

Dec. 4, 1934.

H. P. STEWART
TRANSPORTATION PACKAGE
Filed Jan. 13, 1933

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2 Sheets-Sheet 1

Fig. 1.

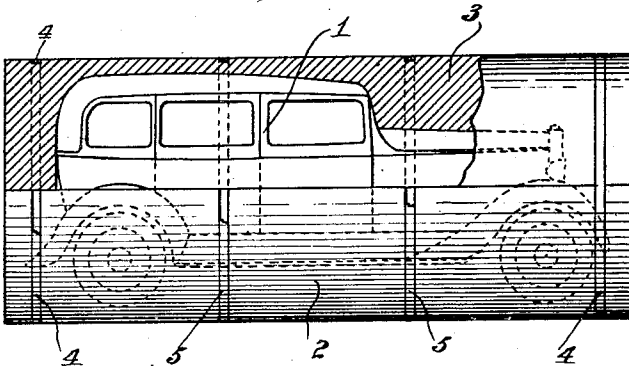


Fig. 1^a

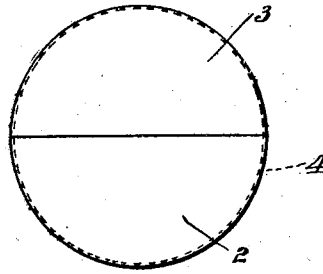


Fig. 2.

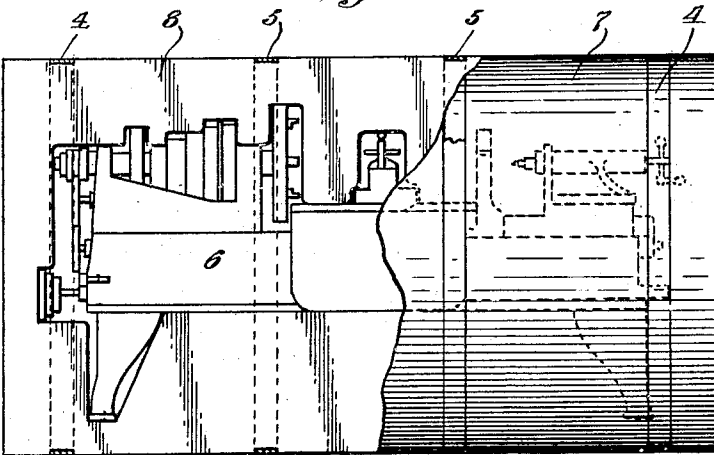
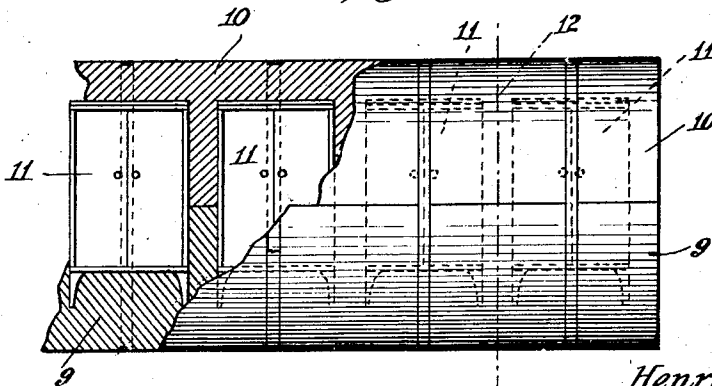


Fig. 3.



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Fig. 4.



Fig. 4^a.



Fig. 5.

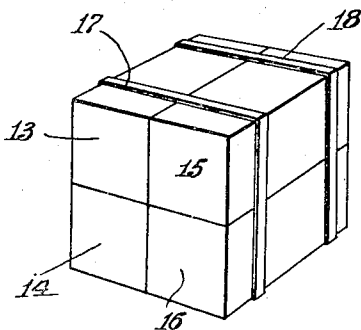


Fig. 6.

