

# UNITED STATES PATENT OFFICE.

CHARLES S. APPLE, OF BELLAIRE, OHIO.

## ADHESIVE PENCIL.

SPECIFICATION forming part of Letters Patent No. 502,163, dated July 25, 1893.

Application filed February 27, 1893. Serial No. 463,953. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES S. APPLE, a citizen of the United States, residing at Bellaire, in the county of Belmont and State of Ohio, have invented certain new and useful Improvements in Adhesive Pencils; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to a new and improved adhesive pencil, that is to say, a stick of adhesive composition.

The present invention also relates to a new composition of ingredients of which the said improved adhesive pencil is to be formed, and to a novel process or method of combining the said ingredients and of constructing the adhesive pencils.

Referring first to the said composition of ingredients for the adhesive pencils, it is composed of the following substances in or about the proportions specified, viz., dextrine, twenty-eight (28) ounces; cold water, thirty-two (32) ounces; best glue, fifty-four, (54) ounces; zinc white, four (4) ounces; glucose, one hundred and sixty (160) ounces.

The proportions may be modified in many particulars without materially affecting the proper and desirable characteristic of the pencil. The zinc white specified (oxide of zinc or common zinc paint) should be the best and purest obtainable on the market. I have experimented with entirely satisfactory results, and consider preferable to all other, the zinc white (green seal) manufactured by the Bielle Montague Company of France. The glucose mentioned in the proportion indicated gives to the pencil when completed, a rubber-like consistency and when more or less glucose is added, the pencil will be softer or harder, as may be required. Instead of glucose, common molasses may be substituted which, however is not desirable, since molasses is not only more expensive than glucose, but does not answer so well.

Referring second, to the method or process of, or by which the several ingredients, in the proportions specified are compounded together, I proceed substantially as follows:

The dextrine is first put into the cold water in a suitable vessel and is placed over a fire and heated until the dextrine is entirely dissolved, which occurs at about the time the water commences to boil. This mixture is now poured over the glue and the zinc white is then sifted over the whole. This mass is then allowed to stand for eight hours more or less, after which the vessel containing it is placed in a water bath, and heat is applied until the several ingredients are melted and become thoroughly incorporated. While this mass is still in the water bath the glucose (having been previously heated to the consistency of thin mucilage) is poured in and stirred until all of the ingredients are thoroughly mixed. This hot mixture is poured into suitable cylindrical tubes and allowed to cool whereupon the pencils will be completed.

When in use, the end of the composition is to be moistened by the lips, tongue, or otherwise and applied to the surfaces which are to be united.

I have found that this adhesive pencil can be used as a perfect substitute for mucilage and glue under all conditions, and that it will always retain its soft rubber-like consistency.

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

An improved composition for adhesive pencils, consisting of dextrine, cold water, glue, zinc white and glucose, substantially as described.

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

CHARLES S. APPLE.

Witnesses:

J. G. MCCOLLOUGH,  
J. GOSBY.