

No. 677,124.

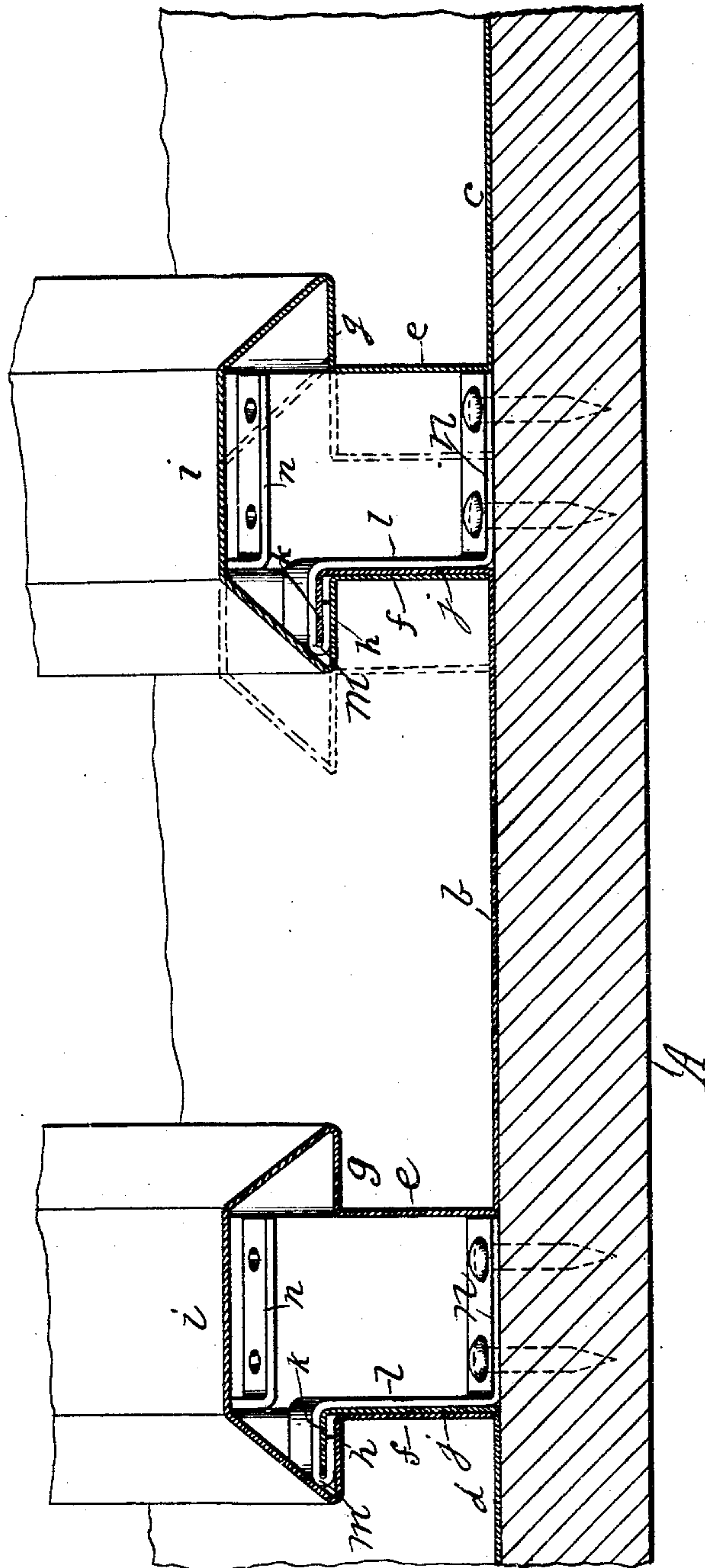
Patented June 25, 1901.

T. P. FLANAGAN.

ROOFING.

(Application filed Oct. 20, 1900.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

THOMAS P. FLANAGAN, OF BROOKLYN, NEW YORK.

