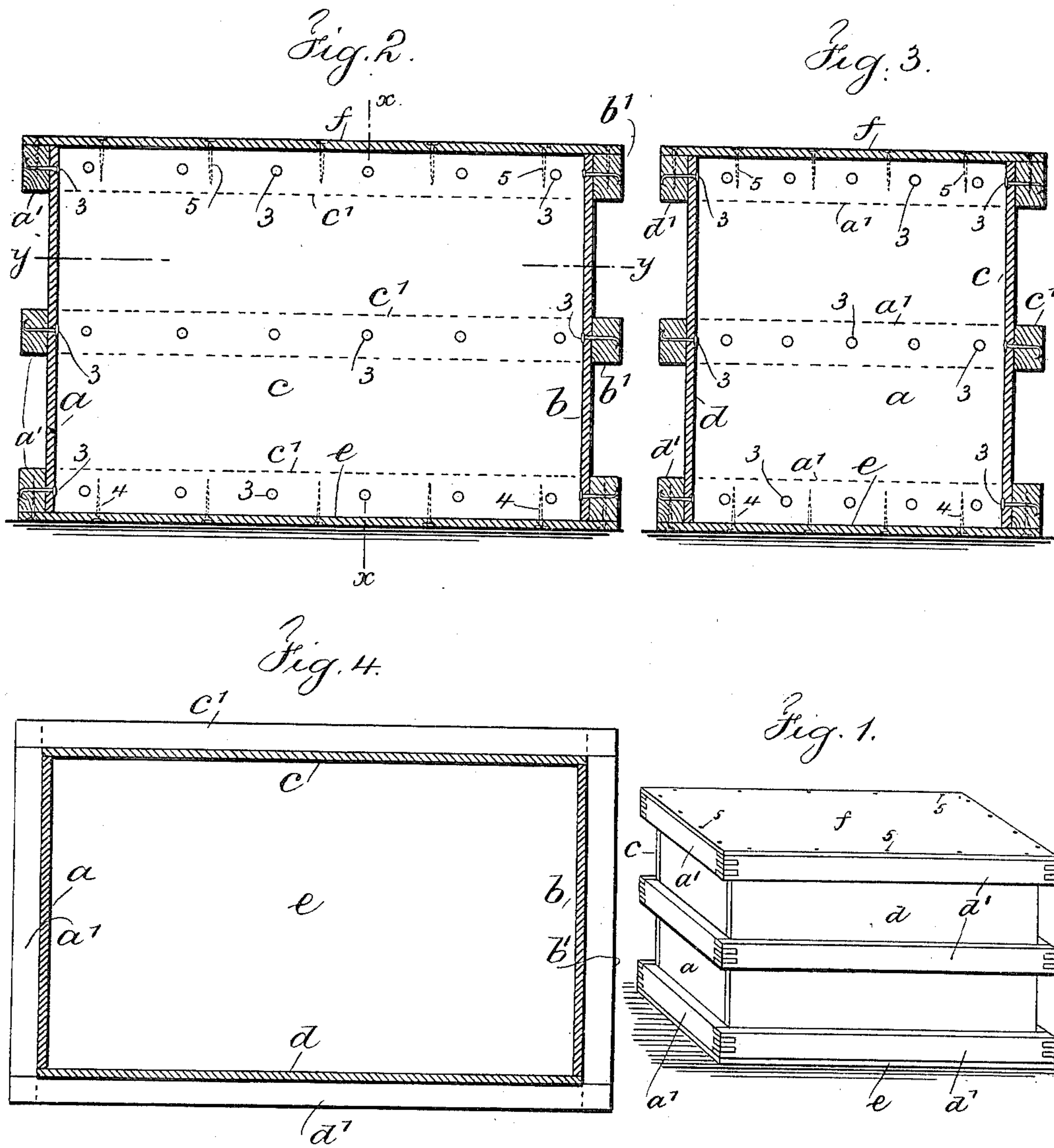


No. 659,954.

Patented Oct. 16, 1900.

E. H. BARNES.
WOODEN SHIPPING BOX.
(Application filed May 28, 1900.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

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WOODEN SHIPPING-BOX.

SPECIFICATION forming part of Letters Patent No. 659,954, dated October 16, 1900.

Application filed May 28, 1900. Serial No. 18,199. (No model.)

To all whom it may concern:

Be it known that I, ERASTUS H. BARNES, a citizen of the United States, residing at New York, (Brooklyn,) in the county of Kings and State of New York, have invented an Improvement in Wooden Shipping-Boxes, of which the following is a specification.

The present and gradually-increasing scarcity of lumber makes economy in the use of it a necessity, and in the manufacture of shipping-boxes and wooden packages of one form and another this economy makes it necessary to devise peculiar forms of structure for strength, so that the package may be light and yet strong and rigid in every direction, and at the same time the various forms of packages or boxes must be adapted to receive and hold the character of goods to be shipped therein.

The object of the present invention is to produce a shipping-box that is light, strong, and stiff, having a smooth interior surface to receive such merchandise as may be put up in packages in dry or liquid form, and in connection with my invention I employ slabs of wood veneer formed by cutting around the log of wood with the growth of the wood. These slabs of wood veneer require no after planing, and they are infinitely stronger than slabs of wood ordinarily sawed and planed.

