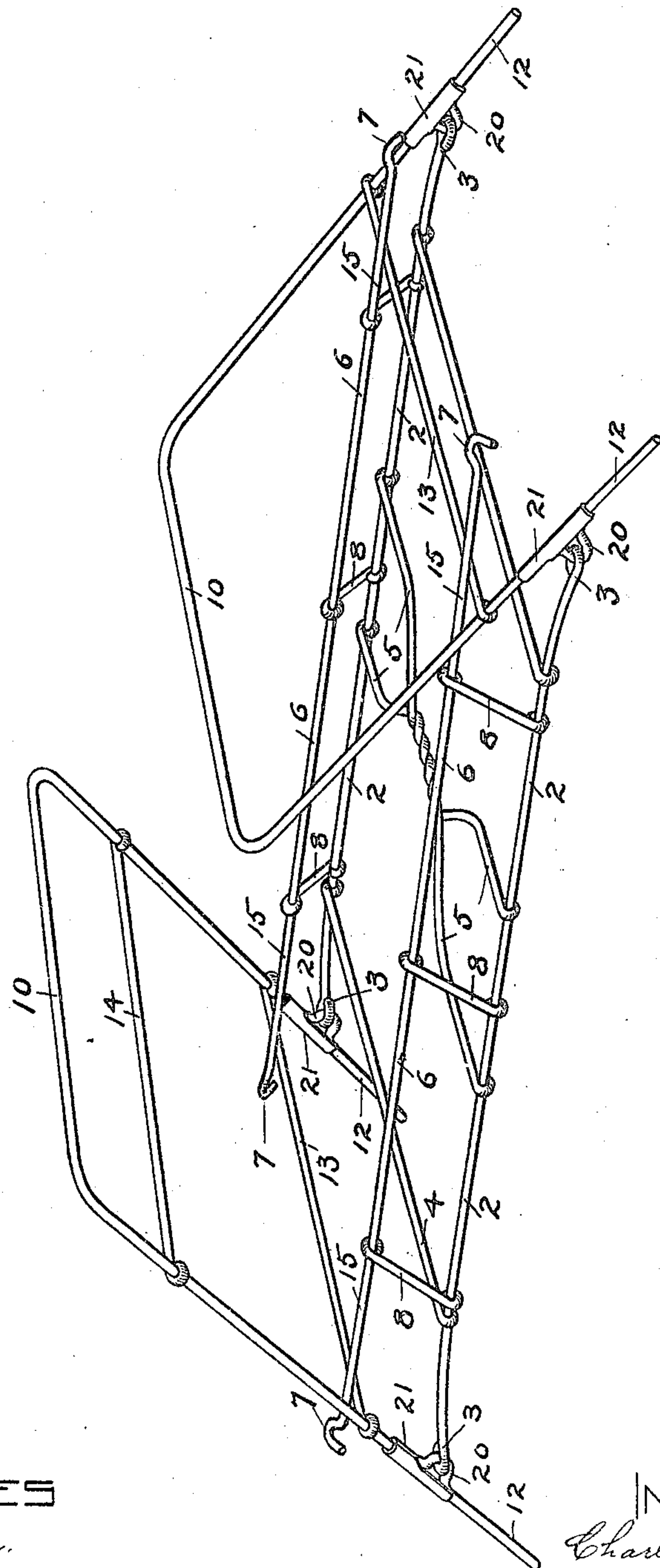


FIG. 2.

