

No. 675,625.

Patented June 4, 1901.

F. EWING.
SHINGLING BRACKET.
(Application filed Nov. 5, 1900.)

(No Model.)

2 Sheets—Sheet 1.

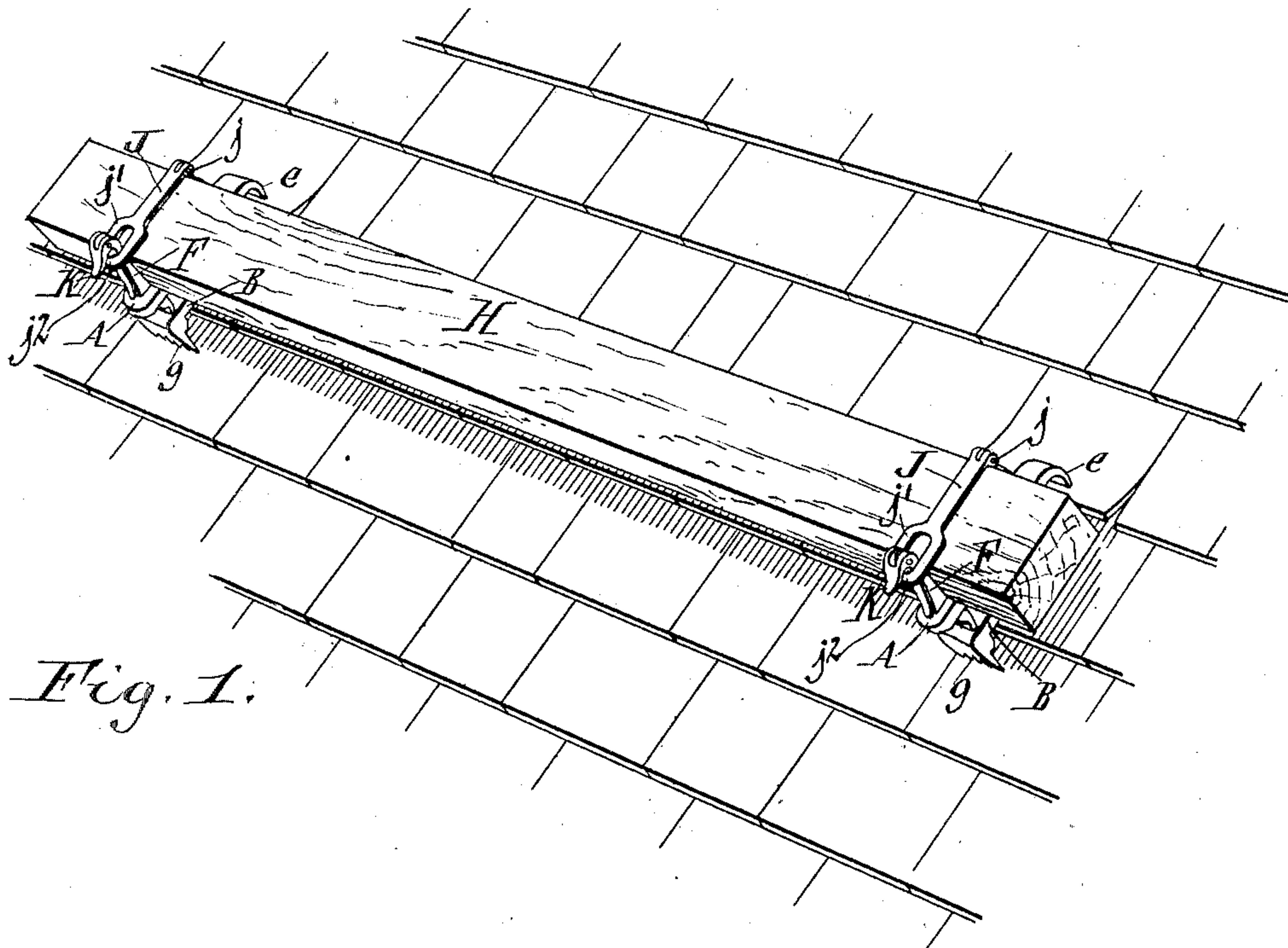


Fig. 1.

Fig. 5.

