

Feb. 7, 1928.

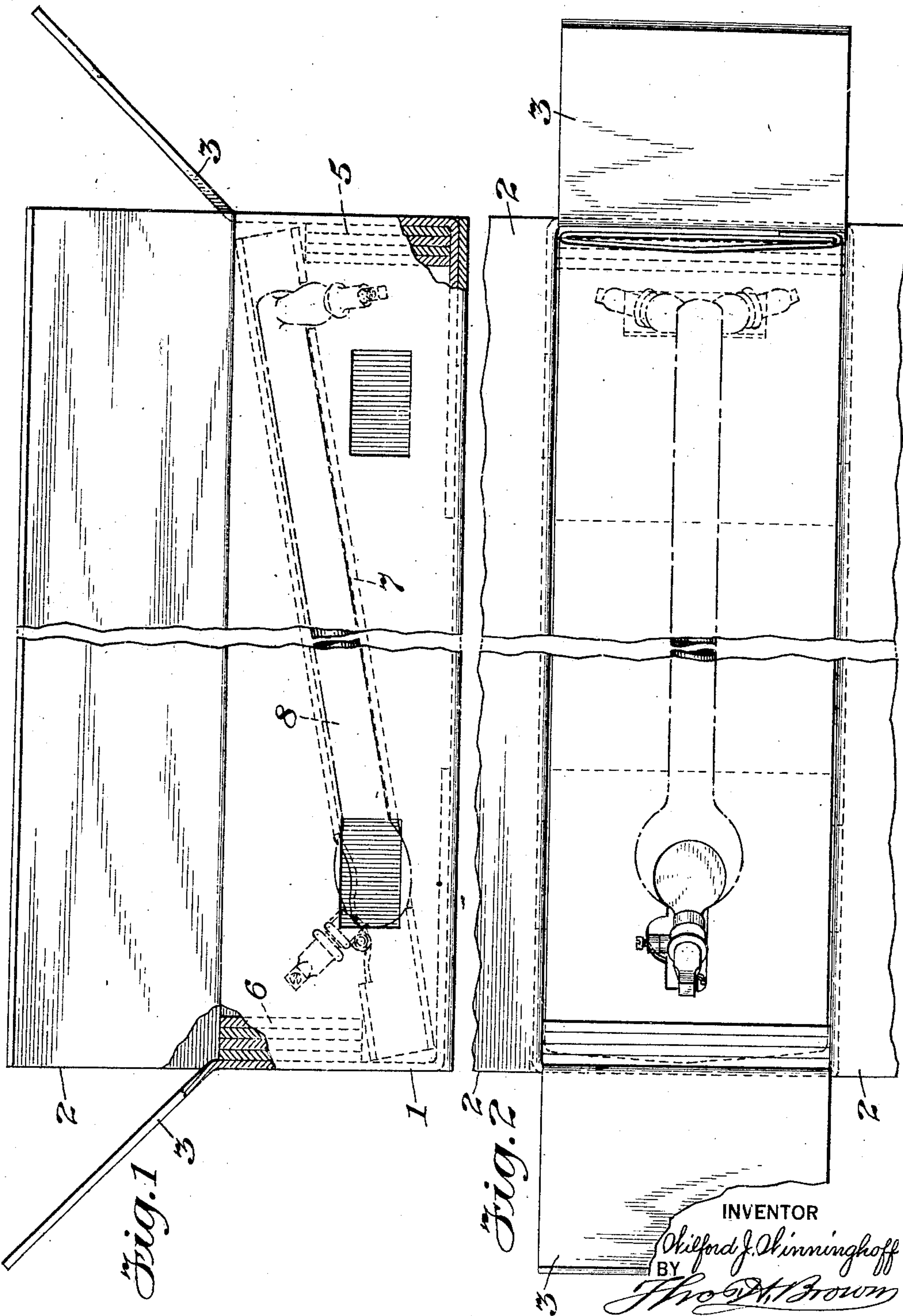
W. J. WINNINGHOFF

1,658,622

SHIPPING CASE

Filed April 27, 1925

2 Sheets-Sheet 1



INVENTOR

