

No. 667,524.

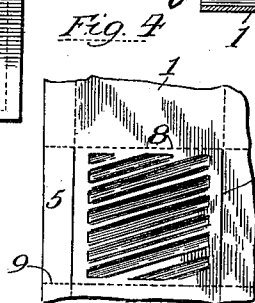
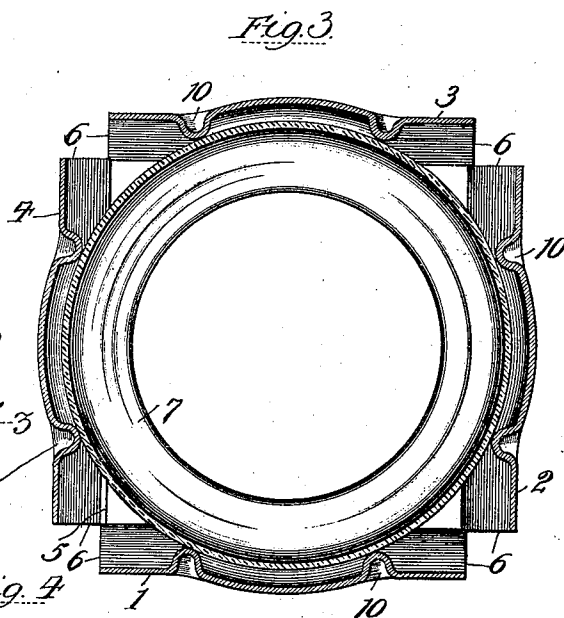
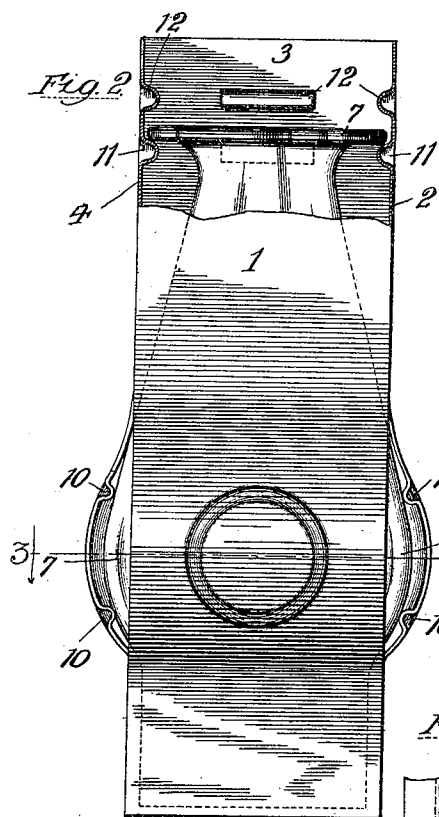
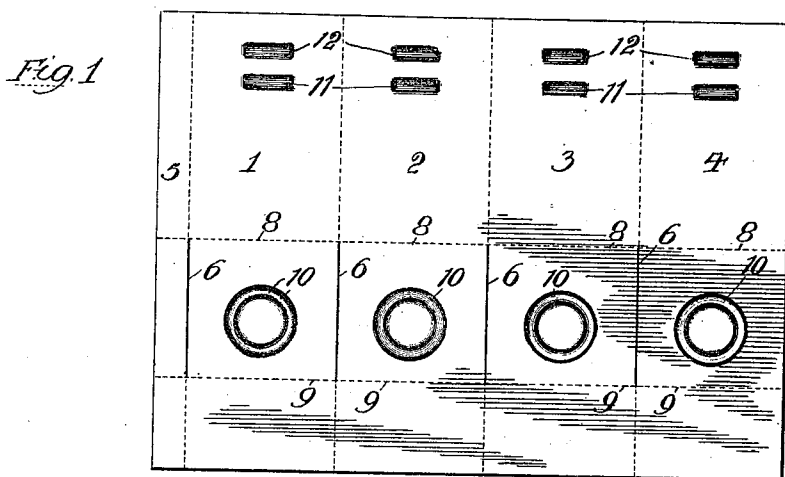
Patented Feb. 5, 1901.

