

UNITED STATES PATENT OFFICE.

TOBIAS NEW, OF NEW YORK, N. Y.

IMPROVEMENT IN THE MANUFACTURE OF COMPOSITE ROOFING.

Specification forming part of Letters Patent No. **209,705**, dated November 5, 1878; application filed October 28, 1878.

To all whom it may concern:

Be it known that I, TOBIAS NEW, of the city, county, and State of New York, have invented a new and Improved Roof, which invention is fully set forth in the following specification.

My invention relates to roofs of buildings.

In making and laying my improved roof, I first lay down on the roof one or more layers of dry felt, preferably two, and then a layer of saturated felt, and then a layer of bitumen or bituminous composition, and then another layer of saturated felt, and then another layer of bitumen or bituminous composition, and then another layer of saturated felt. The bitumen or bituminous composition employed in making layers of the same and in the saturation of the felt is the ordinary bitumen, or is made from the ordinary bitumen in use among roofers, and is derived usually from coal-tar. I employ for these foundation layers the kind of bitumen or bituminous composition in familiar use among roofers in laying felt-composition roofs, but I may use native bitumens in saturating the felt or for the layer of bitumen or of bituminous composition.

Two layers of bitumen or bituminous composition and three of saturated felt alternately laid as above are ordinarily sufficient, but I may lay more, alternately, as above, where greater strength or solidity is required. Upon this foundation of alternate layers prepared as above I place a layer of native bitumen, modified when too hard or too soft by oily, pitchy, or different varieties of bituminous material until the proper consistency is obtained. These materials and the amount and proportion of each and the proper degree of consistency are well known among experienced roofers. They are the same as now employed by them. Upon this layer of native bitumen, modified as above or in simple state, I strew a layer of gravel, as is ordinarily done in laying gravel roofs.

One advantage of this roof is the economy of using cheaper material where the same is least exposed, and the native bitumen where there is the greater exposure, the native bitumen being preferred by some people to other varieties of bitumen. I also obtain in this way a very strong foundation for the layer of native bitumen to rest upon, and in this respect my invention is clearly distinguishable from that described in Letters Patent No. 191,208, dated May 22, 1877, issued to Cyrus M. Warren, where there is no provision for any foundation layers of alternate layers of bitumen or bituminous composition with and between the layers of saturated felt, and has no underlying dry felt to protect the ceiling below from percolation, if any, of bituminous material. My invention is also distinguishable easily from that of Alfred Robinson's patent, that having no superimposed layers of bitumen or bituminous composition or of gravel, and no underlying layer of dry felt and providing for a portable roofing. My roof is mainly a fixed or stationary roof, made as a new roof on each building. My invention is readily distinguished from that covered by Patent No. 124,192 to D. W. Bailey, as Bailey does not describe or claim a foundation of dry felt.

I claim as new and desire to secure by Letters Patent—

A roof with a foundation of one or more layers of dry felt and of alternate layers of bitumen or bituminous composition and of saturated felt, laid as above, with a superimposed layer of native bitumen covered and protected by gravel, substantially as above set forth.

TOBIAS NEW.

Witnesses:

L. W. HARRINGTON,
NATHAN DUFF.