

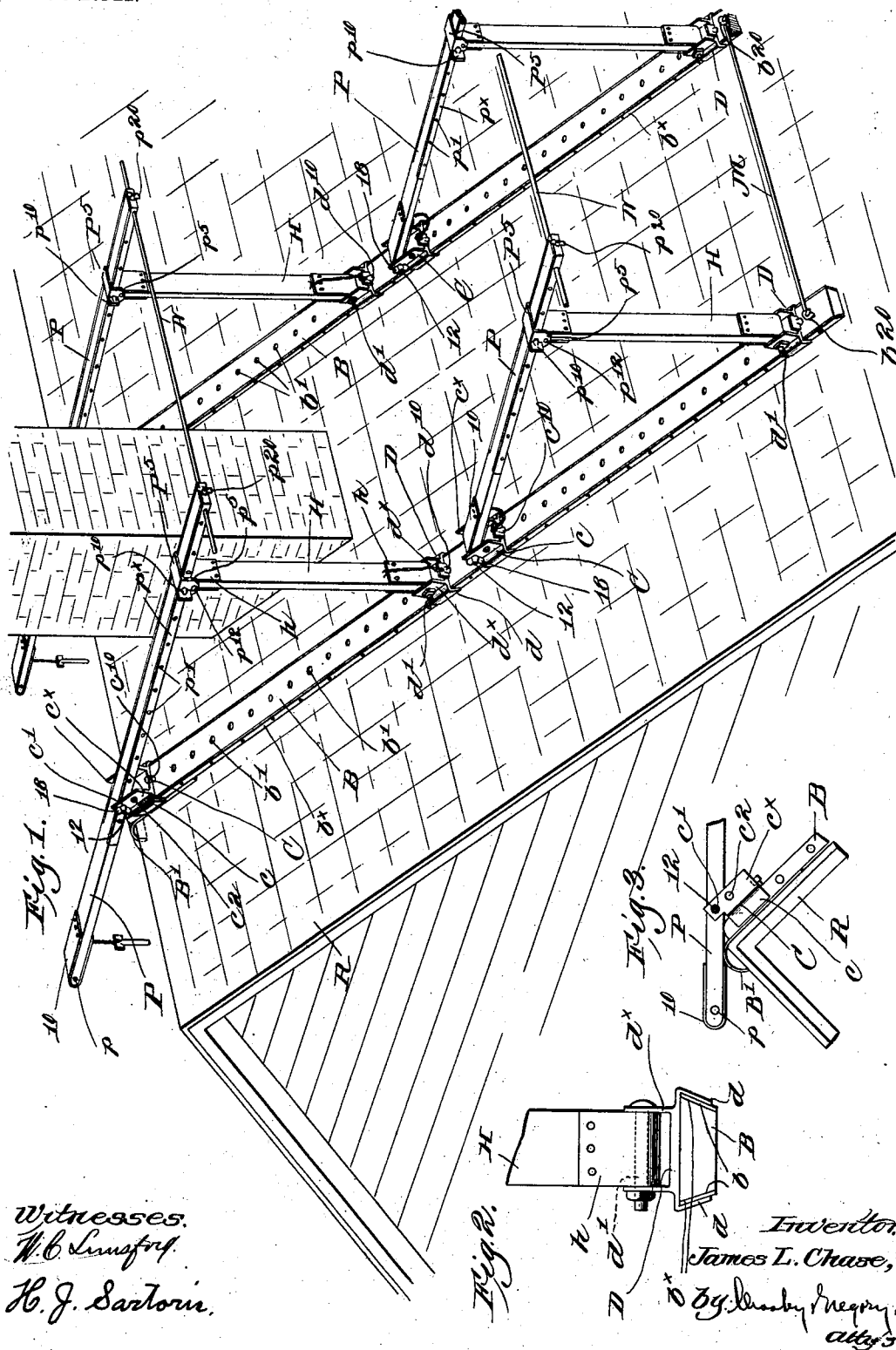
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PATENTED JAN. 20, 1903.

