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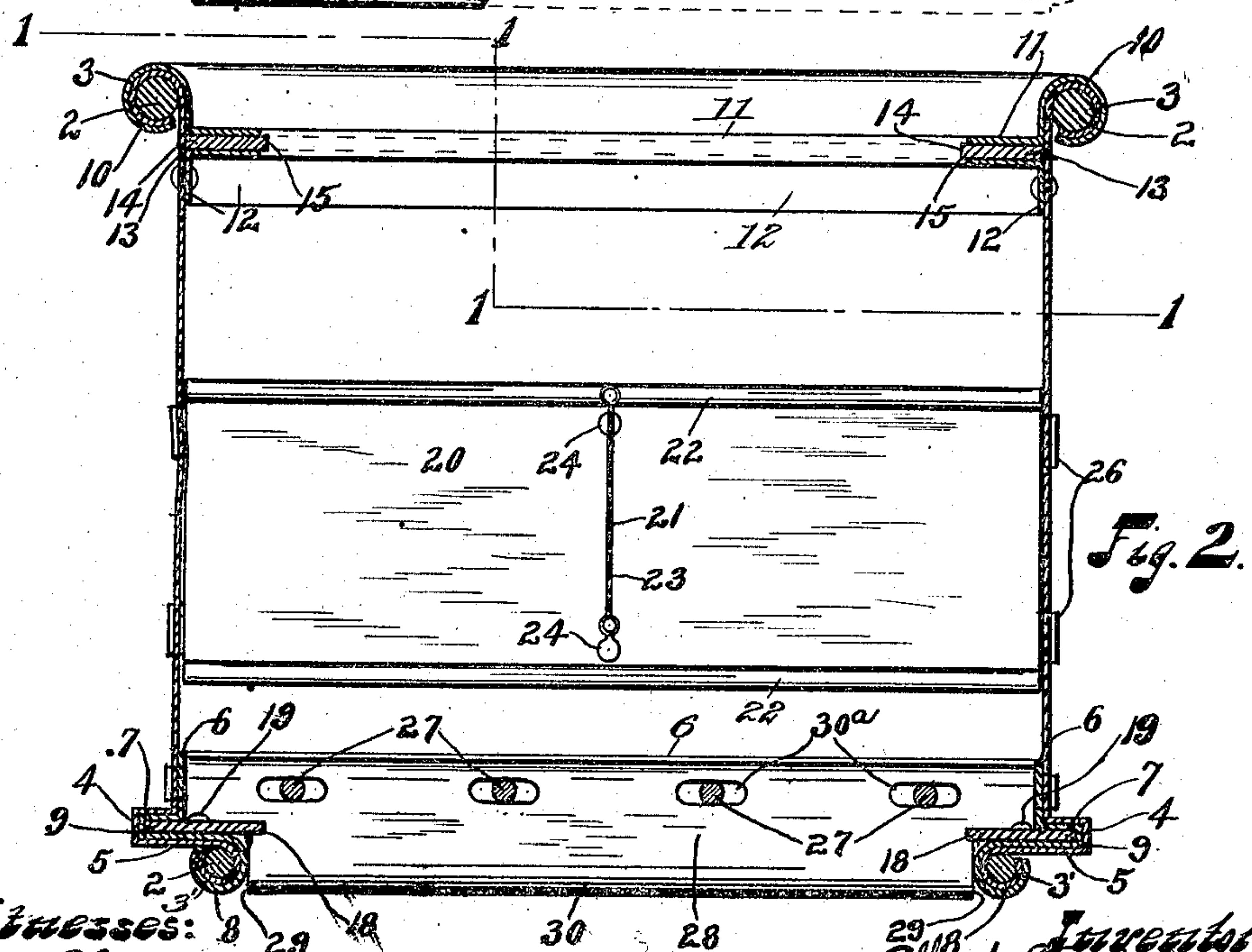
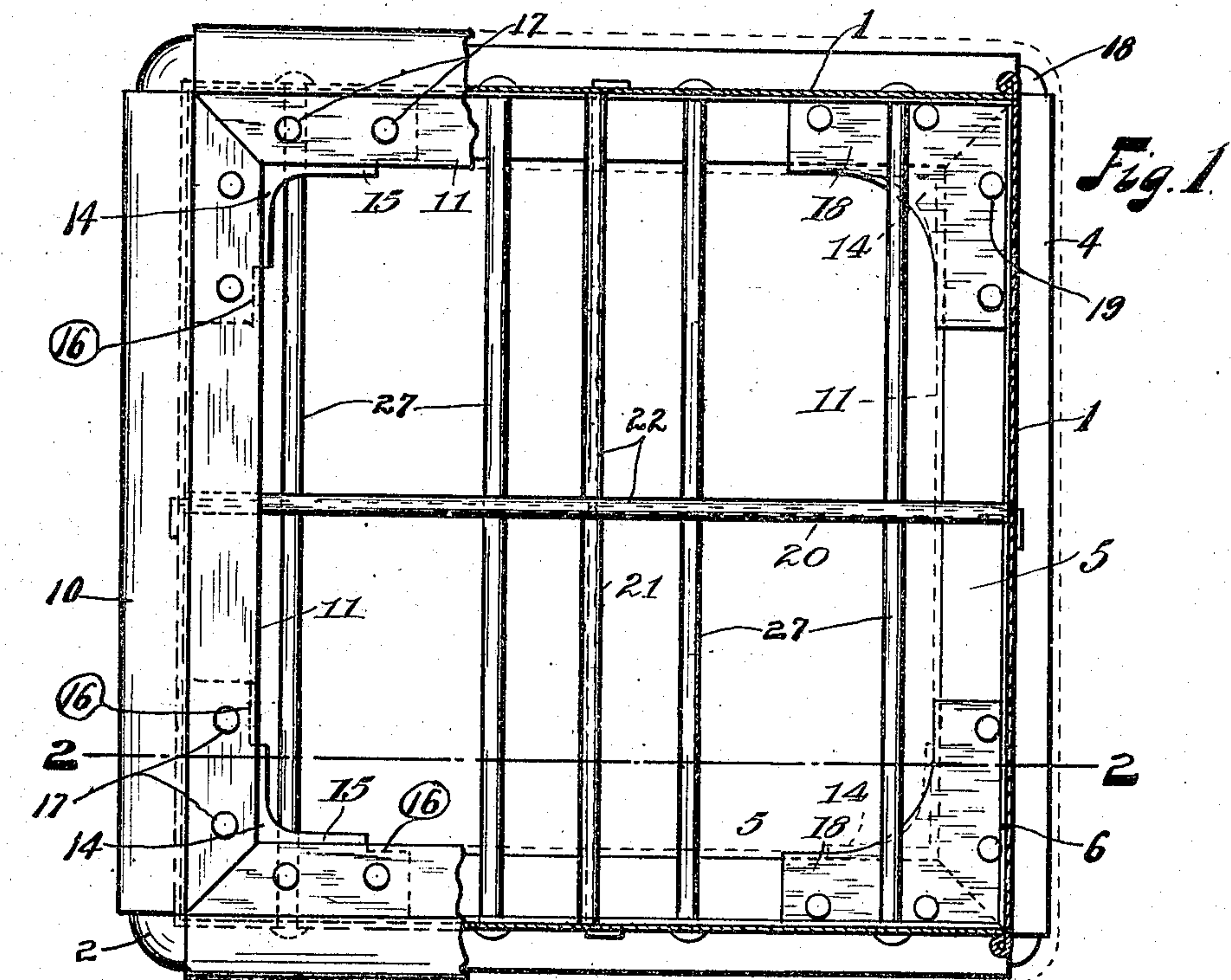
PACKING CASE.

