H. S. SMITH.

SHIPPING PACKAGE FOR EGGS.

APPLICATION FILED MAY 25, 1915.

1,223,209.

Patented Apr. 17, 1917.

3 SHEETS—SHEET 1.

Fig. 1.

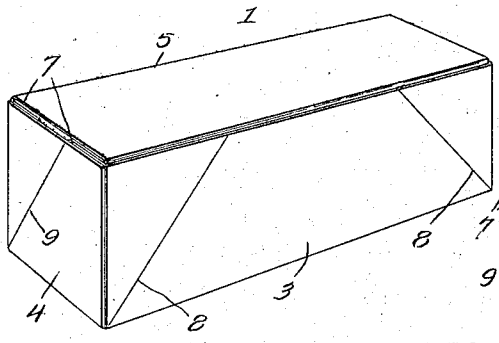


Fig. 2.

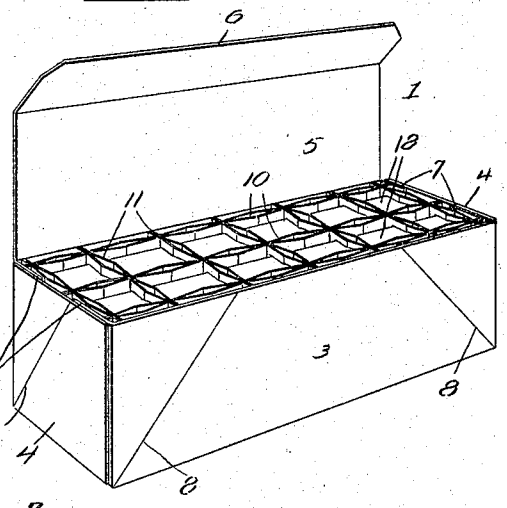


Fig. 3.

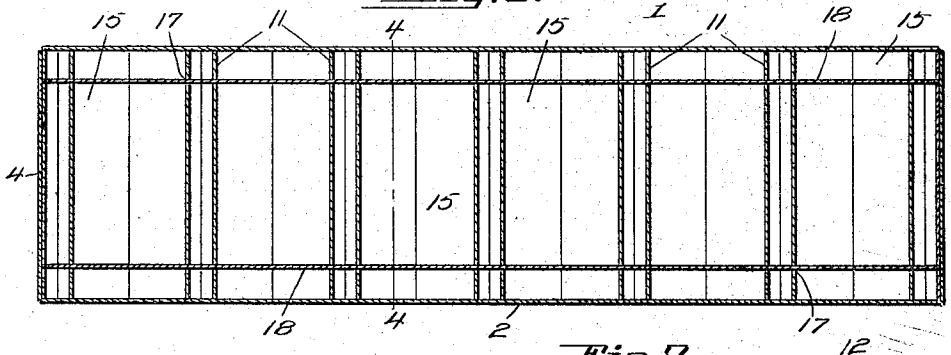


Fig. 4.

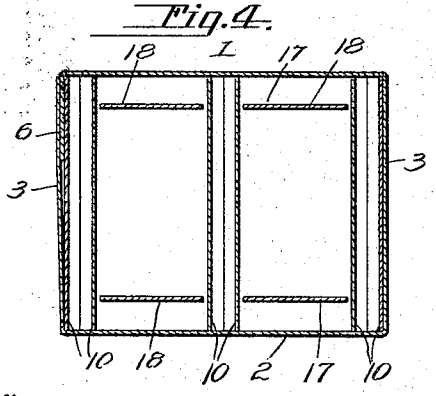
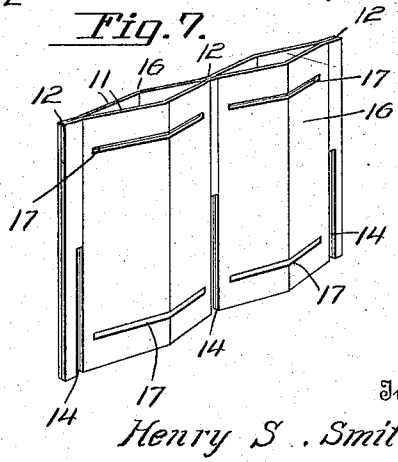


Fig. 7.



