

# UNITED STATES PATENT OFFICE.

ROBERT E. HAIRE, OF LONDON, ENGLAND.

## WALL-FINISH COMPOUND.

SPECIFICATION forming part of Letters Patent No. 521,143, dated June 5, 1894.

Application filed February 26, 1892. Serial No. 422,899. (No specimens.)

### *To all whom it may concern:*

Be it known that I, ROBERT E. HAIRE, a citizen of the United States of America, residing at London, England, have invented certain new and useful Improvements in Wall-Finish Compounds, of which the following is a specification.

The object of my invention is to produce an adhesive composition of animal glue and pulverized calcined gypsum or other base, capable of reduction to a plastic or liquid condition required for application to walls and like purposes in cold water, or in water at ordinary atmospheric temperatures. Heretofore such compositions have been made containing animal glue and calcined gypsum, chalks, dry paints and other substances, but such compositions are reducible only in hot water.

The compositions above specified are perfectly practicable and are extensively used but their use is attended with some inconveniences and is liable to imperfection or failure through inattention of the workman, who sometimes fails to have the water at the proper temperature, or to stir the composition sufficiently when the water is hot or to let the hot mixture stand too long without stirring it when calcined gypsum is used; and when the water is hot and the glue thin, the water is liable to attack the gypsum at once and make it harder to control the setting of the gypsum.

I have discovered that if the glue is sufficiently fine, strong or adhesive animal glue in the proportions required to form an adhesive compound, may be mixed with a base such as pulverized calcined gypsum, chalk or other substances used for such purpose, and the composition so made is reducible to a plastic or liquid condition of adhesive nature and fit for application to walls and other surfaces as a plastic or liquid by the addition of water at ordinary atmospheric temperatures.

I use a proportion of about five to six pounds of good animal glue to one hundred pounds of the base but the proportions may be varied according to the strength of the glue, and the kind of base. I use as a base calcined gypsum, or an inert base such as chalk or dry paint or like substances.

To form the mixture and reduce the glue

to the required fineness I separately grind the glue as finely as is practicable to grind the glue alone, for example to the grade of ordinary granulated sugar. I then mix the dry pulverized glue with dry pulverized calcined gypsum or other base in the same condition and in the proportions specified and grind them together without hard friction. I use preferably for grinding the material, the mill shown in Letters Patent of the United States, granted to M. B. Church on the 13th of June, 1882, and numbered 259,495. Instead of first mixing the materials and then grinding, they may be run together, in properly regulated proportions, into the eye of the mill as the grinding progresses. The grinding must be carried to such a degree of fineness that the resulting mixture is reducible by the application thereto of water at ordinary atmospheric temperatures. This is a test of the mixture and indicates when a proper degree of fineness has been reached.

As animal glue, when exposed to the atmosphere, rapidly absorbs moisture it is advisable, as a precaution to dry the glue before subjecting it to the grinding processes described.

I do not limit myself to the particular method described above of making the compounds.

I claim as my invention—

1. An adhesive composition consisting of a base, as pulverized calcined gypsum, and animal glue, substantially in the proportions of five or six pounds of the glue to one hundred pounds of the base, the glue being in a finely divided condition and mixed with the base and capable of being reduced in cold water, substantially as described.

2. The hereinbefore described method of making an adhesive compound of animal glue and a base, consisting in grinding the glue and base separately, and then grinding both together, the ingredients being in a dry condition when ground, and so finely divided as to be capable of being reduced in cold water, substantially as described.

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

ROBERT E. HAIRE.

Witnesses:

WM. W. JACKSON,  
ALB. J. JACKSON.