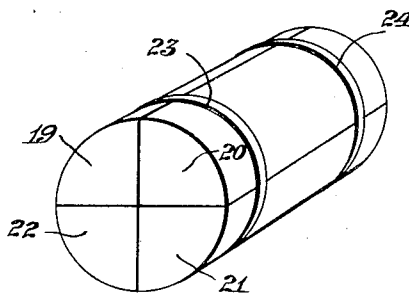


Fig. 7.

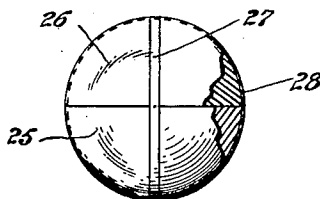
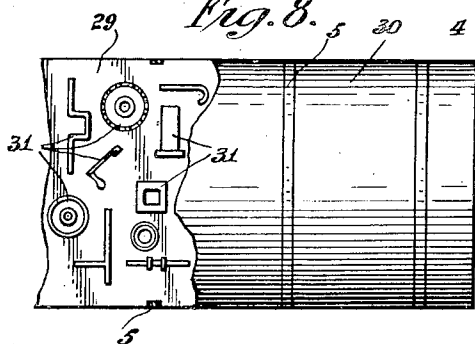


Fig. 8.



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1,983,322

TRANSPORTATION PACKAGE

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Application January 13, 1933, Serial No. 651,499

12 Claims. (Cl. 206—46)

This invention relates to new and useful improvements in transportation packages and methods of packing goods for transportation.

It is the object of the present invention to provide an inexpensive transportation package in which goods may be readily packed and from which goods may be readily unpacked without the necessity of employing skilled labor; which will protect goods against damage and the elements during transportation, and which is preferably so constructed that even heavy and bulky articles can be moved from place to place in a packed condition without the necessity of using hoisting or other special equipment.

With these objects in view I pack the article or articles to be transported in an envelope or casing premolded, preferably of cellulose material. The inside contour of the casing conforms to the contour of the article to be packed, so that when housed within the casing the article is firmly held against all displacements relative to the casing. The casing is molded in two or more sections which are placed around the article to form a complete envelope and are then held together, preferably by means of one or more bands encircling the envelope.

While some of the benefits of my invention may be obtained with envelopes having an outer contour of any suitable shape, the invention can be used to its full advantage with an envelope which, according to the present invention, has an outer contour of substantially circular cross section, whereby the packed article can be rolled from one place to the other and the necessity of employing hoisting or other special equipment is completely or partially eliminated. An automobile, fully or partially equipped, can be packed in accordance with my invention by placing around it two or more sections of a molded envelope, the inside surfaces of which fit the various parts of the automobile and which, when all sections are in place, presents the appearance of a complete cylinder, the sections of which are held together by one or more bands. This cylinder can be rolled from one place to another and the automobile firmly held in place and against displacement with respect to the envelope, although no special blocks are provided inside of the casing, except of course the premolded parts. Obviously, in packing and unpacking an automobile in accordance with my invention, the necessity of employing skilled workmen is obviated.

When it is desired to pack smaller objects such as lamp stands, china and glassware, radiators,

etc., a casing is premolded in sections which will house when assembled a large number of articles to be packed, the outside contour of the casing being preferably such that it can be readily rolled from place to place. Not only is hand work eliminated owing to the fact that the articles do not have to be blocked in place by hand, but the necessity of wrapping each article in tissue paper or the like, or of stuffing the casing with excelsior, sawdust, or other material, to prevent breakage, is wholly eliminated, since each article is firmly held in place within a pocket, the configurations of which conform substantially to that of the article.

