

No. 703,326.

Patented June 24, 1902.

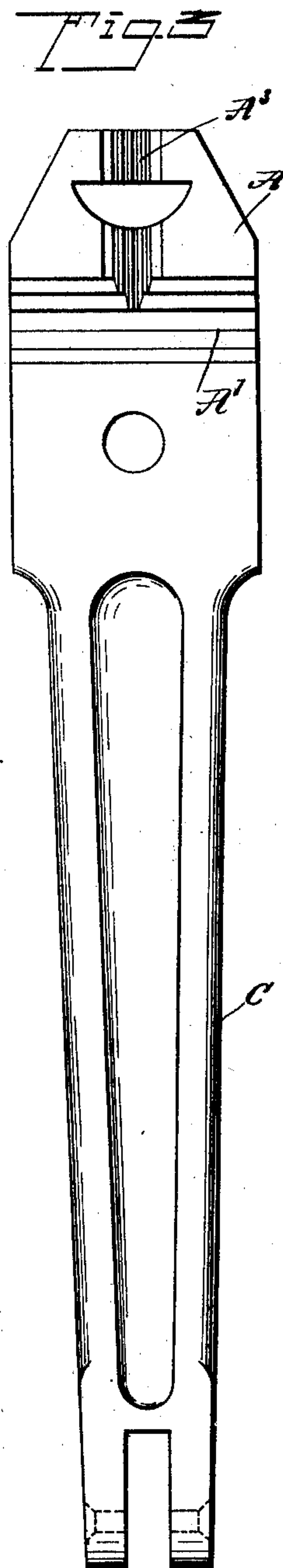
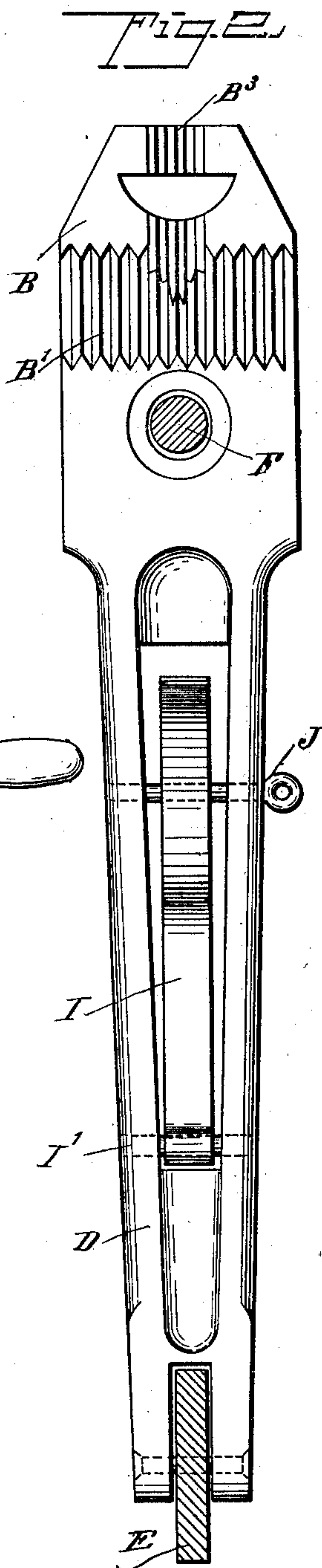
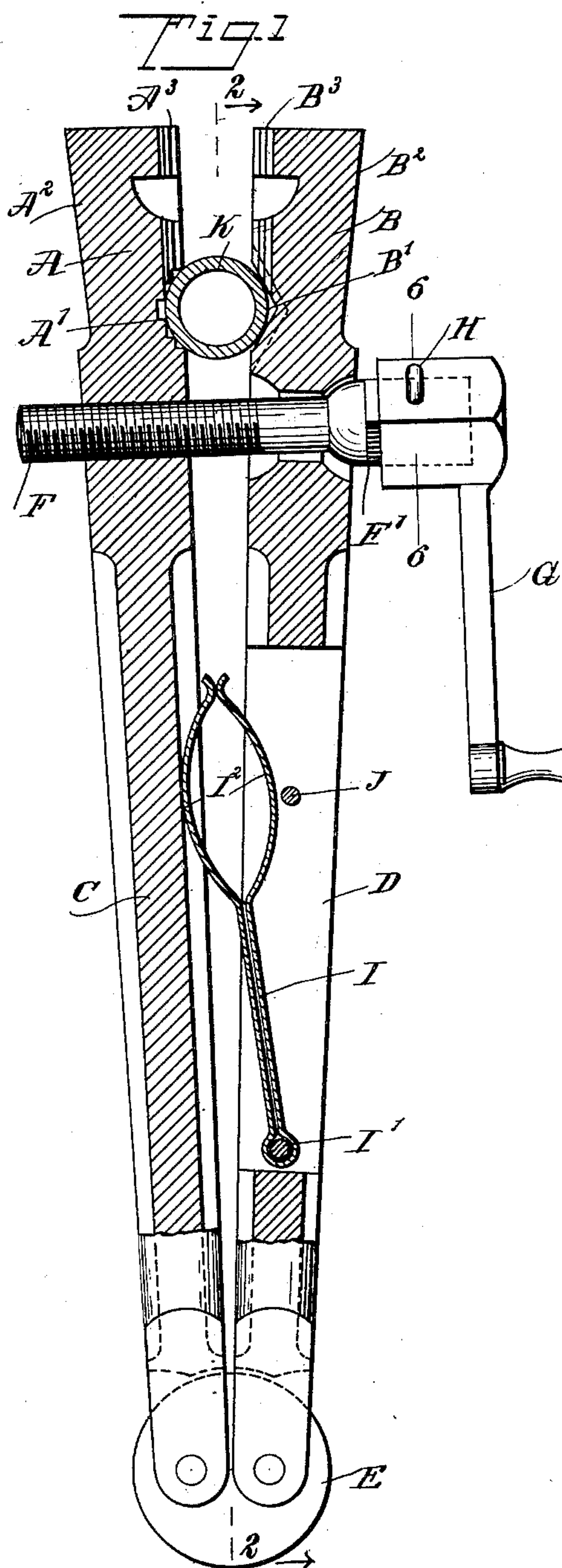
F. I. WEBBER.

