

(Specimens.)

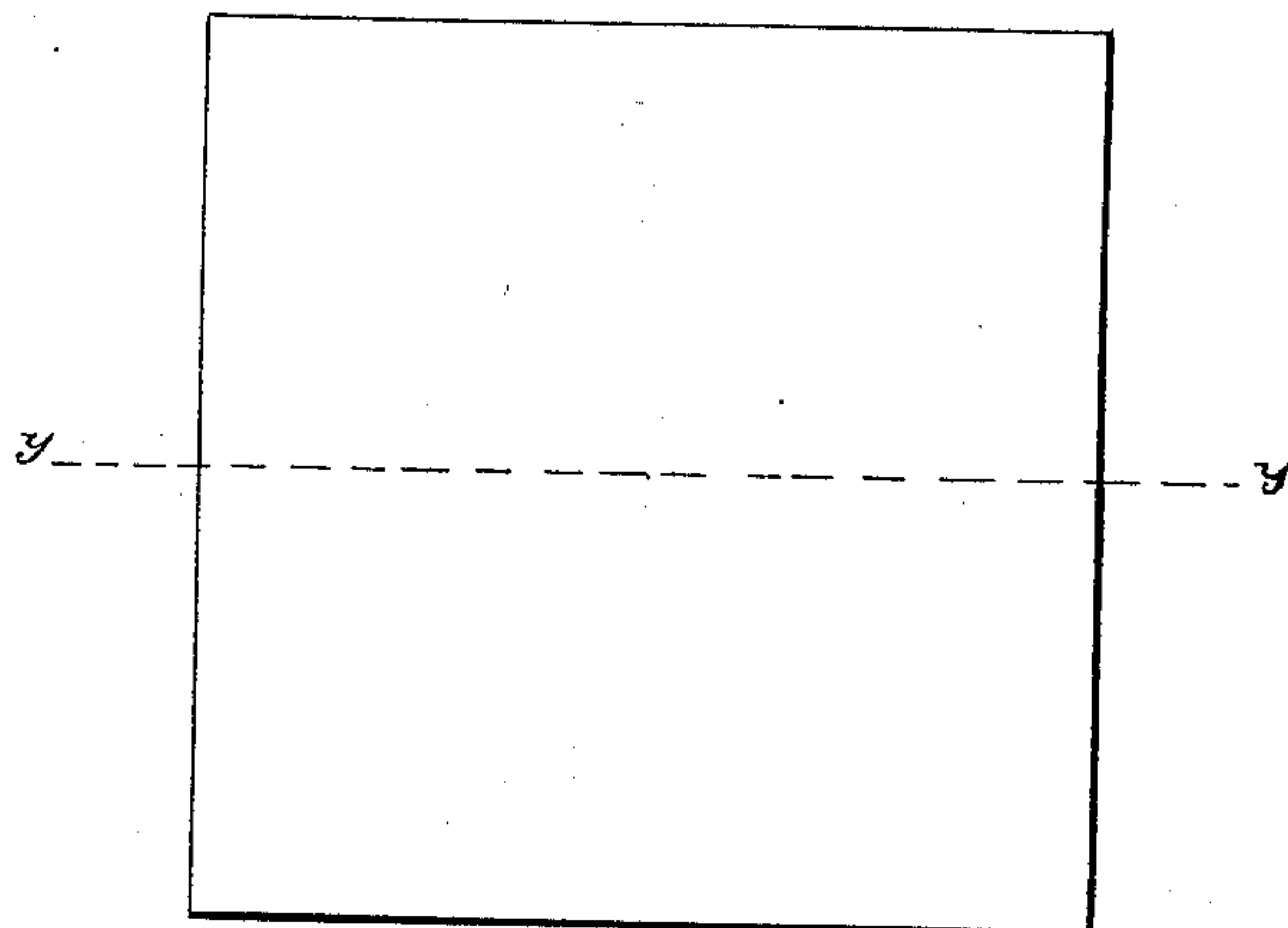
T. NEW.

COMPOSITE FELT ROOFING.

