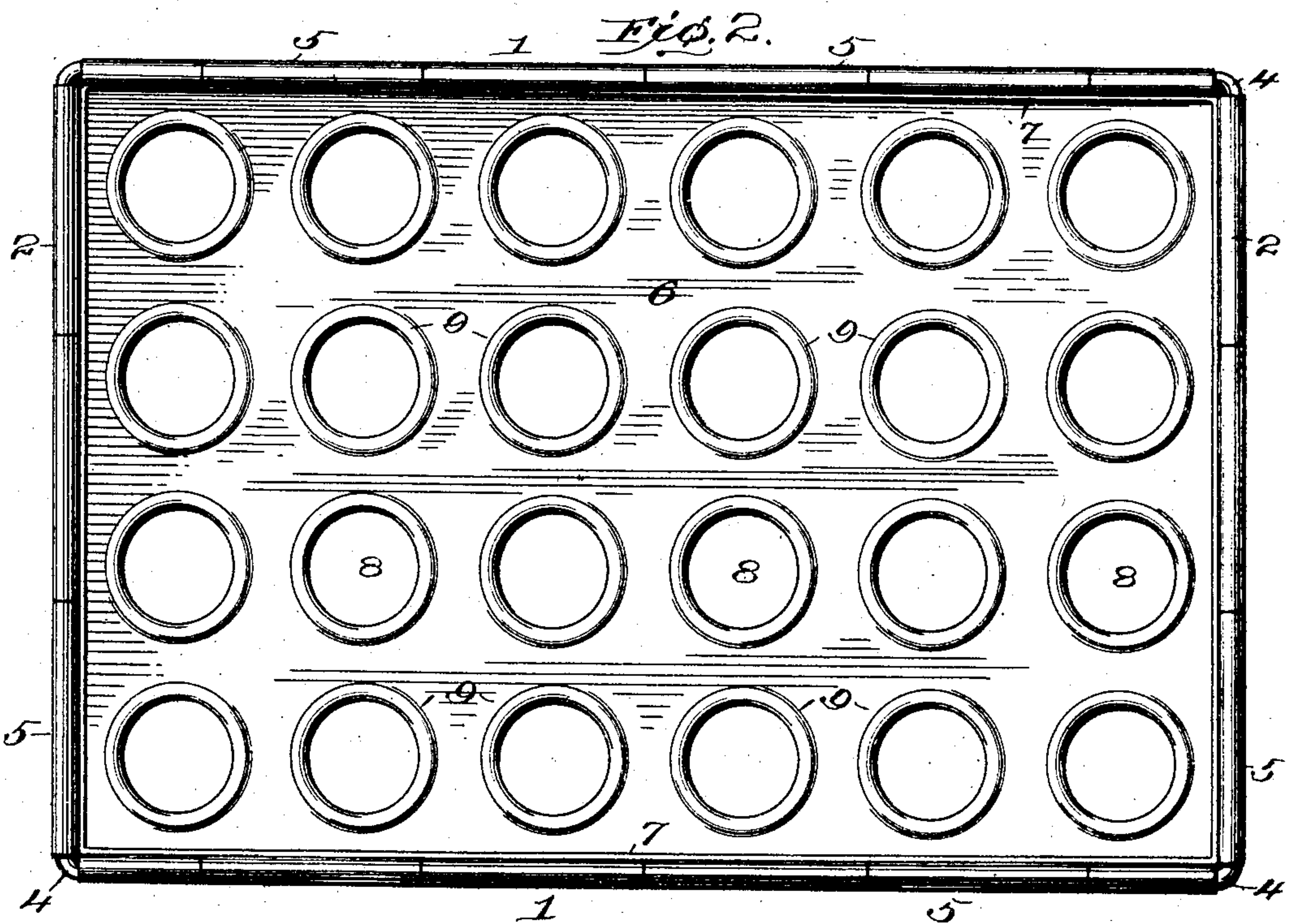
