

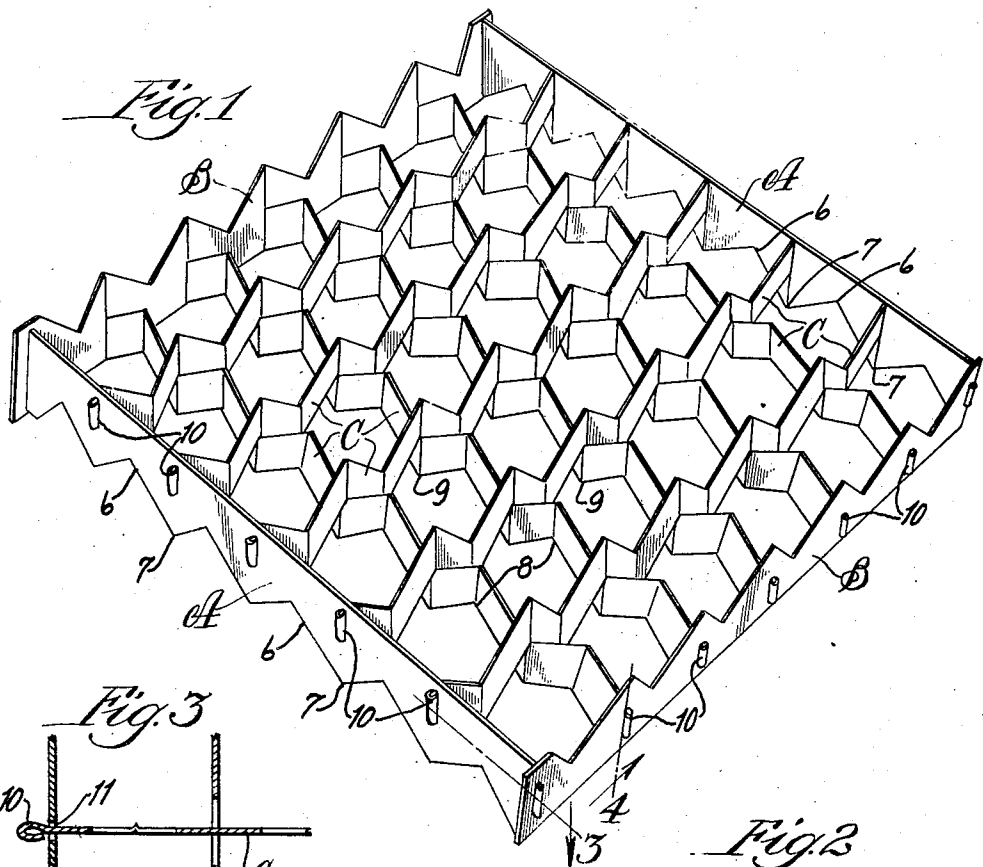
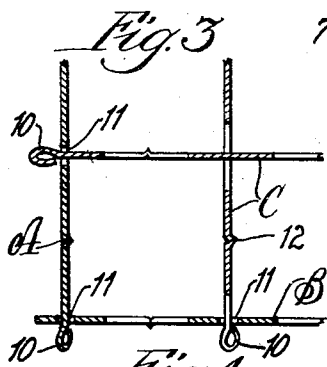
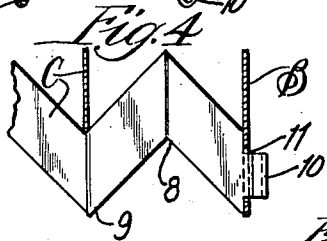
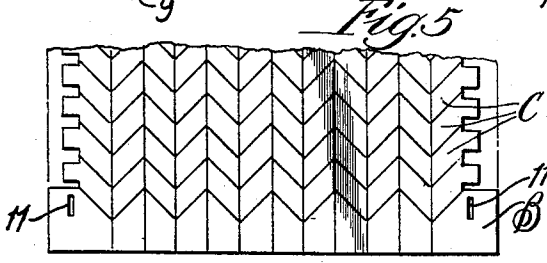
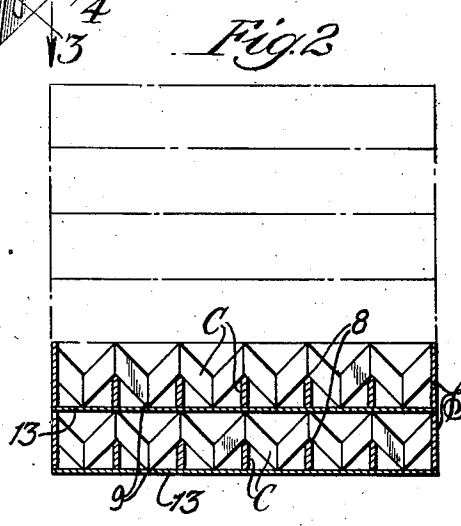
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A. W. COYLE

1,808,531

EGG CASE FILLER

Filed June 15, 1928



Inventor:
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UNITED STATES PATENT OFFICE

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EGG CASE FILLER

Application filed June 15, 1928. Serial No. 285,523.

