

No. 719,514.

PATENTED FEB. 3, 1903.

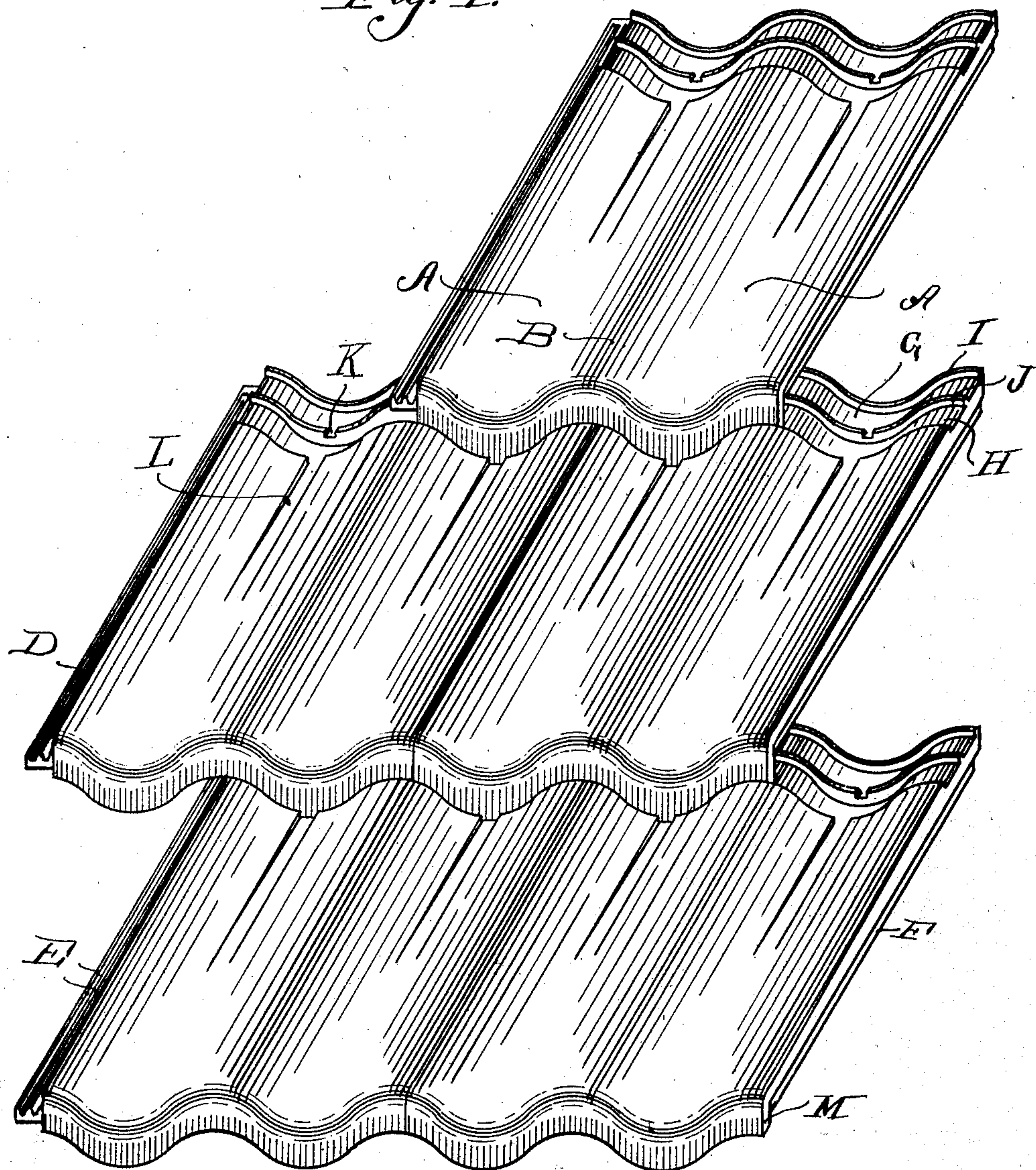
J. SCHALL.
ROOFING TILE.

APPLICATION FILED DEC. 30, 1901.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

C. F. Wilson
John Snowhook

Indenter:

Joseph Schall
By Rudolph L. Loe
Attorney.

