

No. 713,038.

Patented Nov. 4, 1902.

E. ZIMMERMAN.
VICE.

(Application filed Mar. 6, 1902.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

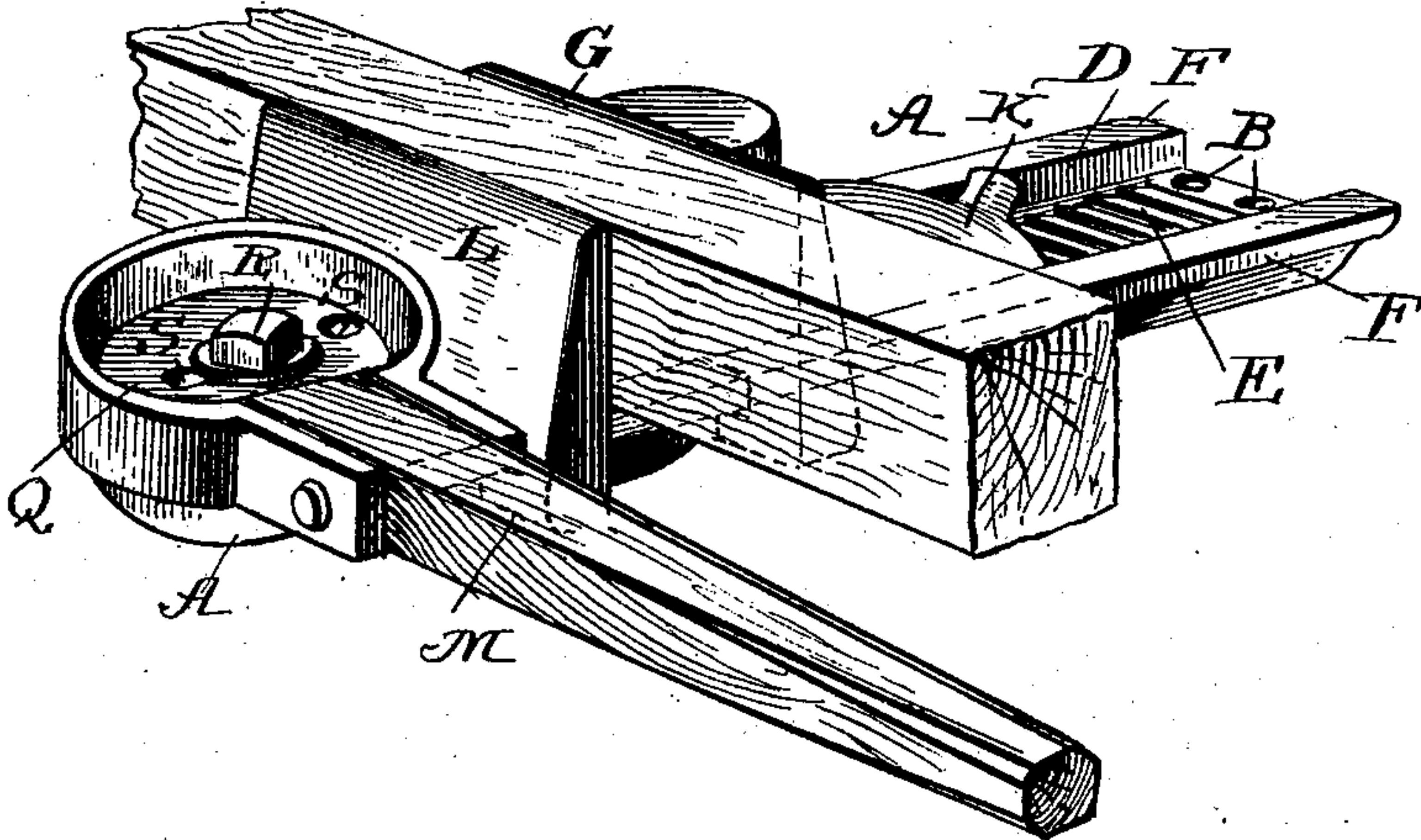
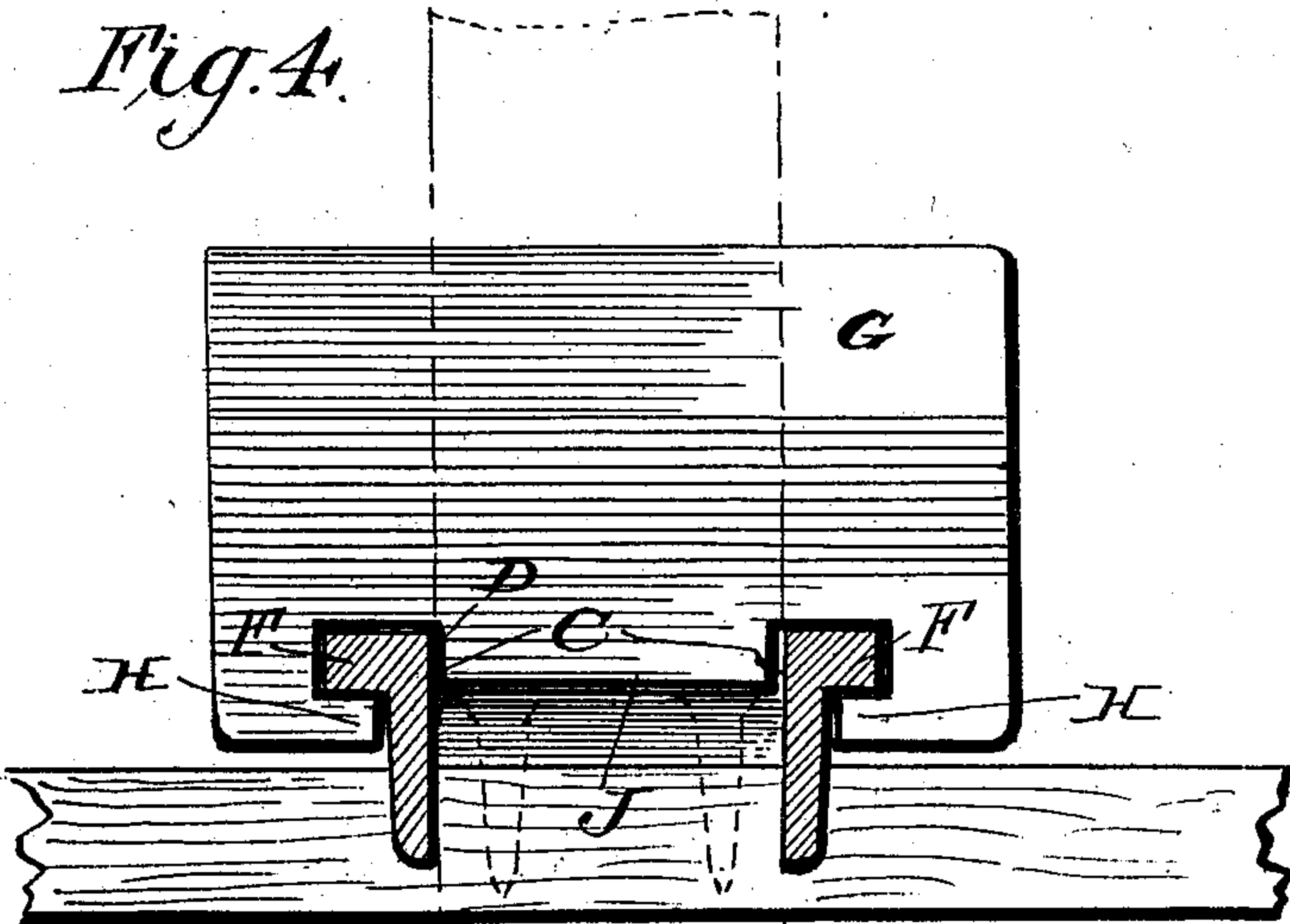