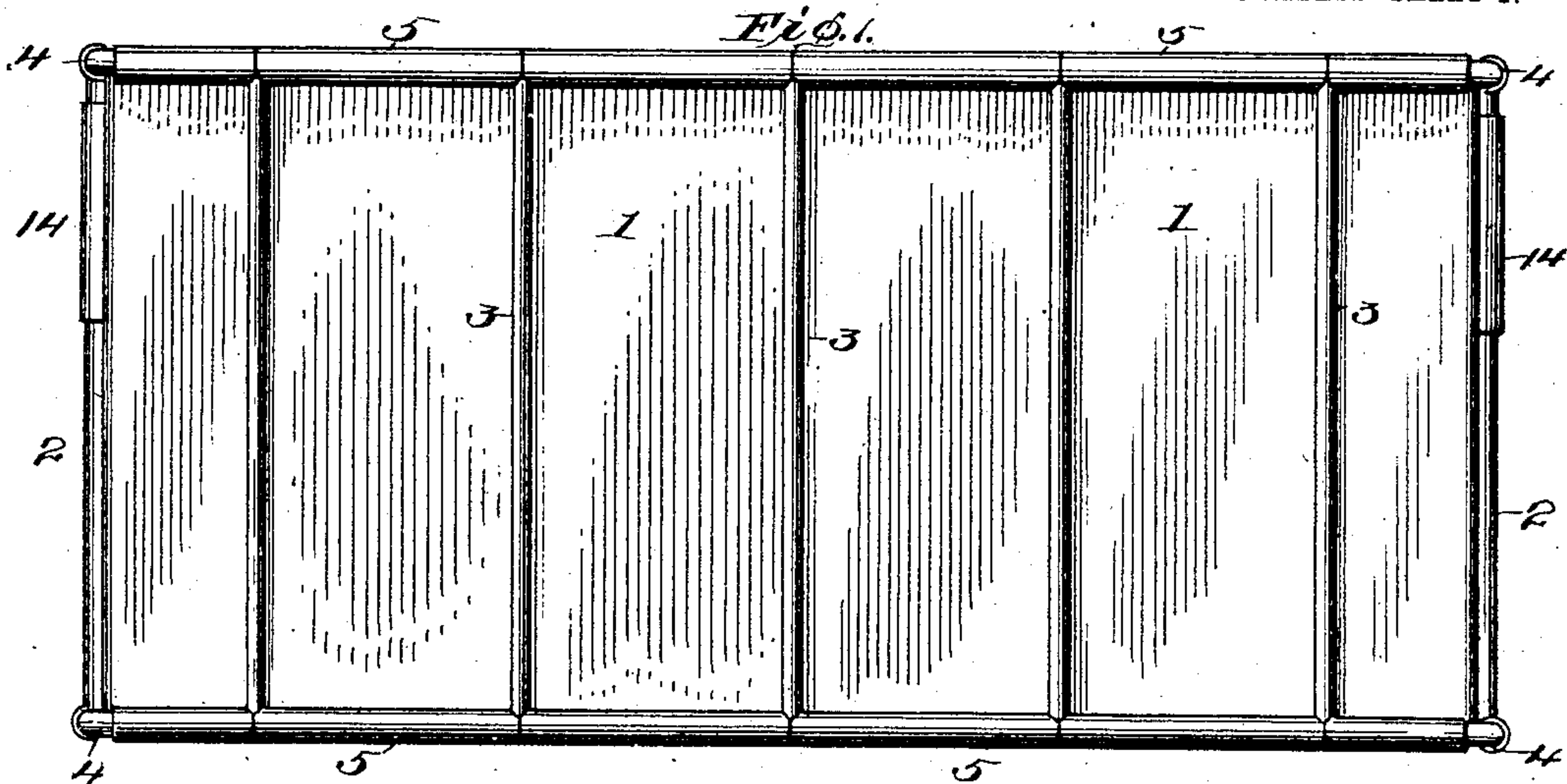