APPLICATION FILED MAY 27, 1907.

905,193.

Patented Dec. 1, 1908.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

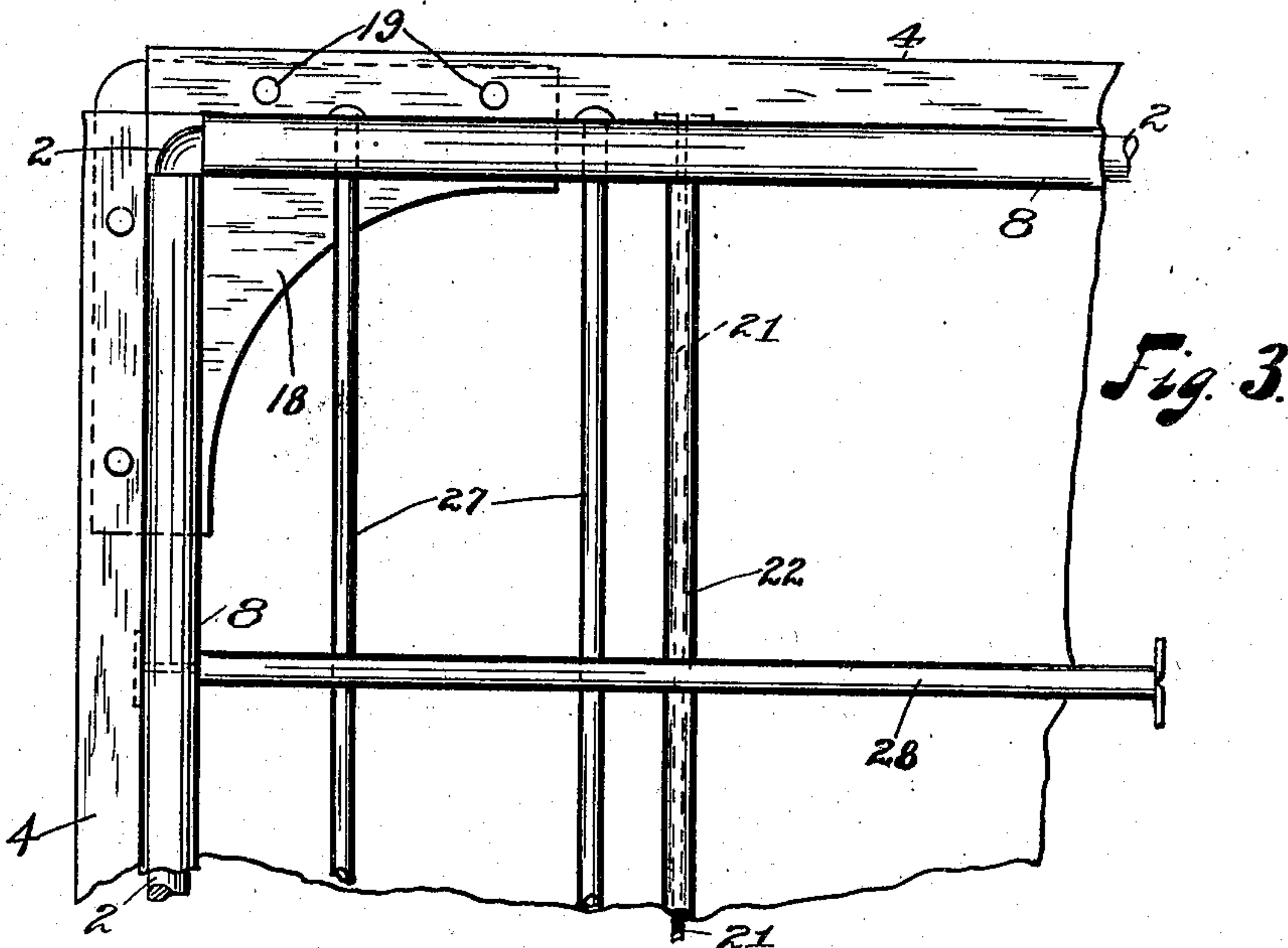


Fig. 3.

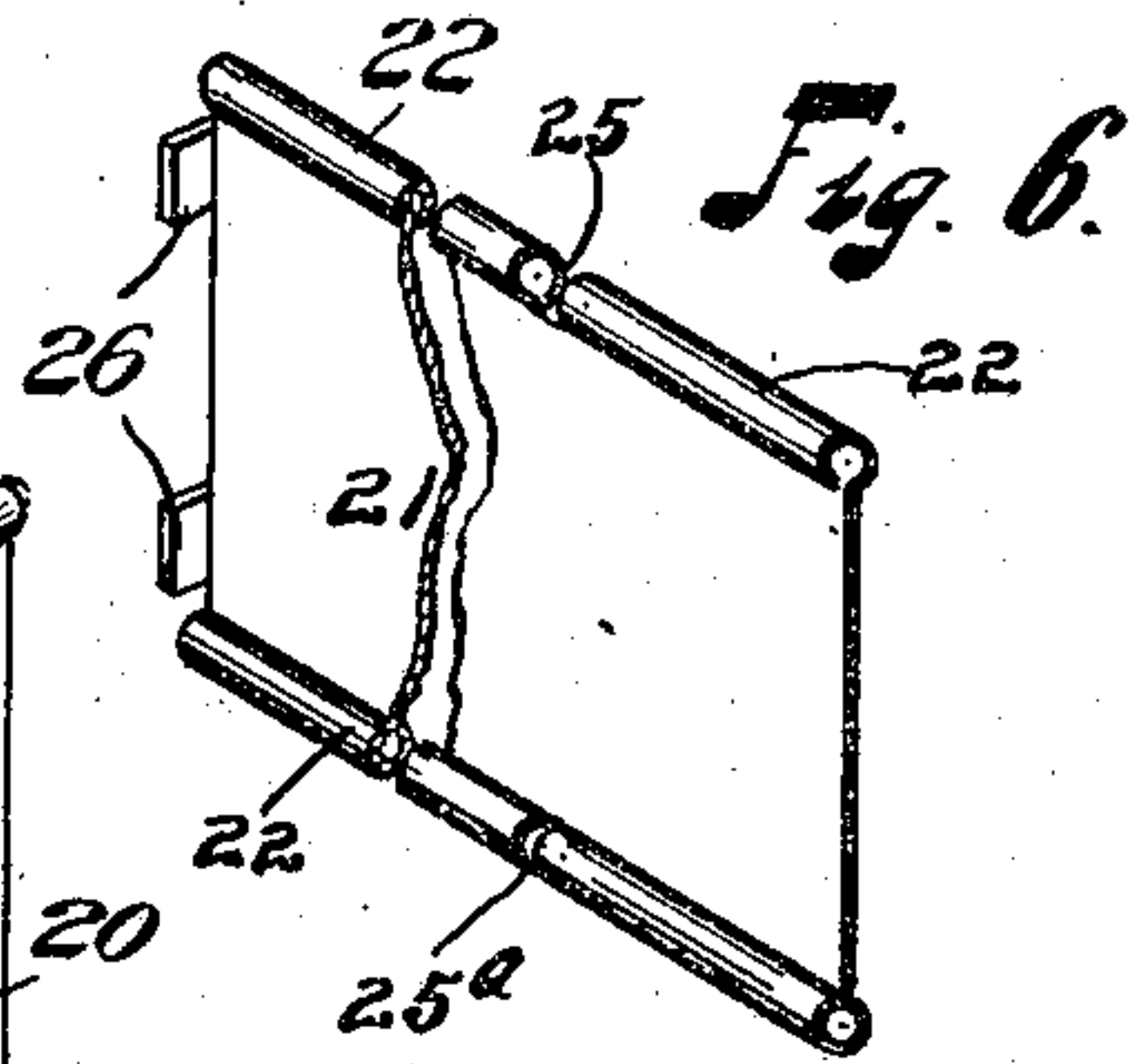


Fig. 6.

