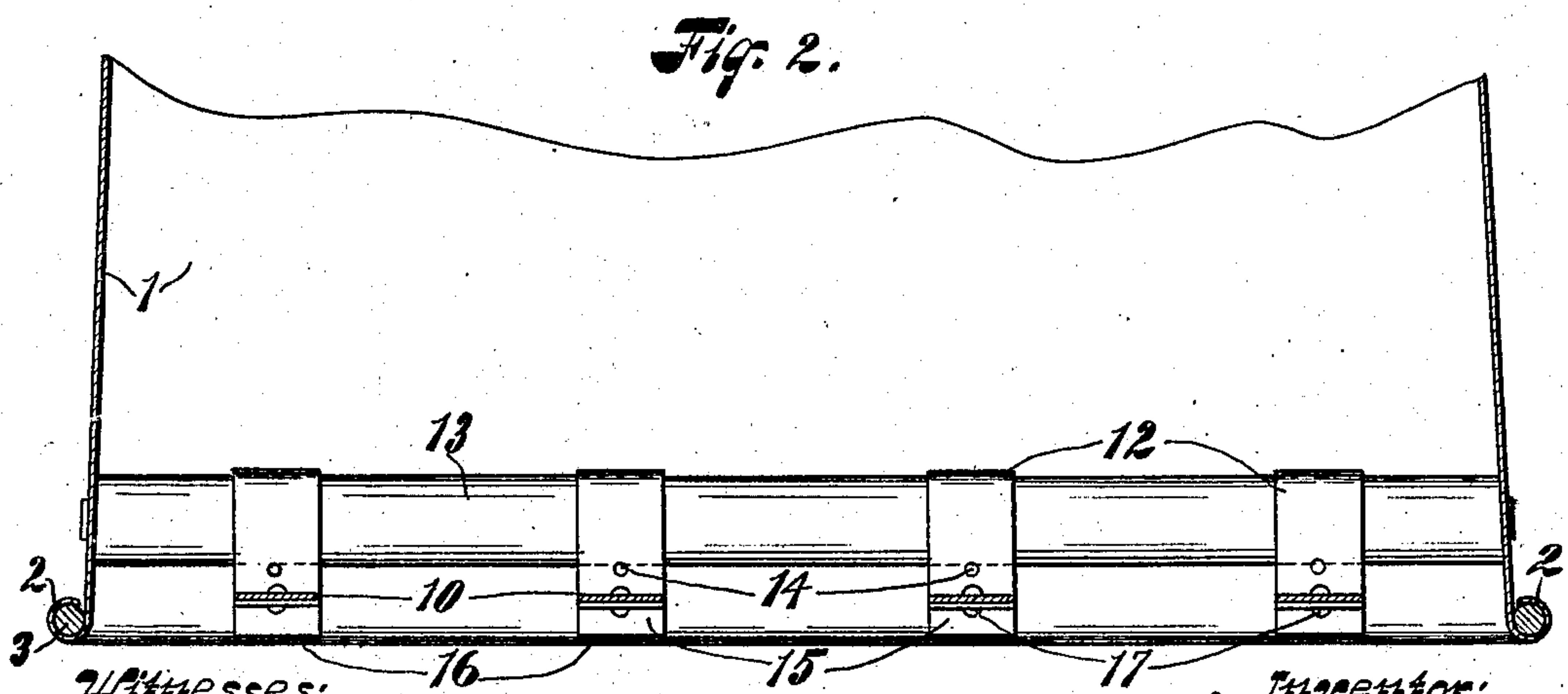