WISE.

(Application filed Sept. 21, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig 4

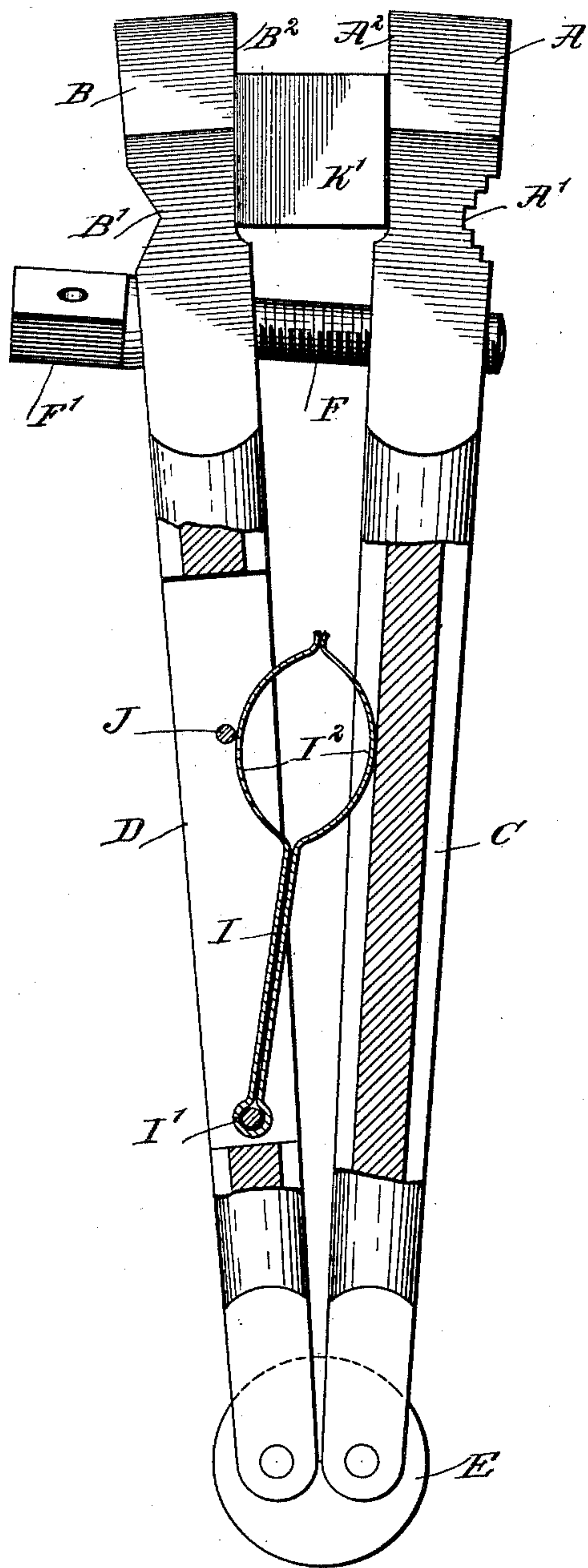


Fig 5

