

No. 852,397.

PATENTED APR. 30, 1907.

W. L. PENNEY.
FABRIC SHIPPING PACKAGE.
APPLICATION FILED SEPT. 19, 1903.

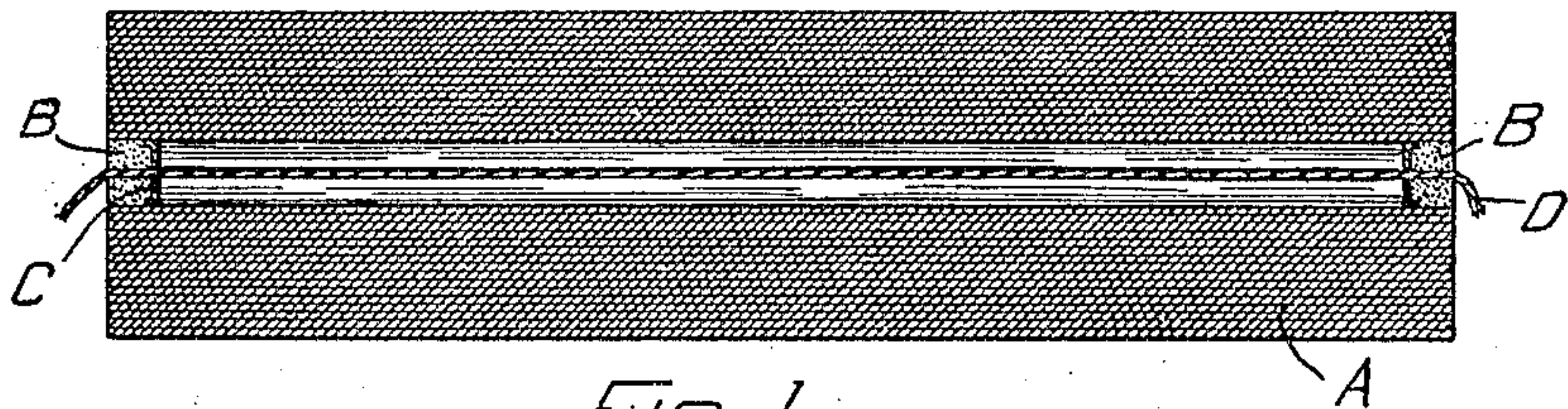


FIG. 1.

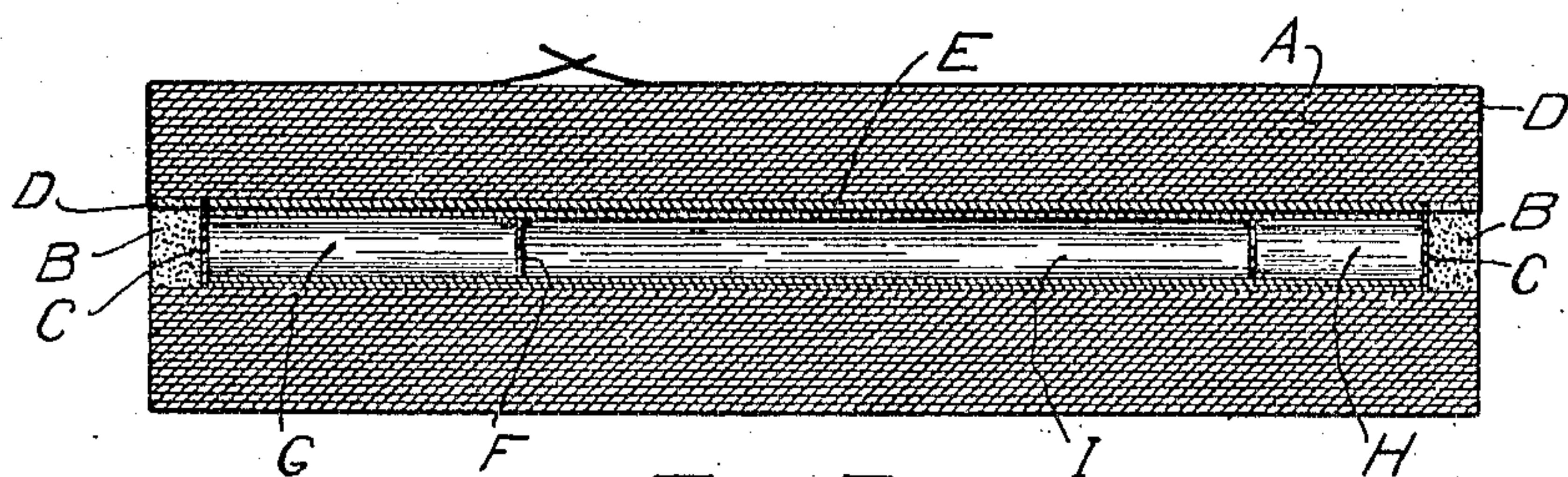


FIG. 2.