F. HOWARD.
LAMP CHIMNEY BOX.

(No Model.)

(Application filed Sept. 7, 1900.)

2 Sheets—Sheet 1.



Witnesses:

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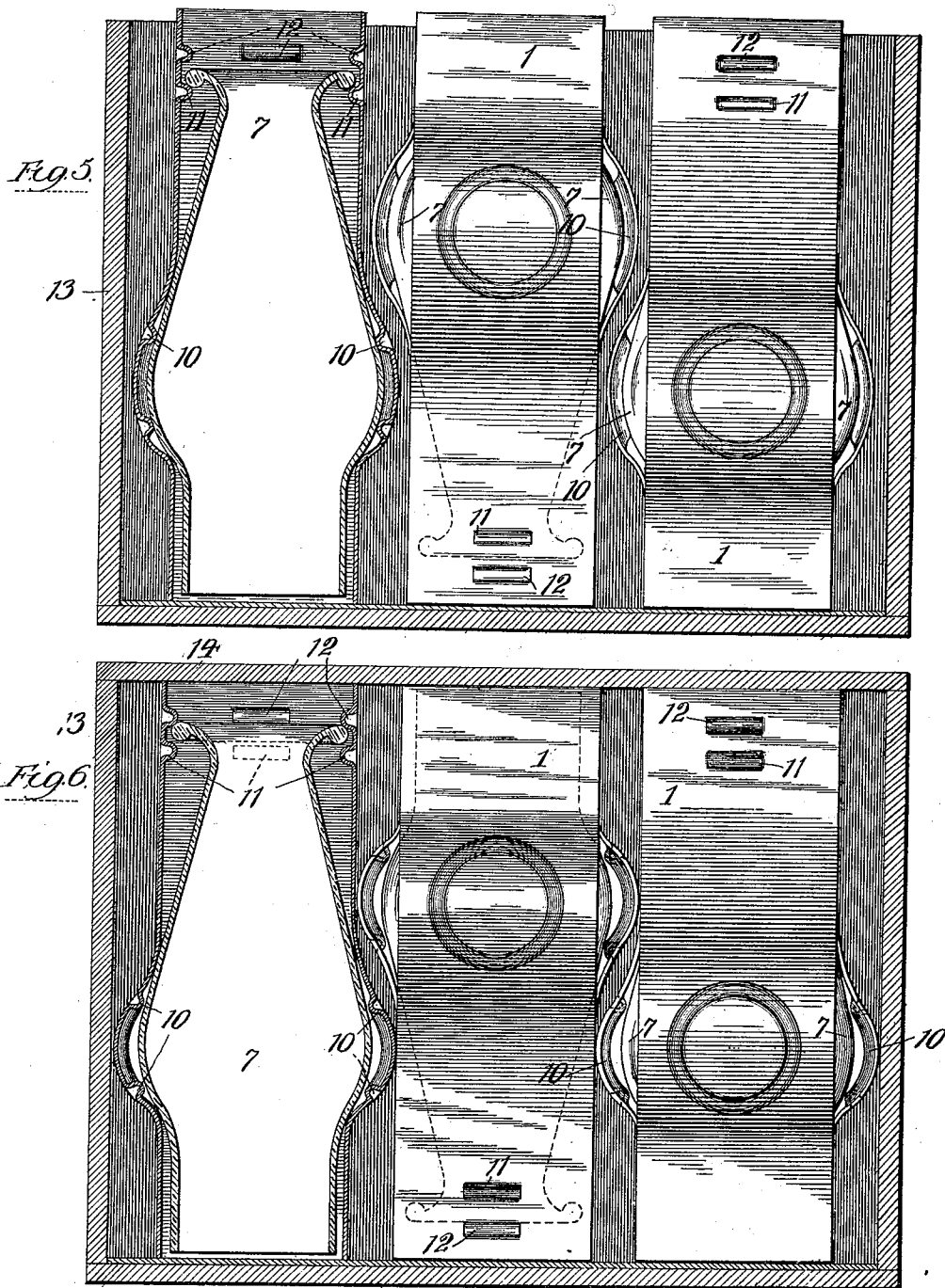
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UNITED STATES PATENT OFFICE.

