

M. Gregg,
Tenoning Spokes.

N^o 19,292.

Patented Feb. 9, 1858.

Fig. 1

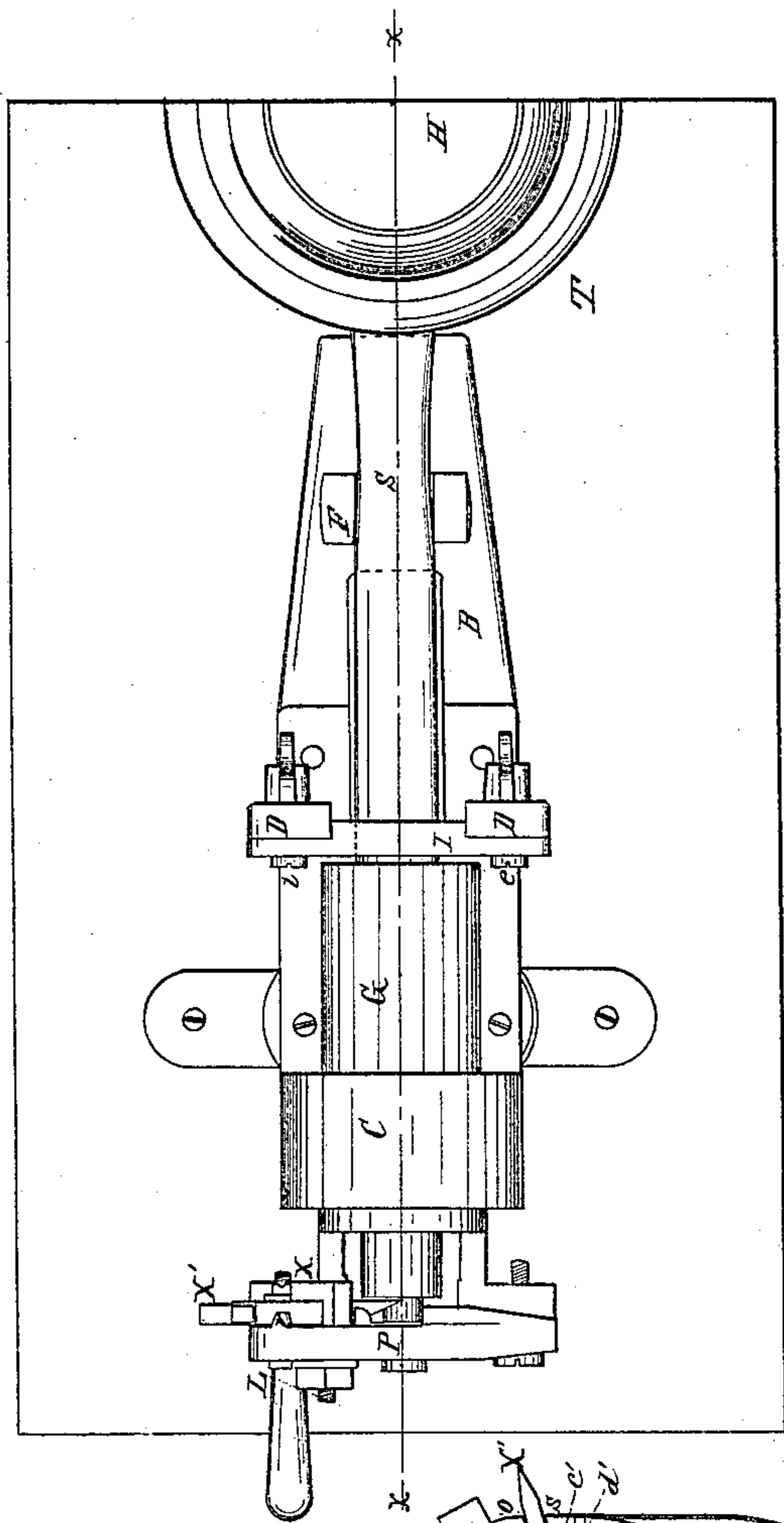


Fig. 4

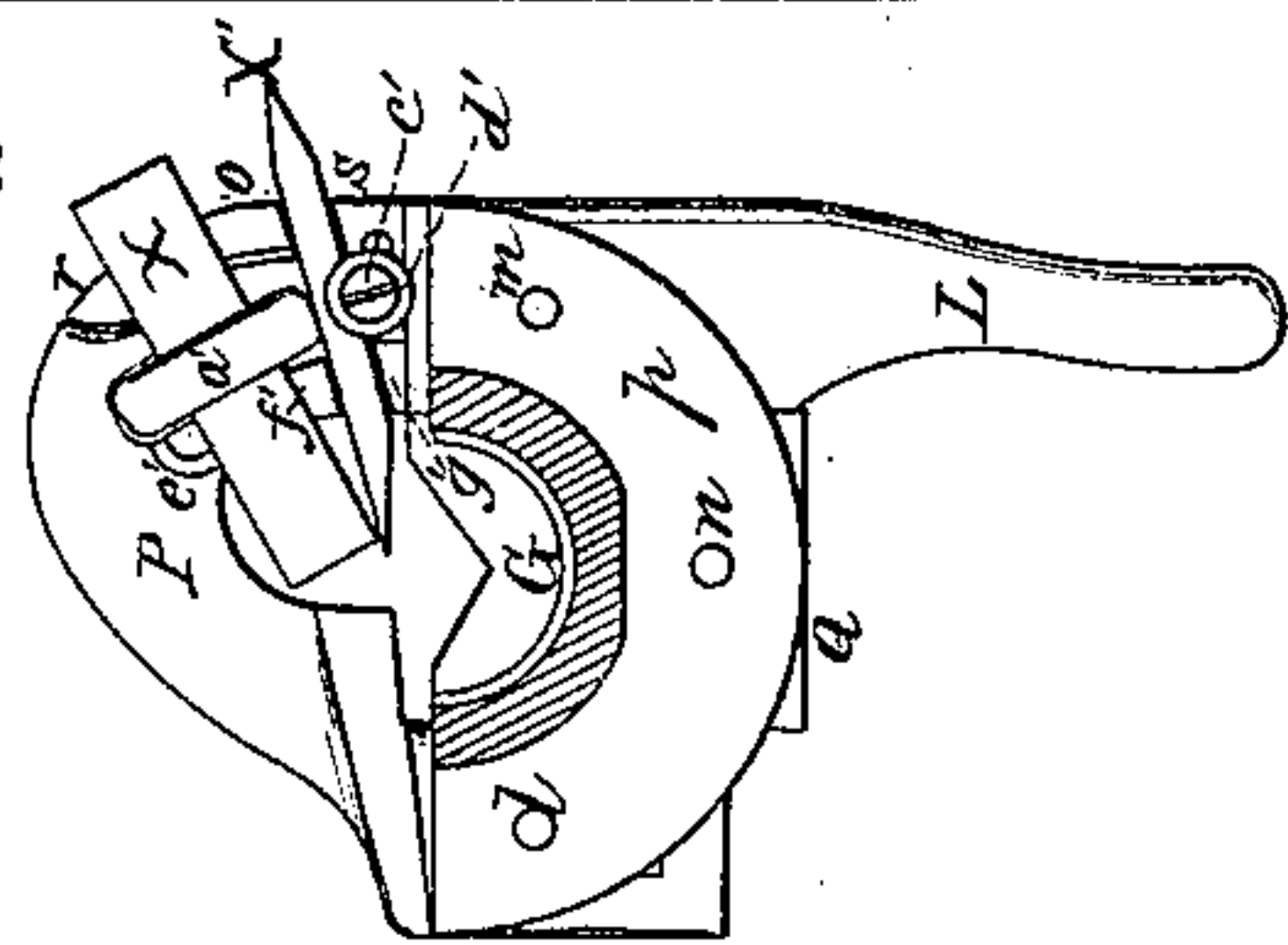


Fig. 2

