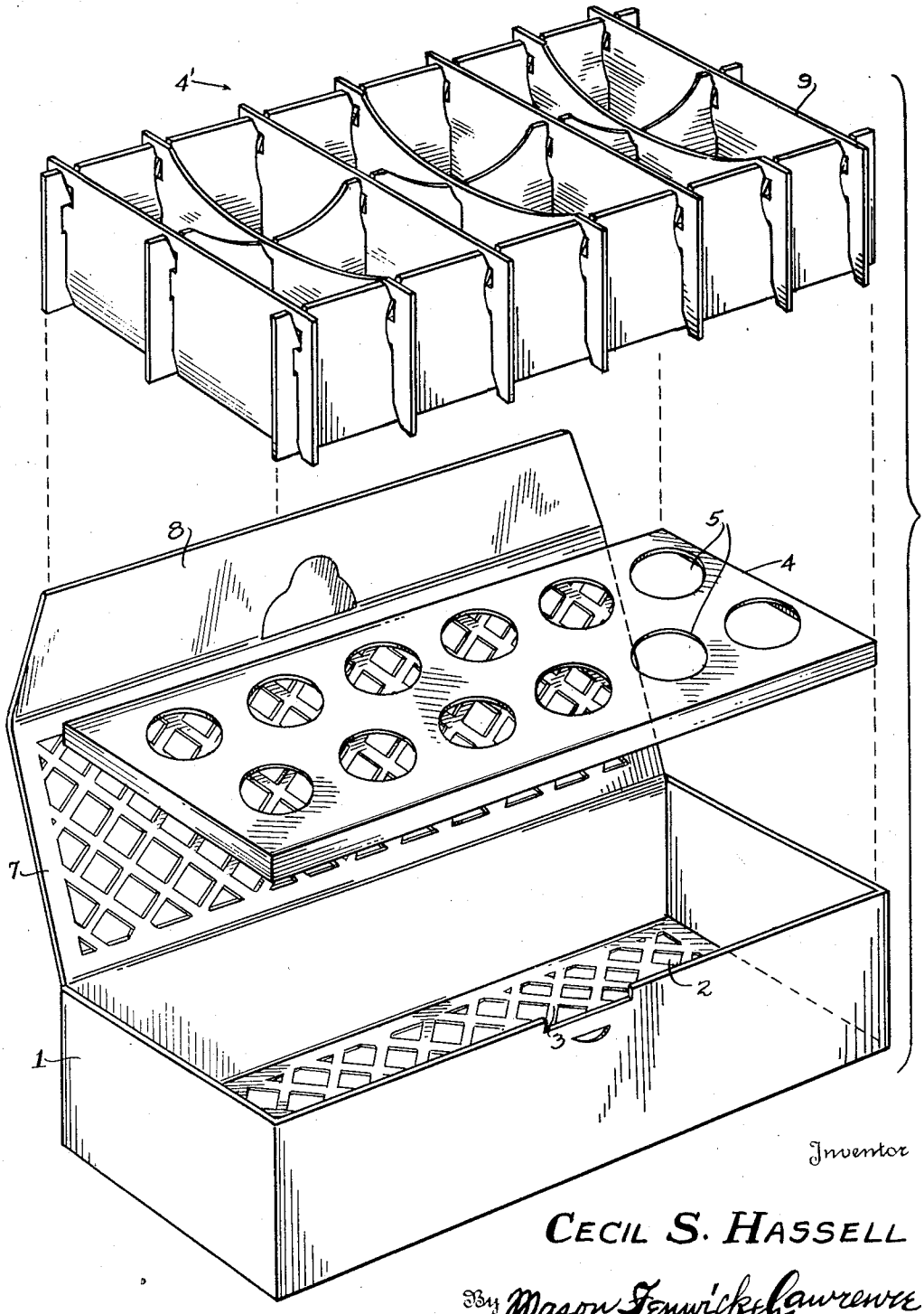
June 5, 1934. C. S. HASSELL 1,961,294

CANDLING EGG CARTON

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Fig. 1.



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Fig. 2.

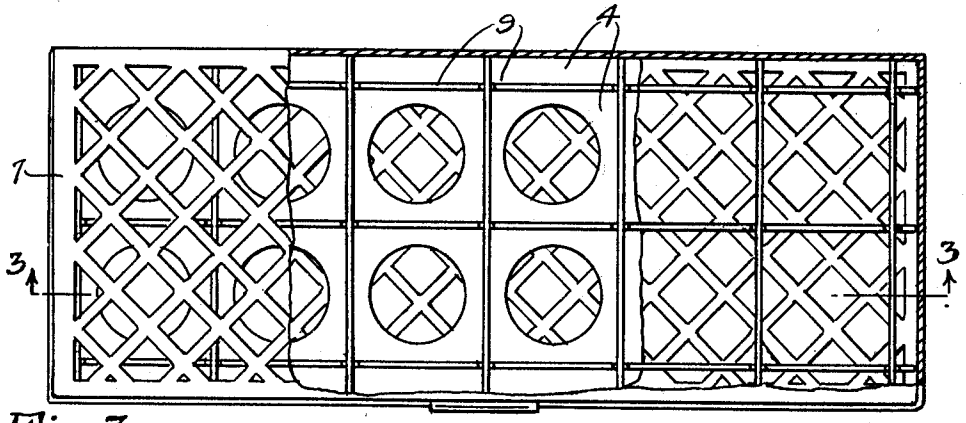


Fig. 3.

