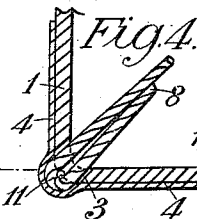
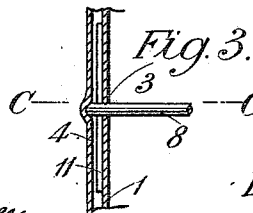
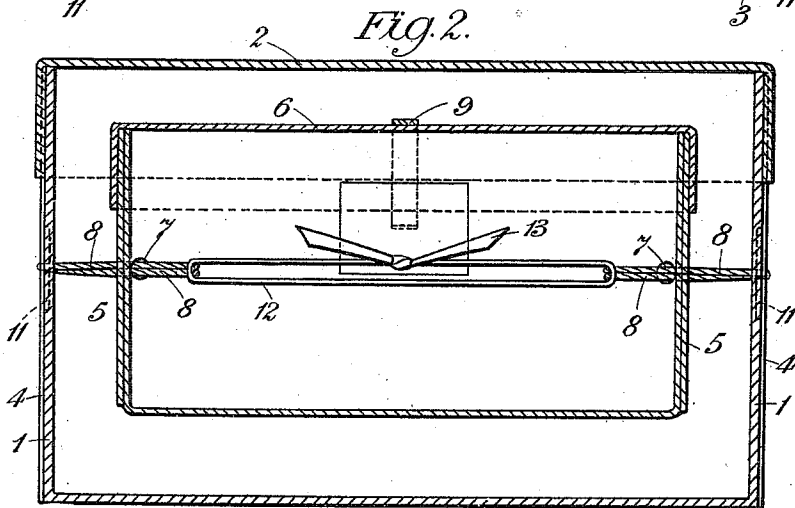
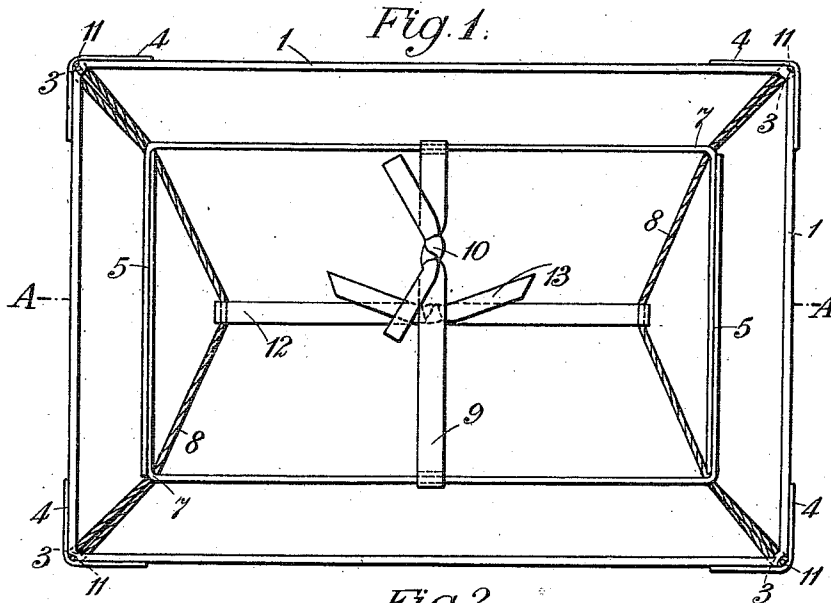


A. J. WARNE-BROWNE.
 BOX OR CASE FOR CONTAINING GOODS FOR TRANSPORT.
 APPLICATION FILED MAR. 28, 1910.

983,099.

Patented Jan. 31, 1911.

