

April 21, 1959

E. B. CANDELL

2,883,047

LAMP PACKAGE

Filed Sept. 13, 1957

2 Sheets-Sheet 1

FIG. 1.

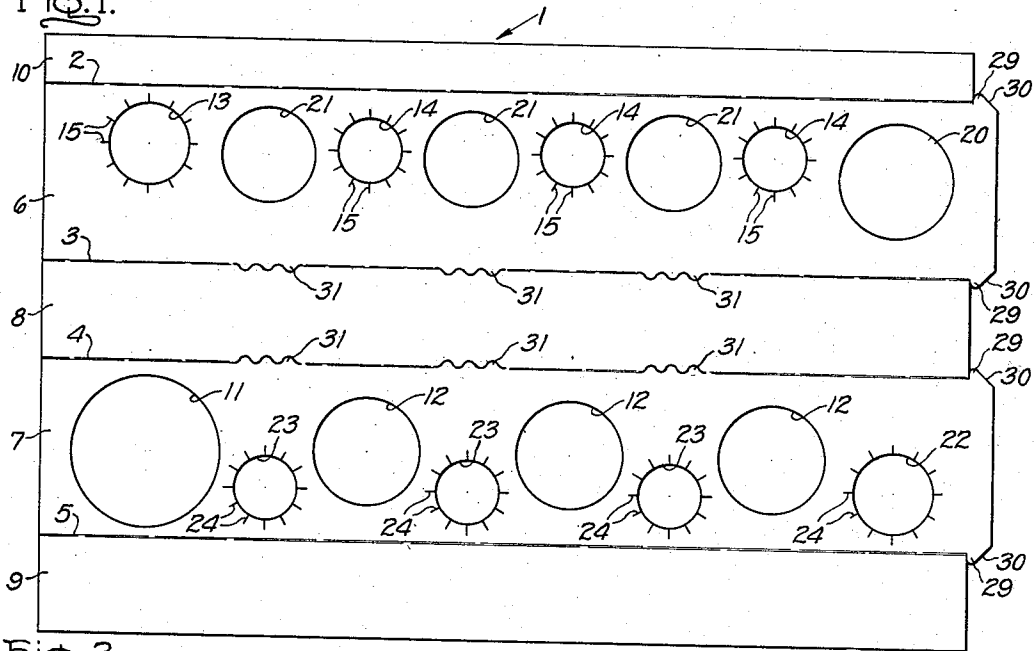


FIG. 2.

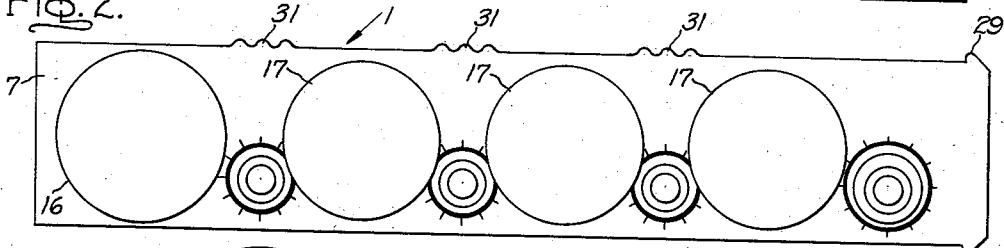
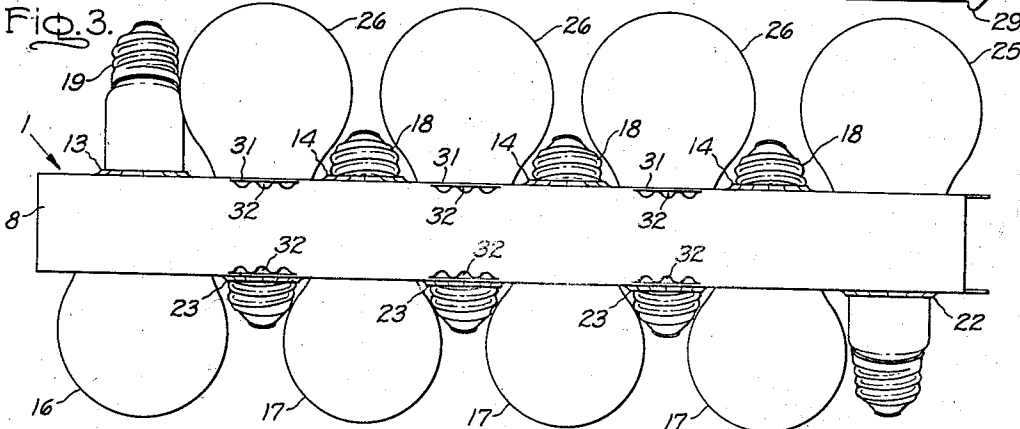


FIG. 3.