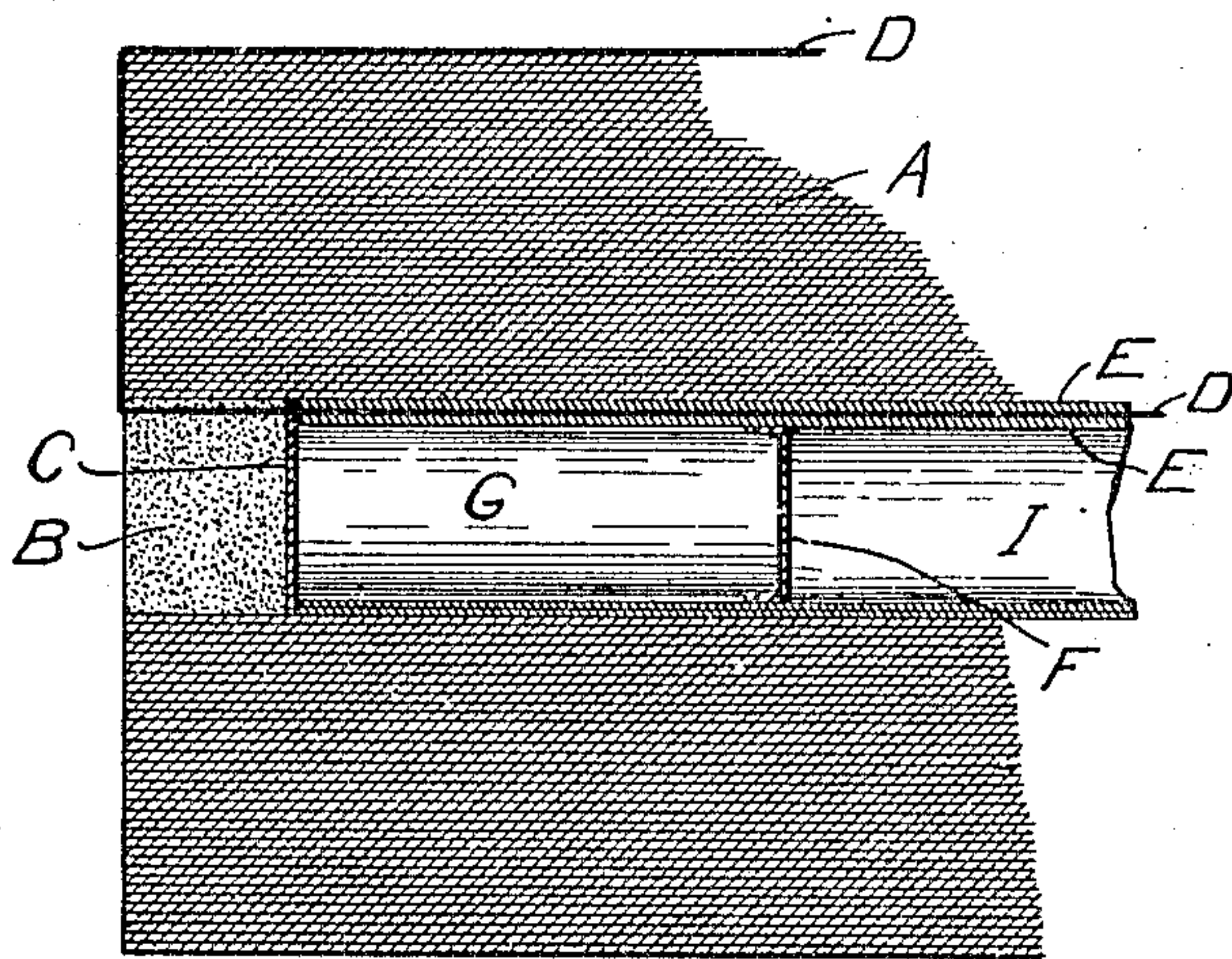


FIG. 3.