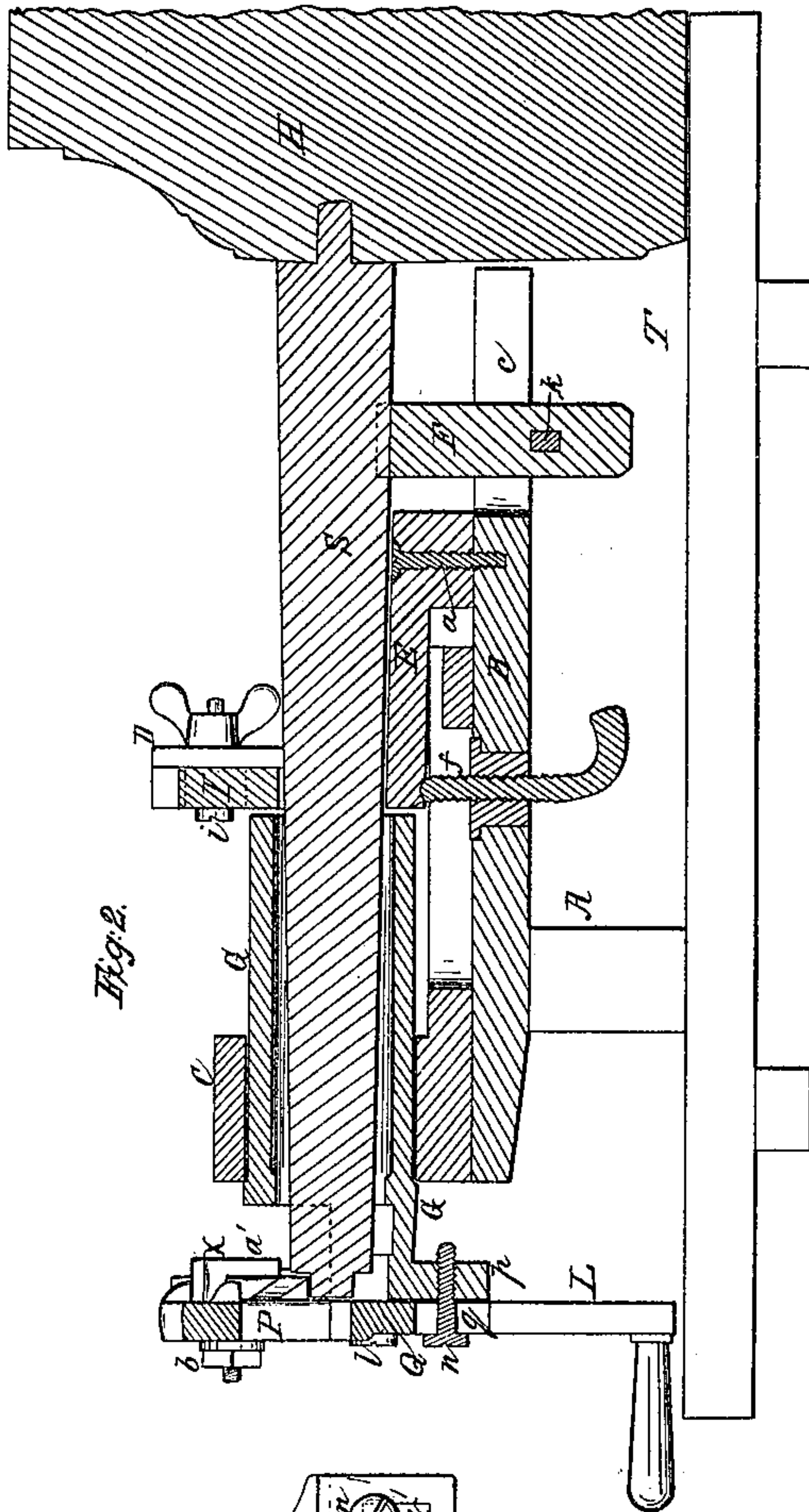
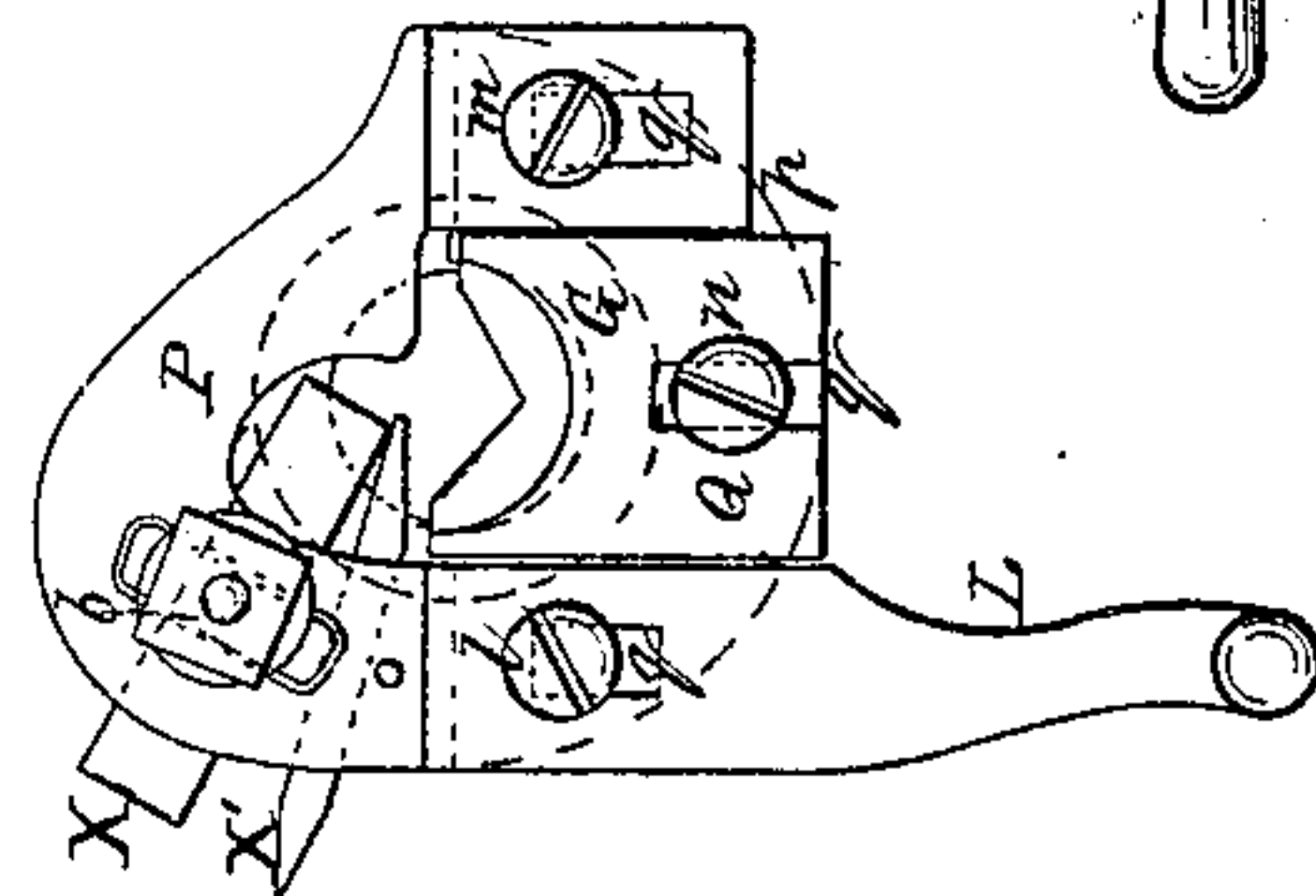


