(No Model.)

G. H. WARREN & E. C. RICHMOND.

SHINGLING BRACKET.

No. 348,705. Patented Sept. 7, 1886.

Fig. 1.

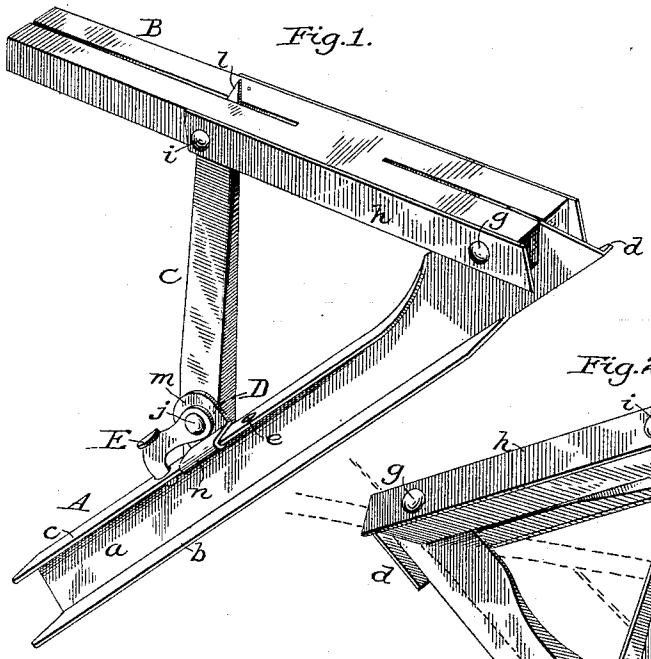


Fig. 2.

