W. H. Phillips

Shipwrights Clamp.

No. 98,295. Patented Dec. 28, 1869.

Fig. 2.

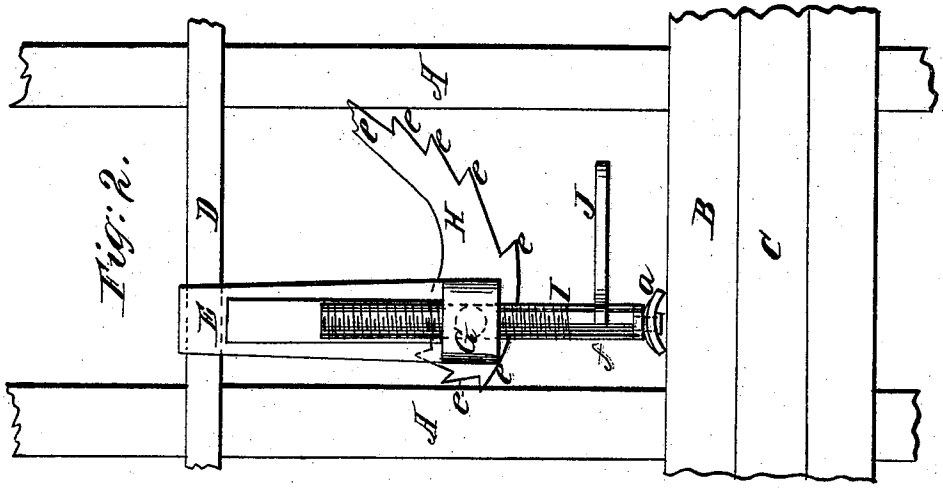
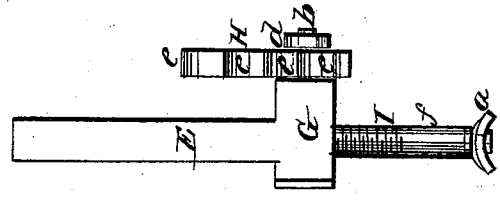


Fig. 1.



Witnesses

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WILLIAM H. PHILLIPS, OF BRIDGETOWN, NEW JERSEY.

Letters Patent No. 98,295, *dated December* 28, 1869.

IMPROVEMENT IN SHIPWRIGHTS' 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, WILLIAM H. PHILLIPS, of Bridgetown, in the county of Cumberland, and State of New Jersey, have invented a new and improved Screw-Clamp for Shipwrights; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my invention.

Figure 2 is a front view of the same, showing it arranged for operation between the timbers of a vessel.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a simple and effective screw-clamp for shipwrights' use.

It is to be employed in the work of planking the hulls of vessels, in which operation each successive plank must be forced down firmly against the upper edge of the preceding ones, before it is fastened with tree-nails, bolts, or spikes.

This forcing together of the planks requires an apparatus capable of developing great power, owing to the edgewise curve or "surge," so called, which the form of the hull requires of the planks, and many tools have been devised for this purpose. These tools, however, consisted of "clamp-dogs" and other rude devices, not capable of general application, or sufficiently effective for the purpose required.

My invention, however, is simple, effective, easily operated, and generally applicable to setting on planks in any part of the hull proper where needed.

By reference to the drawings, it will be seen to consist of a screw-dog, I, working in a nut-block, G, which latter is provided with a hollow or recessed extension, E, forming part of the nut-block, and a lateral boss or stud, *b*, also forming part of the said nut-block.

On this stud *b*, a curved brace-claw, H, is pivoted.

This brace-claw is formed with a number of large serratures or teeth, *e*, extending from end to end along the under side of the brace-claw, as shown.

The brace-claw is not pivoted on the stud *b* at the middle point of the former, but one of the arms, from its pivot-centre, is much longer than the other, in order to obtain the requisite purchase in jamming the brace-claw crosswise between the two adjacent timbers of the vessel, where the apparatus is located, and this jamming of the brace-claw is the device which affords the requisite resistance to the action of the screw-dog I, in forcing down the plank.

In Figure 2 my invention is shown in operation.

A A are any two of the timbers or ribs of the hull being planked.

B is the plank being forced down upon the previously-fastened plank, C.

The brace-claw H, being somewhat longer than the greatest distance between the timbers of vessels, (which is scarcely ever more than twelve inches,) is capable of being jammed or lodged in a somewhat diagonal position between the two timbers, as shown, and as the pressure is increased against it, by extending the screw-dog downward against the plank B, the brace-claw becomes more and more fixed in its lodged or jammed condition, by one or more of the teeth, at or near each end, becoming further imbedded in the timbers, whereby, as the pressure upon the plank is developed by turning the screw-dog, the brace-claw is actuated to offer more resistance to the former, and the proper continuation of this force and resistance accomplishes the complete forcing down of the plank into close contact with its fellow.

The screw-dog I is formed with a square part, *f*, or other equivalent form, to enable a firm hold to be had thereon with a wrench, J, or other proper tool.

The lower end of the screw-dog is also provided with a swivel-claw, *a*, working loosely thereon, which, while impinging against the edge of the plank, affords a bearing for the screw-dog.

The extension E is for the purpose of steadying the whole apparatus.

This is accomplished by resting it against a strip of wood, D, nailed temporarily across the two timbers, as shown.

This arrangement will serve to throw out the extension, so as to bring the apparatus in the proper position for operating upon the bilge-planking, or at other parts where the rotundity of the hull requires.

It will be observed that the brace-claw, from its serrated scroll contour, is adjustable to timber-spaces of different widths, for by increasing the diagonal angle of the brace-claw, by turning it upon its fulcrum-stud *b*, narrower timber-spaces may be spanned, and the said parts jammed as effectively therein as in the case shown.

d is a nut to keep the brace-claw in the stud *b*.

The extension E may be a hollow tube or a single part; but I prefer the double or recessed part, as shown.

It will be seen that the teeth on the short arm of the brace-claw extend around up to the upper side.

This arrangement enables at least some one of the

teeth to take on the timber at the different angles at which it may be used.

The next adjacent teeth, at the other end of the brace, are for the same purpose.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The implement herein described, consisting of the screw I, nut-block G, recessed extension E, stud *b*, and curved serrated brace-claw H, each constructed and arranged in the manner and for the purpose set forth.

WM. H. PHILLIPS.

Witnesses:
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