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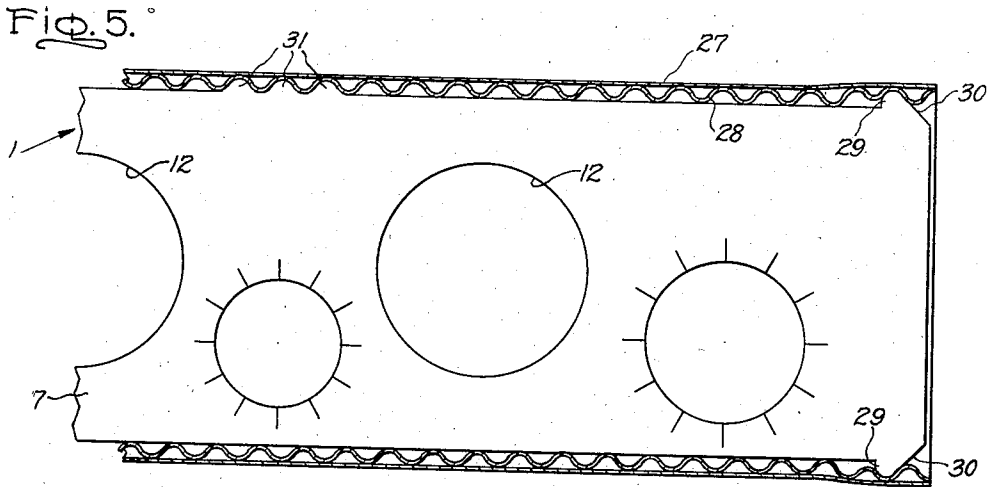
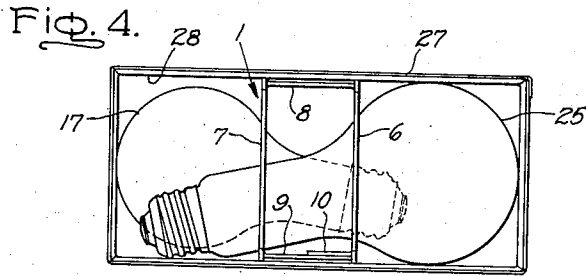
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5 Claims. (Cl. 206—65)

My invention relates to an improvement in packages for electric lamps and similar fragile articles.

It is an object of my invention to provide a package having novel features which make it possible to combine lamps of different bulb sizes or shapes into one package which has substantial advantages in merchandising. It is a further object to provide a novel combination package comprising a corrugated carton and an internal tubular paperboard platform member provided with integral locking means of simple and inexpensive construction which prevent the platform, filled with lamp bulbs, from sliding out of the carton.

Generally speaking, in accordance with my invention the package includes a die-cut paperboard tubular platform, preferably of generally square or rectangular section, having opposed holes in the side walls of panels thereof and arranged so that the neck of the lamp bulb extends through the hole in one side wall and the base of the lamp is gripped in the hole in the opposite side wall. By employing holes of different sizes, the ends of the bulbs are caused to project equidistantly from the platform regardless of bulb size or length, and the bulbs are separated so as to make a safe package for shipping. The arrangement of the holes is preferably such that the bulbs extend alternately from opposite sides of the platform which is then inserted into an outer carton having a height substantially the same as that of the platform and a width to snugly receive the laterally projecting bulbs.

In accordance with a further distinctive feature of my invention, the platform is provided with integral tooth-shaped locking means projecting vertically from the side walls thereof and engageable with corrugations on the interior of the carton to secure the platform and lamps within the carton.

Further features and advantages of my invention will appear from the following detailed description of a species thereof and from the drawings wherein:

Fig. 1 is a plan view of the paperboard blank for a tubular platform;

Figs. 2 and 3 are side and top views, respectively, of the platform loaded with lamp bulbs;

Fig. 4 is an end view of a complete package comprising the platform and the enclosing carton; and

Fig. 5 is a fragmentary section of the assembly of platform and carton.

