E. G. ANDERSON AND A. H. GRAHAM.

CANVAS SECURING FASTENING CLAMP FOR HATCHES OF VESSELS.

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1,312,496. Patented Aug. 5, 1919.

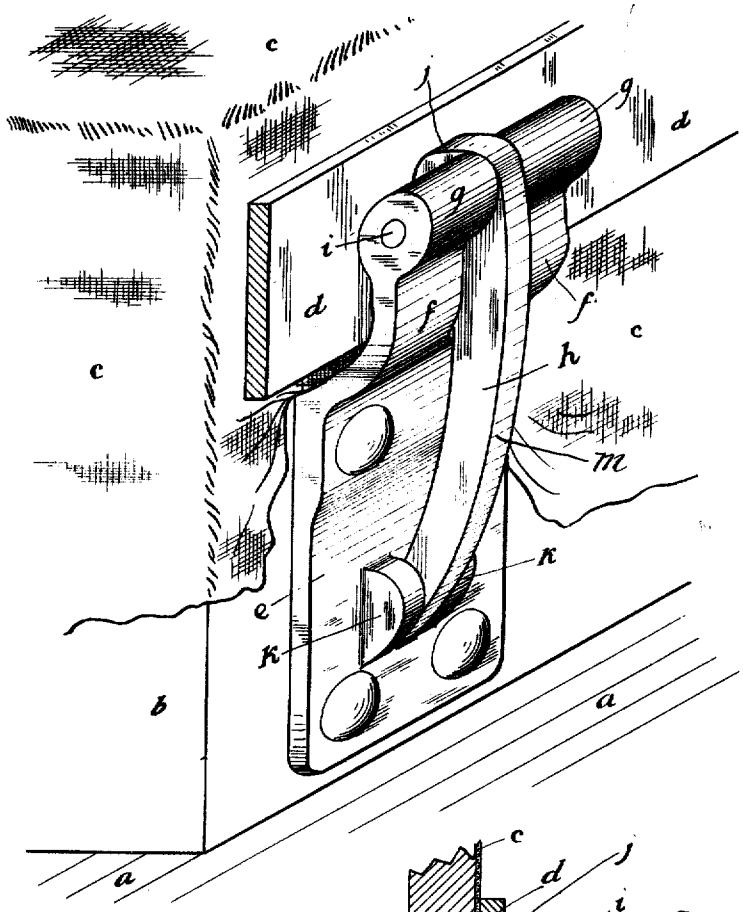


Fig. 1.

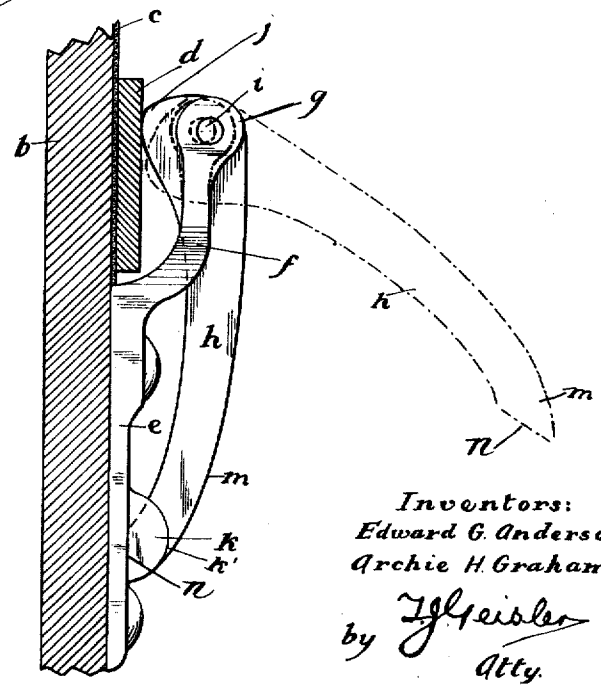


Fig. 2.

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CANVAS-SECURING FASTENING-CLAMP FOR HATCHES OF VESSELS.

1,312,496. Specification of Letters Patent. Patented Aug. 5, 1919.