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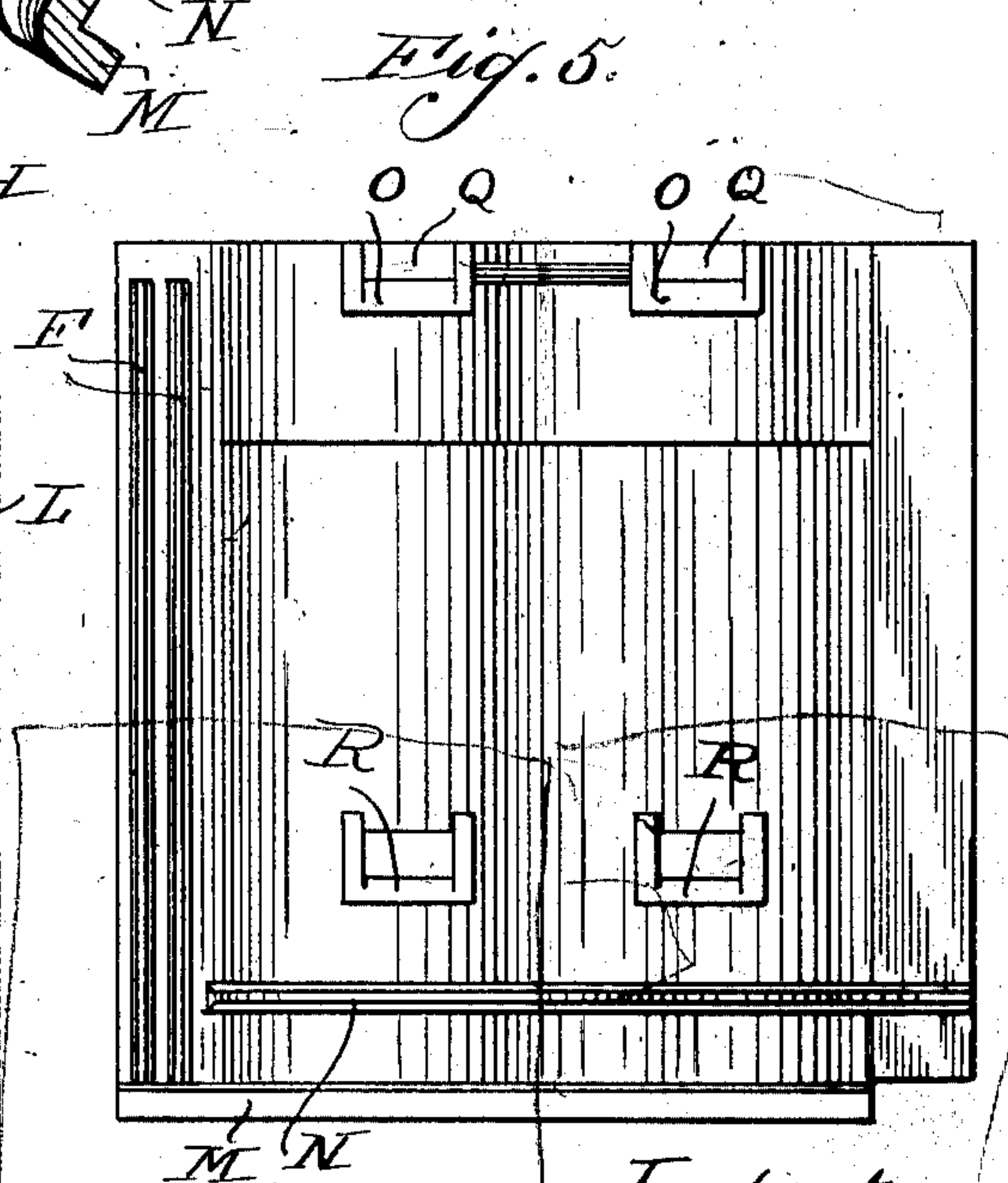