This invention relates to an egg case filler formed by a series of cross walls which are supported within a frame, the structure in its entirety being collapsible, when not in use, so as to economize greatly in the space required for its accommodation. The present filler is desirably made from sheet metal, and its several components are so formed as to involve a minimum waste of material. In addition, the form and disposition of the filler components is such as to provide openings through from one cell to another whereby ventilation through the entire filler is promoted. These and other objects of my invention are set forth more fully in the description to follow, taken in conjunction with the accompanying drawings wherein is illustrated a suggestive embodiment of the invention in the manner following:

Figure 1 is a perspective view of the filler in its entirety;

Fig. 2 is a vertical sectional view through a plurality of superposed fillers with intervening flats showing the relationship of these units as when placed within a case;

Fig. 3 is a detail in section taken on line 3-3 of Fig. 1;

Fig. 4 is a detail in section taken on line 4-4 of Fig. 1; and

Fig. 5 is a view in plan of a sheet on which is outlined the filler walls and frame sides to be blanked therefrom.

The present filler which is square or rectangular in contour is composed of four sides constituting a frame, and of cross walls which interlock with each other and with the frame. Two opposite sides of the frame are designated by the letters A and the other two sides which extend slightly past the ends thereof by the letters B. Each of these four frame sides is serrated along one of its longer edges by the provision of recurring notches 6, preferably of V-form and in contiguous relation, whereby to produce a series of alternate points 7. These notches extend inwardly toward the opposite edges for perhaps half way. In the completed frame, it is preferred that the serrated edges of the walls A be arranged opposite to the corresponding edges of the other walls B, as shown clearly in Fig. 1.

Extending crosswise of each other and between the opposite frame sides are the several filler walls C which may be formed alike in each instance. These walls are serrated along both of their longer edges by the provision of recurring notches 8, preferably of V-form and in contiguous relation, whereby to produce a series of alternate points 9. The notches and points on the two edges of each wall are staggered so that the effect is to provide a zig-zag form of wall throughout its entire length. These notches extend in each instance for approximately one-half the distance toward the opposite wall edge, and because of this circumstance the several walls may be arranged crosswise or intersectingly with the points of one cooperating with the notches of another to space apart and sustain the several walls in a desired manner. It will be noted in this connection that the illustrated filler is made up of ten walls, five extending one way and five the opposite way, and together with the frame sides which are in effect outside walls for the filler, a total of 36 cells or pockets is provided. This is the usual capacity of filler which is placed within the standard egg case of the present time. In arriving at this construction it is desirable to provide five full notches and five full points on each wall so as to ensure an interlocking of ten cross walls in the manner described.

The end of each cross wall is shown as terminating in an extension forming a tongue 10 adapted to pass through a slit 11 provided for its reception in the proximate frame side. These tongues, when so disposed, may then be turned or bent around in any appropriate way, as, for example, in the manner shown in Fig. 3. This provides a lock by which the frame sides and walls extending therebetween are retained in unitary relation. In addition similar tongues may be provided at the ends of the frame sides A to enter slits adjacent the ends of the other sides B whereby to lock the frame parts together.

Each of the filler walls and frame sides may desirably be provided with a reinforcing means in the region of its several points, and for this purpose I have shown the material

forming these parts as crimped to produce beads or ribs 12 which extend generally in a vertical direction. By some such means the walls and sides are strengthened in the region of these points so as to withstand whatever stresses are encountered in normal usage. Also the tips of these points are by preference truncated or blunted sufficiently to avoid injury to contiguous objects.

After assembling the several components into a completed structure, the filler may be collapsed so as to occupy but a fraction of the space which is required when set up for use. This collapse is rendered possible by having the tongues 10 fitted through the slits 11 with sufficient looseness to afford the necessary movement for this purpose. When opened out and arranged one on top of another within a case, flats 13 will be placed between the fillers in the usual manner. The flats will then receive contact from the blunted tips of the cross walls and from the smooth edges of two of the frame sides.

In the manufacture of the components for the present filler, it is possible to utilize a sheet of material in the manner suggested in Fig. 5. The portion along one edge of the sheet may be cut off to provide one of the frame sides A or B and from the adjacent portions a succession of cross walls may be cut out, all without any waste of material except along two opposite edges where narrow strips will be left as scrap. The economy in thus utilizing the material is a marked advantage.

I prefer to employ sheet metal for the production of the filler parts herein described. It is possible, however, with considerable advantage to use sheets of other material having the requisite properties to meet the requirements of this invention.

