

Aug. 8, 1961

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2,995,291

SPACER

Filed May 28, 1957

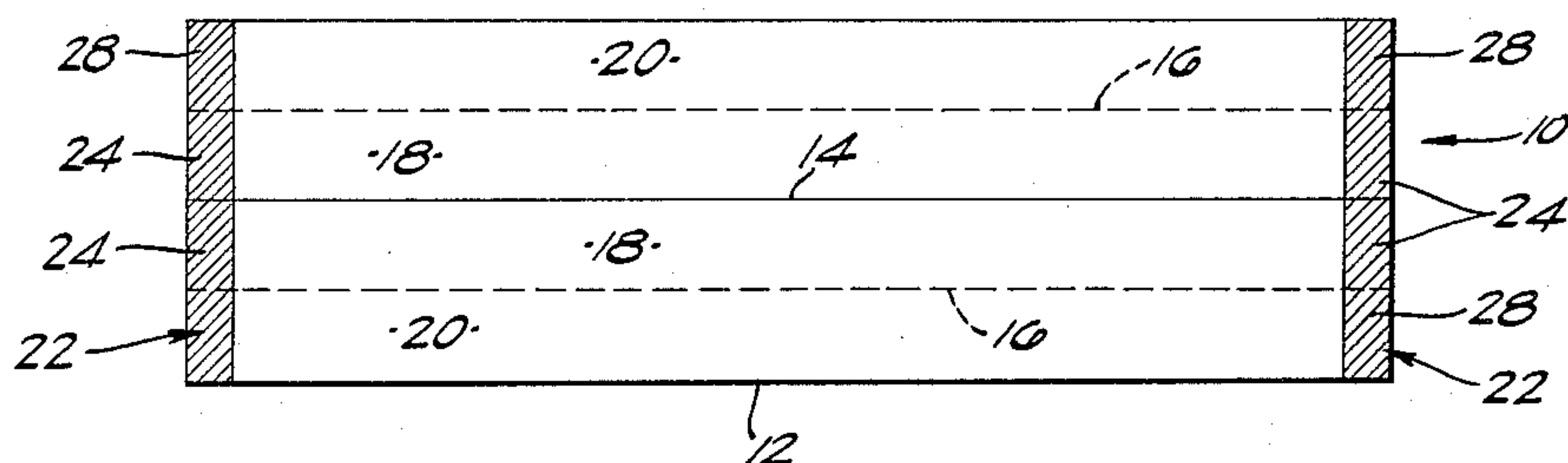


FIG. 1.