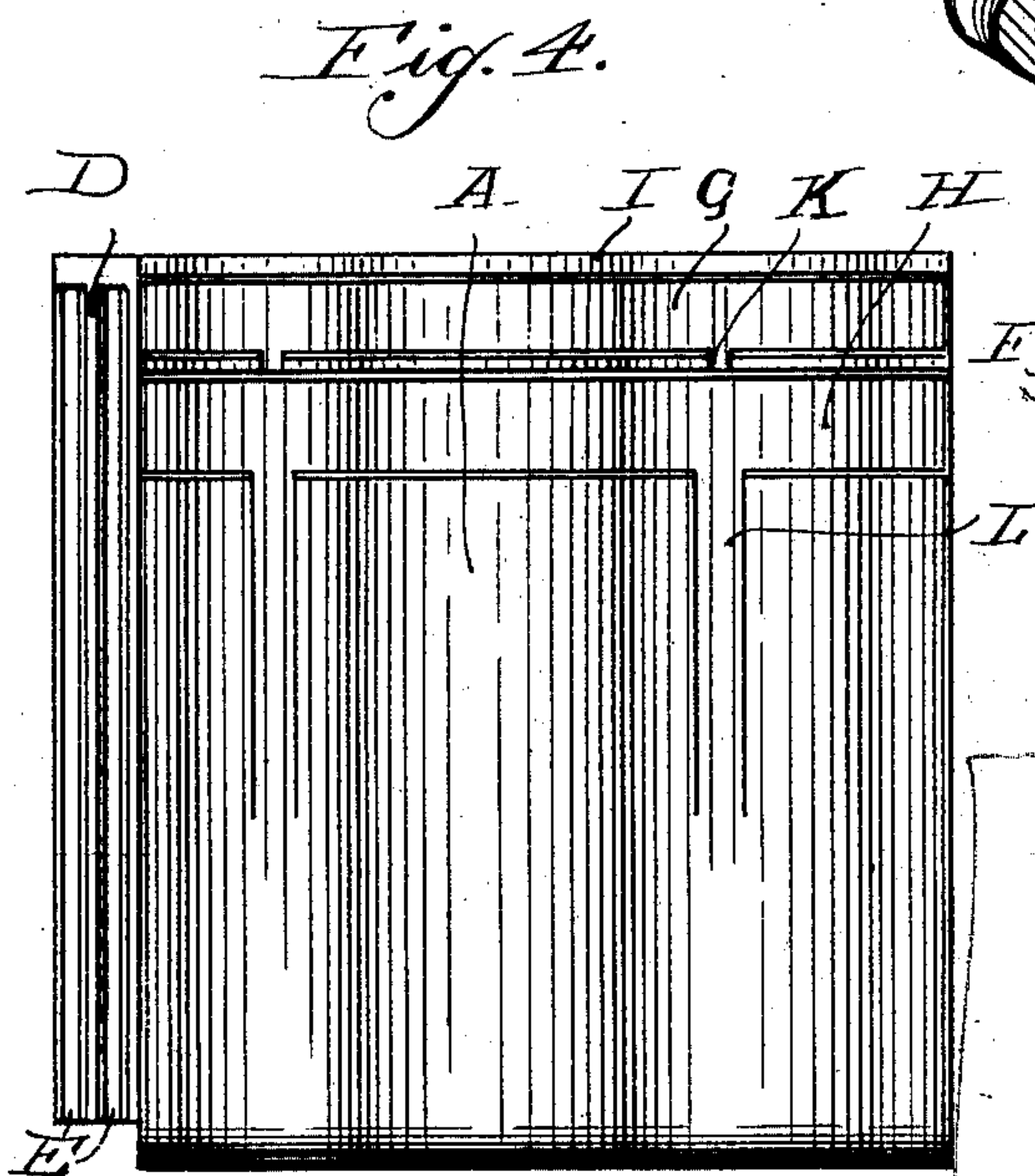
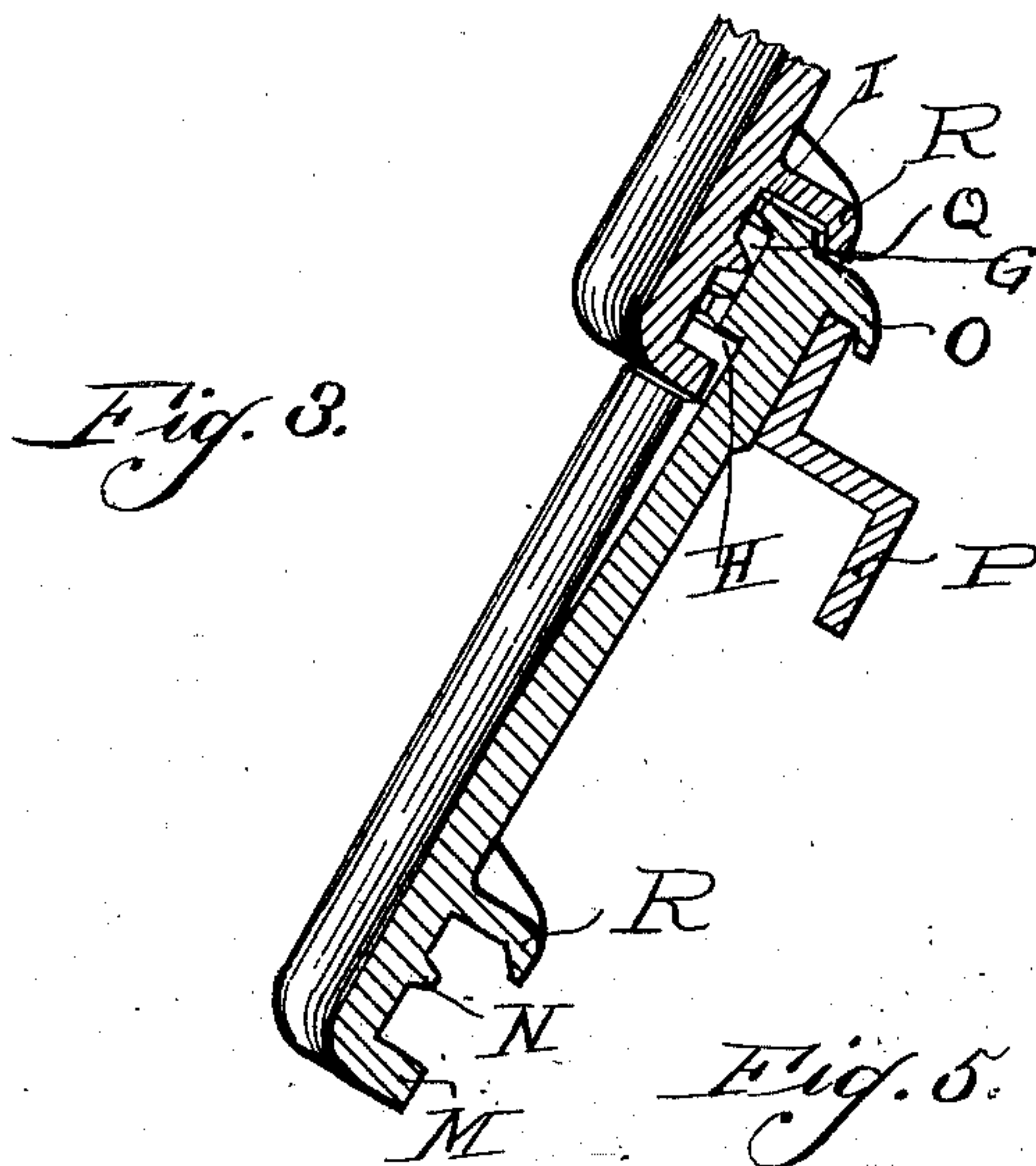