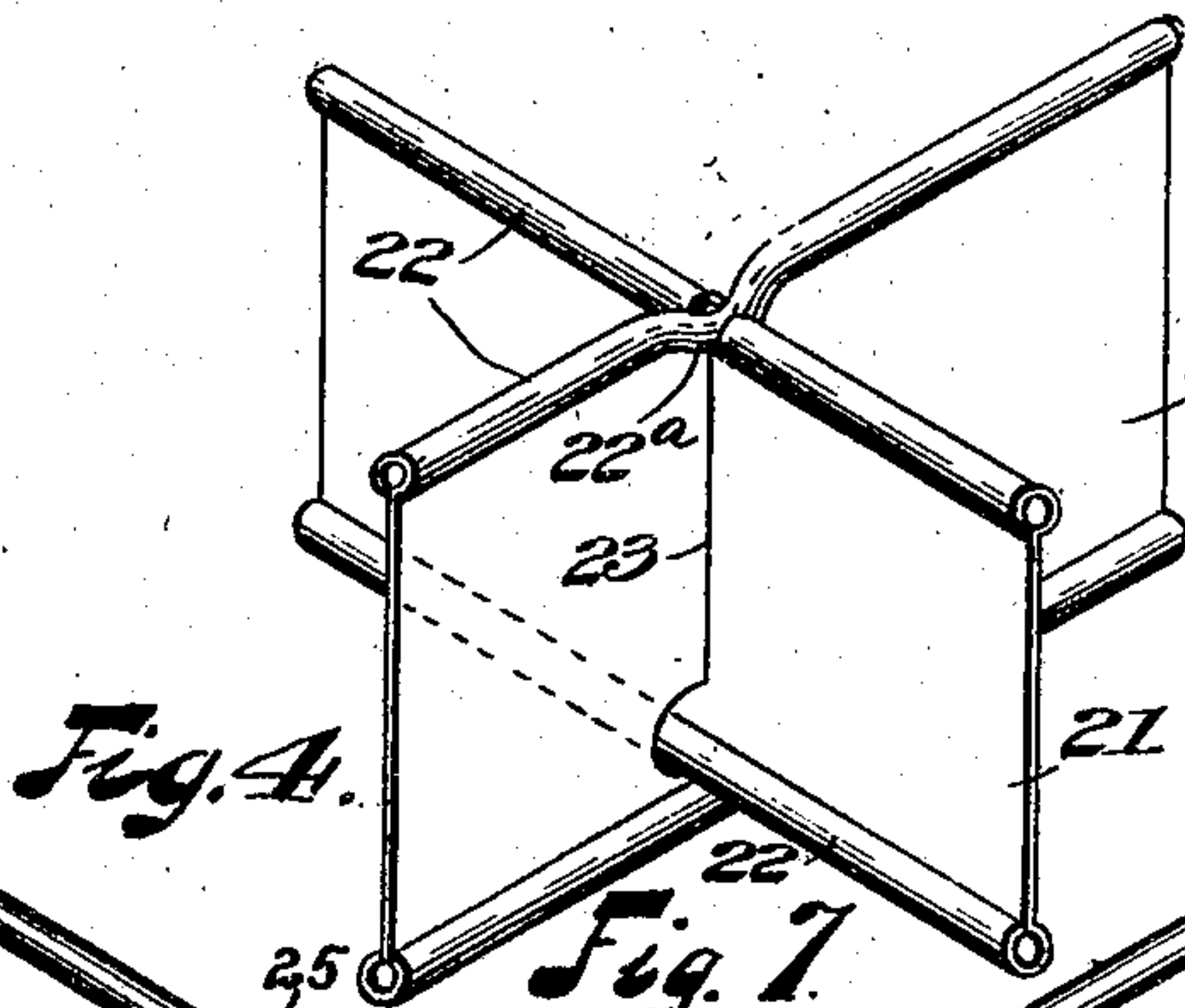


Fig. 4.