Fig. 4.



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2 Sheets—Sheet 2.

Fig. 2.

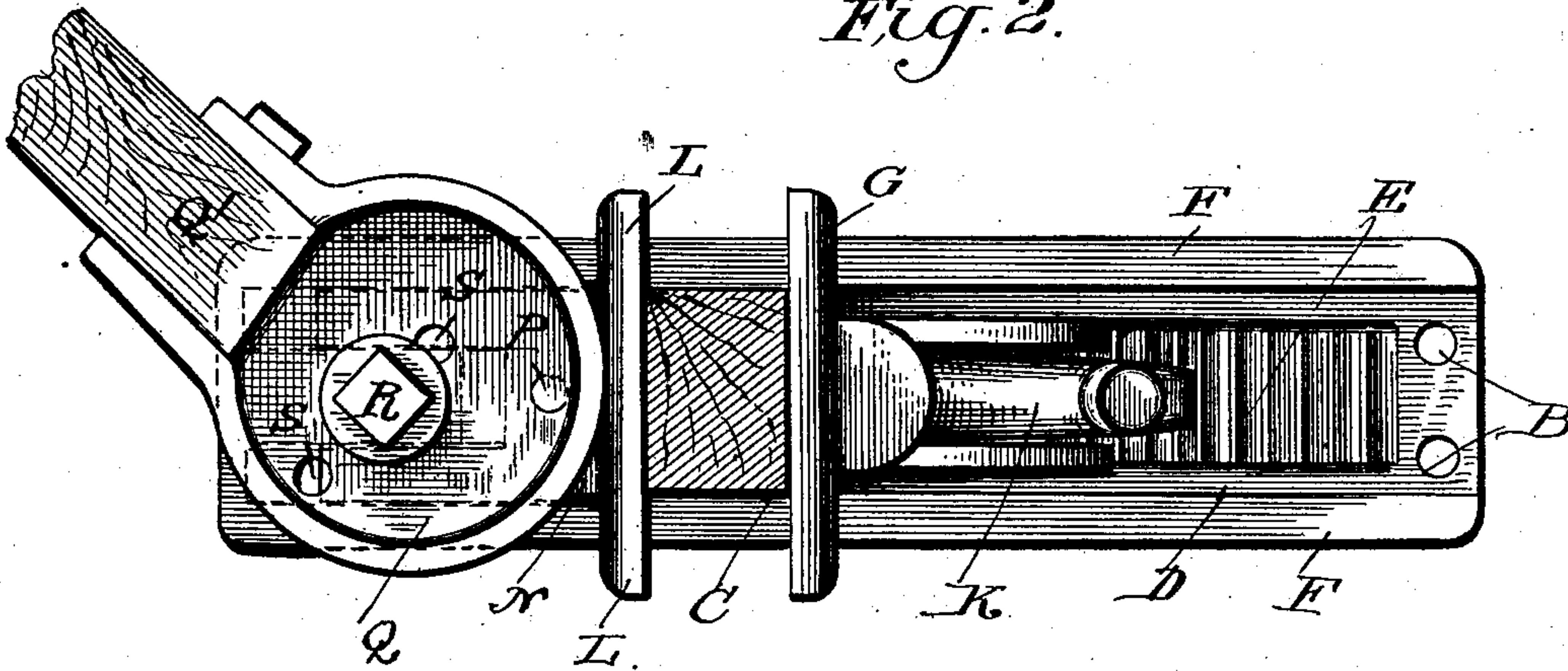
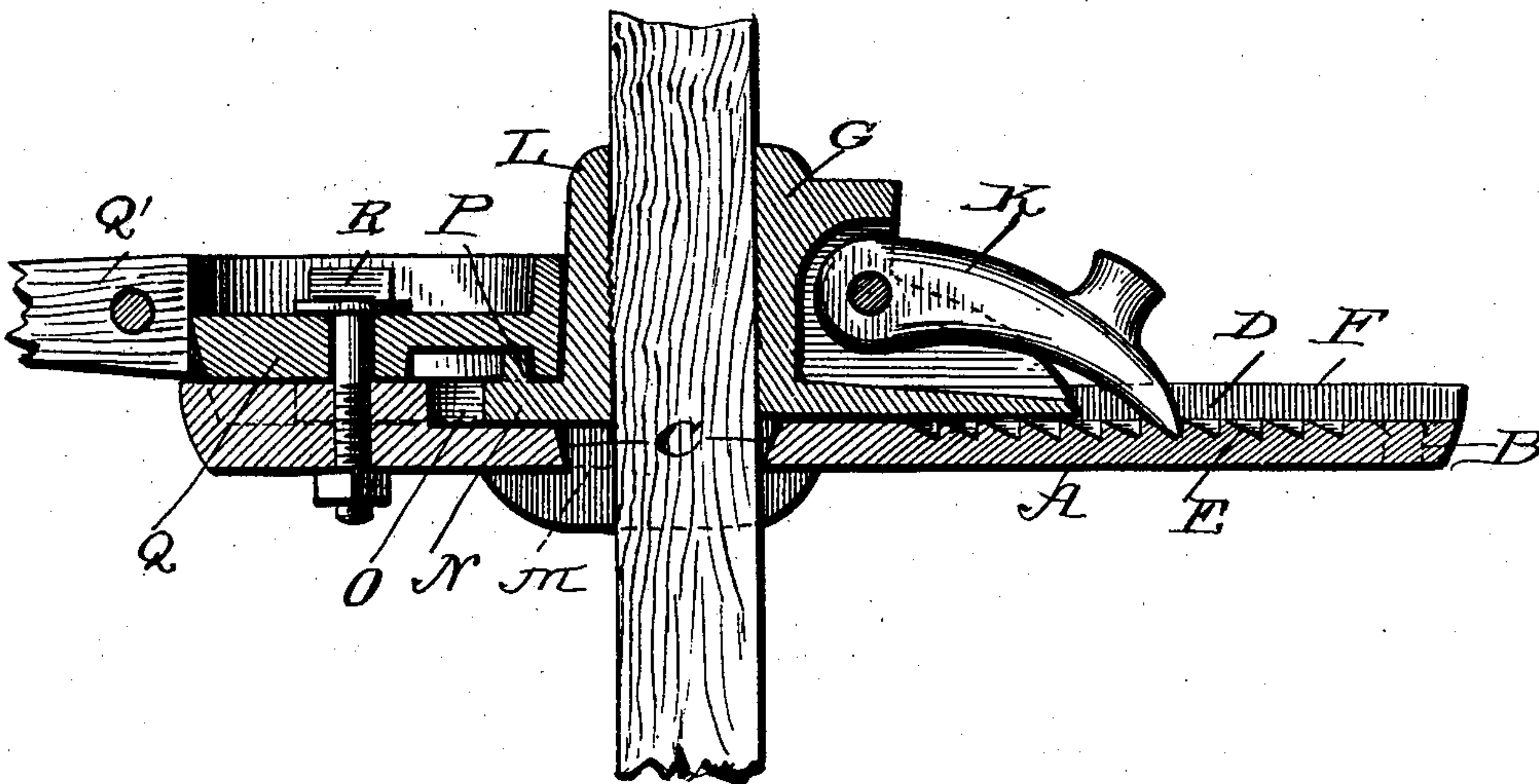


