UNITED STATES PATENT OFFICE.

WILLIAM HARROLD SMITH, OF CHICAGO, ILLINOIS.

PREPARING TAN-BARK FOR TRANSPORTATION.

SPECIFICATION forming part of Letters Patent No. 247,125, dated September 13, 1881.

Application filed July 22, 1881. (Specimens.)

To all whom it may concern:

Be it known that I, WILLIAM HARROLD SMITH, of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Preparing Tan-Bark for Use and Transportation, of which the following is a specification.

Heretofore the exportation of tan-bark has been attended with great cost, owing to its bulky nature and the liability of the acids in the bark causing it to ferment and spoil when piled in bulk, especially in a broken or pulverized condition.

I take the tan-bark, after it has been in the usual way broken or pulverized, and place it in a strong mold, and subject it to compression therein by percussion, using for the purpose, preferably, a powerful steam-hammer. Under the influence of the hammer the tan-bark will readily compress to a density of from sixty to eighty pounds per cubic foot, forming a solid self-cohering block of great strength and tenacity, and when removed from the mold suitable for exportation or shipment without being inclosed in any covering. These blocks may be made cylindrical, rectangular, or of any form desired, and of any suitable size. I prefer to make them, however, of about one hundred pounds weight. The tan-bark thus prepared in blocks will not ferment or spoil, as the air has an opportunity to circulate around each separate block, and there is consequently no tendency to heat or ferment, as is the case where ordinary pulverized tan-bark is piled in bulk. The tan-bark should be in a dry state when placed in the mold, and if it contains much moisture it should be expelled by desiccation before the material is compressed. The blocks, when placed in warm water, will soon disintegrate and the particles resume their original size and shape, so that the blocks of bark may in this way be very easily put in shape for use.

I do not herein claim the process of making my self-cohering blocks, as that I have made the subject-matter of a separate application for a patent.

I have used the term "self-cohering," in describing my improved blocks, to indicate that the particles composing the blocks cohere together naturally without the agency of any adhesive admixture.

I claim—

As a new article of commerce, the self-cohering solid block of tan-bark compressed by concussion, substantially as specified.

WILLIAM HARROLD SMITH.

Witnesses:

T. EVERETT BROWN,

H. M. MUNDAY.