No. 786,298.

PATENTED APR. 4, 1905.

A. T. KRUSE.  
SHEET METAL PACKING CASE.  
APPLICATION FILED FEB. 4, 1904.

2 SHEETS—SHEET 1.



Witnesses  
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W. Young

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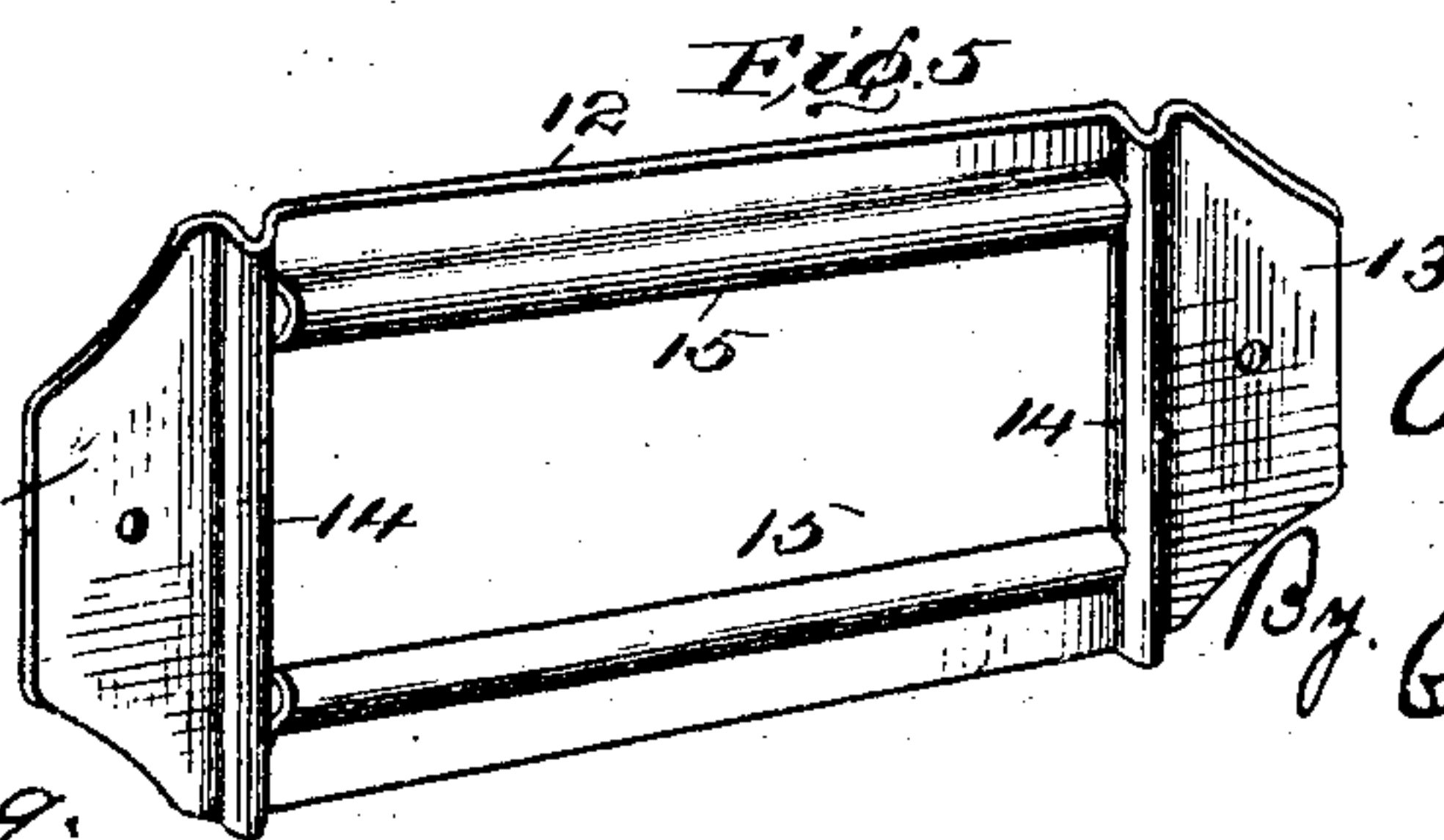
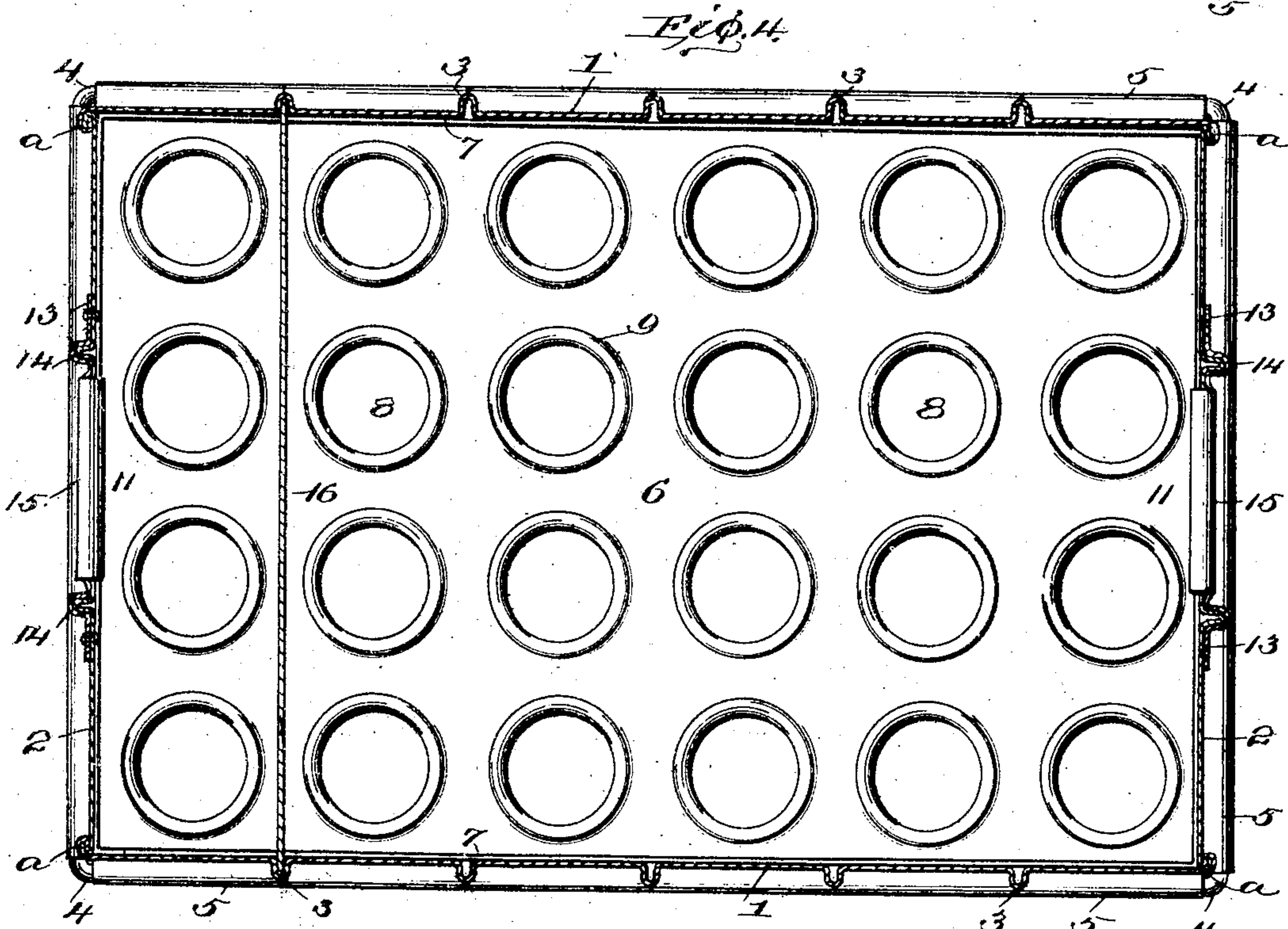
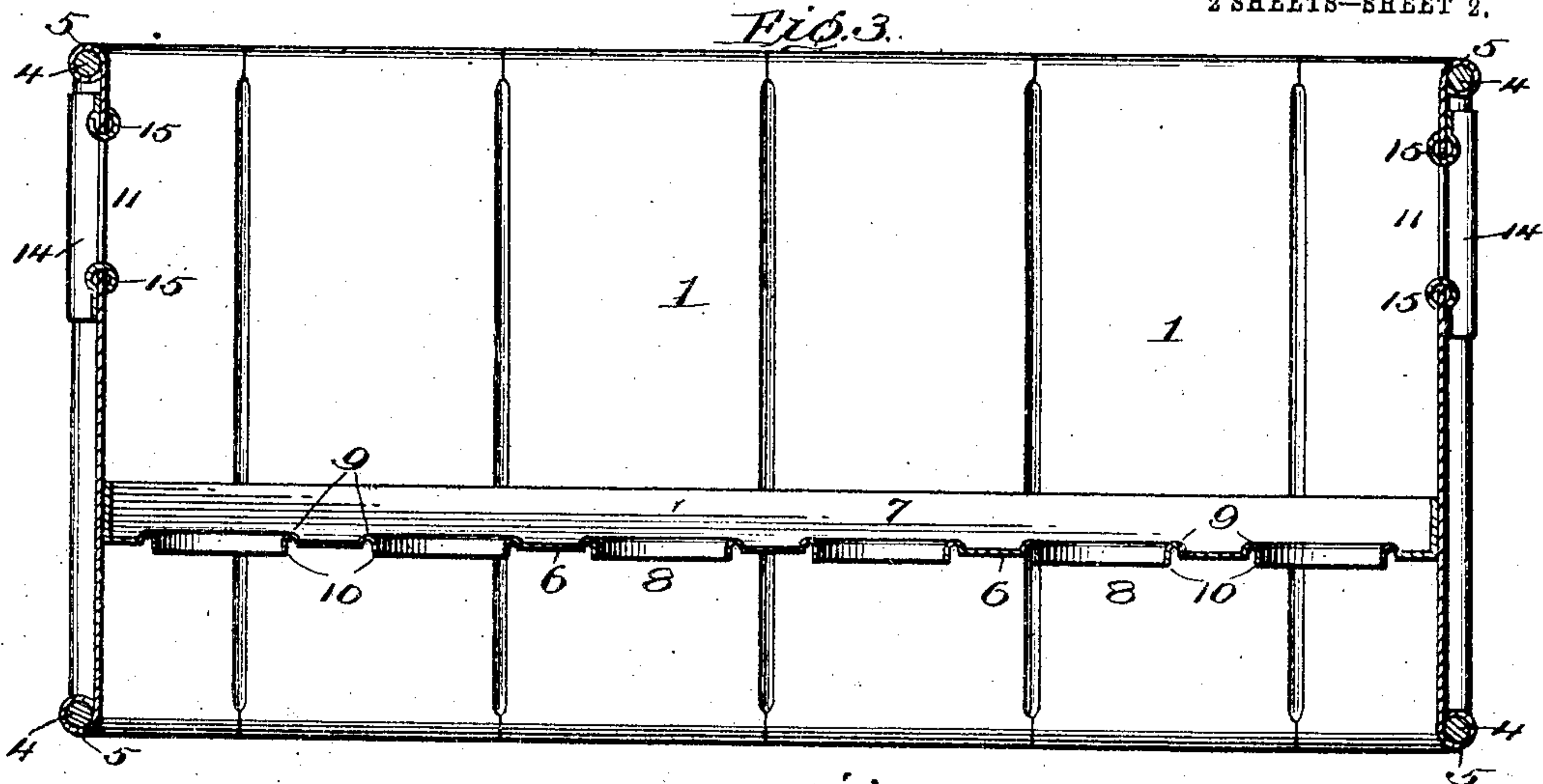
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*W. Young*

