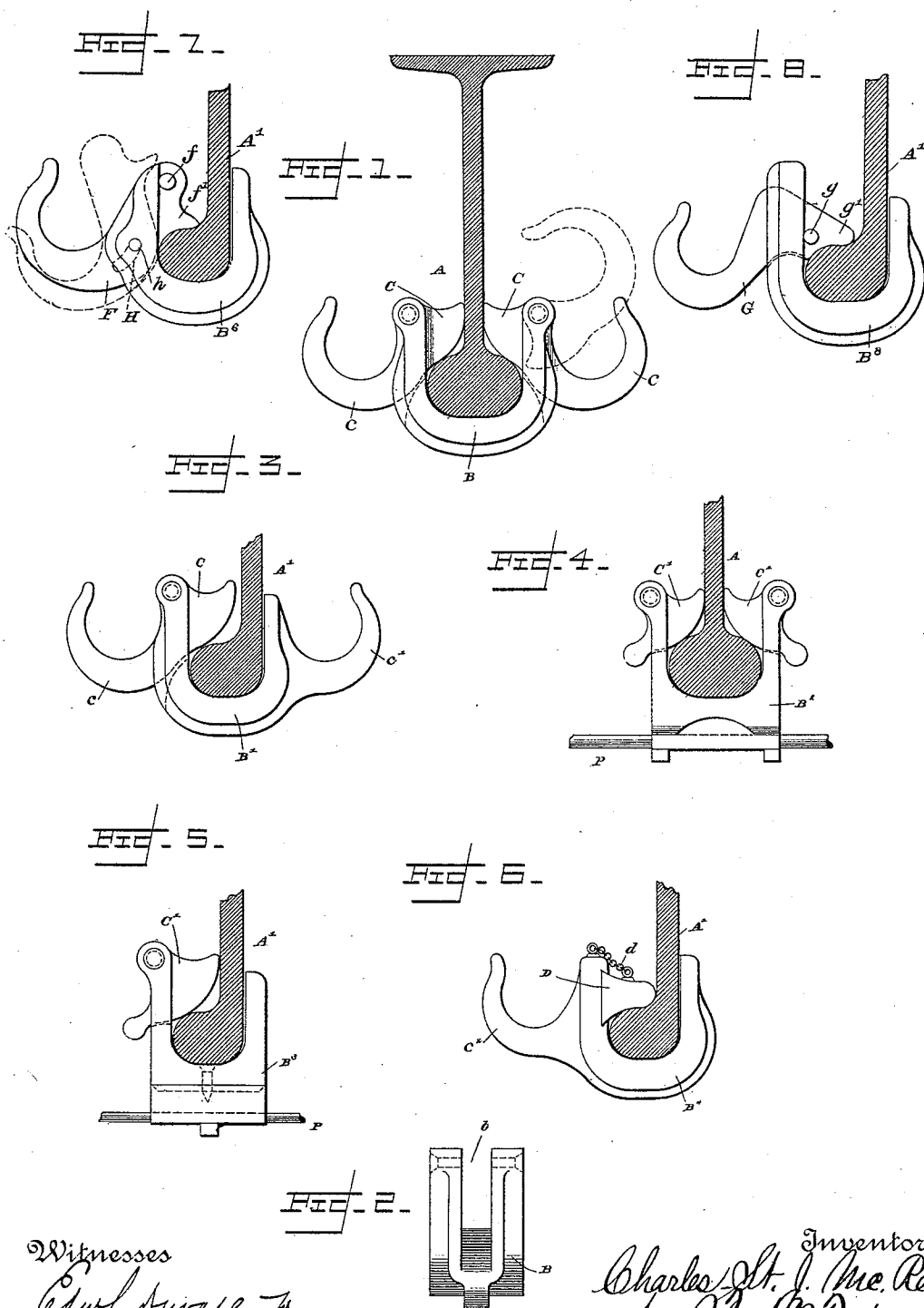


(No Model.)

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HOOK FOR COTS OR HAMMOCKS.

No. 499,644.

Patented June 13, 1893.