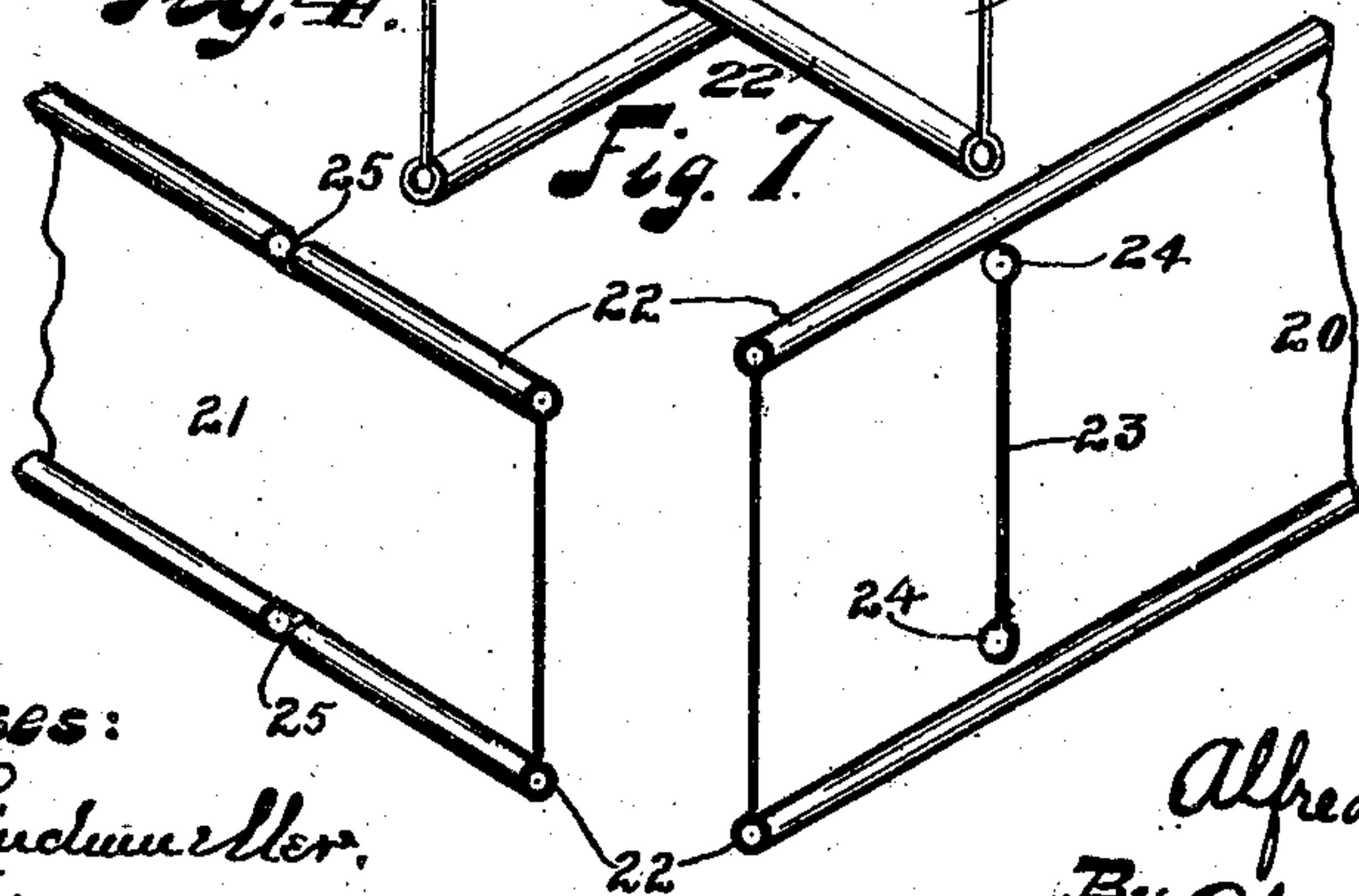


Fig. 7.

