

No. 713,948.

Patented Nov. 18, 1902.

JOHN BRYANT & JAMES BRYANT.

PIPE VISE.

(Application filed Apr. 10, 1902.)

(No Model.)

2 Sheets—Sheet 1.

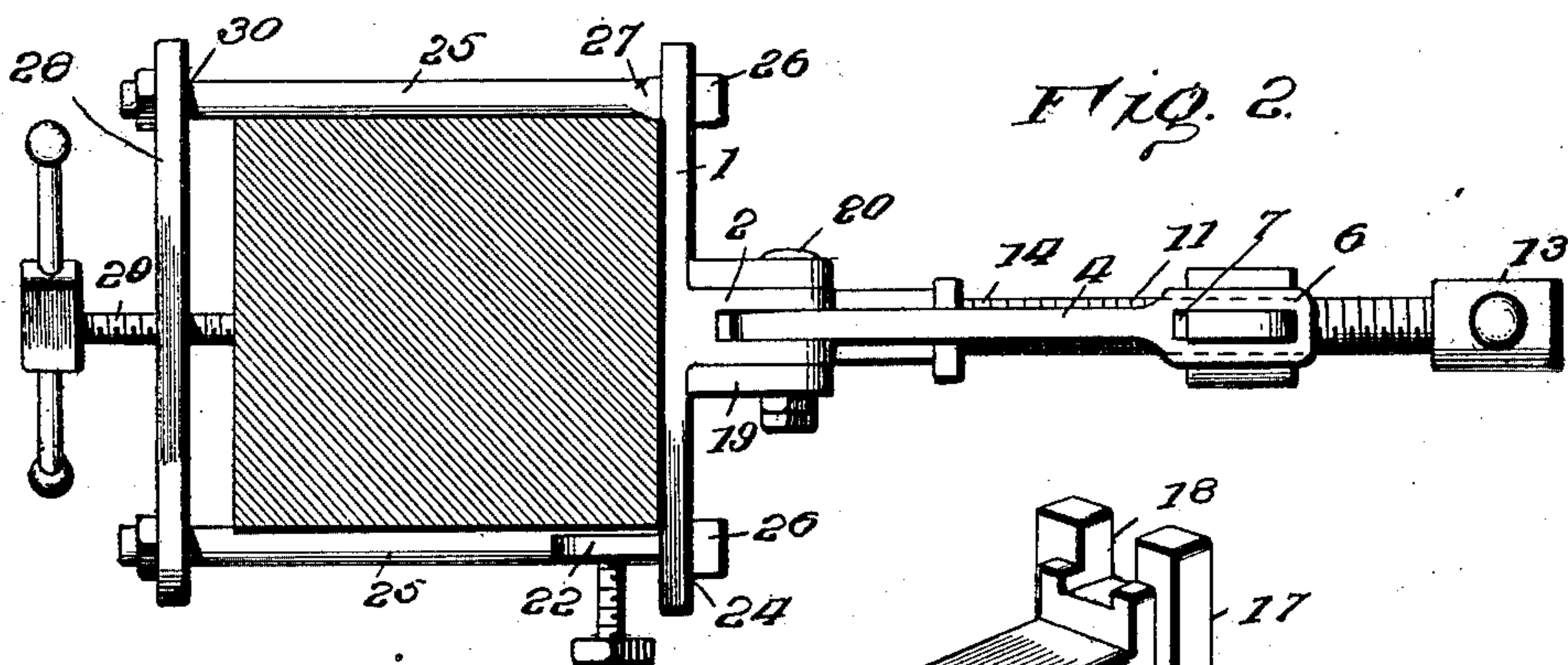
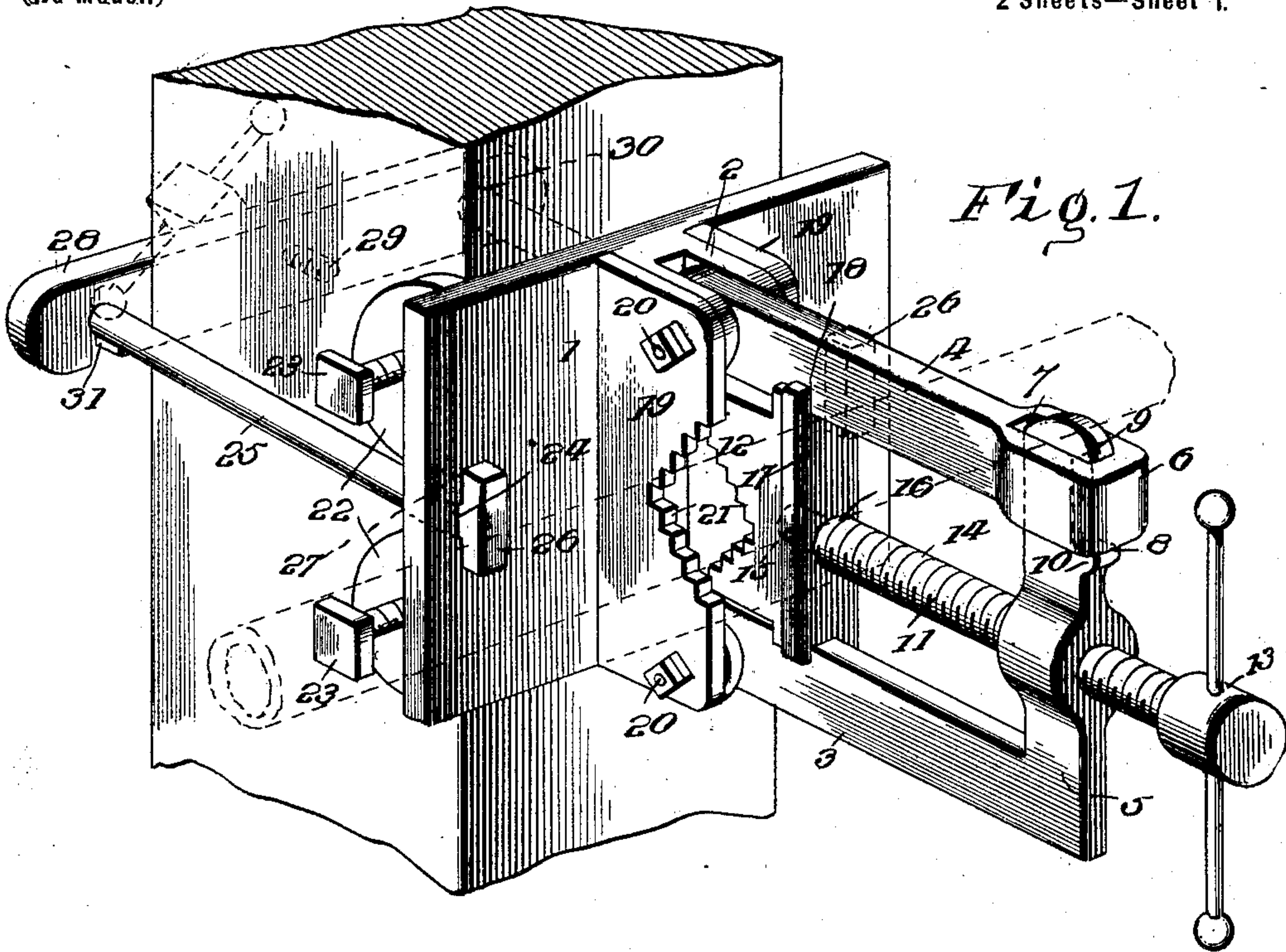
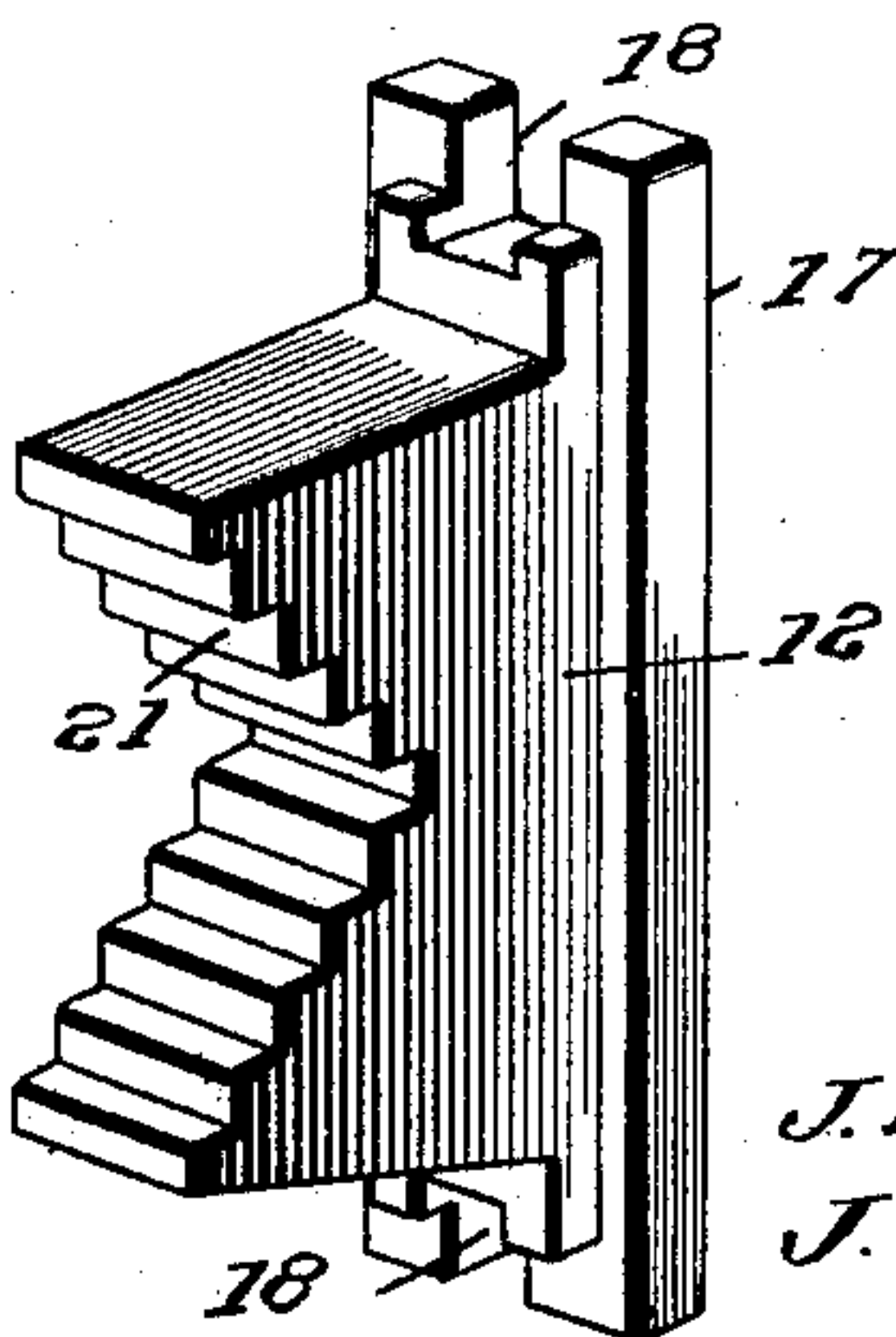


