I. A. MILLIRON.

CONTAINER FOR USE IN SHIPMENT OF FRAGILE ARTICLES.

APPLICATION FILED JULY 26, 1913.

1,150,140.

Patented Aug. 17, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

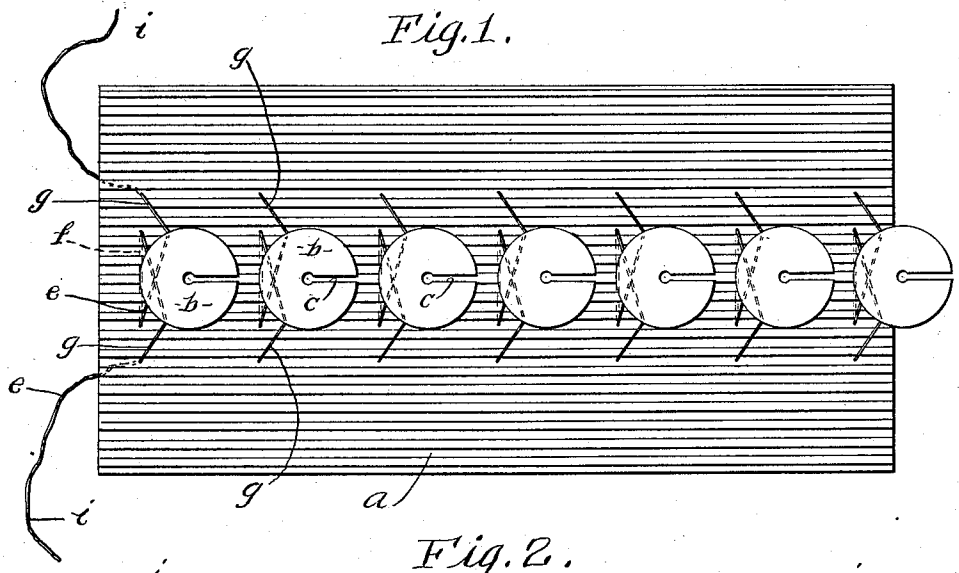


Fig. 2.

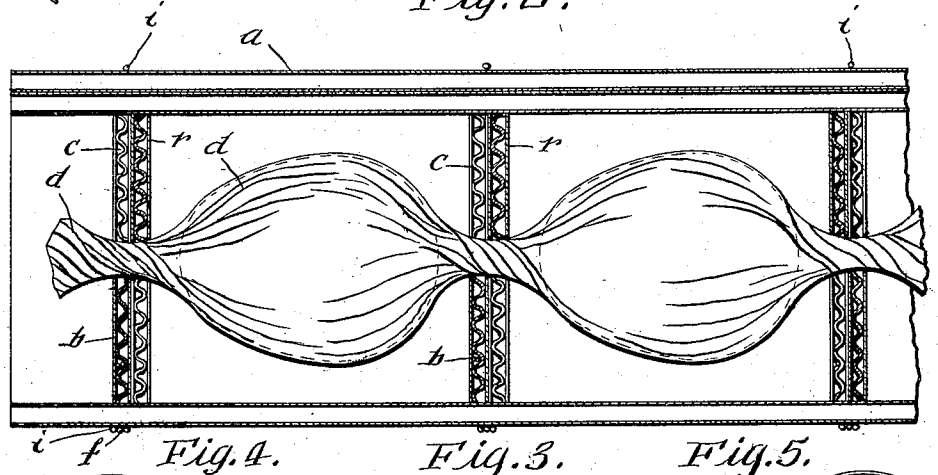


Fig. 4.

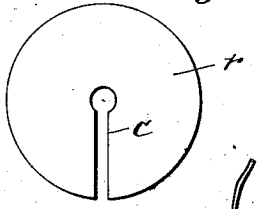


Fig. 3.