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HOOK FOR COTS OR HAMMOCKS.

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To all whom it may concern:

Be it known that I, CHARLES ST. J. McREE, a citizen of the United States, residing at Germantown, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Hooks for Cots or Hammocks or the Like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a hook, catch or fastener for use with hammocks, cots, swing beds and other things that require to be supported or upheld at one or more points, and for other purposes, it being especially designed and adapted for adjustment to and connection with various kinds of bulb-beams, so called, or similar structural shape of metal or wood as commonly found or used in ships, bridges, buildings, &c., the object of the invention being to provide a hook which is portable, easily detachable and readily applied for use and one which is simple, strong and cheap, consisting of a few easily made parts and very effective in practice for the use intended, it being susceptible of practical application in a great variety of ways by having common structural features, as I shall hereinafter fully specify, and the invention therefore consists in the construction, arrangement and combination of parts, substantially as will be hereinafter described and then more particularly pointed out in the appended claims.

In the accompanying drawings illustrating my invention: Figure 1 is a side elevation of my improved hook or clamp made in double form and shown as practically employed in engagement with a T-bulb beam. Fig. 2 is an end elevation of the jaw shown in Fig. 1, with the hook proper removed. Fig. 3 is a view of a modified form of my clamp, the same being changed to suit it to apply to an angle bulb beam. Fig. 4 represents another modification of my improved hook, the same being constructed so as to adapt it for the purpose of running portable or temporary wires, pipes, attaching hoisting gear or performing similar functions. Fig. 5 is a modified form of the clamp represented in Fig. 4, the same

having been changed to adapt it for use with an angle bulb beam instead of with a T bulb beam which is shown in Fig. 4. Fig. 6 is another modification of the device for the purpose of applying it to an angle bulb beam, the jaw in this instance having a hook or hooks cast thereon and being supported by means of a key or wedge which engages the beam. Fig. 7 is another modification of the device applied to a bulb angle beam. Fig. 8 is another modification of the device as applied to a bulb angle beam, the jaw in this instance having a removable hook which enters a slot and acts as a clamp against the beam.

Similar letters of reference designate corresponding parts throughout all the different figures of the drawings.

In iron and steel ships wherein my invention is particularly designed and intended for use, the metallic beams supporting the various decks are usually of the types known as T-bulb beams or angle bulb beams.

In the drawings A denotes a beam of the T-bulb form and A' a beam of the angle bulb form, both being shown in section in said drawings. In many cases it is desirable to swing a cot or hammock in places where fixed hooks either were not provided, or if provided would have been objectionable. In order therefore that the cot, hammock or other bed may be supported in any desired place between the various decks of the ship without the use of the fixed hooks alluded to, it becomes necessary to provide some kind of a clamping device which can be readily engaged with the bulb beam or some equivalent suitable part having a similar protuberance or enlargement around which a jaw may grasp and bite with a sufficient hold to permit the cot or hammock attached thereto to be supported safely with its contained weight. Therefore the invention primarily proposes to provide a clamping hook for engaging bulb beams on board ship or in any other suitable locality, but yet it will be observed that I do not intend to restrict my invention to such a use or purpose but reserve the liberty of employing it wherever it can be practically applied with value and utility. I conceive that it can be used with structural shapes of various kinds and patterns, in various places and I am confident also that the hook or clamp will be found

of value, not only for the purpose of upholding cots, hammocks and the like but also for supporting hoisting mechanisms, wires, cables, weights and in fact it may be put to a multitude of different uses for which it will
5 be found in practice. Therefore I reserve to myself the widest possible liberty of application in the use of the invention. The T-bulb beam A and the bulb angle beam A' are given
10 here merely as examples of structures with which the clamp or hook may be engaged.