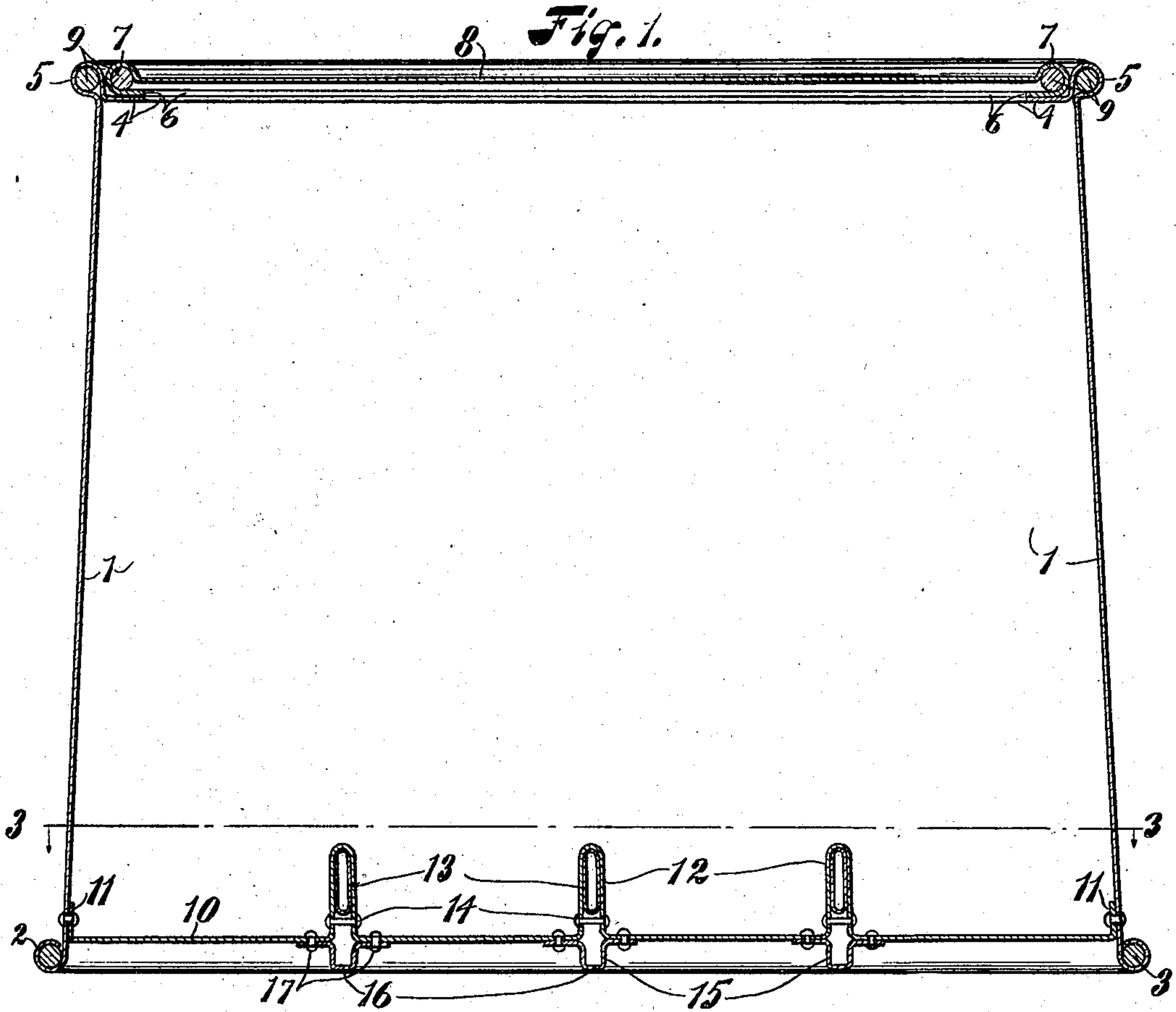


