

Leach & Hutchings. Revolving Pile Hook.

N^o 84,886.

Patented Dec. 15, 1868.

Fig. 1.

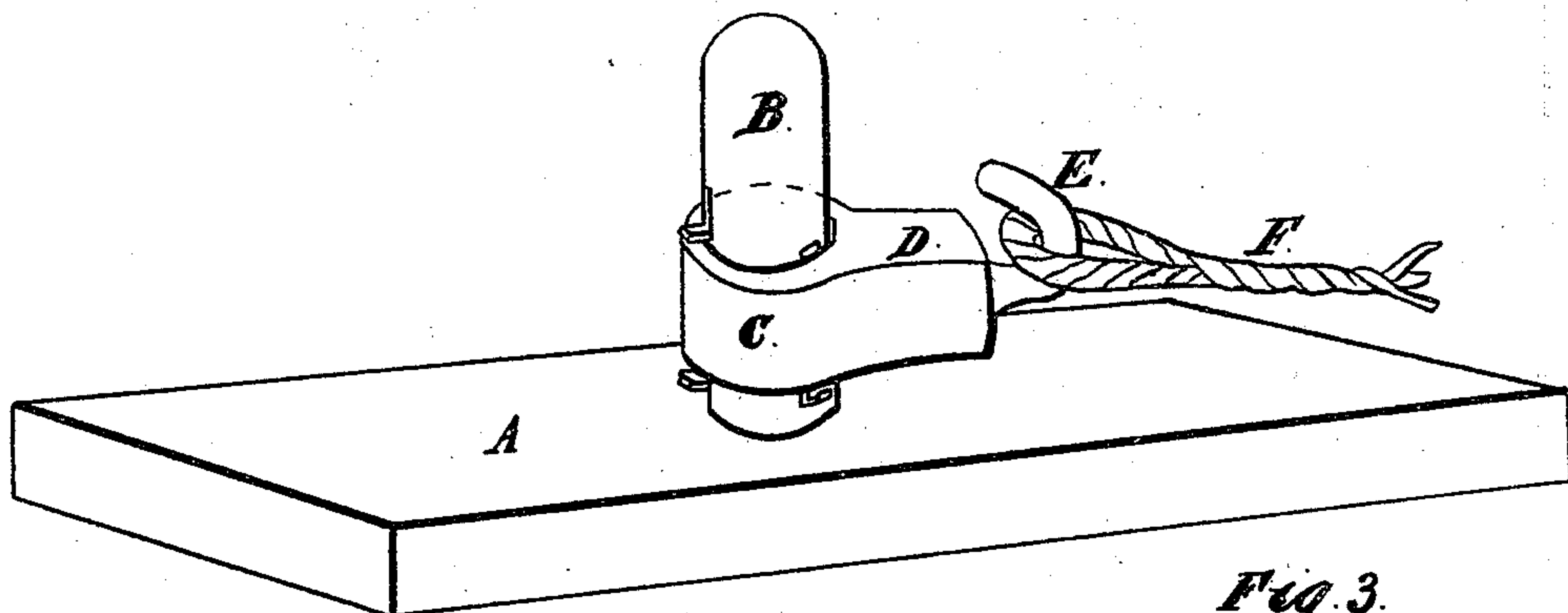


Fig. 2.