4 SHEETS—SHEET 1.



Witnesses
Walter A. Runyon
Walter E. Runyon

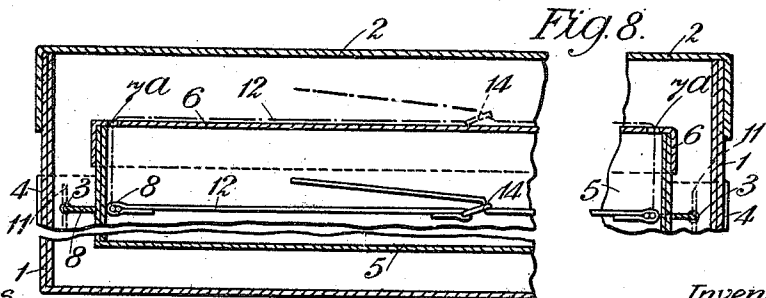
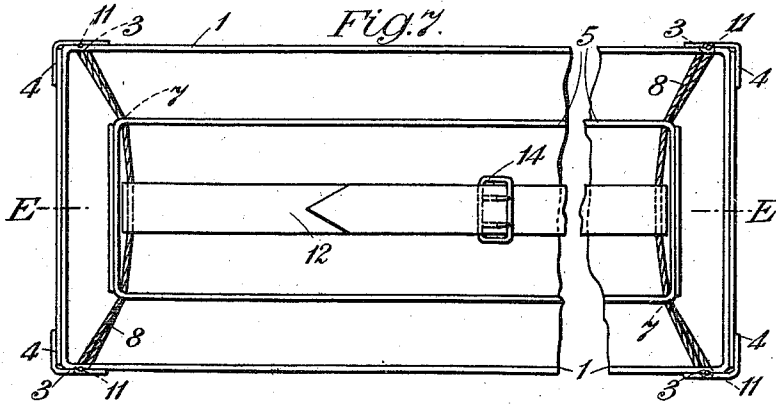
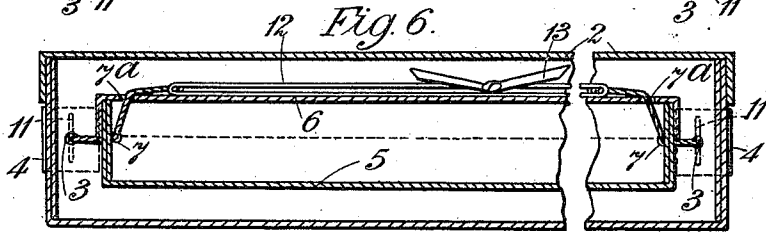
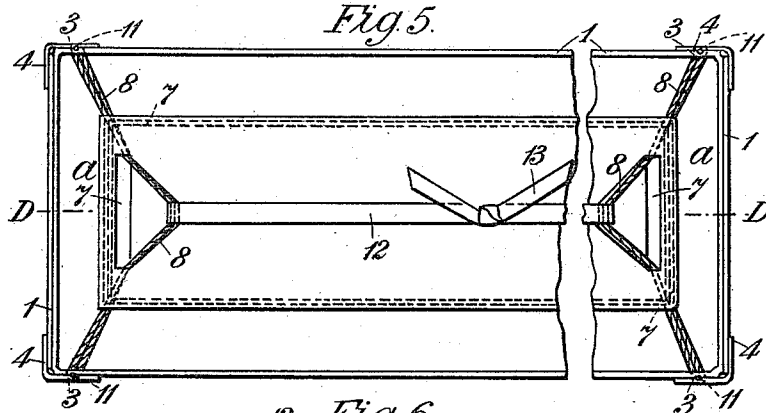
Inventor
Alfred Joseph Warner Browne
 By his Attorneys
Rowson & Smith

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4 SHEETS-SHEET 2.