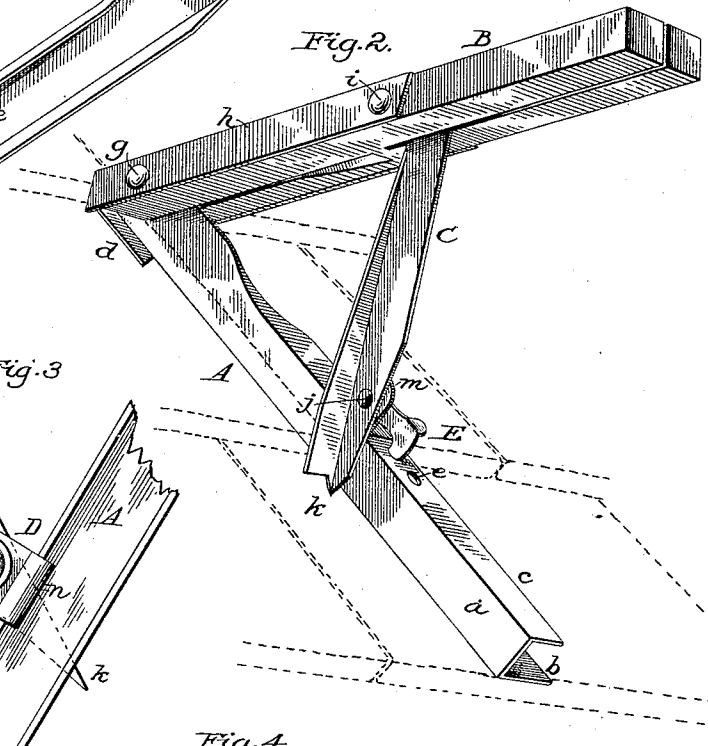


Fig. 3

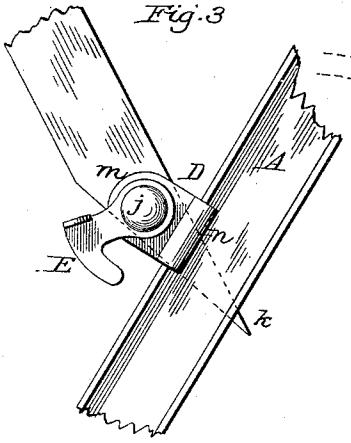
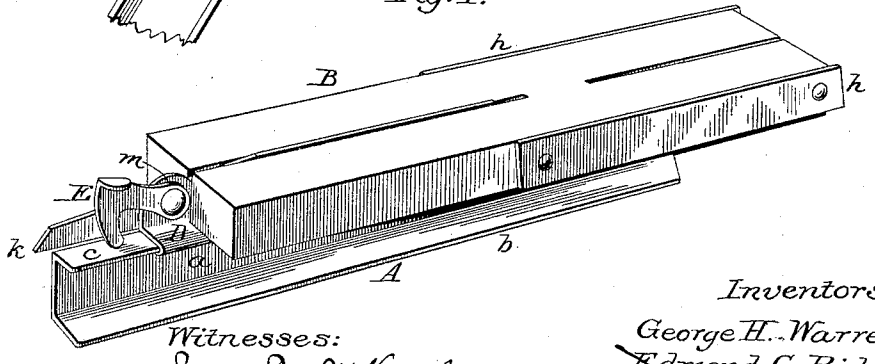


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE H. WARREN AND EDMOND C. RICHMOND, OF SHELBURNE FALLS, MASSACHUSETTS.

SHINGLING-BRACKET.

SPECIFICATION forming part of Letters Patent No. 348,705, dated September 7, 1886.

Application filed January 29, 1886. Serial No. 190,199. (No model.)

To all whom it may concern:

Be it known that we, GEORGE H. WARREN and EDMOND C. RICHMOND, of Shelburne Falls, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Shingling-Brackets, of which the following is a specification.

Our invention relates to shingling-brackets; and it consists in a novel construction of the same, as hereinafter more fully set forth, whereby it is rendered cheap and strong, and capable of being folded to occupy but little space.

In the drawings, Figure 1 is a perspective view of our improved device; Fig. 2, a similar view, but from the opposite side; Fig. 3, a detail view, and Fig. 4 a view of the bracket folded.

A indicates the bottom arm of the bracket; B, the top arm pivoted thereto at its forward end, and C the connecting arm or brace by which the parts are adjusted and sustained in proper relative positions. The bottom arm, A, is preferably made of sheet metal, with central upright portion, *a*, and lateral flanges *b* and *c*, as clearly shown in Fig. 1, the flanges *b* and *c* extending nearly throughout the length of the arm A.

Near the front end of the arm A the metal that would otherwise be bent out to form a continuation of flange *b* is cut and bent upon the opposite side of the arm A to form a flange or plate, *d*, as shown in Fig. 2, which flange *d* extends forward from the termination of flange *b* to the end of the arm A. The flange *c* terminates near the front end of the arm A, and the metal that would otherwise be used in its continuation extends upright in the same plane as the web *a*. The flange *c*, as shown in Figs. 1 and 2, is provided with a series of holes, *e*, for a purpose presently explained. The top arm, B, is pivoted to the upright web *a* of arm A at the front end of the latter by means of a bolt, *g*, the arm B being slitted or formed of two pieces to receive the web *a*. Arm B is provided on each side with a plate, *h*, with its forward edge beveled, as shown, so as to indent itself in the shingles. The brace or supporting-arm C is pivoted at its upper end within the slot of arm B by means of a bolt, *i*, the bolts *g* and *i* passing transversely through the arm B, serving not only to secure the arms A and C, but also the plates *h*. Arm C is preferably made of sheet metal, and is pivotally attached by means of a bolt, *j*, with a slide or runner, D, (shown in Figs. 1 and 3,) the arm C extending downward below arm A and forming a point, *k*, as shown in Fig. 2.

In order to give increased strength and stiffness, the arm C is provided with a lateral web or flange. It will be noticed that the upper end of the arm C extends up above the face of the arm B, and its end is sharpened to form a point, *l*, and it will also be observed that no matter what position the arm may occupy when in use its lower pointed end, *k*, extends slightly below the bottom of arm A.

The slide or runner D is provided with or consists of an upright portion, *m*, to which arm C is pivoted, and a laterally-extending portion, *n*, resting upon the upper face and clasping the edge of flange *c*, the slide D being made, preferably, of sheet metal and easily bent to proper form.

