

(No Model.)

2 Sheets—Sheet 1.

F. M. WADE.
EGG CASE TRAY OR FILLER.

No. 497,225.

Patented May 9, 1893.

Fig. 1.

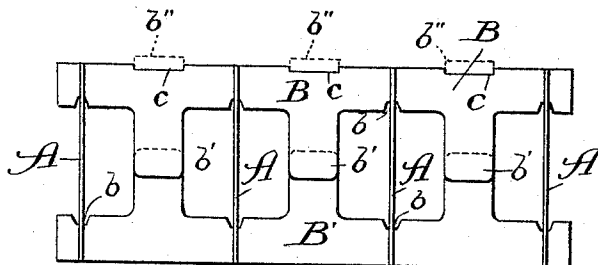


Fig. 2.

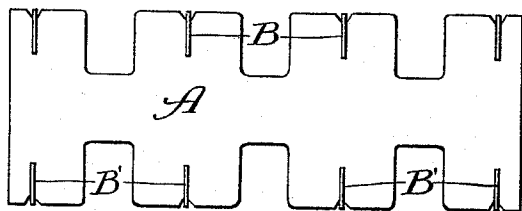


Fig. 3.

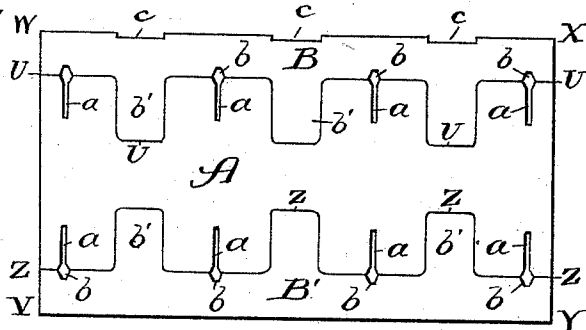


Fig. 4.

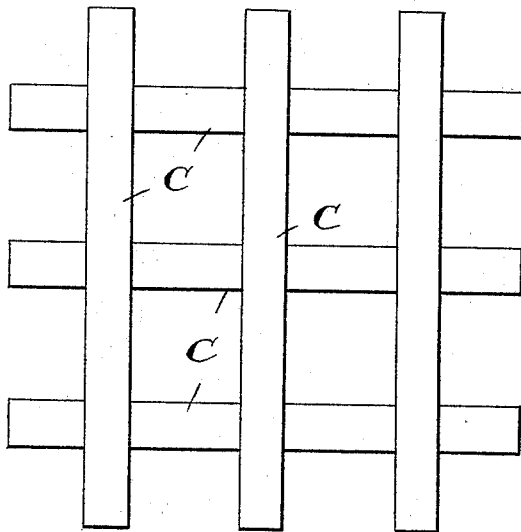
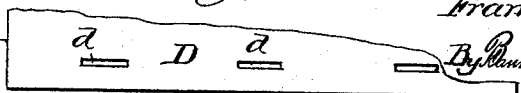


Fig. 5.



Witnesses:

Chas. E. Gaylord,
Clifford H. White.

Inventor:

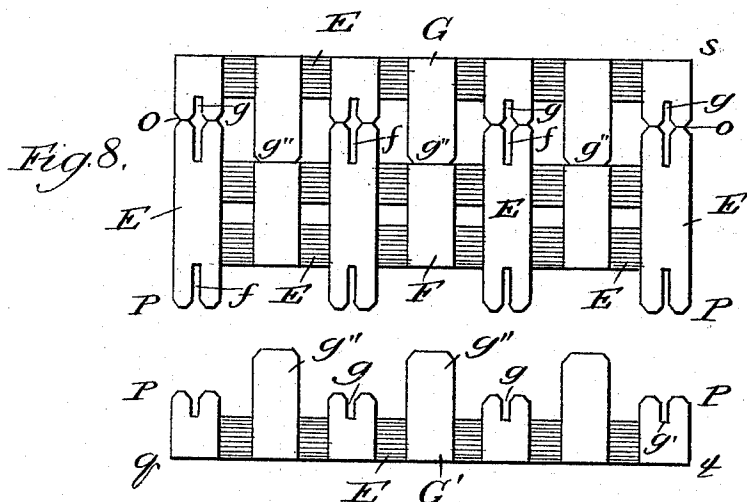
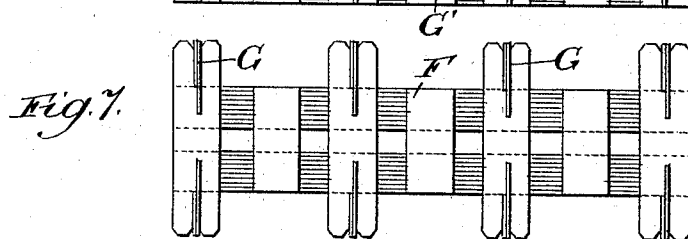
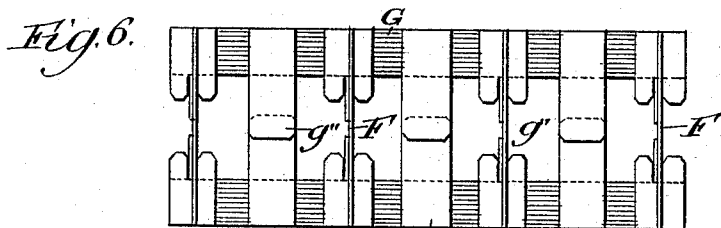
Frank M. Wade,