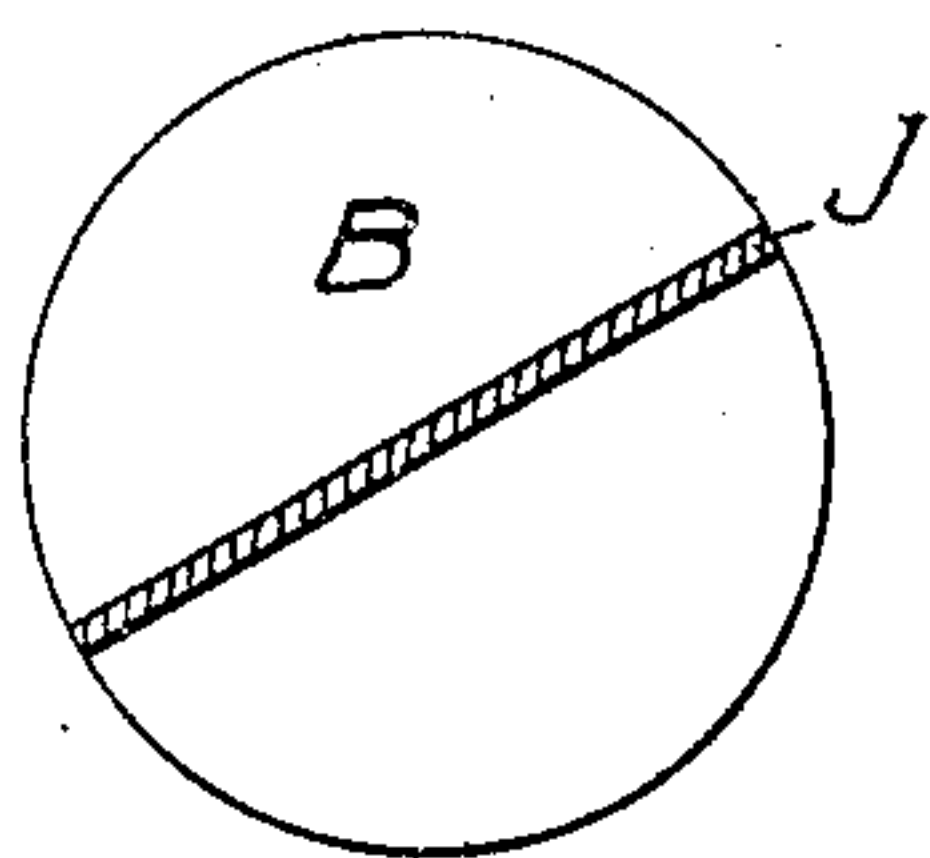


FIG. 4.

WITNESSES
A. T. Palmer
C. A. Clark

INVENTOR
William L. Penney
by A. D. Peuced
attorney.

UNITED STATES PATENT OFFICE.

WILLIAM L. PENNEY, OF WALPOLE, MASSACHUSETTS, ASSIGNOR TO
CHARLES S. BIRD, OF EAST WALPOLE, MASSACHUSETTS.

FABRIC-SHIPPING PACKAGE.

No. 852,397.

Specification of Letters Patent.

Patented April 30, 1907.

Application filed September 19, 1903. Serial No. 173,819.

To all whom it may concern:

Be it known that I, WILLIAM L. PENNEY, of Walpole, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Fabric-Shipping Packages, of which the following is a specification.

This invention is designed to facilitate the shipment of rolls of water-proof paper or any other fabric, together with materials placed within the axial cavity of such rolls, (to be used with such paper or fabric at its destination or otherwise,) and to so close the ends of such cavity as to retain said materials and effectually prevent crimping or other injury to the ends or edges of the fabric.

Prior to my invention it has been a common practice to ship rolls of water-proof paper with a can of cement and a package or quantity of tin disks and fastening tacks placed within the central cavity of the roll, to be used in securing in place pieces of the said fabric for roofing or other purposes. After such materials were placed, loosely, within the roll the ends of the cavity were closed by driving in tapering wooden plugs so as to retain said fastening materials and prevent undue movement therein, the result being that the edges of the paper were more or less strained and crimped, and very frequently many feet of the paper at the inner end of the roll were practically ruined, causing complaint and loss.

The characteristic feature of my improvement involves the use of terminal plugs molded within the cylindrical cavity at each end of the fabric roll, by placing therein, while in a plastic state, plaster of paris or some equivalent quick-hardening substance or compound which will shape itself to such terminal cavity, expand in hardening, and sufficiently adhere to the walls or to an inclosed binder or a portion of the fabric, without injury thereto. These molded plugs, while cheaper than wooden ones, have the peculiar merit of exactly filling the cavities, both as to length and diameter, and, being cylindrical, and not driven in, do not strain or crimp the paper or otherwise injure it. The cavities may be lined with and have a bottom of paper or some other absorbent to quickly take up any excess moisture of the plastic compound, and as these plugs expand

slightly in hardening they close the ends of the roll firmly.