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*Alfred T. Kruse*

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His Attorney



# UNITED STATES PATENT OFFICE.

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

## SHEET-METAL PACKING-CASE.

SPECIFICATION forming part of Letters Patent No. 786,298, dated April 4, 1905.

Application filed February 4, 1904. Serial No. 192,057.

*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—such as mineral waters, milk, beer, pop, &c.—contained in bottles and similar vessels.

Holders for bottles, &c., have been extensively employed for the carrying of liquids from place to place, and such holders have usually been made of wooden boxes with partitions or divisions to prevent the bottles coming into direct contact with each other, and in some instances a false bottom has been employed, with perforations adapted to receive the bottle-necks. Such holders, however, are objectionable, from the fact that being made of wood they soon become soaked with fluid, filthy, decayed, and broken.

The paramount object of the present invention is to produce a generally improved sheet-metal packing-case, better suited to its intended purposes than any other device of the same class with which I am acquainted, and which, by reason of the particular construction of the metal and its general construction, will render the same more durable, and which will be more cleanly and take up less space in transportation and storage than the holders heretofore constructed out of wood.

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 side elevation of the improved case. Fig. 2 is a top plan view. Fig. 3 is a vertical sectional view. Fig. 4 is a horizontal sectional view. Fig. 5 is a detail view of one of the sheet-metal handles.

Similar characters of reference indicate like

parts throughout all the figures of the drawings.

The case is preferably rectangular, and I have shown in the present instance a case constructed of a size large enough to hold two dozen bottles; but the size may be varied to meet various requirements. The sides 1 and ends 2 are of sheet metal, preferably of sheet-steel, crimped at suitable distances to form outwardly-extending ribs or flanges 3 of substantially U shape in cross-section, as shown, and designed to stiffen and strengthen the said sides and ends of the case to the greatest possible degree commensurate with the general character of the material employed. The sides and ends 1 and 2 are preferably made up of separate sheets of sheet metal and when so constructed are connected by having their sides and ends bent over or crimped to form flanged joints *a* at the corners or angles of the case, as indicated in the drawings. At the upper and lower edge there is mounted a heavy stiff wire 4, which is secured and inclosed by having the edges of the sides and ends 1 and 2 bent over and about the same, forming a beading 5 which, together serve to greatly strengthen the case at these points. By reason of the formation of the outwardly-extending ribs or flanges 3 in said sides and ends it is necessary before crimping the metal and attempting to inclose the wire 4 by a beading 5, as shown, to first cut along the margin of said sides and ends opposite where the ribs or flanges 3 are to be formed a series of recesses (not shown in drawings) of a width and depth corresponding approximately to the width of the metal crimped into the rib or flange 3 and the circumference of the wire inclosed, respectively.