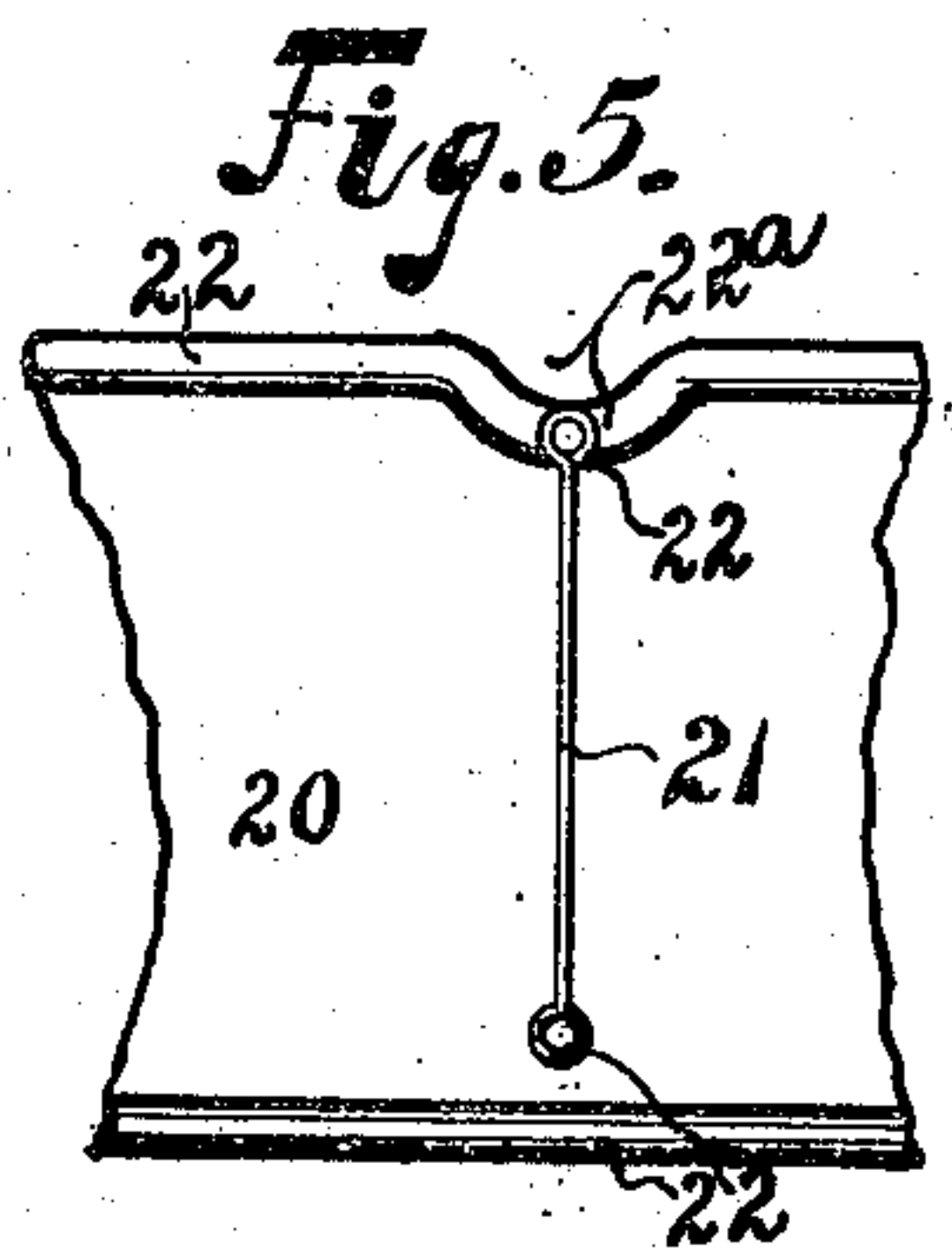


Fig. 5.

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# UNITED STATES PATENT OFFICE

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## PACKING-CASE.

No. 905,193.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed May 27, 1907. Serial No. 375,777.

*To all whom it may concern:*

Be it known that I, ALFRED T. KRUSE, a citizen of the United States, residing at Defiance, in the county of Defiance and State of Ohio, have invented certain new and useful Improvements in Packing-Cases, of which the following is a specification.

My invention relates to improvements in packing-cases designed, primarily, for the transportation and storage of liquids contained in bottles and similar vessels.

The invention relates more particularly to that class or type known as "open bottom" cases, and the paramount object of the invention is to produce a generally-improved sheet-metal packing-case of this class, of great strength and durability, which will be much better adapted to its intended purposes than any other case of the same class with which I am acquainted.

Another object is to provide a generally-improved "open bottom", and greatly strengthen the lower portion of the walls of the case, as well as provide an improved means for securing the open bottom to said lower portion of the walls of the case.

The partition or division plates shown and described herein but not claimed, are made the subject matter of a divisional application, filed August 1st, 1908, Serial No. 446,379.

With these and other ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, Figure 1, is a top plan view of a case embodying my invention a portion of its top being broken away for the purpose of clearer illustration. Fig. 2, a sectional view taken through line 2,—2, of Fig. 1. Fig. 3, a plan view of the under side of a corner portion of the case. Fig. 4, a perspective view of one form of main partition-plate and intersecting auxiliary or cross-plate for forming the bottle-cells. Fig. 5, a view of the intersecting portions of the form of plates shown in Fig. 4, showing manner of securing cross-plate in intersecting position with the main partition plate. Fig. 6, a modified form of auxiliary or cross-partition-plate. Fig. 7, a perspective view of the preferred form of main partition-plate and intersecting auxiliary or

cross-partition-plate for forming the bottle-cells.

Similar characters of reference designate like parts throughout all the figures of the drawings.

The improved case comprises walls 1, suitably secured at their corners by means of an ordinary overlapping seam, or by means of rivets engaging overlapping portions in the usual manner to form the case body, preferably of rectangular form, and each of said walls is preferably made up of a single blank of sheet-metal having the upper and lower marginal edges thereof bent or curled over and about a wire 2, forming an upper and a lower beading 3 and 3', respectively. The lower portion of said walls, just above said lower beading is crimped or flanged forming an outwardly-extending flange 4, and, preferably, a ledge 5, within the vertical planes of the walls. Separate strips of metal are flanged or crimped to form a vertical portion 6, adapted to fit within and abut against the lower portions of the walls of the case above the flange 4, with a second outwardly-extending flange 7, mounted within the flange 4, and curled over and about the lower beading as a second beading 8, forming a double-walled bottom-supporting-flange providing an inner recess 9, and a double-walled lower friction-bearing-beading about the lower edges of the case. As a means of further strengthening the upper edges of the case separate strips or blanks of metal are bent or curled over and about the upper beading 3, forming a second or double beading 10, about the upper edges of the case, and are bent or flanged to form an inwardly-extending flange 11, with a depending-portion 12, adapted to be riveted to the walls of the case, thus forming a double wall about the upper marginal edges of the case.