Witnesses

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3 SHEETS—SHEET 2.

Fig. 5.

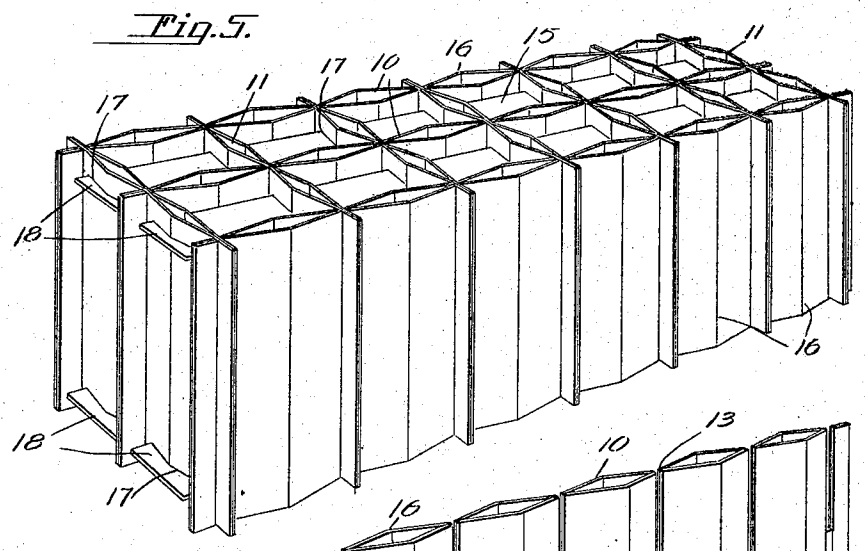


Fig. 6.

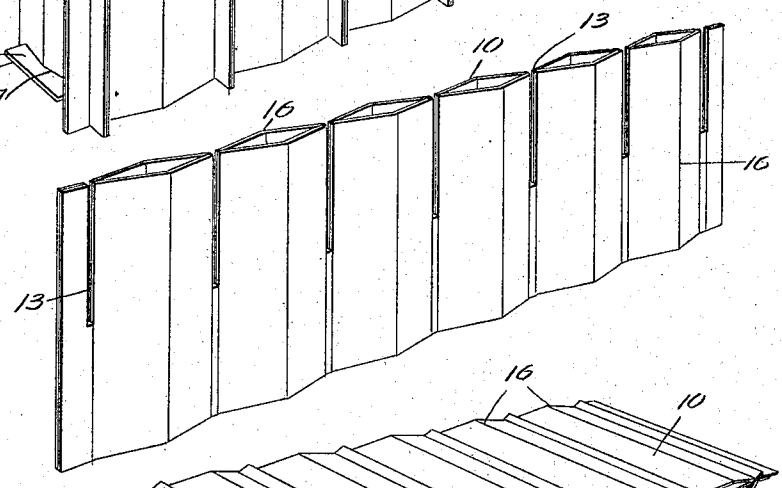


Fig. 8.

