Aug. 18, 1964 W. A. FINKE 3,145,131

JOINT FOR CORRUGATED BOARD

Filed May 5, 1960

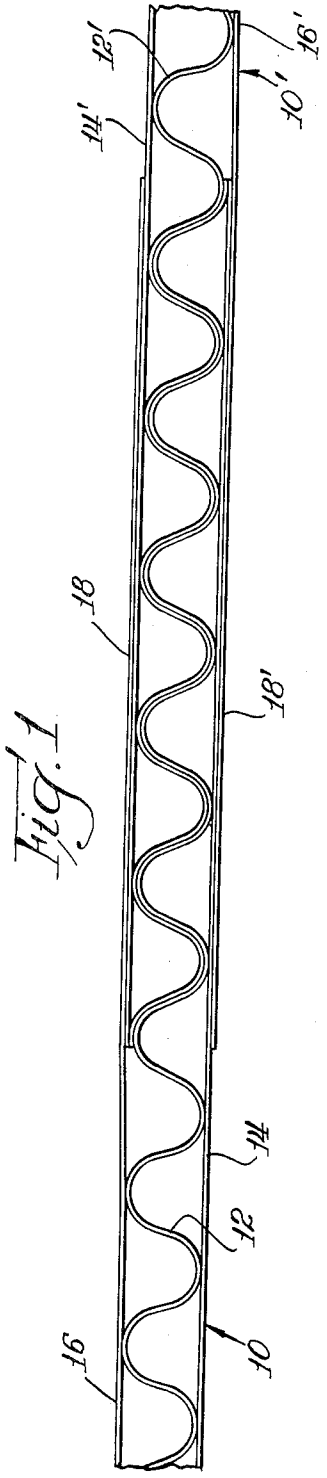


Fig. 1

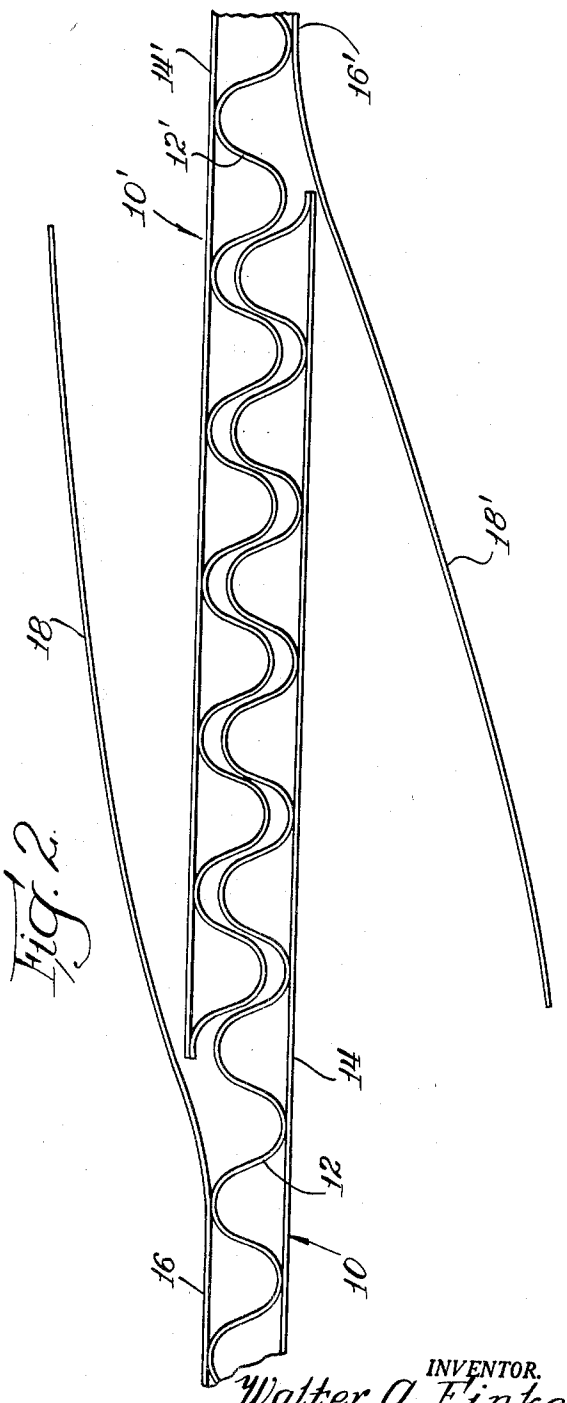


Fig. 2

INVENTOR.
Walter A. Finke
BY
Stephen J. Rudy
Jerome Rudy
Att'y's.