By Pennington & Pennington,
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F. M. WADE.
EGG CASE TRAY OR FILLER.

No. 497,225.

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UNITED STATES PATENT OFFICE.

FRANK M. WADE, OF CHICAGO, ILLINOIS.

EGG-CASE TRAY OR FILLER.

SPECIFICATION forming part of Letters Patent No. 497,225, dated May 9, 1893.

Application filed November 9, 1891. Serial No. 411,322. (No model.)

To all whom it may concern:

Be it known that I, FRANK M. WADE, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Egg-Case Trays or Fillers, of which the following is a specification.

As is well known, these egg case trays are made of strawboard or other suitable material, and used in the shipment of eggs from point to point, being placed in boxes or packing cases in successive layers divided by suitable partitions or diaphragms. Heretofore it has been customary to make these fillers out of strips of strawboard or other similar material of the desired width and length, these strips being slotted so as to interlock with each other to an extent sufficient to bring their top and bottom edges flush, or in the same plane. In order to accomplish this result it has been considered necessary to slit or cut each of the strips of which the partition is composed through half its breadth, and when, as is frequently the case, these strips are provided with locking eyelets and teeth, they have been divided or cut to a greater extent than half their breadth. This slitting of the strips has greatly weakened them, and rendered the fillers thus constructed less strong and lasting, and this construction has therefore been objectionable for this reason, and for the further reason that the strips having been made solid except for the slits, a large amount of strawboard was necessary for the construction of the tray.

These being the objections incident to previous constructions, the object of my invention is to provide an egg case filler in which the strips, while interlocking sufficiently for strength and operativeness, shall yet not be slit for so great a portion of their breadth as has formerly been considered necessary. Furthermore, by the manner of constructing my filler, I am enabled to make somewhat more than four strips out of the amount of strawboard or other material which would formerly be required to make three, thus effecting a great saving in the amount of strawboard or other material used, and, consequently, a great reduction in the expense of manufacture.

My invention further consists in an improved method of constructing these egg case fillers, as will be hereinafter described. The

advantages, therefore, of my invention are the increased strength and durability, with diminished cost and simplified method of manufacture; and my invention consists in the method, details of construction, and combinations hereinafter described and claimed.

In the drawings, Figure 1 is an elevation of one form of egg case filler embodying my improvements; Fig. 2 an elevation of such filler at right angles to the side shown in Fig. 1. Fig. 3 is a blank illustrating the method of forming the strips composing the filler; Fig. 4, a plan view of one form of partition between the various fillers; Fig. 5, a detail view of a portion of another form of partition; Fig. 6 an elevation of a filler illustrating a modified form of my invention; Fig. 7 an elevation thereof at right angles to that shown in Fig. 6, and Fig. 8, a partially separated blank illustrating the method of constructing this form of filler.

In making my improved filler in the form shown in the first three figures of the drawings, I take a strip of strawboard or other suitable material, and of any desired dimensions, depending upon the size of the filler to be formed, and indicated by the letters *v, w, x, y*, in Fig. 3. I then separate this piece of board into three parts by dividing it by means of cutting, stamping, or in any other suitable manner along the lines *u, u*, and *z, z*. The center portion, *A*, forms one of these strips which runs in one direction to form the filler, and which is shown more particularly in Fig. 2. At the time of their original formation, or subsequently, as desired, these strips are provided with slits or grooves, *a*. The other two parts, *B, B'*, cut from the blank, are provided with notches, *b*, located at suitable points to engage with the slits *a*. These two pieces, *B, B'*, when fastened together, as subsequently to be explained, form one of the strips which run at right angles to the strips *A*, in the completed filler.

