

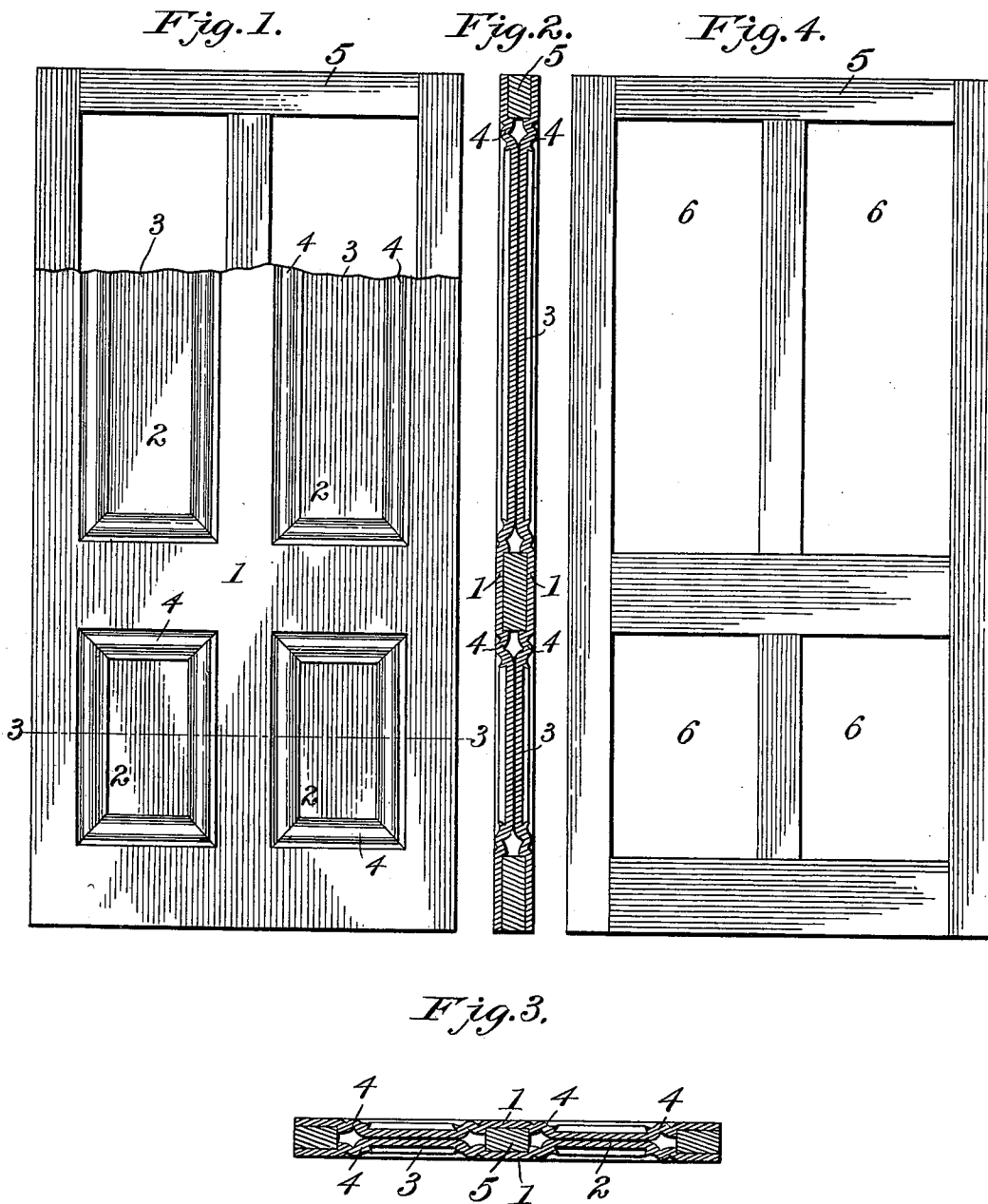
No. 636,817.

Patented Nov. 14, 1899.

J. M. LEAVER.
DOOR.

(Application filed July 25, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

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DOOR.

SPECIFICATION forming part of Letters Patent No. 636,817, dated November 14, 1899.

Application filed July 25, 1899. Serial No. 725,110. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. LEAVER, a citizen of the United States, residing at Bay Mills, in the county of Chippewa and State of Michigan, have invented a new and useful Door, Shutter, or Like Article, of which the following is a specification.

