UNITED STATES PATENT OFFICE.

CHARLES H. SLICER, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN MANUFACTURE OF OYSTER-SHELL LIME.

Specification forming part of Letters Patent No. **213,460**, dated March 18, 1879; application filed February 18, 1879.

To all whom it may concern:

Be it known that I, CHARLES H. SLICER, of Baltimore city, in the State of Maryland, have invented an Improvement in the Manufacture of Oyster-Shell Lime, of which the following is a specification:

In the use of oyster-shell lime for building purposes, it is well known that the mortar made from it cracks the walls of brick-work, and that when used in plaster it causes the surface to blister or breaks the face into cracks. These most objectionable defects are caused by the after-slaking, from damp, of the larger unslaked particles of the shells.

Shell-lime, as ordinarily made by only burning, fails to become thoroughly slaked, because of the hearts and butts of the shells, which remain whole, hard, and tough after being burned into quicklime, resisting for a long time any reduction by hydration, and the result is that a portion of the shell-quicklime is left to slake after the mortar or plaster with which it is incorporated is applied, blistering and cracking the work months after it is done.

To avoid these defects stated, and to put upon the market a cheap article of oyster-shell powdered or meal quicklime for general building purposes, is the object of my invention.

The following description of my process of producing this desirable article will be readily understood by those skilled in the art.

I take oyster-shells and burn them in a kiln, or take the shells already burned and reduce them to a fine powder or flour by grinding, or grinding and bolting through a fine mesh, and the article is thus produced ready for the market. It is then a powdered oyster-shell quicklime, and may be afterward hydrated or slaked in the making of mortar or plaster.

Air-slaking will not take place in store, by reason of the compactness of the body of the powdered or flour oyster-shell quicklime.

When this lime is made into mortar or plaster no after-slaking can take place, by reason of the fineness of the particles, and for this reason, should it be possible that any slaking does take place, the same is inappreciable and can do no harm.

In slaking the lime thus made no time is lost, since the slaking takes place almost immediately upon contact with water, and a most thorough admixture with the sand may be made.

By my method of thus using the lime and getting a perfect admixture with the sand, less time is required, less time and less labor, besides giving the same reliable work that is produced from the ordinary stone-lime of commerce.

The flour quicklime thus made may be kept in store and sold by the quantity, or may be stored in barrels and thus sold.

I claim—

1. As a new article of manufacture, powdered or flour quicklime made from oyster-shells.

2. The herein-described method of producing powdered quicklime by burning oyster-shells and grinding them to a fine powder or meal, for the purpose of preventing after-slaking when used in mortar and plaster.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

C. H. SLICER.

Witnesses:
A. E. H. JOHNSON,
J. W. HAMILTON JOHNSON.