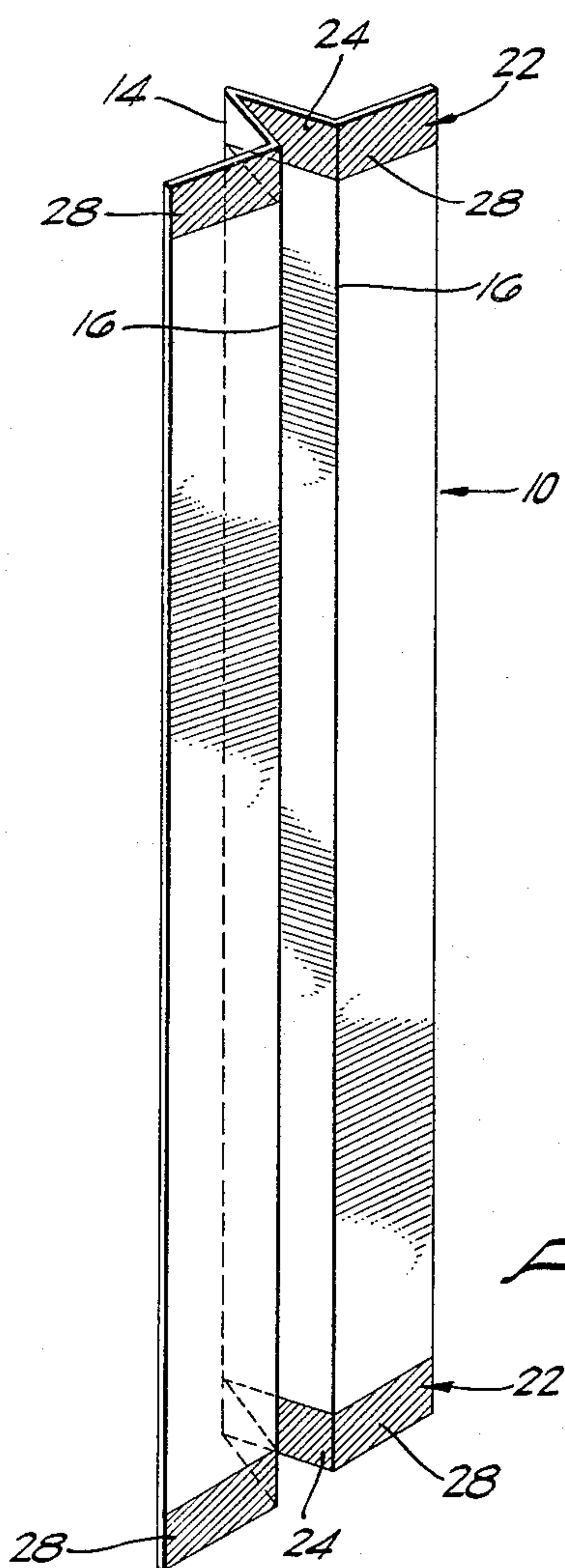


FIG. 2.

