

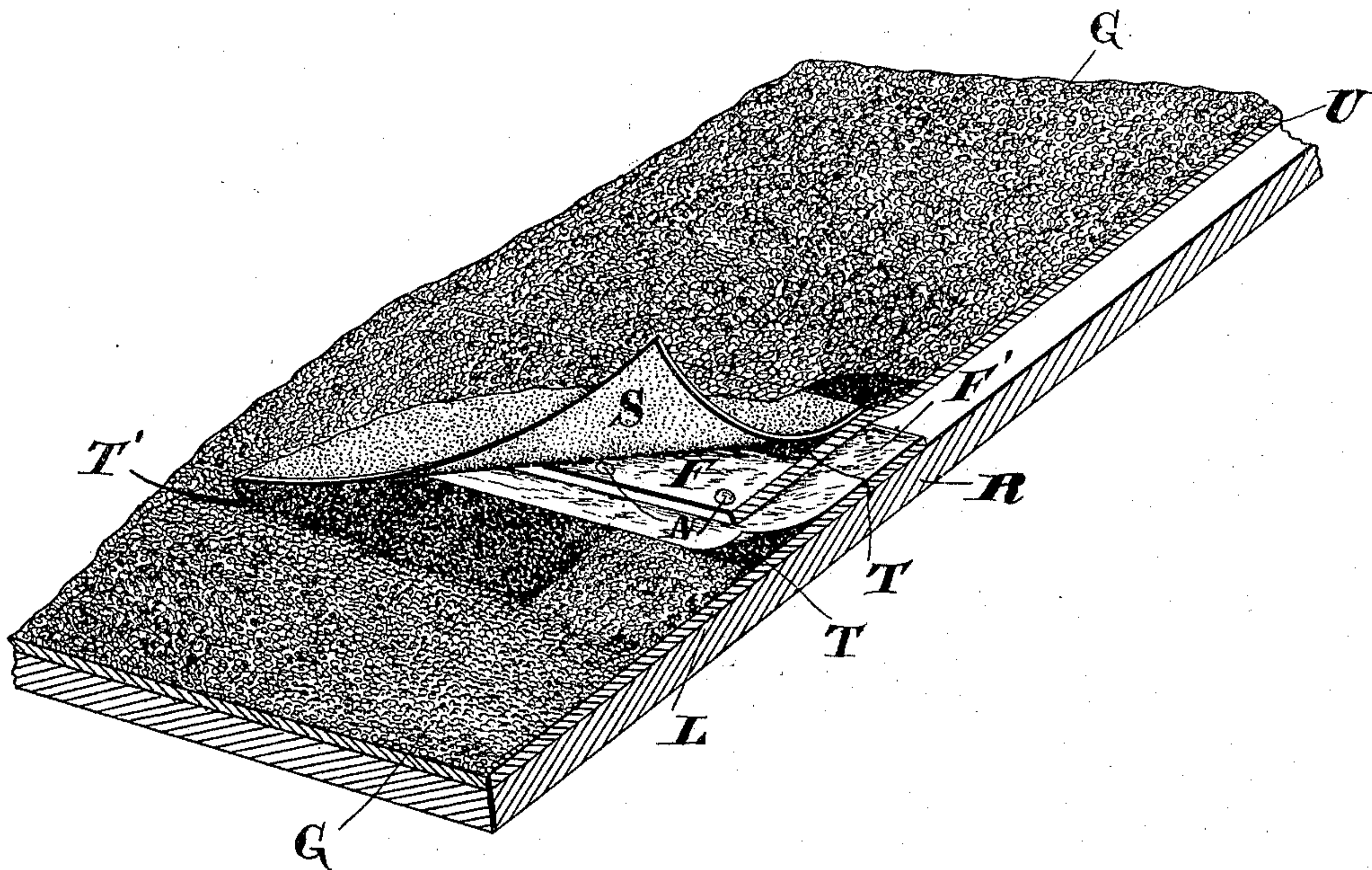
No. 644,839.

W. P. WHITMORE.
ROOFING LAP.

Patented Mar. 6, 1900.

(Application filed Dec. 28, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM P. WHITMORE, OF ST. LOUIS, MISSOURI.

ROOFING-LAP.

SPECIFICATION forming part of Letters Patent No. 644,839, dated March 6, 1900.

Application filed December 28, 1899. Serial No. 741,791. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. WHITMORE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have
5 invented certain new and useful Improvements in Roofing-Laps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable
10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which forms a part of this specification.

This invention relates to composite roofs,
15 and more especially to the joints in the same; and the object of the invention is to make such joints as nearly perfect as possible, to which end it consists in constructing them about as described below. In roofs of this
20 character, especially those having a graveled surface, it has been found almost utterly impossible to make the joints between the strips or sheets of felt or paper absolutely water-proof under all conditions of storms and
25 winds. The use of the best materials, the employment of plenty of asphalt or other adhesive substance, and the most approved location and manner of sinking the nails or other fastening devices do not seem to prevent high wind from loosening the lap-joints
30 or driving rain and water set back by the eaves from penetrating the same. Various efforts have been made to overcome this objection simply and inexpensively and yet effectively; but my present invention is an improvement over all these efforts so far as I
35 am aware.

The specification below describes my improved manner of constructing this roof-joint,
40 as best illustrated in the drawing, showing a large perspective view of the same with a portion of the lapping strip turned back.

In the drawing hereto attached, R designates the roofing material or beams, and U
45 and L the upper and lower sheets, respectively, of tarred paper or felt ordinarily applied thereto by means of nails or other fastening devices N where the adjacent sheets of paper lap each other, as shown in the drawing.
50 ing.