Upon the pivot-bolt *j*, connecting arm C and slide D, is mounted a pivoted dog or latch, E, which, as shown, is adapted and arranged to engage with any of the holes *e* in the arm A. In some cases the dog E may be omitted, as it is found in practice that the pointed end *k* of arm C serves to prevent the bracket from slipping or becoming folded when weight is applied thereto.

The device being thus constructed operates as follows: The flanges or plates *b* and *d* are inserted beneath the lower ends of two shingles, the upright web *a* passing between the adjoining faces or edges of the shingles. Arm B is then moved on its pivot *g* until the former assumes a substantially horizontal position, the pointed ends of the plates *h* in the meantime indenting themselves in the upper faces of the shingles and clamping the latter firmly down upon the plates of the arm A. When the arm B is in proper position, the dog or latch E is dropped into the nearest hole *e*, and the device is locked in position. Boards are then placed upon the arms B from one bracket to another, and the points *l* indenting the boards prevent the accidental displacement of the latter. The weight of the workmen

upon the boards indents the point *k* into the roof, and prevents the bracket from slipping. Of course it will be understood that two or more of these brackets are used together, a board extending along the roof from bracket to bracket.

The flanges *b* and *d* form a good broad bearing for the bracket, and in a great measure prevent any tipping action.

By means of our adjustable bracket compensation may be made for roofs varying in their slant or pitch.

When the bracket is folded up, as shown in Fig. 4, it will be noticed that the arm B rests on the top flange of arm A, and that the bracing-arm C fits into the slit in the arm B, thus rendering the device exceedingly compact.

It is obvious that instead of constructing the arm B of a single piece of wood and forming two slits therein, as shown and described, the arm B may be made of two separate pieces, separated a slight distance apart, the two pieces being secured together by means of the bolts *g* and *i*, and that it may also be made of metal, if desired.

We are aware that a shingling-bracket has heretofore been patented which was composed of three arms pivoted together in such manner as to be adjustable to adapt the bracket to roofs of varying slants, and to this we make no broad claim; neither do we wish to be understood as claiming, broadly, spurs for preventing the boards composing the platform from slipping.

We claim—

1. In a shingling-bracket, the combination of an arm, A, to rest upon the roof, an arm, B, pivoted to arm A and supporting the platform, and an arm, C, pivoted to arm B and adjustable upon arm A, the arm C extending up above the face of arm B, as and for the purpose set forth.

2. In a shingling-bracket, the combination of arm A to rest upon the roof, arm B, pivoted thereto, arm C, pivoted to arm B and extending above the latter to form a point, *l*.

3. In a shingling-bracket, the combination of arm A, arm B, pivoted thereto, and arm C, pointed at both ends, as shown.

4. In combination with arms A, B, and C, pivoted together, as shown, runner D and pivoted dog E.

5. In combination with arms A B C, pivoted together, substantially as herein described, pointed plates *h*, secured to the end of arm B and adapted to clamp the shingles upon the arm A.

6. In a shingling-bracket, the combination of arm A, having flange *c*, arm B, pivoted to arm A, arm C, pivoted to arm B, and slide or runner D, pivoted to arm C, resting upon and clasping flange *c*, and provided with pivoted dog E.

7. In combination with arm A, having flanges *b c* and plate *d*, arm B, pivoted to arm A, pivoted brace C, slide D, and dog E.

8. In combination with arm A, having upright web *a* at its forward end, arm B, pivoted thereto and provided with a longitudinal slit, and arm C, pivoted within the slit to facilitate folding and transportation of the bracket.

9. In combination with arm A, having a series of perforations, *e*, pivoted arms B and C, slide D, and dog E, arranged substantially as shown.

10. In combination with arm A, having lateral plate *d* at its forward end, arm B, pivoted to arm A, and provided with plates *h*, and an arm, C, all arranged substantially as shown, whereby the shingles may be firmly clamped between arms A and B.

11. In a shingling-bracket, the combination, with arms A, B, and C, pivoted together, as shown, of runner D, connecting the arms A C, substantially as shown and described.

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