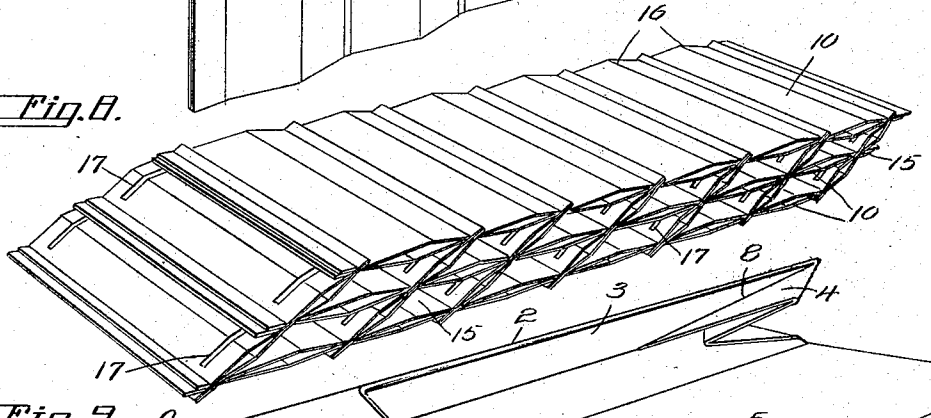
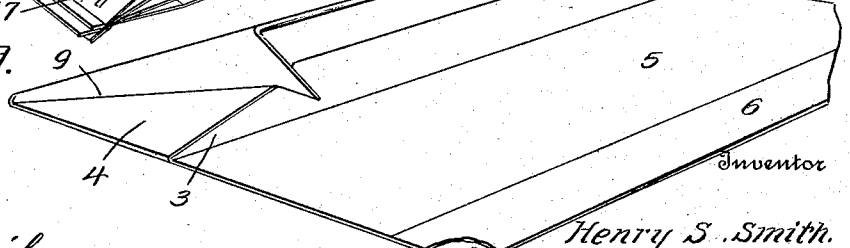


Fig. 7.



Witnesses

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3 SHEETS—SHEET 3.

Fig. 10.

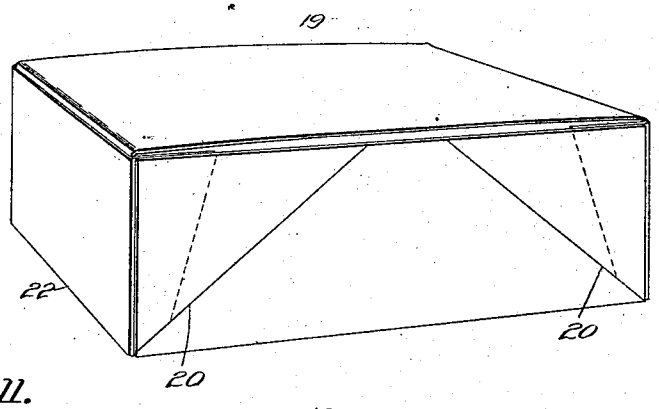


Fig. 11.

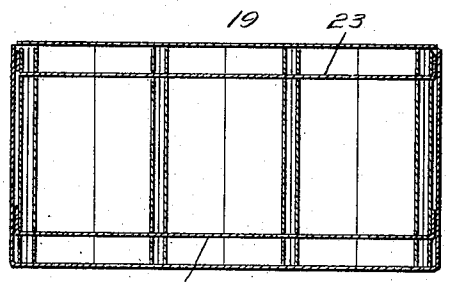


Fig. 12.