## ROOFING.

SPECIFICATION forming part of Letters Patent No. 677,124, dated June 25, 1901.

Application filed October 20, 1900. Serial No. 33,688. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS P. FLANAGAN, a citizen of the United States of America, and a resident of the borough of Brooklyn, city of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Roofing, of which the following is a specification.

My invention relates to improvements in "standing lock-joints" in sheet-metal roof-covering contrived for securing the sheets without nailing through them; and it consists of a novel contrivance of attaching-hooks adapted to be applied to one element of the standing lock-joint formed on one edge of the sheet and nailed to the roof-boards before the other element of said joint formed on the reverse edge of another sheet is applied, whereby the expense and labor are economized and a better mode of fastening the roof-sheets is obtained, as hereinafter described, reference being made to the accompanying drawing, in which a vertical longitudinal section of a portion of a roof, including two standing lock-joints contrived in accordance with my invention, is represented.

*A* represents part of a roof-board.

*b* represents an entire cross-section of one of the covering-sheets, and *c* and *d* parts of two other sheets, which are connected in the standing lock-joints and secured as follows: Each sheet has one margin bent so as to produce the two upright parts *e f*, laterally-extended parts *g h* of said upright parts and the cap *i* forming one element of the said joint, and the other margin bent so as to form the upright part *j* and the laterally-extended part *k* constituting the other element of said upright part *j*. The upright part *j* is a little higher than upright part *f*, so that parts *f* and *h* of one sheet may be inserted under part *k* of the other sheet, with part *f* placed close against part *j*.

*l* represents a hook that has a loop *m* of one end adapted to hook over the edge of part *k*, and a footpiece *n*, adapted to be nailed on the roof-boards, as shown, prior to the application of the next roofing-sheet to be applied, a plurality of such hooks to be applied at suitable intervals along the lock elements *j k* from end to end of the sheet, as may be required. When thus secured, the next sheet, with its other lock element *e, f, g, h, and i*, is pre-

sented over the hooked-down parts *j k*, as indicated in dotted lines, and then shifted laterally to the right hand, so that parts *h f* enter under part *k* and part *f* closes up against part *j*, after which the other edge of the last-placed sheet is secured by the hooks, and so on. The parts *f* and *j* being close to each other, with the parts *k* overlapping part *h*, makes a more effective joint for excluding rain and snow impelled by the wind.

What I claim as my invention is—

1. Metallic roofing-sheets having the standing lock element of one margin comprising the upright part *j* and the overturned flange *k*, of the upper portion of part *j*, and the standing lock element of the other margin comprising the upturned part *e*, lateral flange *g* of the upper extremity of part *e*, cap part *i* one side of which joins the outer extremity of flange *g*, and adapted for a cover to the connecting-joint of two sheets, inwardly-turned flange *h* of the other side of the cap and the downwardly-turned part *f*, joining the inner extremity of flange *h*, said flange *h* and part *f* adapted to overlap the part *j*, and flange *k* of the connecting-sheet, and means of fastening the parts *j, k* to the roof-boards and thereby securing the sheets.

2. The combination with metallic roofing-sheets having the standing lock element of one margin comprising the upright part *j* and the overturned flange *k*, of the upper portion of part *j*, and the standing lock element of the other margin comprising the upturned part *e*, lateral flange *g* of the upper extremity of part *e*, cap part *i*, one side of which joins the outer extremity of flange *g*, and adapted for a cover to the connecting-joint of two sheets, inwardly-turned flange *h* of the other side of the cap and the downwardly-turned part *f*, joining the inner extremity of flange *h*, said flange *h* and part *f* adapted to overlap the part *j*, and flange *k*, of the connecting-sheet—of fastening-hooks *l* having the loop of one end adapted to hook over part *k*, and footpiece of the other end adapted to be nailed on the roof-boards between the parts *e, j*.

Signed at New York city this 18th day of October, 1900.

THOMAS P. FLANAGAN.

Witnesses:

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