Referring to Fig. 1, B denotes a U-shaped jaw or saddle piece of any desired size, having a curved lower part which partially surrounds and conforms in shape to the bulb of the bulb beam and having also the vertical parallel uprights projecting upward for a short distance alongside of the bulb and also the web of the beam so that the saddle piece
15 consequently occupies a depending position relatively to the beam. This saddle piece B has its vertical parallel uprights bifurcated, slotted or cleft at *b b*, as shown in Fig. 2, for the purpose of enabling the hooks *c* to be pivoted therein as indicated in Fig. 1. These
20 hooks *c* are formed on their inner ends with projections C C which are situated inside of the jaw B, and are so shaped like cams with rounded edges as to fit securely in the bosom
30 of the bulb of the beam, after the clamping device has been located in place, the shape of the hook being consequently such that the strain thereon resulting from the downward pull of the hammock or other article suspended thereby will tend to tighten the hold
35 of the clamp upon the beam, transferring also a portion of the strain from the jaw B to the bulb of the beam, as clearly shown in Fig. 1. The jaw B can easily be disengaged at any
40 time from the beam by simply lifting the hook *c* into the position shown in dotted lines in Fig. 1, when the projections C will be thrown clear of the bulb and the jaw B will readily drop away from the bulb. It will be
45 observed therefore that the hooks *c* which are pivoted in slots in the opposite sides of the U-shaped jaw have a considerable latitude of movement from one position into the other. They have a tendency at all times under the
50 action of gravity to assume the position shown in full lines in Fig. 1. Therefore they are readily engaged with the bulb beam by simply causing the U-shaped jaw to encircle the beam, which will depress the projections
55 C C as said beam enters within the jaw and as the jaw seats itself snugly around the curved base of the bulb, the projections C C will then fall back into close contact with the bosom of the bulb and the hook or hooks *c c*
60 will then be in normal position to receive anything which may be suspended thereon. A very tight and secure clamp is thus provided, one which is easily applied and is readily disengaged. It will be observed that it
65 consists essentially of a few simple elements, to wit, a U-shaped jaw and a catch or clamp arranged therewith for the purpose of acting

as a wedge to hold the jaw upon the beam. In the particular example of the invention shown in Fig. 1, as I have already described,
70 there are two hooks *c c* which admit consequently of the attachment of the ends of two hammocks at substantially the same point on the beam.

In Fig. 3, the invention is shown as applied
75 to a bulb angle beam A'. B' denotes the form of U-shaped jaw shown in this figure, said jaw being somewhat smaller than the jaw B, shown in Fig. 1. Jaw B' is slotted only on one side instead of on both sides as in Fig. 1.
80 In this slot is pivoted the hook *c*, having the inner projection C, said hook being the same as that shown in Fig. 1, and the projection C acting in the same manner with the beam as it does in Fig. 1, fitting neatly and securely
85 into the bosom of the bulb. The opposite side of the jaw B' has an integral or rigid hook *c'* instead of a pivoted hook.

In Figs. 4, and 5, I have represented modifications of the device for running portable or
90 temporary wires, pipes, or attaching hoisting gear or sustaining other articles and performing various other functions too numerous to mention, for all of which the device will be pre-eminently adapted. In these figures
95 therefore I do not use any hooks proper, but I employ pivoted clamps C' which are similar in shape and function to the projections C formed on the inner ends of the hook *c*, in
100 Figs. 1 and 3. In fact the clamp C' is the same as the clamp in Figs. 1 and 3, with the omission of the hook *c*, said hook not being needed in the modifications shown in
105 Figs. 4, 5, because the engagement of the device with the supported structure is accomplished in a different way. In Fig. 4, B² denotes the U-shaped clamp which has an angular base for holding the tube P or such other articles as may be attached thereto.
110 The jaw B² has its opposite sides bifurcated in the same manner as the jaw B in Fig. 1, the clamp C' being pivoted between these bifurcations and said clamps act in engagement with the bosom of the bulb to permit a firm
115 engagement of the jaw to the latter, said bulb in the present instance, shown in Fig. 4, being a T-bulb. In Fig. 5, the jaw B³ is similar to jaw B², except that it is bifurcated on one side only and has only one of the clamps C', and one only being needed because the device is
120 applied to a bulb angle instead of to a T bulb beam as is clearly shown.