FRED HOWARD, OF DAYTON, OHIO.

LAMP-CHIMNEY BOX.

SPECIFICATION forming part of Letters Patent No. 667,524, dated February 5, 1901.

Application filed September 7, 1900. Serial No. 29,263. (No model.)

To all whom it may concern:

Be it known that I, FRED HOWARD, a resident of Dayton, in the county of Montgomery and State of Ohio, have invented a certain new and useful Lamp-Chimney Box, of which the following is a specification.

My invention relates to lamp - chimney boxes or shells; and its object is to provide a simple and inexpensive but efficient shell in which each lamp - chimney is separately and securely packed and protected from breakage.

Another feature of my invention consists in making the lamp-chimney boxes or shells in such manner with respect to the packing-case as to form when packed buffers against the sides of the case and between the shells themselves.

In the drawings, Figure 1 is a plan view, on a reduced scale, of the blank; Fig. 2, an elevation of the box or shell with a lamp-chimney inserted therein; Fig. 3, a sectional plan on line 3 of Fig. 2; Fig. 4, a plan of a portion of a blank, showing corrugations as buffers; Fig. 5, a sectional elevation of a packing-case with the shells arranged therein, but with the lid removed; and Fig. 6, a view similar to Fig. 5, but with the lid in place.

The blank shown on a reduced scale in Fig. 1 consists of a plurality of sides 1, 2, 3, and 4, which, as illustrated, will form a square rectangular box or shell, although by providing a greater or less number of sides other forms of polygonal-sided boxes may be made. The side 1 has a glue edge 5, by which the meeting sides 1 and 4 are secured together.

The corners of the box or shell have slits 6 intermediate of their length at a place corresponding to the position of the swell or convex portion of a lamp-chimney, which construction permits the shell to bulge outward to accommodate such convex portion of the chimney 7, as is clearly illustrated in Figs. 2 and 3 of the drawings. While all the corners are preferably slitted, it may be practical to slit a less number of corners. The shell may also have transverse scores substantially at right angles to the end of the slits for the purpose of causing the sides to bend or crease more readily at such lines, and thereby relieve the slitted corners of

strain. In the drawings I have shown scores 8 at the top ends of the slits and also scores 9 at the bottom end. Obviously these scores may be provided at either top or bottom of the slits or at both places.

While the convex portion of the chimney is protected by the sides of the box which contact the same, it may, if desired, be further protected by a buffer device, which may be made in different forms, although I prefer the annular indentation 10 on each side between the slits. Obviously the sides may be corrugated, as shown in Fig. 4, so as to obtain a buffer effect.

One or more of the sides may be provided with pairs of indentations 11 and 12, between which the upper lip or flare of the chimney will be caught and held, as illustrated in Fig. 2.

The ends of the shell are of cross-sectional area equal to the area of a circle on the largest diameter of the lamp-chimney—that is, the diameter of the convex portion thereof. When the chimney is inserted in the shell, the end of the shell takes the form of a circle in cross-section and permits the lamp-chimney to be pressed upward therein. When the convex portion of the chimney reaches the slitted portion, the shell resumes its square formation at the ends and the chimney will force outwardly the sides adjacent to the slits, as shown in Figs. 2 and 3, and the top of the chimney will be engaged by the indentations or corrugations 11 and 12. The chimney is now locked against ordinary conditions, and, moreover, it is not only enveloped by the sides of the shell, but protected by the buffers against possibility of breakage from sudden or severe jars. The corners are open at the slits, but the chimney does not and cannot protrude through the box, but is unexposed.