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1

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JOINT FOR CORRUGATED BOARD

Walter A. Finke, Saginaw, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

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This invention relates to an improvement in a corrugated paper board joint.

In the utilization of corrugated paper board, such as in the manufacture of boxes or other containers, it is often necessary to join the ends of the boards. Such a procedure is typified by the patent to F. G. Feeley, No. 1,207,734, dated December 12, 1916. The present invention represents an improvement in the art of joining corrugated paper board as typified by the Feeley patent. Among the features which distinguish the corrugated paper board joint of this invention over those of the known art, are briefly: (1) improved strength of joint, (2) no waste of material, and (3) no need for extra material, such as adhesive tape.

The main object of this invention is to provide an improved joint for a corrugated paper board.

A more specific object of the present invention is to provide a joint for a corrugated paper board, which joint is of great strength, in which there is no waste of material, and which eliminates the need for extra material, such as adhesive tape, for forming the joint.

Still another object of the present invention is to provide an improved joint for corrugated paper board which may be easily and quickly made.

These and further objects and features of the invention will become more apparent from the following description and accompanying drawing wherein:

FIG. 1 is an end view of a corrugated paper board joint formed according to the invention; and

FIG. 2 is the same but illustrating the condition and arrangement of the ends of two corrugated boards in the process of being joined according to the method of the invention.

Referring now to the drawing, the numeral 10 identifies the end portion of the usual type of corrugated paper board which includes a corrugated filler sheet 12, to which is affixed as by gluing, flat outer lining sheets 14 and 16. As best seen in FIG. 2, an end portion of the outer sheet 16 has been stripped, or removed from engagement with the corrugated filler sheet 12 to form a flap member 18.

The end of a second corrugated paper board, identical with that described above and having comparable parts identified by like numerals which have been primed for distinction, is arranged in juxtaposition so that the stripped portions of the respective corrugated boards will over-lap, or nest as shown in FIG. 2.

Prior to over-lapping of the stripped end portions of the corrugated boards, a liquid adhesive, or gluing material is applied to at least one of the corrugated filler sheet surfaces, which glued surface will engage an opposite corrugated surface of the other board. Such adhesive, or

2

gluing material is also applied to the underside of the flat portions 18 and 18'; if desired, such gluing material may alternately be applied to the end portions of the outer sheets 14 and 14', which will be covered by the flat portions 18' and 18 respectively. To complete the joint, the end portions 18 and 18' are pressed toward each other whereupon the completed joint as illustrated in FIG. 1 is formed.

It will be seen that the joint formed as above described will actually be stronger than the corrugated board outside of the joint because of the resulting double thickness of material in the formed joint. For example, counting the plies, or layers of material in each corrugated unjoined board, there will be outer sheet 14 or 14', corrugated filler sheet 12 or 12', and outer sheets 16 or 16' respectively. The plies, or layers of material throughout the joint will be outer sheets 18' and 14, corrugated filler sheets 12 and 12', and outer sheets 14' and 18.

Attention is also directed to the fact that the joint formed according to the method of the invention, does not require removal of any of the corrugated filler sheet 12 or 12', as in the case of joints for corrugated paper board disclosed in prior art patents. In addition, no extra material in the form of adhesive tape is required to form the joint of the subject invention.

While the joint of the invention as disclosed, has the bend line of each flap running parallel with the lay of the filler sheet corrugations, obviously, the flaps could be made so that the bend line of each would run normal to the lay of the filler sheet corrugations. The resulting joint formed with such a flap construction, would possess all the features of the joint above described.

From the foregoing, it will be appreciated that the improved joint formed according to the method of the invention, will satisfy all of the objectives as set forth hereinbefore.

The foregoing description has been given in detail without thought of limitation since the inventive principles involved are capable of assuming other forms without departing from the spirit of the invention or the scope of the following claims.

What is claimed is:

1. A joint formed between two pieces of corrugated paper board each having a corrugated filler sheet and an outer sheet affixed to each side of the filler sheet, which joint is formed so that a full section taken through any part of the joint will include, one of the outer sheets of the first board affixed to one of the outer sheets of the second board, corrugated filler sheets of each board affixed to each other, and the other outer sheet of the first board affixed to the other outer sheet of the second board.

2. A joint formed between two pieces of corrugated paper board according to claim 1, wherein the various sheets are affixed to each other by means of an adhesive.

References Cited in the file of this patent

UNITED STATES PATENTS

1,207,734	Feeley	Dec. 12, 1916
2,813,054	Nicholas	Nov. 12, 1957