UNITED STATES PATENT OFFICE.

WILLIAM H. BRAWLEY, OF NEW YORK, N. Y., ASSIGNOR OF TWO-THIRDS TO CHARLES N. COLES, OF SAME PLACE, AND JOHN B. COLES, OF BAYONNE, NEW JERSEY.

SLATING COMPOUND.

SPECIFICATION forming part of Letters Patent No. 569,004, dated October 6, 1896.

Application filed March 30, 1896. Serial No. 585,461. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM H. BRAWLEY, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Slating Compounds, of which the following is a specification.

My invention relates to an improvement in slating compounds adapted to impart to the various substances or articles to which it is applied a surface capable of being readily written upon by a lead-pencil or a like instrument, the surface being of such a nature that the marks made by writing or drawing upon the slated surface may be conveniently and expeditiously expunged from the surface by the use of water and a cloth, sponge, or the equivalent thereof.

A further object of the invention is to so improve upon the composition of this nature as to produce a slated surface which will also be exceedingly smooth and practically polished.

The invention consists in the combination of ingredients to be hereinafter fully set forth, and pointed out in the claims.

In preparing my slating-surface I employ aluminium oxid in the form of a fine powder, which is united to the base by means of a solution of shellac, made either by means of an alkali in water or by means of alcohol.

In operating I proceed as follows: To about one pound of shellac, preferably purified white shellac in gum form, I add half a pound of borax and about one gallon of water and allow this to dissolve. Preferably the solution is expedited by heating in a hot-water bath. I then dilute the solution with about half a gallon of water and add half a pound of alumina, (Al_2O_3.) The resulting liquid is applied as a first coating to the cardboard, wood, tin, or other material forming the foundation of the slate. This coated sheet is then allowed to dry. The paper or other slated surface, being now "filled" with the first coat, is ready to act as a foundation for my second slating-coat. Before applying the second coat I prefer to sandpaper or calender the paper or other first-coated material.

The solution for the second coat is prepared as follows: I dissolve one pound of white shellac in one-half a gallon of alcohol and add one-quarter of a pound of alumina, and to this I add one quart of alcohol to reduce the same. This applied as a varnish to finish the sheet makes the same thoroughly waterproof.

The slating above described can be used on cheap material without discoloring it. Any suitable coloring-matter may be added in case a black or other colored surface is desired, or it can be used as a transparent marking-surface by omitting coloring-matter. The texture of the paper is not destroyed, the surface is smooth and even, it will not crack, it may be written upon by lead-pencil and the writing or drawing erased without leaving trace of the marks, and I have succeeded for the first time in making a slating-surface thoroughly waterproof.

The proportions above stated may be varied considerably. I state merely proportions which I have found efficient. Either pure grain-alcohol or wood-alcohol may be used.

The application of the coats may be by brush, by machine, or by dipping the sheets in tanks containing the solutions.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A slating compound comprising shellac, alcohol and alumina, mixed in substantially the proportions and in the manner set forth.

2. A slating compound comprising a shellac solution and alumina, as set forth.

WILLIAM H. BRAWLEY.

Witnesses:

HARRY E. KNIGHT,

M. V. BIDGOOD.