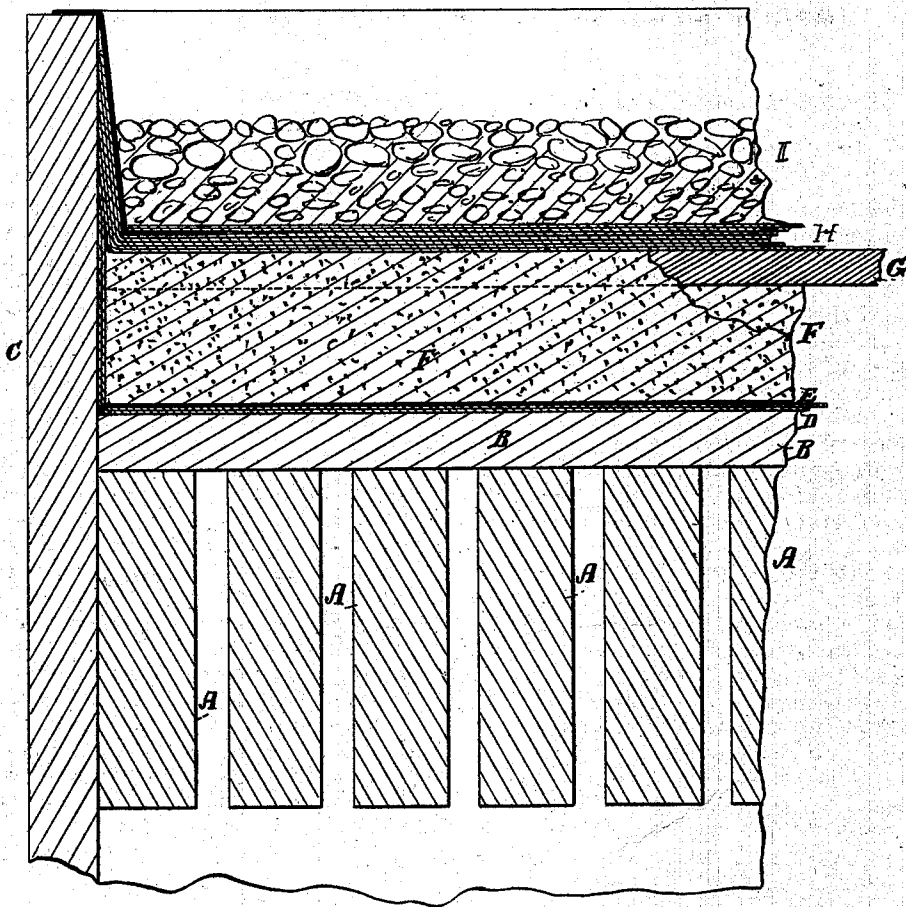


T. NEW.

Fire and Water-Proof Roofs.

No. 146,608.

Patented Jan. 20, 1874.



WITNESSES:

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UNITED STATES PATENT OFFICE.

TOBIAS NEW, OF NEW YORK, N. Y.

IMPROVEMENT IN FIRE AND WATER PROOF ROOFS.

Specification forming part of Letters Patent No. **146,608**, dated January 20, 1874; application filed November 8, 1873.

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 Fire and Water Proof Roof; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification.

The object of this invention is to provide means for protecting buildings (having interior wooden timbers) from fire as well as from water; and consists of a roof made as hereinafter described.

A represents the rafters or roof-timbers; B, the planking; C, one of the outer or parting walls; and D, a felt layer covered by a coating of asphaltic cement, E, which may or may not be used between the timber B and a layer of concrete or equivalent fire-proof material, F. This stratum of fire-proof material is laid on the felt or planking B of the roof. In practice, this fire-proof layer F will be about two inches in thickness. G is a piece of timber or plank, which is bedded in the fire-proof substance F, and has its upper side flush with the surface thereof. On this is placed a water-repellent covering, H, and over this an ordinary gravel, slate, tin, or other roof, I.

The rationale of thus combining with the wood B, first, a fire-proof layer, F, next, a water-repellent, H, and, thirdly, an ordinary gravel or other roof, is this: The fire-proof layer, although ordinarily turning water, is a slow absorbent, and would allow a gradual dampness to pervade it, and, consequently, the wood-work; hence I use over it an absolute water-repellent, H, which will not only turn an ordinary rain, but will entirely prevent the passage therethrough of moisture during the longest spell of wet weather, or the gradual melting of snow upon the roof. This water-repellent H, however, is itself injuriously affected by the sun, which, to a greater or less extent, soon destroys its efficiency if not protected; hence I superpose any ordinary roof, I, upon the layer H.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the fire-proof layer F adjacent to the wood-work, the water-repellent layer H next to this, and the outer roof I, as and for the purpose specified.

TOBIAS NEW.

Witnesses:

H. N. TAFT,
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