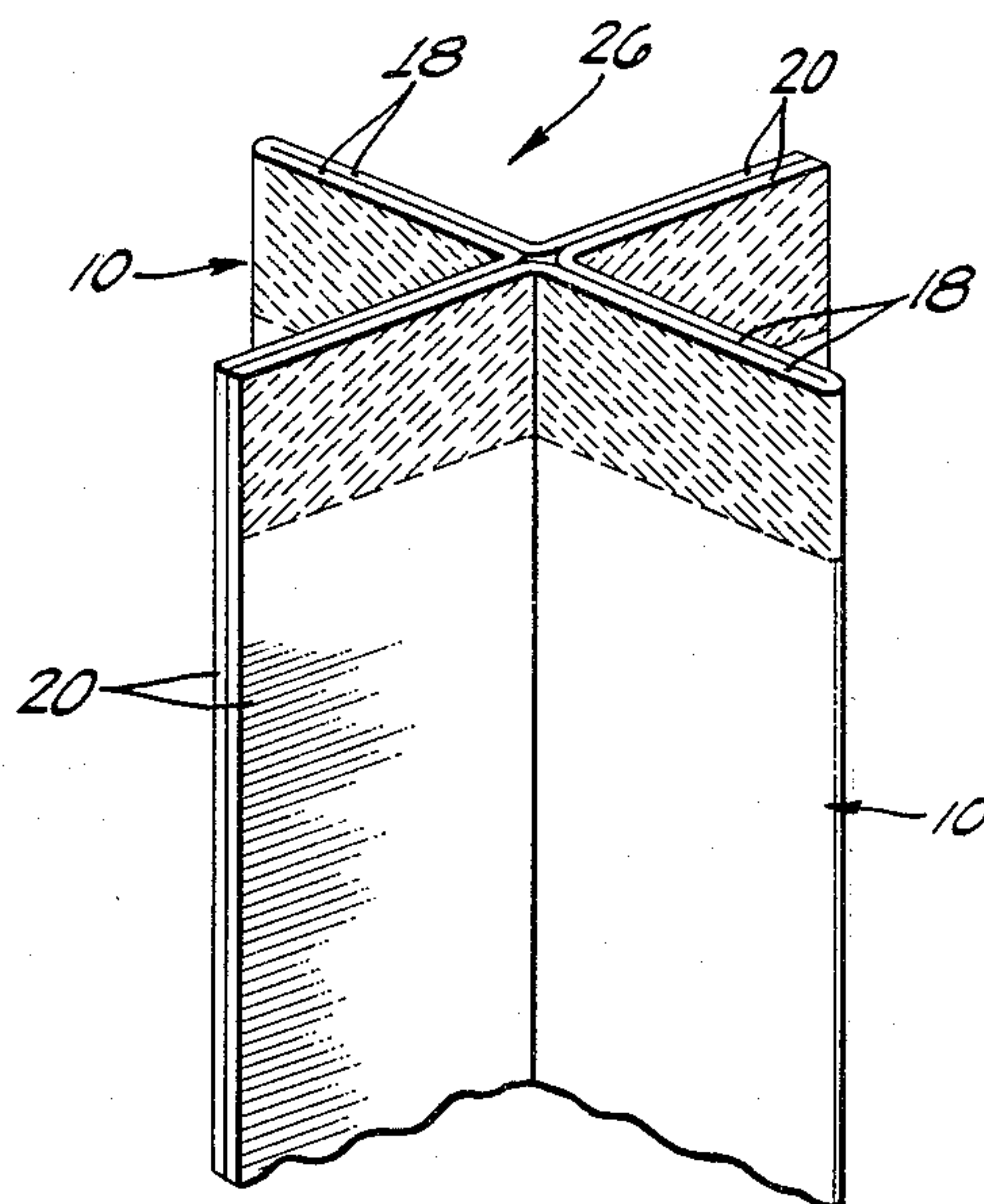


FIG. 3.

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1

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Filed May 28, 1957, Ser. No. 662,070  
2 Claims. (Cl. 229-42)

This invention relates to devices for use in stacking packages for shipment, and more particularly to spacers made of paper board, corrugated fiber board, or like materials, for use in loading freight in railway cars and other such vehicles of transportation.

Although the invention will have a wide field of application and should not be limited to any specific one, it has been found particularly useful when used in connection with loading rather bulky, bulging and rectangular boxes packed with head lettuce and other vegetable products into a railway car.

In most of such cases, spacers used therein should be as inexpensive as it is possible to make them in order that they may be permanently discarded after they are used only once. That is, they must be made of economical materials, and they must be of a construction adapted for economical manufacture and assembly.

It is therefore an object of the invention to provide an economical spacer which may be made by an inexpensive process and machinery, which may be made of economical materials, and which may be easily and quickly assembled at low cost.

This and other objects of the invention are achieved in accordance with the invention by providing a spacer including two identical elongated, rectangular sheets of a corrugated fiber board material, each of the sheets having a longitudinal regular score at the center of one side and two regular scores on opposite sides of the regular score and on the opposite side of the corresponding sheet, all three of the scores on each of the sheets dividing each of the sheets into inner and outer pairs of longitudinal panels having equal widths, and a strip of pressure-sensitive adhesive material across each end of each of the sheets on the side thereof having the regular score, the inner panels of each of the sheets being held together by facing portions of the adhesive strips thereon when the inner panels are folded on the regular scores, the sheets being held together by facing portions of the adhesive strips on the outer panels thereof when the outer panels of each of the sheets are folded to parallel positions with respect to each other on the reverse scores.

Thus the fact that two identical spacer blanks of the above-described construction are used in producing the invention makes the manufacture of the spacer of the invention very inexpensive. Furthermore, the use of a corrugated fiber board material makes the spacer inexpensive.

The fact that a pressure-sensitive adhesive material is used to fix the spacer blanks together makes for an easy and speedy assembly of the spacer, as do the employment of score lines along the lengths of the spacer blanks. For both of these reasons then the spacer may be assembled without expensive time consuming steps.

The above-described and other objects and advantages of the invention will be better understood when taken in connection with the accompanying drawings made a part of this specification in which one embodiment of the invention is illustrated by way of example.

In the drawings,

FIG. 1 is a plan view of a spacer blank, two of which are required to make the spacer of the invention.

FIG. 2 is a perspective view of the spacer blank shown in FIG. 1 partially assembled; and

FIG. 3 is a perspective view of the spacer of the inven-

2

tion completely assembled with two blanks of the types shown in FIGS. 1 and 2.

A spacer blank 10 is shown in FIG. 1 including a sheet 12 of preferably a paper board or corrugated fiber board or equivalent material. Sheet 12 is provided with a regular score at 14 and two reverse scores at 16. The scores 14 and 16 divide the blank 10 into a pair of inner longitudinal panels 18 and a pair of outer longitudinal panels 20, all of which are conveniently made equal in width. Strips 22 of a pressure-sensitive adhesive material is then coated across each end of the spacer blank 10.

Blank 10 is assembled as indicated in FIG. 2. That is, it is folded on regular score line 14 and reverse score lines 16 as indicated to form a substantially T-shaped body in cross section. Portions 24 of pressure-sensitive adhesive strips 22 are coated on appropriate portions of inner panels 18 to face each other when they are folded on regular score 14. Thus inner panels 18 will stick together at these areas when the areas thereof coated at 24 are placed together.

