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REMOVABLE EGG CASE PARTITION.
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1,000,694.

Patented Aug. 15, 1911.

Fig 1

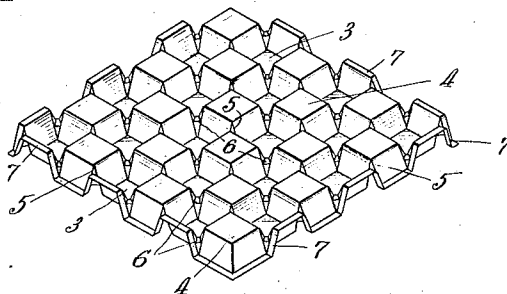
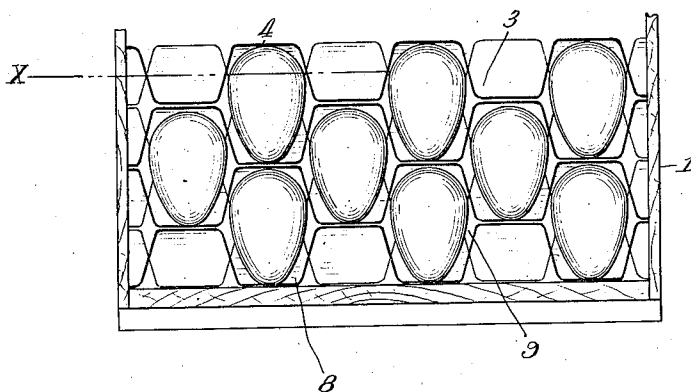


Fig 2



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UNITED STATES PATENT OFFICE.

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REMOVABLE EGG-CASE PARTITION.

1,000,694.

Specification of Letters Patent. **Patented Aug. 15, 1911.**

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To all whom it may concern:

Be it known that we, FREDERIC SCHAEFER and JAMES ALVIN LYNCH, citizens of the United States, residing, respectively, at Wheeling, county of Ohio, and State of West Virginia, and Ely, county of White Pine, and State of Nevada, have invented certain new and useful Improvements in Removable Egg-Case Partitions, of which the following is a full, clear, and exact description.

This invention relates to packages or crates for the storing and transportation of fragile goods and articles such as eggs, the object being to provide a structure which will accommodate within a given space the largest possible number of the eggs or other articles, while, at the same time, affording due protection and safety to the goods, as well as ventilation to promote the preservation thereof.

The invention consists essentially of a unit or sheet of peculiar form and construction, a number of which are adapted to be assembled together in a box or casing, in a peculiar way to form cells or compartments for individual eggs or other articles to be packed.

The improved construction of the unit consists of a sheet, layer or partition having on each face cavities and protuberances alternating with each other in rows, the protuberances of one row being opposite the cavities of the adjacent rows forming a checker-board effect.

A peculiar feature of the construction and one which makes it possible to utilize the available space most economically, is the fact that the walls of the protuberances are common to the walls of the cavities on both sides of the unit, and further, that the protuberances on one side, being hollow, represent or form cavities on the other side of the unit.

A further novel feature consists in giving to the protuberances a pyramidal shape whereby they will fit closely around one end of an egg or similarly-shaped article, and, at the same time, afford openings for ventilation.

In the accompanying drawing, in which our invention is set forth, Figure 1 is a perspective view of the sheet, layer or partition which is termed herein "a unit"; and Fig. 2 is a vertical section of a crate showing

a number units assembled therein with the eggs duly packed or inclosed.

To understand the formation of the unit, it may be assumed to be shaped from a flat sheet of material, although this is not essentially the manner of producing it, and in which are formed depressions or cavities driven downward from one face of the sheet and projections or protuberances driven upward from the same face of the sheet, the walls of the protuberances being upward extensions of the walls of the cavities, thus making the latter twice the depth which would be afforded if the sheet had cavities alone and no protuberances on one side.

