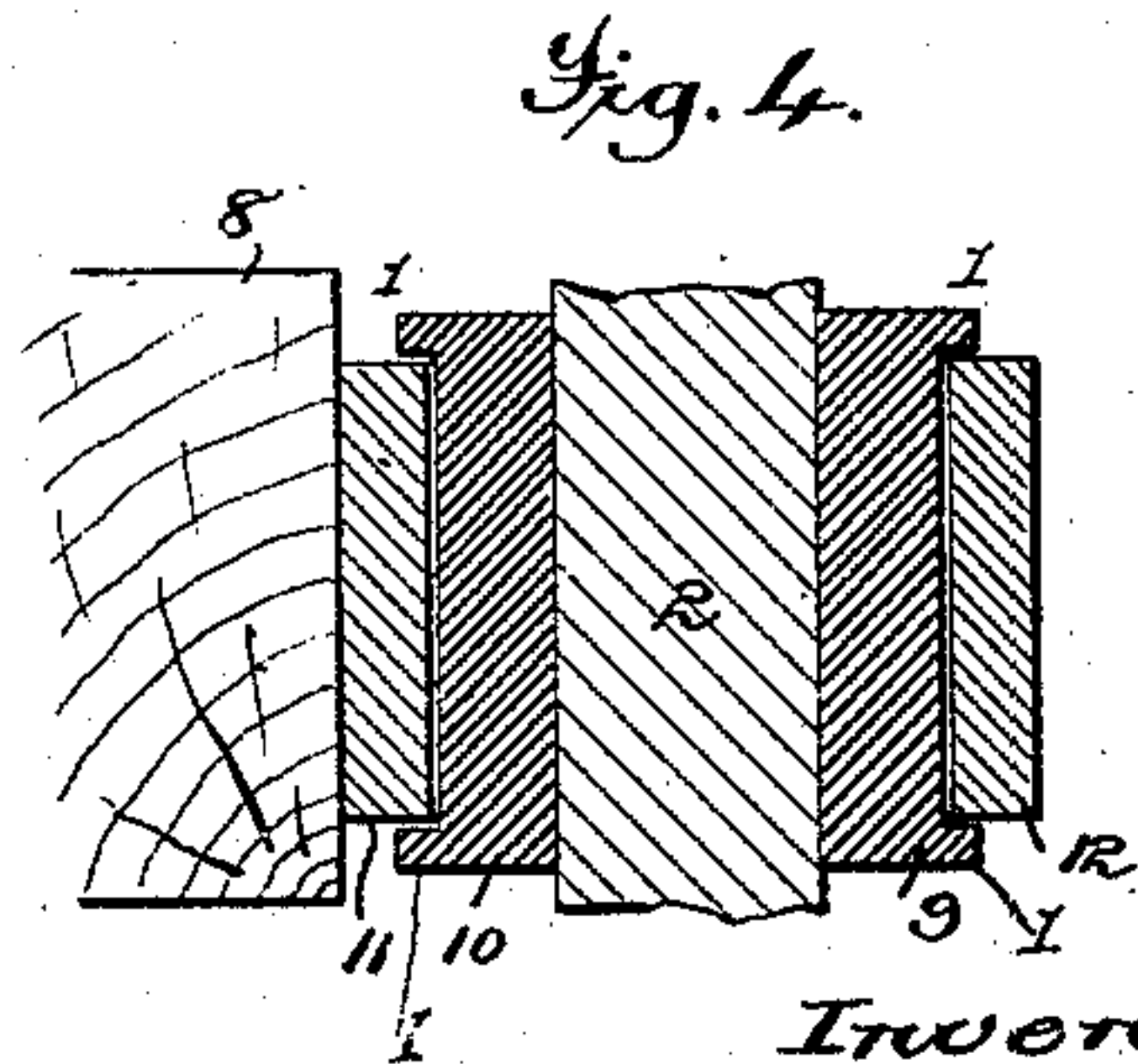
