J. Woolley,

Metallic Roofing,

No. 3,507, Patented Mar. 26, 1844.

Fig. 4

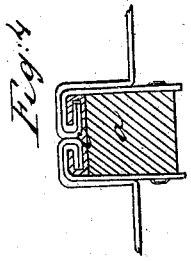


Fig. 2

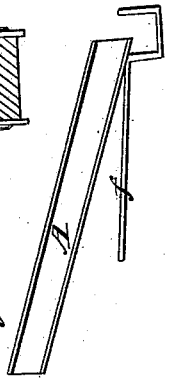


Fig. 1

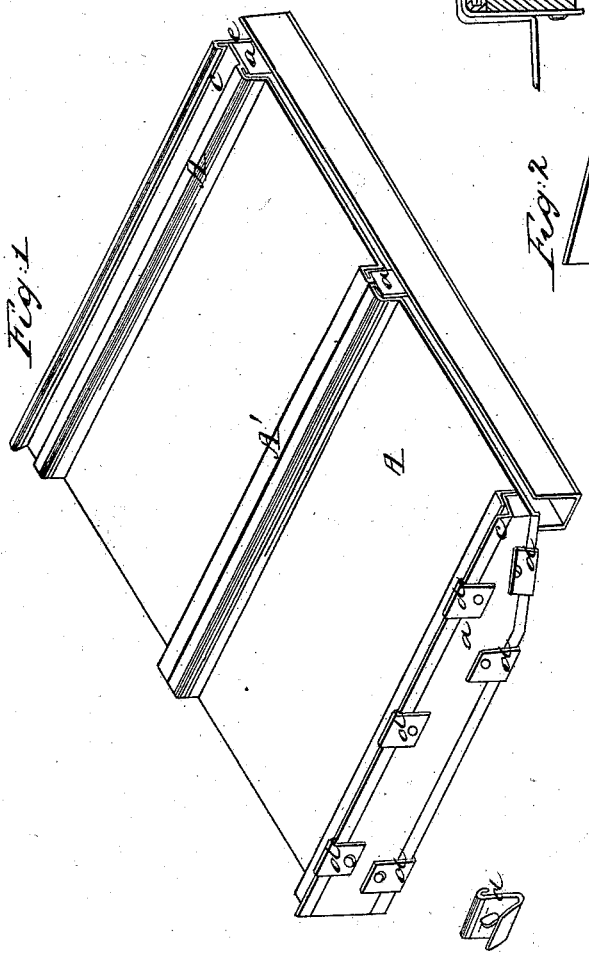
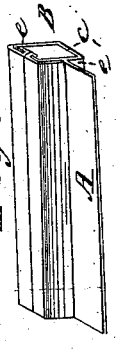


Fig. 3



UNITED STATES PATENT OFFICE.

JOHN WOOLLEY, OF SPRINGFIELD, MASSACHUSETTS.

MANNER OF MAKING METAL ROOFS FOR HOUSES, &c.

Specification of Letters Patent No. 3,507, dated March 26, 1844; Antedated March 16, 1844.

To all whom it may concern:

Be it known that I, JOHN WOOLLEY, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Roofing Houses with Sheet-Tin; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which forms a part of this specification, in which the different parts of the roof are shown.

The nature of my invention consists in forming a tin roof or covering of buildings without boarding, and for covering the rafters to which the tin is fastened, and by which it is supported with tin in a similar manner to that in which the tin roof is attached; and also in having a shield plate on the inside of steep roofs for conveying the condensed moisture that runs down on the inside of said roof into the gutter.

The construction of my roof is as follows: Rafters (*a* Figure 1,) are placed at a distance apart equal to the proportionate size of the tin used; the sheets of tin are bent at the upper and lower edge so as to form a lock of common construction as shown at Fig. 4 and similar to that described in my former patent; the sides of the sheets are also turned over into the form of a lock and are turned up at right angles as shown in Fig. 2, so as to drop the sheets of tin below the upper surface of the rafters, a strip of tin (*c*) with its two side edges turned up at right angles, is put onto the upper side of the rafter, and small pieces of tin or cleats (*d*) having their upper edge turned over are hooked on to the raised edges of the strip (*c*) these are nailed to the sides of the rafter and hold the strip down, the sheets of tin A are then hooked onto the strips (*c*) and the lock is turned down and soldered as shown on the complete roof at A′, and the whole is thus firmly connected.

When the rafters are to be inclosed, an additional piece of tin (*e*) the height of the rafter, when its edges are turned is fixed over the strip (*c*) and cleats (*d*) before the sheets of tin A are put on, these strips (*e*) are connected below the rafter in exactly the same way as above by a strip (*c′*) thus completely inclosing the rafter with a casing of tin, which is fastened on without nailing through it, and renders it impervious to the action of fire—a rafter thus inclosed is shown at B. By thus constructing a roof without boarding it can be painted on the under side after it is finished.

The gutter is made in the usual way and is placed below the eaves leaving a small space between the roof and gutter; from the inner edge of the gutter a shield plate (*f*) extends up under the roof that catches all the condensed moisture, from the under side of the roof as it runs down and directs it into the gutter.

In order to prevent the nails that are driven into the cleats from injuring the sheets of tin above, the ends of the cleats are bent over the head of the rails. This cleat can be used on the roof described in my former patent which protects it when walked over.

I also contemplate using any other metal besides tin as mentioned in the above description.

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

Constructing metallic roofs as herein described, without boarding, by means of strips (*c*) fastened to the rafters by cleats, to which the sheets of tin forming the roof are attached. I also claim the shield plate (*f*) under the eaves constructed and arranged in the manner, and for the purpose herein described.

JOHN WOOLLEY.

Witnesses:

LAFAYETTE CALDWELL,

J. J. GREENOUGH.