Fig. 1.



Witnesses

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2 Sheets—Sheet 2.

FIG. 3.

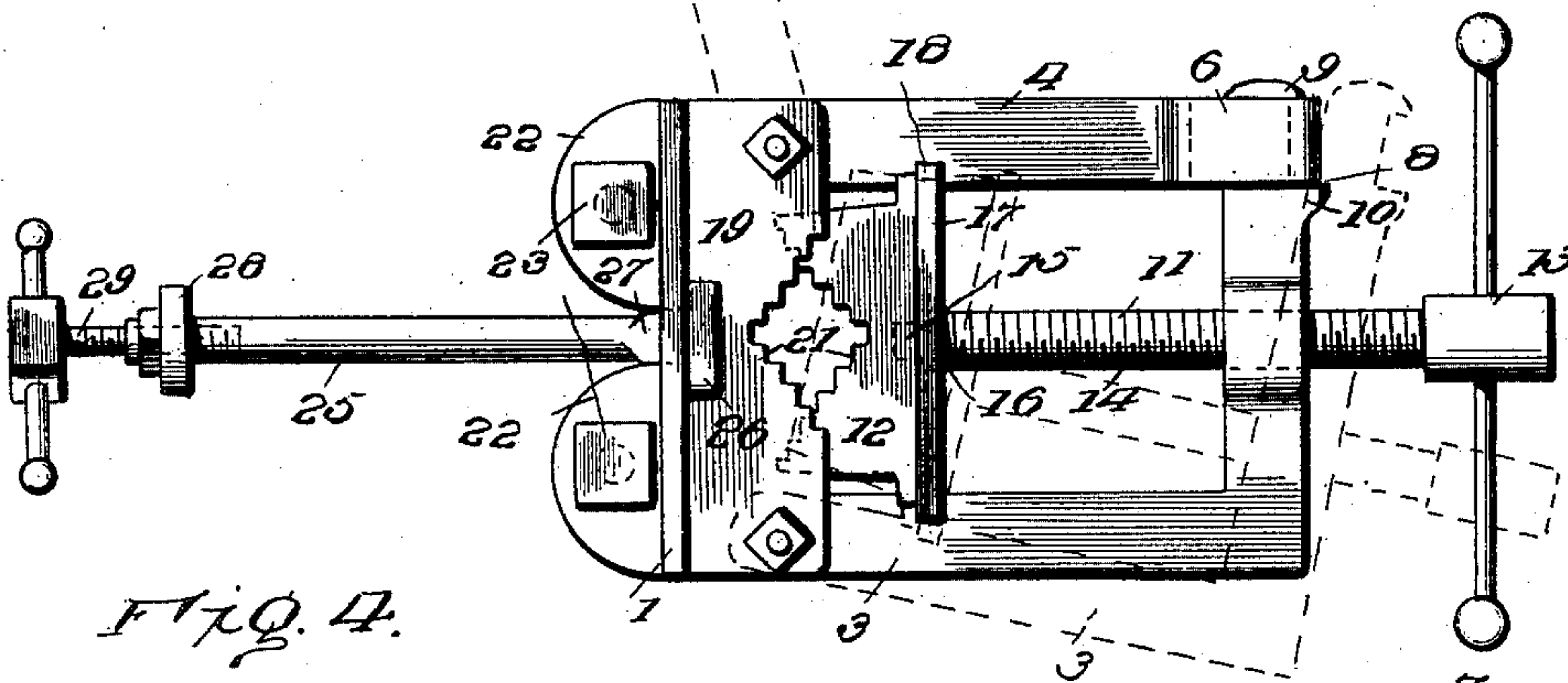


FIG. 4.

