To all whom it may concern:

Be it known that I, Wilfrid Lumley, a citizen of the United States, residing at Conneaut, in the county of Ashtabula and State of Ohio, have invented a certain new and useful Improvement in Corrugated Stock or Board, of which the following is a full, clear, and exact description.

This invention relates to corrugated stock or corrugated board, as it is usually termed, such, for example, as is used for packages or casements and coverings for objects more or less fragile or breakable, especially during shipment.

Ordinary corrugated board usually consists of an intermediate corrugated paper sheet having flat paper sheets pasted onto opposite sides thereof, the corrugations extending in straight parallel lines in along the sheet. This stock is effective for resisting bending or breakage along a line transverse to the corrugations, but is relatively ineffective for resisting bending or breakage in the direction of the corrugations.

The object of the present invention is to provide a form of corrugated stock which has practically the same inherent strength for resisting bending or breakage both longitudinally and transversely of the board, and, in fact, at any angle or in any direction across the same. Further the invention aims to provide a corrugated stock whose corrugations can resist crushing stresses more effectively than ordinary corrugated board.

These objects are accomplished by my invention which, in its broad aspect, consists in providing corrugations which are wavy, undulating, or sinusous, instead of straight and which extend in a general direction diagonally across the sheet with portions extending substantially lengthwise and transversely of the sheet.

My invention may be briefly summarized as consisting in certain novel details of construction and combinations and arrangements of parts which will be described in the specification and set forth in the appended claims.

In the drawings, Figure 1 is a plan view of a section or piece of flat corrugated stock constructed in accordance with my invention, a portion of one of the paper coverings being removed. Fig. 3 is a transverse sectional view substantially along the line 5--2 of Fig. 1.

In Fig. 1, 10 represents the corrugated intermediate portion, and 11 and 12 the flat sheets pasted or otherwise secured to the opposite faces of the corrugated parts. These three parts are preferably formed of paper stock or material. It will be observed that the corrugations 13 extend, not in straight lines, but are sinusous, wavy or undulating, as before stated. In this instance the wavy corrugations extend diagonally across the sheet, each complete wave having portions which extend in substantially straight lines at right angles to each other, longitudinally and transversely of the sheet, the splices of the angles being rounded or curved.

From the above it will be seen that the object of my invention expressed in the early part of the specification is fully attained, for a line laid across the sheet in any direction will cross the corrugations; hence regardless of the direction of the breaking or bending stress, the same must traverse across a portion of the board strengthened by corrugations.

The corrugated stock or board constructed in accordance with my invention may be formed by rolls into flat sheets or strips of any desired size, and can be cut into sections of the size and shape to meet the requirements of the user.

I aim in my claims to cover all modifications which do not involve a departure from the spirit and scope of my invention.

Having described my invention, what I claim is:

1. Corrugated stock for packages or casements for breakable objects, comprising a sheet provided with parallel wavy corrugations extending in a general direction diagonally across the sheet and having portions extending substantially lengthwise of the sheet and portions extending substantially transversely of the sheet.
2. Corrugated stock for packages or incasements for breakable objects, comprising a sheet provided with parallel wavy corrugations extending in a general direction diagonally across the sheet and having portions extending substantially lengthwise of the sheet and portions extending substantially transversely of the sheet, and flat sheets secured on opposite sides of the corrugated sheet.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

WILFRID LUMLEY.

Witnesses:
L. I. PORTER,
A. J. HUDSON.