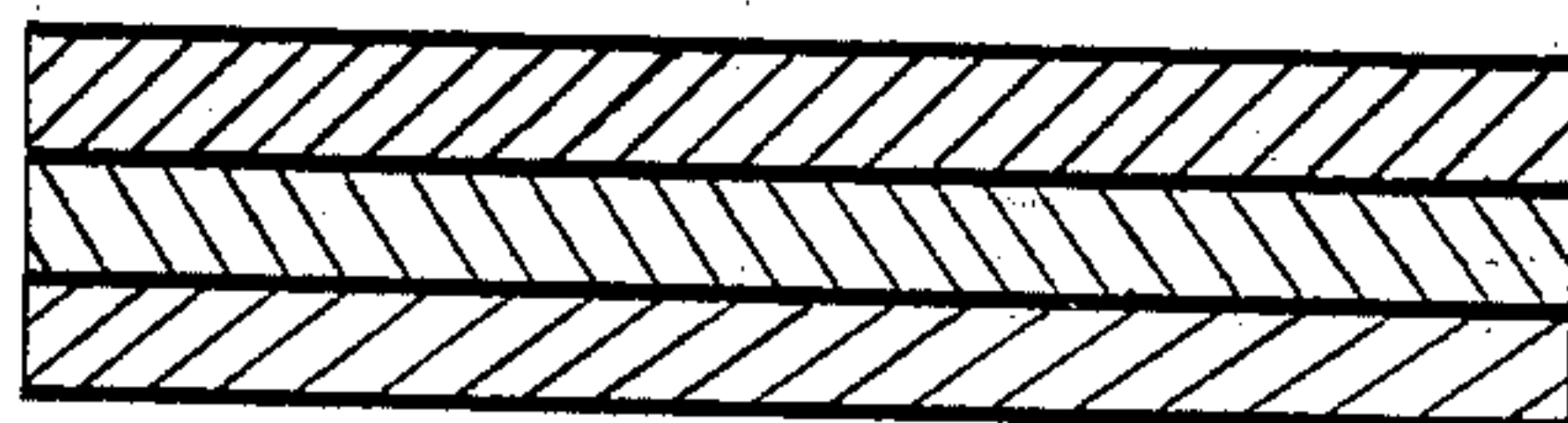
No. 341,043.

Patented May 4, 1886.

*Fig. 1.*



*Fig. 2.*



WITNESSES

*O. W. Hale,*

*Frank W. Pierce*

INVENTOR

*Tobias New*

*by R. H. Evans*

*Attorney*

# UNITED STATES PATENT OFFICE.

TOBIAS NEW, OF BROOKLYN, NEW YORK.

## COMPOSITE FELT ROOFING.

SPECIFICATION forming part of Letters Patent No. 341,043, dated May 4, 1886.

Application filed November 16, 1885. Serial No. 132,999. (Specimens.)

*To all whom it may concern:*

Be it known that I, TOBIAS NEW, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Composite Roofing-Felt; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a plan illustrating my improved roofing-felt. Fig. 2 is a section on the line *y y* of Fig. 1.

It is well known that prepared roofing has been heretofore made of two or more layers of felt saturated with coal-tar containing the light oils, cemented together by bitumen, roofing-pitch, rosin, and other compounds, the bitumen, pitch, or rosin being in intervening layers between the sheets of saturated felt. This is put up in rolls for the market. The difficulty with this fabric is that when it is laid upon the roof and fastened and then coated in the usual manner that the coating soon disintegrates and wears off by the action of the atmosphere, and then the upper layer of the felt, giving off the volatile material with which it is saturated, begins to shrink and pull, thereby cracking and causing leaks in the roof. This is one great difficulty with the top or exposed surface of the composite felt. There is a similar difficulty experienced with the under side when the composite felt is put upon board sheathing. No matter how well this sheathing be seasoned, the action of the sun on the top of the roof will shrink the boards so that there will be cracks between them, and wherever these cracks occur then the life of the roofing will become exhausted and the roofing will show cracks over the cracks between the boarding or sheathing-planks beneath, caused by the atmosphere reaching the felt where exposed between the cracks and leaving only one layer of pitch and the upper layer of felt to do the work of keeping out the water in a two-ply roof.

In order to overcome these difficulties is the object of my invention, which consists in taking the composite felt after two or more layers are cemented together with any of the well-known compounds of bitumen and covering the outsides with hot bitumen that has had all the lighter oils taken from it and subjecting the sheet thus prepared to heavy pressure, whereby the outsides of the composite roofing is just as thoroughly filled with the bitumen as the inside is filled by the bitumen which causes the sheets to adhere.

In order that those skilled in the art may make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

I take the well-known composite felt roofing, and after the layers of the fabric have been cemented together by the introduction of the bitumen or other material I pass it through a bath of melted bitumen, from which all the lighter oils have been extracted, and thence pass it through rolls under pressure. The surfaces are then treated with a coat of sand or dry paper and put in rolls for the market. Roofing-felt so prepared will have on its exterior surfaces an evenly-distributed non-volatile coating of bitumen, which greatly enhances its durability and remedies the defects of the roofing now in the market, as hereinbefore set out.

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

A composite roofing-felt having its exterior surface and pores filled with heavy bitumen evenly distributed, for the purpose set forth.

TOBIAS NEW.

Witnesses:

EDWIN E. DICKINSON,  
L. W. HARRINGTON.