

J. W. ATLEE.
SUPPORTING CLEAT.

(Application filed Mar. 24, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

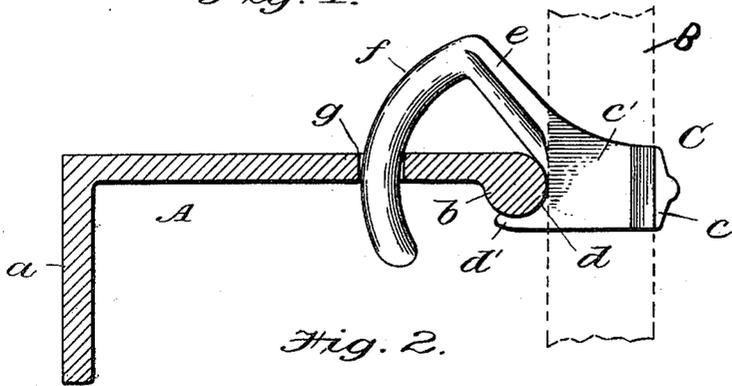


Fig. 2.

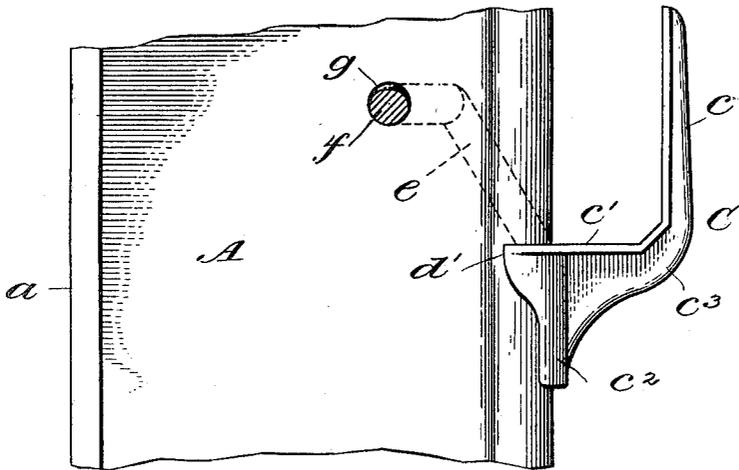
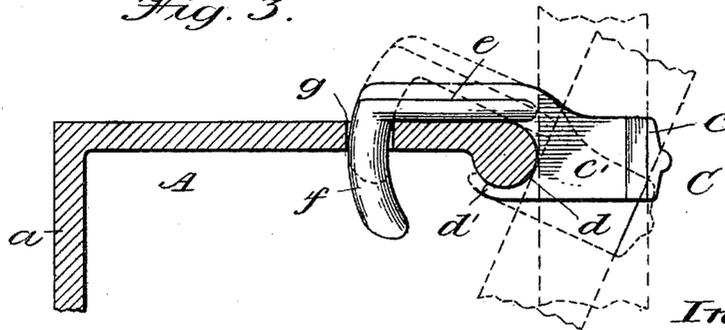


Fig. 3.



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2 Sheets—Sheet 2.

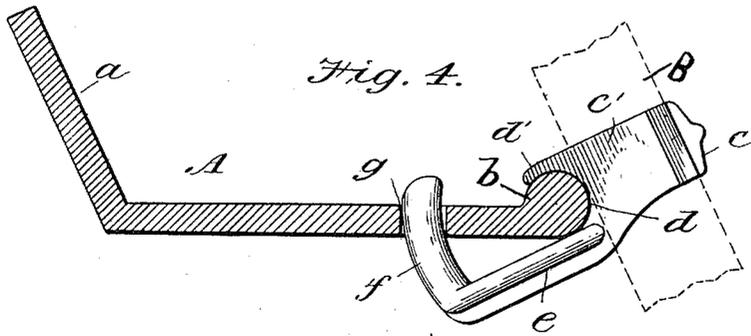


Fig. 5.

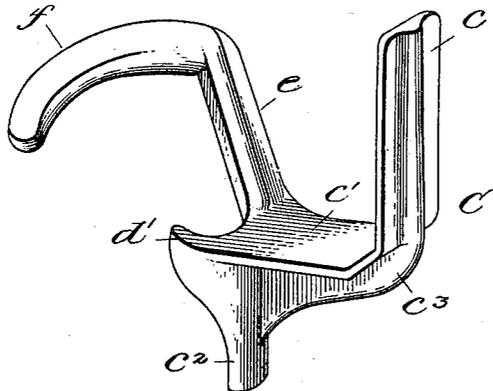
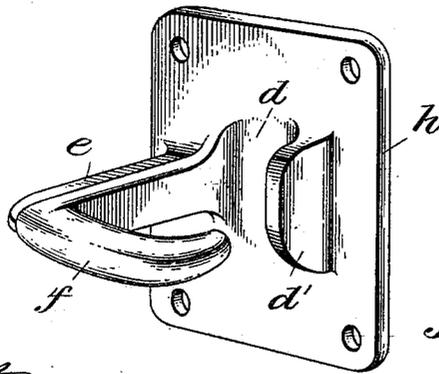


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOSHUA W. ATLEE, OF RIVERTON, NEW JERSEY.