W. J. Winninghoff

BY

Thos. M. Brown

HIS ATTORNEY

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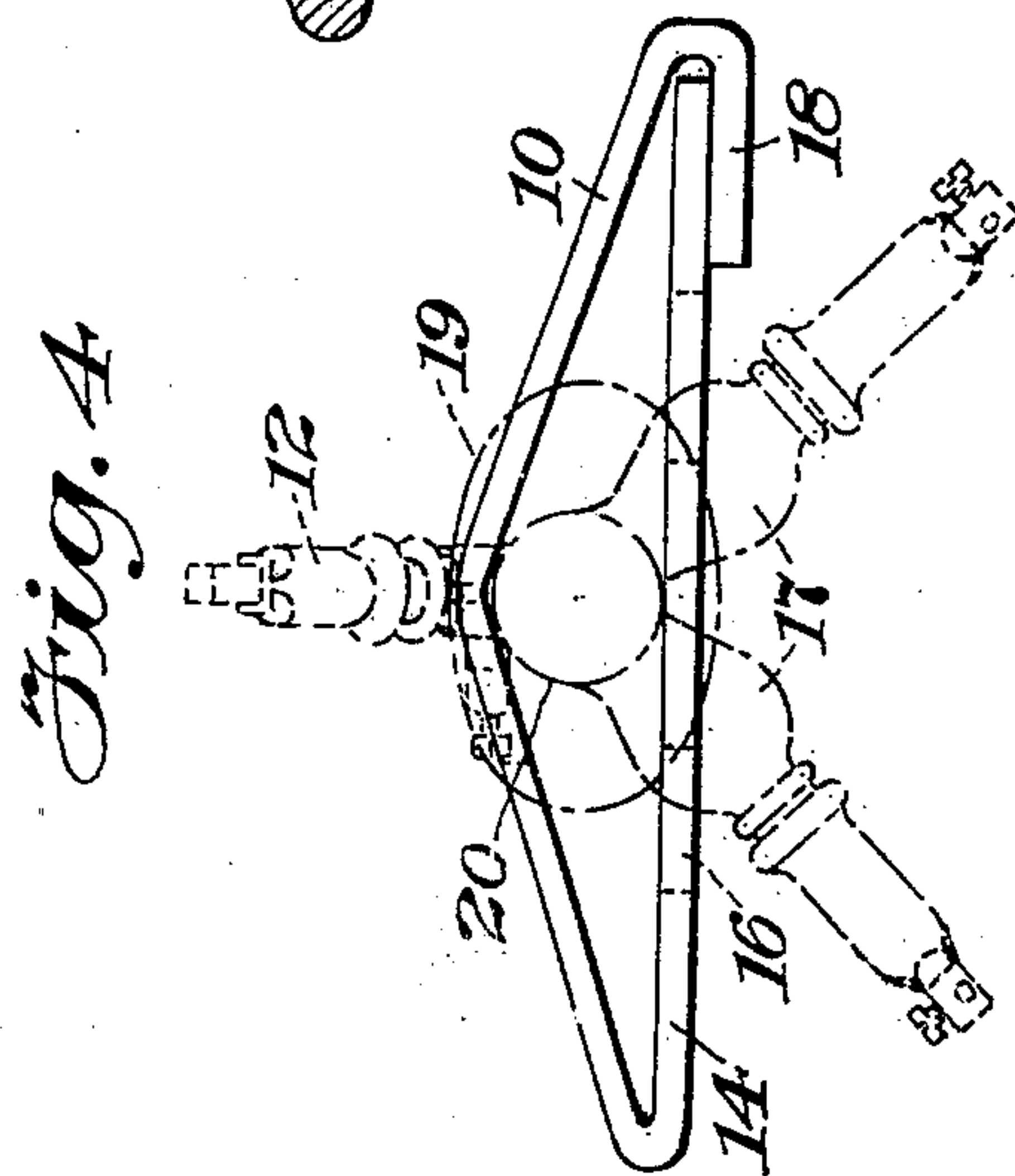