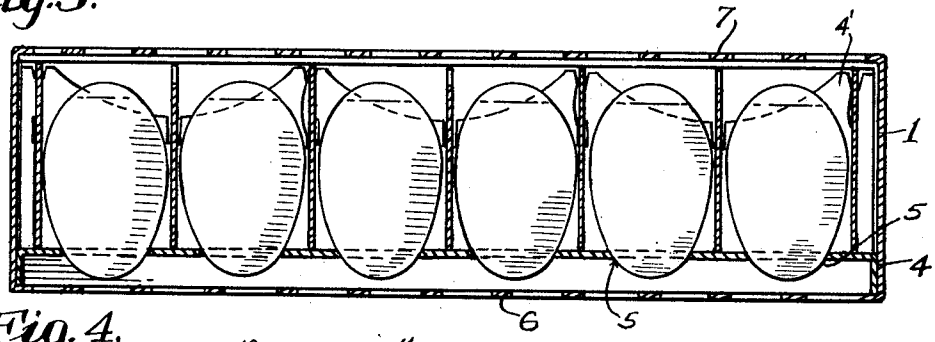


Fig. 4.

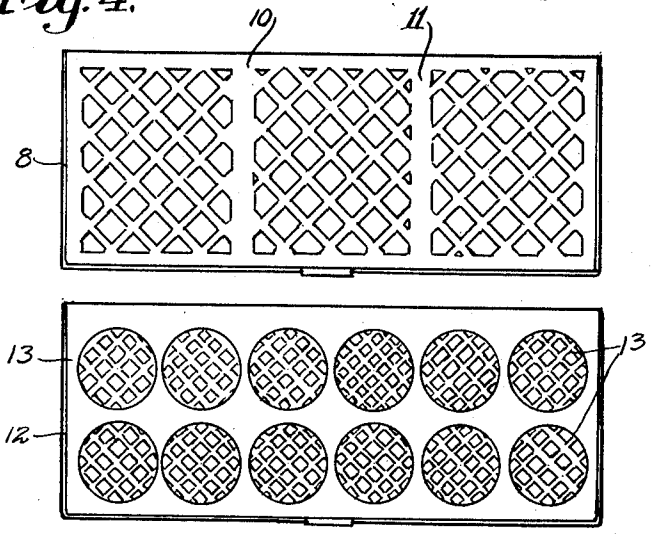


Fig. 5.

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UNITED STATES PATENT OFFICE

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CANDLING EGG CARTON

Cecil S. Hassell, Miami, Fla.

Application May 1, 1933, Serial No. 668,854

2 Claims. (Cl. 229—29)

The invention forming the subject matter of this application is a candling egg carton forming an improvement of the carton disclosed in United States Letters Patent to Hassell et al., No. 1,902,167, March 21, 1933.

While the carton disclosed in the aforesaid patent is satisfactory in every respect so far as the candling of eggs is concerned, the large light transmitting apertures in the bottom and the large transparent window in the top considerably weaken the carton as a whole and render it somewhat unsatisfactory for transporting eggs. It is, therefore, an object of the present invention to provide an egg candling carton which shall have all of the candling advantages of the patented carton but at the same time shall be considerably stronger.

A further object of the invention is to provide a carton of the candling type with a filler having parts of the partitions recessed in their upper edges to expose greater areas of the eggs within the carton.

Other objects of the invention will become apparent as the detailed description thereof proceeds.

In the drawings:

Figure 1 is an exploded view in perspective of a carton embodying the present invention;

Figure 2 is a plan view of the carton with part of the top broken away to illustrate details of construction of the interior;

Figure 3 is a section taken on the line 3—3 of Figure 2;

Figure 4 is a plan view of a modified form of the carton illustrated in Figure 1; and

Figure 5 is a plan view of another modification of the invention.

As shown in the drawings, the carton comprises a box-like container 1 having the bottom thereof provided with a large number of small apertures 2 separated from each other by narrow strips 3, and forming a "grid" for the purpose of admitting candling light through the bottom of the box or carton. A tray 4 having downturned flanges formed around its periphery, substantially as shown in the patent aforesaid, is detachably mounted in the container 1, as shown clearly in Figure 3 of the drawings. The tray 4 is provided with a plurality of apertures 5 defining seats for eggs, and fits snugly within the box 1, supported by its flanges spaced apart from grid-like bottom 6.

A filler 4′ is supported within the carton by the tray 4. The filler 4′, as shown, is divided into compartments each adapted to support four eggs on their seats in the tray 4. The upper edges of the filler partitions within each compartment are recessed to increase the exposure areas of the eggs within the compartment; while alternate transverse partitions have straight upper edges to form intermediate supports for the grid cover.

