

R. K. Mille,

Slate Raising.

No. 94,689.

Patented Sept. 7. 1869.

Fig. 1

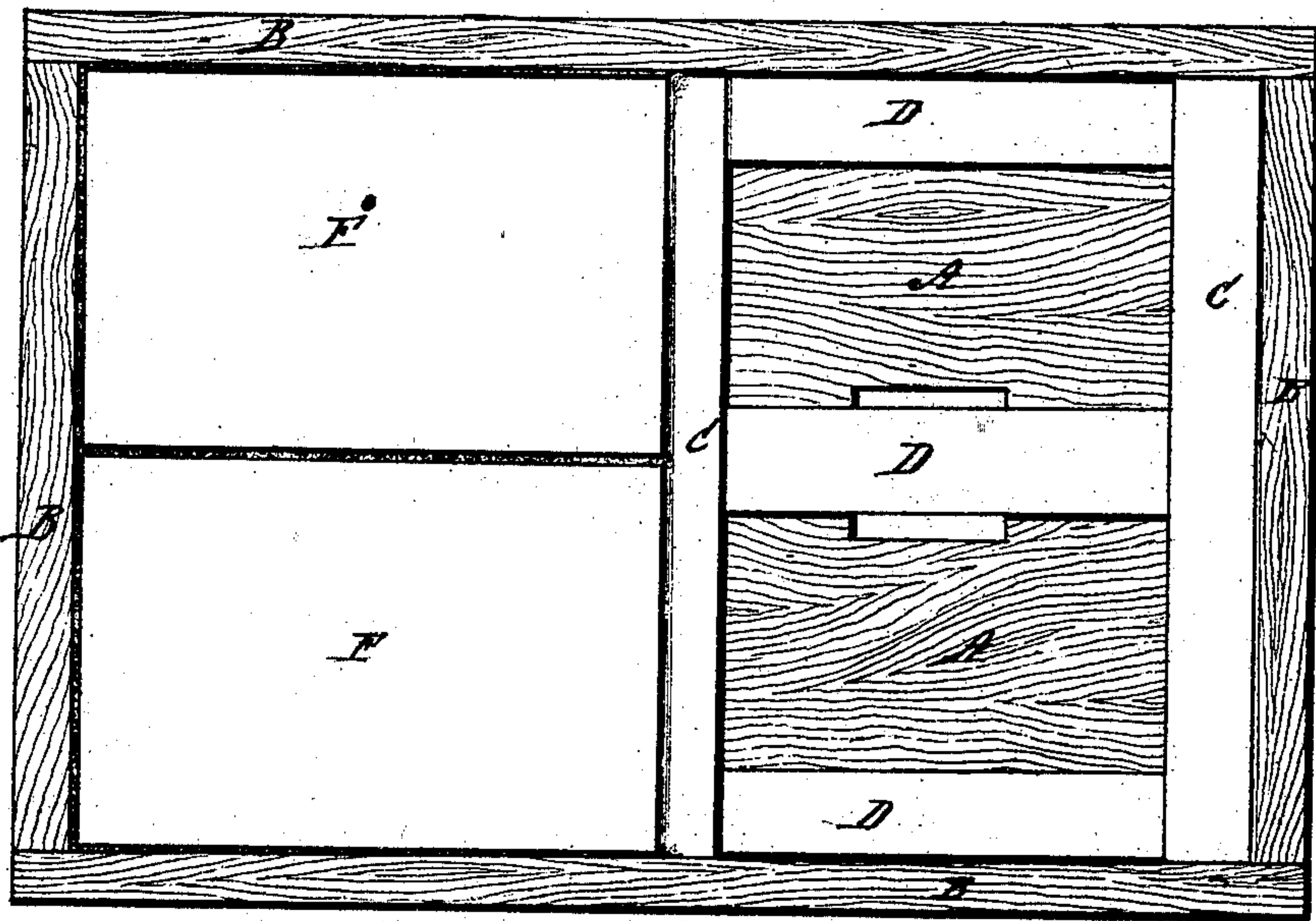
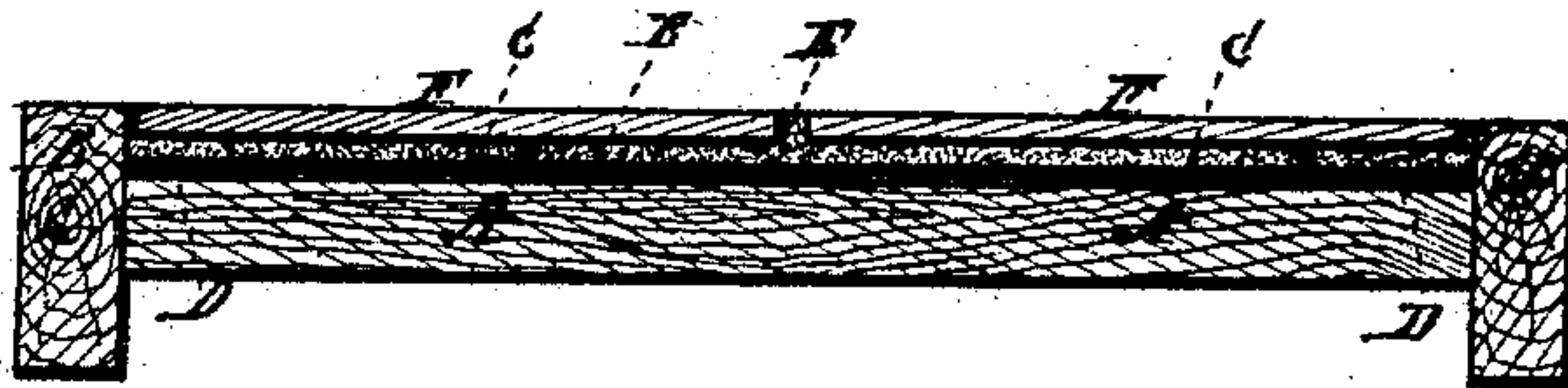