The flange 11, is preferably formed to provide an inner recess 13, and corner brace-plates 14, are preferably mounted at the upper corners of the case within said recess 13, and extending through a slot 15, with shoulders 16, at their ends abutting against the inner portions of the flange. The brace-plates 14, may be secured by means of rivets 17, passing through the same and the walls of the flange 11.

Corner-brace-plates 18, are mounted in the lower corners of the case by taking into the inner recess 9, and resting on the ledge 5, of



the double-walled bottom-supporting-flange. These plates may be secured by rivets 19, passing into the superposed ledge or flange portion.

5 A plurality of bottle-cells are formed in the case, in the present instance, by means of a main partition-plate 20, intersected by an auxiliary or cross-partition-plate 21, said plates having their edges curled over forming upper and lower beadings 22, adapted to impinge against the bodies of the bottles in the bottle-cells. The auxiliary or cross-plate 21, intersects the main plate 20, by taking through a vertical slot 23, provided with terminal beading-openings 24, adapted to receive the beadings of the intersecting cross-plate 21.

As a means of securing the auxiliary or cross plate 21, in engagement with the main plate 20, oppositely-disposed notched recesses 25, are formed in the beadings 22, of the auxiliary or cross-plate 21, of sufficient width and depth to receive the beadings of the main plate, so as to form a seat for the upper beading of the main-plate when the cross-plate is moved upwardly or a seat for the lower beading when moved downwardly. The cross-plate, however, is preferably moved upwardly so that the upper beadings of the two plates are substantially in the same horizontal plane as shown most clearly in Fig. 2, of the drawings. Furthermore, if desired, a narrow recess or slot 25<sup>a</sup>, may be formed in the lower beading 22, of the cross-plate 21, of only sufficient width to receive the thickness of the metal of the main plate 20, as shown in Fig. 6, of the drawings, in which case the auxiliary or cross plate could only be moved in the one direction for fastening with the main plate. When the plates have been properly positioned for intersecting engagement with each other, as well as properly positioned in the case body, the ends are preferably secured to the walls 1, by means of tongues 26, passing through vertical slots and bent over the outer sides of said walls. If desired, the recesses 25, or 25<sup>a</sup>, may be dispensed with in the lower beading 22, of the cross-plate 21, and the latter locked in intersecting engagement with the main plate 20, by bending and depressing the upper beading 22, of the main plate downward into the notched recess 25, of the upper beading 22, of the cross-plate forming a depressed portion or recess 22<sup>a</sup>, as shown most clearly in Figs. 4, and 5, of the drawings.

The open bottom comprises a plurality of bottle-supporting-bars 27, having their ends extending through suitable openings or holes in the vertical portion 6, of the separate strips and through the walls of the case, and have their ends riveted as shown. The bars 27, are supported, intermediate their ends, by means of a main or cross supporting-bar 28, having notched ends 29, resting upon the

ledge 5, of the bottom-supporting-flange, and, preferably, having a depending portion 30, in the same plane or flush with the friction-bearing-beading about the lower edges of the case. The bars 27, intersect the supporting-bar 28, through suitable openings, preferably elongated in the form of horizontal slots 30<sup>a</sup>, and midway of their ends as shown, and the ends of the bar 28, are preferably secured to the walls of the case in a similar manner to that of the partition-plates 20, and 21.

Having thus described my invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, I declare that what I claim and desire to secure by Letters Patent, is,—

1. In a packing case, walls reinforced at their lower edges and crimped into a double-walled outwardly-extending flange, said flange affording an inner recess and having its lower member extending inwardly forming a ledge within the vertical planes of said walls terminating in a double-walled depending friction-bearing beading.

2. A packing-case, comprising walls having their upper and lower edges curled over and about a wire forming an upper and a lower beading, separate strips of metal mounted with the upper and lower marginal edges of said walls forming double-walled upper and lower marginal edges and curled over and about said upper and lower beadings forming double-walled upper and lower beadings, an open bottom comprising bars having their ends secured to said double-walled lower marginal edges, and a main and a cross-partition-plate secured to said walls forming bottle-cells above said bars of said open bottom.

3. A packing-case, comprising walls having their edges curled over and about a wire forming an upper and a lower beading, separate strips of metal curled about said upper and lower beadings and extending within said walls forming a double-walled marginal portion adjacent to said beadings, said double-walled marginal portion adjacent to said lower beading being crimped into an outwardly-extending bottom-supporting-flange providing an inner recess and having its lower member extended inwardly forming an inner ledge, an open bottom comprising a plurality of bars secured in said double-walled marginal portion along said lower beading, and partition-plates interposed between said walls forming bottle-cells above said open bottom.