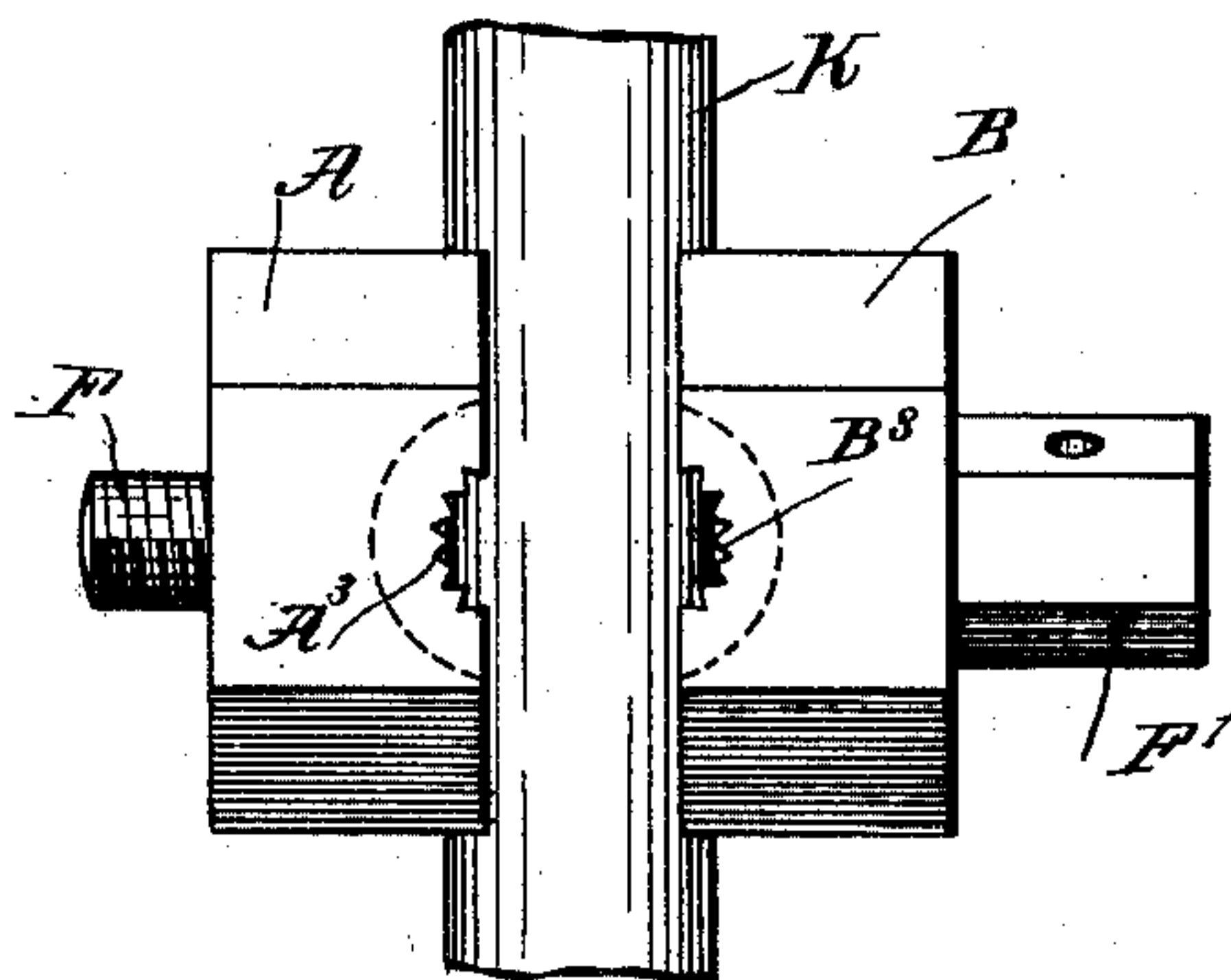
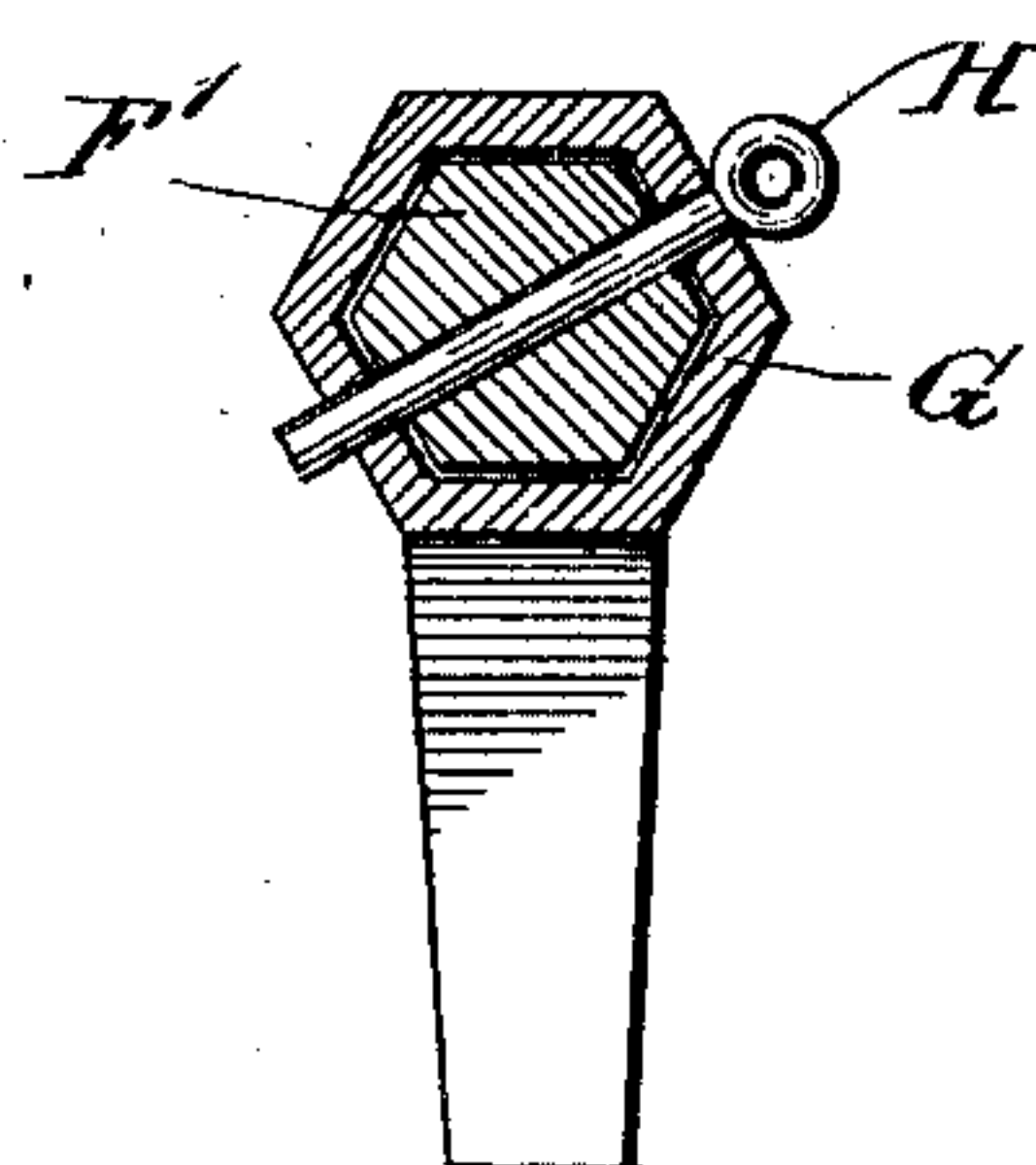


