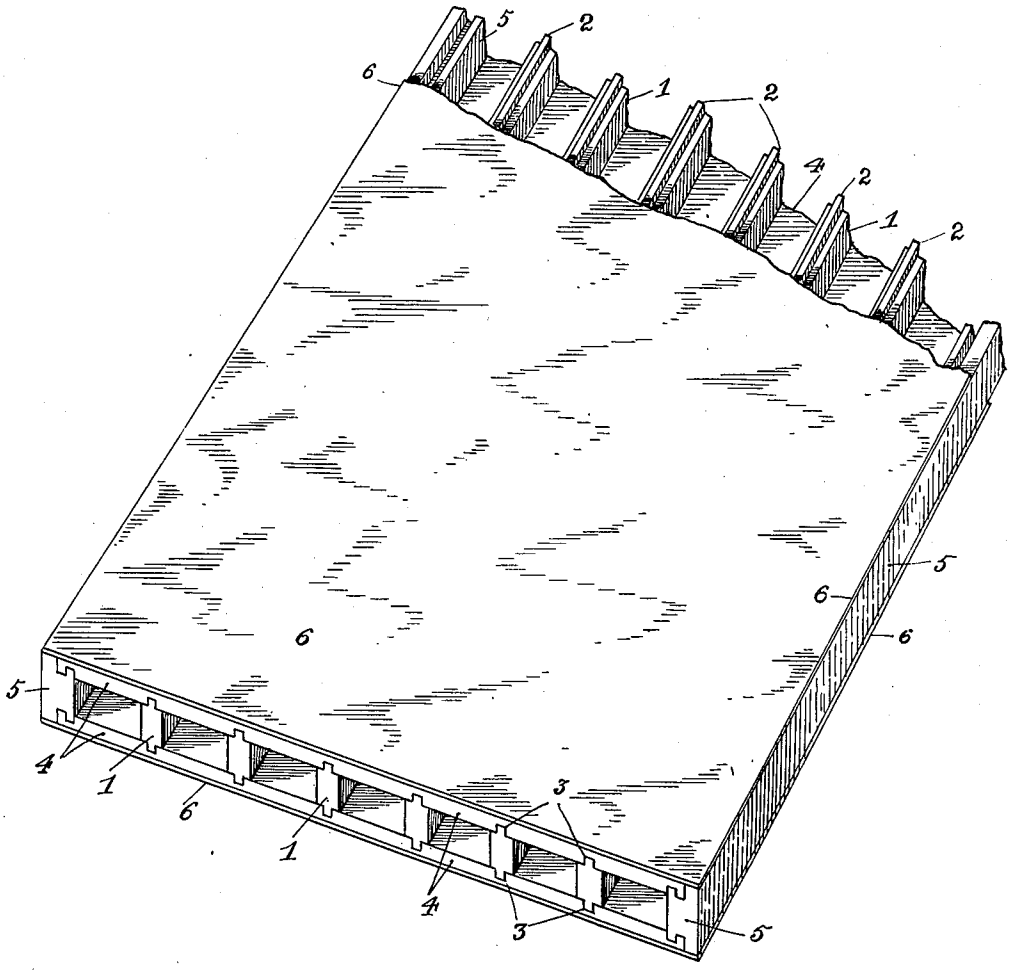
No. 881,074. PATENTED MAR. 3, 1908.

J. HOELLIG & M. LIDSTER.

HOLLOW BUILT-UP MATERIAL FOR WOODEN STRUCTURES.

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UNITED STATES PATENT OFFICE.

JOSEPH HOELLIG AND MILNER LIDSTER, OF LOS ANGELES, CALIFORNIA.

HOLLOW BUILT-UP MATERIAL FOR WOODEN STRUCTURES.

No. 881,074. Specification of Letters Patent. Patented March 3, 1908.

Application filed September 6, 1907. Serial No. 391,679.

To all whom it may concern:

Be it known that we, JOSEPH HOELLIG and MILNER LIDSTER, both citizens of the United States, residing in the city of Los Angeles, county of Los Angeles, and State of California, have invented new and useful Improvements in Hollow Built-Up Material for Wooden Structures, of which the following is a specification.

Our invention relates to hollow built up material for use in doors and other like structures and the object thereof is to provide a built up material formed of wood so secured together that a considerable portion of the center thereof shall consist of hollow channels whereby a strong and light built up material is produced with a minimum amount of structural material. We accomplish this object by the built up material described herein and illustrated in the accompanying drawings as forming a door, which drawing is a perspective view of the lower portion of a plain door constructed of built up material.

