United States Patent Office.

CHARLES G. VON TAGEN, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 89,186, *dated April* 20, 1869.

IMPROVED CEMENT-ROOFING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES G. VON TAGEN, of Philadelphia, in the county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Cement-Roofing; and I do declare that the following is a full and exact description thereof.

Take three barrels of gas-tar, boil it ten hours the first day moderately, skim all the water and heavy oil from it; boil again the second day, when thoroughly heated add one barrel anchor pitch in small quantities, well crushed, when mixed it is then ready to draw from the spigot into the wooden vat, as shown by the draught.

Before drawing the cement into the vat heat, on an iron-pan, from thirty to fifty pounds Lawrence brown, and from forty to sixty pounds finely sifted coal, coke, or wood ashes, well mixed, while drawing the cement into the vat add the above heated ingredients in small quantites; keep stirring constantly with a large scraper, so as to thoroughly amalgamate it. When properly mixed let it cool somewhat, then put it in barrels, and it is ready for use.

This method of drawing the cement into the wooden vat is the only reliable process of mixing it perfectly.

Application of cement on the roof.

On board roofs apply three thicknesses of felting, then cover it, by means of a swab; apply heated silver sand, by means of a sieve, to which a handle is attached, or finely sifted gravel, by means of a scraper, in both cases the iron roller will follow immediately, so as to completely embed the sand or gravel in the cement; during the warm season dip the roller frequently into ice-water, so as to keep it cool.

The swabbing should be about three feet wide across the roof, in order to permit the sand or gravel to be evenly distributed, and enable the roller to finish its work properly. If more space is covered it will be beyond the reach of both sieve and roller.

On shingle or slate roofs pursue the same method as heretofore described, taking care not to cut the felting at the buts of the shingles or slates by means of the roller.

For tin roofs no felting is required. Cover holes in the following manner:

First, remove the rust around the holes, then cover the space with hot cement, follow immediately with a piece of tin, with sufficient lap all around, to tack down, which will cause the patch to be embedded in the cement, then cover with the cement only, or with sand or fine gravel if desired, and use the roller.

What I claim is—

The compound, prepared and applied substantially as described.

CHARLES G. VON TAGEN.

Witnesses:

LIONEL D'EPINEUIL,

J. Y. G. BOWDEN.