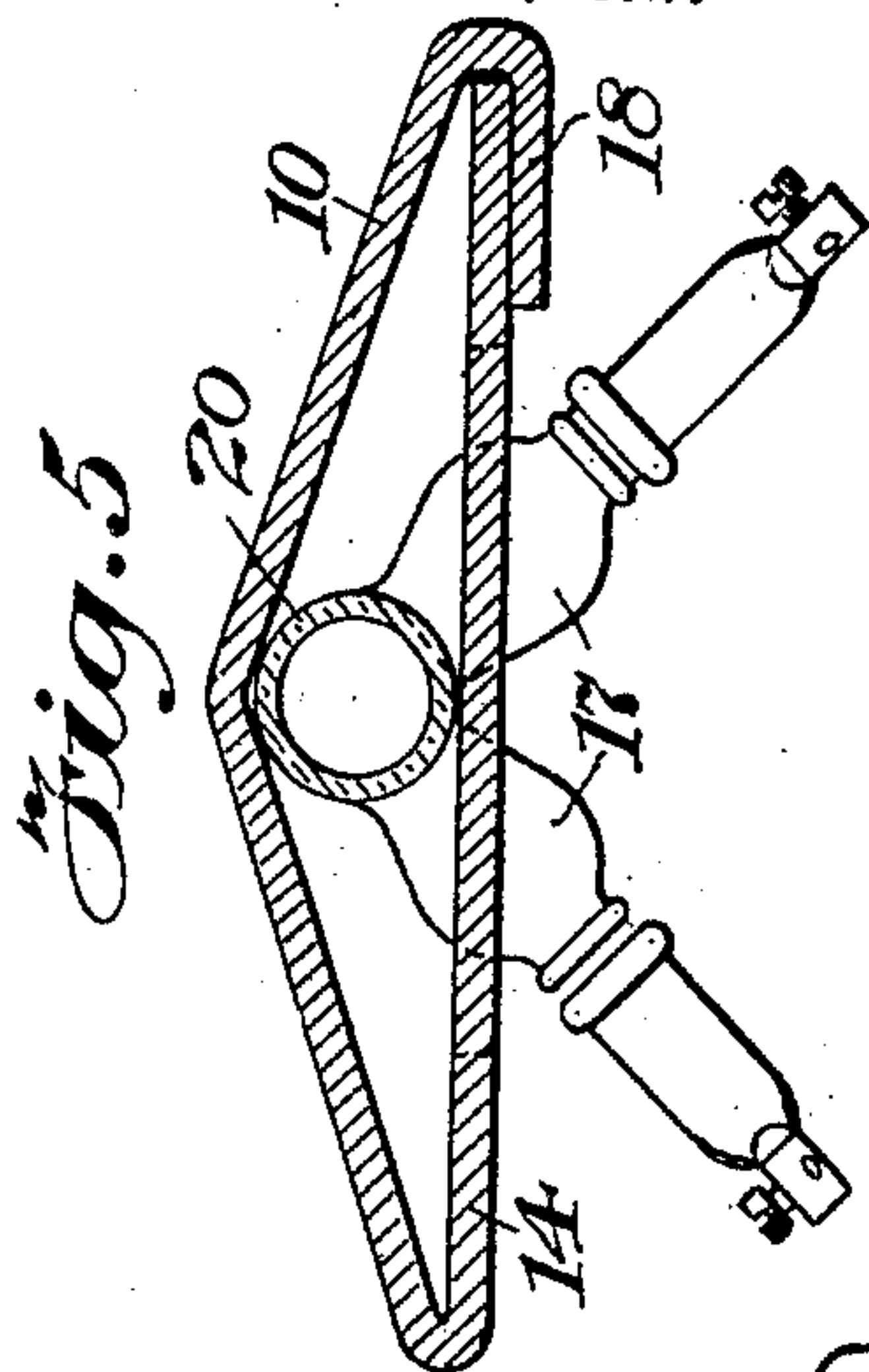
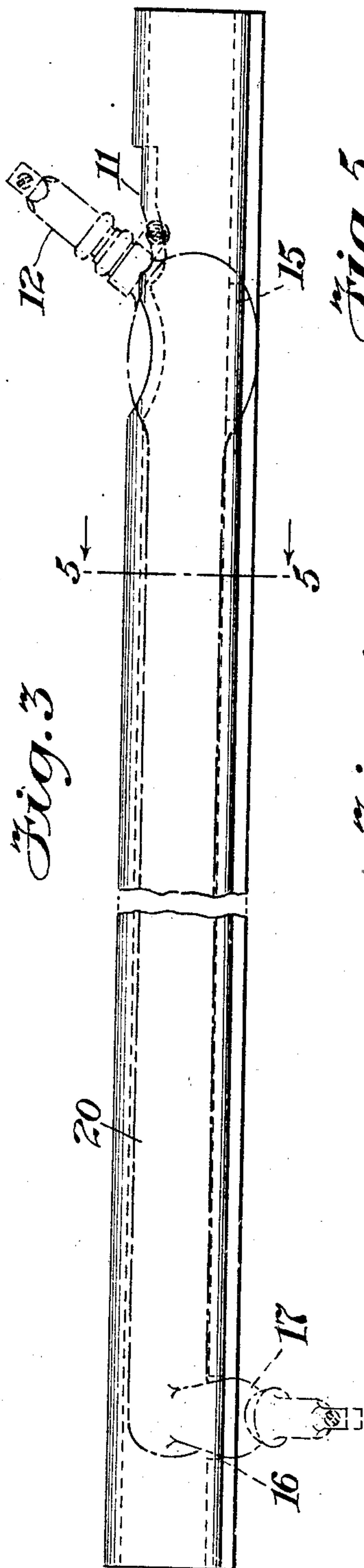
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2 Sheets-Sheet 2