J. L. CHASE.
ROOF BRACKET.

APPLICATION FILED MAY 31, 1902.

NO MODEL.



Witnesses:
W. C. Lumsford.
H. J. Sartorius.

Inventor:
James L. Chase,
By Stanley Gregory,
att'y.

UNITED STATES PATENT OFFICE.

JAMES L. CHASE, OF AYER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO
GEORGE HEMENWAY, OF AYER, MASSACHUSETTS.

ROOF-BRACKET.

SPECIFICATION forming part of Letters Patent No. 718,602, dated January 20, 1903.

Application filed May 31, 1902. Serial No. 109,638. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. CHASE, a citizen of the United States, residing at Ayer, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Roof-Brackets, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to brackets designed for use on pitch-roofs or other inclined surfaces; and it has for its object the production of a strong and simple bracket which can be instantly applied to or removed from a roof—slate or shingle—without the use of clamps, prongs, or other devices which are designed to enter the roof-covering.

My novel roof-bracket comprises three principal members, a base to rest upon the roof, a platform-support, and a brace, the three being slidably and pivotally connected in such manner that the platform-support can be made horizontal whatever the inclination or pitch of the roof, means being provided to prevent movement of the platform-support and brace relatively to each other and to the base when said parts have been adjusted.

In United States Patent No. 681,649, granted to me August 27, 1901, I have shown a roof-bracket for the purposes set forth hereinbefore, and my present invention is an improvement thereover in various details of arrangement and construction.

The various novel features of my invention will be fully described hereinafter and particularly pointed out in the following claims.

Figure 1 is a perspective view of a portion of a pitch-roof with two brackets embodying my present invention shown in operative arrangement, the platforms being omitted for the sake of clearness of illustration. Fig. 2 is a lower end view, enlarged, of the base, showing the cross-sectional shape thereof and the lower slide thereon with the lower end of the brace connected with the slide; and Fig. 3 is an enlarged detail, in side elevation, of the upper end of the base and the platform-support connected with the upper slide when the platform is used at the roof-ridge.

In the present embodiment of my invention the base is shown as an elongated flat bar B, conveniently made of wood and adapted when in use to rest flat upon the roof or other inclined plane R, Fig. 1, and a metallic hook-like ridge-holder B' is rigidly secured to the upper end of the base. The opposite longitudinal sides of the base are beveled or downwardly inclined, as at *b b*, Fig. 2, so that the upper edges overhang the lower edges, and I prefer to protect the inclined sides with metallic shoes *b^x*, which present a smooth and durable wearing-surface for the connections between the base and the platform-support and its brace and also stiffen and strengthen the base. A series of holes *b'*, Fig. 1, is made in the base, preferably along its median line, and suitably spaced apart.

The manner in which the ridge-holder B' engages the ridge of the roof is shown clearly in Figs. 1 and 3.

A slide C is mounted on the base and is longitudinally movable thereon, said slide being made of metal and having opposite downwardly-inclined sides *c* to embrace the base, and two upturned, parallel, and elongated ears *c^x* are formed on the slide, provided with two sets of holes *c' c²*. A second and very similar slide D is also mounted on the base, its downturned sides *d* embracing the base, and upturned ears *d^x* are provided, but with only one set of holes, to receive a pivot-pin *d'*.

The platform-support P is herein shown as a stout rigid rectangular bar, preferably of wood, of suitable length and of such width as it will easily enter between the ears *c^x* of the slide C, and I prefer to have the longitudinal sides thereof shod with metal, as at *p^x*, for a portion of their length. A transverse hole *p* is made in the platform-support near one end, Figs. 1 and 3, and such end may be protected and strengthened by a metal strap 10, if desired. Along the metal-shod portion of the platform-support a series of transverse holes *p'* are made extending from one to the other side for a purpose to be described. A connecting-pin 12 is passed through the holes *c'* and one of the holes *p'* of the platform-support when it is to be used at the ridge, as

shown at the upper part of Fig. 1 and in Fig. 3, so that the platform can be erected right across the ridge, if desired, the slide C then being at its highest point on the base and held from downward movement by a stop-pin c^{10} , inserted in the uppermost hole b' in the base. Similarly a stop-pin d^{10} retains the slide D from downward movement on the base. (See Fig. 1.)