Fig. 3



UNITED STATES PATENT OFFICE.

MAHLON GREGG, OF PHILADELPHIA, PENNSYLVANIA.

MACHINE FOR CUTTING TENONS ON SPOKES.

Specification of Letters Patent No. 19,292, dated February 9, 1858.

To all whom it may concern:

Be it known that I, MAHLON GREGG, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Tenoning-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, forming part of this specification, in which—

Figure 1 is a top view of the machine, with spoke secured therein. Fig. 2 is a vertical section on *xx*. Fig. 3 is an outside view of cutter head. Fig. 4 is an inside view of cutter head, showing the manner of attaching the cutters.

Similar characters of reference in the several figures denote the same part.

The machine here considered is designed for cutting tenons on the extremities of spokes for the reception of the fellies.

The improvement refers to the construction of the cutter head, and relates to the manner of securing and adjusting the cutters.

The details of construction and operation will be readily understood from the following description and reference to the drawing.

B is a slotted bed resting upon a block A, and supporting cutter head guide C and frame D. To bed B is loosely attached a bearing block E by a screw *a*, so that one end may be elevated by screw *f* passing through bed B. In the slot *c* is movable the tongue of a bearing piece F, secured in any desired position by a key *k*. These bearing pieces E and F constitute a secondary bed for pressing against the under side of the spoke S. The securing slide I pressing upon the top of the spoke and holding it firm, as shown in Figs. 1 and 2.

The slide I is secured to frame D by screws *e* and *i*, slots of said slide receiving said bolts and permitting the adjustment of the slide when the bolts are loosened.

To secure the spoke for the operation of the machine, the hub H is made to rest upon the floor T, the extremity of the spoke

passing through cutter head guide C. The sectional securing bed E F is then adjusted under the spoke, as shown in Fig. 2, and slide I brought down upon the top of the spoke and there secured. The spoke is then held firmly, and is ready for the operation of the cutters.

The cutter head consists of a tubular piece G passing over the end of the spoke S and made to revolve in guide C. Secured by bolts *l*, *m*, and *n* to a flange *p* of this tube are the cutter carrier P and bearer Q. The former double branched and embracing the latter as shown in Fig. 3. Slots *q* permit the adjustment of these parts.

The cutters X X' are placed at an angle so that they touch at the point only as shown in Figs. 3 and 4. The outer extremities of the cutters are held secure by projections *r*, *o*, *s*, on the inner face of the cutter bearer. Cutter X is secured in eye *a'* and drawn tightly against the bearer by nut *b'*. Bolt *c'* pressing on collar *d'* forces cutter X' against cutter bearer. There are projections *e'*, *f'*, *g'*, holding the inner ends of the cutters, as shown in Fig. 4. One branch of the cutter bearer runs into a lever L for turning the cutter head in its guide. The cutters being placed at an angle prevents shavings or chips from working in between them.

The cutter head is adjusted to the size of tenon required by moving the cutter carrier P and bearer Q in opposite directions, the bolts securing them having been previously loosened.

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

1. Securing the cutters at an angle substantially as and for the purpose set forth.
2. I further claim the combination of cutter carrier P, bearer Q, and tubular piece G substantially as and for the purpose specified.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

MAHLON GREGG.

Witnesses:

C. BRAZER,
WILLIAM GREGG.