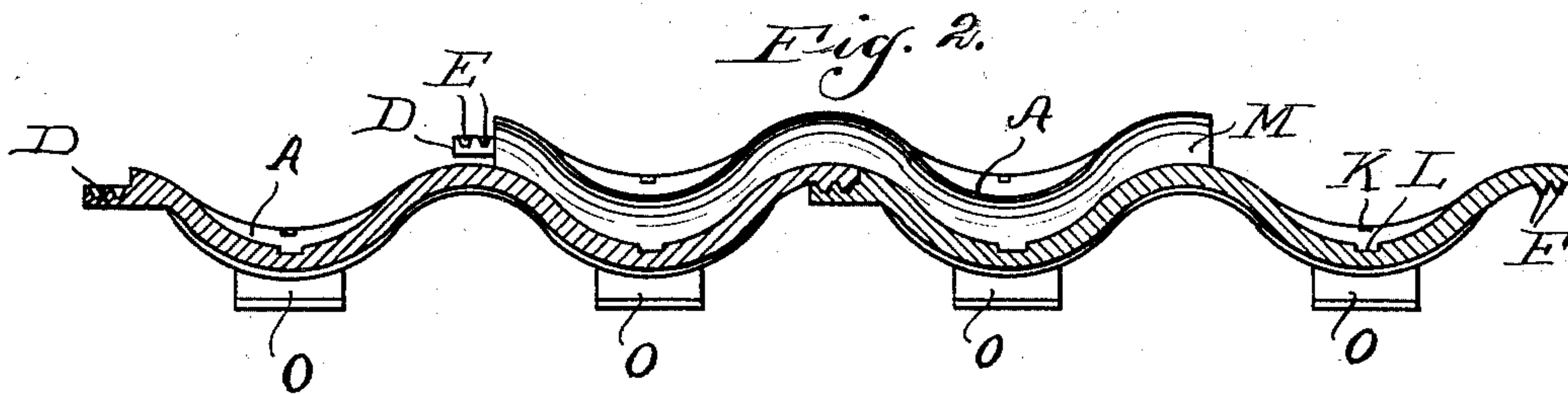
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NO MODEL.