Witnesses

Wills A. Burrows
 Walter Chism

Inventor

Alfred Joseph Warne-Browne

by His Attorneys

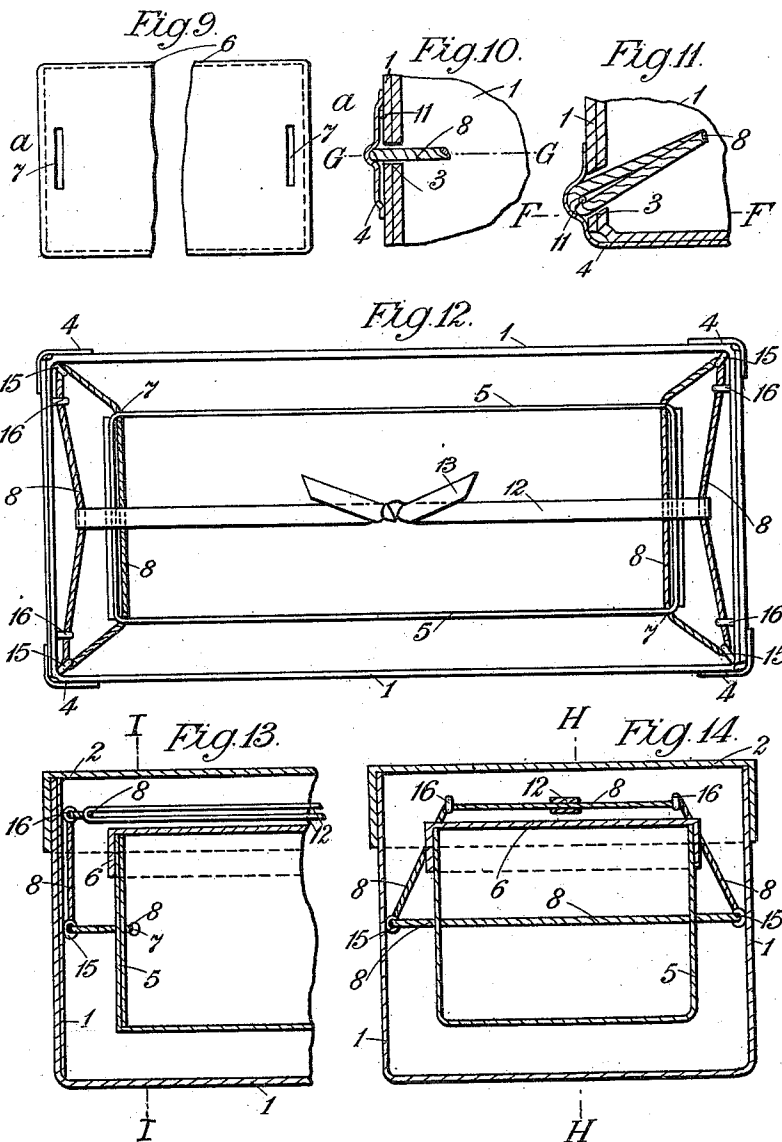
Howson & Brown

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4 SHEETS-SHEET 3.