The material used in molding the casing or envelope and the method employed in the molding operation, will depend on the exigencies of each particular packing problem. I prefer to use some cellulose material with a suitable binder because it is cheap, may be readily obtained in the form of old newspapers, rags, sawdust or by-products of manufacturing processes, and may be easily molded into a light casing of great strength. Furthermore, the hardness of such molded casing may be readily controlled in the drying operation, the choice of cellulose material or binder, or otherwise, and an envelope provided the outside of which is hard and the inside of which is relatively soft or resilient and acts as a cushion for the article which it encloses. Such envelope may be readily treated with fire and water proofing compounds. Owing to its low cost it can be destroyed when the article is unpacked, avoiding thus the expense of reshipment.

In order more fully to explain the nature of my invention, I have illustrated and shall now describe a few applications thereof which, however, are not intended to limit its scope defined in the claims.

In the drawings, Fig. 1 illustrates an automobile packed in accordance with the present invention, the drawing being a side elevation with parts broken away; Fig. 1a is an end view of Fig. 1;

Fig. 2 shows in side elevation one-half of a package for a lathe;

Fig. 3 is a side elevation of one-half of a package containing a number of objects such as cabinets;

Figs. 4 and 4a illustrate in vertical cross-section suitable joints between adjacent sections;

Figs. 5, 6 and 7 are perspective views of cubical, cylindrical and spherical packages, as far as their outside appearance is concerned;

Fig. 8 is a side elevation of one-half of a casing

adapted to house a large number of relatively small objects.

In Fig. 1 an automobile 1 may be completely encased in an envelope consisting of two sections 2 and 3. The inside of the section 2 is molded to conform to the contours of various parts of the chassis and the lower part of the body, and the inside of the section 3 is molded to conform to various details of the upper part of the body. The sections 2 and 3, when placed around the automobile, present in outside appearance a cylinder, and the two sections are held together by means of bands 4 and 5, preferably fitted in grooves. Obviously, instead of molding the two sections to conform to the chassis and body, respectively, the two may be molded to conform to the right-hand and left-hand half of an automobile and instead of being molded in two sections the envelope may be molded in three or more sections.

In Fig. 2 a lathe 6 is illustrated housed within two half cylinders 7 and 8, the inside of which is molded snugly to hold all parts of the lathe. Owing to the great weight of the lathe with respect to its bulk, the walls of this cylinder are much thicker than the walls of the cylinder illustrated in Fig. 1. Of course, the thickness of the walls will depend on the characteristics of the molded envelope used and the weight and bulk of the article. In this embodiment, the cylinder is split vertically and not horizontally as in Fig. 1.

In Fig. 3 the two half cylinders 9 and 10 are shaped to hold a number of cabinets 11. This package can be delivered to the jobber or dealer as shown, and then when it is desired to distribute individual cabinets, this may be done without any unpacking simply by sawing through a dividing wall separating adjacent articles, as indicated by line 12, and holding the two half-cylinders together with a band. The cabinets 11 may be held within individual cylinders and a number of these cylinders enclosed within a large cylinder.

The joints between adjacent sections may be mortised as shown in Figs. 4 and 4a, to guard against slippage and seepage of water.

Fig. 5 illustrates a package which is cube-shaped in outside appearance and consists of four sections, 13, 14, 15 and 16, the inside being molded to conform to the article to be packed. The sections are held together by means of bands 17 and 18.

Fig. 6 represents a cylindrical package consisting of four sections 19, 20, 21 and 22, held together by bands 23 and 24.

Fig. 7 illustrates a spherical package consisting of two halves 25 and 26 held together by bands 27 and 28. Only relatively light articles should be packed in such spherical casing since it contacts with a flat surface only at one point. For heavy articles, the cylindrical package is preferred, owing to the fact that the weight is distributed over a large area.

Fig. 8 illustrates two halves 29 and 30 of a cylindrical package holding a large number of articles such as 31.

Obviously, many modifications will suggest themselves to those skilled in the art. The extent to which the inside of the envelope follows the contour of the article and the lines along which the envelope is split, will depend on the exigencies of the particular shipping, packing and handling problem. Additional cotton batting, blocks, inserts, etc., may be provided in some cases to prevent injury to the article, and firmly to anchor it in the casing, which does not follow

all the details of the contour of the article to be packed.

