

United States Patent Office.

JAMES R. COLE, OF DEMOPOLIS, ALABAMA.

Letters Patent No. 101,101, dated March 22, 1870.

IMPROVED COMPOSITION FOR THE MANUFACTURE OF TOBACCO-PIPES, STEMS, AND CIGAR-HOLDERS.

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, JAMES R. COLE, of Demopolis, in the county of Marengo and State of Alabama, have invented a new and useful Composition for the Manufacture of Tobacco-Pipes, Stems, and Cigar-Holders; and I hereby declare the following to be a full and exact description of the same.

The nature of my invention consists in using paper pulp, such as used in the *papier-maché* processes for other purposes, combined with alum or other equivalent material, so as to form a plastic substance, to be molded into the articles above named.

The following will enable others to make and use my invention.

I take paper pulp or half-stuff, such as made by disintegrating, pulping, or grinding any fibrous plant or product, such as linen, cotton, ramie, wood, or other vegetable fibre. This is made into a pulp or emulsion, and with it is mixed a solution of alum. The proportion of alum should be only such as to render the compound non-inflammable. The pulp is then pressed into molds in the same manner as in making other *papier-maché* forms.

I have described here the use of a solution of alum to render the compound incombustible, but other salts may be used instead, such as the soluble silicates of potash and soda, (water glass,) either alone or mixed with lime, chloride of calcium, sulphate of iron, or other salt which will effect a double decomposition, and render the silicate both insoluble and incombustible.

I prefer to use the ordinary paper pulp, but any vegetable pulp, wood pulp, or wood ground to an impalpable powder, may be used instead. The exact proportions for mixing these materials cannot be given, but can be easily ascertained by any workman, the object being to form the composition so as to be plastic and capable of being molded, so as to retain any ornamental design which may be put upon it.

Any suitable pigments may be added to the compound, so as to color it or give it a variegated or marble appearance.

The stem need not be made non-inflammable, and it may be of any length, and so manufactured as to receive the amber, bone, or other mouth-piece made to screw into it, or made to fit without threads.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The improved composition herein described, for making tobacco-pipes and cigar-holders, composed of paper pulp and saline substances, such as those above named.

2. The new manufacture of a tobacco-pipe, made of the materials and substances as described.

3. The new manufacture of pipe-stems and cigar-holders, made of paper pulp, as described.

JAS. R. COLE.

Witnesses:

THOS. W. ROBERTS,
W. P. WHITE.