Fig. 2



Witnesses:
Samuel Smith
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United States Patent Office.

ROBERT K. KILLE, OF MOUNT HOLLY, NEW JERSEY.

Letters Patent No. 94,689, dated September 7, 1869.

IMPROVED SLATE-ROOFING.

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, ROBERT K. KILLE, of the town of Mount Holly, county of Burlington, State of New Jersey, have invented certain new and useful Improvements in Roofing; and I do 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 top view of a section of roofing, one-half being completed, and the other only partially finished.

Figure 2, a section at the line *xx*, fig. 1.

To enable others skilled in the art to make and use my improved roofing, I will proceed to describe the same more fully, similar letters of reference denoting like parts.

A represents the sheathing, which is laid upon the rafters in the usual manner;

B B, &c., the heading around the edge of the roof, which projects upwardly a distance equal to the estimated thickness of the roofing;

C C C are strips of tin, hoop or sheet-iron, or any other desirable metal, laid longitudinally along and on top of the sheathing, at intervals or distances nearly equal to the width of the slates which are used;

D D are similar strips, which are laid crosswise of the roof, and at right angles to the strips C, these strips D being apart a distance not quite equal to the length of the slates;

E is intended to represent a composition cement, the process of making which will be hereinafter described; and

F F represent the slates.

The wood roof being prepared, the strips of metal are laid, as described, so as to break joints with the slates, and the composition is then put on over the whole surface, covering the wooden sheathing and the metal strips, to any desired depth; the slates are then laid in such a manner as to be thoroughly embedded in the cement, the latter filling up any spaces between the edges of the slates.

The great object of my invention is the prevention

of leaking and durability, the cement being a preservative of the wooden parts of the roof, and impervious to water.

The object of the metal strips is to prevent the cracking of the cement, which might be produced by shrinkage of the sheathing; it being observed that if any shrinking does take place, it must be between the strips, and consequently any cracking of the cement caused thereby would be immediately under the centre of the slate, and not where it would be productive of evil consequences, nearly under that point where the slates come together.

I have discovered, after many trials and much study, that the best cement to be used is produced in the following-manner:

I take one bushel of lime, slaked, to which I add three bushels of sand, one-half bushel of coal-dust, twelve gallons of water, and half a gallon of molasses. These I mix together to about the consistency of mortar, and apply in that state to the roof.

It will thus be seen that a roof can be laid at a much less cost than any of the most approved roofs now in use, as it requires less labor, and may be done without the employment of highly-skilled labor; the same degree of care only being necessary as is observed in the laying of foot-pavements. Of course, the ingredients of the composition may be increased, always provided that they bear the same proportion to each other.

Having described the construction of my improved roof, and the composition which may be used therewith,

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

The arrangement of the metal strips and projections with a water-proof cement covering, substantially in the manner and for the purpose set forth.

In testimony whereof, I have hereunto set my hand, this 21st day of July, 1869.

ROBERT K. KILLE.

Witnesses:

ELSWORTH HOLEMAN,
RICHARD P. HOLEMAN.