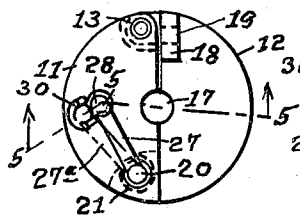
Feb. 22, 1949. J. KAHL 2,462,268

LOCKING MEANS FOR A HINGED IMPACT MASS OR WEIGHT FOR MARINE EQUIPMENT

Filed May 1, 1947

FIG. 1.



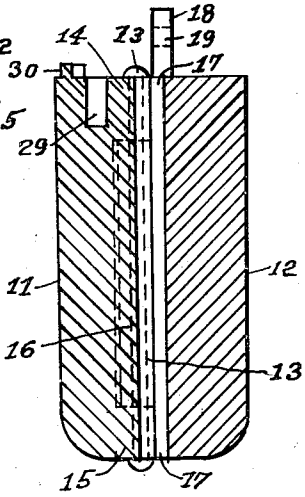


FIG. 5.

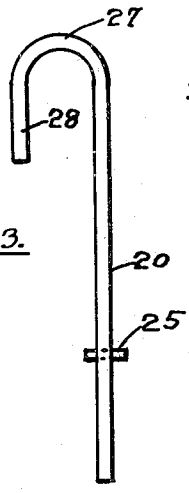


FIG. 3.

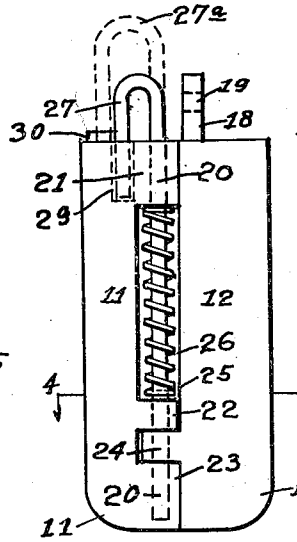


FIG 2.

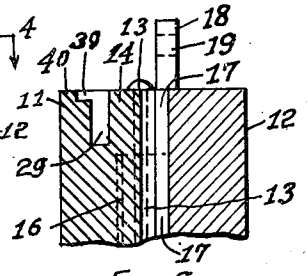


FIG. 6.

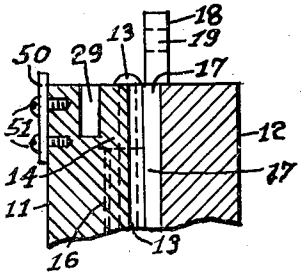


FIG. 7.

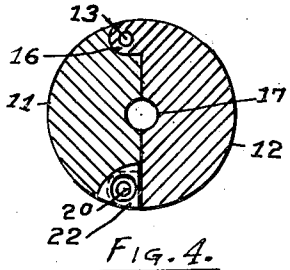


FIG. 4.

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Patented Feb. 22, 1949 2,462,268

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2,462,268

LOCKING MEANS FOR A HINGED IMPACT MASS OR WEIGHT FOR MARINE EQUIPMENT

Joseph Kahl, New York, N. Y.

Application May 1, 1947, Serial No. 745,336

2 Claims. (Cl. 16—1)

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My invention relates to improvements in a locking means for a hinged impact mass or weight for marine equipment, such as described in my patent for Marine sampling bottle, No. 2,391,978, dated Jan. 1, 1946, and it consists in the novel features which are hereinafter described.

An impact mass of this kind consists of two main sections which are hingedly connected to each other at one side thereof and are detachably locked to each other at the other side thereof by means of a spring pressed locking pin which is journalled in lugs of one section, and is slidable lengthwise thereof, and is removably engaged with a lug on the other section.

The locking pin terminates at the upper end thereof in a retroverted branch pin which normally extends into a vertical well in the top of the impact mass.

To open the sections of the impact mass the locking pin is raised by hand against the force of the spring, and the branch pin is withdrawn from the well; the lower end of the locking pin is thereby disengaged from the lug on the said other section; to lock the sections of the impact mass to each other the branch pin is lowered endwise into the well, thereby allowing the spring to move the locking pin into engagement with the lug on the said other section.

This operation of returning the branch pin to its vertical well heretofore required the use of both hands of the operator.

One of the objects of my invention, therefore, is to provide a means for accomplishing this purpose by the finger of one hand of the operator which holds the impact mass in the required position on a cable of the marine equipment, leaving the other hand of the operator free for other work on his equipment.

Another object of my invention is to have the above described locking device simple, durable, and inexpensive.

Other objects and advantages will hereinafter appear.

