

UNITED STATES PATENT OFFICE.

WILLIAM A. FAIRBURN, OF SHORT HILLS, NEW JERSEY, AND FREDERICK V. D. CRUSER
AND WILLIAM GREEN, OF BARBERTON, OHIO, ASSIGNORS TO THE DIAMOND MATCH
COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ART OF TREATING MATCH-SPLINTS.

1,044,445.

Specification of Letters Patent.

Patented Nov. 12, 1912.

No Drawing. Original application filed February 10, 1912, Serial No. 676,896. Divided and this application
filed May 31, 1912. Serial No. 700,821.

To all whom it may concern:

Be it known that we, WILLIAM A. FAIRBURN, a resident of Short Hills, in the county of Essex and State of New Jersey, formerly of Barberton, in the county of Summit and State of Ohio, and FREDERICK V. D. CRUSER and WILLIAM GREEN, both residents of said Barberton, and all citizens of the United States, have invented certain new and useful Improvements in the Art of Treating Match-Splints, of which the following is a specification.

The subject of the present case, which is a division of our pending application Serial No. 676,896, filed February 10, 1912, relates to a novel and efficient process whereby match splints have incorporated therewith an unctuous vehicle for the transmission of the flame from the igniting material to the body of the splints, and whereby the splints are impregnated with a material or materials which prevent the glowing of the splints after the flame has been extinguished.

In carrying out our invention we subject the splints to the action of a bath of unctuous substance in which are dissolved a soap or soaps comprising the combination of a metallic oxid with a fatty anhydrid. Thus, for example, we heat paraffin to a temperature over 212°, and preferably from 300° to 320°, Fahr., more or less, and we dissolve therein aluminum stearate in the proportion of about ten parts stearate and ninety parts paraffin.

Match splints, while separated or held in spaced relation to each other, preferably by the usual splint holding frames or carriers employed in the manufacture of matches, are dipped or immersed in the hot solution for a period sufficient to insure the efficient impregnation of the splints with the con-

stituents of the soap, the period of dipping or immersion being a variable one depending upon the nature and condition of the splint material.

In our application Serial No. 676,896 above referred to, we describe a process wherein a finely-divided powdered substance which will impart the non-glowing characteristic to the splints is maintained in suspension in the molten paraffin; and we also describe the addition to the paraffin of a soap or soaps, which, while contributing directly to the impregnation of the splints, are mainly employed to assist the suspension of the powder in the paraffin. In the present case, however, the soap constitutes the impregnating agent, and in consequence a larger quantity thereof is required than where it is used as an adjunct to the powdered substance. By our process herein described the splints are efficiently treated with the unctuous vehicle for the transmission of the flame from the igniting material to the body of the splints, and at the same time the splints are impregnated with materials which prevent the glowing of the splints after the flame has been extinguished.

We claim—

1. The improvement in the art of treating match splints to render them non-glowing after the flame has been extinguished, which consists in providing a bath of unctuous material which will serve as a vehicle for the efficient transmission of the flame from the igniting material to the body of the splints, dissolving in said material a soap comprising the combination of a metallic oxid with a fatty anhydrid, and dipping or immersing the splints in the solution.

2. The improvement in the art of treating

match splints to render them non-glowing after the flame has been extinguished, which consists in heating paraffin to a temperature over 212° Fahr., dissolving therein a soap
5 comprising the combination of a metallic oxid with a fatty anhydrid, and dipping or immersing the splints in the solution.

3. The improvement in the art of treating match splints to render them non-glowing
10 after the flame has been extinguished, which consists in heating paraffin to a temperature over 212°, dissolving therein a soap in the proportion of about ten parts soap and

ninety parts paraffin, and dipping or immersing the splints in the solution.

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