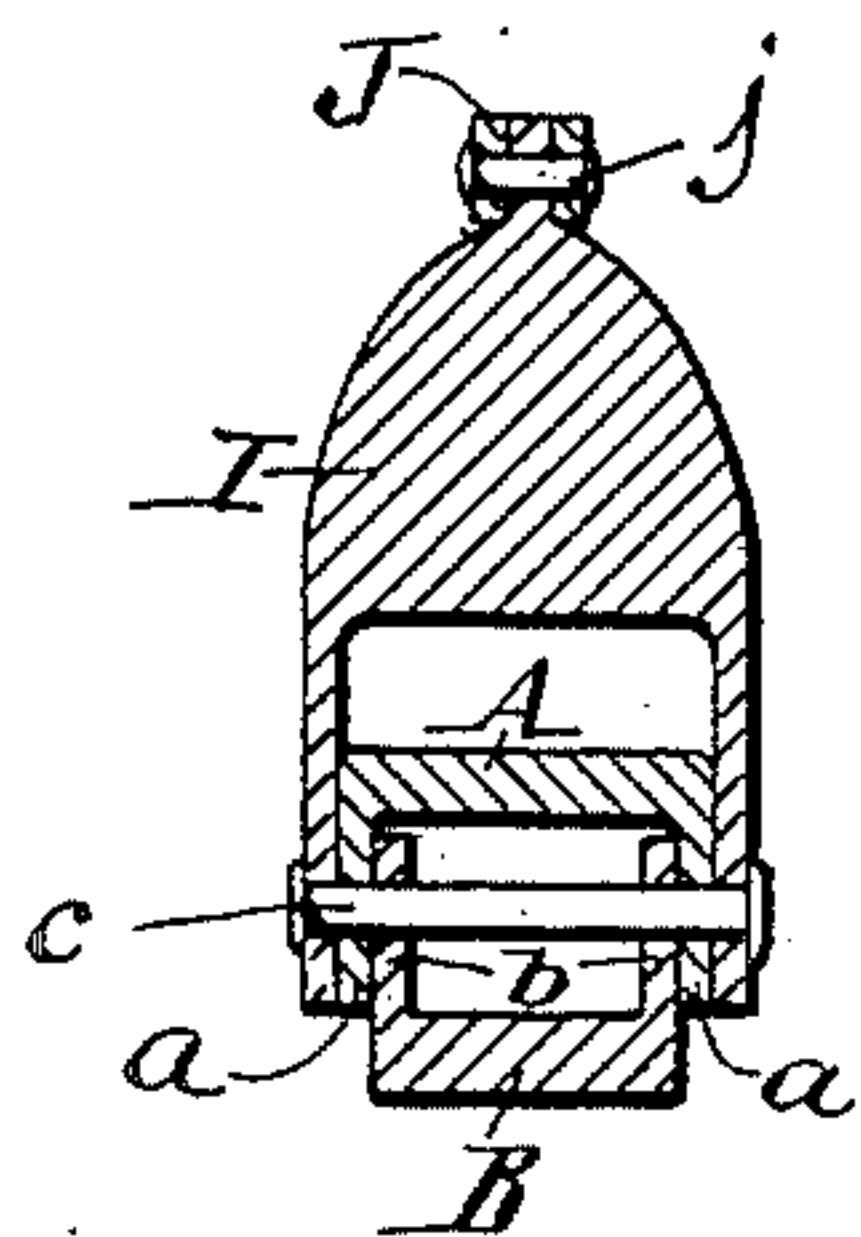


Fig. 6.