In carrying out my invention I employ two similar end sections and two similar side sections. These sections are alike in that they are each composed of thin slabs of wood veneer with parallel battens upon one face, the ends of the battens all projecting beyond the slabs of wood and notched, so that the ends of the battens of the end sections interlock with the ends of the battens of the side sections. The faces of the slabs of wood veneer of the side sections overlap the vertical edges of the slabs of the end sections, or vice versa, and the top and bottom slabs are also of thin wood veneer. The slabs of wood veneer of the sections are secured to the surface battens by nails which pass first through the slabs and then through the battens, with the points of the nails clenched on the surface of the battens, the heads of the nails coming against the surfaces of the slabs. The interlocking ends of the battens in forming the box are preferably glued together, and the end and side sections are held in a form until the glue

sets and dries. The bottom is nailed to and upon the edges of the batten-strips, the nails passing through the slabs into the battens, and after the goods are put in the package the top is nailed down in a similar manner. It is to be understood that the end sections and side sections have batten-strips running directly along their opposite top and bottom edges, and besides these battens I prefer, except in the case of small boxes, to employ intermediate battens placed at equal distances apart. If the boxes are large, I may employ more than one batten between the edge battens.

In the drawings, Figure 1 represents a perspective view of my improved box or package. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a vertical cross-section at xx of Fig. 2, and Fig. 4 is a sectional plan at yy of Fig. 2.

$a b$ represent the similar end sections, and $c d$ the similar side sections. These are, preferably, alike—that is to say, they are each composed of thin slabs of wood veneer, with parallel battens having their ends projecting beyond the slabs of wood, the battens $a' b'$ and $c' d'$ being upon one surface of the slabs of wood veneer alone and with the length of the grain of the wood running generally in the shortest direction, usually between the bottom and top and always at right angles to the batten. The grain of the wood battens should be lengthwise. Each end and side section is shown in the preferable form and provided with three battens, one at the center and one along each opposite edge, the various battens being parallel and spaced so as to form frames of ribs completely around the package or box to bind the slabs together and stiffen the same in the direction of least resistance. The slabs of wood veneer forming the side and end sections are secured to the battens by nails 3, driven through the slabs into and through the battens, with the heads of the nails against the surface of the veneer and the points clenched in the outer surface of the battens. This prevents the slabs of wood veneer and the battens separating, and I employ for this purpose nails with broad flat heads that take a bearing upon the surface of the slabs of veneer. The ends of the battens of the end sections project slightly more than the ends of the

battens of the side sections, or vice versa, and these various batten ends are notched so as to interlock. The faces of the slabs of the sides at their ends overlap the vertical edges of the slabs of the end sections, or vice versa, so as to perfect the closure of the package, and the interlocking ends of the battens are glued together and held rigidly in a form until the glue is set and dry. The bottom *e* of the box is of a size to fit over the edges of the slabs of wood veneer and the edges of the batten frames extending around the box and is secured by nails 4, passing through the veneer slab into the edges of the battens. The top *f* is secured by nails 5 in a similar manner after the box has received its contents. The bottom and top are slabs of wood veneer similar to those of the sides. The grain of the wood of the top and bottom may run in either direction, according to the character of the box.

The strength of the box resides in the interlocking corners of the various battens, and the fact that the slabs of wood are what is known as "veneer," made by cutting the log around with the growth of the wood, thus utilizing a material or modern product demonstrated to have greater strength than wood cut in any other manner, together with the manner of driving and clenching the nails, so that separation of the slabs and battens is practically impossible. The strength of the box is also assisted by the bottom and cover being secured by nails passing directly into the battens rather than into thin strips of wood, and in the further fact that the sides are tied by the lengthwise grain of the wood of the bottom and top.

I claim as my invention—

1. A wooden shipping box or package, comprising similar side and end sections each

composed of a slab of wood veneer and parallel battens upon one surface thereof, with the grain of the veneer running at right angles to the battens, and the battens secured to the slab by nails passing first through the slab and then through the battens and clenched on the surface of the battens with the ends of the battens projecting interlocked and secured at the respective corners, and the vertical ends of opposite slabs overlapping the edges of adjacent slabs, and a bottom and top each composed of thin slabs of wood veneer extending over and connected to the battens by nails passing through the veneer into the battens, substantially as set forth.

2. A wooden shipping box or package, comprising similar side and end sections each composed of thin slabs of wood veneer with parallel battens along the respective opposite edges and with a center batten, the battens being secured to the slabs by nails passing first through the slabs and then through the battens and clenched on the surface of the battens, the grain of the wood veneer running at right angles to the length of the battens, and the ends of the various battens projecting and notched and firmly interlocked, the one with the other at the respective corners and held together securely by glue, and the top and bottom each composed of thin slabs of wood veneer extending over and secured to the various edge battens of the end and side sections by nails passing through the veneer into the battens, substantially as set forth.

Signed by me this 21st day of May, 1900.
ERASTUS H. BARNES.

Witnesses:

GEO. T. PINCKNEY,
BERTHA M. ALLEN.