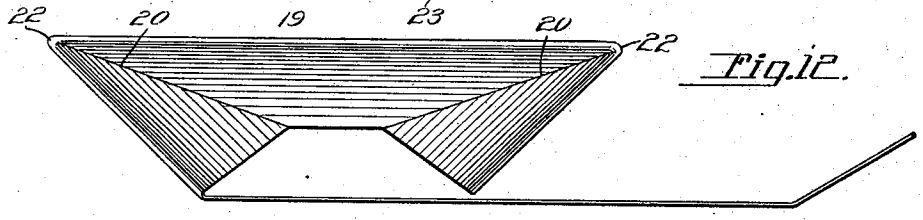
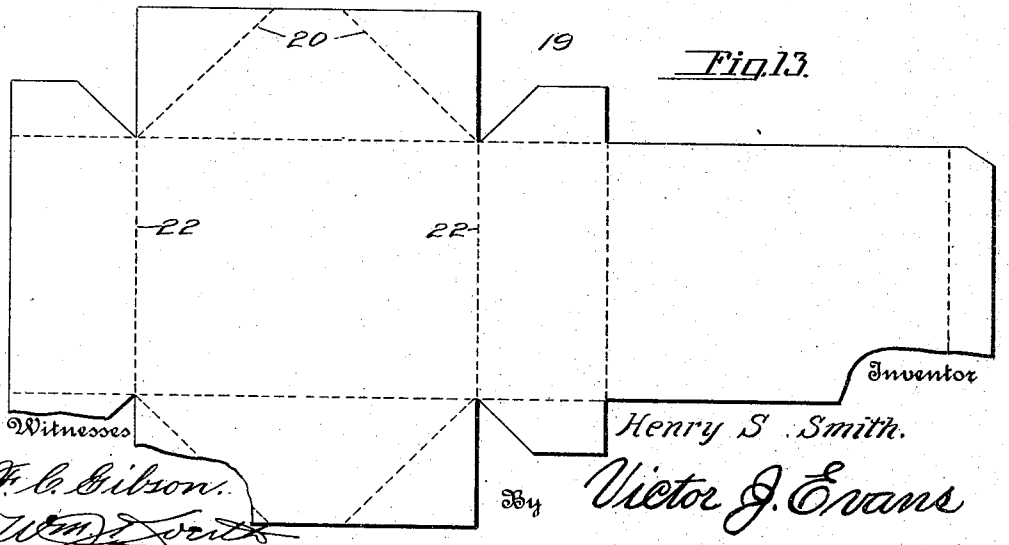


Fig. 13.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY SPENCER SMITH, OF ULSTER PARK, NEW YORK.

SHIPPING-PACKAGE FOR EGGS.

1,223,209. Specification of Letters Patent. Patented Apr. 17, 1917.

Application filed May 25, 1915. Serial No. 30,390.

To all whom it may concern:

Be it known that I, HENRY SPENCER SMITH, a citizen of the United States, residing at Ulster Park, in the county of Ulster and State of New York, have invented new and useful Improvements in Shipping-Packages for Eggs, of which the following is a specification.

This invention relates to certain new and useful improvements in shipping packages for eggs or other breakable articles.

In carrying out my invention I propose to construct a shipping case providing a plurality of nests, each adapted to receive eggs or similar breakable articles, the said nests being so constructed as to provide each with yieldable walls which only contact centrally with the article within the nest, the walls between the adjacent nests being spaced so that a contact of the wall of one of the nests will not influence the arrangement of the walls in the adjacent nests, thus permitting a slight yielding of the walls of any of the nests without danger of breakage of the contents of said nest or the contents of any of the adjacent nests.

It is a still further object of the invention to provide a shipping package which shall include an outer casing, an inner member adapted to be received within the casing, said inner member being made up of a plurality of longitudinally extending transverse connecting members, each of the longitudinal as well as each of the transverse members comprising a pair of elements of yieldable material, such as cardboard and each being centrally bent so that what may be termed the apex of both the side and end walls, which provide the case with a plurality of nests, extends inwardly of the nest to provide contacting surfaces for an egg or for other contents of the nest, the said arrangement being such that the inner walls of the outer nest members are disposed in spaced relation to the walls of the casing, but the outer walls of the inner member centrally contact with the inner walls of the casing as do the ends of the division or partition member, so that a pressure upon the walls of the sides of the casing will not influence the walls of the nest or endanger the contents of the nest, suitable slides passing through openings in the partition members forming the top and bottom of the nests.

A still further object of my invention is to construct a shipping case provided with an inner removable member constituting a plurality of nests, which are so constructed and arranged that the contents of the nests will be insured against injury even when the shipping case is subjected to an abrupt contact, and further wherein both the nest sections and the casing are collapsible, so as to provide only a small bundle when the contents of the nests have been removed and the package is to be reshipped to the consignor.

A still further object of the invention is to construct a shipping case of this character wherein any desired number of nests may be arranged so that the required number of eggs may be shipped in a single package, and which shall embody in its construction the desirable features of simplicity, cheapness and thorough efficiency.

