

UNITED STATES PATENT OFFICE.

PETER NAYLOR, OF NEW YORK, N. Y.

IMPROVEMENT IN THE MODE OF PROTECTING PLASTERED WALLS AND CEILINGS FROM FIRE.

Specification forming part of Letters Patent No. 1,087, dated February 22, 1839.

To all whom it may concern:

Be it known that I, PETER NAYLOR, of the city of New York, in the State of New York, have invented a new and improved mode of protecting the walls and ceilings of such apartments as are usually finished with lath and plaster against the effects of fire by substituting perforated plates of metal for the lath of wood usually employed; and I do hereby declare that the following is a full and exact description thereof.

I take thin sheets of metal, preferring, so far as my experience has gone, tin-plate as prepared for the purpose of manufacturing tinware, as I have reason to believe that the tinning protects the iron completely from the action of the lime used and from oxidation generally. I do not intend, however, to confine myself in this particular, but to use any kind of sheet metal which I may find adapted to my purpose. When tin-plate is used the distance of the joist or of the timbers generally to which it is to be attached must be within the limits of the length of such plates; but when sheet-iron or other metal is employed the distance may be greater. I take the sheet metal which is to be used and I punch numerous holes through it, in the manner of a grater, using either a round or chisel-edged punch, as may be preferred. The diameter of these holes may be from an eighth to a quarter of an inch. When the plates have been so punched I nail them onto the joist, scantling, or studs with the rough or burred edges of the perforations

outward. For greater security I take strips of hoop-iron, which I nail on the timbers in strips before nailing the sheet metal, and when this is done it would be difficult to heat the metal through its two thicknesses sufficiently to set fire to the timber, even without the protecting influence of the plaster. The sheets of metal may be seamed together at their edges before nailing them on. When the sheet metal has been properly secured to the timbers I proceed to plaster the walls in the usual manner, omitting, however, the first rough-coat which is necessary when laths of wood are employed. The plaster will pass through the numerous perforations in the sheet metal, and will be as securely keyed and retained in place as when done in the ordinary way. It has been found, also, by experiments carefully performed that the plaster will not flake off by a long continued heat so readily as it does from wooden laths, which warp and twist, and thereby aid in loosening the plaster.

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

The employment of perforated sheet metal as a substitute for laths on walls and ceilings to be plastered, using and applying the same substantially in the manner herein fully set forth.

PETER NAYLOR.

Witnesses:

A. BOKEE,
K. S. VAN VOORHIS.