When the platform is to be erected below the ridge, the slide C is held by its stop-pin at the desired height, as shown at the lower part of Fig. 1, and the connecting-pin 12 is then passed through the end hole p of the platform-support P and through either of the holes c' c^2 in the ears c^x .

The metal-shod portion of the platform-support has mounted upon it a slide P^5 , having depending parallel ears p^5 , which extend below the platform-support and are provided with holes near their lower ends and also with holes adapted to register with the opposite ends of one of the holes p' to receive a locking-pin p^{10} , which locks the slide P^5 at any desired place on the platform-support.

A rigid bar H, constituting a brace, has its upper end inserted between the ears of the slide P^5 and is pivotally connected therewith by a pin p^{12} , extended through the lower set of holes in the ears p^5 .

The pin d' is passed through a transverse hole in the lower end of the brace inserted between the upturned ears d^x of the slide D, and the brace is connected pivotally at its opposite ends with the slides P^5 and D, respectively.

Manifestly the platform-support must be maintained in substantially horizontal position, and when its inner end has been set at the desired height by adjustment of the slide C the slides D and P^5 are moved until the brace is substantially vertical and the platform-support P horizontal. The slide P^5 is then locked in place, and by means of the stop-pin d^{10} the slide D is held from downward movement along the base, the brace and platform-support being thus held from movement relatively to each other and to the base while still connected by slidable and pivotal couplings or connections. If desired, the ends of the brace may be strengthened by metal straps h .

For the purpose of most clearly illustrating my invention I have shown a pair of roof-brackets in Fig. 1 and with the platform-supports P arranged slightly above the ridge in the upper part of the said figure, while the lower part shows the platform-supports arranged for work at a lower level.

While one base member may be utilized to sustain two platform-supports and their braces at one time, I prefer to have only one platform-support and brace for each base and to adjust as may be necessary.

It will be obvious that the planking for the platform will be laid upon the platform-sup-

ports P, affording a strong stable staging for the workmen.

When in use, the lower ends of the bases of a pair of brackets are connected by a link M, having its ends hooked into eyes b^{20} on the bases, and a rod N is extended through the outermost hole p' of each platform-support and clamped to the latter by set-bolts p^{20} in the ends of the supports. The bracket-base rests firmly on the roof, and the weight which the platform may have to support is distributed over a very considerable area of the roof. The brace is subjected to compression by the weight on the platform, and the greater the weight the more firmly will the bracket be held thereby on the roof.

From the foregoing description and the drawings it will be manifest that repairs to a chimney or roof can be made with equal facility whatever the roof pitch, the location of the chimney relative to the ridge of the roof, and the part of the latter at which repairs are to be made. It will also be manifest that the bracket can be used for wallwork by hooking the holder B' over a window-sill, &c., and suspending the base, the brace and platform-support being adjusted with the latter in horizontal position.

If desired, the stop-pins c^{10} d^{10} may be attached to the platform support and brace, respectively, by a chain or other flexible connection, as in Fig. 1; but if so a separate pin must be used to hold the slide C in place when the platform-support is positioned as shown in Fig. 3 and the upper part of Fig. 1.

The connecting-pin 12 is preferably made with a head at one end and a threaded opposite end to receive a suitable thumb-nut 18, preventing accidental withdrawal of the pin.

