J. L. CHRISTENSEN.

WRAPPER.

APPLICATION FILED JULY 28, 1919.

1,381,904. Patented June 21, 1921.

Fig. 1

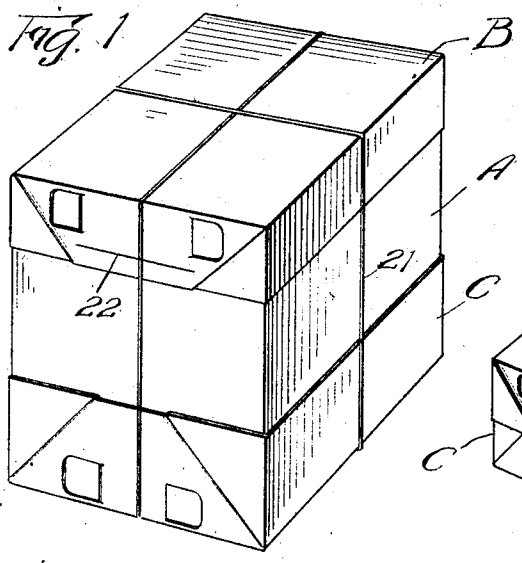


Fig. 2

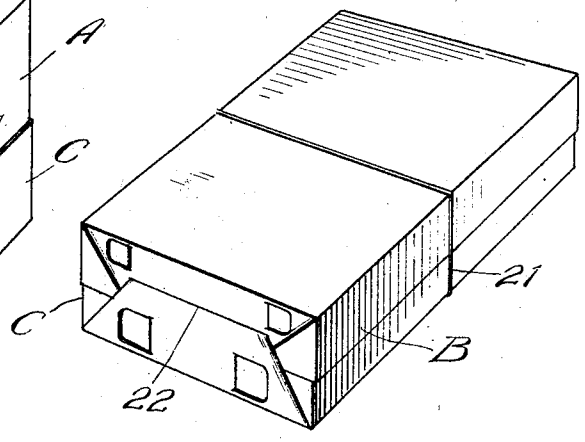
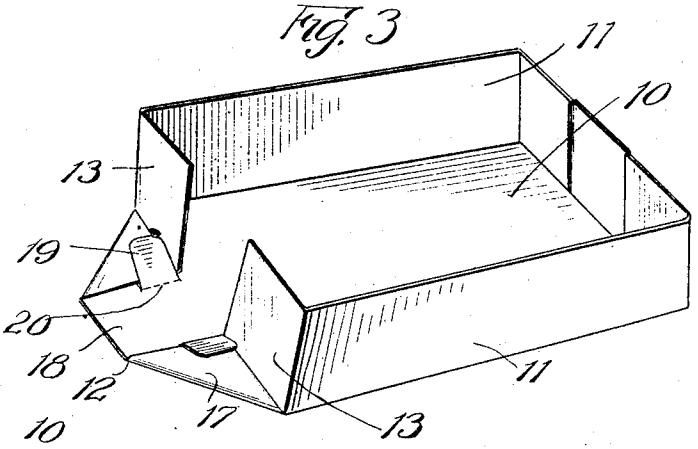


Fig. 3



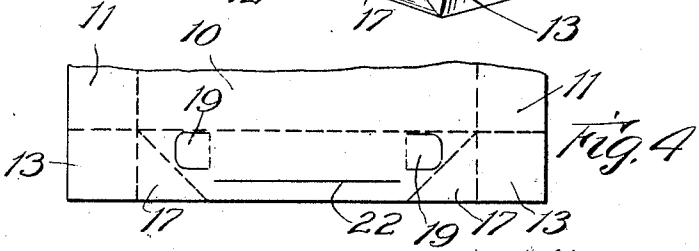


Fig. 4

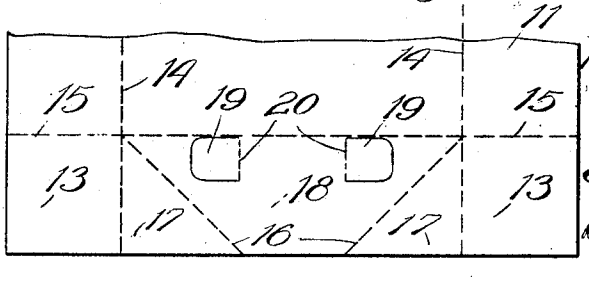


Fig. 5

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UNITED STATES PATENT OFFICE.