A sufficient number of blanks having been divided, as shown, the filler may be put together in the following manner: The strips *B'* are inserted into the slits in the lower side of the strip *A*, the slits in the two strips engaging until the edges of these strips come into the same plane or become flush, as shown in the first two figures. The piece *B* is then inserted in like manner into the slits in the

upper side of the strip A, and the tongues b' , on the strips B, B' , are secured together by glue or other suitable means. In this manner, the entire egg case may be constructed of any dimensions which may be desired.

From an inspection of the drawings, it will be seen that every particle of the material out of which the filler is constructed is used, there being absolutely no waste, with the exception of that comparatively infinitesimal portion which is cut out of the slits; that, furthermore, the slits a are formed in the broadest parts of the strip A, and only extend a portion of the way across such strip, leaving the greater portion of the material thereof uncut, and thereby greatly increasing the strength of the filler. Furthermore, the notches in the strips B, B' , being merely intended to lock with the other notches and prevent the slipping of the strips, are cut to such a slight distance into the strip as to not weaken it appreciably. The partitions placed between these fillers, when packed for shipment, may be made in various ways.

In Fig. 4, I have shown one form wherein strips C, C, of strawboard or other suitable material, are fastened together in any suitable manner, the dimensions of the partitions corresponding to the trays with which they are to be used. The strips B are preferably provided with notches in their upper edges with which the partition strips engage, as shown in Fig. 1, thereby holding the partition in place and serving to greatly strengthen the filler at its outer edges, generally a weak place. Instead of making these partitions in strips, they may be made out of a solid piece D, provided with slits or openings d , adapted to engage with tongues b'' on the strips B, indicated in dotted lines in Fig. 1, this construction serving the same purposes as that in Fig. 4. These partitions, or either of them, may be used in connection with my form of filler.

In the last three figures I have shown a modified form in which my filler may be made. In this form I first make, preferably out of thin wood, though any other material may be used, strips E, glue or otherwise secure them together, lying upon each other at right angles, as shown in Fig. 8, somewhat after the manner of the partition shown in Fig. 4. This forms a blank q, r, s, t , shown in Fig. 8. From this blank the strips are formed by dividing the same along the lines O, O, and P, P, one portion of one of the cross strips being shown as separated from the blank in order to more clearly point out the line of division. In this case, the center piece F of the blank forms one of the strips running in one direction across the filler, in the same manner that the center piece A, (Fig. 3) forms one of the strips of that filler, this strip F being provided in like manner with notches f , formed in the broadest, and therefore in the strongest part of the strip. The strips G, G' , provided with notches g, g' , together form the strips, u running at right angles to the strips

F, in the completed filler. The blank having been separated into three portions, the filler is formed in precisely the manner already described, the two portions G, G' , being inserted into the proper slots in the strips F, and their ends g'' then secured together by gluing or other suitable means, the only difference between the filler so formed and the other consisting in the manner of making it, strips being first cut out and fastened together to form a blank, from which the strips making up the filler are subsequently cut. In either case, these blanks may be cut by hand or by suitable machinery, as preferred, the method of separating them into the various parts composing the filler forming no part of the present invention.

The advantages of a filler constructed as above described, have already been set forth in various parts of the specification, and need not be further described here; but, although I have described more or less precise forms, I do not intend to limit myself to them or either of them exactly, but contemplate changes in form, proportion, material, and substitution of equivalent members, as may be desirable or necessary.

I claim—

1. The method of forming an egg case filler, which consists in dividing blanks of suitable dimensions into at least three parts, two of these parts having tongues projecting at right angles to their length, using one of such parts to form the strips extending in one direction, inserting the two remaining parts into the first part from opposite sides thereof and securing the projecting tongues of such parts together, thereby forming the strips running in a direction substantially at right angles to the first and completing the filler, substantially as described.

2. The method of forming an egg case filler which consists in making strips of suitable material, securing them together to form a blank, cutting such blanks into at least three parts, one set of parts forming one series of strips of the completed filler, and interlocking the other parts with these first parts to form the other series of strips in the completed filler, substantially as described.

3. As a new article of manufacture, an egg case filler composed of two sets of strips crossing each other transversely, each of the strips of one set being made in a single piece having notches in its outer edges, and each of the strips of the other set being made in two pieces having tongues projecting at right angles to their length, such two pieces being inserted into the notches on opposite sides of the first set of strips and having their projecting tongues secured together, substantially as described.

FRANK M. WADE.

Witnesses:

GEORGE S. PAYSON,
SAMUEL E. HIBBEN.