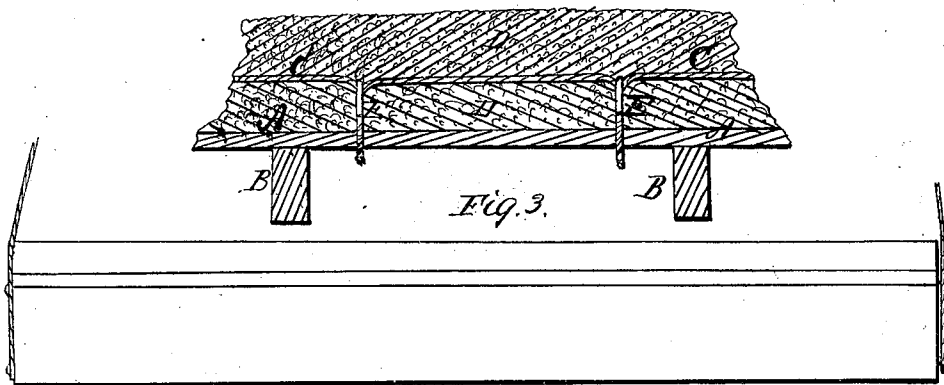
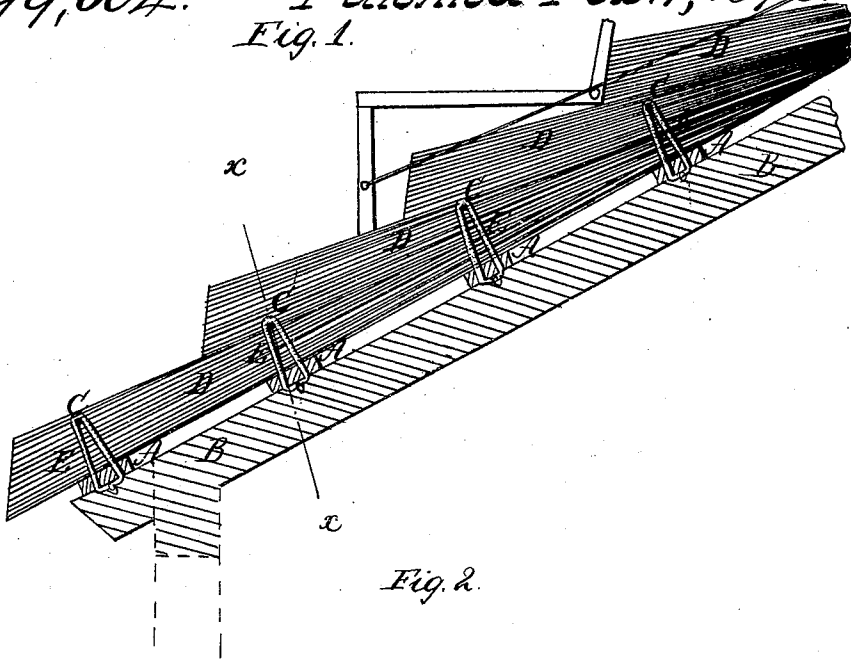


L. Foster.

Thatch Roof.

N^o 99,304.

Patented Feb. 1, 1870.



Witnesses.
Gustave Dietrich
Alex J. Roberts

Inventor
L. Foster
PER *Wm H. [Signature]*
Attys.

United States Patent Office.

LIONEL FOSTER, OF BURLINGTON, IOWA.

Letters Patent No. 99,304, dated February 1, 1870.

IMPROVED THATCH ROOF.

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, LIONEL FOSTER, of Burlington, in the county of Des Moines, and State of Iowa, have invented a new and improved Thatched Roof and Movable Roofing-Scaffold; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 represents a longitudinal section of my improved thatched roof.

Figure 2 is a detail transverse section of the same, taken on the plane of the line $x x$, fig. 1.

Figure 3 is a face view of a movable roofing-scaffold, which I preferably employ in constructing my improved thatched roof.

Similar letters of reference indicate corresponding parts.

This invention relates to a new manner of fastening the straw upon the tie-bars or slats which cross and connect the rafters, and to a new mode of treating a thatched roof, in order to make it entirely water-proof, and, to a great degree, fire-proof, and also to increase its durability.

The straw is fastened in the following manner:

It is spread, in sufficient quantity, upon the ties or slats *A A*, which are fastened to the rafters *B*.

A wire or cord, *C*, is then fastened at one end of the tie or slat, upon which one layer, *D*, of straw is placed. Such wire or cord is then stretched over the straw and above and along the tie, drawn tightly, and then fastened at the opposite end of the tie or slat. It thus holds the layer of straw in place.

To hold it still more secure, small loops, *E*, of wire or fabric, are drawn through the straw, and tied firmly around the slat and stretched wire, as is clearly shown in fig. 2, the intervals between such loops being sufficiently short to insure security and durability.

Or, instead of using the long wire, in connection with loops, as above described, the long wire alone may be used, first fastening one end, as in the first mode; then passing the wire along the tie and above the straw, twelve or fifteen inches, more or less, as may be deemed necessary, then inserting the wire through the straw and around the tie or slat, then up through the straw to the top, and there forming a loop or knot, with the wire or cord, so as to retain the straw thus passed over and tied firmly in place; then passing over a similar distance in the same manner, tying again in the same way, and repeating the operation, until the opposite end of the tie is reached.

When one layer of straw has been thus secured, by either of the two modes above described, the next layer is applied upon the tie or slat, next above it, in the same manner, the operation being repeated, layer

by layer, until the ridge of the roof is reached. A very desirable and substantial roof is thus obtained.

A thatched roof, made as aforesaid, is rendered absolutely water-proof, and is protected from decay and the attacks of vermin of all description, by being coated, layer by layer, as the thatch is put on, from above the wire fastenings to the butts, with hot tar, pitch, or any similar roofing-composition, this coating being covered with sand, ashes, or other material, while the tar, pitch, or composition, is soft enough to be tenacious and to retain it.

This application of coating to the straw or thatch, makes the roof more durable than naked straw, and also, in a certain degree, fire-proof. The same invention is applicable to all thatch roofs, to thatch stacks, and thatched sides of buildings.

The scaffold shown in the drawings, and conveniently applicable in laying the thatched roof, is constructed of three boards or planks, substantial enough to support one, two, or more workmen, while engaged in putting on roofing.

The first board stands on edge, its proper width depending on the pitch of the roof, and supports, by attachment at its upper edge, the outer edge of the second board, which should be twelve to eighteen inches wide, and is in a horizontal position.

To the inner edge of this second board is fastened the third, which is only wide enough to project slightly above the thickness of the thatch, and inclines from the perpendicular of the second board, and toward the roof, so that the butts of the straw, when laid upon the tie, will receive a uniform and proper pitch outward, from the top downward, all of which plainly and sufficiently appears, by reference to figs. 1 and 3. This scaffold, when in use, is kept in position by a rope, at either end, attached to any portion of the roof-frame, and is moved upward, course by course, as the thatch or roofing is put on.

Having thus described my invention,

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

1. A thatched roof, in which the several layers or courses of straw are secured to the slats, by means of a stretched wire or cord, *C*, and by separate loops, *E E*, substantially as herein shown and described.

2. A thatched roof, in which the several layers or courses of straw are secured to the slats by means of the wire or cord *C*, fastened at the ends and at intervals along the courses, substantially as herein shown and described.

3. A water and fire-proof thatched-roof, when coated to make it so, substantially as herein shown and described.

Witnesses:

GEO. FRAZEE,
S. E. LAYTON.

LIONEL FOSTER.