

(No Model.)

G. W. LEIRMANN.

SWIVEL HOOK.

No. 267,089.

Patented Nov. 7, 1882.

FIG. 1.

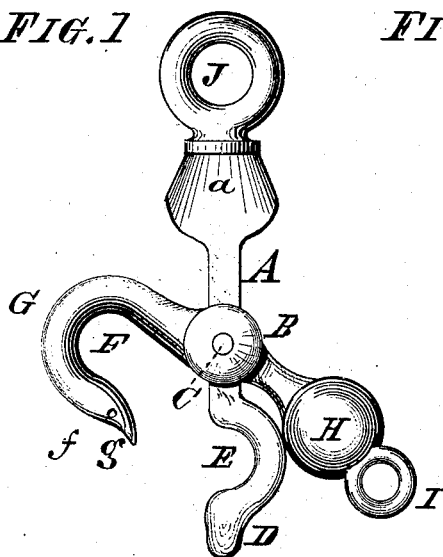


FIG. 2.

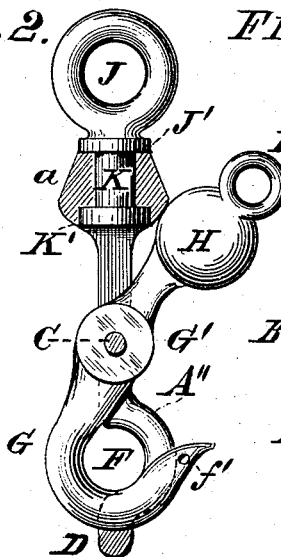


FIG. 3.

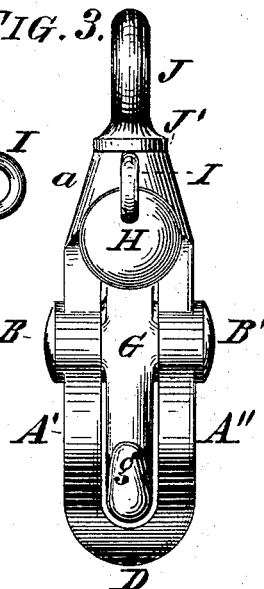
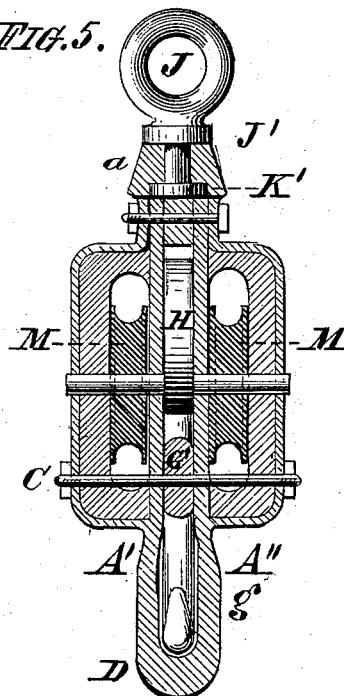
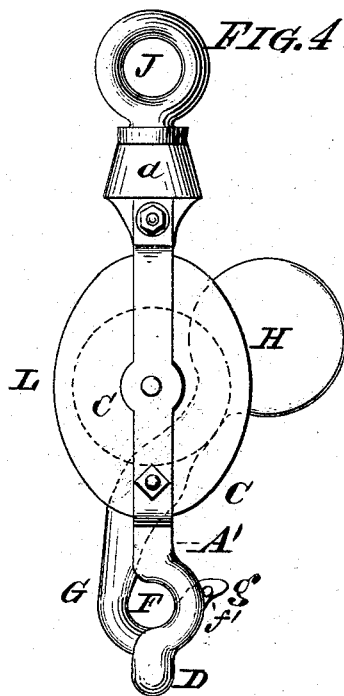


FIG. 4. FIG. 5.



Witnesses:

Willie O. Stark.
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Inventor:

Geo. W. Leirmann
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UNITED STATES PATENT OFFICE.

GEORGE W. LEIRMANN, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF
TO TIMOTHY GINGRAS, OF SAME PLACE.

SWIVEL-HOOK.

SPECIFICATION forming part of Letters Patent No. 267,089, dated November 7, 1882.

