

UNITED STATES PATENT OFFICE.

WARREN R. HICKS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CEMENTS FOR UNITING LEATHER, WOOD, &c.

Specification forming part of Letters Patent No. **213,567**, dated March 25, 1879; application filed December 2, 1878.

To all whom it may concern:

Be it known that I, WARREN R. HICKS, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Compound for Use as a Cement for Fastening Together Pieces of Leather, Wood, and other Materials, which compound is fully described in the following specification.

This invention has for its especial object the fabrication of a cement well adapted to the making, mending, and splicing of leather belting, though the compound herein described may be used as a cement for many other purposes.

To prepare this cement, take of white frost-glue, three pounds; bonnet-glue, one-half pound; fish-glue, three ounces. Dissolve in hot water to the consistency of common molasses. Add shellac-varnish, composed of white shellac, two ounces; alcohol, one-half pint; sulphuric ether, one ounce; and, finally, stir in one-fourth pound of dry white lead.

The cement is now ready for use. When applied to the purpose of fastening together the parts of leather belts it leaves the joints as flexible as the solid leather and as strong, and it possesses the novel and highly valuable merit of holding old and greasy leather as well as the new and clean, and it is not affected by the moisture to which machinery-belting is ordinarily exposed.

The sulphuric ether in this composition is used as a solvent.

The white frost-glue mentioned in this speci-

fication is a frozen glue, manufactured from the hides and sinews of animals, or from their hides alone. The bonnet-glue is so called from its extensive use in the manufacture of bonnet-frames, and is also known as the best quality of white glue. Each of the glues of commerce herein specified possesses distinctive properties of its own, and I have found by long experience that no one of them, whether compounded or not with the other ingredients herein mentioned, will answer the purpose of holding together the parts of leather belting, and that to produce a reliable cement for that purpose I must mix them.

I am aware that glue, white lead, and shellac-varnish, in various proportions and in combination with other ingredients, have been employed in cement compositions; but in every such case of which I have knowledge only one of the glues of commerce is used, and the white lead is many times in excess of the proportions I use, and there are generally other ingredients that injure rather than improve the composition.

I claim as my invention—

The cement above described, consisting of white frost-glue, bonnet-glue, fish-glue, white lead, alcohol, sulphuric ether, and white shellac, in about the proportions specified.

WARREN R. HICKS.

Witnesses:

JOEL ZANE, Jr.,
LISLE STOKES.

50 words.