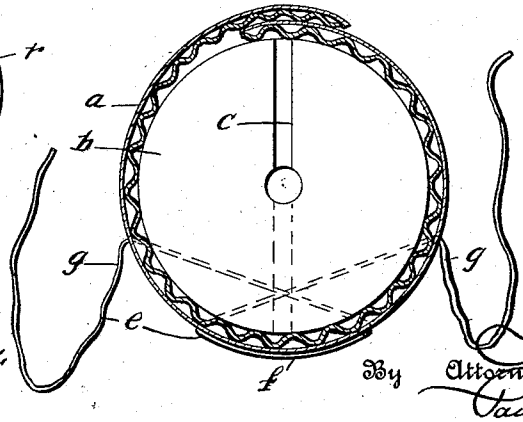
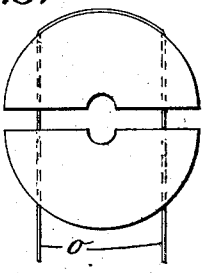


Fig. 5.



Witnesses:
Chas. H. Young.
S. Davis.

Inventor
Ira A. Milliron
By Attorneys
Parsons, Hall & Bodell

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 7.

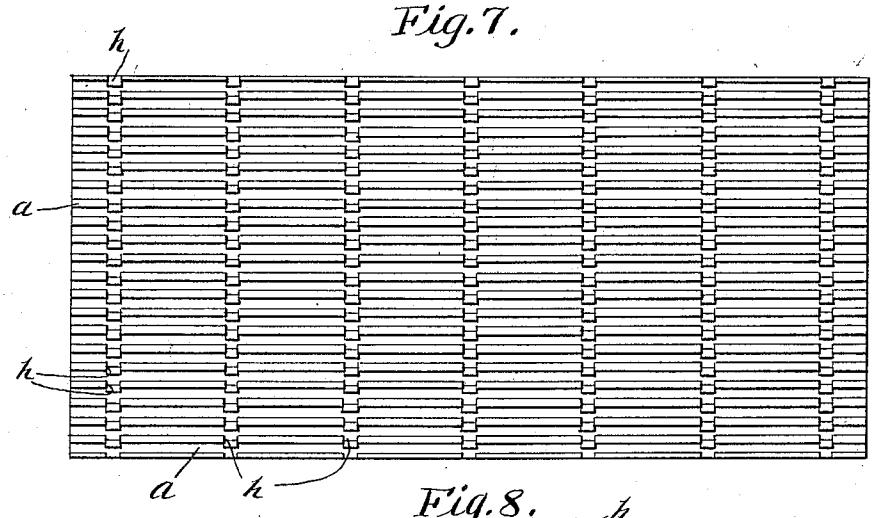


Fig. 8.

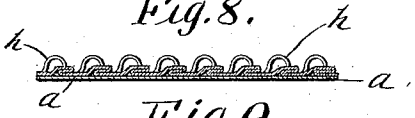


Fig. 6.

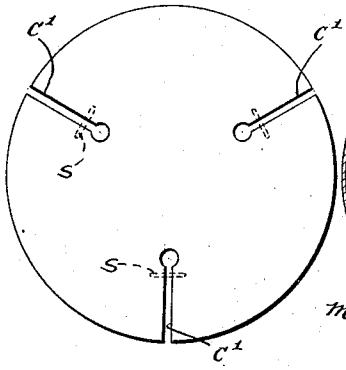


Fig. 9.

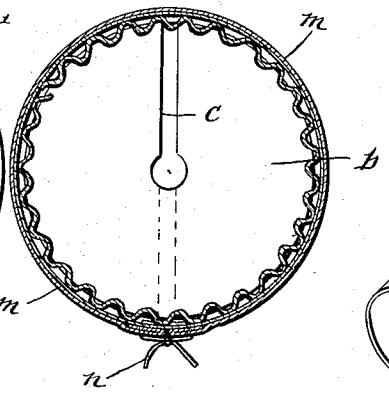


Fig. 11.

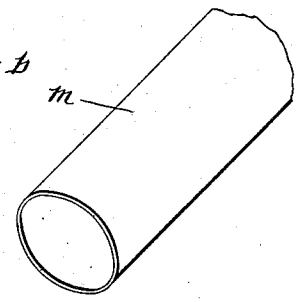
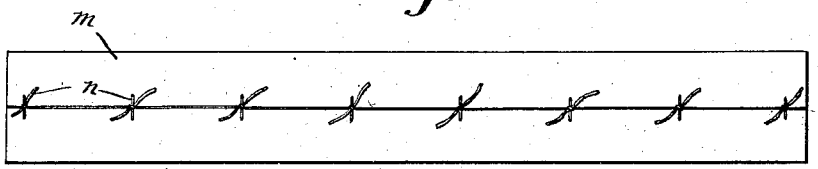


Fig. 10.