Application filed May 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. LEIRMANN, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements on a Swivel Hook; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to pulley-block, boat, and other hooks; and it consists essentially in the novel combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings already mentioned, which serve to illustrate my said invention more fully, Figure 1 is a side elevation of a swivel or boat, &c., hook. Fig. 2 is a longitudinal sectional elevation of the same. Fig. 3 is a front elevation. Fig. 4 is a side elevation, and Fig. 5 a longitudinal sectional elevation, of a pulley-block constructed in accordance with my said invention.

The object of my present invention is the production of a hook for boat and other use that shall disengage its load as soon as the latter meets an obstruction—as, for instance, in detaching boats from the davits, &c., or in lowering merchandise, &c., by means of a block and tackle; and it consists essentially of a weighted hook pivoted within a bifurcated frame in such manner that unless the hook is depressed on account of its suspending a load the weight on the hook will cause it to disengage therefrom, substantially as hereinafter fully set forth and described.

A indicates a bifurcated frame, composed of the two parallel members A' A'', having on or rather joining on their upper end a head, a, said side pieces, A' A'', being provided centrally with bosses B B', for the reception of a mandrel or axle, C. Upon this axle is journaled a hook, G, having on one end a spherical or other counterpoise, H, provided with an eye or ring, I, and on its opposite end the usual hook proper, F. In the face of the side pieces, A' A'', are indents E, arranged in such manner that when the apparatus is in the condition illustrated in

Figs. 2 and 3 these indents, together with the semicircular contour of the hook F, form a circular aperture for the reception of a ring, rope, or other means by which a load is to be elevated or lowered.

In the head a is provided a swivel, J, having a collar, J', a shank, K, and a bearing-collar, K', said swivel being formed entire in any one of the well-known processes of casting in malleable iron or steel or forging, and it is cast within the head of the frame in the following manner: A pattern of the desired size, &c., having been procured, the same is molded in the sand, and a finished swivel, J, placed in the mold, it having previously been heavily coated with the usual substances to prevent adhesion. Now, the metal is poured and a complete frame cast, having the shank K and collar K' embedded in the head a.

In this manner a very cheap, durable, and serviceable swivel-hook is produced, which, if cast in steel, is far superior to any forged article as now manufactured.

As applied to a pulley-block, L, having the sheaves M, my present invention is fully illustrated in Figs. 4 and 5, so that I need not enter into the details of construction, which will be readily understood without further explanation.

In operation a load is upheld by the pivoted hook as long as the same does not meet an obstruction capable of sustaining said load—as, for instance, in lowering a boat from the davits, where the boat is provided with rings on the bow and stern, which rings are engaged by the swivel-hook shown in Figs. 1, 2, and 3. As soon as the boat strikes the water the hooks G will disengage the ring on account of the counterpoises H, and thereby liberate the boat.

To prevent swamping, a line may be run from the eyes I, which as long as it is pulled may prevent the hook from unlocking. For other purposes than boat-detaching an aperture, f, in the end g of said hook, and a pin, &c., f', inserted into said aperture, will prevent the hook from unlocking, unless said pin, &c., is first withdrawn from said aperture. This part of my device may, however, be modified in various manners without departing essentially from my invention.

Having thus fully described my invention, I

claim as new and desire to secure to me by Letters Patent of the United States—

1. In a boat-detaching, &c., hook, the combination, with an O-shaped frame having in its lower part the indents E, of a pivoted hook, F, provided with a counter-weight, H, said hook being pivoted between the parallel members A' A'' of said frame, and constructed to operate in conjunction with the said indentations E in said frame, substantially in the manner as and for the object stated.

2. The improvement in detaching-hooks, substantially as described, consisting essentially in the combination, with an O-shaped frame having in its lower parts semicircular indents E, of a hook, F, having on one end the

curved part or hook proper, forming in conjunction with said semicircular indents E a substantially-circular aperture for the reception of a ring, &c., and on its opposite end a counter-weight, H, said curved part *g* being provided with an aperture, *f*, for the reception of a locking-pin, *f'*, and the whole constructed for operation substantially in the manner as and for the use and purpose specified.

In testimony that I claim the foregoing as my invention I have hereto set my hand in the presence of two subscribing witnesses.

GEO. W. LEIRMANN.

Witness:

MICHAEL J. STARK,
JOHN C. DUERR.