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WRAPPER.

1,381,904. Specification of Letters Patent. Patented June 21, 1921.

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To all whom it may concern:

Be it known that I, JOHN L. CHRISTENSEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Wrappers, of which the following is a specification.

The object of this invention is to provide a covering or receptacle for parcels and especially for piles of magazines, books or similar articles which will be economical in the use of paper, quickly folded into shape for use and easily fastened in folded condition in wrapping a parcel.

In the accompanying drawings, Figure 1 is a perspective view of a parcel showing wrappers constructed according to my invention. Fig. 2 is a perspective view of a smaller parcel showing another way of using the same wrappers to form a complete container or box. Fig 3 is a perspective view of the deep wrapper showing one end folded and the other partially folded. Fig. 4 is a plan view of one end of the blank for the shallow wrapper and Fig. 5 is a plan view of one end of the blank for the deep wrapper.

In the embodiment of my invention disclosed, a pile of flat articles A is shown in Fig. 1 with the upper end inclosed and protected by a shallow wrapper B, the lower end similarly inclosed and protected by a deep wrapper C. It is immaterial whether deep or shallow wrappers are used for wrapping in the way illustrated in Fig. 1. Shallow or deep wrappers may be used at both ends or one deep and one shallow wrapper as illustrated in the figure according to convenience.

The deep wrapper illustrated in Fig. 3 is formed of a blank having a central rectangular portion 10 of dimensions corresponding to those of the articles to be wrapped, side flaps 11, end flaps 12 and corner flaps 13. These flaps are separated from each other and from the central portion 10 by creases 14 and 15 to facilitate folding in the well known manner. Referring to Fig. 5 it will be seen that two additional creases 16 separate the end flap 12 into two smaller outer triangular portions 17 and an inner portion 18 in the form of a symmetrical trapezium. Tabs or ears 19 are struck up adjacent the crease 15 dividing the end flap 12 from the main portion 10 to fold along the creases 20, as shown in Fig. 5.

In folding one of the deep wrappers C, the side flaps 11 are first turned up at right angles to the center portion 10. This can be conveniently accomplished by laying a pile of articles on the portion 10 and drawing a string around them as indicated at 21 in Fig. 1. This will leave the corner flaps 13 still in the same plane with the side flaps 11, the end of the wrapper extending out like a channel beyond the end of the articles to be wrapped. The tabs 19 are then grasped by the fingers and turned up somewhat and the central portion of the end flap 12 is pressed down about 45 degrees. This will swing the corner flaps 13 and the small triangular portions 17 in about 45 degrees toward each other. The corner flaps 13 are then further rotated to lie flat against the ends of the package bringing the small triangular portions 17 into the position illustrated in the left hand end of Fig. 3, whereupon the tabs 19 may be released to overlie the triangular portions 17 and retain them in position. The entire end flap 12 is then turned up against the end of the package either by hand or by finishing the tying operation and the wrapping is complete.

The tabs 19 function during the folding operation to hold the triangular portions 17 and the corner flaps 13 in the position shown in Fig. 3 so that the operator need not hold them. In the folded position they offer a resistance to forces tending to pull the corner flaps 13 sidewise, opposing the entire strength of the material where the fold between parts 13 and 17 engages the edge of tab 19, which itself is held against buckling or bending by being pressed between the parts. The closure is therefore almost as strong as a glued one and at the same time may be formed from a flat piece of material with the expenditure of only a small fraction of the time and material required for a glued closure. It may also be readily released and unfolded into a flat piece.