Witnesses:
Chas. H. Young.
S. Davis.

Inventor
Chas. A. Milliron
By Attorneys
Parmelee, Hall & Bodell

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

IRA A. MILLIRON, OF SYRACUSE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HAMMOCK EGG CARRIER COMPANY, A CORPORATION OF WEST VIRGINIA.

CONTAINER FOR USE IN SHIPMENT OF FRAGILE ARTICLES.

1,150,140. Specification of Letters Patent. Patented Aug. 17, 1915.

Application filed July 26, 1913. Serial No. 781,380.

To all whom it may concern:

Be it known that I, IRA A. MILLIRON, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Container for Use in Shipment of Fragile Articles, of which the following is the specification.

My invention relates to a container for use in shipping by mail or express small quantities of fragile articles, as a unit, and particularly for a container adapted for use in the shipment of small lots of eggs from farmers, or chicken raisers, direct to the consumers.

The invention comprises a container including the combination and arrangement of parts to be hereinafter described and particularly pointed out in the claims.

Several embodiments of my invention are illustrated in the accompanying drawings in which:—

Figure 1 is a plan view of one form of main wrapper and associated partitions embodying my invention. Fig. 2 is a fragmentary longitudinal sectional view of one embodiment of the complete container. Fig. 3 is a transverse sectional view of the same. Fig. 4 is an elevation of one form of locking member. Fig. 5 is an elevation of a modified form of partition. Fig. 6 is an elevation of a partition for use in the multiple type of container. Fig. 7 is a plan view of a modified construction of main wrapper. Fig. 8 is a transverse sectional view thereof. Fig. 9 is a transverse sectional view of the completed container embodying the wrapper illustrated in Fig. 7, and one form of inclosing jacket. Fig. 10 is an elevation of the container illustrated in Fig. 9; and Fig. 11 is a perspective view of another form of inclosing jacket.

The invention includes, generally, a main wrapper designed to be furnished to the shipper in the form of a rectangular sheet, and to be bent, or rolled, into tubular shape by him, a set of partitions for use with each sheet, each partition comprising an element having a receiving recess therein opening out through its periphery, means for locating each partition in a predetermined position relatively to the wrapper and for retaining the partitions individually against axial movement, a supplemental, or individual, wrapper in the form of a rectangular sheet, which is designed to be wrapped about the articles to be shipped, and to have end portions, and portions between adjacent articles held in the recesses in the partition, and means for retaining the main wrapper in tubular form. The invention also preferably includes a locking member associated with each of a plurality of partitions.

The container is particularly designed for the shipment by mail, or express, of relatively small lots of eggs, as a unit, and in the accompanying drawings is shown as used in this connection.

In the embodiment of the invention disclosed, the main wrapper is designated *a* and comprises a rectangular sheet preferably formed of reinforced cardboard, but any material which is inexpensive, sufficiently stiff to withstand the blows and shocks received in the handling of the container incidental to the transportation thereof, and which may be packed flat and rolled, or bent, into tubular form, may be substituted as the material for the wrapper.

The partitions are designated *b* and are preferably in the form of a flat disk of light stiff material, as corrugated cardboard, and each disk is provided with a receiving recess *c* preferably formed by an axial opening and a relatively narrow slot leading therefrom through the periphery of the disk.

The inner, or supplemental wrapper is designated *d* and is initially of rectangular shape and is formed preferably of thin tough paper, but any other suitable material may be used.

In the form of my invention illustrated in Figs. 1 to 3 inclusive, each partition *b* is located at a predetermined point on the wrapper and is held at this point against axial movement by a connecting member in the form of a cord *e* having a loop portion *f* extending from the disk on opposite sides of a plane intersecting the axis thereof and parallel to the recess *c* and having a portion extending transversely of the outer face of the wrapper *a*, and end portions *g* passing from opposite sides of the disk and extending through wrapper *a* at points separated from the places where portions of the cord forming the loop *f* extend therethrough. The end portions *g* are intended to be tightly tied together against the outer face of the wrapper for the purpose of drawing the cord taut and thereby causing the disk to

assume a substantially fixed position perpendicular to the face of the wrapper.