What is claimed is:

1. In a transportation package, for articles of large size and substantial weight, an outside envelope for the package premolded in sections of cellulose material of such consistency as to constitute the outside shipping container for the article and an inside contour in contact with said envelope substantially conforming to that of the article to be packed, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article, and means for holding together the sections of the envelope.

2. In a transportation package, for articles of large size and substantial weight, a sectional molded envelope of such consistency as to constitute the outside shipping container for the article and having an outside contour at least partly substantially circular in cross section and an inside contour in contact with said envelope substantially conforming to that of the article to be packed, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article, and means for holding together the sections of the envelope.

3. In a transportation package, for articles of large size and substantial weight, a sectional envelope premolded of cellulose material of such consistency as to constitute the outside shipping container for the article and having an outside contour substantially circular in cross section and an inside contour substantially conforming to that of the article to be packed, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article, and means for holding together the sections of the envelope.

4. In a transportation package, for articles of large size and substantial weight, an envelope premolded in two sections of such strength that when put together they form the sole container having an outside contour substantially circular in cross section and an inside contour substantially conforming to that of the article to be packed, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article, and a band encircling said envelope.

5. In a transportation package, for articles of large size and substantial weight, an envelope premolded in a plurality of sections of such strength that when put together they form the sole outside container having a hard substantially cylindrical outside surface and a resilient inside surface substantially conforming to the article to be packed, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article, and means for holding together said sections.

6. A transportation package for articles of large size and substantial weight, consisting of a plurality of sections of molded material of such strength that when put together they form the sole envelope having a spherical outside contour and an inside contour conforming to that of the article to be packed, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article, and means for holding said sections together and against the article.

7. A transportation package for articles of large size and substantial weight, consisting of a plurality of sections of molded material of such strength that when put together they form the sole envelope having an outside contour of

5 polygonal cross section and an inside contour conforming to that of the article to be packed, whereby shipping strains are substantially uniformly distributed over a large area of the article, and means for holding said sections together and against the article.

10 8. A transportation package for articles of large size and substantial weight, consisting of a plurality of sections of molded material of such strength that when put together they form the sole outside envelope capable of withstanding substantially all shipping strains, and having a cylindrical outside contour and an inside contour conforming to that of a plurality of articles to be packed, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article, and means for holding said sections together and against the articles.

15 9. A transportation package for articles of large size and substantial weight, consisting of a plurality of sections of molded material of such strength that when put together they form the sole outside envelope of the package having a cylindrical outside contour and an inside contour conforming to that of a plurality of separate articles to be packed, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article, dividing walls molded into said sections to separate said articles, and means for holding said sections together and against the articles.

20 10. The method of packing articles of large size and substantial weight which consists in molding a plurality of envelope sections of such strength that when assembled they will constitute the sole shipping container of the article, the inside surfaces of said sections substantially con-

forming to the shape of the article, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article, placing the envelope sections on the article so as snugly to house the latter, and fastening together the sections. 80

11. The method of packing articles of large size and substantial weight which consists in molding a plurality of envelope sections of such strength that when assembled into a sole container for an article they will withstand all shipping strains, the outside surface of each being curved and the inside surface substantially conforming to the shape of the article, placing the envelope sections on the article so as snugly to house the latter and present at least partly a substantially cylindrical outside surface that may be rolled from one place to another, and fastening together the sections. 85 90

12. The method of packing articles of large size and substantial weight which consists in molding two envelope sections which, when placed together, present a cylindrical outside surface sufficiently strong to withstand shipping strains, and an inside surface so shaped that it holds the article against all displacements within the envelope, whereby shipping strains are substantially uniformly distributed over a relatively large area of the article; placing one envelope section on the article; rolling said one envelope section with the article so that the article rests on said one envelope section with substantially one half of the article protruding therefrom; placing the second section on the protruding half of the article; and fastening together the two envelope sections. 95 100 105 110

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