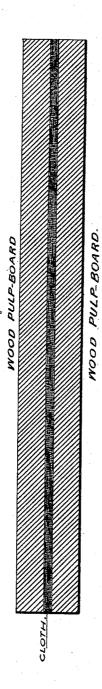
(No Model.)

R. A. ADAMS.

PANEL.

No. 294,838.

Patented Mar. 11, 1884.



Witnesses: McGeorge Bundy. black H. Gleason.

Inventor Robert A Adams

## UNITED STATES PATENT OFFICE.

ROBERT A. ADAMS, OF GRAND RAPIDS, MICHIGAN.

## PANEL.

SPECIFICATION forming part of Letters Patent No. 294,838, dated March 11, 1884. Application filed July 2, 1883. (No model.)

To all whom it may concern:
Be it known that I, ROBERT A. ADAMS, a citizen of the United States, residing in the city of Grand Rapids, in the county of Kent 5 and State of Michigan, have invented a new and useful Improvement in Panels, of which

the following is a specification.

It has already become difficult to procure "clear stuff" boards of requisite width for 10 panels to be used in building and manufacture, and resort has to be made to the jointing of several pieces to make clear board panels of required widths. Panels of one or more boards are also extremely liable to checking and split-15 ting from the effect of changing weather, and no means have been found to prevent board panels from warping. Lumber clear enough to make first-class panels is, from its scarcity, very costly. Numerous substitutes for lum-20 ber in the manufacture of panels have been proposed and their use attempted; but none has yet been found to combine the qualities of lightness, strength, stability, the capacity to receive and hold paint, oil, or finish with-25 out injury, with cheapness.

The object of my invention is to provide panels and a material for panels that possess at once the qualities of cheapness, lightness, strength, stability, and the capacity to receive 30 and hold paint or other finish without softening or injuring the panel, and all without danger of checking, splitting, or warping.

The following is a description of my invention and its manufacture: I take two or more 35 sheets of "wood board," by wood board meaning wood pulp mixed with any suitable size and pressed or rolled into sheets and dried. These sheets of wood board are of the size and shape I wish to give my panel. Between the 40 sheets of wood board, or between the two innermost where more than two are used, I place a piece of cloth of the full dimensions of the

panel to be made. All the several sheets of wood board and the cloth are then securely cemented together with any suitable elastic 45 water-proof glue or cement, the glue or cement being applied to the entire surfaces in contact, and the layers are then subjected to pressure sufficient to make all the surfaces cohere. When dry the panel is complete and 50 can be worked and used like and as a board

By the employment of wood board or wood pulp in sheets I secure a panel-surface that will hold and retain oil, paint, varnish, or other fin- 55 ish without in any manner becoming softened or injured by such application, and which can be decorated and polished like board. Veneer can be safely and securely placed upon such panels in the usual manner.

The introduction of cloth as a layer between the sheets of wood pulp or wood board and the use of elastic glue or cement prevent any permanent warping of the panel whatever—a thing impossible to prevent in any combina- 65 tion of wood sheets, either as wood pulp, wood board or veneer without such cloth and elastic glue or cement. The wood board suffers no change from change of weather, temperature, or climate, never cracking, splitting, or 7c warping.

Having described and explained my invention and its purposes, what I claim as new, and wish to secure by Letters Patent, is-

The combination, in a panel, of sheets of 75 wood board or wood pulp with the sheet of cloth inserted, as described, and all cemented with any suitable elastic glue or cement, substantially as described.

ROBERT A. ADAMS.

Witnesses: BIRNEY HOYT, McGeorge Bundy.