The shallow wrappers B are in all respects similar to the deep wrappers C except that the side and end flaps are narrower and that a slot 22 is cut in the central portion of each end flap. When the shallow wrapper is used as illustrated in Fig. 1, this slot has no function but in wrapping small parcels as illustrated in Fig. 2, a shallow wrapper and a deep wrapper may be placed against opposite faces of the object to be wrapped, the shallow wrapper functioning as a cover and forming

with the deep wrapper a complete closure or box. In this case the end flap of the deep wrapper is slipped through the slot in the shallow wrapper as clearly indicated in Fig. 2, forming a very compact and durable closure for the end of the package.

While I have illustrated a specific embodiment and a specific use of my invention, it should be clearly understood that the description is only for purposes of illustration as the blank 1 have disclosed is obviously useful in connection with one or a plurality of any sort of objects having the shape of a rectangular parallelepiped.

I claim as my invention:

1. A blank having, in combination, a central portion bounded by side and end flaps and defined by crease lines extending beyond its corners across said side and end flaps to outline a corner flap at each corner of the blank, additional crease lines extending convergently and outwardly across the end flaps from the corners of said central portion at an angle to the end thereof and dividing said end flap into a central symmetrical trapezium flanked by two triangular portions, and tabs struck up from said trapezium adjacent the end of said central portion and adapted to fold along lines which are perpendicular to the end crease of said central portion and pass in prolongation approximately through the intersection of said convergent creases and the outer edge of the paper.

2. The combination recited in claim 1, in combination with a slot parallel with said end crease extending partially across said trapezium-shaped end flap.

3. In combination, two wrapper elements each according to claim 1, one of said wrapper elements having deep flaps and one having relatively shallow flaps, and a slot cut in the trapezium-shaped end flap of the wrapper element having relatively shallow flaps, the deep flaps of the first-mentioned wrapper element being adapted to enter the slots in the shallow flaps of said second-mentioned wrapper element.

4. A blank having, in combination, a central portion bounded by side and end flaps and defined by crease lines, crease lines extending beyond the corners of said central portion across said side and end flaps to outline a corner flap at each corner of the blank, additional crease lines extending convergently and outwardly across the end flaps from the corners of said central portion at an angle to the end thereof and dividing said end flap into a central end portion flanked by two triangular portions, and locking means in the nature of tabs carried by said central end portion and adapted to overlie the edges of said triangular portions after said triangular portions are folded against said central end portion.

5. A blank having, in combination, a central portion bounded by side flaps and having an end flap, said central portion being defined by crease lines extending beyond its corners across said side and end flaps to outline a corner flap at each end of the end flap, additional crease lines extending convergently and outwardly across the end flap from the corners of said central portion at an angle to the end thereof and dividing said end flap into a central end portion flanked by two triangular portions, said triangular portions and the adjacent corner flaps being folded in to overlie said central end portion, and tabs carried by said central end portion adapted to overlie the edges of said triangular portions after said triangular portions are folded, said triangular portions and central end portion being subsequently folded up together outside said corner flaps.

6. In a wrapper of the character described, two portions adapted to be folded into substantially perpendicular relation, one of said portions having a flap, and a corner portion between the flap and the other portion adapted to be folded into perpendicular relation to said two portions, said flap having a portion adjacent the corner portion adapted to be folded relative to the flap so as to overlie it when the corner portion is swung into its perpendicular position relative to the other two portions, and a tab carried by said flap and adapted to overlie said folded portion thereof whereby to hold it in its folded position.

7. In a wrapper of the character described, a main portion having a hinged flap, said flap having a triangular portion at one end adapted to be folded relative thereto so as to overlie the flap, and a tab formed within the body of the flap and adapted to overlie the triangular portion to hold it in its folded position upon the flap.

8. In a wrapper of the character described, a main portion having two flaps and a corner portion between the flaps, one of said flaps being adapted to be folded on a diagonal line to permit the corner portion to be swung into perpendicular relation to the main portion while the other flap is also swung into such perpendicular position, and means on the folded flap adapted to engage between the folded portion thereof and said corner portion to hold the latter against reverse movement and thereby hold said other flap in perpendicular position.

In testimony whereof, I have hereunto set my hand.

JOHN L. CHRISTENSEN.