E. R. CHRISTENSEN.

WRAPPER.

APPLICATION FILED DEC. 22, 1916. RENEWED NOV. 25, 1918.

1,296,765. Patented Mar. 11, 1919.

Fig. 1.

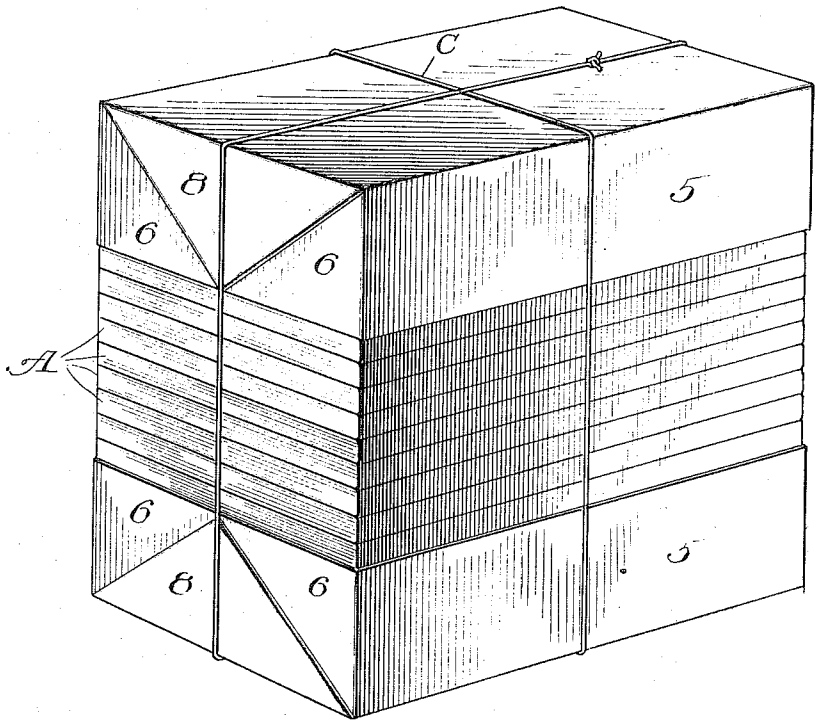

Fig. 2.

B

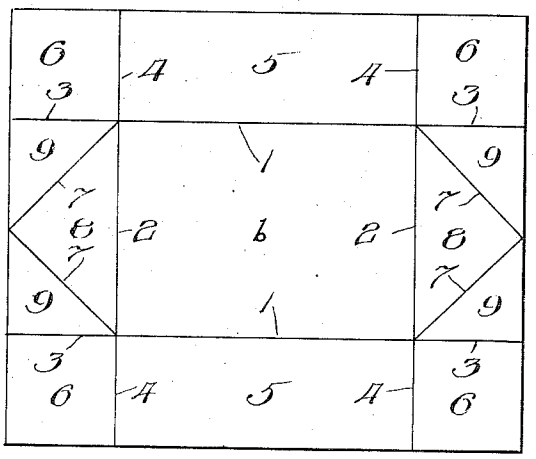

Fig. 3

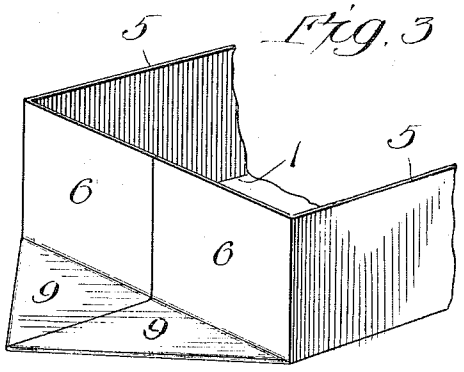

Fig. 4.

Witness:
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UNITED STATES PATENT OFFICE.

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WRAPPER.

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To all whom it may concern:

Be it known that I, EBEN R. 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 means for wrapping or protecting bundles which shall be economical of paper and of the time required in the wrapping operation.

In the accompanying drawings, Figure 1 is a perspective view of a package of magazines, the magazines being protected by means of wrappers embodying the features of my invention. Fig. 2 is a plan view of one of the wrappers. Fig. 3 is a fragmental perspective view showing a wrapper partially folded. Fig. 4 is a fragmental detail view.