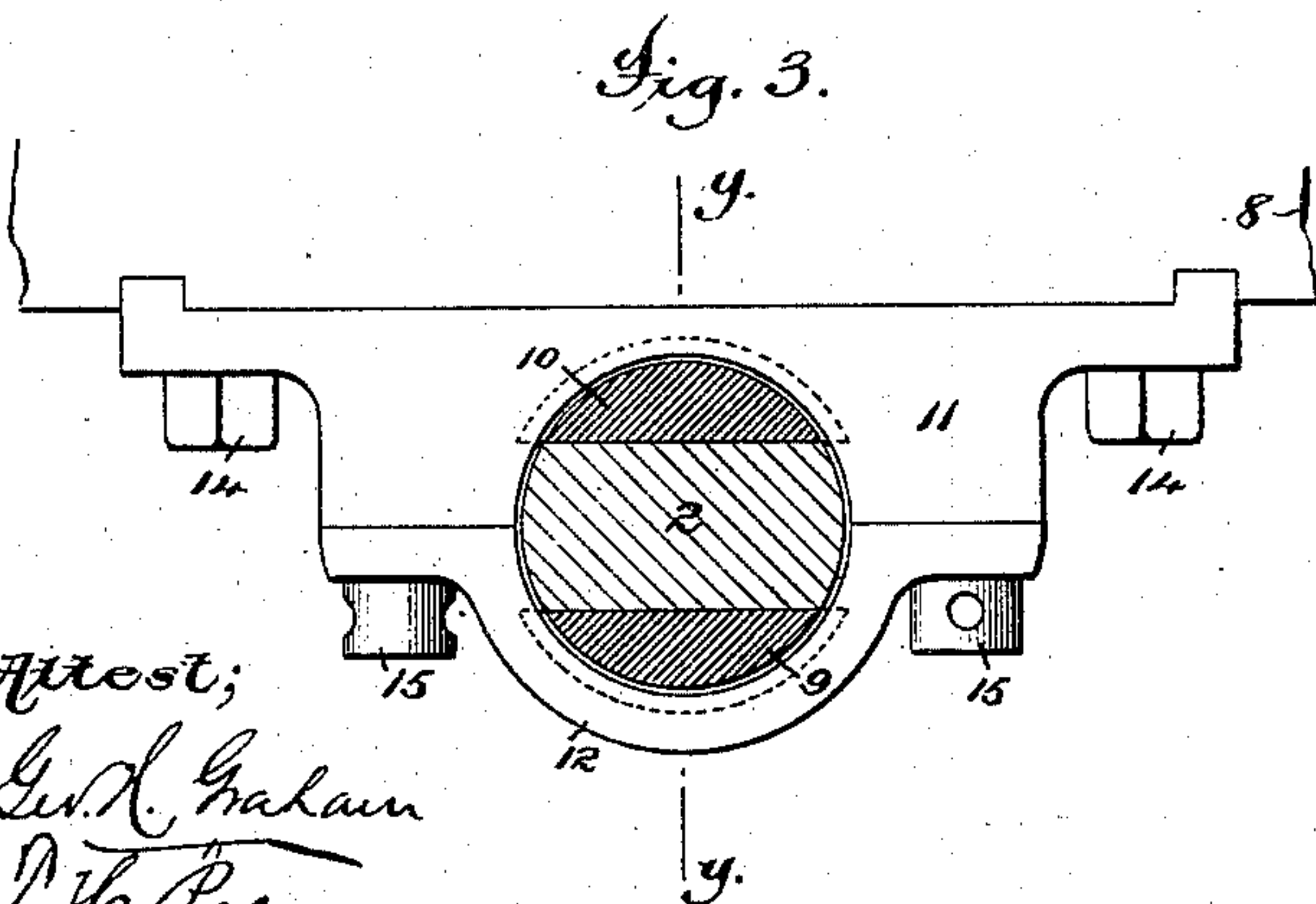
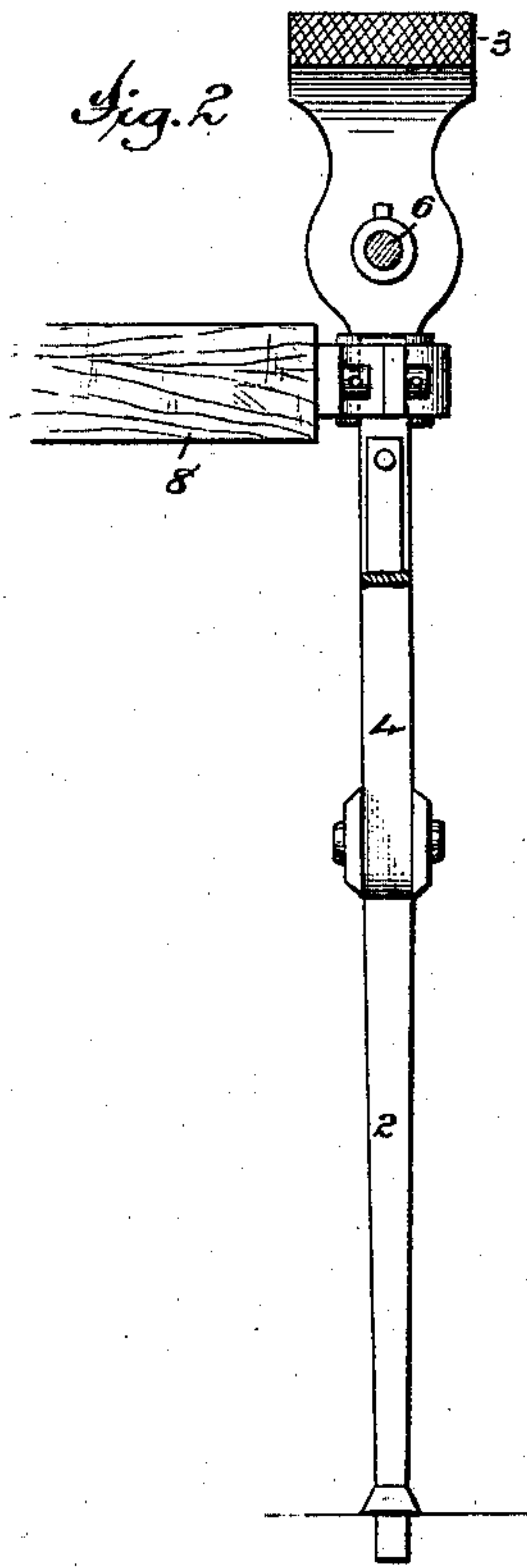