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To all whom it may concern:

Be it known that we, EDWARD G. ANDERSON and ARCHIE H. GRAHAM, citizens of the United States, and residents, respectively, of the city of Portland, county of Multnomah, State of Oregon, have invented a certain new and useful Improvement in Canvas-Securing Fastening-Clamps for Hatches of Vessels, of which the following is a specification.

The object of our invention is to provide simple, durable and efficient means for fastening a bar against the overlapping ends of the canvas covering the hatch of a vessel. Furthermore, our invention has for its object the providing of fastening means which, when arranged in their holding position, have no parts which project in the way or on which ropes or cables may catch. This we consider an essential feature of a practical device for the purpose stated. In other words, all surfaces of fastening devices should be substantially smooth throughout the structure.

We attain our object in the cam-like clamping device comprising a bracket having a resilient hinge arm, to the free extremity of which is hinged a clamping or cam lever, the cam of the latter being adapted to restrain the same in its clamping position; and means being provided for completely housing the tip of the cam lever when arranged in its clamping position so as to prevent its inadvertent displacement.

The details of construction and operation of our device are illustrated in the accompanying drawings, in which:

Figure 1 shows a portion of the deck of a vessel and the coaming of a hatchway, to which one of our clamps is applied, as in practice, for holding the bar across the edge of the canvas; and

Fig. 2 is a side elevation.

Referring first to Fig. 1, *a* represents the deck of a vessel, *b* the coaming of the hatch, and *c* is the canvas, across the overlapping edge of which is a bar *d*, which is held in place by a series of our clamps. The latter comprise a bracket *e* made with an integral hinge arm *f* adapted to have some resiliency. The free extremity *g* of the hinge arm is made with a bifurcate hinge knuckle. In such knuckle is hinged a clamping or cam lever *h* by means of a hinge pin *i*, and is made with a cam lug *j*. Below the hinge arm *f* is provided a box *k*, in which to receive the tip of the cam lever *h*. The latter has a convex face *m* and a flat face *n* at the tip. The surfaces *k'* of the sides of the box *k* are curved to conform with the convex surface *m* at the tip of the cam lever *h*, as more clearly shown in Fig. 2, so that when the flat face *n* of the tip of the cam lever is seated in the box *k* the tip of the cam lever will be completely housed in the box *k*. The cam lug *j* is adapted to have a tendency to hold the cam lever *h* down, *i. e.*, in its active position, and the tip thereof in the box *k*, so that the cam lever must be forcibly moved out of its holding position. The bracket *e* supports the bar *d* in place when the cam lever *h* is in its inactive or non-clamping position.

The practical use of our device is evident from its description. When the bar *d* is to be placed over the edge of the canvas, or removed, the cam lever *h* is pulled forward, as shown in dotted outline in Fig. 2, thus placing the cam lever in its inactive position; while so positioned the canvas and the bar *d* may be readily inserted under the cam head *j* of the cam lever; and when the bar *d* is to be clamped in place the cam lever is arranged as shown in full outlines in Fig. 2 and also as shown in Fig. 1.

We claim:

1. In a clamping device of the character described, the combination of a bracket having a resilient hinge arm, a cam lever hinged thereto and provided with a cam-lug about its hinge axis, a box located below the hinge-arm on the bracket and adapted for receiving the tip of the cam lever, and the cam-lug being adapted to tend to hold the tip of the cam-lever seated in said box when the former is arranged in its holding position.

2. In a clamping device of the character described, the combination of a bracket having a resilient hinge arm, a cam-lever hinged in the extremity of the latter and provided with a cam-lug about its hinge axis, a box located below the hinge-arm on the bracket and adapted for receiving the tip of the cam lever, the cam-lug being adapted to tend to hold the tip of the cam-lever seated in said box when the former is arranged in its holding position, and the tip of the cam lever and the sides being made with conforming surfaces adapted to completely house said tip in said box.

3. In a clamping device of the character described, the combination of a cam lever

..ently hinged at one end, and means for housing the tip of the cam lever when in its holding position, thereby preventing the inadvertent displacement of the cam lever.

4. A clamping device of the character described comprising a bracket, a cam lever resiliently hinged thereto at one end, said bracket being provided with means for housing the tip of the cam lever when in its holding position, thereby preventing the inadvertent displacement of the cam lever.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."