No. 881,419.

PATENTED MAR. 10, 1908.

A. T. KRUSE.
SHEET METAL PACKING CASE.
APPLICATION FILED SEPT. 5, 1906.

2 SHEETS—SHEET 1.



Witnesses:
Edw. Lindemüller.
Harry J. Gettins.

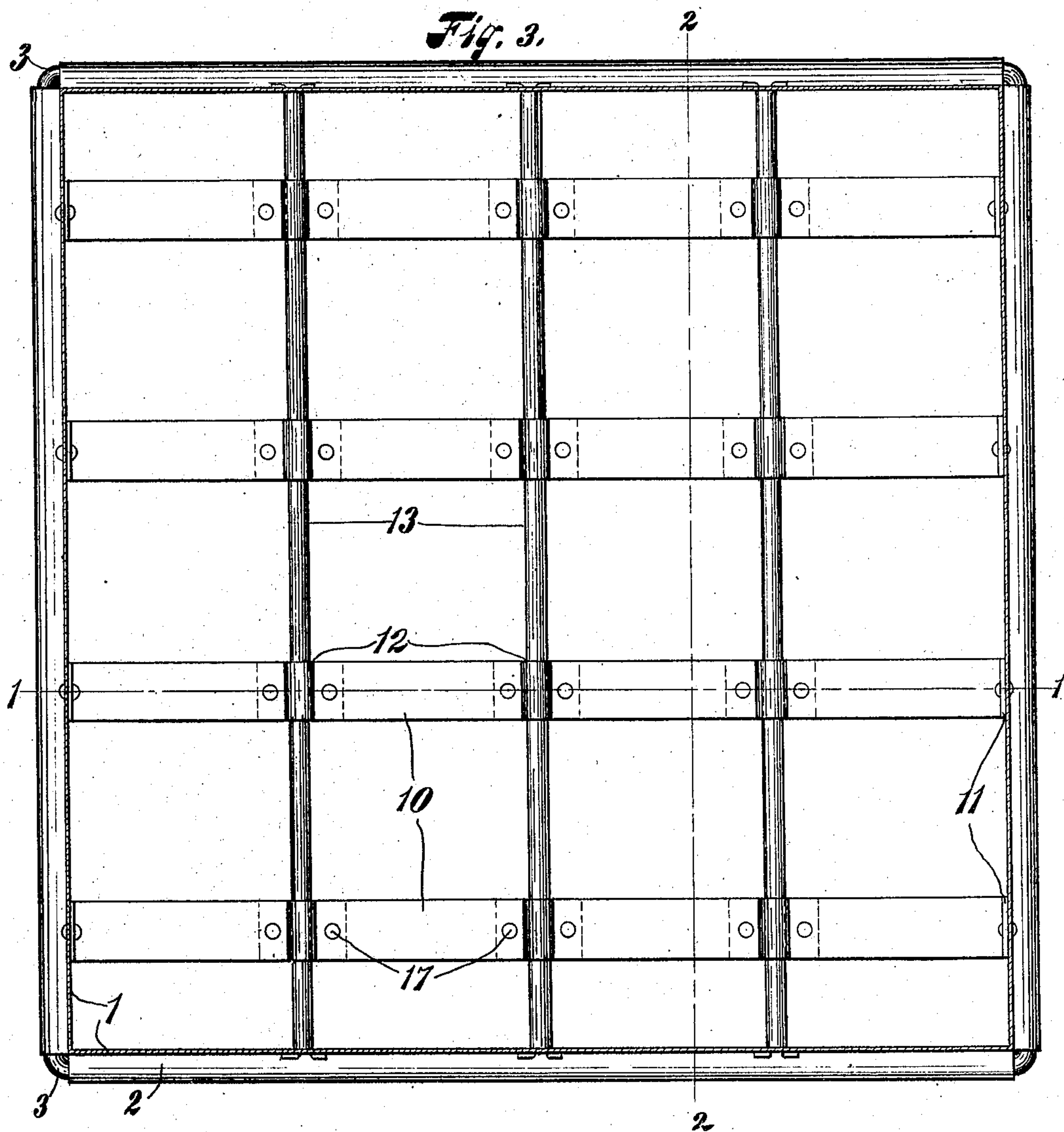
Inventor:
Alfred T. Kruse
By Obed T. Billman
His Attorney.

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UNITED STATES PATENT OFFICE.