This invention relates to doors, shutters, and like articles; and it has for its object to provide an improved structure which will greatly cheapen the manufacture of such articles, which are ordinarily constructed of wood; and the improvements contemplated by the present invention, while susceptible to embodiment in the construction of shutters and similar mill products, are especially designed for the construction of doors, to provide a cheap, durable, and easily-constructed door which will be free from many of the defects of a door composed entirely of wood.

Doors constructed entirely of wood are objectionable in most cases on account of the shrinkage or swelling of the material, especially in the panels, as at times this shrinkage is sufficient to produce cracks or openings which mar the appearance of the door and at the same time permit dust and draft to pass therethrough. The present invention obviates these objections and at the same time provides a door or similar structure thoroughly practical and durable, while also susceptible to a wide range of ornamentation.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is an elevation, partly in section, of a door constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a cross-sectional view on the line 3 3 of Fig. 1. Fig. 4 is a plan or elevation of the skeleton wooden frame or core for the door.

Referring to the accompanying drawings, the numerals 1 1 designate two duplicate sheets of paper, wood-pulp, or equivalent sheet material cut in the proper dimensions to form the door, shutter, or like article and stamped or pressed to be given the usual con-

figuration or shape of such article. The said duplicate sheets of material 1 1 form the body of the door or other structure and may be properly termed the "body-sheets," and in the construction of a door the said body-sheets are stamped or pressed with the usual rectangular panels 2, having the sunken and raised portions 3 and 4, respectively.

In all forms of doors, shutters, and like articles constructed in accordance with this invention the body-sheets 1, having the depressed and raised portions 3 and 4, are arranged back to back to present duplicate surfaces at opposite sides of the structure, and it will be observed that the raised portions 4 of the panels not only act in the capacity of bracing-ribs; but also form ornamental molding projections when impressed with a suitable design. It will also be understood that the outer faces of the panels, as well as the stiles and rails of the door, may be provided with any decoration or ornamentation as may be desired, and, further, the sheets 1 of paper, wood-pulp, or equivalent material may be made in imitation of various woods and enameled or decorated in any preferred way without departing from the principle of the invention.

In carrying out the invention the back-to-back body-sheets 1, of stamped or pressed material, constitute the main body portion of the door, shutter, or like article; but to render the structure sufficiently solid and rigid the said sheets are used in connection with a skeleton wooden frame or core 5, having the configuration of the door or other article and provided with panel-openings 6 to receive the inwardly-projecting panels. The skeleton wooden frame or core 5 forms a filling for the stile and rail portions of the door, as plainly shown in the drawings, and to provide for permanently securing or fastening the parts together the inner surfaces of the sheets 1 are coated with glue or cement at the points where they contact with the faces of the skeleton frame or core 5. The said sheets are then applied to opposite sides of said frame or core under pressure with or without the use of heat, as may be found necessary. The same result is secured by coating the faces of the frame or core with the glue or cement instead

of coating the inner surfaces of the body-sheets; but there is no fastening connection between the depressed portions of the panels, as such portions are not adhesively joined, or, in other words, may be said to be out of adhesive contact.

Under some conditions the structure may be modified for the reception of glass panels, especially when the door is designed for use as an ornamental front door; but in all modifications of the invention the sheets of material and the core are arranged and secured together in the same way, so it will be understood that any changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A door or like article, consisting of a frame or core having panel-openings therein, two pieces of sheet material arranged back to back respectively upon opposite sides of the frame or core with their panel portions projecting into the openings thereof, and adhesive means for joining the sheets with the

frame or core at the points of contact therewith, substantially as set forth.

2. A door or like article of manufacture, consisting of a wooden frame or core having panel-openings therein, two duplicate sheets of paper or pulp material arranged respectively upon opposite sides of the frame or core, and adhesive means for tightly joining together the sheets with the frame or core at the points of contact therewith, substantially as set forth.

3. A door or like article of manufacture, consisting of a wooden frame or core, having panel-openings therein, two duplicate sheets of paper or pulp material arranged respectively upon opposite sides of the frame or core, said sheets being out of adhesive contact, and adhesive means for tightly joining together the contacting portions of the sheets with the frame or core, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES M. LEAVER.

Witnesses:

MAUDE L. CAMPBELL,
JNO. E. MCPARLAN.