

# UNITED STATES PATENT OFFICE.

WILLIAM B. HARTLEY, OF SOUTHPORT, AND ORA J. PARRISH, OF INDIANAPOLIS, INDIANA, AND OSCAR M. PARRISH, OF CHICAGO, ILLINOIS.

## SELF-HEALING COMPOUND FOR TIRE-PUNCTURES.

SPECIFICATION forming part of Letters Patent No. 661,124, dated November 6, 1900.

Application filed March 12, 1900. Serial No. 8,372. (No specimens.)

*To all whom it may concern:*

Be it known that we, WILLIAM B. HARTLEY, of Southport, and ORA J. PARRISH, of Indianapolis, Marion county, Indiana, and OSCAR M. PARRISH, of Chicago, Cook county, Illinois, citizens of the United States, have invented certain new and useful Improvements in Self-Healing Compounds for Punctures, of which the following is a specification.

10 The object of this invention is to provide a compound which is semiliquid in its consistency, adapted to be injected into a pneumatic tire and flow entirely around the inner wall thereof in order to close punctures  
15 or openings accidentally formed therein and to exert a preservative action on the rubber from which the tire is made.

In carrying the invention into practice we prefer to employ pulverized mica, with which  
20 a sufficient quantity of glycerin is mixed to render it suitably coalescent and of about the consistency of molasses. To this we add comminuted asbestos, the fibers of which form a network in the puncture to be closed and  
25 will arrest the flakes or particles of mica and form a close non-porous body just fitting the opening to be closed. To this compound we add the extract of bitter-apple, which exerts a stringent preservative action which accelerates the formation of the non-porous body and preserves the vitality of the rubber. To  
30 the compound, finally, is added an aqueous solution of cochineal to color the preparation and render it plainly visible.

35 The proportions which we prefer to employ

are as follows: glycerin, forty-five per cent.; pulverized mica, twenty-five per cent.; pulverized asbestos, twenty per cent.; water, six per cent.; extract of bitter-apple, three per cent., and cochineal, one per cent. These  
40 proportions may be varied within very wide limits, and all but the glycerin, mica, and asbestos may be omitted, although it is preferred that the extract of bitter-apple should be employed.

We do not claim herein, broadly, the use of glycerin as a puncture-closing liquid, nor do we claim, broadly, a liquid carrying an inert comminuted substance; but

What we do claim is—

1. The herein-described compound for healing punctures in pneumatic tires consisting of glycerin, comminuted mica, comminuted asbestos, and extract of bitter-apple, combined in substantially the proportions specified.  
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2. The herein-described compound for healing punctures in pneumatic tires consisting of glycerin, comminuted mica and comminuted asbestos, combined in substantially  
60 the proportions specified.

In witness whereof we have hereunto set our hands and seals, at Indianapolis, Indiana, this 9th day of February, A. D. 1900.

WILLIAM B. HARTLEY. [L. S.]

ORA J. PARRISH. [L. S.]

OSCAR M. PARRISH. [L. S.]

Witnesses:

S. MAHLON UNGER,

J. A. MINTURN.