A filler, when constructed of metal, or other material which is non-odorous and non-absorptive, or which is treated to acquire these characteristics, lends itself to operations of processing or dipping the contained eggs without requiring any previous or subsequent transfer thereof, thus eliminating certain handling operations which add to the expense of such treatments. It is for reasons such as this that the present invention possesses advantages over other filler constructions which are lacking in the characteristics noted.

I claim:

1. In an egg case filler, a series of spaced parallel walls serrated along their upper and lower edges to provide alternate notches and points, and a second series of spaced parallel walls also serrated along their upper and lower edges to provide alternate notches and points, the two series of walls being cut from a single blank without waste of material, and such relation that the lower notches of the

one are in point contact with the upper notches of the other to resist shifting.

2. An egg case filler comprising a series of spaced parallel walls serrated along their upper and lower edges to provide alternate notches and points, a second series of spaced parallel walls also serrated along their upper and lower edges to provide notches and points, the two series of walls being cut from a single blank without waste of material, and the walls of one series crossing the other in such relation that the lower notches of the one are in point contact with the upper notches of the other to resist shifting, and a frame comprising interconnected wall members enclosing and secured to each of said series of walls, said frame wall members constituting the end sections of the blank from which the two series of walls are cut.

3. An egg case filler comprising two series of walls positioned at an angle to each other and forming spaces therebetween, tongues at the ends of the walls, a frame within which the walls are positioned, there being slots in the frame through which the tongues are extended for lateral bending upon the outer frame side, the frame comprising four serrated sides normally forming a rectangle, two of the opposing frame sides being provided with tongues at their ends for insertion through slots adjacent end portions of the other two sides, the tongues being formed tubular exteriorly of the engaging slots in a manner to hold the sides securely together and provide rounded bearing surfaces to permit free folding of the structure.

4. An egg case filler comprising a series of spaced parallel walls having serrations along their upper and lower edges to provide alternate notches and points, a second series of spaced parallel walls having serrations along their upper and lower edges to provide alternate notches and points, the two series of walls crossing each other in such relation that the lower portions of the second series are in point contact with the upper portions of the first series to resist lateral shifting, and a frame enclosing and secured to each of said series of walls, the frame comprising four serrated sides adapted to form a rectangle, the walls and frame sides being cut from a single rectangular blank without waste of material, and two of the opposite frame sides having tongues at their ends engaging slits adjacent end portions of the other two frame sides, the tongues being bent upon themselves exteriorly of the engaging slots in a manner to provide rounded bearing surfaces and to hold the sides securely together.

5. An egg case filler comprising a series of spaced parallel walls having serrations along their upper and lower edges to provide alternate notches and points, a second series of spaced parallel walls having serrations along their upper and lower edges to provide alter-

nate notches and points, the second series of walls crossing the first series in such relation that the lower portions of the second series cooperates with the upper portions of the first series to resist shifting, and a frame enclosing and secured to each of said series of walls, tongues at the ends of the walls engaging slots in the frame, said tongues being rolled exteriorly of said walls to provide rounded bearing surfaces, the frame comprising four sides normally forming a rectangle, two of the opposite frame sides having tongues at their ends engaging slots adjacent the end portions of the other two frame sides, the tongues being rolled outside of the engaging slots in a manner to hold the sides securely together and provide rounded bearing surfaces.

In testimony whereof, I have hereunto set my hand and affixed my seal this 12th day of June, 1928.

AUGUSTA W. COYLE.

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6. In an egg case filler, a series of spaced parallel walls having serrations along their upper and lower edges to provide alternate notches and points, a second series of spaced parallel walls having serrations along their upper and lower edges to provide alternate notches and points, each of the several walls having a series of ribs extending transversely thereof to the points of the serrated sides for adding strength thereto, the two series of walls crossing each other in such relation that the lower portions of the second series are in point contact with the upper portions of the first series to resist shifting.

7. A foldable egg case filler comprising a frame of four sides swingingly connected at their ends, and a plurality of sheet metal cross walls hinged at their ends to the sides of the frame, the crossed walls being of longitudinal zigzag formation such that the opposite edges thereof are in point contact in staggered relation whereby to resist shifting of the cross walls between their points of connection with the sides of the frame.

8. An egg case filler comprising a plurality of intersecting walls each having alternate recesses and projections on its upper and lower edges, said recesses and projections being complementary in shape and size, said intersecting walls being so arranged that the apexes of the alternate recesses of intersecting walls are in point to point contact.

9. An egg case filler comprising a plurality of intersecting walls each having alternate angular recesses and projections on its upper and lower edges, said recesses and projections being complementary in shape and size, said intersecting walls being so arranged that the apexes of the alternate recesses of intersecting walls are in point to point contact.

10. An egg case filler comprising a plurality of partition members having a configuration to permit their being severed from a blank with a minimum waste of material, said partition members constituting intersecting walls each having alternate recesses and projections on its upper and lower edges,

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