My lamp-chimney box or shell is of definite and permanent polygonal form and not collapsible when in use—that is, when containing a lamp-chimney—although they may as shells alone be transported or handled in flat form. They are, however, of a definite box or shell form, and the only thing necessary in packing the chimney therein is to slip the chimney into one end of the shell which

is ready to receive it. When the lamp-chimney is being inserted, one end of the shell momentarily loses its polygonal form to accommodate the swell portion of the chimney; but when this portion has reached the slits the shell at this place will be permitted to bulge outward by reason of the slits, but the chimney will be fully protected by the sides of the shell. At the same time the end of the shell in which the chimney was inserted will resume its original form. When these shells containing chimneys are packed in cases, they will retain their polygonal form and keep the space within the cases filled even though one or more of the chimneys may have been broken. Consequently the breakage of one chimney cannot endanger the safety of the remainder.

Figs. 5 and 6 illustrate another feature of my invention as regards the packing of the individual shells in a packing-case. A packing-case 13 of any proper dimensions may be used and as shown for the purpose of describing this invention it is of a depth to accommodate a single depth of shells. These shells are made of slightly-greater length than the depth of the box, so as to project therefrom, as seen in Fig. 5. These shells are arranged alternately—that is, with the chimneys alternately inverted. Furthermore, the case may be of any width and not necessarily to contain three transverse rows, as shown.

When the lid 14 is in place, its pressure forcing the shells downward, as shown in Fig. 6, will cause the sides of the shells adjacent to the slits to bulge outwardly against the sides of the case and also against the straight sides of the adjacent shells, thereby forming a series of buffers throughout the packing-case simply by the placing of the lid on the case.

The distance between the pairs of indentations 11 and 12 may be made such as to cause the upper pair 12 to contact the top of the chimney when the shells are packed as above described. Such means will firmly hold the chimneys in shipping, preventing sliding movement, so that the chimneys cannot come end to end and break.

Obviously the case may be of such height or width as to accommodate two or more shells, so that the outer shell will project above the top plane of the box, or the shells may be packed horizontally and compressed by hand before being inserted in the case.

My improved boxes or shells 6 inclose and fully protect the lamp-chimney and, moreover, may be so made as of themselves to form buffers when packed in cases, thereby dispensing with separate packing-strips or analogous devices. These buffers protect as be-

tween the shells and the packing-box as well as between the shells themselves.

I claim—

1. A lamp-chimney box comprising a shell of definite and permanent polygonal form and not collapsible when in use, and having its corners slitted intermediate of its length.

2. A box adapted to contain a lamp-chimney and comprising a shell of definite and permanent polygonal form and not collapsible when in use and having its corners slitted intermediate of its length to accommodate the swell portion of the chimney and having scores substantially at right angles to the ends of the slits, one end of the shell being polygonal with an area equal to that of a circle on the largest diameter of the said swell portion of the chimney.

3. A lamp-chimney box comprising a shell of definite and permanent polygonal form and not collapsible when in use and having its corners slitted intermediate of its length, such shell receiving a lamp-chimney but preventing its projection beyond the sides.

4. In combination with a packing-case, a lamp-chimney box or shell which has slits intermediate of its length and having a length greater than the space in which it is packed in the case and also greater than the length of the chimney whereby the box or shell adjacent to such slits is caused to bulge outwardly and act as buffers.

5. A lamp-chimney box comprising a polygonal shell with polygonal ends and having its corners slitted intermediate of its length to accommodate the swell portion of a chimney, and buffers on the sides of the shell adjacent to such swell portion of the chimney.

6. A lamp-chimney box comprising a polygonal-sided shell having its corners slitted intermediate of its length and having its sides between the slits indented to provide a buffer for the convex portion of the chimney.

7. A lamp-chimney box comprising a polygonal-sided shell having its corners slitted intermediate of its length to accommodate the convex portion of the chimney and having near its upper end on one or more sides an indentation to receive or engage the top or flare of the chimney.

8. A lamp-chimney box comprising a polygonal-sided shell having its corners slitted intermediate of its length and having its sides between the slits provided with an indentation, the sides near the top of the box having pairs of indentations between which the chimney-top is received.

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Witnesses:

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