Fig 6



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FRANK I. WEBBER, OF OXFORD, NEBRASKA.

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SPECIFICATION forming part of Letters Patent No. 703,326, dated June 24, 1902.

Application filed September 21, 1901. Serial No. 76,066. (No model.)

To all whom it may concern:

Be it known that I, FRANK I. WEBBER, a citizen of the United States, and a resident of Oxford, in the county of Furnas and State of Nebraska, have invented a new and Improved Vise, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved vise or holder more especially designed for securely gripping or holding the sucker or plunger rods of tubular wells or the drill-rods of well-drilling apparatus or other work undergoing repairs and the like, the vise being simple and durable in construction, very effective in operation, and arranged to prevent the work from sliding or turning in the jaws.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1, showing one of the jaws and adjacent parts. Fig. 3 is a face view of the other jaw. Fig. 4 is a side elevation of the improvement with parts in section and the jaws in a reversed position. Fig. 5 is a plan view of the improvement with the parts in position as shown in Fig. 1, and Fig. 6 is a cross-section of the handle and its fastening device for the screw-rod.

The improved vise consists, essentially, of the jaws A and B, secured or integrally formed on the free ends of the shanks C and D, fulcrumed independently one of the other on a plate E to allow of swinging the jaws into a reversed position, as will be readily understood by reference to Figs. 1 and 4. In the upper end of the shank C screws a screw-rod F, extending loosely through the other shank D and formed at its outer end with a head F' of polygonal shape to receive a corresponding socket in the handle G, adapted to be taken hold of by the operator to turn the screw-rod, so as to open or close the jaws A and B. A cotter-pin H serves to fasten the

handle to the head F', it being understood that when the cotter-pin H is withdrawn the screw-rod F can be turned by a wrench or other suitable tool and the handle G can be used as a wrench. A spring I is pivoted at I' on the shank D and extends with its curved ends I² between the shank C and a pin J, removably held in the other shank D, so that when the jaws A and B are closed by the operator turning the handle G correspondingly the shanks C and D are pressed by the spring to insure a ready opening of the jaws when the handle G is turned in the proper direction.