ALFRED T. KRUSE, OF DEFIANCE, OHIO, ASSIGNOR TO THE AMERICAN STEEL PACKAGE COMPANY, OF DEFIANCE, OHIO, A CORPORATION OF OHIO.

SHEET-METAL PACKING-CASE.

No. 881,419.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed September 5, 1906. Serial No. 333,287.

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 Sheet-Metal Packing-Cases, of which the following is a specification.

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

The invention relates to the class of sheet-metal packing-cases which are without a closed bottom as well as to the class known as "stacking-cases",—that is,—the bottles or containing vessels in the compartments or cells are supported by means of a series of supporting-straps interposed between and secured to the lower portions of the walls of the case, and said walls are tapered or inclined so that the cases may be "stacked" one above the other, the beading formed about the lower edges of the walls of the case being adapted to take over the beading formed about the upper edges of the case upon which it is stacked or supported.

The paramount object of the invention is to produce a generally improved case of this class which will be simple in construction, cheap of manufacture, durable in use, and much better adapted to its intended purposes than any other invention of the same class with which I am acquainted.

Another object is to provide a series of supporting-straps for bottles to be used in conjunction with sheet-metal partitions or divisions preferably constructed like those disclosed in Patent No. 805,424, issued to me Nov. 21, 1905, and which will not only tend to strengthen and support the lower portion of the walls to which it is attached, but, by reason of the construction herein shown and described, be better adapted to support the case with its contents upon the ordinary conveyer now in common use by brewers, and form a convenient friction-bearing-surface for the same.

With these 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, forming a part of this specification, Figure 1, is a sectional view of the improved packing-case, embodying my invention, taken through line 1,—1, of Fig. 3. Fig. 2, a sectional view of the lower portion of the case taken through line 2,—2, of Fig. 3. Fig. 3, a horizontal sectional view taken through line 3,—3, of Fig. 1.

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

The improved case may be of any suitable and convenient form, but, preferably, rectangular, or square as shown in the present instance.

The walls 1, may be made up of blanks of sheet-metal bent or crimped into suitable form and united to form the corners of the case, or of a single blank of sheet metal bent at the corners to form the body of the case and the meeting edges thereof united in any suitable manner either at one of the corners or intermediate the corners thereof. The sheet-metal walls are, preferably, inclined or tapered from top to bottom, as shown, and the lower marginal edges thereof are bent over and about to form a lower strengthening-beading 2, preferably inclosing a wire 3, as shown.

The upper marginal edges of the walls of the case are bent inwardly forming a reinforcing inwardly-extending lid-supporting-flange or ledge 4, terminating at its base portion in a beading 5, formed about the upper edges of the walls of the case. It will be observed that the flange 4, is substantially in alinement with the lower portion of the beading 5, by reason of the fact that it is designed to form a seat for a second or companion supporting and cushioning-flange 6, and beading 7, formed about the edges of a lid or cover 8, so that the flange 6, rests on the flange 4, and the beading 7, rests within, adjacent to, and flush with the beading 5, thus giving strength to the upper edges of the case.

A wire 9, or other strengthening element is preferably inclosed within the beadings 5,

and 7, and the lid or cover may be hinged or otherwise conveniently secured to the case, it being understood, however, that the cover may be dispensed with entirely, in which case the supporting-flange 4, is admirably adapted to form a seat for and support a beading or other supporting means arranged on the bottom of the case that may be stacked thereon.

10 As a means for providing what is known as an "open bottom" case to be used in connection with and as a means of further supporting and strengthening any suitable form of bottle-partitions or divisions, but preferably constructed like those disclosed in 15 Patent No. 805,424, issued to me Nov. 21, 1905, I provide a series of supporting-straps of bars 10, of sheet-metal, mounted and interposed between the lower portions of the 20 walls of the case and secured thereto by having the ends thereof bent upwardly to form flanges 11, riveted to the adjacent walls of the case, or secured in some other suitable manner.