One important feature of my present invention consists in applying to the upper

faces of the tarred sheets plain or untarred fabric strips F and F', of which the former
on the upper sheet U is narrow and the latter
55 on the lower sheet L is wide enough to extend from the upper edge of this sheet (above a point opposite the upper edge of the strip F) down below the lower edge of the upper
sheet U, as indicated in the drawing. I hold
60 these strips in place by means of the asphalt T on the face of the sheets U and L and on the back of the sheet U, and the fastening devices N pass through these strips as well as through the lapping edges of the sheets.
65 It will be seen that if these devices are nails their heads may rust, but have no chemical action on the tarred sheets because the strip F is interposed.

G designates the ordinary fine gravel or
70 other material usually applied to the outer face of the sheets after they are in place and generally held thereon by the asphalt T or other cement. In building this improved roof-joint, however, I gravel the surface up to
75 the edge of the fabric strip F', then apply asphalt T' to the outer face of the gravel for a short distance below said strip, then quickly apply to the hot asphalt a lapping strip S of
80 a width to extend completely across the joint, then apply asphalt T to the upper sheet U, above the outer fabric strip F, and seal the upper edge of the lapping strip S thereon, and finally apply asphalt and gravel to the outer
85 face of this strip S and carry it up to the next joint, which is built in the same manner. Thus it will be seen that if the water running
down should percolate beneath the lapping strip S it would find a joint substantially such
90 as heretofore in use, save for the improved use of the fabric strips; but I will not admit that under ordinary conditions the water will
so enter beneath the lapping strip, because experiments have proved otherwise. If water
95 should be set back from the eaves or be driven by storm upward over the roof, it is ordinarily shed by the lower edge of the lapping strip S, which stands between two layers
of gravel and asphalted or cemented to each. If, however, it should enter at this joint,
100 (which, again, I am not prepared to admit,) it will still find a very close joint between the edges of the sheets U and L. Oblique storms, hail, snow, and high winds from any direction

find this same protecting or lapping strip, having both its upper and lower edges between two layers of asphalt, standing as a permanent barrier to the admission of moisture to the joint proper; but even when it is admitted under excessively-unfavorable conditions or by reason of imperfect construction the roof will not leak.

I do not limit myself to the thickness or size of parts, nor to their materials and arrangement, except as hereinafter specified.

What is claimed as new is—

1. A roof-joint comprising the upper and lower sheets of felt or the like lapping at their meeting edges, plain fabric strips cemented to their outer faces at the point of lapping, and metallic fastening devices passing through both these strips and both the lapping edges.

2. A roof-joint comprising the upper and lower sheets of felt or the like lapping at their meeting edges, a plain fabric strip on the outer face of the upper sheet, a second plain fabric strip on the outer face of the lower sheet and extending from a point below the lower edge of the upper sheet in between where the edges lap, means for retaining the exposed edge of this second strip, and fastening devices passing through both strips and both lapping edges.

3. A roof-joint comprising the upper and lower sheets of felt or the like lapping at their meeting edges, plain fabric strips upon these sheets opposite their points of lapping, metallic fastening devices passing through the strips and sheets, and an independent lapping strip entirely covering both fabric strips and the fastening devices and held in position along both its edges.

4. A roof-joint comprising the upper and lower sheets of felt or the like lapping at their meeting edges, metallic fastening devices passing completely through the same, where they lap, a gravel covering on the lower sheet, a lapping strip cemented at its lower edge upon this covering and at its upper edge to the upper sheet above the fastening devices whereby no cement contacts with the latter, and a gravel covering upon this strip and extending upward to the next joint.

5. A roof-joint comprising the upper and lower sheets of felt or the like with an interposed strip of plain fabric between and projecting below their lapping edges, fastening devices extending through said edges and strip, gravel cemented upon the lower sheet up to the lower edge of this strip, a lapping strip cemented upon the gravel and extending

thence up over the projecting portion of the strips and the fastening devices beyond the lower edge of the upper sheet and cemented onto its body, and a gravel covering upon this strip and extending upward to the next joint.

6. A roof-joint comprising the upper and lower sheets of felt or the like lapping at their meeting edges, a narrow plain fabric strip on the outer face of the upper sheet and extending to its lower edge, a second wider plain fabric strip on the outer face of the lower sheet and extending from a point below the lower edge of the upper sheet in between where the edges lap and to a point above the upper edge of the narrow strip, means for retaining the exposed edge of this second strip, fastening devices passing through both strips and both lapping edges, and an independent lapping strip entirely covering both fabric strips and the fastening devices and held in position along both its edges.

7. A roof-joint comprising the upper and lower sheets of felt or the like lapping at their meeting edges, a narrow plain fabric strip on the outer face of the upper sheet and extending to its lower edge, a second wider plain fabric strip on the outer face of the lower sheet and extending from a point below the lower edge of the upper sheet in between where the edges lap and to a point above the upper edge of the narrow strip, and an independent lapping strip entirely covering both fabric strips and held in position along both its edges.

8. A roof-joint comprising the upper and lower sheets of felt or the like with an interposed strip of plain fabric between their lapping edges, a second strip of plain fabric upon the outer face of the upper sheet and narrower than said interposed strip, fastening devices extending through said edges and both the strips, gravel cemented to the lower sheet up to the lower edge of the interposed strip, a lapping strip cemented upon the gravel and extending thence over said outer fabric strip beyond the lower edge of the upper sheet and cemented onto the body of the latter, and a gravel covering upon this lapping strip and extending upward over the sheet to the next joint.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM P. WHITMORE.

Witnesses:

R. S. O'BRIEN,
ANNA SCHOEPP.