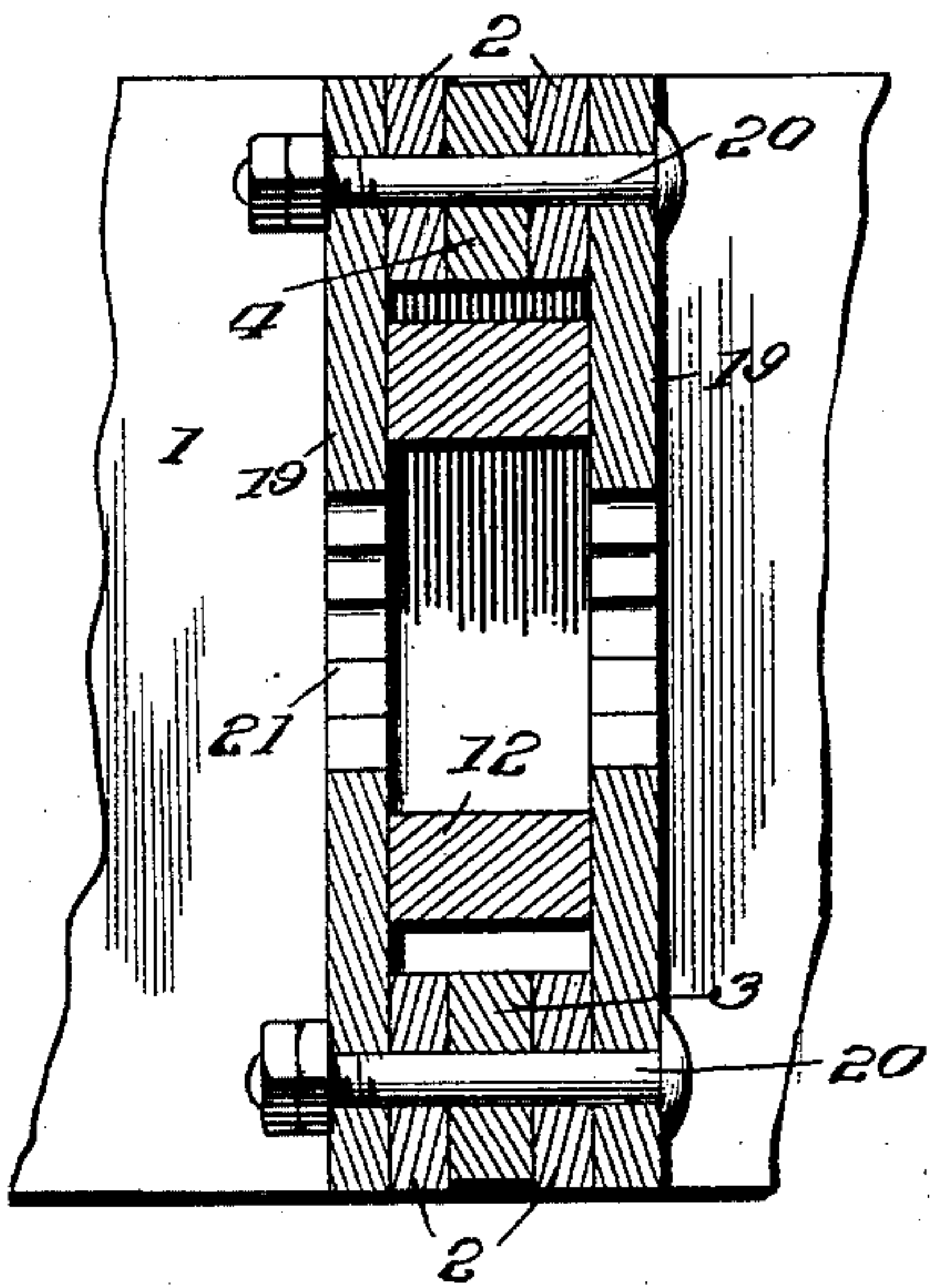


FIG. 6.