WITNESSES

E. M. O'Reilly.

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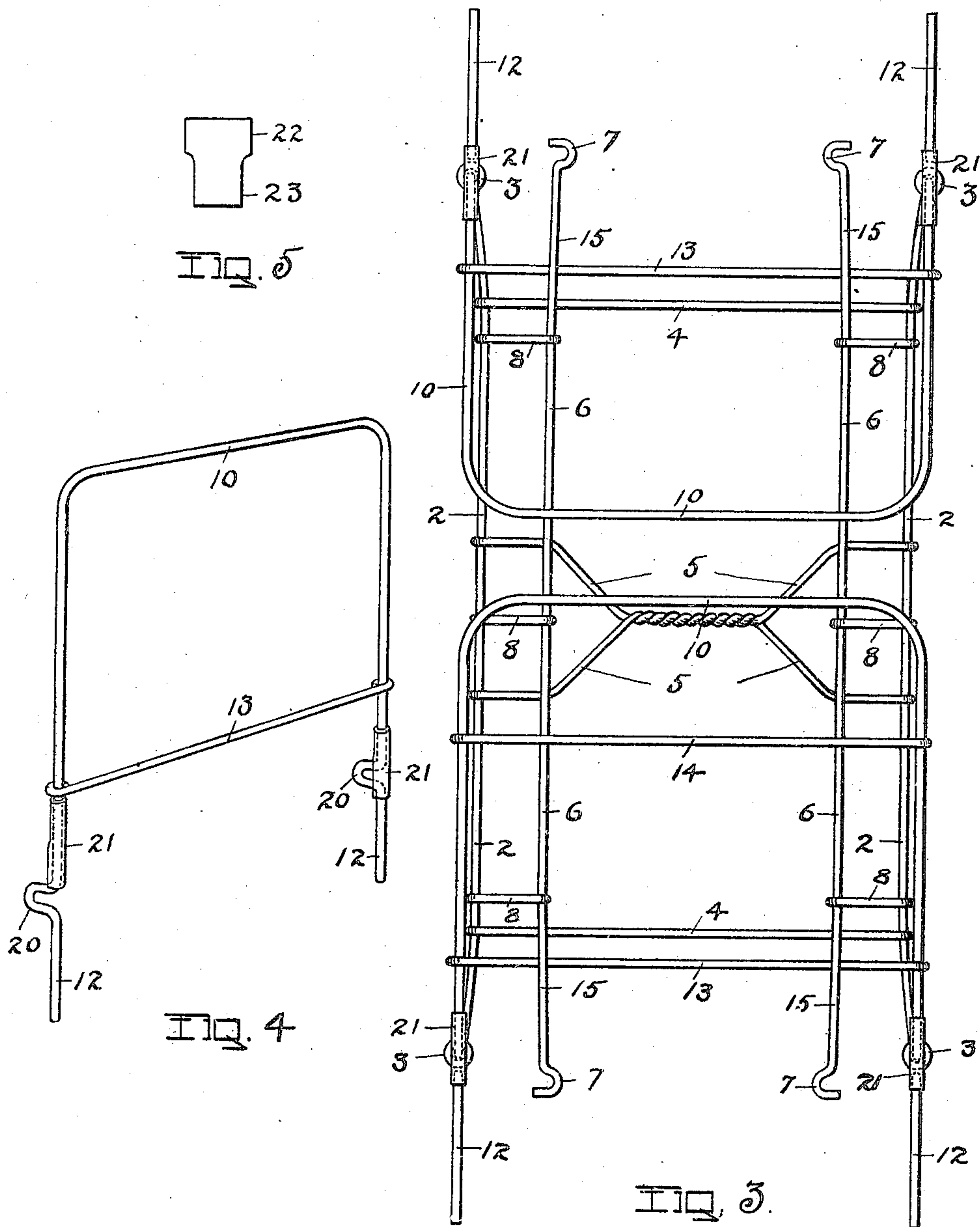
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3 SHEETS—SHEET 3.



WITNESSES
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UNITED STATES PATENT OFFICE.

CHARLES E. KILBOURNE, OF TROY, NEW YORK.

BED.

NO. 875,184.

Specification of Letters Patent.

Patented Dec 31, 1907.

Application filed February 4, 1907. Serial No. 355,563.

To all whom it may concern:

Be it known that I, CHARLES E. KILBOURNE, a citizen of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Beds, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification.

Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in perspective of the improved bed set up ready for use. Fig. 2 is a similar view showing the bed partly folded. Fig. 3 is a top plan view showing the end and side-frames folded down upon the horizontal frame in position for storage when out of use. Fig. 4 is a view in perspective of one of the end-frames detached from the horizontal frame. Fig. 5 is a plan view of a piece of sheet metal forming a blank to be bent up to form one of the locking slides on the corner posts.

The invention is applicable more particularly to toy beds made from wire.

The object of the invention is to cheaply provide a bed which can be folded into a small compass when not in use, and which can be reduced to a still smaller compass for the purpose of packing preparatory to shipment.

The invention consists in hinging the side and end-frames to a horizontal body-frame so that the side-frames can be swung from vertical planes down upon the horizontal planes, and of means for automatically changing the side-frames from a folded to a vertical position by swinging the end-frames from the folded to a vertical position, and at the same time lock the folding frames in vertical positions; also in detachably hinging the end-frames to the horizontal frames whereby the end-frames can be either folded down upon the horizontal body-frame when not in use in a position to automatically raise the side-frames and lock them when raised, or the end-frames can be wholly detached from the horizontal frame and simply superposed thereon forming a smaller package for the purposes of shipment, as will be

hereinafter more fully explained and set forth in the specification and subsequently claimed.

