

# UNITED STATES PATENT OFFICE.

WILLIAM HARDING, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN COMPOSITION FOR FILLING THE GRAINS OF WOOD.

Specification forming part of Letters Patent No. **139,670**, dated June 10, 1873; application filed January 8, 1873.

*To all whom it may concern:*

Be it known that I, WILLIAM HARDING, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Composition for Filling the Grains of Wood preparatory to applying color or paint; and I hereby declare that the following is a full, clear, and exact description of the same.

In the manufacture of the running-gear and bodies of coaches and carriages it is necessary, in order to get a beautiful smooth surface upon which to apply color, to fill up the grains of the wood. Heretofore this has been done by applying a coat of white lead, allowing it to dry, and then removing it with sand-paper down to the wood itself, thereby leaving some of the paint in the grains. This painting and sand-papering is done two or more times before the grains are considered properly filled. The operation consumes considerable time, and is regarded as very unhealthy, because the operator is likely to inhale the paint rendered pulverulent by the sand-papering operation.

My invention has for its object the production of a composition for filling the grains of wood of such character that but one application shall be necessary to perfectly accomplish the work, and which shall prove harmless should the fine particles produced by the sand-papering operation be inhaled. My invention, therefore, consists in a composition composed of oil, (linseed-oil preferred,) Japan gold size, or other suitable drier, whiting, and turpentine.

In making the composition I find that the following proportions will answer the purpose: Whiting, twenty-one ounces; turpentine, six fluid ounces; linseed-oil, one fluid ounce; Japan gold size, two fluid ounces. These ingredients are thoroughly mixed together.

I will here remark that other good driers may be used in lieu of the Japan gold size;

and I will also remark that I prefer to add a little Indian red to the above composition, as it has the effect of making the whiting or composition more firm or solid.

I will now describe the manner of using the composition, taking the spoke of a carriage-wheel as the article to be treated: I first apply a priming of oil, or of any other suitable primer in the market. I next apply the composition to the spoke, say, with a paint-brush or by dipping the spoke into the composition. The composition is then allowed to dry on the spoke. This takes about a day. When dry I use sand-paper for removing all of the composition on the surface of the spoke, leaving in the grain of the wood as much of the composition as will remain there, and, in the majority of cases, it will be found that the grains of the wood will be well and properly filled. The spoke is then in a condition to receive a coat of oil for a bed for the color. The color may then be applied, and afterward a coat of varnish.

In exceptional cases the state of the wood may be such as to require a second coat of the composition, and in such cases its application and removal from the surface should follow that of the first coat.

With this composition the grains of wood can be filled much more perfectly and much more quickly than with white lead, and the operation is not as deleterious to health, and, by its use, much valuable time is saved to the carriage-maker.

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

The composition herein described for filling the grains of wood preparatory to applying color to the same.

WILLIAM HARDING.

Witnesses:

M. M. LIVINGSTON,  
T. B. BEECHER.