Witnesses
Willa A. Burrows
Walter Chum

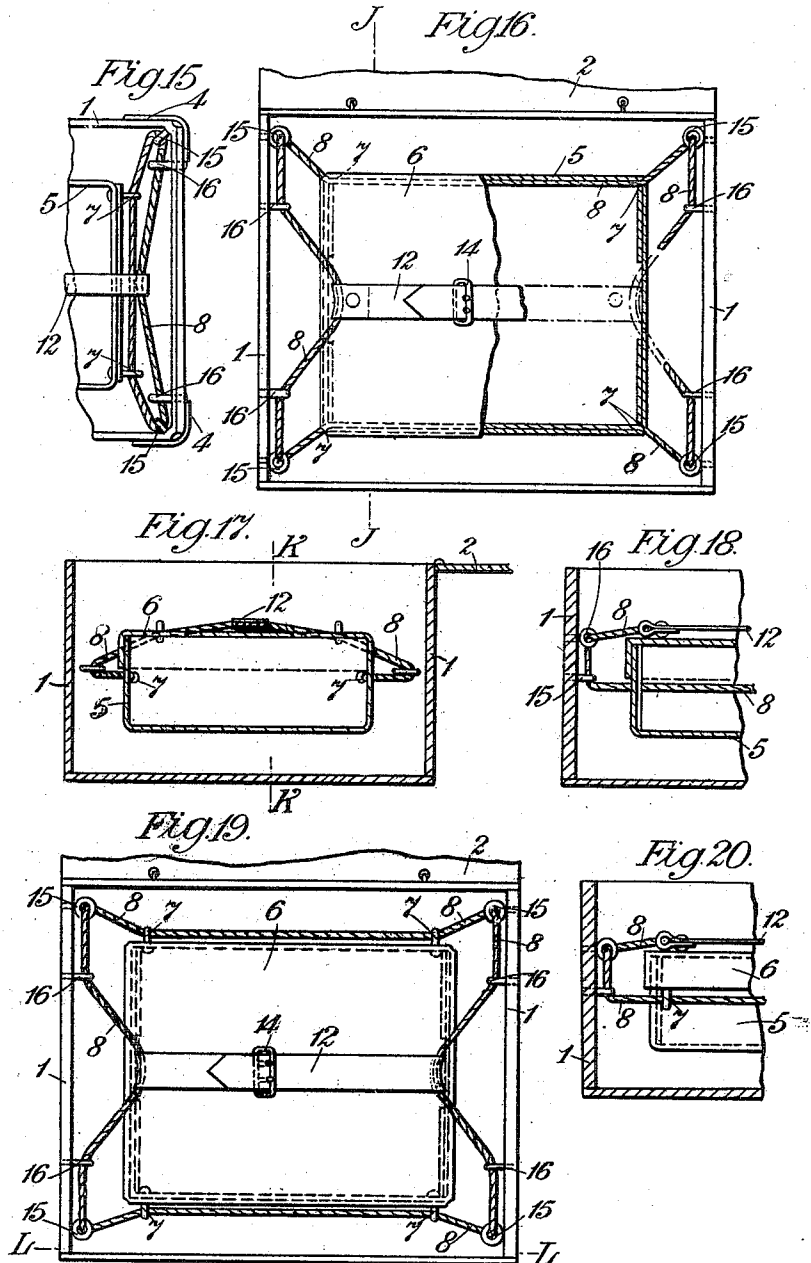
Inventor
Alfred Joseph Warne-Browne
 by his Attorneys.
Rowson & Rowson

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4 SHEETS—SHEET 4.



Witnesses
Willa A. Burrows
Walter Guim

Inventor:—
Alfred Joseph Warne-Browne.
 by his Attorneys—
Howson & Brown

UNITED STATES PATENT OFFICE.

ALFRED JOSEPH WARNE-BROWNE, OF LONDON, ENGLAND.

BOX OR CASE FOR CONTAINING GOODS FOR TRANSPORT.

983,099.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed March 28, 1910. Serial No. 551,890.

To all whom it may concern:

Be it known that I, ALFRED JOSEPH WARNE-BROWNE, artist, a subject of the King of Great Britain, residing at No. 4^A Upper Baker street, London, England, have invented new and useful Improvements in Boxes or Cases for Containing Goods for Transport, of which the following is a specification.

This invention relates to that class of device for transporting goods in which a box or platform is suspended by means of spring or other supports within an outer case in such manner as to prevent shocks being transmitted to the goods being conveyed.

Heretofore, no means have been provided for varying the tension or strength of the spring or other supports of the inner box or platform according to the weight of the load to be carried and consequently spring or other supports of a tension or strength suitable for heavy goods but unsuitable for light fragile articles or vice versa have been employed and therefore the purpose of the device, that is the prevention of shocks to the goods, was in many cases not achieved.

Now, the object of the present invention is to provide improved means for suspending the inner box or platform and for adjusting the tension of the suspending means according to the weight of the load.