SUPPORTING-CLEAT.

SPECIFICATION forming part of Letters Patent No. 626,359, dated June 6, 1899.

Application filed March 24, 1899. Serial No. 710,309. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA W. ATLEE, a citizen of the United States, and a resident of Riverton, State of New Jersey, have invented certain new and useful Improvements in Cleats, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention has relation to certain improvements in supporting cleats or brackets, and is particularly designed for supporting the cargo-battens in ship-building, but may be adapted to various other uses.

The principal object of my said invention is to provide a cleat or bracket which can be placed and secured upon its support without the use of bolts, nuts, &c., and may also be easily and quickly placed in position or removed from the support and without necessitating the use of a wrench.

Another object of my invention is to provide a supporting-cleat so constructed that it is capable of being adjusted at an angle to its support without having to remove it therefrom or to resort to the use of a wrench or other tool, which is especially desirable in ship-building when it is used for supporting the cargo-battens upon the frame, which battens are necessarily curved as they approach the bow or stern of a vessel to conform to the shape of the hull, while the vertical flanges of the frame of the vessel to which the battens are secured are always set at right angles to the longitudinal center of the vessel.

A still further object of my invention is to provide a supporting cleat or bracket which can be constructed of a single casting manufactured at small cost and at the same time contain great strength and stability and be adapted to various uses in building and structural work.

With these objects in view my invention consists in the construction substantially as herein described, and particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, and in which similar letters are used to designate similar parts, Figure 1 is a plan view of a cleat or bracket embodying my invention, the same being shown as applied to a bulb-angle, such as is

sometimes used in ship-building, and supporting a batten. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view similar to Fig. 1, illustrating a slight modification in the shape of my cleat. Fig. 4 is a view similar to Fig. 3, showing a left-hand cleat instead of right, the position being such as to secure the object to be supported at an angle. Fig. 5 is a detail perspective view of the cleat of the form illustrated in Fig. 1; and Fig. 6 is a perspective view of a modified form of cleat, a vertical plate being shown in connection with the hook-arm instead of a bracket.

In order to clearly describe my invention and to set forth its uses and advantages, I have shown it as applied to a bulb-angle, as A, of the frame of a vessel, to the flange *a* of which the shell-plating of the vessel is adapted to be secured, the bulb portion *b* projecting inwardly on a line transverse to the longitudinal center of the vessel and to which are secured the battens, as B.

My improved cleat or bracket C consists of a metallic casting having a base portion *c'*, adapted to support a batten, joist, or other objects, and a depending foot-piece *c''*, these parts being suitably strengthened by means of the web or flange *c'''*. (Illustrated in Fig. 2 of the drawings.) The bracket-arm *c* is preferably provided on the base *c'* to retain the batten or beam in position.

In the forward part of the bracket-base *c'* is formed a rounded or semicircular bearing *d*, extending vertically the full length of the foot portion *c''* and adapted to embrace the rounded or bulb portion *b* of the angle-plate A, the upper end of the foot portion *c''* forming a short arm *d'*, which extends a short distance around the bulb *b*, as clearly illustrated in Figs. 1 and 3 of the drawings. On the other side of the rounded face *d*, opposite the arm *d'*, is an inclined upwardly and outwardly extending arm *e*, the said arm extending upwardly some distance above the base *c'* and terminating in a curved arm *f*, described from a radius taken from the center of the bulb *b* or curved portion *d*.

In the angle-plate A is provided a transverse aperture *g* of a size sufficient to admit the arm *f* of the cleat and of a distance from the center of the bulb portion *b* corresponding to the radius of the arm *f*.

The cleat is placed upon the support A by turning it at approximately right angles to the plate A and by tilting it up slightly, the bulb *b* entering between the arm *d'* and the end of the arm *f*, and as the arm *f* enters the aperture *g* the cleat is turned around and the curved face *d* will bear against the curved face of the bulb *b*. By having the arm *e* extending upwardly and inclined I divide the strain by throwing the greater portion of it upon the foot portion *c*², thus relieving the arms *e* and *f* to a considerable extent. After placing the cleat it is adjusted to the desired position by turning it upon the bulb *b* as an axis, and the batten is then placed in the bracket portion *c'*, one side resting against the bracket-arm *c* and the other against the outer edge of the bulb-angle, thus firmly holding the batten in position and preventing the cleat from being removed.

The cleat could of course be applied to any support having an edge substantially corresponding to the bulb *b* and having an aperture the correct distance from the edge of the support.

In Fig. 3 of the drawings I have shown the arm *c* as inclined upwardly, but not outwardly, and on the same plane with the base *c'* of the bracket portion of the cleat, so that when the said cleat is placed in position for supporting the beam at right angles to its support, as A, the arm *e* will bear against the side of the support. This construction admits of an adjustment of the angle of the beam in one direction only; but as this construction is made in both rights and lefts they can thus be adapted to any angle, as in the other construction. (See Figs. 3 and 4 of the drawings.)