4. A packing-case, comprising walls having their upper and lower marginal edges provided with inner marginal strips of metal curled outwardly about a wire forming an upper and a lower double-walled beading and a double-walled marginal portion along said beadings, said marginal strip along



said upper beading being flanged forming an inwardly-extending flange and said double-walled portion along said lower beading being flanged outwardly forming an outwardly-extending bottom-supporting-flange, and an open bottom secured to said double-walled marginal portion above said bottom-supporting-flange.

5. A packing-case, comprising walls, strips of metal mounted within the upper and lower marginal edges thereof and curled outwardly with said marginal edges about a wire forming an upper and a lower double-walled beading and a double-walled marginal portion along said beadings, said double-walled marginal portion along said lower beading being flanged forming an outwardly-extending flange having its lower member extending inwardly forming an inner ledge within the vertical planes of said walls, and an open bottom comprising supporting-bars intersecting a cross-supporting-bar, said supporting-bars having their ends secured in said double-walled marginal portion along said lower beading and said cross-supporting-bar having its ends taking over and resting on said ledge.

6. A packing-case, comprising walls having their edges curled over and about a wire forming an upper and a lower beading, separate strips of metal curled about said upper and lower beadings and extending within said walls forming a double-walled marginal portion along said beadings, said double-walled marginal portion along said lower beading being crimped into an outwardly-extending flange and said strips of metal curled over said upper beading being flanged forming an inwardly-extending flange, corner-brace-plates mounted within said outwardly and inwardly-extending flanges, an open bottom secured to said double-walled marginal portion along said lower beading, and partition plates interposed between said walls forming bottle-cells above said open bottom.

7. A packing-case, comprising walls having their edges curled outwardly and about a wire forming an upper and a lower beading, separate strips of metal curled about said upper and lower beadings and extending within said walls forming a double-walled marginal portion along said beadings, said double-walled marginal portion along said lower beading being crimped forming an outwardly-extending bottom-supporting-flange providing an inner recess and having the lower member of said flange extending inwardly forming a ledge, and said strip of metal curled over said upper beading being flanged forming an inwardly-extending flange within the upper edges of the case, corner-brace-plates secured to said outwardly and inwardly extending flanges, and an open bottom secured to said double-

walled marginal portion along said lower beadings.

8. A packing-case, comprising walls provided with an outwardly-extending flange terminating in a depending beading, separate strips of metal forming a second wall within said walls above said outwardly-extending flange and a second flange affording an inner recess mounted within said first flange and terminating in a second beading curled about said first mentioned beading.

9. A packing-case, comprising walls provided near their lower edges with an outwardly-extending flange terminating in a depending beading, separate strips of metal comprising an upper vertical portion fitting within said walls above said outwardly-extending flange and a second flange mounted within said first flange and terminating in a second beading curled about said first mentioned beading, said strips of metal forming a double wall above said flange and a double-walled bottom-supporting-flange affording an inner recess.

10. A packing-case, comprising walls terminating at their base in an outwardly-extending flange and depending beading, reinforcing-strips forming a second flange and beading mounted within and about said first flange and beading, respectively, and provided with a vertical portion forming a double wall above said outwardly-extending flange, and an open bottom comprising a plurality of bars having their ends extending through said double wall above said flange and riveted to the outside of the case.

11. A packing case, comprising walls provided with a double-walled base portion terminating in a double-walled bottom-supporting-flange providing an inner ledge terminating in a double-walled friction-bearing-beading, and an open bottom comprising a plurality of bars extending through said double-walled base portion above said bottom-supporting-flange, and a main supporting-bar intersected by said bars and having its ends resting on said inner ledge.

12. A packing-case, comprising walls provided about their lower marginal edges with an inner reinforcing strip, said lower marginal edges and reinforcing strip being crimped into a double-walled bottom-supporting-flange providing an inner recess, the lower member of said flange forming a double-walled inner ledge terminating in a double-walled friction-bearing beading.

13. A packing case, comprising walls carrying a reinforcing strip within their lower marginal edges, said lower marginal edges and reinforcing strip being crimped into an outwardly-extending bottom-supporting-flange having its lower member extending inwardly forming a ledge and terminating in a depending friction-bearing beading, and an open bottom comprising a plurality of

bars having their ends secured within said lower marginal edges of the case and above said ledge.

14. A packing case, comprising a case body provided about its lower marginal edges with an outwardly-projecting flange having its lower member extending inwardly forming a ledge within the vertical planes of the walls of said case body and terminating in a depending friction-bearing beading, and an

open bottom comprising a plurality of bars having their ends secured above said ledge and a cross-supporting-bar having its ends resting on said ledge.

In testimony whereof I have affixed my signature, in presence of two witnesses.

ALFRED T. KRUSE.

Witnesses:

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E. J. ALLEN.