In the accompanying drawings:—Figure 1 is a plan, with the cover and lid removed, of a box or case embodying the present invention. Fig. 2 is a vertical longitudinal section taken on the line A—A of Fig. 1 but with the cover and lid in place. Fig. 3 is a vertical longitudinal section taken on the line B—B of Fig. 4 being a detail view of parts. Fig. 4 is a horizontal section taken on the line C—C of Fig. 3. Fig. 5 is a similar view to Fig. 1 but with an inner lid in place and showing part of a box or case illustrating a slight modification in connection with the tightening means. Fig. 6 is a vertical longitudinal section taken on the line D—D of Fig. 5 but with the cover and lid in place. Fig. 7 is a similar view to Fig. 1 of part of a box or case of slightly different shape illustrating a further slight modification in the tightening means. Fig. 8 is a vertical longitudinal section taken on the line E—E of Fig. 7. Fig. 9 is a plan of part of the lid of the inner box separately. Fig. 10 is a vertical longitudinal section taken on the line F—F of Fig. 11 being

a detail view of parts. Fig. 11 is a horizontal section taken on the line G—G of Fig. 10. Fig. 12 is a similar view to Fig. 1 illustrating a further slight modification. Fig. 13 is a vertical longitudinal section of part of the box taken on the line H—H of Fig. 14; Fig. 14 is a vertical transverse section taken on the line I—I of Fig. 13. Fig. 15 is a similar view to Fig. 12 of part of a case illustrating a slight modification of the arrangement therein illustrated. Fig. 16 is a plan partly in section and with the lid of the case thrown back illustrating a modification in the arrangement of the supporting bands. Fig. 17 is a transverse section taken on the line J—J of Fig. 16. Fig. 18 is a part vertical longitudinal section taken on the line K—K of Fig. 17. Fig. 19 is a similar view to Fig. 1 illustrating a slight modification in the arrangement shown at Figs. 16 to 18, and Fig. 20 is a part vertical longitudinal section taken on the line L—L of Fig. 19.

In the several figures like parts are indicated by similar reference numerals and Figs. 5 to 9 and 12 to 15 are drawn to a reduced scale, Figs. 16 to 20 to a further reduced scale, and Figs. 3 and 4 to an increased scale with respect to the other figures of the drawings.

Referring to Figs. 1 to 4, 1 represents the body of the box or case, and 2 represents the lid thereof. Within the case 1 is arranged a box 5, provided with a lid 6 adapted to be secured in position by tapes or ties 9 fastened to the body of the box 5 and extending over the lid and there tied together at 10 as shown in Fig. 1, or a shallow tray or platform may be substituted for the box 5 as will be readily understood.

The inner box 5 in which the articles to be conveyed are supposed to be packed is considerably smaller than the case 1 and it is suspended in a central position therein by means of bands 8 of elastic or other suitable material, for example gut or cord one arranged at each end thereof, or it might be at each side. These bands 8 extend interiorly across the ends of the box 5 and pass out through perforations 7 in the angles thereof to the corresponding angles of the case 1 and through perforations 3 in said latter angles and around pins 11, or other suitable devices, secured in position upon the outside of the case 1 and concealed from view by a binding 4 preferably

consisting of woven fabric covered with paper which may extend from the top to the bottom of said angles as shown more particularly at Figs. 3 and 4.

In the absence of some means of regulating the tension of the bands 8 the box 5 when containing a heavy load would be liable to come into contact with the walls of the case 1, and in order to prevent this means are provided for regulating the tension of said bands at the times desired, and in the present example, these means consist of a strap or length of tape or other suitable material 12 which is passed around the center of the bands 8 and by means of the loose ends 13 tightened so as to put the required strain upon the bands 8 and said loose ends are then tied together as shown more particularly at Fig. 1. Or, the tape 12 might be in two parts one attached respectively to the center of each of the bands 8.

Articles placed within the box 5 may be secured in position by straps (not shown) or other suitable means, or packed by means of shavings or the like in order to prevent their shifting during transit, or the tape 12 may extend across so as to press upon said articles or goods with the same object and when employing a platform in place of the box 5 the articles may be strapped or secured to both the upper and under faces thereof.