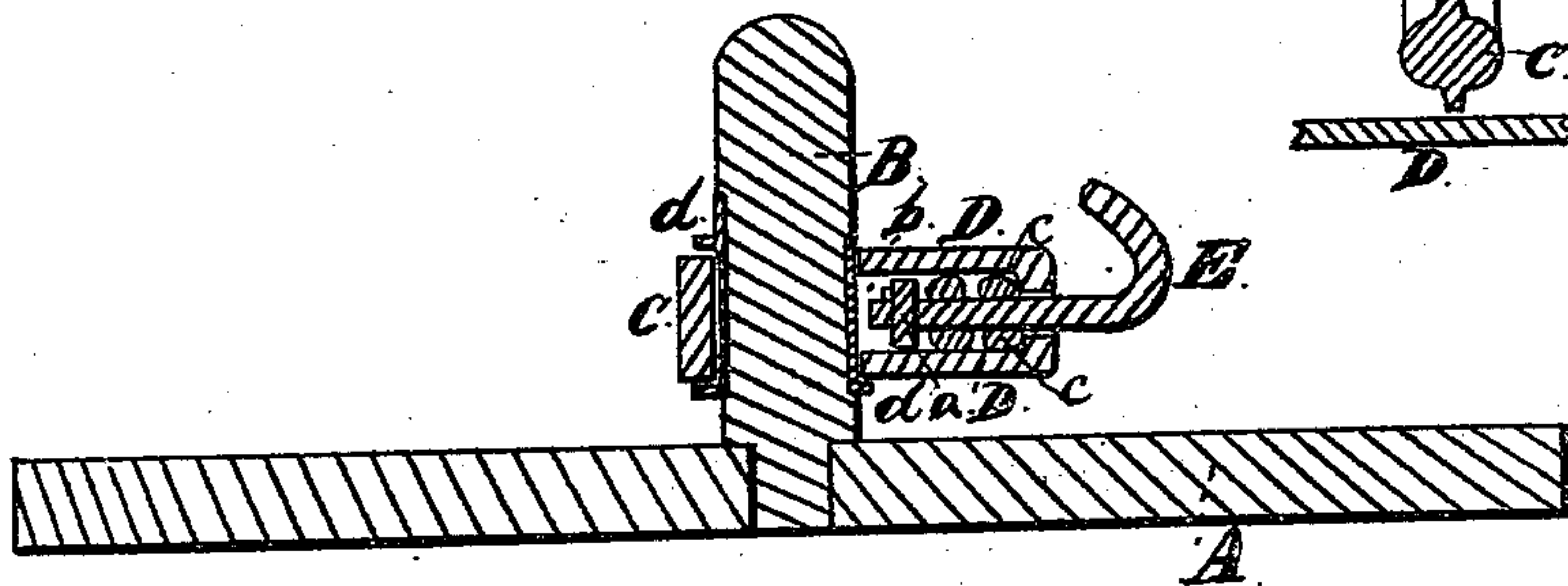
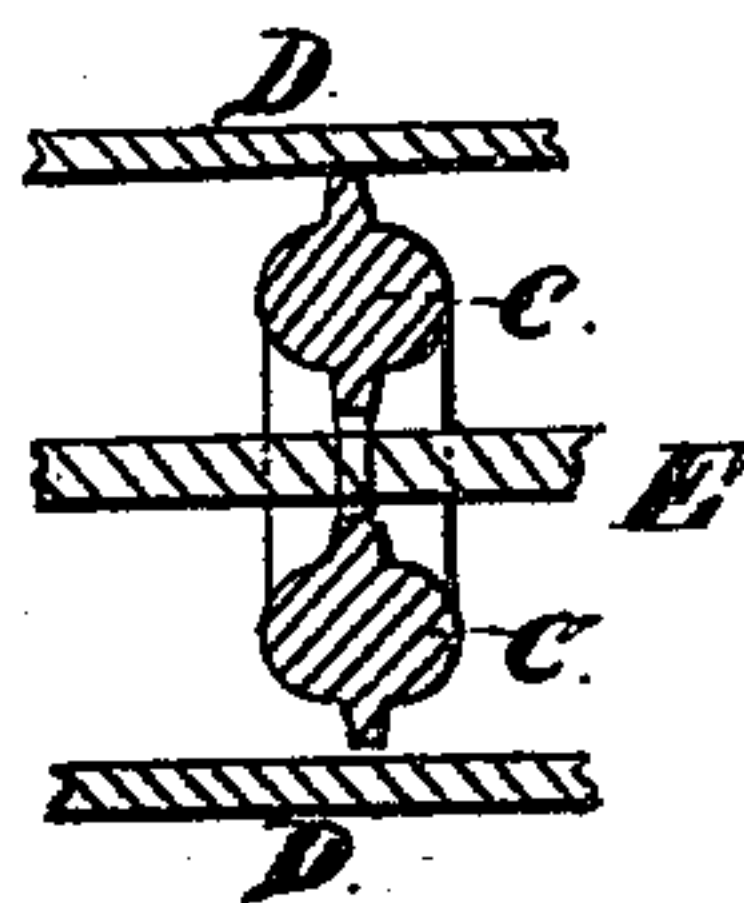