I attain these objects by the devices illustrated in the accompanying drawings or by any mechanical equivalent or obvious modification of the same.

In the drawings:

Fig. 1 is a top plan view of the impact mass showing my improved locking means in position;

Fig. 2 is a front elevation of the same;

Fig. 3 is a detail in elevation of the locking pin;

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Fig. 4 is a cross-section of the impact mass on the line 4—4 of Fig. 2; and

Fig. 5 is a longitudinal section on the line 5—5—5 of Fig. 1.

Fig. 6 is a fragmentary view in vertical section similar to Fig. 5, and showing a modification of my device.

Fig. 7 is a fragmentary view in vertical section showing another modification of my device.

The scale of the drawings has been exaggerated for the sake of clearness.

Similar numerals refer to similar parts throughout the several views:

11 and 12 designate the two sections of the impact mass the rear sides of which are shown as hingedly connected to each other by means of a pin 13, which passes through lugs 14 and 15 on the rear side of the section 11 and through a lug 16 on the section 12.

The sections 11 and 12 enclose an opening 17 for a cable or wire to pass therethrough as shown in the above mentioned patent.

The section 12 also carries thereon a lug 18 which has therein an aperture 19 for connecting the impact mass 11—12 by suitable means to a desired part of marine equipment.

The front sides of the sections 11 and 12 are shown as detachably connected to each other by means of a spring pressed locking pin 20, which slidably and rotatably passes through lugs 21, 22, and 23 on the section 11 and through a lug 24 on the section 12.

The locking pin 20 has secured thereto transversely thereto a base pin 25 for supporting thereon the lower end of a compression spring 26, the upper end of which is in abutment with the underside of the lug 21.

The pin 20 terminates at the upper end thereof in a bend 27 and a retroverted branch pin 28, which normally extends into a well 29 when the lower end of the pin 20 extends through the lug 24, and the section 11 and 12 are thereby locked to each other.

To open the impact mass 11—12 or when it is desired to pass a cable or wire through the opening 17, the pin 20 is lifted against the pressure of the spring 26 on the base pin 25 until the branch pin 28 is lifted out of the well 29.

The pin 20 may then be turned on its axis and the branch pin 28 may then be deposited on the upper surface of the section 11 to one side of the well 29 and very near to it, as shown by dotted lines at 27a in Figs. 1 and 2.

To prevent the lower end of the branch pin 28 from sliding off the surface of the section 11,

thereby causing the pin 20 to drop into closing position, I provide a parapet 30 on the upper end of the section 11 to intercept the lower end of the branch pin 28 and to keep it in place close to the well 29.

It is evident that by a mere touch of the finger of one hand the operator holding the impact mass in the same hand may move the branch pin 28 into the well 29, thereby causing the spring 26 to move the lower end of the locking pin 20 through the lug 24 of the section 12, thereby locking the impact mass 11—12 on to the cable of the marine equipment passing through the opening 17.

Instead of a parapet 30 on the section 11 above the surface of the latter as shown in Fig. 5 a suitable groove 39 for the end of the branch pin 28 to slide in may be formed in the top of the section 11, as shown in Fig. 6, leaving a thickness of metal 40 at the edge of the top surface of the section 11 to serve as a parapet.

As another modification, a metal strip may be attached by means of screws 51 to the side of the section 11 with the upper end 50 of the strip reaching above the upper surface of the section 11, thereby forming a parapet 50.

Variations are possible and parts of my invention may be used without other parts.

I do not, therefore, restrict myself to the details as shown in the drawings.

I claim as my invention and desire to secure by Letters Patent:

1. A locking means, for a hinged impact mass or weight for marine equipment comprising a pair of sections hingedly connected to each other at the rear side thereof, comprising a spring pressed locking pin rotatably and slidably connected to the front side of one of said sections and detachably engaged with the front side of the other section, said locking pin terminating at the upper end thereof in a retroverted branch pin, the top of said one section having therein a well for receiving therein the end of said branch pin when said other section is engaged by the locking pin, a flat surface at the upper end of said one section for receiving thereon the end of said branch pin when the said locking pin is disengaged from the other of said sections, and an upwardly extending parapet on the flat top of said one section adjacent to said well for limiting the motion of the end of said branch pin, whereby the said branch pin may be retained on said flat surface and be dropped into the said well by a slight motion of one of the fingers of the operator's hand which holds the impact mass in position.

2. A device as described in claim 1, the said parapet comprising a strip of metal secured to the side of said one section adjacent to said well, the upper end of said strip extending above the flat surface at the upper end of said one section, for limiting the motion of the end of said branch pin.

JOSEPH KAHL.

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