Two of the blanks 10 are shown in FIG. 3 forming a spacer 26 of the invention with outer panels 20 facing each other and whereby applying pressure at their opposite ends, areas 28 thereon coated with the pressure-sensitive adhesive 22 will be held together by the adhesive to form the spacer 26 of a cross shaped cross section.

It is to be understood that the spacer of the invention may be formed with pressure-sensitive adhesive on inner panels at any two points therein not necessarily corresponding to the positions at which outer panels 20 are coated. However, it will be noted that preferably the coating arrangement shown in FIG. 1 is the most economical and should be made in accordance with the invention.

The primary requirements of the pressure-sensitive adhesive coated on the blank 10 shown in FIG. 1 is thus that there be coatings at two points on inner panels 18 and at two points on outer panels 20, the points at which panels 18 are coated along their lengths corresponding to that they will stick together at these coated areas when the inner panels 18 are folded on regular score 14.

Similarly, outer panels 20 should also be coated at two points spaced the same distance if at all from the ends thereof, whereby when two identical blanks 10 are put together in the manner shown in FIG. 3 it will be unnecessary to reverse the end to end position of any one blank 10 because of an unsymmetrical coating arrangement on outer panels 20. Still further, as in the case of inner panels 18, each of the outer panels 20 must be coated at two lengthwise positions, each of the outer panels 20 being coated at the same lengthwise positions to permit quick assembly of the spacer 26.

It is thus seen that by the use of the invention including a symmetrical coating arrangement for the blanks 10 and the symmetrical scoring arrangement that two identical blanks may easily and quickly be assembled to form the spacer 26 of the invention. Still further, the fact that two identical blanks 10 may be used in itself permits economical manufacture as distinct from the assembly of the spacer 26 of the invention. Still further, the use of a corrugated fiber board material in sheet 12 of the blank 10 makes the materials cost of the spacer 26 quite low.

Although only one specific embodiment of the invention has been shown and described, it is to be understood that the embodiment has been shown merely for the purpose of illustration and description and that the true scope of the invention is defined only in the appended claims.

What is claimed is:

1. A spacer for use in shipping packages and the



like, said spacer comprising: two identical elongated, rectangular continuous sheets of a corrugated fiber board material, each of said sheets having a longitudinal regular score at the center of one side and two regular scores on opposite sides of the regular score and on the opposite side of the corresponding sheet, both of said sheets having only longitudinal scores all three of said scores on each of said sheets dividing each of said sheets into inner and outer pairs of longitudinal panels having equal widths, and a strip of pressure-sensitive adhesive material extending completely across each end of each of said sheets on the side thereof having said regular score, said inner panels being folded on said regular scores, the inner panels of each of said sheets being held together by facing portions of said adhesive strips thereon the outer panels of each of said sheets being folded to parallel positions with respect to each other on said reverse scores, said sheets being held together by facing portions of said adhesive strips on the outer panels thereof.

2. A spacer for use in shipping packages and the like, said spacer comprising: two substantially identical elongated continuous pieces of sheet material, each of said sheets having three longitudinal scores along their lengths dividing each into inner and outer pairs of longitudinal panels, both of said sheets having only longitudinal

scores, each of said inner panels of each of said sheets having an area coated with an adhesive material at least at two different points along the lengths thereof, and each of said outer panels on each of said sheets having an area coated with an adhesive material at least at two different points along their lengths, each of said inner panels of each of said sheets being folded to cause the adhesive coatings on said inner panels of each to stick together, said coatings on said inner panels being positioned at the same two points along the lengths of each of said sheets, said outer panels of each of said sheets being folded to parallel positions with respect to each other, said sheets being held together by facing portions of said adhesive strips on the corresponding outer panels of each of said sheets.

References Cited in the file of this patent

UNITED STATES PATENTS

1,995,286	Arzet	Mar. 26, 1935
2,154,085	Bergstein	Apr. 11, 1939
2,593,092	Bergstein	Apr. 15, 1952
2,778,365	Silverman et al.	Jan. 22, 1957

FOREIGN PATENTS

562,778	Great Britain	July 14, 1944
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