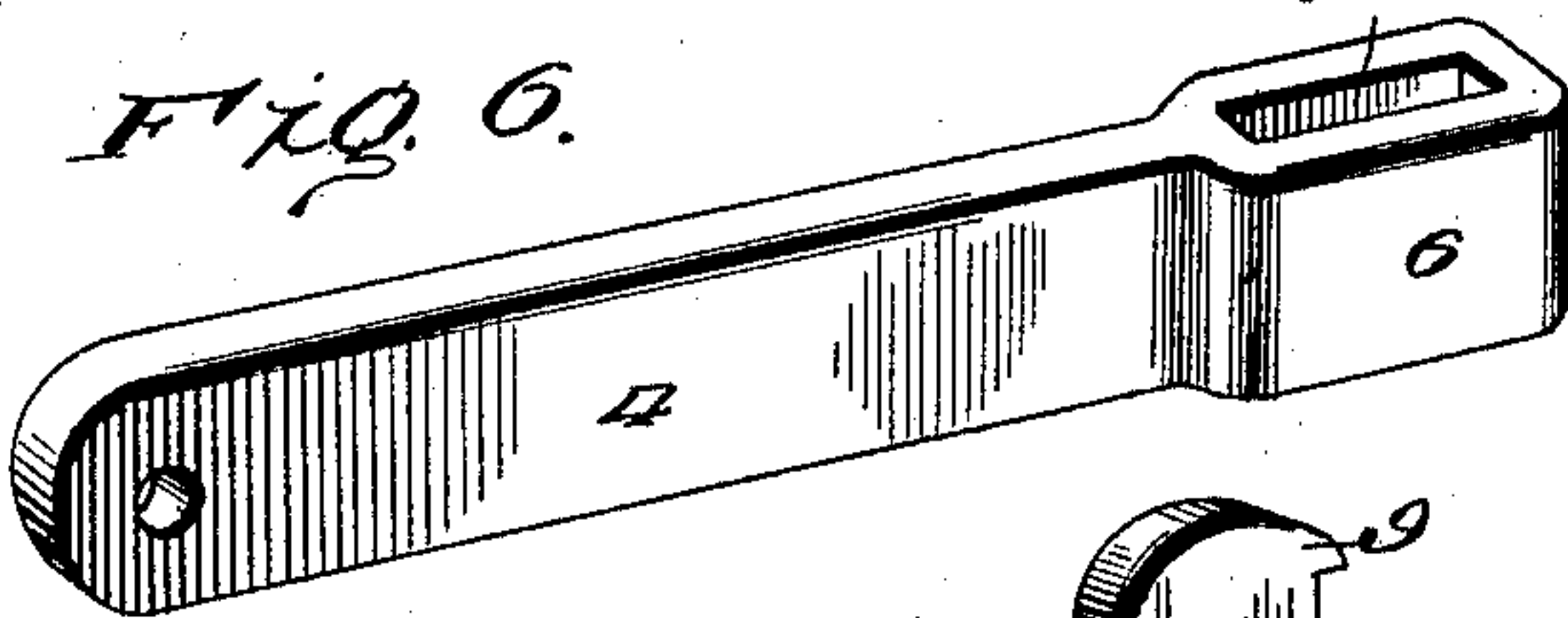
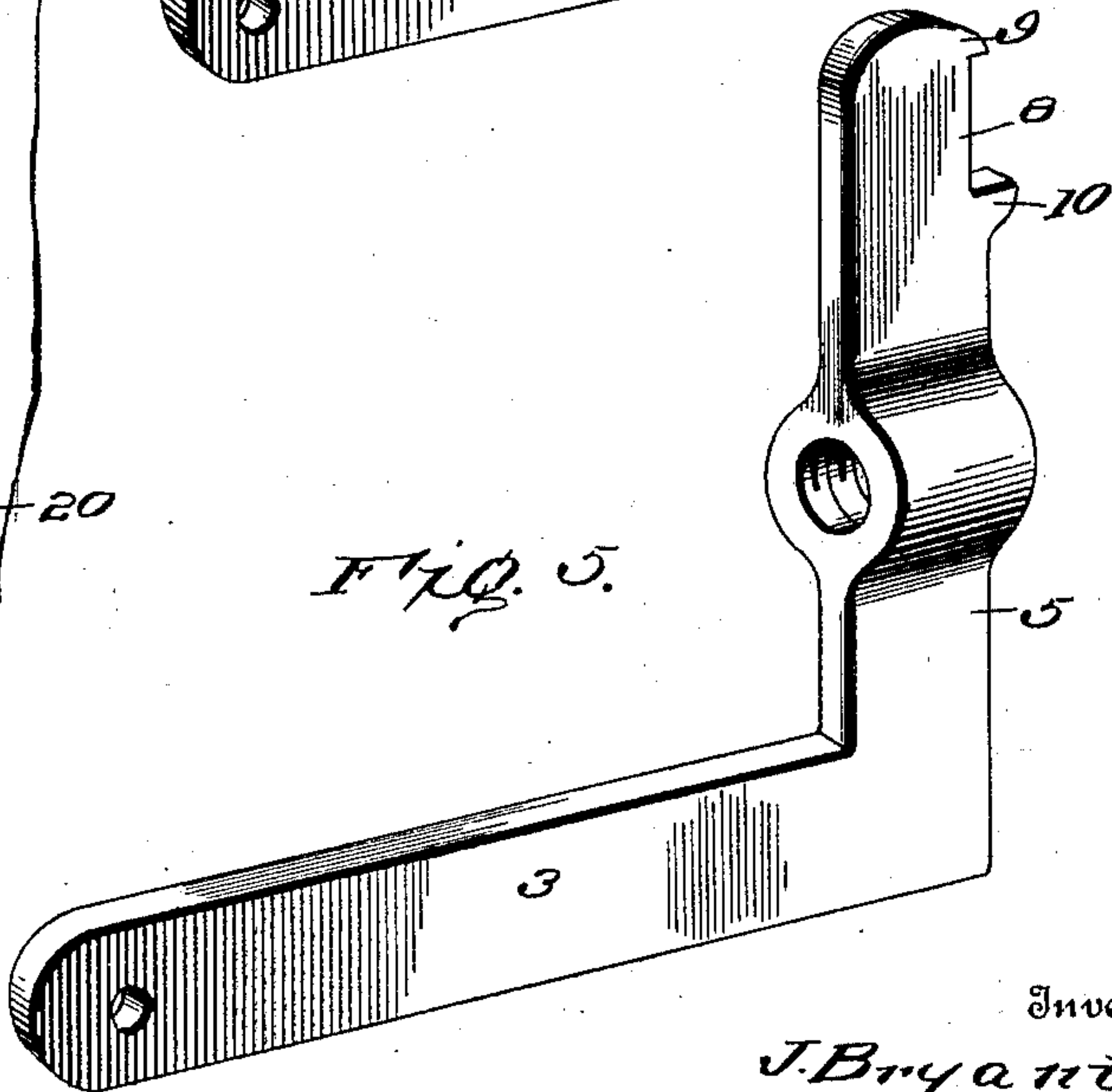


FIG. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN BRYANT AND JAMES BRYANT, OF CONNEAUT, OHIO.