Referring to the drawings, the horizontal body-frame is composed of the parallel longitudinal wires, 1 and 2, each having at its ends an eye, 3, and the cross-wires 4 and 5. The side-frames comprise the parallel longitudinal wires, 6, terminating in U-shaped hooks, 7, and hinged to the longitudinal wires of the horizontal frame by means of the short wires, 8, which are bent loosely at one end around the wires, 1 and 2, and tightly bent at the other end around the wires 6. The end-frames are practically alike, each being composed of a wire bent to form the top, 10, and the upright corner-posts, 12. Each end-frame is also provided with a cross-bar or wire, 13, the taller end-frame being provided with an additional cross-bar 14. These cross-bars serve to strengthen the end-frames and prevent the posts from spreading. The cross-bars, 13, also have a function in connection with the side-frames, as will be hereinafter explained.

To fold the bed from the position shown in Fig. 1 to that shown in Fig. 3, it is only necessary to push the upper ends of the end-frames toward each other which causes the spring arms, 15, of the side-frames to yield sufficiently to permit the cross-bars to leave the hooks, 7, and slide along beneath the hooked arms until all the frames are folded down approximately flat upon the horizontal frame, as shown in Fig. 3, the parts assuming, when partly folded, the position shown in Fig. 2.

It is obvious from the foregoing that the parts can be changed from the folded position, shown in Fig. 3, to the vertical position, shown in Fig. 1, by simply springing the end-frames from the folded position to their vertical positions. While so moving, it will be seen, by inspection of Fig. 2, that the projecting arms, 15, bear upon the cross-bars, 13, and are raised up by such cross-bars until the connecting wires, 8, reach vertical positions, whereupon the U-shaped hooks, 7, swing onto the cross-bars and lock all the movable frames in their vertical positions, as shown in Fig. 1.

As a means for detachably hinging the end-frames to the horizontal or body-frame the corner-posts are provided with U-shaped hooks, 20, adapted to receive the corner eyes, 3, on the horizontal frame, the eyes being

also adapted to receive the wires forming the corner-posts, thus forming a hinge connection between the end-frames and the horizontal frame. As a means for securing the end-frames in their hinged positions on the horizontal frame tubular slides, 21, are placed on each corner-post. These slides are preferably made of sheet metal blanks shaped like the blanks shown in Fig. 5. These blanks are bent up to a tubular form, the wider part, 22, forming a tube which will loosely inclose a corner-post, and the narrower part, 23, forming a semitube which will leave an opening on one side adapted to receive the U-shaped hooks and permit the slide, or a projection from the slide, to cover the mouths or openings of the hooks, as seen on the taller end-frame in Fig. 1 and as shown in Fig. 4, the slide on the left being shown in position to leave the hook open, and the slide on the righthand side of the figure being in position to close the hook. By moving the slide back and forth the pivotal connection between the end-frames and the horizontal frame is locked or unlocked. When unlocked the end-frames can be easily detached by slipping the corner-posts from the eyes.

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

1. In a bed, the combination with a horizontal frame; of a pair of end frames, each having a horizontal cross-bar, and, hinged, respectively, to the opposite ends of the horizontal frame and foldable thereon from vertical planes; a pair of side frames, each having at its ends spring arms projecting in line with the swinging edges of such frames, and provided at their projecting ends with U-

shaped hooks adapted to receive the cross-bars of the end frames, respectively, whereby the projecting arms will bear upon the cross-bars of the end frames when the end and side frames are all folded down upon the horizontal frame, and the swinging movement of the end frames to vertical planes will automatically swing the side frames into vertical planes and lock all the swinging frames in vertical planes by the engagement of the cross-bars with the U-shaped hooks.

2. In a bed, the combination with a horizontal frame having at each of its four corners an eye; of a pair of end frames, each frame having corner posts provided with a U-shaped hook, adapted to be inserted in the corner eyes of the horizontal frame until such corners enter the U-shaped hooks; and means for pivotally locking the corners in such hooks.

3. In a bed, the combination with a horizontal frame made of wire bent to form eyes at the four corners of the frame; of a pair of end frames made of wire bent to form corner posts; and a U-shaped hook in each post adapted to receive the wire forming the corner eyes when the corner posts are inserted in such eyes, and the wire forming the eyes has entered the hooks; and a slide on each corner post having a projection adapted to open and close the U-shaped hook when the slide is moved back and forth on the post.

In testimony whereof, I have hereunto set my hand this 30th day of January, 1907.

CHARLES E. KILBOURNE.

Witnesses:

ALFRED P. SAWYER,
HERBERT D. BURRAGE.