With the above and other objects in view, the improvement resides in the construction, combination and arrangement of parts set forth in the following specification and falling within the scope of the appended claim.

In the drawings:

Figure 1 is a perspective view illustrating a shipping case constructed in accordance with the present invention, the cover of the same being closed upon the case,

Fig. 2 is a similar view with the cover open,

Fig. 3 is a longitudinal sectional view through the device as illustrated in Fig. 1, the said section being taken approximately central of one of the series of nests,

Fig. 4 is a transverse sectional view approximately on the line 4—4 of Fig. 3,

Fig. 5 is a perspective view of the nests removed from the casing,

Fig. 6 is a perspective view of two of the members showing the longitudinal elements which comprise the side walls of the nest,

Fig. 7 is a similar view of two members comprising the ends or division walls of the nests,

Fig. 8 is a view showing the nests in their collapsed position,

Fig. 9 is a similar view showing the casing in its knocked-down or collapsed condition,

Fig. 10 is a view of a slightly modified form of the device,

Fig. 11 is a central vertical transverse sectional view of the same,

Fig. 12 is a side elevation showing the casing in its knocked-down or collapsed condition,

Fig. 13 is a view of the blank from which the casing is formed.

In carrying out my invention I provide an outer casing, indicated by the numeral 1, which is formed from a single piece of suitable material to provide a substantially rectangular box-like member which includes a base 2, sides 3, ends 4, a cover 5 which is formed with one of the sides 3 and is provided with a weakened line so that the same may be bent over the open top of the case, and the said cover is also provided with a weakened longitudinally extending line providing the end of the same with a flap 6. The sides 3, at their corners, are provided with substantially V-shaped extensions 7 which are bent inwardly over the base 2 and the ends 4, which are formed with the base and bent therefrom, are adhesively or otherwise connected with the said angular extensions 7 of the sides. The outer side 3 is scored or otherwise weakened at angular lines which extend from the lower corners to the upper edge of the said side, as indicated by the numerals 8, and likewise the ends 4 from their lower corners at their juncture with the sides provided with the cover 5 are formed with angularly disposed weakened or full lines 9. By such an arrangement it will be noted that the casing may be collapsed by first bending the side 3 upon its fold lines 8 over the base, and then bending the sides from their outer corners over the portions of the side between the weakened lines 8 and the corners thereof, then the rear side or back is bent downwardly, causing the portion of the ends between their weakened fold lines at the corners of the back to lie flat upon the folded portion of the casing and the flap 6 is bent over the cover, thus providing a substantially flat package which will occupy a small space in shipping.

The inner member of the device which comprises the nests includes a plurality of longitudinally extending members 10 and a plurality of transverse or connecting members 11. Each of the longitudinal as well as each transverse member comprises two elements which may be scored centrally and vertically with respect to the position of the nests when in the case, so as to form each of said members 10 and 11 with a double wall that is of a zig-zag formation providing each of said double walls with both inturned and outturned portions which may, as illustrated in the drawings, be diamond-shaped in plan, the hollow diamond-shaped walls having their central portions, at the widest space of each of the hollow walls arranged each in a direct longitudinal line, and the meeting edges of the double walls, indicated by the numerals 12, are also arranged in a similar longitudinal line. The meeting edges of the hollow walls provided by the elements comprising the longitudinal walls 10 are slitted at approximately one-half of the width of the said wall, as indicated by the numerals 13, and the meeting portions of the double walls of the transverse members are slitted for approximately one-half of their width, as indicated by the numerals 14, the said slits 14 being arranged from say the lower edges of the said walls 11, while the slits 13 of the walls 10 are arranged from say the upper edges of the said walls, so that the slitted portions of one of each of the walls will contact with the non-slitted portions of the said walls when the sections 10 and 11 are arranged in connected position, as will be readily understood. The arrangement provides a plurality of nests, each indicated by the numeral 15, and the said arrangement provides each of the said nests upon all of its walls with a central inturned portion and it is to be understood that the said central portions, for distinction, indicated by the numeral 16, are to a certain extent resilient or flexible, so that when an egg is contacted by the said portion 16 and the same is forced against one of the walls to press the said wall to a certain, but only a limited extent, the diametrically opposite wall will yield in the direction of the egg, while the central portion of the remaining walls will engage with the opposite sides of the egg with sufficient friction to prevent any slight movement of the egg within the nest and consequently from being broken, as, it is thought, will be understood.