In forming wooden doors it has been customary to use a central core formed of strips running longitudinally the door and to glue upon such longitudinal strips on both sides of the same cross strips. In gluing these strips more or less glue exudes from the meeting edges and before the outside veneer can be put upon the door it is necessary that the glue shall become thoroughly set and dried and after the glue is dried the material thus far prepared must be run through a machine to take off the ridges of glue at the seams in order to have a smooth surface upon which to glue the outside veneer. In this process it requires two distinct and separate handlings of the central portions to which the veneer is secured, and the door is a solid heavy door.

In our improved door instead of forming a central core of solid material we provide central strengthening strips 1 which run longitudinally of the completed door and are provided with tongues 2 in the edges thereof which are received in channels 3 in the cover-board 4. The grain of the outside filler preferably runs at right angles to the grain of the strengthening strips. At the edges of the door are the outside bands 5 which are tongued and grooved to fit into the outside channels of the cover-boards and to be flush with the surface thereof. Covering the cover-boards and edge bands are the sheets of veneer 6. These outside bands are preferably of the same material as the veneer. If the edge of the door is veneered the bands can be omitted and a strengthening strip used which will be flush with the cover-board.

In the preparation of the parts the inside strengthening strips would all be run through a sticker so as to be of uniform dimensions. The cover-boards would also be run through a machine which would reduce them to a uniform thickness and plow therein channels to a uniform depth. The grain of the inside strengthening strips preferably runs the length of the door and these strips are cut of a length equal to that of a completed plain door. The grain of the cover-boards preferably runs at right angles to the grain of the inside strengthening strips, and the grain of the veneer preferably runs at right angles to the grain of the cover-boards. In assembling the parts the veneer which is to form one side of the door would be placed upon the press and the cover-board for that side would be placed thereon with glue therebetween. The inside strengthening strips and the outside bands would then be placed in position with the required amount of glue at the respective meeting places. The cover-board for the other side would then be placed in position with the required amount of glue at the joints. The veneer for the other side of the door would then be placed in position with the necessary glue between it and the cover-board. The parts thus assembled would then be firmly pressed together in the usual well known manner and permitted to dry. By this construction a door is produced that is much stronger than the ordinary built up door and at the same time is much lighter and takes less material and the same can be formed ready for use in much less time, as the parts can all be put together and glued at one operation.

Although we have shown our invention applied to a 5-ply hollow door, the same may be used in the formation of hollow window sashes, window frames, and in the construction of wooden furniture such as desks, wardrobes and other like structures. In the construction of furniture it would not be necessary that both sides should be provided with a veneer unless both parts of the built up boards are visible when in use. In some cases it would not be necessary to use

a veneer as the cover-board could be used for the outside surface of the prepared article, but by use of the veneer a cheaper wood could be used for the cover-board to give the necessary strength and a thin veneer of more expensive wood used on the outside to produce a finished handsome appearance.

Having described our invention what we claim is:

1. Built up material for use in wooden structures comprising strengthening strips spaced apart and provided with central longitudinal tongues; and outside grooved cover-boards secured upon said strengthening strips, the grain of the strengthening strips running longitudinally the body, and the grain of the coverboard running at right angles to that of the strengthening strips.

2. Built up material for wooden structures comprising spaced apart strengthening strips provided with central, longitudinal tongues on the side thereof, the grain of said strips running longitudinally the body thereof; coverboards having the grain thereof running at right angles to the grain of the strengthening strips and having spaced apart grooves therein for the reception of the tongues of the strengthening strips; and outside veneer for said coverboards having the grain running at right angles to the grain of the cover board.

3. A built up door composed of strengthening strips provided with longitudinal central tongues, said strips being spaced apart; cover-boards having channels therein for the reception of the tongues of the strengthening strips; and veneer secured upon said cover-boards, the grain of the strengthening strips running longitudinally the body, and the grain of the coverboard running at right angles to that of the strengthening strips.

4. A built up door composed of strengthening strips provided with longitudinal central tongues, said strips being spaced apart; tongued and grooved bands; cover-boards having channels therein for the reception of the tongues of the strengthening strip and outside bands; and veneer secured upon said cover-boards and bands, the grain of the strengthening strips running longitudinally the body, and the grain of the coverboard running at right angles to that of the strengthening strips.

In witness that they claim the foregoing they have hereunto subscribed their names this 30th day of August, 1907.

JOE HOELLIG.
MILNER LIDSTER.

Witnesses:
E. E. HARPHAM,
S. B. AUSTIN.