W. H. JONES.

Process of Manufacturing Whips.

No. 219,955. Patented Sept. 23, 1879.

Fig. 1.



Fig. 2.

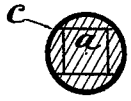
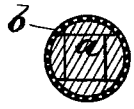


Fig. 3.



Attest.

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UNITED STATES PATENT OFFICE.

WILLIAM H. JONES, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN PROCESSES OF MANUFACTURING WHIPS.

Specification forming part of Letters Patent No. **219,955**, dated September 23, 1879; application filed April 12, 1879.

To all whom it may concern:

Be it known that I, WILLIAM H. JONES, of the city of Rochester, county of Monroe, and State of New York, have invented a certain new and useful Improvement in the Manufacture of Whips; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a cross-section of the wooden core of the whip before the platting is applied. Fig. 2 is a similar view, but showing a cloth wrapping around the core. Fig. 3 is a cross-section of the completed whip.

My improvement relates to the process of manufacturing whips; and consists, as a step in the process, of treating the wooden core of the whip to a covering of coal-tar preparatory to its being platted or covered, whereby the fibers are toughened, and it is prevented from warping and twisting during the wetting of the same, in rolling or otherwise, as hereinafter more fully described.

a, Fig. 1, represents the ordinary wooden core of the whip, which is made up of a square center and outside segmental strips glued together. Ordinarily this core is simply covered or wrapped with paper, and the platting *b* is woven around it, after which it goes through the process known as "rolling," which consists in wetting the platted whip and rolling the same beneath a stone to press down the platting. After the wetting, and during the rolling, the wooden core absorbs water, which, when dried again, causes the whip to bend, kink, and twist, and with the utmost care it is difficult to do good work.

In carrying out my invention I take ordinary coal-tar and distill the same in a suitable vessel, dividing the light oils thrown off in the distillation, discarding the heavier portions, but returning the lighter portions to the residuum at the end of the distillation. This residuum is the product I employ for treating the wooden cores of the whips, either by dipping the said cores therein and allowing them to soak, or by applying the material by a brush, or in any other convenient manner. This material has a peculiar penetration, and the cores of the whips, being made of rattan, and consequently very porous, the coal-tar penetrates them deeply, the light portions passing through the pores nearly from end to end, while the sediment of the residuum fills said pores and makes a solid substance. It is much more penetrating than sizing, varnish, glue, or like materials, which simply coat the outer surface. It also fills up the pores more effectually and produces greater solidity.

The consequence of this treatment is, that the core is rendered thoroughly water-proof throughout its whole structure, and when the platted whip is subsequently wetted and rolled and dried again, it will not warp, bend, or twist, and retains its perfect straight form. The material, by penetrating the pores, toughens and hardens the fibers and renders the whip more durable, also water-proof.

If desired, the core may also be covered by a cloth wrapping, *c*, as shown in Fig. 2, which is applied before the platting is woven on, said wrapping being also covered with coal-tar.

Having thus described my invention, I claim—

1. An improvement in the process of manufacturing whips, consisting in submitting the wooden core to a wash or coating of distilled coal-tar preparatory to applying the outer covering, for the purpose set forth.

2. An improvement in the process of manufacturing whips, consisting of first submitting the core to a coating of distilled coal-tar, and then covering the core with a cloth wrapping, also treated with distilled coal-tar, all substantially as and for the purpose stated.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM H. JONES.

Witnesses:
R. F. OSGOOD,
JACOB SPAHN.