My invention is not restricted to the precise construction herein shown and described, as the same may be modified or changed in various details by those skilled in the art without departing from the spirit and scope of my invention.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A roof-bracket comprising an elongated base, a hook-like ridge-holder connected therewith, a platform-support slidably connected at one end with the base, a brace, sliding couplings between one end thereof and the platform-support and sliding couplings between the other end thereof and base, and separate means to prevent movement of the platform-support and brace relatively to each other and to the base when in adjusted position.

2. A roof-bracket comprising an elongated base having a rigidly-attached ridge-holder at one end, two slides mounted on and longitudinally movable upon the base, a platform-support pivotally connected with one of the slides, a brace pivotally connected at one end with the other slide, a slide longitudinally

movable on the platform-support and pivotally connected with the other end of the brace, and a stop for each slide, to hold the same in adjusted position and prevent relative movement of the base, platform-support, and brace.

3. A roof-bracket comprising an elongated base adapted to rest upon the roof and having rigidly secured to one end a holder, to engage the ridge, two slides partly embracing the base and movable longitudinally thereupon as a guideway, a rigid platform-support pivotally connected at its inner end with the slide nearer the ridge-holder, a longitudinally-movable slide on the platform-support, a brace pivotally connected at one end with said slide beneath the platform-support and at its other end pivotally connected with the lower slide on the base, and stops for the several slides, to prevent movement thereof on the base and the platform-support respectively.

4. A roof-bracket comprising an elongated base adapted to rest upon the roof and having at one end a ridge-holder, a platform-support slidably and pivotally connected with the base, a brace pivotally and slidably connected at one end with the base, and pivotally and slidably connected at its other end with the platform-support, and means separate from said pivotal and slidable connections for preventing movement of the platform-support and brace relatively to each other and to the base.

5. A roof-bracket comprising an elongated base having a series of holes therein, a ridge-holder secured to one end thereof, a slide longitudinally movable on the base, a platform-support pivotally connected at its inner end with the slide, a stop-pin to enter one of the holes in the base below the slide and prevent descent thereof; a second slide on the base, a brace pivotally connected at its lower end with said slide, a stop-pin to prevent movement of the latter on the base, a slidable, pivotal connection between the upper end of the brace and said platform-support, and means to lock said connection to the platform-support.

6. A roof-bracket comprising an elongated base adapted to rest upon the roof and having oppositely and downwardly inclined longitudinal edges, a hook-like ridge-holder secured to one end of the base, two slides embracing the inclined edges of the base and longitudinally movable thereupon, means to hold the

slides in adjusted position when the bracket is in use, a platform-support pivotally connected with the slide nearer the ridge-holder, a brace pivotally connected at its lower end with the other slide, a longitudinally-movable slide on the platform-support, pivotally connected with the upper end of the brace, and a device to lock said slide to the platform-support.

7. A roof-bracket comprising an elongated base, a ridge-holder rigidly connected therewith, a slide longitudinally movable on the base and having upturned parallel ears, a platform-support having a series of holes extended therethrough from side to side, a removable pin adapted to pass through the ears and one of the holes of the platform-support, to connect the latter at one end, or intermediate its ends, with the slide, means to prevent movement of the latter on the base, a second slide on the latter, means to prevent its movement, a rigid brace, pivotally connected at its lower end to the second slide, a pivotal, longitudinally-slidable connection between the upper end of the brace and the platform-support, and means to lock said connection from longitudinal movement on said platform-support.

8. A roof-bracket comprising an elongated base having its opposite longitudinal edges shod with metal, an attached ridge-holder, two slides movable longitudinally on the base as a guideway and each having upturned, parallel ears, a platform-support having its longitudinal edges shod with metal, a pivotal connection between the platform-support and the ears of the upper of said slides, a slide longitudinally movable on the platform-support and having depending parallel ears, a brace inserted at its upper end between said ears and at its lower end inserted between the ears of the second slide on the base, pivot-pins connecting the brace and said slides, and means to prevent movement of the platform-support and brace relatively to each other and to the base.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES L. CHASE.

Witnesses:

JOHN C. EDWARDS.
EMILY C. HODGES.