PIPE-VISE.

SPECIFICATION forming part of Letters Patent No. 713,948, dated November 18, 1902.

Application filed April 10, 1902. Serial No. 102,272. (No model.)

To all whom it may concern:

Be it known that we, JOHN BRYANT and JAMES BRYANT, citizens of the United States, residing at Conneaut, in the county of Ash-
5 tabula and State of Ohio, have invented certain new and useful Improvements in Pipe-Vises; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others
10 skilled in the art to which it appertains to make and use the same.

This invention relates to pipe-vises, the object in view being to provide a simple and effective portable vise especially adapted to the
15 use of plumbers and other mechanics while roughing up a piece of work in a new building, the construction of the vise having special reference to the application thereof to a stud, joist, work-bench, or other convenient
20 place.

Another object of the invention is to so construct the vise that the lengths of pipe may be introduced laterally to the clamping-jaws, thus enabling the workman to operate in cir-
25 cumscribed places.

With the above and other objects in view, the nature of which will appear more fully as the description proceeds, the invention consists in the novel construction, combination,
30 and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a vise constructed in accordance with the present invention and
35 shown applied to a stud. Fig. 2 is a horizontal section through the stud, taken just above the vise and showing the latter in plan. Fig. 3 is a side elevation of the same, showing the standards thrown back or disconnected
40 in dotted lines. Fig. 4 is a detail section taken longitudinally through the jaw-plates in line with the bolts passing therethrough. Fig. 5 is a detail perspective view of the L-shaped standard. Fig. 6 is a similar view of
45 the slotted standard. Fig. 7 is a detail perspective view of the movable jaw.

Similar numerals of reference designate corresponding parts in all figures of the drawings.

50 Referring to the drawings, 1 designates the base-plate of the vise, which may be of any desired size, according to the size of the

vise and the work to be performed. On one side of the base-plate, at or near its opposite edges, are offstanding slotted lugs 2, within
55 the slots of which are pivotally received the inner ends of a pair of standards 3 and 4.

The standard 3 is L-shaped or provided with a terminal arm 5, which extends normally in parallel relation to the base, the arm
60 5 intersecting and passing through the other standard 4, which is provided for that purpose with a terminal enlargement or head 6, formed with a through-slot 7, adapted to receive and admit of the passage of the extrem-
65 ity of the arm 5. The arm 5 is provided in its end portion with a depression or seat 8, adapted to receive the end portion of the slotted head 6, the arm 5 having a pair of spaced
70 shoulders 9 and 10 at opposite sides of the depression 8. When the arm 5 is inserted through the slotted head 6 and the main screw 11 is brought to bear firmly against the movable jaw of the vise, the shoulders 9 and 10 lie
75 on opposite sides of the slotted head 6 and prevent any possibility of separation between the arm 5 and the standard 4. At the same time by loosening the main screw 11 sufficiently the end of the arm 5 may be swung
80 outward sufficiently to free the standard 4 therefrom, after which the standards 3 and 4 may be swung apart, as indicated in dotted lines in Fig. 3. This will enable the movable
85 jaw 12 to be taken out and also enable a section of pipe to be introduced or removed laterally.

The main screw 11 is provided with the usual enlarged head 13 and operating rod or lever 14, while the inner end of the screw is reduced, as shown at 15, to enter the socket 16
90 in the outer face of the movable jaw. The movable jaw is enlarged at its outer edge to form a cross-head 17, the extremities of which are notched or slotted, as shown at 18, to embrace and slide upon the inner edges of the
95 standards 3 and 4, thus preventing the displacement of the movable jaw and keeping it in proper alinement with the standards and fixed jaw.