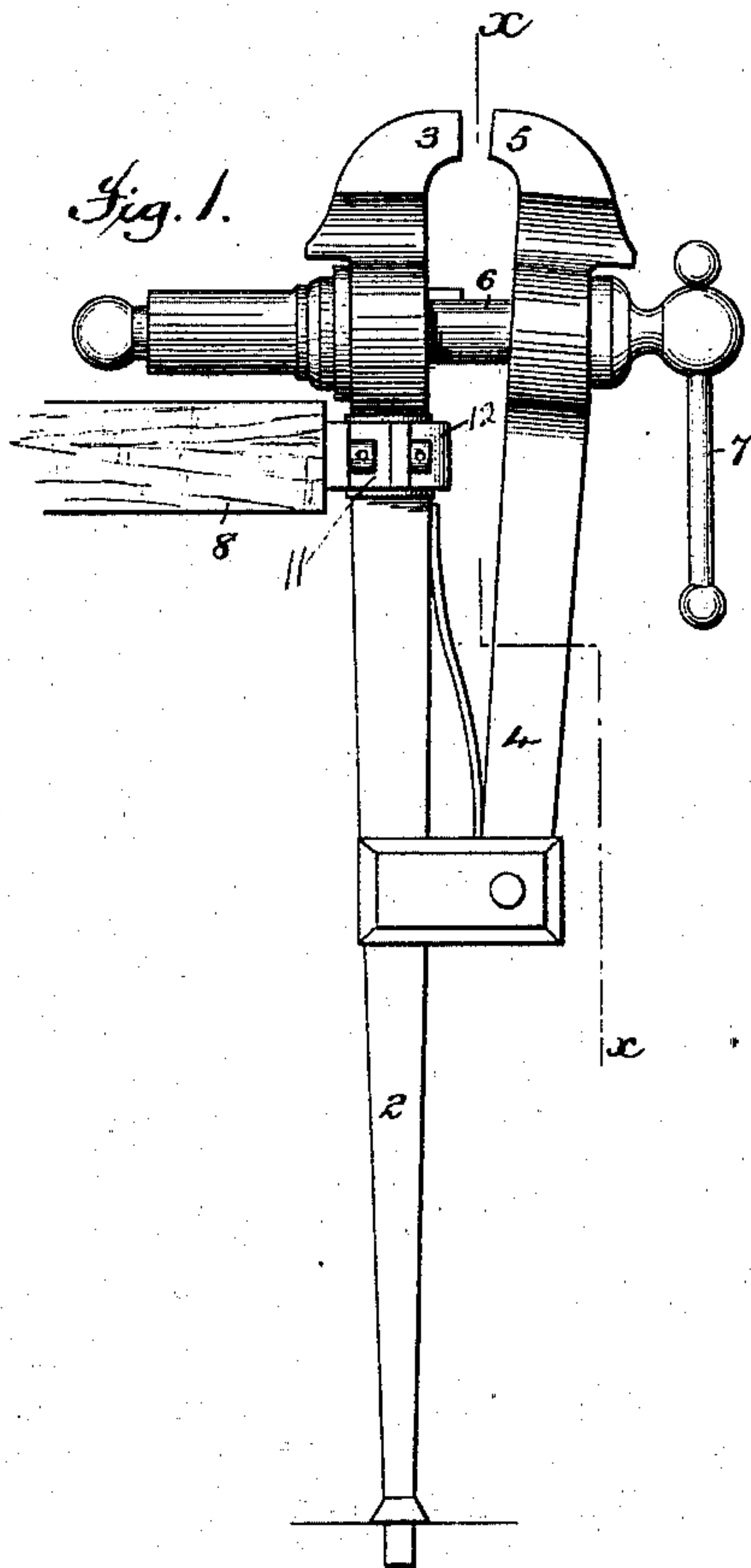