25 The supporting-straps 10, are crimped or bent up at suitable intervals to form a series of upwardly-extending hanger-straps 12, of substantially inverted U-shape in cross section, adapted to take over a series of bottle-supporting-bars or partitions 13, extending 30 at right angles thereto and suitably secured to the walls of the case. As a further means of securing the hanger-straps 12, to the supporting-bars 13, rivets 14, in the present 35 instance, pass through the straps 12, just beneath the bars 13, but other suitable means may be employed if desired.

40 As a means of vertically-supporting the series of straps 10, and the bars 13, to which they are attached, and providing a friction-bearing surface to rest upon and be engaged by a conveyer now in common use by brewers, a series of depending-clips 15, of substantially U-shape in cross section, are secured 45 to the straps 10, opposite the upwardly-extending hanger-straps 12, and, it will be observed that the friction-bearing surface 16, of the clips 15, is substantially flush with the beading 2, at the lower edges of the case. 50 The clips 15, may be secured to the straps 10, in any suitable and convenient manner, but, preferably, by means of rivets 17, as shown.

55 From the foregoing description, taken in connection with the accompanying drawings, it will be seen that I have provided a generally improved "stacking," or "taper" packing-case of great strength and durability, admirably adapted to be used in connection with a conveyer, and which can be 60 readily cleansed by flushing or washing with water when desired.

Having thus described my invention, without having attempted to set forth all

the forms in which it may be made, or all 65 the modes of its use, I declare that what I claim and desire to secure by Letters Patent, is,—

1. In a packing-case, the combination with the walls thereof provided with an 70 upper beading, and a lid-supporting-flange formed by the upper marginal edges thereof and extending inwardly from said beading; of a lid or cover provided with a companion supporting and cushioning-flange and bead- 75 ing adapted to rest on and within said first mentioned flange and beading, respectively.

2. A lid or cover for packing-cases, consisting of a single blank of sheet metal bent over and about forming a marginal strengthening-beading and having its marginal edges bent thereunder and inwardly from said beading forming a lid-supporting-cushioning-flange.

3. In a packing-case, the combination 85 with the walls thereof having their lower edges provided with a friction-bearing strengthening-beading, and a plurality of bottle-partitions carried by and interposed between said walls; of a plurality of support- 90 ing-straps secured to said walls near said strengthening-beading and provided with a plurality of upwardly-extending hanger-straps taking over said bottle-partitions and oppositely-disposed friction-bearing por- 95 tions flush with said strengthening-beading.

4. In a packing-case, the combination with the walls thereof having their lower edges provided with a strengthening-beading and a plurality of bottle-bars or parti- 100 tions secured to said walls near said strengthening-beading; of an open bottom comprising a plurality of supporting-straps extending at right angles to said bottle-bars and provided with a plurality of inverted 105 U-shaped hanger straps taking over said bottle-bars and depending friction-bearing portions flush with said strengthening-beading.

5. A packing-case, comprising walls pro- 110 vided with a friction-bearing strengthening-beading and carrying a plurality of bottle-partitions near said strengthening-beading, a plurality of supporting-straps secured to said walls in close proximity to said strength- 115 ening-beading and provided with upwardly-extending hanger-straps secured to said bottle-partitions and friction-bearing portions flush with said strengthening-beading.

6. In a packing-case, a series of bottle- 120 supporting-bars, a series of supporting-straps bent into a series of upwardly-extending supporting-hanger-straps taking over said supporting-bar, and a series of friction-bearing-depending-clips secured to 125 said supporting-straps.

7. In a packing case, the combination with a bottle-supporting-bar, and a support-

ing-strap provided with an upwardly-extending hanger-strap taking over said bottle-supporting-bar; of a friction-bearing depending-clip secured to said supporting-strap and
5 beneath said upwardly-extending hanger-strap.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

ALFRED T. KRUSE.

Witnesses:

R. W. WORTMAN,

O. C. BILLMAN.