John J. Hill's Imp'd Planking Screw.

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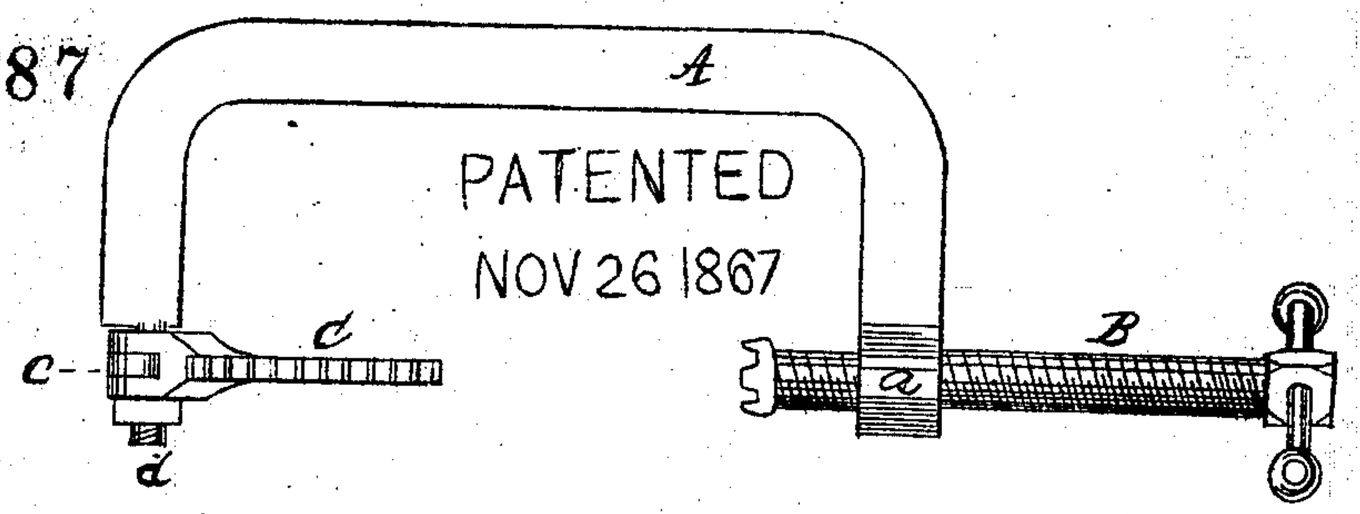

