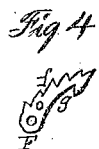
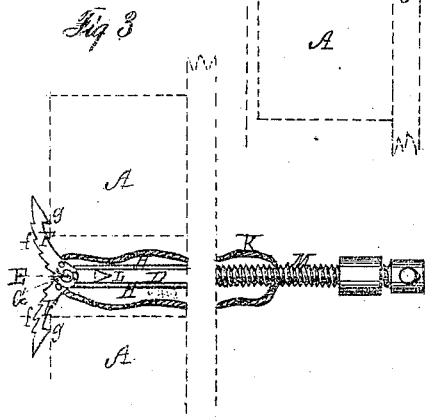
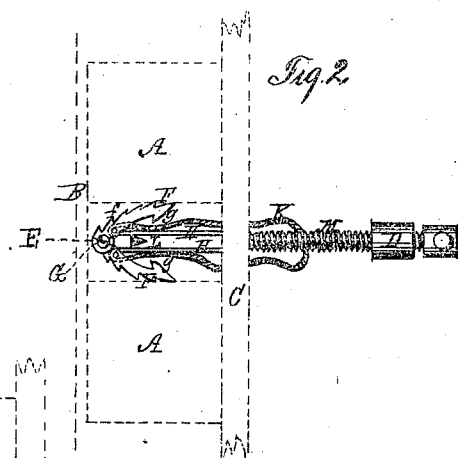
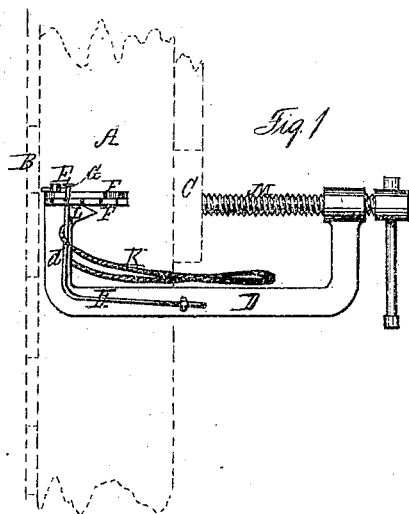


*F. Glasser,*

Clanitz.

No. 107.247.

*Patented, Sep. 13. 1870.*



Witnesses

Winkless  
Th. Ocker  
C. Randall

Inventor

Francis Gleason

# United States Patent Office.

FRANCIS GLASSER, OF MYSTIC BRIDGE, CONNECTICUT.

Letters Patent No. 107,247, dated September 13, 1870.

## IMPROVEMENT IN CLAMP.

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

To all whom it may concern:

Be it known that I, FRANCIS GLASSER, of Mystic Bridge, county of New London and State of Connecticut, have invented a new and useful Improvement in Planking-Screws for Ship Building, of which the following is a specification.

The nature of my invention, which relates to a self-adjusting clamp-screw, to be used in bracing the planking against the ribs of a ship during the operation of spiking and treenailing the planking to the ribs, consists in combining with the tightening-screw, and serrated dogs of the clamp, springs for automatically expanding the dogs, and a rope or cord for closing the same, as well as a hook on the inner end of the clamp-plate, all arranged and operating substantially as hereinafter set forth, thereby affording sufficient resistance to the screw for bending and bracing the plank to the ribs while being spiked and treenailed, as I will further explain by reference to the accompanying drawing, of which—

Figure 1 is an elevation of my invention;

Figure 2, a plan of same, showing the serrated expansive dogs between the ribs, while the screw is bracing a plank against said ribs;

Figure 3 represents my invention with the expansive serrated dogs thrown outward and clutching the inside of the ribs, in the absence of the skin of the vessel; and

Figure 4, a plan of one of the expansive serrated dogs.

In the said drawing—

A A indicate the ribs;

B, the skin or ceiling of the inside; and

C, the planking or outside of the ship.

D is the clamp-screw, provided with a journal, E, on its inner end, on which are placed the expansive serrated dogs F F, which are serrated at *f* on the outside, and having hooks *g g* on the inside, said dogs being confined on the journal E by a spring key, G, or, instead of the key, the dogs may be attached by a screw and nut on the outer end of the journal.

H H are springs attached to the clamp-plate *d*, and to the dogs, for the purpose of expanding the dogs, and

K is a small rope, which, when drawn on, acts on the springs, closing the serrated dogs, and releasing them from their hold on the ribs, when it may be desired to remove the clamp-screw.

L is a hook on the inner end of the clamp-plate, and

M is the screw for bracing the plank against the

ribs, in resistance to the opposing force exerted by the dogs against the ribs.

I would remark that my clamping-screw, when divested of the serrated dogs, springs, and rope, leaving only the hook L and screw M, can be used with profit for various purposes in ship building.

In ship building, the ribs on being placed in position, the skin or ceiling on the inside is laid on in the first place before the planking on the outside is commenced, and, consequently, there is no means left for a bearing on the inside of the ribs, to brace the planking against the ribs.

The ordinary method being to insert eye-bolts in the ribs, and placing reinstaffs in the eye-bolts by means of wedges driven between the reinstaffs and the plank, force the plank against the ribs. But this method has been found to consume much labor and expense.

Another method was by means of jack-screws placed between the staging and the planks, for the purpose of bracing the plank against the ribs. But in this case the staging often gave way without effecting the desired object, and occasionally with detriment to the workmen; and clamp-screws have also been employed, with stay pieces wedged between the timbers on which to take hold, but were so complicated and ineffective as to be abandoned.

These defects suggested to me the self-adjusting clamp-screw comprising the subject of this application, which is simple in construction, efficient and convenient in use, adapting itself instantly to every variety of space between the ribs, and affording sufficient power for bracing the planking to the ribs during the operation of spiking and treenailing the planking to the ribs of a ship.

I am aware that a patent was granted to John J. Hill, November 26, 1867, for clamp for planking ships' sides, in which serrated dogs are claimed; but I do not claim such.

Having described my invention,

What I claim, and desire to secure by Letters Patent, is—

The springs H H, rope K, and hook L, when used in combination with the serrated dogs F F and screw M, substantially as and for the purposes described and set forth.

In testimony whereof I have hereunto set my signature this 21st day of September, A. D. 1869.

Witnesses:

FRANCIS GLASSER.

THOS. E. PACKER,

A. NEILL.