

D. G. LOW.

Improvement in Sail Hanks.

No. 125,744.

Patented April 16, 1872.

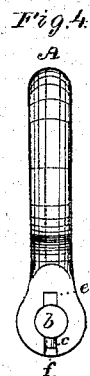
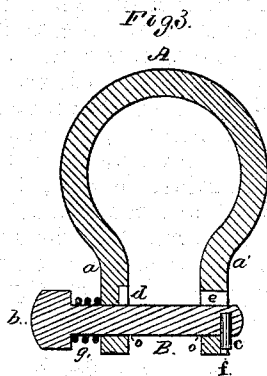
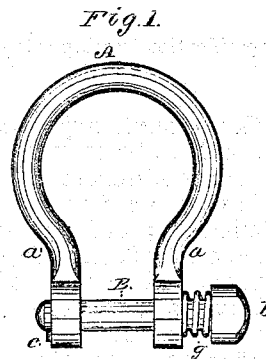
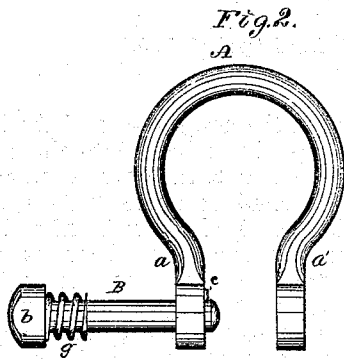
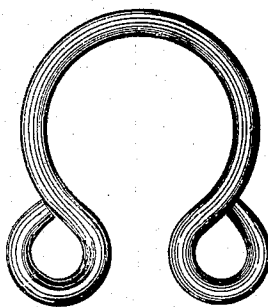


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

D. GRANVILLE LOW, OF CHELSEA, MASSACHUSETTS.

IMPROVEMENT IN SAIL-HANKS.

Specification forming part of Letters Patent No. 125,744, dated April 16, 1872.

To all to whom these presents may come:

Be it known that I, D. GRANVILLE LOW, of Chelsea, in the county of Suffolk and State of Massachusetts, have made a new and useful or Improved Sail-Hank; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, in which—

Figure 1 is a top view of a hank as constructed in accordance with my invention, the same being represented as closed. Fig. 2 is a similar view of the same as open. Fig. 3 is a central and longitudinal section; and Fig. 4, a side view of the said invention. Fig. 5 denotes a hank as ordinarily constructed.

The object of my invention is to provide a simple, substantial, and effective device for connecting a jib or stay-sail with its "stay;" one which can be readily applied to the stay and sail or removed therefrom with far greater facility and ease than the hanks as ordinarily employed. My improved hank is intended as a substitute for the common iron hank now in use on vessels of every description which employ jibs or stay-sails, and are rigged with wire ropes or stays. The objections to hanks of the ordinary construction are that they involve too great an expenditure of time, labor, and expense in "seizing" or lashing them to the "stay" and sail; and, besides, the "lashings" often become chafed and broken, whereby the sail is rendered loose and flappy, and the hank becoming disconnected, is often lost. My invention completely obviates such evils. The nature of my invention consists in the peculiar construction and arrangement of the several parts as hereinafter described, whereby all lashing-yarn or "seizing" is dispensed with, and a non-detachable locking-bolt used in place thereof.

In the said drawing, A denotes the body of the hank, which consists of a U-shaped metallic bar. B is the locking-bolt, which passes transversely through a hole, *o*, in the lower ends of the arms *a a'* of the hank. The said bolt, at its outer end, is provided with a head, *b*, while its inner end is furnished with a short stud or projection, *c*, extending from its periphery and at a right angle to its axis. Within the inner face of the arm *a*, and just above the bolt-hole thereof, is a socket or re-

cess, *d*, to receive the projection *c* of the bolt when the latter is drawn back into the position as shown in Fig. 2, in order to afford a free and unobstructed entrance to the eye of the hank. The said stud *c* is to be affixed to the bolt after the same has been passed through the arm *a*, as such arm has no slot to enable the bolt to be introduced after the stud has been secured to the bolt; the said pin or stud so affixed serving, as one of its functions, to prevent the bolt from being drawn out or becoming detached from the body of the hank. There is also formed in the arm *a'*, and above the bolt-hole thereof, a transverse and parallel groove or channel, *e*, for the stud of the bolt to pass through. The said arm has also a socket, *f*, made in its outer face and below the bolt-hole, the same being of sufficient depth to receive the said stud, and thereby lock the bolt to the hank. *g* is a helical spring, which is coiled around the shank of the bolt, one end resting against the head thereof, and the other against the arm *a*, the object of the said spring being to maintain the stud of the bolt in the socket *f* when the hank is closed, and permit the same to be readily unlocked and the bolt withdrawn whenever it may be desirable.

My improved hank may also be employed to good advantage as a shackle for blocks and various other appliances used on shipboard.

Having described the nature and construction of my improved hank, its operation is as follows: In applying a sail to its stay by means of my improved hank, the bolt of the hank is to be drawn back or brought into position, as shown in Fig. 2. The arms of the hank are next made to straddle the wire rope or "stay." The eyeleted edge of the sail is next to be drawn up to the "stay" and between the arms of the hank, and so that one of the thimbles or eyelet-holes shall be in line with the axis of the bolt, when the latter is to be forced through the same and the arm *a*. The bolt is next to be rotated one hundred and eighty degrees, so that the stud of the bolt will enter its socket in the said arm, the same being retained therein by the expansive power of the spring. In removing or unlocking the hank from the "stay" and sail, we first push inward the bolt a sufficient distance to withdraw the locking-

stud from its socket, and next rotate the bolt one-half of a circle, or until the stud comes in line with the channel *e*, when the bolt may be retracted and drawn back into the position as shown in Fig. 2, when the hank may be readily removed.

From the above it will be seen that a hank constructed in my improved manner is one of great utility for the purpose designed, it being simple, strong, and reliable, not liable to get out of order, can be readily applied in the roughest weather, and is very durable.

Having described my invention, what I claim is—

The above-described improved sail-hank, consisting of the body A, provided with the bolt-receiving hole *o*, groove *e*, and socket *f*, and the bolt B, furnished with the stud *c* and the spring *g*, combined and arranged in manner and so as to operate as set forth.

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Witnesses:

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