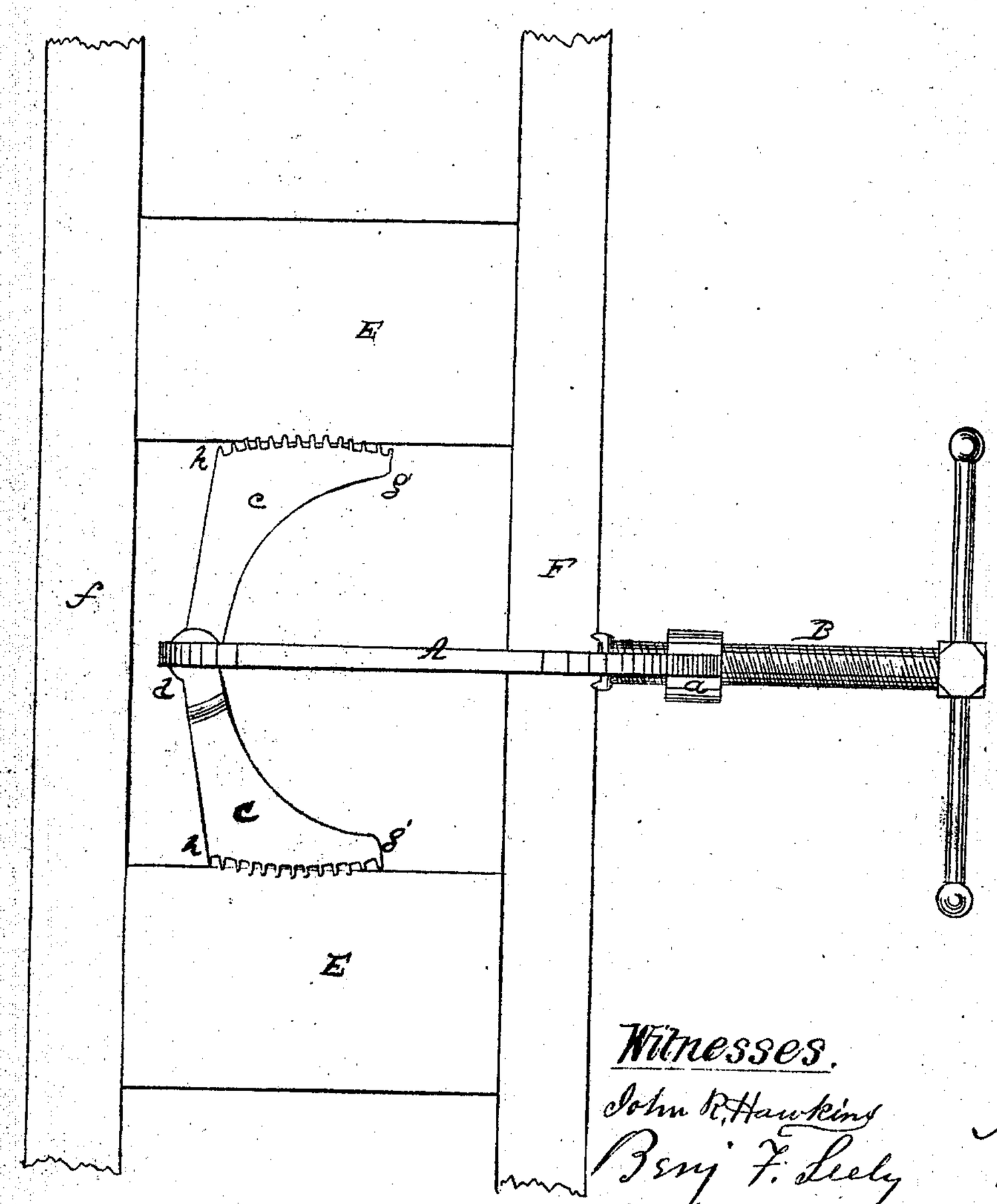

Witnesses.
John R. Hawkins
Benj F. Lisely

Inventor.
John J. Hill
per A. C. Thorley
Atty.

United States Patent Office.

JOHN J. HILL, OF SODUS POINT, NEW YORK.

Letters Patent No. 71,387, *dated November* 26, 1867.

IMPROVEMENT IN CLAMPS FOR PLANKING SHIPS' SIDES OR FLOORS.

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, JOHN J. HILL, of Sodus Point, in the county of Wayne, and State of New York, have invented a new and useful Improvement in Planking-Screws; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those 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, and

Figure 2 is a top view of the same.

Similar letters of reference indicate like parts.

This invention relates to certain new and useful improvements in screws used in ship-building, and known as planking-screws, whereby the frame of the screw is secured to the timbers of the vessel with greater facility than heretofore, and thereby a saving made in time and labor, as hereinafter explained.

In the accompanying drawings, B is the screw, and A is the screw-frame. One end of the frame A forms a nut, *a*, for the screw B, as usual. To the other end of the frame A, I attach two swinging braces, C *c*, fig. 2, by means of a pivot, *d*, fig. 1. The outer end of each of the braces C *c* has a broad, rounded face, which is provided with teeth, as shown.

Its operation is as follows: E E. in fig. 2, shows a top or end view of two timbers or ribs of a vessel, and F *f* represent the outside plank and the ceiling. The braces C *c* are placed between two timbers, E E, and spread out until they bear against the said timbers. The screw B is then turned, and as soon as it begins to bear upon the plank F, and to draw upon the braces, then the serrated faces of the braces bite on the timbers, and prevent the braces from slipping on said timbers; and they then jam and brace against each other, so as to afford a secure fulcrum for the screw and its frame. The braces C *c* adjust themselves readily to varying distances or spaces between the timbers of different vessels; the maximum spread of the braces being, when their points *g' g'* are thrown back, nearly opposite to their centre of motion or pivot *d*, and their minimum spread being when their heels *h h* are thrown considerably forward of their pivot *d*.

By these means I produce a screw which is applied with the greatest facility, and which adjusts itself readily to varying distances between timbers.

I am aware that in Patent No. 57,078, a screw is used which is supported by means of arms and projecting points, that enter the timber as the force is applied to the screw. Such device I do not claim; but—

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

The serrated segmental swinging arms C *c*, when attached to bar A, and constructed to operate with screw B, in the manner substantially as described.

The above specification of my invention signed by me, this 22d day of May, 1867.

J. J. HILL.

Witnesses:

F. A. MORLEY,

STANLEY BAGG.