D. DeGarmo.

Tow-line, Safety Hook.

No. 37,681. Patented Feb. 17, 1865.

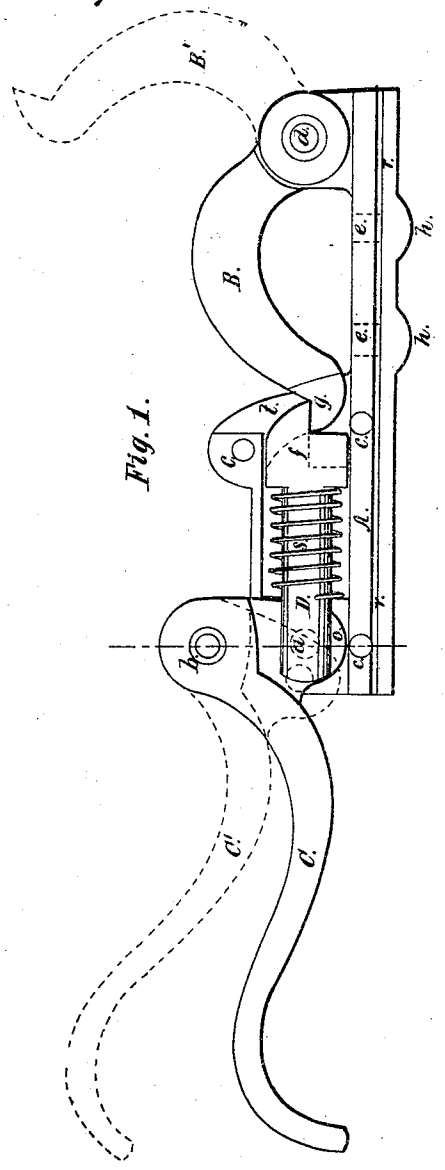
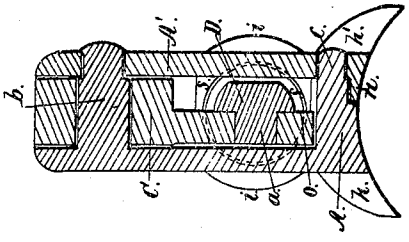


Fig. 1.

Fig. 2.



Witnesses.

Wm. S. Loughborough

Inventor.

D. DeGarmo

UNITED STATES PATENT OFFICE.

DANIEL DE GARMO, OF ROCHESTER, NEW YORK.

IMPROVED SELF-LOCKING SAFETY-HOOK FOR TOW-LINES.

Specification forming part of Letters Patent No. **37,681**, dated February 17, 1863.

To all whom it may concern:

Be it known that I, DANIEL DE GARMO, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Self-Locking Tow-Line Safety-Hook; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation of the invention with the cap A′ removed. Fig. 2 is a transverse section taken in the direction of the red line in Fig. 1, and shows the parts full size.

The nature of this invention will be clearly understood by reference to the drawings and specifications.

The stock A is cast with the projecting studs *b* and *d*, the former constituting the axis of the lever C and the latter of the swing-hook B. Each of these studs is provided with a small rivet, projecting from the end. There are also three rivets, *c*, cast on the stock A, as seen in Fig. 1, and the cap A′ is cast with holes corresponding to the several rivets, whereby it is riveted to the stock A without any previous drilling or fitting. The sides of the stock A and of the cap A′ are curved, as seen in Fig. 2, at *i i*, forming concave enlargements each side of the bolt D for the spring *s*, which encircles the barrel or shank of the bolt. The head *f* of the bolt is fitted to slide freely within the case, and the pivot *a* couples the bolt with the wing *o* of the lever C, they being halved together, as seen in Fig. 2. One end of the spring *s* presses against the head *f* and the other against the shoulders of the case formed by the enlargments *i*. The base of the stock A is pierced with two holes, as indicated by the dotted lines *e*, Fig. 1. The ears *h* of the stock and *h′* of the cap are designed to afford the requisite strength to the parts at this point. There is a rib, *n*, cast on the inside of the cap A′, which locks in the gain *r*, Fig. 1, of the stock A, and greatly strengthens both the stock and cap when they are riveted together. The lever C is cast with holes for the pivot *a* and the stud *b*. The hook B is also cast with a hole for the stud *d*, so that the parts may all be put together and the cap A′ riveted on without any preparatory drilling being required. The two bolt-holes, *e*, for bolting to the whiffletree, are drilled.

Summary of the operation: The eye attached to the tow-line is placed on the hook B, which is then closed down to its present position, its head or catch *g* passing down between the flanges or sides *t*, where it is caught and firmly held by the head *f* of bolt D. When the team is in danger of being drawn into the canal, as when the tow-line catches to a passing boat, which is a frequent occurrence, the driver has only to jerk the lever C back to the position indicated by the dotted lines C′, which withdraws the bolt D and unlocks the hook B, allowing it to fly back to the position of the dotted lines B′, which discharges the tow line, thus instantly releasing the team.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The combination of the spring-bolt D with the lever C and the swing-hook B, substantially as and for the purpose specified.

D. DE GARMO.

Witnesses:

WM. S. LOUGHBOROUGH,

R. W. APPLEBY.