In the form of the invention shown in Figs. 7 to 10 inclusive, the partitions *b* are located in reference to the wrapper *a* and are retained against axial movement by means of transverse grooves *h* in the inner face of the wrapper *a*. These grooves are preferably formed by pressing down sections of the ribs of the corrugated surfaces of the wrapper and the opposing walls of each groove coöperate with the adjacent face of the associated partition for retaining the latter in place.

In the form of my invention illustrated in Figs. 1 to 3, the wrapper *a* is retained in tubular form after the parts have been assembled by means of the end portions *i* of the cords *e*. After each cord is tied, as before described, for holding the associated partitions in place, two relatively long end portions remain, and after the supplemental wrapper is placed within the recesses in the partitions *b*, and the sides of the wrapper *a* are bent, or rolled, about the peripheries of the partitions for forming an inclosing tube, the ends *i* of the cord are wrapped about the exterior of the tube so formed by the wrapper *a* and are tied for holding the wrapper in its final form.

The wrapper is held in tubular form in the embodiment of my invention disclosed in Figs. 7 to 11 inclusive, by an external jacket.

As shown in Figs. 9 and 10, this jacket designated *m* is initially, or as furnished the shipper, in the form of a rectangular sheet, and is preferably the same width as, but of greater length than, the associated wrapper *a*.

The wrapper *m* is preferably formed of thin cardboard, or thick paper, or some other suitable material, and is provided along its longitudinal edges with eyes or openings for receiving suitable lacings *n*. In associating this jacket with the wrapper *a* the two parts are arranged with their longitudinal axes out of alinement so that their meeting edges will break joint, or be out of register. The end portions of the jacket which extend beyond the ends of the wrapper are preferably bent over and within the latter for closing, or partly closing, the ends of the same. For facilitating this operation, the said end portions of the jacket are preferably slitted. Instead of the described jacket, I may use a jacket in the form of an endless band, or tube, as illustrated in Fig. 11. When this form of jacket is used, the wrapper *a* with its contents is inserted therein through one end of the same. Instead of forming each partition non-sectional and providing the same with a recess, as shown in Fig. 1, I may form this element in two sections, as shown in Fig. 5, and secure the sections to each other by a cord *o* which may also be used for attaching the partition to the wrapper *a* in lieu of the cord *e*.

A locking member is preferably associated with each of a plurality of the partitions for insuring the retention of the inner wrapper in the bottom portions of the recesses *c*. As shown in Fig. 4, this locking member *r* is in the form of a disk, which in shape, is substantially a counterpart of the partition with which it is associated. The locking member, however, may be of other forms; for instance, a staple, as indicated by the letter *s*, in Fig. 6, may be employed. The form of locking member illustrated in Fig. 4 is preferred, however, since in addition to its function of retaining the inner wrapper in the recesses *c*, it also supplements the partitions in their function as braces for preventing the collapse of the wrapper *a*.

In making up a container for shipment, the egg is placed in one end of the sheet forming the wrapper *d* and the sides of the sheet folded over the egg, and portions at opposite ends of the latter are twisted and inserted in the recesses in the end, and the next adjacent partition. If locking members are used these are then placed in position in connection with the two partitions referred to, and another egg is then placed in the wrapper, and a portion of the latter at the end of the egg remote from said adjacent partition twisted and inserted in the recess in the third partition, and the locking member associated with the latter partition is then placed in position. This method of placing the eggs in the container is preferably followed until the entire lot have been wrapped and secured in place in the partitions. Other methods which suggest themselves may be followed in securing the eggs in the inner wrapper and the latter in the recesses in the partitions. After the inner wrapper has been placed in the partitions the sides of the wrapper *a* are rolled, or bent, about the peripheries of the partitions, thus forming a tubular structure, and the parts are held in this final form, either by tying the ends *i* of the cords *e* about the wrapper, in the manner described, or by using one of the jackets described.

