

UNITED STATES PATENT OFFICE.

WILLIAM GREEN, OF CLEVELAND, OHIO.

IMPROVED CEMENT ROOFING.

Specification forming part of Letters Patent No. **55,087**, dated May 29, 1866.

To all whom it may concern:

Be it known that I, WILLIAM GREEN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Sheet-Roofing, being a new article of manufacture; and I do hereby declare that the following is a full and complete description of the composition and the mode of compounding the same.

The nature of my invention relates to an improvement in cement or composition roofing, being a new article of manufacture, as hereinafter described, the same to be used for the roofing of buildings, cars, bridges, steamboats, &c.; also for any other purpose to which it may be applied or desirably used.

In the manufacture of this article, I first take the common coarse felt-paper, or its equivalent, of the ordinary width and thickness. A roll of this paper of indefinite length is placed in a vat of oil. Any of the cheaper oils, as the hydrocarbon, linseed-oil, or its equivalent, will answer the purpose. The paper, on being fully saturated with the oil, is then reeled off and passed between a pair of iron rollers; but previous, however, to its being run through between the rollers it is covered with a cement, which is composed of iron ore reduced to the condition of fine sand and mixed with a sufficient quantity of oil to form it into the consistency of soft paste or mortar. This composition is spread upon the paper by hand or otherwise by the use of a trowel or other means. The paper, on being thus prepared, is then subjected to the pressure of the rollers, as above described. The paper, by becoming softened by immersion in the oil, allows the particles of iron ore to penetrate into it, and thus permeate its entire structure, and by thus penetrating its texture combines with it, and thus forms an integral part of the same, producing when dry the appearance and structure of a sheet of iron.

If the paper with the composition upon it, af-

ter having been once passed between the rollers, is not found to be sufficiently pressed or compacted, may again be subjected to the action of a second pair of rollers, and repeated until the desired density is obtained. The article, on being thus prepared and sufficiently pressed, is then spread out upon suitable supports for the purpose of drying. After it is well dried it is cut up into desirable lengths for transportation.

This roofing may be cut up into sections of about the length of shingles or roofing-slates, and of any desirable form, and put up in packages containing five hundred or one thousand square feet, as may be desirable. The object, aside from transportation, is to prevent any cracking or breaking of the roofing in handling it, and for convenience in transportation.

This roofing may be laid, like common shingles or slates, by lapping one over another, or by laying them side by side and filling the joints with fresh cement, of which the sheets are composed, or it may, if desirable, be laid in squares or greater dimensions, or in strips of any desirable length and breadth. It may also be cut into any desirable shape or design, for the purpose of adding variety and ornament to the roof.

In the composition of this cement other suitable mineral substances may be introduced, such as sand, pulverized stone, pulverized slate, coal, cinders, &c., for the purpose of giving body and variety of color to the roofing.

What I claim as my improvement, and desire to secure by Letters Patent, is—

The herein-described cement roofing, made substantially as set forth, for the purpose specified, being a new article of manufacture.

WILLIAM GREEN.

Witnesses:

W. H. BURRIDGE,
FRANK ALDEN.