Referring to Figs. 1 to 4, the platform 1 of paperboard, which may consist of chipboard, is formed to rectangular shape from a blank which is shown in Fig. 1 and which is scored along lines 2, 3, 4 and 5 to divide the blank into walls or panels 6 and 7, top wall 8, bottom wall 9 and flap 10 which is provided with glue for attachment to the bottom wall 9 (Fig. 4). The side wall 7 has therein a series of larger holes 11 and 12 of different sizes (the hole 11 being of greater diameter than the three holes 12), and the side wall 6 has opposed smaller holes 13 and 14 of different sizes (hole 13 being of larger diameter than the three holes 14). Each of the

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holes 13 and 14 has radial cuts 15 at its margin forming convergent tongues serving as spring members.

Each of the opposed pair of holes 11 and 13 (or 12 and 14) is arranged to receive a lamp bulb 16 (or 17) with the larger end of the bulb neck engaging the hole 11 (or 12) and the smaller bulb end gripped by the tongues at the margin of the hole 13 (or 14). In the case of the bulbs 17 (Fig. 3) the tongues around the holes 14 grip the screw-threaded base 18 of the lamp bulb in the root of the thread to hold the bulb firmly. The bulb 16 is of larger size than the bulbs 17 and in this case the tongues around hole 13 grip the smaller end of the glass bulb neck rather than the base 19. The side wall 6 is similarly provided with a series of larger holes 20 and 21 of different sizes, and the side wall 7 has opposed smaller holes 22 and 23 which have at their margins radial cuts 24 forming springy convergent tongues. Each of the opposed pair of holes 20 and 22 (or 21 and 23) is arranged to receive a lamp bulb 25 (or 26) in the same manner as described above in connection with bulbs 16 and 17.

It will be noted that the holes 12 are of different size than the holes 21, and the hole 11 is likewise of different size than the hole 20, the platform 1 thus being adapted to hold bulbs of three different sizes. For example, the three holes 21 may be filled with conventional incandescent lamp bulbs of 100-watt size, the holes 12 with 75-watt bulbs, and the holes 20 and 11 with 150-watt bulbs. The reason why the larger 100 watt bulbs 26 are provided with holes 21 of smaller size than the holes 12 for the 75-watt bulbs 17 is that the 100-watt bulbs have longer neck portions which are engaged by the holes 21 whereas the 75-watt bulbs have shorter neck portions so that the holes 12 actually engage the bulbous portions of those bulbs 17. Also, the hole 11 is larger than hole 20 (although the associated bulbs 16 and 25 are of the same size) because the bulb 16 must be inserted farther into the hole 11 (as compared with insertion of bulb 25 in hole 20) in order that it project from the side wall 7 no farther than the bulbs 17 which project outward from the wall 7 a lesser distance than bulbs 26 project from wall 6.

It will be noted also that the bulbs lie at an angle to the horizontal, as best seen in Fig. 4; this is by virtue of the fact that the opposed pairs of holes 11 and 13, 12 and 14, and 20 and 22 are so offset from each other vertically in the side walls 6 and 7 that the two rows of bulbs projecting from the opposed side walls are inclined in opposite directions. In this way, each of the bases, for instance base 18 of lamp 17, is located below the large bulbous portions of the adjacent bulbs 26 thereby making it possible to locate the bulbs 26 closer together without touching the adjacent base 18.

The tubular platform 1, loaded with lamp bulbs as shown in Fig. 3, is slipped into a single faced corrugated outer carton 27 (Fig. 4) having the corrugated liner 28 on its interior. The carton 27 has a height substantially the same as that of the platform 1 so as to snugly receive the platform, and a width such as to snugly receive the bulbs 16, 17, 25 and 26 projecting from the side walls 6 and 7 of the platform.

In accordance with a further feature of my invention, I provide a novel locking means which prevent the loaded platform 1 from sliding out of the carton 27. Those means comprise tabs 29 which are developed at one end of the vertical side walls 6 and 7 as an integral part thereof and which project vertically beyond the adjacent top and bottom walls 8 and 9. The tabs 29 preferably are provided with slanting edges 30 which make it easy to slip the corrugated carton 27 over the platform 1 loaded with lamp bulbs. The said tabs 29

are shaped to fit into one of the corrugations on the inside of the carton 27 as shown in Fig. 5.