In the drawing, the cavities in the face of the sheet are indicated by 3 and the protuberances by 4, the unit itself being indicated by 2, and the crate, in which numbers of them are to be assembled, by 1. Obviously, when a sheet has been pressed into this form on one of its faces, the opposite face is simultaneously pressed into the same general form, the only difference being that what appears as a cavity on one face of the sheet, becomes a protuberance on the other side. These units may be pressed, stamped or formed of paper pulp, pressed board, or other similar material, by means of suitable dies, forms or molds. The protuberances and cavities are arranged in rows in which they alternate with each other, the protuberances of one row being opposite or adjacent to the cavities of the next row, thus giving to each side of the unit a checker-board arrangement. The specific shape of the protuberances, which obviously is the same as that of the cavities, except that they are reversed, is not an essential feature of the invention, but it is preferred to make each protuberance frusto-pyramidal in shape, because a cavity of this shape will closely fit the taper at the end of an egg, and furthermore, the protuberances of one unit will then telescope into the cavities of another unit, so that a comparatively large number of the units can be packed together in close relation for shipment, to be afterward separated and inserted in the crates in a different way. When this peculiar shape is given to the protuberances and cavities, small square facets 6 are necessarily formed or left in the sheet between the abutting corners of adjacent protuberances and cavities, and from each of these facets, four

triangular facets 5 extend, two of them downward to the bottom of the cavities, and the other two upward to the top of the protuberances. These intermediate facets will be of different shapes depending upon the shapes of the protuberances and cavities as a whole, but will be substantially as shown when any quadrilateral shape of protuberance and cavity is used. Around the edge of each unit, a narrow border 7 may be left, which may be reinforced slightly, if desired, and which is given the shape of the cross section of the unit along its border lines. This border acts as a spacer to hold the eggs or other articles away from the sides of the crate, thus insuring greater safety in handling. These units are to be assembled in a crate in the manner indicated in Fig. 2; that is to say, so that the horizontal surfaces of the protuberances of one unit will rest against those of the protuberances of the next unit above; this will bring the cavities of the adjacent units opposite each other, and thus form a complete, closed in cell or pocket 8 for the egg or other article. Owing to the frusto pyramidal shape used, it will be seen that the end portion of each complete cell is contracted to closely hug the egg, while the middle zone of the cell is wider to accommodate the wider portion of the egg. It will also be seen that since the eggs occupy a staggered relation with respect to one another, there will be very little vacant space between the eggs in a packed crate.

A crate is packed by first putting in one of the units, then inserting the eggs in the cavities presented on the upper side thereof; a second unit is then placed on the top of the first one in the manner above described, and eggs then inserted in the cavities thereof. Another unit is then put in place and the operation repeated until the crate is filled. When thus completed, it will be seen that spaces 9, four around each egg, are left, through which air may circulate, and thus keep the eggs or articles well ventilated. These spaces are bounded by the facets 5 and 6.

The cavities and protuberances might be dome-shaped so as to more accurately fit the egg and still secure the main advantageous principles of the present invention. But, this dome construction would forfeit a great

advantage of the polygonal shape shown, and which has already been referred to, namely, that this construction makes the walls of the protuberances virtually form extensions of the walls of the cavities, so that when the units are assembled in their operative or packing relation, each egg is entirely and fully inclosed in a separate little cell or complete housing, instead of having merely its ends engaged and supported, as would be the case with dome-shaped protuberances and cavities. Moreover, the polygonal shape gives a greater flexibility in the walls or surfaces.

What we claim is:

1. A unit or partition for a packing crate comprising an integral embossed sheet having frusto-pyramidal depressions formed therein, the material displaced to form said depressions providing corresponding protuberances upon the opposite sides of said sheet, said protuberances having flat tops for engagement with corresponding protuberances upon an adjacent sheet, and having polygonal side walls angularly disposed with respect to lines perpendicular to the principal plane of said sheet, and angularly disposed with respect to each other, forming normally non-crushable pockets.

2. A unit or partition for a packing crate comprising an embossed sheet having frusto-pyramidal depressions formed therein, the material displaced to form said depressions providing protuberances upon the opposite sides of said sheet, and having polygonal side walls angularly disposed with respect to lines perpendicular to the principal plane of said sheet and angularly disposed with respect to each other, forming normally non-crushable pockets.

In witness whereof we subscribe our signatures in the presence of two witnesses.

FREDERIC SCHAEFER.
JAMES ALVIN LYNCH.

Witnesses as to the signature of Frederic Schaefer:

WM. D. COOKE,
LOUIS WALTERS.

Witnesses as to the signature of James Alvin Lynch:

CLINTON WILLIAM BAGWILL,
JAMES COUZENS.