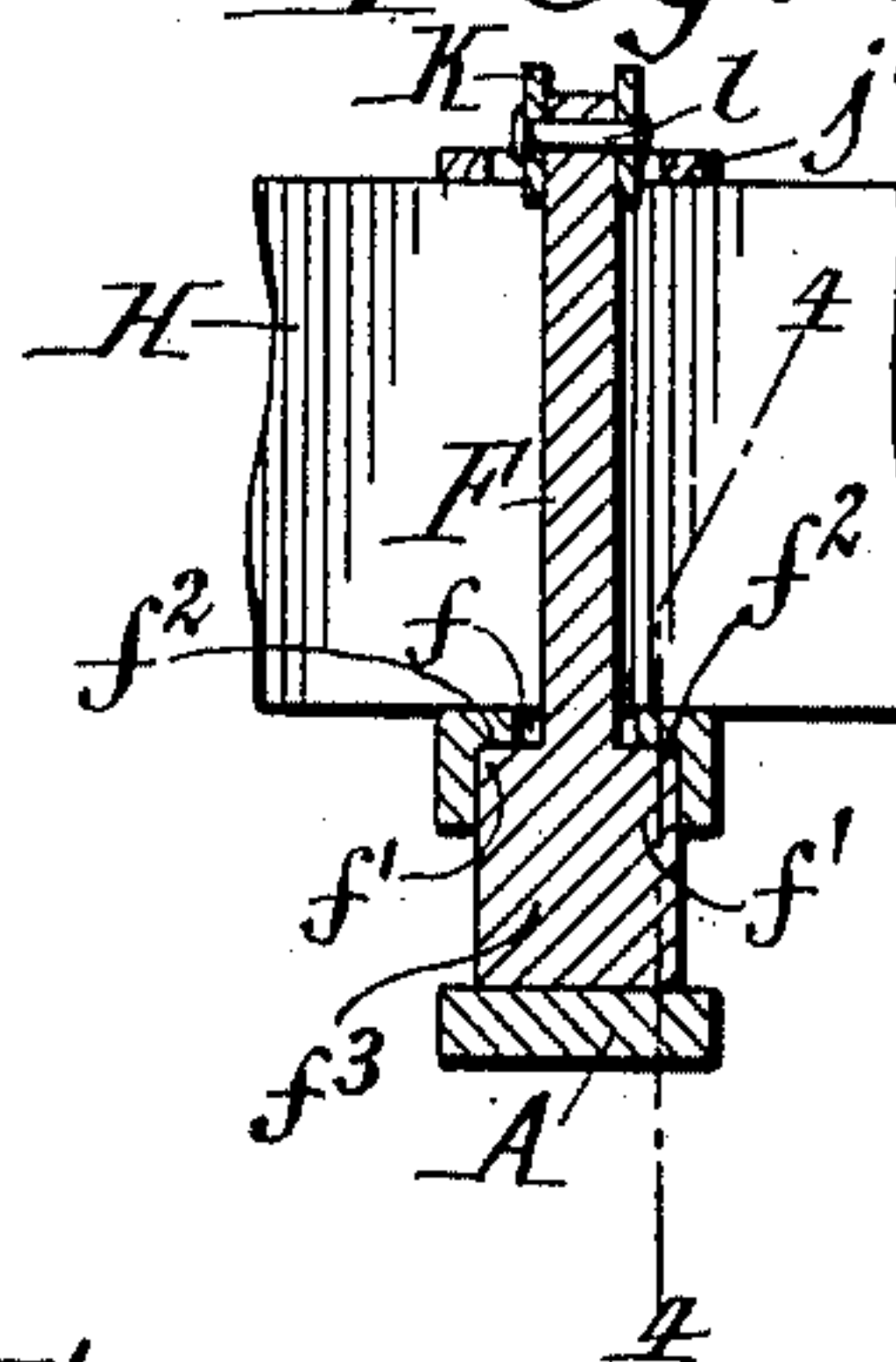
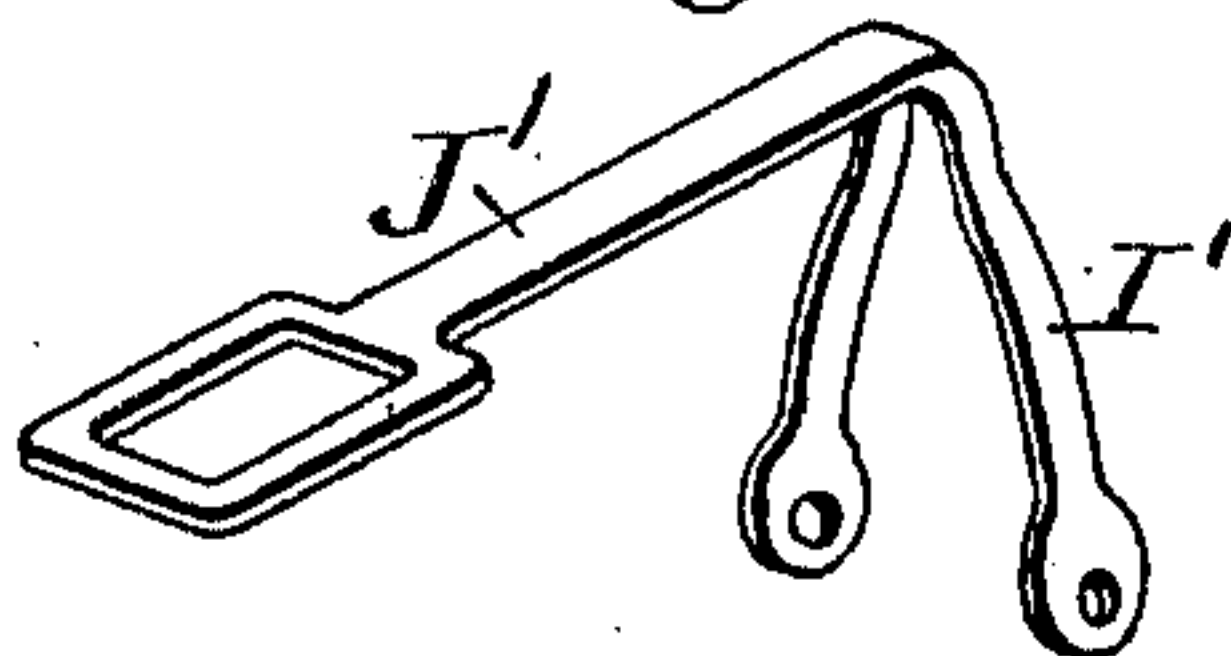