6 designates the bottom of the case or supporting-plate for the bottles designed to be interposed between and secured to the sides and ends 1 and 2 at suitable distance from the lower edge of the case by means of an upwardly-extending flange 7, formed with the sides and ends of said bottom or supporting-plate 6 and connected by rivets with said sides and ends of the case. It will be observed that



the bottom or supporting-plate 6 and flange 7, formed therewith, tend to still further strengthen and stiffen the sides and ends of the case and at that portion of the case where it is to be most desired.

The bottom or supporting-plate 6 is provided with a series of openings or perforations 8, designed to receive the necks of the bottles, and which said openings or perforations 8 are provided with an annular beading 9, having a downwardly-extending supporting-flange 10, (see Fig. 3,) adapted to form a seat for the neck of the bottle and greatly stiffening and strengthening said bottom or supporting-plate 6.

11 designates openings formed in the ends 2 of the case between two of the outwardly-extending ribs or flanges 3 thereof and designed to receive and contain the sheet-metal handles 12, hereinafter described.

As shown most clearly in Fig. 5, the handle 12 is formed of a single blank of sheet metal having an opening concentric with the opening 11 and provided at its ends with ears 13, adapted to be riveted to the ends 2 of the case and crimped at the base of said ears 13 and at the ends of said opening to form an outwardly-extending rib or flange 14, adapted to take over the ribs or flanges 3 of the ends 2 of the case. The upper and lower edges above and below the opening of the handle are bent inwardly and over the upper and lower edges of the opening 11, forming a beading 15, which takes over the edges of the opening 11, thus forming a comfortable and convenient handhold in these openings.

If desired to separate the bodies of the bottles, the ribs or flanges 3, formed at the sides 1 of the case, may be arranged intermediate the openings 8, so that the recesses formed by said ribs or flanges 3 may be used to secure the ends of a series of cross-bars 16, extending between the bodies of the bottles, as shown in Fig. 4 of the drawings.

It will be observed that by the use of sheet metal bent and constructed as shown and described I am enabled to lessen the weight of the case and being entirely of metal can be cleaned with great facility by being immersed in hot water, and it dries rapidly and occupies less space than wooden boxes and is more durable.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principles or sacrificing any of the advantages of this invention.

Having thus described my invention, al-

though 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. A sheet-metal packing-case, consisting of suitable sides and ends suitably secured at the corners of the case, a series of outwardly-extending ribs or flanges formed therewith, a beading formed at the upper and lower edges thereof and inclosing a wire, a supporting-plate mounted therein, openings formed in the ends thereof, intermediate two of said outwardly-extending ribs or flanges, and sheet-metal handles secured thereto and provided with openings concentric with said openings of the ends.

2. In a sheet-metal packing-case, a supporting-plate interposed between and secured to the sides and ends thereof by means of an upwardly-extending flange, a series of openings or perforations formed in said supporting-plate, an annular beading formed about said openings, and a downwardly-extending flange formed with said annular beading.

3. A sheet-metal packing-case, consisting of suitable sides and ends suitably secured to form the corners of the case, a series of outwardly-extending ribs or flanges of substantially U shape in cross-section, formed with said sides and ends, a beading formed at the upper and lower edges thereof and inclosing a wire, openings formed in the ends thereof, and sheet-metal handles secured thereto and provided with openings concentric with said openings of the ends.

4. In a sheet-metal packing-case, the combination with the ends provided with two outwardly-extending ribs or flanges, and openings formed therein intermediate said outwardly-extending ribs or flanges; of sheet-metal handles secured thereto and provided with openings concentric with said openings of the ends, ears formed at the ends thereof and adapted to be riveted to the ends of the case, an outwardly-extending rib or flange formed at the base of said ears and adapted to take over said ribs or flanges formed in the ends of the case, and a beading formed above and below the openings of the handles and adapted to take over the contiguous edges of said openings formed in the ends of the case.

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

ALFRED T. KRUSE.

Witnesses:

A. F. DIEHL,  
A. M. KRUSE.