I also provide, preferably additionally to the tabs 29, a series of wavy projections or flutes 31 having a rack-tooth shape and located at the upper edges or margins of the side walls 6 and 7 and projecting above the adjacent top wall 8. The projections 31 are formed integrally with the respective side walls 6 and 7 by cutting them from adjacent portions of the top wall 8, leaving wavy slots 32 (Fig. 3) in said top wall. The individual waves or teeth of the projections 31 are so spaced and of such configuration and depth that they fit snugly into the corrugations of the liner 28 on the inside of the carton 27, as shown in Fig. 5. These series of wavy projections 31 particularly in conjunction with the locking tabs 29, prevent the platform 1, filled with lamp bulbs, from sliding out of the carton 27, thus making possible a combination package of chipboard and single-faced corrugated material without the need for other means or devices to hold the two together. In fact, the projections 31 are sufficient, in themselves, to secure the platform 1 in place in the carton 27 even in the particular package described herein where the weight of the eight lamps is quite considerable. Therefore, where the advantage of easy entry of the platform 1 into the carton 27 is not considered necessary, the tabs 29 may be eliminated.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A hollow rectangular paperboard platform having opposed holes in the vertical side walls thereof for receiving and supporting articles with said articles projecting laterally outward beyond said walls, and locking means comprising tabs at one end of said side walls projecting upwardly beyond the top horizontal wall of the platform, said tabs each having an edge slanting downward toward the adjacent end of the wall and being tooth-shaped to fit into a corrugation of an enclosing carton, and at least one series of wavy projections at the margins of said vertical walls projecting beyond the adjacent horizontal wall and having a rack-tooth-like shape for snug engagement with the corrugations of a said outer carton.

2. In combination, an outer rectangular paperboard carton having a corrugated interior surface, an inner rectangular paperboard platform having a height substantially the same as that of the carton and a width materially less than that of the carton, the vertical side walls of said platform having holes therein adapted to receive and support articles with portions of the articles projecting laterally outward equidistantly from each said side wall of the platform to occupy the spaces between the side walls of the platform and the carton, and locking means comprising tabs at one end of the side walls of said platform projecting vertically beyond the adjacent horizontal walls of the platform, said tabs each having an edge slanting downward toward the adjacent end of the wall and being tooth-shaped to fit into a corrugation of the said carton, and at least one series of wavy projections on each side wall of said platform projecting vertically beyond the

adjacent horizontal wall and having a rack-tooth-like shape snugly engaging the corrugations of said carton.

3. In combination, an outer rectangular paperboard carton having a corrugated interior surface, an inner rectangular paperboard platform having a height substantially the same as that of the carton and a width materially less than that of the carton, the vertical side walls of said platform having holes therein adapted to receive and support articles with portions of the articles projecting laterally outward equidistantly from each said side wall of the platform to occupy the spaces between the side walls of the platform and the carton, and locking means comprising at least one series of wavy projections on each side wall of said platform projecting vertically beyond the adjacent horizontal wall and having a rack-tooth-like shape snugly engaging the corrugations of said carton.

4. In combination, an outer rectangular paperboard carton having a corrugated interior surface, an inner rectangular paperboard platform having a height substantially the same as that of the carton and a width materially less than that of the carton, the vertical side walls of said platform having holes therein adapted to receive and support articles with portions of the articles projecting laterally outward equidistantly from each said side wall of the platform and the carton, and locking tabs at one end of the side walls of said platform projecting vertically beyond the adjacent horizontal walls of the platform, said tabs each having an edge slanting downward toward the adjacent end of the wall and being tooth-shaped to fit into a corrugation of the said carton.

5. In combination, an outer rectangular paperboard carton having a corrugated interior surface, an inner rectangular paperboard platform having a height substantially the same as that of the carton and a width materially less than that of the carton, the vertical side walls of said platform having therein a series of pairs of opposed larger and smaller holes alternating with each other, the larger holes in one wall being arranged opposite the smaller holes in the other wall, lamp bulbs received in and supported by respective pairs of opposed holes and projecting laterally outward equidistantly from respective side walls and occupying the spaces between the side walls of the platform and the carton, and locking means comprising tabs at one end of the side walls of said platform projecting vertically beyond the adjacent horizontal walls of the platform, said tabs each having an edge slanting downward toward the adjacent end of the wall and being tooth-shaped to fit into a corrugation of the said carton, and at least one series of wavy projections on each side wall of said platform projecting vertically beyond the adjacent horizontal wall and having a rack-tooth-like shape snugly engaging the corrugations of said carton.

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