Fig. 7.



Witnesses:
E. A. Volk.
F. F. Schuyler

Frederick Ewing
Inventor
By Wilhelm & Fournier
Attorneys.

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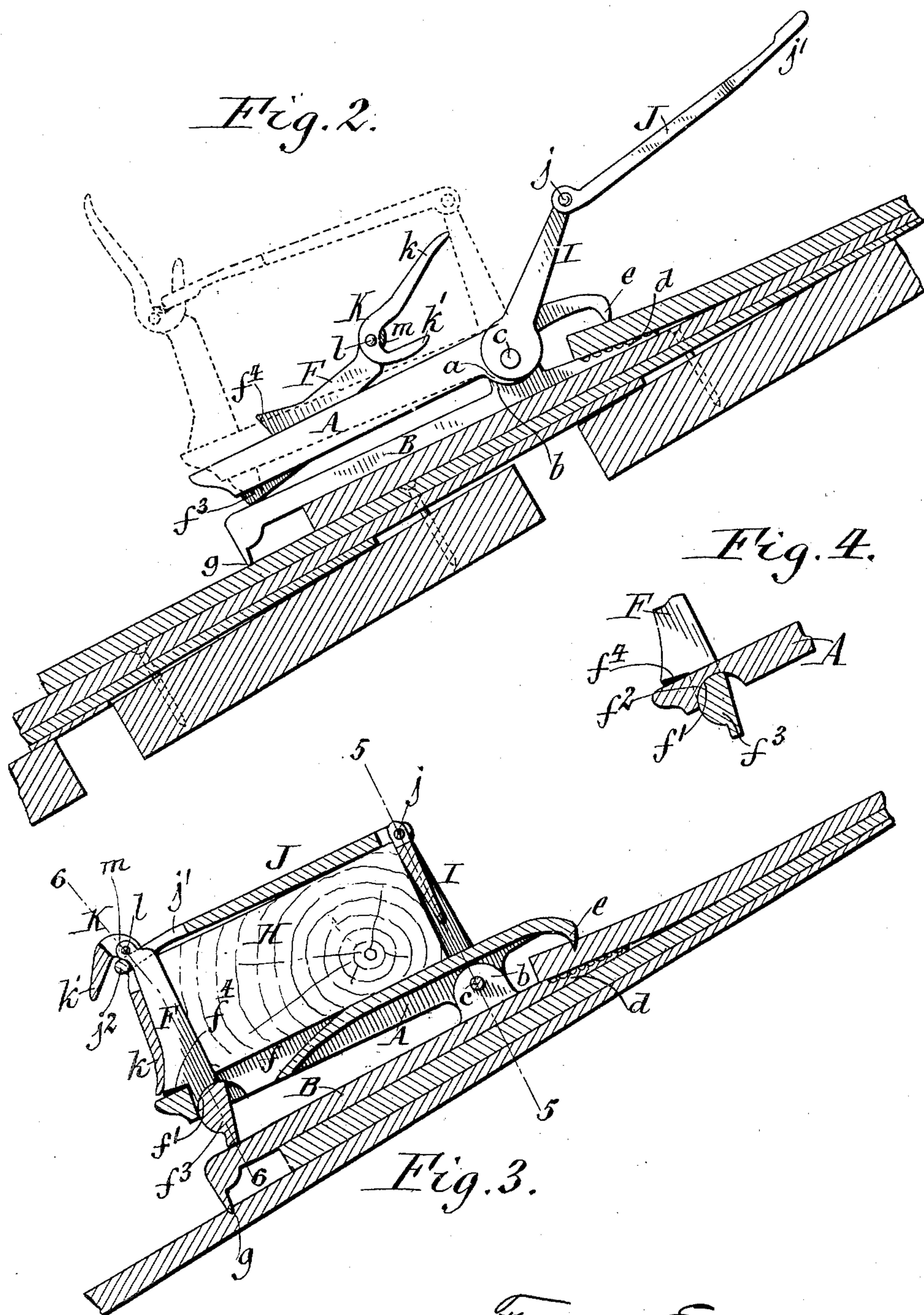
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2 Sheets—Sheet 2.