The jaw A is formed with a transversely-extending gripping-face A' on one side of the jaw, and on the other side is arranged a gripping-face A², and a third gripping-face A³ extends lengthwise of the jaw and leads from the outer end thereof to the gripping-face A'. The gripping-face A' is formed by a V-shaped recess extending transversely, the walls of the recess being in double-step form, as plainly indicated in Fig. 1, to prevent the work from turning in the jaws when gripped by the same, as illustrated in Fig. 1. The jaw B has a gripping-face B' on one side of the jaw, a gripping-face B² on the other side, and a third gripping-face B³ extends lengthwise of the jaw from the outer end to the gripping-face B', as plainly indicated in Figs. 1 and 2. The gripping-face B' is formed by a V-shaped recess extending transversely and having its wall formed with longitudinal corrugations, so that the work K, gripped between the jaws, cannot slip lengthwise, as the corrugated wall prevents such movement of the work. Thus it will be seen that by having the opposite walls of the gripping-faces arranged as described the work is securely held in place and is not liable to turn or to slide in the direction of its length. This is very essential in raising or lowering the sucker or plunger rods of tubular wells or the drill-rods of well-drilling apparatus or other work. The gripping-faces A² and B² are preferably smooth, as indicated in Fig. 4, so as to grip the work K' of polygonal cross-section, as indicated in the said Fig. 4. The gripping-faces A³ and B³ are formed by notches having teeth running in the direction of the length of the jaws, so that work can be gripped between the jaws in the direction of their length.

It is expressly understood that by having the shanks C and D pivoted independently one of the other on the plate E the operator can readily swing the jaws around to reverse
 5 their position, as previously mentioned, and shown in Figs. 1 and 4. When reversing the jaws, it is necessary to withdraw the pin J and to reinsert the same after the jaws have been reversed to bring the spring I in proper
 10 position between the shank C and the pin.

The vise is very simple and durable in construction, is composed of but few parts, which are not liable to get out of order, and the vise can be readily manipulated for securely grip-
 15 ping various articles.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A vise, comprising two jaws, one jaw being formed with a transverse V-shaped recess, the walls of which are in double-step form, and with a central notch leading from the recess to the end of the jaw and provided with longitudinal teeth, and the other with a trans-
 25 verse V-shaped recess having longitudinally-extending corrugations and with a central notch leading from the recess to the end of the jaw and having longitudinal teeth, as set forth.

30 2. A vise, comprising jaws having gripping-surfaces on both sides, the jaws being independently pivoted to permit of their being reversed, as set forth.

3. A vise comprising jaws, each having gripping-faces on both sides, shanks carrying the jaws, and a pivot-plate on which the shanks are independently pivoted to allow of reversing the jaws, as set forth.

4. A vise comprising jaws, each having grip-
 40 ping-faces on both sides, shanks carrying the

jaws, a pivot-plate on which the shanks are independently pivoted to allow of reversing the jaws, a screw-rod screwing in one of the shanks and engaging the other shank, and a spring pivoted on one of the shanks and extending with its free end between the other shank and a removable pin on the shank on which the spring is pivoted, as set forth. 45

5. A vise, comprising jaws having transverse and longitudinal roughened gripping-
 50 faces on one side and plain or smooth gripping-faces on the other side, a pivot-plate to which the shanks of the jaws are independently pivoted to permit of their being reversed, and means for opening and closing
 55 said jaws, as set forth.

6. In a vise, the combination with two jaws having gripping-surfaces on both sides, and independently pivoted so as to permit of their being reversed, and means for closing the
 60 jaws, of a spring carried by one of the jaws, and a removable stop on one jaw and against which and the other jaw the spring is adapted to engage, as set forth.

7. A vise, comprising two jaws having gripping-surfaces on both sides, shanks carrying the jaws, a screw-rod working loosely in one shank and screwing into the other, a pivot-plate to which the shanks are independently
 65 pivoted, a pivoted spring carried by one shank, and a removable pin carried by the shank carrying the spring, as set forth. 70

In testimony whereof I have signed my name to this specification in the presence of two witnesses.

FRANK I. WEBBER.

Witnesses:

AVON ARNSBERGER,
 W. F. YOUNG.