The cover 7 for the carton is provided with a large number of small apertures forming a grid through which the eggs within the carton may be viewed. The cover 7 has the usual flap 8 adapted to be tucked into the carton between the front wall thereof and the edges of a filler 9 which is seated within the carton on top of the tray 4. It will be noted that the many light transmitting apertures through the top and bottom of the carton permit the eggs within the carton to be seen from practically all angles.

It is essential that the tray 4 be made so as to seal out all light passing through the carton from below, except that transmitted through the eggs. Any light which passes through the carton without passing through the eggs decreases the effectiveness of candling, and the efficient determination of the quality of the eggs cannot accurately be accomplished.

In the modification shown in Figure 4, the cover or top 7 of the carton is divided into sections by the transverse members 10 and 11 which divide the top 7 into different sections and greatly strengthen the cover as a whole. The bottom of this carton may be made substantially the same as the top providing the transverse members corresponding to the top members 10 and 11 are arranged below some of the transverse walls of the filler 9.

In the form of the invention shown in Figure 5, the requisite strength of the top or cover 12 is secured by stamping out the grid-like light transmitting portions 13 so as to permit passage therethrough of practically all of the candling light arranged at the opposite side of the carton.

There are very decided advantages inherent in the grid-type carton over any other known types. For example, it can be made very cheaply, since the multiplicity of small grid holes can be stamped out of the material of the carton at the same time as the carton is being shaped for folding. The grid type carton gives protection from breaking both above and below, while at the same time it allows one to see the major portions of each egg contained in the carton. It also allows a flood of cross rays of light to reach the eggs from all angles, and otherwise

presents decided advantages over cartons having a single peep hole for each egg, since less light is required with the grid type and less heating of the eggs.

Another very decided advantage of the grid-type carton over the prior cartons is that clear vision from angles other than directly above the eggs is provided. Usually eggs are placed in cartons with the large ends up thus exposing to view, when light is being passed through the eggs, the gas or air sac which is practically always found in the large end of eggs. In strictly fresh eggs this gas sac is very small, but grows larger and deeper each day as the egg ages. It is well known that if one looks directly from above the eggs which are transilluminated from below, it is very difficult to see the air sac, it often being entirely invisible due to the fact that one cannot see the slight shadow of the sac. However, with a complete view of the eggs as in the grid-type carton disclosed herein, the eggs may be viewed from a slight angle, thus enabling one to see the size of the air sac and so determine its depth and size accurately.

In this carton it is essential to provide it with means inside the carton for sealing out all, or at least the major portion, of light rays coming from below except that which comes through the eggs. This sealing out of light is effected by the tray forming a part of the carton disclosed in this application. The tray should be made of material which will not transmit light except through the egg seat openings formed therein. This tray may be composed of either stiff or flexible material. If stiff material is used, the eggs are supported slightly raised above the regular grid bottom of the carton and thus receive extra protection against breakage from below. At the same time, the tray also serves to seal out all of the rays of light except those passing through the eggs.

A tray of flexible material may also be used when desired. In this case the flexibility of the tray would allow the eggs to touch the bottom of the carton, the tray acting chiefly as a means of sealing out the passage of light rays except through the eggs. The advantage of using a flexible tray would be that very large eggs could be placed in a standard size carton, because the bottom would yield sufficiently to permit the closing of the carton with the eggs sealed therein.

Wherever the word "grid" is used in this specification or in the claims, it must be construed as intended to define a part of the carton which is perforated to form a multiplicity of small openings separated from each other by very narrow strips of the material from which the carton is formed.

It is thought that the invention and its attendant advantages will be understood from the foregoing description and it is obvious that changes may be made in the form, construction and arrangement of the several parts without departing from the spirit or scope of my invention, or sacrificing any of its attendant advantages; the form herein described being a preferred embodiment for the purpose of illustrating my invention.

What I claim is:

1. A candling carton for eggs comprising: a container having a bottom and a hinged cover each of which is perforated over substantially all of its area to form a grid, a tray snugly fitting within the container and having angularly extending end and edge portions supporting the body of the tray in spaced relation to the grid-like bottom, the tray being provided with openings defining seats for eggs and being made of opaque material to prevent transmission of light through the spaces surrounding said seats, and a filler including longitudinal and transverse partitions supported by the tray and dividing the container into compartments, each adapted to support an egg on its seat, alternate transverse partitions being recessed in the upper edges and the remaining transverse partitions having their upper edges straight to form intermediate supports for the hinged cover, the longitudinal partitions being also recessed in their upper edges between the last named transverse partitions.

2. A candling carton for eggs comprising: a container having a bottom and a hinged cover, each of which is perforated over substantially all of its area, and a tray of light excluding material fitted snugly within the container and spaced from the grid-like bottom, said tray being provided with openings defining seats for eggs, and a filler including longitudinal and transverse partitions supported by the tray and dividing the container into compartments, each adapted to support an egg on its seat, alternate transverse partitions being recessed in the upper edges and the remaining transverse partitions having their upper edges straight to form intermediate supports for the hinged cover, the longitudinal partitions being also recessed in their upper edges between the last named transverse partitions.

CECIL S. HASSELL.