

# United States Patent Office.

WILLIAM M. BRYANT, OF ALEXANDRIA, VIRGINIA.

*Letters Patent No. 102,484, dated May 3, 1870.*

## IMPROVEMENT IN PREPARING THE PITH OF CORN-STALKS FOR USE IN THE ARTS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, WILLIAM M. BRYANT, of Alexandria, in the county of Fairfax and State of Virginia, have invented a new and valuable Method of Manufacturing Vegetable Piths; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

My invention relates to means for utilizing the pith of the corn-stalk; and consists in the mode of manufacture whereby it is strengthened and rendered capable of retaining its form when made into light articles, such as fishing-corks, pipes, vial-corks, sachet-cards, and other articles of like nature.

The nature of the pith of the corn-stalk is well known. It has ever been a refuse substance, allowed to perish in the field of its growth. It is extremely light, brittle, porous, and easily pulverized by handling. Fibrous threads disconnected from each other extend lengthwise through its substance. It constitutes the bulk of the stalk, and contains much of the silicate, which enters into the composition of the tough external case or covering thereof.

On account of its brittleness and porosity, the pith, when subjected to pressure, gives way before it with but little resistance, caused chiefly by the tenacity of the fibrous threads which run through it. Hence, it is apparent that although this substance possesses valuable requisites, in its porosity and lightness, for the manufacture of a certain class of articles, it is necessary so to prepare it that it will sustain its form under ordinary pressure, and bear handling without disintegration of its exterior surface.

In the accomplishment of the latter object, I have designed to follow, as well as may be, the plan adopted by nature in case-hardening the stalk. Thus, I cover the exterior of the manufactured article with some tenacious material, such as cloth, paper, varnish, paint, &c., thereby entirely protecting the soft exterior surface.

When the article is liable to come in contact with water the covering is made waterproof.

The former object is attained by compression; in other words, by compressing the pith in the manufacture, it is designed to give it sufficient body to enable it to withstand any similar amount of pressure afterward.

The pores of the pith may be saturated to accomplish different objects; sachet-cards, corks of vials, &c., made of it may be perfumed in this way.

Thus, also, by extracting the fibrous threads and saturating the pith in the juice of macerated tobacco leaves, cigarettes of peculiarly-pleasant flavor may be produced.

Many delight in the superior excellence of the rude corn-cob pipe, and it is well known that the inner leaves of the shock are preferred as a material from which to make the casing of cigarettes; but pipes made of the pith of the stalk possess not only the sweet flavor of the above, but also the qualities of porosity and extreme lightness.

Vial corks, which are becoming expensive from the scarcity of the cork-tree, may be readily made from this pith, in the manner indicated, and so cheaply that all can avoid the dangerous practice of using old corks a second time.

In the manufacture of the above and other similar articles, it is proposed to reclaim this valuable material which, year after year, is allowed to fall to decay and dust in the fields about us.

What I claim as my invention, and desire to secure by Letters Patent, is—

The process of manufacturing vegetable pith by compression, and coating with tenacious material, substantially as specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM M. BRYANT.

Witnesses:

E. W. ANDERSON,  
D. D. KANE.