(No Model.)

W. E. SNEDIKER.
Vise.

No. 237,331.

Patented Feb. 1, 1881.



Attest;
Geo. A. Graham
J. H. Palmer

Inventor,
Wm E. Snediker,
by Munson & Philipp

UNITED STATES PATENT OFFICE.

WILLIAM E. SNEDIKER, OF TRENTON, NEW JERSEY, ASSIGNOR OF ONE-HALF TO HERMAN FUNKE, JR., OF COLLEGE POINT, NEW YORK.

WISE.

SPECIFICATION forming part of Letters Patent No. 237,331, dated February 1, 1881.

Application filed December 9, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. SNEDIKER, a citizen of the United States, residing in the city of Trenton, county of Mercer, and State of New Jersey, have invented certain new and useful Improvements in Vises, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 This improvement relates to means for attaching a vise to the bench that supports it, so that the same may swivel, and thus be rendered capable of having its jaws disposed at such angles with respect to the bench that all shapes of work held by the vise may be securely held in such relation to the workman as to be conveniently operated upon.

15 The invention consists in mounting one leg of the vise in a journal of peculiar construction, whereby the vise is not only rendered capable of being moved to any desired angle, but may be secured firmly in any adjusted position.

20 In order to a perfect understanding of my improvement, I will now proceed to describe the embodiment of it illustrated in the annexed drawings.