2 SHEETS—SHEET 2.



Witnesses:

C. F. Wilson
John Snowhook

Inventor:

Joseph Schall
By Rudolph K. [Signature]
Attorney.

UNITED STATES PATENT OFFICE.

JOSEPH SCHALL, OF EVERGREEN PARK, ILLINOIS.

ROOFING-TILE.

SPECIFICATION forming part of Letters Patent No. 719,514, dated February 3, 1903.

Application filed December 30, 1901. Serial No. 87,717. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH SCHALL, a citizen of the United States, residing at Evergreen Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Roofing-Tiles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a novel construction in a roofing-tile, the object being to provide a tile which will be impermeable to water or snow and which can be easily and securely mounted without danger of displacement; and it consists in the features of construction and combinations of parts herein-after fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a perspective view showing a number of tiles constructed in accordance with my invention in relative position to form a roof. Fig. 2 is a transverse sectional view showing two tiles in cross-section and one in elevation partly overlapping the rear ends of both the first-named tiles. Fig. 3 is a section on the line 3-3 of Fig. 2. Fig. 4 is a top plan view of the tile, and Fig. 5 is a bottom plan view of same.

My tile is of the corrugated or so-called "Spanish" style, and consists of a large plate of cement composition or earthenware of rectangular form corrugated transversely, the said corrugation forming two concave depressions or channels A in the upper face of said plate. There is a single convex ridge B between said concave depressions A, while the side edges of the tile are relatively so arranged that when two tiles are fitted together they will meet near the middle of convex ridges C.

One of the side edges of each tile is provided with an extension or flange D, the rear end of which is flush with the rear end of the tile, but which terminates short of the front end of the tile. Said flange D is provided with two longitudinal grooves E, starting adjacent the rear end of said flange and extending to the front end. Adjacent its other side edge on its lower face each tile is provided with two longitudinal ribs F, corresponding in length with and adapted to fit within the

grooves E of the next adjacent tile. Each of said tiles is also provided adjacent its rear end on its upper face with two parallel grooves G and H, bordered by parallel ribs I and J, the groove G being of less depth in the concave depressions A than the groove H. The rib J is provided with recesses K at its deepest points, the bottom of each recess being flush with the bottom of said groove G. In each of said concave depressions A is a tapered longitudinal groove L, the bottom of which at its deepest portion is flush with the bottom of said groove H.

The front edge of each tile is provided with a downwardly-extending flange M, extending the entire width of the tile and following the contour thereof. Parallel with said flange M on the lower face of the tile is a rib N, the latter being adapted to enter the groove G, while said flange M enters the groove H. Said tiles are thus adapted to overlap each other and interlock on all edges; but to further insure them against relative displacement and at the same time enable same to be securely mounted on the framing of the roof without the use of wires or other fastenings I provide two hooks O on the lower face of each tile adjacent the rear end of same and below the concave depressions A, said hooks facing the forward end of the tile and being adapted to engage the longitudinal strip P of Z-iron or of other suitable form secured to the rafters of the roof. The tile being inclined obviously hangs on said Z-iron P and by its own weight is securely held in place. The rear face of each of said hooks O is provided with a recess Q, which receives the projecting end of another hook R on the lower face of the tile a short distance behind the rib N, there being two of said hooks R on each tile below the concave depression A therein. The last-named hooks by engaging the recesses in the hooks O obviously hold the forward ends of the tiles firmly down, so that they cannot be raised by the wind to admit rain or snow.