Witnesses:
E. A. Volk,
F. F. Schurzinger

Frederick Ewing
Inventor
By Wilhelm & Bouvier
Attorneys

UNITED STATES PATENT OFFICE.

FREDERICK EWING, OF BUFFALO, NEW YORK.

SHINGLING-BRACKET.

SPECIFICATION forming part of Letters Patent No. 675,625, dated June 4, 1901.

Application filed November 5, 1900. Serial No. 35,437. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK EWING, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Shingling-Brackets, of which the following is a specification.

This invention relates to a shingling bracket or clamp by means of which a scaffold joist or scantling may be secured to a roof for supporting a workman or material on the roof while shingling or repairing the same.

The object of this invention is to produce an improved bracket or clamp for this purpose which is constructed simple and durable and is easily operated and which will hold the scaffold-joist securely and reliably in position on the roof.

In the accompanying drawings, consisting of two sheets, Figure 1 is a fragmentary perspective view showing a scaffold-joist secured to the shingles of a roof by my improved shingling-brackets. Fig. 2 is a side elevation of my improved bracket, on an enlarged scale, showing the position of the parts preparatory to clamping the bracket on the shingles and securing the scaffold-joist thereto. Fig. 3 is a central longitudinal sectional elevation of the shingling-bracket, showing the position of the parts when the bracket is clamped to the shingles and the scaffold-joist is secured thereto. Fig. 4 is a fragmentary longitudinal section in line 4 4, Fig. 6, showing the knuckle-joint between the cam-lever and the upper clamping-lever. Figs. 5 and 6 are vertical transverse sections in lines 5 5 and 6 6, Fig. 3, respectively. Fig. 7 is a perspective view showing a modified construction of the means for holding the joist in place.

Like letters of reference refer to like parts in the several figures.

A B represent the upper and lower clamping-levers of the shingling-bracket whereby the same is secured to the shingles of the roof. These levers are pivotally connected near their front ends by a transverse pin *c* passing through overlying perforated ears *a b*, formed on the upper and lower levers, respectively. The front end of the lower clamping-lever is provided with a wedge-shaped jaw *d*, which is serrated on its upper side.

