

# UNITED STATES PATENT OFFICE.

AUGUST ZINSSER, OF NEW YORK, N. Y.

## BARREL-LINING.

SPECIFICATION forming part of Letters Patent No. 427,721, dated May 13, 1890.

Application filed December 10, 1889. Serial No. 333,237. (Specimens.)

*To all whom it may concern:*

Be it known that I, AUGUST ZINSSER, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented a new and useful Improvement in Compounds for Lining Casks, of which the following is a specification.

My invention has reference to compounds for lining casks, and in particular for beer kegs and barrels. Heretofore rosin has generally been used for this purpose; also, rosin mixed with oil. A lining made of rosin is very apt to scale off. It is injured by the hot water used in cleaning casks, and when the heads of a cask lined with rosin have been taken out and replaced the cask must be repitched.

The object of my invention is to produce a more elastic material for lining casks which will not be injured by hot water nor scale off; and it consists, essentially, of a compound of deodorized copal, some rosin, and a non-drying oil or fat, to which compound india-rubber may be added.

In preparing this compound I heat copal (by preference Manila copal) for some time beyond its melting-point, so as to drive off any oil contained therein, which would impart to the compound a bad smell and taste. To the molten copal I add about ten per cent. of rosin. I sometimes also add india-rubber softened and swelled up by spirits of turpentine, so as to form a very voluminous gelatinous mass, taking about one part of india-rubber to sixteen or eighteen parts of copal. I stir the mass until thoroughly mixed and keep at a moderate heat until the turpentine is evaporated. To this mass, whether mixed with india-rubber or not, I add a sufficient quantity of a non-drying fat—such as lard, mutton-fat, &c.—in sufficient quantity—say about one-fourth of the whole weight—so as to make the mass thin enough for use when hot, but of the consistence and pliability of india-rubber when cool. After the fat has been thoroughly incorporated I add granulated bone-coal, (about five per cent.,)

stirring the hot mass for about two hours. The bone-coal is then separated from the compound by pouring the mass through a sieve or allowing the bone-coal to settle and decanting the liquid. The bone-coal is used as a purifying agent, and by the action of the initial heating and of the bone-coal the copal becomes deodorized.

To impart a uniform dark color to the mass I add about five per cent. of asphalt.

The cask to be lined is first heated in the usual manner, a quantity of the hot liquid poured into it, well washed over the whole inner surface of the cask, and the surplus poured out, leaving a thin coating. When cooled off, the compound forms a pliable lining, which firmly adheres to the wood and does not scale off. When the heads of a cask so lined are taken off and replaced, it is not necessary to renew the lining, as the adjacent parts of the compound firmly reunite. The compound may be applied with a brush by adding fusel-oil or acetate of amyl to it.

Although the addition of india-rubber to the compound increases its elasticity, it may be omitted where its cost renders it objectionable.

What I claim as my invention is—

1. A compound for lining casks, consisting of deodorized copal, rosin, and a non-drying fat, substantially as specified.

2. A compound for lining casks, consisting of deodorized copal, rosin, a non-drying fat, and india-rubber, substantially as specified.

3. A compound for lining casks, consisting of deodorized copal, rosin, india-rubber, and a non-drying fat, with coloring-matter, such as asphalt, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 6th day of December, 1889.

AUGUST ZINSSER.

Witnesses:

THOMAS J. KEIGHARN,  
A. FABER DU FAUR.