In Fig. 1 the reference letter A denotes a pile of magazines or other articles, the top and bottom portions of the pile being protected by means of wrappers. One of the wrappers B is illustrated in Fig. 2 in unfolded or flat condition. The wrappers may be of any suitable material, as for example, paper of the necessary strength and flexibility. The preferred material is not a cardboard, but a tough flexible paper.

Each wrapper B is of rectangular form, the size and shape of the rectangle depending, at least in part, upon the size of the article or articles to be wrapped. Each wrapper is scored, creased or indented along the lines upon which the wrapper is to be folded. Preferably, the paper is indented (as indicated in Fig. 4) instead of being cut, so as not to weaken the paper to an unnecessary extent. I will use the term "grooved" to denote the various suitable ways in which the lines of folding may be defined.

The grooves 1 and 2 inclose a central area *b* corresponding to the width and height of one of the magazines A. The grooves 1 are extended to form the grooves 3, while the grooves 2 are extended to form the grooves 4. The grooves 1 and 4 define portions 5 which are arranged to lie at the sides of the pile of magazines. The grooves 3 and 4 define corner portions 6 which are adapted to lie at the ends of the pile of magazines. In the illustrated embodiment, each groove 3 is equal to one-half the length of a groove 2 and therefore when the portions 6 are arranged as shown in Figs. 1 and 3, said portions abut and form a closed end of the folded wrapper. This, however, is not essential as the grooves 3 may be less than half the length of a groove 2, in which event there would be an open space between the portions 6 when folded into the position shown in Figs. 1 and 3.

The portion of the wrapper between the grooves 2 and 3 at each end of the sheet, is divided by the diagonal grooves 7, thus dividing the portion of the wrapper between the grooves 2 and 3 into a diagonal section 8 and two diagonal sections 9 adapted to be folded to overlie the section 8, as in Fig. 3. When thus folded, the triangular sections 8 and 9 constitute a triangular flap of double thickness adapted to overlie the portions 6, as shown in Fig. 1.

If, as hereinbefore suggested, the portions 6 are made of such dimensions as not to abut when in the position shown in Figs. 1 and 3, it will be evident that the sections 9 will not completely cover the section 8 when said sections are folded.

In practice, a pile of magazines is placed upon a flat unfolded wrapper B, the pile registering with the grooves 1 and 2. Another flat unfolded wrapper B is placed on top of the pile. The securing cord C is then passed around the larger sides of the pile. Since the wrappers have been grooved upon the lines along which folding should occur, the mere drawing of the cord around the larger sides of the package causes the portions 5 of the wrappers to fold into contact with the sides of the pile, and such folding of the portions 5 causes the portions 6 and 9 automatically to assume the position shown in Fig. 3. Thus when the cord is passed around the ends of the package the triangular flaps 8 are drawn into contact with the portions 6 of the wrappers. No attention need be paid by the workman to the folding of the wrappers. It is not necessary to tuck the portions 6 against the ends of the pile of magazines, nor to fold the portion 8 against the portion 6, these operations being automatically effected by the act of placing the cord around the package and drawing the cord taut. A considerable economy in the time of the workman is thereby effected. Furthermore, the neatness and effectiveness of the wrapping are not dependent upon the

attention or skill of the workman, thus producing uniformity in the wrapping of successive lots of magazines.

As will be understood, the grooving of the wrappers B may be done by means of any suitable machinery.

It will be evident that the invention is not limited to the wrapping of piles of magazines, but that any other articles (and particularly those which require protection mainly on two opposite sides) may be wrapped in the manner herein disclosed.

I claim as my invention:

1. A wrapper sheet, grooved to define a central area adapted to lie in contact with one end of a pile of articles, two opposite side portions, two opposite end portions divided by diagonal lines into three triangular portions, and four rectangular corner portions, the corner portions being folded in against the end of the pile, and the triangular end portions being folded upon each other to form a flap which is folded against the outer side of said corner portions.

2. A flat unfolded rectangular sheet one face of which is grooved to define a central rectangular area adapted to lie in contact with one end of a pile of articles, two opposite portions adapted to lie at the sides of the pile, four rectangular corner portions adapted to lie at the ends of the pile, the portions of the sheet lying between said corner portions at each end of the sheet being divided by two diagonal lines into an approximately triangular portion and two smaller approximately triangular portions adapted to fold upon the other triangular portion to form a triangular flap of double thickness adapted to lie in contact with the rectangular corner portions.

In testimony whereof, I have hereunto set my hand.

EBEN R. CHRISTENSEN.