In order to properly locate and confine the articles inclosed in the roll cavity, between the plugs, I form a fairly close-fitting tubular core of straw-board or the like, with compartments, end caps and a binder, so as to sufficiently separate the articles and keep them from movement longitudinally in such cavity. This tubular core is preferably of the same length as said cavity and may have a vacant central space between pockets or compartments near its ends, one to contain the cement can and the other the tacks and tin disks referred to, or other matter. Each package should fit snugly within the core and have a strong paper or like bottom cemented to the walls. A stout cord or tape runs lengthwise, as a binder, between the walls of the core and may be carried around the ends and along the outside of the roll of paper or other fabric and suitably secured. Such binder may serve, also, in removing the core and articles therein.

My invention includes the shipping package described, comprising the roll of fabric having the ends of its axial cavity closed by expansible plugs formed therein from plastic material, and hence shaped to exactly fit and conform to the walls of such cavity, together with inclosed articles held in said cavity between the plugs.

In the drawing, Figure 1 is a longitudinal section of a fabric roll, showing plugs molded in position and connected by a binder. Fig. 2 is a like section, showing, between the plugs, a partitioned tube or core having end compartments containing articles, such core having between its walls a binder the ends of which extend outwardly around the roll. Fig. 3 is an enlarged section at one end of the fabric roll, and Fig. 4 an end view of a split plug with spreader.

A represents the roll of roofing paper or other fabric and B. B. plugs formed in the ends of the axial cavity in such roll of a substance or compound which may be applied in a semi-liquid or plastic form and will quickly harden and assume the exact form of the space, so as to prevent injury to the roll-ends in insertion and transportation. I much prefer to use plaster of paris properly liquefied with water, as its appreciable ex-

pansion in hardening attaches it frictionally and firmly to the inner wall of the fabric roll or its lining. In forming these plugs the fabric rolls are placed on end with a transverse disk or cap C within the cavity, at the proper distance from the end of the roll to form a bottom for the plug, the material for which is then poured or pressed into the space and allowed to harden.

D represents a binder extending from end to end of the roll and connecting the plugs B. In Fig. 1 the binder is shown as a cord molded centrally in each plug and thus securely attached to both. In Fig. 2 the flat binder extends through the roll cavity and around the ends and outside of the roll, and is held between the plugs and fabric wall, the plastic material, when hardened adhering to both fabric and binder.

E represents a hollow core fitting within the roll-cavity between the plugs B, and having partitions F adapted to locate the cement can G and the package H of other articles used with the fabric of roll A. The core is formed from a sheet of straw-board or the like, the binder D running between its walls or coils with ends projecting, to be suitably secured to the roll or plug or both. The partitions are glued or otherwise connected to the inner wall of the core, and are preferably so located as to hold the can G and package H at the core ends, so that the end caps C, resting on said can and package, will serve as a bottom on which to form the plugs of the desired depth. The middle space, I, may be vacant.

In Fig. 4 J denotes a mechanical spreader which may be interposed between the separable halves of a plug when it is desired to increase peripheral adhesion to the roll fabric in that manner.

I am aware that it is common, in closing the mouths of bottles, fruit-jars, etc., to apply sealing-wax, cement and the like, over the stopper, in order to retain the volatile contents, and to exclude air and moisture. In my self-held closure for fabric-roll ends, such conditions do not exist. I use no preliminary stopper to be supplemented by a

plastic layer, but I form the plug itself from the body of expansible plastic material, applied directly to the cavity walls at the ends of the fabric roll, which yields sufficiently to allow the plugs to expand and harden simultaneously therein. This could not occur in bottle-necks without bursting them. I expressly disclaim the construction, in bottles, jars, etc., disclosed in U. S. Patents 251,565, 554,518, 579,564, and 724,607.

I claim as my invention:

1. A fabric roll having an axial cavity combined with terminal plugs formed therein from expansible, quick-hardening material applied in the plastic state and self held frictionally when hardened, substantially as set forth.

2. A fabric roll having an axial cavity and terminal, perfect fitting plugs formed therein from expansible, quick-hardening material applied in the plastic state without driving in, in combination with a hollow scroll-like core filling the cavity between said plugs, and with articles for use with such fabric inclosed within said core, substantially as set forth.

3. A fabric roll having an axial cavity and cylindrical terminal plugs formed therein from expansible, quick hardening material applied in the plastic state and self-held to the fabric walls, in combination with a tubular core within said cavity inclosing materials for use with said fabric, and with a binder secured laterally to the core and terminally to the fabric roll, substantially as set forth.

4. The described shipping package, comprising a merchantable roll of suitable fabric having the ends of its axial cavity closed by plugs formed therein from plastic, quick-hardening material which expands in hardening, combined with articles inclosed intermediately in such axial cavity, substantially as set forth.

In testimony whereof I have affixed my signature, in presence of two witnesses.

WILLIAM L. PENNEY.

Witnesses:

A. H. SPENCER,
N. W. LADD.