INVENTOR
Wilford J. Winninghoff
BY
Thos. A. Brown
HIS ATTORNEY

UNITED STATES PATENT OFFICE.

WILFORD J. WINNINGHOFF, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO COOPER HEWITT ELECTRIC COMPANY, OF HOBOKEN, NEW JERSEY, A CORPORATION OF NEW JERSEY.

SHIPPING CASE.

Application filed April 27, 1925. Serial No. 26,046.

My present invention relates to boxes of card board, preferably corrugated board, or other suitable material, for use in the transportation of glass apparatus particularly mercury vapor lamps which comprise a long column of glass tubing having electrodes and electrode chambers projecting therefrom at right angles at one end and having a bulb at its other end with electrode or electrodes projecting therefrom at sharp angles and containing a substantial quantity of mercury usually in the neighborhood of half a pound, the length of the tube ranging from forty to sixty inches.

It is therefore an object of my invention to provide a box of cardboard or other light material which will not add greatly to the cost of transportation of the lamp and which will thoroughly protect the lamp from breakage due to jarring or excessive pressure from the outside and which will also hold the lamp in the most advantageous position to avoid excessive hammering of the mercury within the lamp.

It is also an object of my invention to provide such a box which will be cheap to manufacture and assemble as well as being of light and strong structure.

Other objects of my invention will appear from the specification and accompanying drawings.

In the drawings forming a part of this specification:

Fig. 1 is an elevation view in shortened section of the box of my invention with cover members open and showing therein lamp wrapping and supporting means and the lamp itself in the box in dotted lines and in part section,

Fig. 2 is a plan view of the box of Fig. 1 partly cut away showing therein the lamp supporting and holding means and the lamp mounted therein,

Fig. 3 is a longitudinal view in elevation of a shortened section of means used in the box of my invention for wrapping and holding the lamp and protecting it against breakage, the lamp being shown mounted therein in dotted lines, and

Fig. 4 is an end view of lamp holding means of Fig. 3, and

Fig. 5 is a section view along line 5—5 of Fig. 3 showing the relation of the wrap-

ping member to the lamp in their relative position when assembled for shipping.

In the drawings the longitudinal box 1 carries at its upper edges suitable closure members 2, 2 and 3, 3 formed integral with the side and end walls thereof. At one end is mounted a composite block 5 of superimposed layers of cardboard which is set on edge resting on the bottom of the box 1 and extending thereacross at one end thereof, it being suitably fastened in such position by gluing or clipping. Said block 5 is of such height so as to provide a substantial space between its top edge and the upper limits of the box. A similar block 6 is mounted at the opposite end of its upper edge even with the top edge of the box and providing a space between its lower edge and the bottom of the box.

