

UNITED STATES PATENT OFFICE.

BASSETT CADWALLADER, OF PARKERSBURG, WEST VIRGINIA.

MANUFACTURE OF ARTICLES FROM WOOD PULP.

SPECIFICATION forming part of Letters Patent No. 304,169, dated August 26, 1884.

Application filed March 24, 1884. (No specimens.)

To all whom it may concern:

Be it known that I, BASSETT CADWALLADER, a citizen of the United States, residing at Parkersburg, in the county of Wood and State of West Virginia, have invented certain new and useful Improvements in the Manufacture of Articles from Wood Pulp, of which the following is a specification.

My invention relates to the manufacture of articles from wood pulp or vegetable fiber. The object of my invention is to produce various articles—such as letters, figures, numerals, scrolls, &c.—which will not warp or crack by climatic changes or be liable to be broken while being handled, and at the same time produce cheap, durable, and ornamental articles which will take the place of like articles made from metal, glass, or vitrifiable material; and to this end my invention consists in making sheets or boards from wood pulp or vegetable fiber of any desired thickness, and in imitation of any of the natural woods, and sawing or cutting therefrom letters, figures, numerals, scrolls, or ornamental work.

In carrying out my invention I reduce the wood to a finely-divided fibrous condition by any of the well-known methods of reducing wood to pulp in the manufacture of paper. The pulp thus prepared is combined with any adhesive substance which will render the article hard and capable of being finished to a high degree of polish. Glue or gelatine and bichromate of potash in suitable proportions, I find, will produce good results as a binding compound, and also in waterproofing the mass and rendering it impervious to water and climatic changes. Other waterproofing and binding material may be used which will produce the desired results. The mass of fiber and binding material are mixed and thoroughly incorporated together with water or other suitable solvent liquid to render the mass semi-plastic, so that it can be rolled out into sheets or boards of any desired thickness. While the mass is in a dry or semi-plastic condition coloring-matter may be added to give to the mass any desired tint or color, either in the imitation of natural wood or of other material.

The staining, coloring, or ornamenting in imitation of the costly kinds of wood or of marble, slate, &c., may be done after the boards or sheets have been formed and seasoned; or the articles may be cut from the boards and afterward ornamented and polished.

Letters, characters, figures, or designs thus made can be transported from place to place without liability of being broken or damaged, and can be readily glued or otherwise secured to sign-boards or other places or on articles intended to be ornamented, as may suit the inclination of the purchaser. Furthermore, the articles made from the compound board of wood pulp or vegetable fiber are not liable to warp, curl up, or crack by exposure to inclement weather, and may be used wherever painting or other ornamental decoration is required.

As before indicated, the letters, numerals, figures, &c., may be cut from straw-board when the same is made with a suitable binding material capable of receiving a high degree of polish.

The boards or lumber, whether made from wood or straw pulp, are of any desired thickness, and in the process of manufacture are subjected to a degree of pressure which will render them very solid and compact, so that the articles made therefrom are capable not only of receiving a high degree of polish, but are adapted to be easily ornamented by cutting or carving.

When desirable for additional protection, articles made from wood pulp or vegetable fiber and a binding material, to be used as described, may be coated after manufacture with bichromated gelatine or glue, shellac, or other waterproofing, and afterward ornamented, as described.

I am aware that it is not new to form sheets or slabs of pulp of uniform texture throughout, and then cutting or punching therefrom, while the slabs are in proper temper, blanks of the desired shape, and in pressing and forming said blanks to the desired configuration or shape, and such I do not claim.

Having thus described my invention, what I

claim, and desire to secure by Letters Patent,
is—

1. As new manufactures, the articles herein
described cut, or sawed from lumber or boards
5 made of wood pulp and an adhesive or binding
material, as set forth.

2. Designs, figures, numerals, and letters
cut or sawed from lumber or boards the main
body of which is composed of wood or vege-

table fiber and a cementing or binding ma- 10
terial.

In testimony whereof I affix my signature in
presence of two witnesses.

BASSETT CADWALLADER.

Witnesses:

CHARLES J. SCOTT,
C. A. SWEARINGEN.