Fig. 3.



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UNITED STATES PATENT OFFICE.

ELI ZIMERMAN, OF WATERTOWN, NEW YORK, ASSIGNOR TO PRENTISS
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VISE.

SPECIFICATION forming part of Letters Patent No. 713,038, dated November 4, 1902.

Application filed March 6, 1902. Serial No. 96,903. (No model.)

To all whom it may concern:

Be it known that I, ELI ZIMERMAN, a citizen of the United States, residing at Watertown, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Vises, of which the following is a specification.

My invention relates to improvements in vises; and the object of my invention is the provision of a vise which can be quickly adjusted to clamp the work in either a vertical or horizontal position, as circumstances require.

Another object of my invention is the provision of a vise which will be of the simplest and cheapest possible construction, which will be strong and durable, thoroughly efficient, and entirely practical.

With these objects in view my invention consists of a vise embodying novel features of construction and combination of parts substantially as disclosed herein.

Figure 1 represents a perspective view of my vise with an object clamped horizontally between the jaws. Fig. 2 represents a plan view with an object clamped perpendicular or vertically by the jaws. Fig. 3 represents a central horizontal sectional view of the vise, and Fig. 4 represents a transverse sectional view.

In the drawings, A designates the base of my vise, which is secured to the bench or suitable support by means of fastenings passing through the openings B of the base, and the base is further provided with the opening C, the channeled portion D, the teeth E, and the guides F, upon which the jaws are retained and guided. The jaw G is provided with the cleats H, which engage the guides of the base, and with the socket portion J, resting in the channel of the base, and in the socket is mounted the pivoted dog or pawl K, which engages the teeth of the base to hold the jaw at any adjustment desired. The other jaw L is also formed with the cleats M, which engage and travel on the guides of the base, and the jaw is provided with the plate N, fitting in the channel of the base and formed with a slot O, which is guided by the lug P, and to the lug is connected the cam or eccentric Q by means of the bolt R, and the cam has a series of openings S, to any one

of which the bolt may be connected to adjust the cam to the character of work to be clamped, and to the cam is connected the handle or lever Q'. The base is secured to the bench or other suitable support in such manner that the opening thereof will aline with an opening in the bench or support, and the object can be passed vertically through the opening and clamped between the jaws. When desired to clamp the work horizontally, it is simply necessary to place the work between the jaws, and the cam will force the jaw tightly against the object and effect the clamping.

It will be understood that my vise can be made of any size to accommodate the different sizes of pipes, woodwork, or any object to be clamped, and it will commend itself by reason of its ease of operation, efficiency, durability, and inexpensiveness.

I claim—

1. The vise herein described, consisting of the base having the lateral guides and the opening to receive the object, the jaw having the cleats movable on the guides, the dog carried by the jaw for engaging the base, and the clamping-jaw having the cleats movable on the guides and the cam for engaging the jaw to cause it to clamp.

2. The herein-described vise, consisting of the channeled base having lateral guides, the rack formed in the channel of the base near one end, the jaw movable on the guides, the dog pivoted to the jaw and engaging the rack, the clamping-jaw movable on the guides and having the plate guided in the channel of the base, the lug for guiding the plate and the cam having a lever and operating to clamp said jaw.

3. The vise composed of the base having the lateral guides, the jaw movable on said guides and having a socket, a dog pivoted in said socket and engaging the base to retain the jaw, the clamping-jaw movable on the guides of the base, and a cam having adjustable connection with the clamping-jaw to operate said jaw.

In testimony whereof I affix my signature in presence of two witnesses.

ELI ZIMERMAN.

Witnesses:

GEO. P. SENEAL,
ELMER E. WORTHEN.