The fixed jaw consists of a pair of jaw-plates
100 19, which are arranged on opposite sides of the slotted lugs 2 and securely held in place by means of bolts 20, passing through the plates 19, the slotted lugs 2, and the inner

ends of the standards 3 and 4, said bolts thus serving the additional function of pivots for the standards 3 and 4. The movable jaw 12 and the jaw-plates 19 are recessed and notched or serrated in their inner edges, as shown at 21, so as to effectively grip the pipe-section placed therein. The jaw-plates 19 are also located a sufficient distance apart to enable the movable jaw 12 to slide between them, thus accommodating a pipe of any size.

On the opposite side of the plate 1 from the clamping-jaws said plate is provided with a pair of projecting lugs or ears 22, through which are inserted lag-screws 23, adapted to be screwed into the edge of a work bench or table or any wooden part of a building for the purpose of securing the vise thereto. The base-plate is further provided, at or near its opposite ends, with holes 24 to receive removable bolts 25, having heads 26 and squared shoulders 27 to fit the holes 24, which are also squared, by preference, in order to prevent the bolts from turning. The bolts 25 are adapted to embrace a stud, as clearly shown in Figs. 1 and 2, and to receive a clamping-bar 28, with a clamping-screw 29, which may be brought to bear with the necessary pressure against the stud for securely retaining the vise in place and enabling the vise to be adjusted up or down on the stud, so that it may be brought to any desired point of elevation. The clamping-bar 29 is provided in one end with a hole 30 to receive one of the bolts, while the opposite end is provided with a slot 31, enabling the clamping-bar to be swung laterally out of engagement with one of the bolts by simply loosening one or both nuts slightly, thus saving time when moving the vise from one stud to another or detaching the same all together.

It will be noticed that one of the bolt-receiving holes 24 is arranged between the lugs or ears 22 in such a manner as to bring the inner side of that bolt in line with the inner surface of the lugs or ears 22, which enables said lugs to be brought to bear against the side of the stud. This prevents canting or twisting of the vise on the stud and adds materially to the practical value and utility of the vise as a whole.

It is of course intended to manufacture the vise in various sizes, according to requirements, and it will therefore be understood that the device is susceptible of various changes in the form, proportion, and minor details of construction, which may accordingly be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

Having thus described the invention, what is described as new, and desired to be secured by Letters Patent, is—

1. In a vise, the combination of a base-plate, a fixed jaw thereon, a pair of standards piv-

otally connected with the base-plate, one of said standards having an angular arm which connects detachably with the other standard and receives a main clamping-screw, and a movable jaw mounted between and having a sliding engagement with both standards, substantially as described.

2. In a vise, the combination of a base-plate, a fixed jaw thereon, a pair of standards pivotally connected with the base-plate, one of said standards having an angular arm and the other standard having a terminal head slotted to receive the angular arm of the other standard, space-shoulders on said angular arm for engaging the terminal head at opposite sides, a movable jaw having a cross-head which is notched to slidably engage the opposite inner surfaces of the standards, and a main screw passing through the angular arm of the standard and bearing against the movable jaw, substantially as described.

3. In a vise, the combination of a base-plate provided with lugs, of a pair of standards pivotally connected with said lugs, an arm on one standard carrying the main clamping-screw, a movable jaw mounted to slide on the standard and to be actuated by said screw, a stationary jaw comprising parallel jaw-plates arranged at opposite sides of the plane in which the movable jaw works and bolts passing through the jaw-plates, lugs and standards and serving as the pivots of the standards, substantially as described.

4. In a vise, the combination of a base-plate, fixed and movable jaws connected therewith, means for operating the movable jaw, lugs on the opposite side of the base-plate from the clamping-jaws, bolts passing through openings in the base-plate, one of the bolts being interposed between the said lugs and in line with the inner surfaces of the lugs, and a clamping-bar mounted upon the ends of the bolts, substantially as described.

5. In a vise, the combination of a base-plate, fixed and movable jaws connected therewith, means for operating the movable jaw, lugs on the opposite side of the base-plate from the clamping-jaws, bolts passing through openings in the base-plate, one of the bolts being interposed between the said lugs and in line with the inner surfaces of the lugs, a clamping-bar mounted upon the ends of the bolts, and a clamping-screw having a threaded engagement with said bar intermediate the ends of the latter, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN BRYANT. [L. S.]
JAMES BRYANT. [L. S.]

Witnesses:

GEO. W. TRAVER,
J. H. LUCAS.