In Fig. 6, I have represented another modification as applied to a bulb angle beam, the same comprising a jaw B⁴, similar to the jaw
125 B' shown in Fig. 3 and having a fixed or integral hook *c*² on one side and dispensing with any hook, either fixed or pivoted on the opposite side. Of course it is obvious that the jaw B⁴ may have one or more hooks cast
130 upon it. It is connected to the bulb angle beam A' by means of a horizontal key or wedge D which is fitted into an angular groove in one side of the jaw B⁴ and which

comes into close engagement with the beam resting in the bosom of the bulb neatly as shown in this Fig. 6. I preferably employ a chain *d* attached to the wedge *D* and also to one side of the jaw *B*⁴ for the purpose of holding the wedge when it is disengaged and keeping it from getting lost.

In Figs. 7 and 8, are shown other modifications of my device as applied to bulb angle beams. *B*⁵ denotes the jaw shown in Fig. 7, it being U-shaped and slotted on one side. *F* denotes the hook hung in said slot. This hook is provided with a slot *H* which is engaged by a pin *h*, fixed on the jaw *B*⁵. The hook *F* also has at its upper inner end a pin *f* and a projection *f'* which when the hook is in normal position is in contact with the bosom of the bulb. The slot *H* permits the hook *F* to be lifted sufficiently far up to allow the pin *f* to pass over the top of the jaw so that the hook *F* may occupy the position shown in dotted lines where it is entirely disengaged and freed from the beam. When the hook is thrown back into the position shown in full lines, the pin *f* comes into engagement with the vertical edge of the jaw *B*⁵ on the one side thereof and the projection *f'* comes into engagement with the bosom of the bulb of the beam and the result is that a firm and close connection is made between the jaw *B*⁵, the hook *F* and the beam.

In Fig. 8 *B*⁶ denotes the jaw which is U-shaped and has one side provided with a square hole to receive the hook *G*, carrying on its inner end a pin *g* and having said inner end shaped at *g'* suitable to come into neat and close contact with the bosom of an angle beam so that a firm and close engagement of the device with the bulb angle beam may thereby be effected. For the pin *g* any other suitable equivalent catch may be substituted when desired.

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

1. A hanging hook or clamp for objects to be supported, consisting in the combination of the U-shaped saddle piece which is adapted for use in connection with a bulb beam or similar structural shape from which it depends, said saddle piece having its lower part curved to conform in shape to the base of the bulb around which it fits and having also parallel upright parts and a movable mounted catch in one of the uprights, having an inner

cam shaped projection which is adapted to operate upon the bosom of the bulb and thereby prevent removal of the saddle piece from the beam except when the movable catch is disengaged.

2. A hanging hook, or clamp for objects to be supported, consisting in the combination of a U-shaped saddle piece which is adapted for use in connection with a bulb beam or similar structural shape from which it depends, said saddle piece having its lower part curved to conform in shape to the base of the bulb around which it fits and having also parallel upright parts, and a pivoted piece in one of the uprights having its upper portion formed as a hook and its inner portion formed as a cam-shaped projection which is adapted to bear upon the bosom of the bulb, substantially as described.

3. A hook or clamp for cots, hammocks or other objects to be supported consisting in the combination of a U-shaped saddle piece adapted for use in connection with a bulb beam from which it depends, said saddle piece having its lower part curved to conform to the base of the bulb beam around which it fits and also having vertical uprights and pivoted pieces supported in said uprights said pieces having their outer ends formed with hooks and their inner ends with cam-shaped projections adapted to rest on the bosom of the bulb, all arranged so that the saddle piece may be attached to the beam when the hooks are in their normal position, but may be disengaged therefrom by lifting the hooks, substantially as described.

4. A hanging hook or clamp for objects to be supported consisting in the combination of a U-shaped saddle piece adapted for use in connection with a bulb beam from which it depends, said saddle piece having its lower part curved to conform to the base of the bulb around which it fits and having vertical uprights, an integral hook on one of said uprights and a pivoted hook supported in the other upright and having an inner cam-shaped projection which rests upon the bosom of the bulb of the beam when the hook is in its normal position, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES ST. J. McREÉ.

Witnesses:

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