P. G. TYRRELL.

Fire-Proof Roofing.

No. 163,551. Patented May 18, 1875.

Fig 1

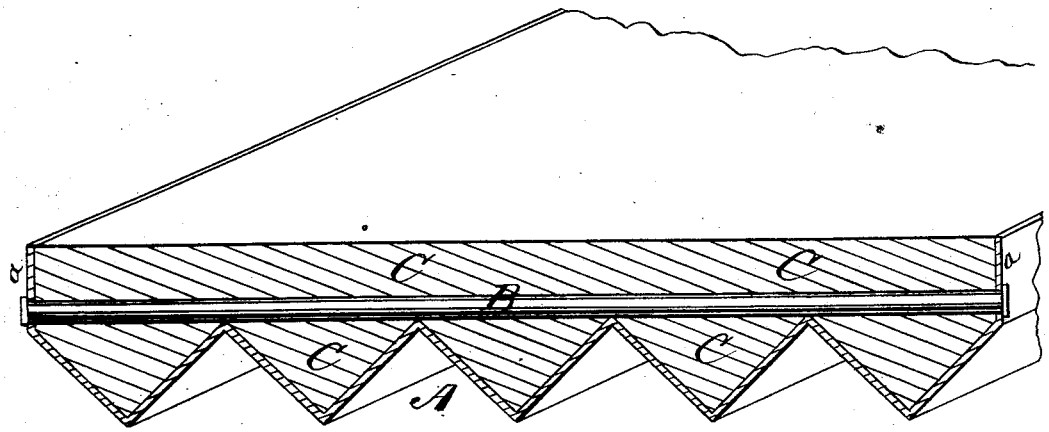
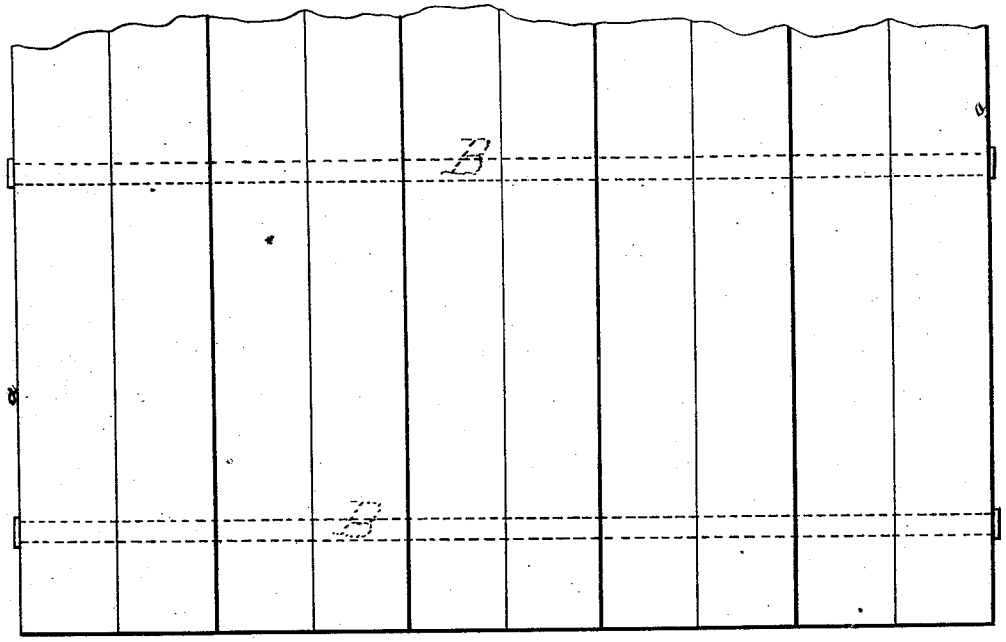


Fig 2



WITNESSES

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UNITED STATES PATENT OFFICE.

PETER G. TYRRELL, OF NEW YORK, N. Y.

IMPROVEMENT IN FIRE-PROOF ROOFINGS.

Specification forming part of Letters Patent No. **163,551**, dated May 18, 1875; application filed April 17, 1875.

To all whom it may concern:

Be it known that I, PETER G. TYRRELL, of New York, in the county of New York and State of New York, have invented a new and valuable Improvement in Fire-Proof Roofs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a sectional view of my device, and Fig. 2 is a plan view of the same.

This invention has relation to improvements in fire-proof roofing, wherein a corrugated sheet-metal covering is placed on the rafters; and the nature of the invention and improvement consists in combining, with a corrugated sheet-metal roofing provided with brace-rods, a covering of any non-conducting substance, poured or otherwise placed on the said corrugated sheathing, filling the serrations, and extending a certain distance above the apexes thereof, whereby all the parts of a metallic covering for a building are protected from the heat, and are thus prevented from communicating fire to the rafters, and a smooth even surface is provided for the application of an exterior metal covering, for the purpose of preventing the fire-proof substance from disintegration under the chemical changes superinduced by the changes of temperature and from dry to damp weather, all as will be hereinafter more fully explained.

In the annexed drawings, A designates a section of a corrugated or serrated sheet-metal roofing in connection with which I propose to illustrate my improved fire-proof attachments.

This roofing is placed directly upon the rafters of the building, all boarding being dispensed with, and is secured thereon in any suitable manner.

B represents a metallic rod, extending from side to side of the section, rigidly secured to its upturned lateral edges *a*, in a position slightly above the apexes of the corrugations, which latter are then filled with a fire-proof substance, C, which is of such a depth that it covers the entire roof, and extends a suitable distance above the apexes of the same. The substance, being smoothed off, will present an even, neat surface, and will allow a tin or other metallic sheathing to be attached and lie snugly thereon without inequalities, in which water will gather. The rods B, which are in the nature of braces, prevent the sheet-metal roofing A from bending, and the non-conducting material from cracking in consequence of such bending, and I am thus enabled to form the sections complete, and to ship them to any desired point without danger of the non-conductor being chipped or broken off. In practice I propose to cover this substance with a light metallic sheathing, in order that, being protected from changes of weather, alternating from wet to dry, and of temperature from hot to cold, it may not be gradually disintegrated by the chemical changes superinduced thereby, and may at all times preserve its protective qualities.

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

The brace-rods B, in combination with a corrugated sheet-metal roofing and a non-conducting substance, substantially as specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

PETER GERALD TYRRELL.

Witnesses:

ROBT. N. WAITE,

CHARLES SULLIVAN.