The weight of the batten or other beam causes the foot portion *c*² to closely impinge against the edge of the support A, and the width of the said beam should be such as to snugly fit between the edge of the support and the arm *c* of the bracket, thus making a durable and secure supporting-cleat.

While I have illustrated and described the preferred form of my invention as being provided with a bracket-arm, as *c c'*, for supporting battens, &c., it is clearly evident that this part might be in the form of a flat plate, as *h*, (illustrated in Fig. 6 of the drawings,) provided with suitable bolt-holes and to which the batten or other object to be supported may be securely bolted. In this construction the curved bearing-face *d* is formed on the plate *h* between the points where the arms *e* and *d'* merge into the said plate *h*, and the curved hook-arm *f* is described from the center of the curved bearing-face *d*, as in the other constructions. The arm *e* in this form is shown as extending outwardly at right angles to the plate *h* instead of upwardly, as in the other constructions, and when in position on its support the lower face of the plate *h* will bear against the rounded edge of the sup-

port A and relieve the hook-arm of a portion of the strain.

Other slight changes and modifications in form might be used without departing from the spirit and scope of my invention. Hence I do not desire to limit myself to the exact construction shown and described.

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

1. A supporting-cleat comprising a body portion having a rounded bearing-face, an arm extending forward from one side of the bearing-face, terminating in a hook portion disposed at substantially right angles to the forwardly-extending arm, the said rounded bearing-face being adapted to the edge of the cleat-support and the said angular hook portion adapted to an aperture formed in the support, for the purpose stated.

2. A supporting-cleat comprising a main body portion having a curved or rounded bearing-face, an arm extending forwardly and upwardly from one edge of the curved bearing-face, and terminating in a hook portion disposed to the forwardly-extending arm, adapted to operate substantially as described and for the purpose stated.

3. A supporting-cleat comprising a main body portion having a curved or rounded face, an arm extending forwardly from one edge of the bearing-face, terminating in a hook portion disposed at an angle to the forward arm, and a bracket-arm formed on the rear of the main body portion, substantially as described and for the purpose stated.

4. A supporting-cleat comprising a main body portion having a curved or rounded bearing-face, an arm extending forwardly and inclined upwardly from one edge of the bearing-face, terminating in a hook portion disposed at an angle to the forward arm, and a bracket-arm formed on the rear of the main body portion, substantially as described and for the purpose stated.

5. A supporting-cleat comprising a main body portion having a curved or rounded bearing-face, an arm extending forwardly from one edge of the bearing-face, and terminating in a curved hook-arm described from a radius taken from the center of the curved bearing-face of the body portion, adapted to operate substantially as described and for the purpose stated.

6. A supporting-cleat comprising a main body portion provided on its front edge with a curved bearing-face, an arm extending forwardly and inclined upwardly from one edge of the bearing-face, and terminating in a curved hook-arm described from a radius taken from the center of the curved bearing-face, adapted to operate substantially as described and for the purpose stated.

7. A supporting-cleat comprising a main body portion provided on its forward edge with a curved bearing-face, an arm extend-

ing forwardly and upwardly from one edge of the bearing-face, a curved hook-arm extending from the upper end of the upwardly-extending arm described from the center of the curved bearing-face, and a bracket-arm formed on the rear of the main body portion, substantially as described and for the purpose stated.

8. The combination of the main body portion, *c'*, provided with a curved bearing-face, *d*, a short arm, *d'*, formed on one edge of the bearing-face, an upwardly-extending inclined arm, *e*, formed on the other edge of the bearing-face, a curved hook-arm, *f*, formed at the upper end of the arm, *e*, and a bracket-arm, *c*, formed on the rear of the body portion, substantially as described and for the purpose stated.

9. The combination of the main body portion, *c'*, provided with a curved bearing-face, *d*, on its front edge, a short arm, *d'*, formed on one edge of the bearing-face, an outwardly and upwardly inclined arm, *e*, extending from

the other edge of the bearing-face, a curved hook-arm, *f*, extending from the upper end of the arm, *e*, and a bracket-arm, *c*, formed on the rear edge of the body, *c'*, substantially as described and for the purpose stated.

10. The combination of the main body portion, *c'*, provided on its front edge with a curved bearing-face, *d*, a depending foot-piece, *c²*, formed on the lower portion of the body, a short arm, *d'*, formed on one edge of the bearing-face, *d*, an outwardly and upwardly inclined arm, *e*, extending from the other edge of the bearing-face, a curved hook portion, *f*, from the end of arm, *e*, and a bracket-arm, *c*, formed on the rear of the body portion of the cleat, substantially as described and for the purpose stated.

In witness whereof I have hereunto set my hand this 21st day of March, A. D. 1899.

JOSHUA W. ATLEE.

Witnesses:

HORACE PETTIT,
FRANK D. GRAHAM.