The extreme ends of the members 10 and 11; that is, the ends extending beyond the outer sections of the outer longitudinal and transverse lines of the nests terminates preferably in a line flush with the central and outwardly extending portions of the said walls, so that both the central portion of the walls and the referred to ends will contact with the sides and ends of the casing 1 when the nest section is arranged in the casing, and thus effectively reinforce the side and end walls of the casing and protect the nests therein.

The transverse walls of the nests adjacent the upper and lower edges thereof are provided with horizontally disposed slits 17, and top and bottom members, in the nature of strips 18 are passed through the said slits from the outer member of the double walls of the end nests and preferably, for the sake of economy and space when the nest section is collapsed, one strip is inserted from each

end of the nests in opposite directions and toward each other and the inner ends of the said strips overlap each other. Thus eight strips may be employed and provide the top and bottom walls of the nests.

It will be apparent that when the strips comprising the top and bottom walls are removed, the nest may be folded to the position illustrated in Fig. 8 and both the nest and its top and bottom walls may be arranged in the collapsed casing, so that the whole device will thus comprise a flat package which shall occupy only a small space in transportation. It is, of course, to be understood that the structure admits of any number of nests in accordance with the number of eggs to be transported, the device just described being adapted for, say, a dozen of eggs. Of course, the number of eggs arranged within the shipping case could be readily increased by proportioning the casing 1 so that a plurality of nest members could be supported one resting upon the other and arranged within the casing, and in Figs. 10 to 13 I have illustrated, instead of a rectangular casing as disclosed in the previous figures, a substantially square casing 19, the same being constructed substantially in a manner heretofore described, but the longitudinal sides of the said member are creased or provided with fold lines which are arranged at different angles from the corners of the said side and terminate at an equal distance from the said sides, the said fold lines being indicated by the numerals 20. By pressing the central portion of the sides inwardly over the base so that the same will contact with the base, the end members may be forced inwardly over the said central portion of the sides to cause the sides to bend upon their fold lines 22 and the end provided with the cover and flap lie upon the said bent portions of the casing. In the present instance the casing is of a sufficient size to receive a plurality of nest sections each being constructed similar to that previously described, the only difference being that the strips, comprising the top and bottom walls of each of the nests are each of a single length, the said strips being indicated by the numerals 23, and the ends of said strips are bent angularly to contact with the side or end walls of the casing 19, when the nests are arranged within the said casing. By reference to the drawings it will be noted that the slats comprising the top and bottom walls for the cells are disposed only out of slight contact with the central or apex portions of the substantially V-shaped sides of the cells, whereby to limit the movement of the sides toward each other, but at the same time the said slats do not interfere with the central or apex portions of the end members of the cells so that the substantially V-shaped end walls may be projected farther within the cells than the side walls of the said cells.

From the above description, taken in connection with the accompanying drawings, the simplicity of the device, as well as the advantages thereof will, it is thought, be perfectly apparent to those skilled in the art to which such invention appertains without further detailed description.

Having thus described the invention, what I claim is:

A shipping package for eggs comprising a nest including longitudinal and transverse members dividing the same into a plurality of cells, said longitudinal and transverse members each comprising two similar members scored at the central of each of the cells and bent inwardly of the said cells, plates passing through alining openings adjacent to the top and bottom of the end walls of the cells and having their edges disposed adjacent to the central of the side walls of the cells, whereby to limit the inward movement of the said side walls with relation to the said cells.

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

HENRY SPENCER SMITH.

Witnesses:
WM. J. KOERTH,
F. H. SHALLENBERGER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."