The tiles are so laid that the forward end of each overlaps the rear ends of two next lower tiles, said tiles when laid forming continuous concave depressions and convex ridges extending from the ridge to the eaves of the roof.

By making the groove G of less depth than

the groove H any water which may be forced up by the wind underneath the flange M will strike a raised shoulder and is thereby prevented from entering said groove G and being forced over the rib I. Hence the roof formed will readily withstand any weather.

Rain entering the joints between the side edges of the tile will obviously find its way into the grooves E and flow down through same. As said flange D, containing said grooves E, extends partially over the middle solid convex ridge of the next lower tile, the water will flow from said grooves E onto the said ridge and thence down on each side of the latter into the concave depressions A of the said next lower tile. Thus the entire roof is made absolutely impermeable to water. My tile thus has the advantages of being impermeable to water, easily mounted, and of being very easily made. Hence it is both cheap and very efficient.

I contemplate using my above tile also as a covering for vertical walls and for any other purpose for which it may be adapted.

I claim as my invention—

1. In a roofing-tile, the combination with the parallel grooves and ribs adjacent the upper end of the tile, the downwardly-extending flange at the lower end of the tile, the rib on the lower face of the tile parallel with said flange, the grooved projecting rib on one side edge of the tile and the grooved rib on the under face of the tile at the opposite edge, said grooves, ribs and flange adapted to interfit in adjacent tiles, of hooks on the lower face of each tile adapted to engage framing-strips to hold said tile in place, and having recesses in their rear faces, and hooks on the under face of said tile adjacent the lower end adapted to engage in the recesses in the next lowest tile to hold the lower end of the upper tile down upon the upper end of said lower tile.

2. The combination in a roof, of a plurality of tiles each so arranged that the lower end of each upper tile overlaps the upper ends of the two adjacent lower tiles, each tile having parallel grooves and ribs on its upper face adjacent to its upper end, a grooved projecting rib on one side edge, a grooved rib on its under face adjacent the other edge, a depending flange at its lower end, and a rib on the lower

face adjacent the lower end, of hooks on the lower face of each tile adapted to engage framing-strips of the roof to secure said tiles in place and other hooks on each tile adjacent the lower end to engage the rear face of the first-mentioned hooks and hold the lower end of one tile on the upper end of the next lowest tile, substantially as described.

3. A double interlocking corrugated roofing-tile provided on its upper face adjacent its rear end with parallel transverse grooves, and on its lower face at its forward end with parallel transverse ribs adapted to enter said grooves of adjacent tiles, hooks on the lower face of said tile adjacent the rear end of same adapted to engage the framing of the roof to secure said tile in place, recesses in the rear faces of said hooks, and hooks on the lower face of said tile adjacent the forward end of same adapted to enter the recesses in the rear hooks of adjacent tiles to hold the forward end of the tile firmly down upon the rear ends of said adjacent tiles.

4. In a roof, the combination with longitudinal strips, of tiles adapted to be mounted thereon, said tiles being each provided on its lower face with hooks adapted to engage said strips to secure said tile thereto, and provided on its upper face adjacent its rear end with parallel transverse grooves, on its lower face adjacent its forward end with parallel transverse ribs adapted to enter said transverse grooves of adjacent tiles, a flange on one side edge of each tile provided with longitudinal grooves in its upper face, longitudinal ribs on the lower face of the tile adjacent its other side edge adapted to enter the grooves of said flange of the next adjacent tile, and hooks on the lower face of each tile adjacent its forward end adapted to project underneath the lower face of the adjacent lower tiles to hold the forward end of said tile firmly down upon the rear ends of two adjacent lower tiles, whereby said tiles interlock with each other on all edges.

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

JOSEPH SCHALL.

Witnesses:

RUDOLPH W. LOTZ,
E. F. WILSON.