

UNITED STATES PATENT OFFICE.

ROWELL COLBY, OF FREEPORT, ILLINOIS.

IMPROVEMENT IN ROOFING-PAPER.

Specification forming part of Letters Patent No. **153,749**, dated August 4, 1874; application filed May 23, 1874.

To all whom it may concern:

Be it known that I, ROWELL COLBY, of Freeport, in the county of Stephenson and State of Illinois, have invented a new and Improved Roofing Material, of which the following is a specification:

My invention consists in a cheap, easily-applied, and effective fire and water proof covering for roofs and walls of buildings. The same is formed of paper and sheet metal, as hereinafter described.

The paper may be rendered water and fire proof by any suitable agency; but I prefer to employ for that purpose a preparation of Spanish brown and fire-clay, and to soak the paper in linseed oil, and pass it between rollers to express the oil and contract the fiber.

The proportion in which the minerals are admixed with the vegetable pulp which forms the body of the paper is as follows: One part of Spanish brown and three parts of fire-clay are thoroughly mixed, and a maximum of seventy-five pounds of the minerals so mixed stirred thoroughly into two hundred and fifty pounds of pulp, which proportion may be varied according to the strength of the vegetable fiber of which the pulp is made. The main object of the proportion of mineral parts and pulp is to give a paper which has sufficient toughness and elasticity for the various applications to which it is applied.

The pulp with the mineral admixed is made into paper by the usual process, and the same being furnished in any desired thickness and size, according to the purposes for which it is to be used, the fire-proof qualities being imparted by the mineral parts, while the water-proof qualities are given to the same by passing it, when thoroughly dried, slowly through a vat of linseed-oil, and then through press-

ure-rollers, by which the fibers are compactly cemented together, and the surplus oil expelled. The soaking produces also a greater degree of flexibility, and gives the body of the paper a texture capable of greater resistance to the action of the weather.

I do not, however, restrict myself to a paper which is fire-proof. It is only requisite that it have a water-proof quality.

Very thin sheets of copper or other suitable sheet metal are cemented to the paper, so that they form one sheet convenient for handling, packing, transportation, and application to roofs and walls.

I thus provide a metallic surface capable of offering greater resistance to heat, and particularly to wear and tear, of all kinds, while the cost of laying the compound sheet is but little, if any, more than for the single or paper sheet.

It is requisite that the paper be water-proof, for the reason that when the compound sheets are laid upon a roof or wall, so that one overlaps another, moisture would otherwise be absorbed by the paper at its exposed edge until the whole had become saturated. The paper, being soft and elastic, also forms a close joint with the metal where the sheets overlap.

I purpose taking out separate Letters Patent for the paper above described.

What I claim is—

The improved compound covering for roofs and walls, consisting of an inner sheet of water-proof paper and a thin outer sheet of copper, the same being cemented together, as shown and described.

ROWELL COLBY.

Witnesses:

GEO. WOLF,
J. COATES.