Instead of arranging the eggs coaxially in the container, as described, they may, in a modified form of the container, be disposed in a plurality of groups about a central axis. In this modified form, the container is increased in diameter and correspondingly decreased in length. In this form of container the supporting partitions are each provided with a plurality of recesses *c'* disposed at angles to each other, as shown in Fig. 6.

What I claim is:—

1. In a package for the shipment of eggs, an outer wrapper, an inner wrapper for re-

ceiving a plurality of eggs, and supporting members inclosed by the outer wrapper, fixed relatively to one another and engageable with the inner wrapper after a plurality of eggs have been secured therein, substantially as and for the purpose described.

2. In a package for the shipment of eggs and in combination, an outer wrapper, a series of supporting members located therein and held from movement relatively to one another, and each provided with a narrow slot open at one end, and an inner holder wrapped about a plurality of eggs and having portions on opposite sides of the individual eggs retained in the slots in said members, whereby the eggs are held suspended by the members and prevented from movement lengthwise of the outer wrapper, substantially as and for the purpose described.

3. In a package for the shipment of eggs and in combination, an outer wrapper, a series of supporting members inclosed thereby and arranged in fixed relation to one another, each of said members being provided with a narrow slot open at one end, an inner wrapper for receiving a plurality of eggs and having end portions and portions at opposite sides of the eggs held in the slots in said supporting members, substantially as and for the purpose described.

4. In a package for the shipment of eggs and in combination, an outer wrapper, a series of supporting members inclosed thereby and arranged in fixed relation to one another, each of said members being provided with a narrow slot open at one end, an inner wrapper for receiving a plurality of eggs and having end portions and portions at opposite sides of the eggs held in the slots in said supporting members, and means carried by the members for retaining said portions of the inner wrappers within the slots, substantially as and for the purpose specified.

5. In a package for the shipment of eggs, an outer wrapper, supporting partitions located therein, and each provided with a substantially radially disposed slot open at its outer end through the edge of the member containing the same, and an inner wrapper for directly engaging the articles to be shipped and having portions retained in said slots in the supporting members, substantially as and for the purpose set forth.

6. In a package for the shipment of eggs and in combination, an outer wrapper formed of a rectangular sheet bent into cylindrical form, a plurality of partitions arranged in fixed relation thereto and each provided with a recess opening out through its periphery, an inner wrapper having ends and intermediate portions twisted and held in the recesses in the supporting members, and means for maintaining the outer wrapper in cylindrical form, substantially as and for the purpose described.

7. In a package for the shipment of eggs and in combination, an outer wrapper comprising a rectangular sheet of cardboard bent into tubular form, a plurality of disks spaced apart along the axis thereof and each provided with a recess including an axial opening and a radial slot opening out through the periphery of the disk, and an inner wrapper for directly engaging the article to be shipped and holding the same suspended between adjacent disks, said inner wrapper comprising a rectangular sheet of flexible material having its end portions and portions between adjacent articles held therein twisted and held in the slots in the disks, substantially as and for the purpose specified.

8. In a package for the shipment of eggs and in combination, an outer wrapper comprising a rectangular sheet of flexible material bent into cylindrical form, a plurality of supporting members arranged in spaced relation along the axis of said sheet, and each in the form of a flat plate, engaging parts on the outer wrapper and supporting members, respectively, for locating the supporting members and holding the same against displacement, each of said supporting members being provided with a radial recess, an inner wrapper for directly engaging the articles to be shipped, said wrapper comprising a rectangular sheet of flexible material twisted about the articles to be shipped, and having end portions and portions between adjacent articles held in the recess in the supporting members, and means for holding the outer wrapper in cylindrical form, substantially as and for the purpose set forth.

9. In a package for the shipment of eggs, an outer wrapper, an inner wrapper for receiving a plurality of eggs, and supporting members inclosed by the outer wrapper, fixed relatively to one another, and the outer wrapper and engaging portions of the inner wrapper containing the eggs, for holding the eggs in suspension and from movement lengthwise of the package, substantially as and for the purpose described.

In testimony whereof, I have hereunto signed my name in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 19th day of July, 1913.

IRA A. MILLIRON.

Witnesses:
S. DAVIS,
F. B. PICKARD.

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