Extending between the ends of the box 1 with one end positioned under the lower edge of block 6 and with its other end on said block 5 is the lamp wrapping member 7 of strong card board which member 7 is of such thickness as to compactly extend from the block 6 to the bottom of the box 1 at its lower end and to compactly extend from the top of block 5 to the top of the box 1 when it is closed, that is, when the flaps 3, 3 are bent inwardly and on to the box and the cover flaps 2, 2 folded in turn thereover and glued thereon in the manner well known in the packing art. Said member 7 also extends from one side to the other of the box 1 to compactly fit therein whereby with said fittings at the ends of the lamp H is held by the wrapping member 7 and the box 1 against any movement therein.

Said wrapping member 7 is formed of a blank comprising a longitudinal intermediate member 10 having formed therein an opening 11 for the protrusion of the terminal 12 of the lamp, a longitudinal flap 14 co-extensive with said member 10 which is of a width substantially equal to that of the interior of the box 1 and has formed therein the opening 15 directly opposite said opening 11 and an opening 16 at the end opposite said opening 11 and which provides for the protrusion of the terminal 17, 17 of the lamp when wrapped in said member 7, and a flap 18 extending longitudinally of member 10 on the side opposite flap 14

which is adapted for holding around the edge of flap 14 when the lamp is wrapped between that member and member 10 whereby the lamp can be securely held between the members 10 and 14 by the fastening together of flaps 14 and 18 as by the use of glue or stickers or the like. In the wrapping of the lamp in member 7 the flap 14 is left flat for secure engagement with the bottom of the box 1 at one end and with the top of block 5 at its other end, and the member 10 is bent or curved to tightly hold the bulb 19 of the lamp at one end through the nesting thereof on one side against the sides of opening 11 and at the other side of the bulb against the edges of the opening 15 in flap 14. The member 10 also wraps around the tubular portion 8 of the lamp whereby it is protected by the stiff envelope in contact therewith and formed throughout its length by the cooperating members of said wrapping member 7 from lateral strains from any direction and also longitudinal strains, said opening 16 being formed of such a size and at such a distance from openings 11 and 15 that the member 10 touches said tube at a plurality of points around the sides of the lamp.

When the lamp is wrapped in member 7 and secured therein by fastening flap 18 to flap 14 the member 7 is positioned in the box in an inclined position with one end positioned under block 6 and the other end on block 6, the large bulb of the lamp being at the lower end. The flaps 2 and 3 of the box are then closed and fastened as by gluing or pasting with gummed strips, now the top flaps of the box hold the member 7 carrying the lamp 8 securely held against movement in the box.

I claim:

1. In a packing case for fragile articles a container, a rigid separate wrapping member for holding the article, a cover for the

container, and means cooperating with the cover for holding said wrapping member against movement in the container and for holding it wrapped about the contained article when the cover is secured in place.

2. In a packing case for fragile articles, a container, a stop member positioned on the interior of one of the sides of the container and spaced away from the bottom thereof, a stop member on the interior of one of the sides of the container and spaced away from the top thereof, and a separable holding member adapted to fit at one extremity between first said stop and the bottom and at another extremity between second said stop and the container cover when closed and being of such dimensions at these extremities when positioned in the container as to fit tightly between said bottom and top and said stops respectively.

3. In a packing case for fragile articles, a container, a stop member positioned on the interior of one of the sides of the container and spaced away from the bottom thereof, a stop member on the interior of one of the sides of the container and spaced away from the top thereof, and a separable holding member adapted to be held in an inclined position and to fit at one extremity between first said stop and the bottom and at another extremity between second said stop and the container cover when closed and being of such dimensions at these extremities when positioned in the container as to fit tightly between said bottom and top and said stops respectively and being of such length and breadth as to fit in its inclined position across substantially the entire cross section of the container.

Signed at Hoboken in the county of Hudson and State of New Jersey this 20 day of April A. D. 1925.

WILFORD J. WINNINGHOFF.