Fig. 3.



Witnesses.

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J. D. LEACH AND SABIN HUTCHINGS, OF PENOBSCOT, MAINE.

Letters Patent No. 84,886, dated December 15, 1868.

IMPROVED REVOLVING PILE-HOOK.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that we, J. D. LEACH and SABIN HUTCHINGS, of Penobscot, in the county of Hancock, and State of Maine, have invented a new and useful Elastic Revolving Pile-Hook; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of our invention, attached to a wharf-pile, and

Figure 2 is a longitudinal vertical section of the same.

Figure 3 is a detached sectional view of the springs, and the parts with which they are connected.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of our invention consists in a metallic collar, formed to revolve loosely upon the pile. Upon one side of this collar is formed a hollow projection, in which are inserted springs, of rubber or other material. The shank of a stout hook passes through this projection and the springs, and is secured upon the inside by a key or its equivalent, the whole so arranged that, when a warp or hawser is attached to the hook, the spring prevents shocks upon the hawser, while, by the free revolving of the collar upon the pile, the strain is always directly in line from the pile to the vessel, and equal upon both parts of the eye-splice in the warp.

In the drawings, A represents the "cap-sill" of the wharf, in which the pile B is inserted, but the pile may be secured in any known manner.

C is the metallic collar or band which encloses the pile, and

D is a hollow projection upon the collar.

E is a wrought-iron hook, the shank of which is inserted in and passes through the projection, as shown in fig. 2.

c c are circular rings or buffers, of rubber, inserted in projection D, and through which the shank of the hook passes.

The inner end of the hook also passes through a circular metallic collar, a, and a key, b, passes through the shank, behind the collar.

F is the hawser, attached to the hook, and by which force is exerted upon it.

The form of the springs c c is clearly shown in fig. 3, their section being a circle, with a thin projecting flange, both internal and external, the former bearing against the hook, and the latter against the inside of the cavity in which they are placed.

These projections keep the springs and the hook in the centre of the cavity in which they are placed, and, as the elasticity of rubber is economized, not by compression, but by displacement, therefore this form of spring is peculiarly adapted for insertion in tubes, and similar uses.

It will be apparent that attaching the hawser to the pile, through the intervention of the hook E and collar C, is much easier than the usual method of throwing the eye-splice over the head of the pile, while the elasticity imparted to the hook by the rubber buffers greatly lessens the shocks upon the hawser, and the easily-revolving collar C tends to preserve a steady strain, instead of the jerks caused by the hawser rendering fitfully upon the pile when the vessel changes position upon the hawser.

The lugs d d serve to protect the pile from abrasion, and, by being formed with projecting ends, they hold it at the right height.

This hook is peculiarly adapted for wharves where steamers touch, and back and turn upon bow or stern-lines, in which cases the hawsers should render freely upon the piles to which they are attached.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

1. A revolving pile-hook, formed with a collar, C, to receive the pile, and a hook, E, for attaching the hawser, substantially as described and shown.

2. Combining with collar C and hook E the elastic buffers c c, substantially in manner as and for the purposes specified.

J. D. LEACH.

SABIN HUTCHINGS.

Witnesses:

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