In the example given at Figs. 5 and 6, a slight modification is shown according to which the lid 6 of the box 5 is provided with slots or perforations 7^a therein near to the ends thereof and the centers or bights of the bands 8 are passed up through said slots and the tightening tape or band 12 is then passed around the bands 8 upon the top of the lid 6 and tightened in the desired manner. The tightening operation can thus be performed upon the outside of the box 5 after the same has been packed with articles to be conveyed while at the same time the tape or strap 12 is removed from the interior of the box 5 leaving the entire area free for the reception of the goods. In this case also the tie 9 for securing the lid in position may be dispensed with as the tape 12 fulfils that office.

In the example given at Figs. 7 to 11 is shown a divided strap 12 provided with a buckle 14 in substitution for the tape hereinbefore shown and described but in this case the two parts of the strap are loosely connected with the bands 8 and in this example also the strap may extend across the interior of the box 5 as shown by the full lines in Fig. 8, or the ends of the two parts of the strap 12 may be passed up through slots 7^a in the lid 6 of the box 5 and connected upon the outside of the lid 6 as shown by the dotted lines in said figure.

In the example given at Figs. 12 to 14, the bands 8, which are in the form of an endless band, instead of being fastened at or near the angles of the case 1 are passed through eyes or guides 15 fixed to said case at or near the angles and then led upward and passed through eyes or guides 16 arranged at an elevation above the box 5 so that the regulating tape or strap 12 extends longitudinally of the box 5 clear of the lid 6 thereof. The eyes or guides 15 and 16 may if desired be fitted with sheaves or rollers to facilitate the free working of the bands 8.

In the example given at Fig. 15 the bands 8 instead of passing across the inside of the inner box 5 and out through holes 7 at the angles thereof pass through eyes 7 fixed to the outside of the inner box 5.

In the example given at Figs. 16 to 18, instead of employing a supporting band 8 at each end of the inner box 5 only a single supporting band is employed which extends from end to end of the box 5 on the inside thereof and then passes out through perforations 7 in the angles and through eyes or guides 15 and 16 upon the case 1 the tension regulating strap or band 12 being applied in a similar manner to that illustrated at Figs. 7 to 11.

In the example given at Figs. 19 and 20, the arrangement of the supporting band 8 is identical with that lastly hereinbefore described with the exception that the band 8 instead of passing through the interior of the box 5 and out through perforations 7 at the angles is arranged upon the exterior of said box and passes through eyes or guides 7 thereon. It will be understood that the outer case 1 and the inner box, tray or platform 5 may be constructed of any material suitable for the goods to be conveyed. It will be understood in all cases the tightening tape or strap may be in one or two parts and that the free ends thereof may be fastened together by a knot, buckle or other suitable device.

By the means hereinbefore described, a simple and inexpensive device is obtained by the aid of which fragile articles may be safely conveyed without risk of breakage or injury, the tape or strap 12 for regulating the tension of the elastic or other bands 8 enabling the suspending force thereof to be regulated according to the weight of the load so that the box or platform 5 is always maintained in the required central position in the case 1 notwithstanding that it may be roughly handled in transit.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is:—

1. The combination of a case, a box within the case, suspension members connecting opposite ends of the box to opposite ends of

the case, and a tension regulating strap connecting the suspension members.

2. The combination of a case, a box or tray mounted within the case, a cord secured to one end of the case and connected to the box, a second cord secured to the opposite end of the case and connected to the box, and a tension regulating tape connecting the cords.

3. The combination of a case, guides secured to each end of the case, a box or tray within the case and having perforations at

opposite end of the case and through the guides at one end of the case and through the perforations at one end of the box, a second cord passing around the guides at the opposite end of the case and through the perforations at the opposite end of the box, and a tape connecting the cords.

ALFRED JOSEPH WARNE-BROWNE.

Witnesses:

GEO. S. VAUGHAN,
BY FLEET G. RAVENSCROFT.