The inner end of the upper clamping-lever is provided with a jaw *e*, which projects downwardly. Preparatory to attaching the shingling-bracket to the roof the jaws of the upper and lower clamping-levers are placed against the upper and lower sides of a shingle, at the lower end thereof, as shown in Fig. 2. The shingle is then gripped between the jaws by a cam-lever *F*, which separates the rear ends of the clamping-levers. This cam-lever is arranged in a longitudinal slot *f* in the upper clamping-lever and is pivoted thereto by rounded knuckles *f'*, formed on opposite sides of the cam-lever and seated in corresponding sockets *f''* in the under side of the upper clamping-lever, as shown in Figs. 4 and 6. When applying the jaws of the clamping-levers to a shingle, the cam-lever is swung forwardly, so that the cam *f'''* at its lower end bears with its receding portion against the lower clamping-lever and permits the jaws to be opened the required distance, as shown in Fig. 2. Upon now swinging the upper end of the cam-lever backwardly until it stands at right angles to the clamping-levers, as shown by dotted lines in Fig. 2, the salient part of the cam *f'''* bears against the lower clamping-lever and causes the rear ends of the clamping-levers to be separated and the jaws at their front ends to be closed against opposite sides of the shingle. The backward movement of the cam-lever is limited by a stop or shoulder *f''''*, arranged on the lever and adapted to bear against the upper clamping-lever, as shown in Figs. 1 and 3.

In order to increase the hold of the shingling-bracket on the roof, the rear end of the lower clamping-lever is provided with a downwardly-projecting claw *g*, which enters the shingle or other support below the same.

H represents the scaffold joist or scantling, which is supported on the roof by the shingling-brackets. Two or more shingling-brackets are employed for supporting the scaffold-joist, the number depending on the length of the joist and the load to be supported by the same. The scaffold-joist, which is usually rectangular in cross-section, is placed with its lower side upon the upper clamping-lever and with its rear side against the front side of the cam-lever, as shown in

Figs. 1 and 3. The cam-lever serves as an abutment on the clamping device to receive the thrust of the load on the joist.

In order to prevent the scaffold-joist from being tilted or otherwise displaced on the brackets by the workman or by the material which may be supported by the scaffold-joist, the latter is securely attached to each bracket by a retaining or locking device, which is constructed as follows:

I represents a holding-link which is bifurcated at its lower end and pivoted on opposite ends of the pin *c*, which pivotally connects the clamping-levers. After the scaffold-joist has been placed upon the upper clamping-lever the holding-link is swung against the front side of the joist, as shown by dotted lines in Fig. 2 and by full lines in Fig. 3.

J represents a locking-bar which is adapted to bear against the top of the scaffold-joist and hold the same down on the upper clamping-lever. This bar is pivoted at its front end by a transverse pin *j* to the upper or free end of the holding-link and is provided at its rear end with an eye or loop *j'*.

K represents a latch whereby the locking-bar is held in its operative position and which consists of a handle *k* and a hook *k'* at one end of the handle. The latch is pivoted to the cam-lever, so as to swing in a vertical plane, by a pin *l* passing transversely through the latch adjacent to the bight, between its handle and hook, and through a rearwardly-projecting lug or eye *m* on the upper end of the cam-lever or abutment. In order to lock the bar K down upon the scaffold-joist, the latch is swung upwardly and forwardly, so that the hook is arranged in front of the handle and the mouth of the hook opens upwardly, while the bight between the hook and handle is arranged above the pivot of the latch. While the latch is in this position the locking-bar J is swung downwardly upon the joist, and the cross-bar *j²* at the outer end of its loop is placed into the mouth of the hook of the latch and on top of the eye *m* of the cam-lever, as shown in dotted lines, Fig. 2. The latch is now swung rearwardly and downwardly until the handle strikes the rear side of the cam-lever, during which movement the cross-bar *j²* of the locking-bar is carried by the hook from above the pivot of the latch to a point below said pivot, as shown in Fig. 3, thereby locking the bar K in its operative position and drawing the link and locking-bar tightly against the joist, so as to hold the same firmly in place. When the parts are in this position, the cross-bar *j²* of the locking-bar loop bears against the under side of the eye *m* on the cam-lever, thereby resisting any upward pressure which may be exerted against the locking-bar by the load on the scaffold-joist, whereby accidental unlocking of the latch is prevented. While the scaffold-joist is thus secured upon the upper clamping-lever the cam-lever is held in its

operative position, thereby retaining a firm grip of the clamping-jaws on the shingles. By reversing the operations described the shingling-bracket can be readily detached from the joist and shifted on the roof as the shingling of the roof progresses or the repairs on the same may require.

It will thus be seen that by the use of my improved shingling-bracket the scaffold-joist can be fastened to the roof so as to be absolutely secure and reliable and that no displacement of the joist can take place by reason of carelessness on the part of the workman or by an uneven distribution of the weight on the scaffold-joist.