25 In said drawings, Figure 1 represents a side elevation of a vise provided with my improvement. Fig. 2 represents a front elevation of the same, partly in section. Fig. 3 represents an enlarged sectional plan view (line *x*) of the swivel bench-clamp, and Fig. 4 represents a vertical sectional elevation (line *y*) of the same.

30 The form of vise to which my attachment is especially adapted is the leg, or that variety in which the leg 2 of the fixed jaw 3 extends to and is stepped in the floor, and to which leg 2 the leg 4 of the movable jaw 5 is pivoted, the latter being moved or opened and closed by means of a screw-bolt, as 6, and a lever, as 7. Ordinarily this class of vises is attached to the bench 8 by means of a socket-plate or other fastening, that permanently fixes said leg in place, so that it may have no movement, and thus sustain the jaw 3 rigidly in place. Such an arrangement of the parts limits the capacity of the vise so far as to render it inconvenient and laborious to operate upon certain classes of work that require it to be held

in an angular position relative to the bench to which the vise is attached. To avoid these defects many complex structures have been made, all of which have required the general reorganization of the vise, so as to capacitate it not only to swivel, but to be secured in its various adjustments. These new structures are either defective in their capacity for heavy work, or else require a construction of swivel involving comparatively great expense in providing the requisite extent of bearing-surface necessary to impart sufficient strength to the machine.

35 In carrying out my improvement I preserve the general form of the vise and provide it with a swivel-joint, as follows: I fit its leg 2, the form of which is generally rectangular, with bearing-blocks 9 10, (see Figs. 3 and 4,) which blocks have flat inner faces, fitting upon the sides of said leg, and rounded outer faces, that, together with curved front and rear faces of the leg 2, constitute a circular journal, as in Fig. 3, that is adapted to be seated in a circular bearing formed by a socket-plate, 11, and a socket-strap, 12. The socket-plate 11 is firmly secured to the edge of the bench 8 by nuts 14 or otherwise, so as to afford a rigid support, and the socket-strap 12 held upon said socket-plate 11 by means of screw-bolts 15, that are constructed so that they may be readily turned to cause the strap 12 to press inward more or less forcibly, and thus operate with the plate 11 to clamp the leg 2 and its mounting, and thereby hold it and the vise it supports in any position of radial adjustment, and on the other hand cause its clamping effect to be modified so as to permit the leg 2 and the vise to be swung radially into any desired position of adjustment and there be secured.

40 The structure described is of course designed as the mountings adapted for a vise constructed with a leg, as 2; which has or is provided with flat sides and front and rear edges, that are or may be rounded, as is illustrated, and it is to be understood that the bearing-blocks 9 10, constituting in part such mountings, will be provided with overhanging edges, as 1, or some other means, as a horizontal rib projecting from them and entering the socket-plate 11

and strap 12, or vice versa, to prevent their being displaced from their seats.

It will be obvious from the foregoing that the form of the leg 2 may be polygonal and the blocks 9 10 be adapted to fit upon it and constitute the circular bearing.

In structures where it is desired to dispense with the elongated form of the leg 2, or where such leg is of about the length of its companion leg 4, the socket-plate 11 and strap 12, as well as the bearing-blocks 9 10, will be elongated so as to so far embrace the leg 2 as to afford the support requisite to sustain the rigid vertical position of the vise, no matter what its radial adjustment may be.

By the use of the socket-plate 11 and the adjustable socket-strap 12 the vise is rendered capable of adjustment to any radial position

desired, where it may be firmly secured, and the structure of the swinging devices is such as not to impair the strength of any of the parts of the vise.

What is claimed is—

The combination, with the polygonal leg, as 2, of a vise, and bearing-blocks, as 9 10, whereby said leg is provided with a circular bearing, of a socket-plate, as 11, and a socket-strap, as 12, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

W. E. SNEDIKER.

Witnesses:

HORATIO N. BARTON,
FRANKLIN S. MILLS.