Instead of making the holding-link and the locking-bar separate and connecting the same by a pivot, these parts may be made integral, as shown by I' and J', respectively, in Fig. 7.

I claim as my invention—

1. The combination with a clamping device which is adapted to be secured to the shingles of a roof and to support a scaffold-joist, of a movable locking-bar adapted to extend over said joist and pivotally connected at one end with the clamping device on one side of the joist and detachably connected at its opposite end with the clamping device on the opposite side of the joist, substantially as set forth.

2. The combination with a clamping device which is adapted to be secured to the shingles of a roof and to support a scaffold-joist, of an abutment arranged on the rear part of the clamping device and adapted to receive the thrust of said joist, a locking-bar adapted to extend over said joist and pivotally connected at its front end with the clamping device, and a latch whereby the rear end of said locking-bar is detachably connected with said abutment, substantially as set forth.

3. The combination with a clamping device which is adapted to be secured to the shingles of a roof, and to support a scaffold-joist, of an abutment arranged on the rear part of the clamping device and adapted to receive the thrust of said joist, a locking-bar adapted to extend over said joist, a link connecting the front end of said locking-bar with said clamping device, and a latch detachably connecting the rear end of the locking-bar with said abutment, substantially as set forth.

4. The combination with a clamping device which is adapted to be secured to the shingles of a roof and to support a scaffold-joist, of an abutment arranged on the rear part of the clamping device and adapted to receive the thrust of said joist, a locking-bar adapted to extend over said joist and pivotally connected at its front end with said clamping device, and a latch pivoted on said abutment and provided with a hook which is adapted to receive a cross-bar on the rear end of said locking-bar, substantially as set forth.

5. The combination with a clamping device which is adapted to be secured to the shingles

of a roof and to support a scaffold-joist, of an abutment arranged on the rear part of the clamping device and adapted to receive the thrust of said joist, a locking-bar adapted to
5 extend over said joist and pivotally connected at its front end with said clamping device, and a latch which is provided with a hook and which is pivoted on said abutment to turn vertically, whereby upon turning the latch
10 upwardly and forwardly the mouth of its hook will open upwardly from its pivot in position to receive a cross-bar on the rear end of said locking-bar while upon turning the latch rearwardly and downwardly the mouth of its hook
15 will open downwardly from its pivot and couple said locking-bar with said abutment, substantially as set forth.

6. The combination with a clamping device which is adapted to be secured to the shingles
20 of a roof and to support a scaffold-joist, of an abutment arranged on the rear part of the clamping device and adapted to receive the thrust of said joist, a locking-bar adapted to extend over said joist and pivotally connected
25 at its front end with said clamping device while its rear end is provided with a cross-bar, a rearwardly-projecting lug arranged on the upper end of said abutment, and a latch which is provided with a hook and which is
30 pivoted by a transverse pin to said lug, whereby upon turning the latch upwardly and forwardly the mouth of its hook will open upwardly from its pivot and permit the cross-bar of the locking-bar to be placed in the
35 mouth of the hook and on the top of said lug,

while upon turning the latch rearwardly and downwardly the mouth of its hook will open downwardly from its pivot and said cross-bar will be carried underneath said lug on the abutment, substantially as set forth. 40

7. The combination with the upper and lower clamping-levers which are pivotally connected near their front ends by a transverse pin, and the cam-lever pivoted on the upper clamping-lever and provided at its
45 lower end with a cam which engages with the lower clamping-lever, of a link pivoted at its lower end on the pin which connects the clamping-levers, a locking-bar pivoted at its front end on the upper end of the link and provided
50 at its rear end with a loop forming a cross-bar, a rearwardly-projecting lug arranged on the upper end of said cam-lever, and a latch which is provided with a hook and which is pivoted on said lug, whereby upon turning the latch
55 upwardly and forwardly the mouth of its hook will open upwardly from its pivot and permit the cross-bar of the locking-bar to be placed in the mouth of the hook and on top of said
60 lug, while upon turning the latch rearwardly and downwardly from its pivot the said cross-bar will be carried underneath said lug on the cam-lever, substantially as set forth.

Witness my hand this 3d day of November, 1900.

FREDERICK EWING.

Witnesses:

THEO. L. POPP,
JNO. J. BONNER.