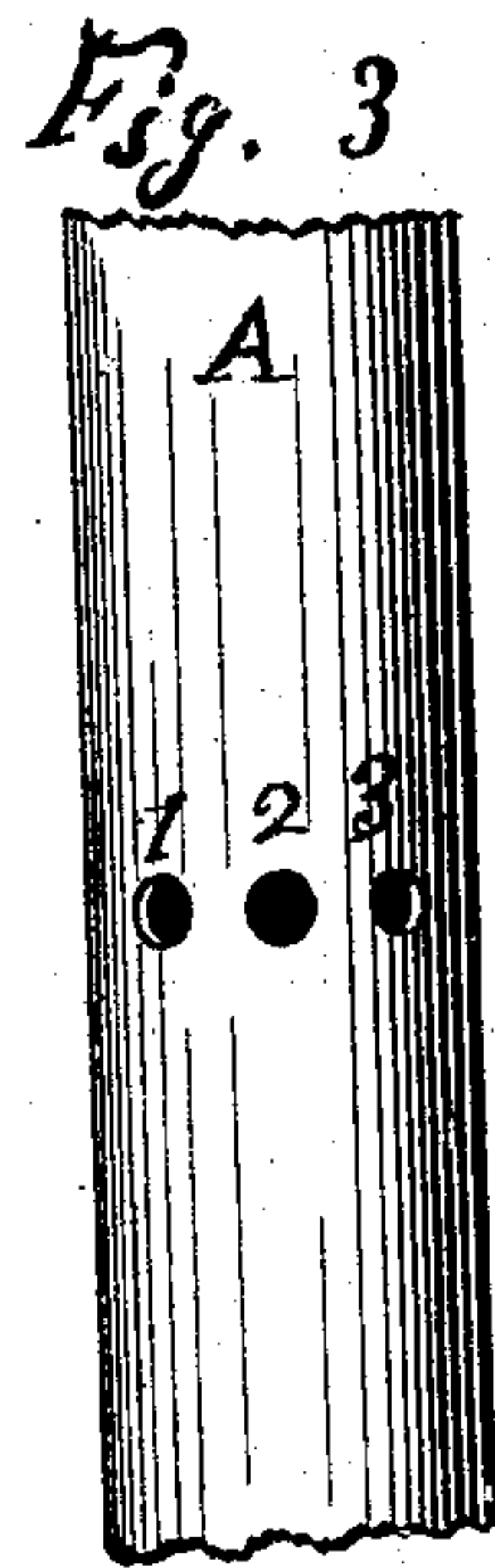
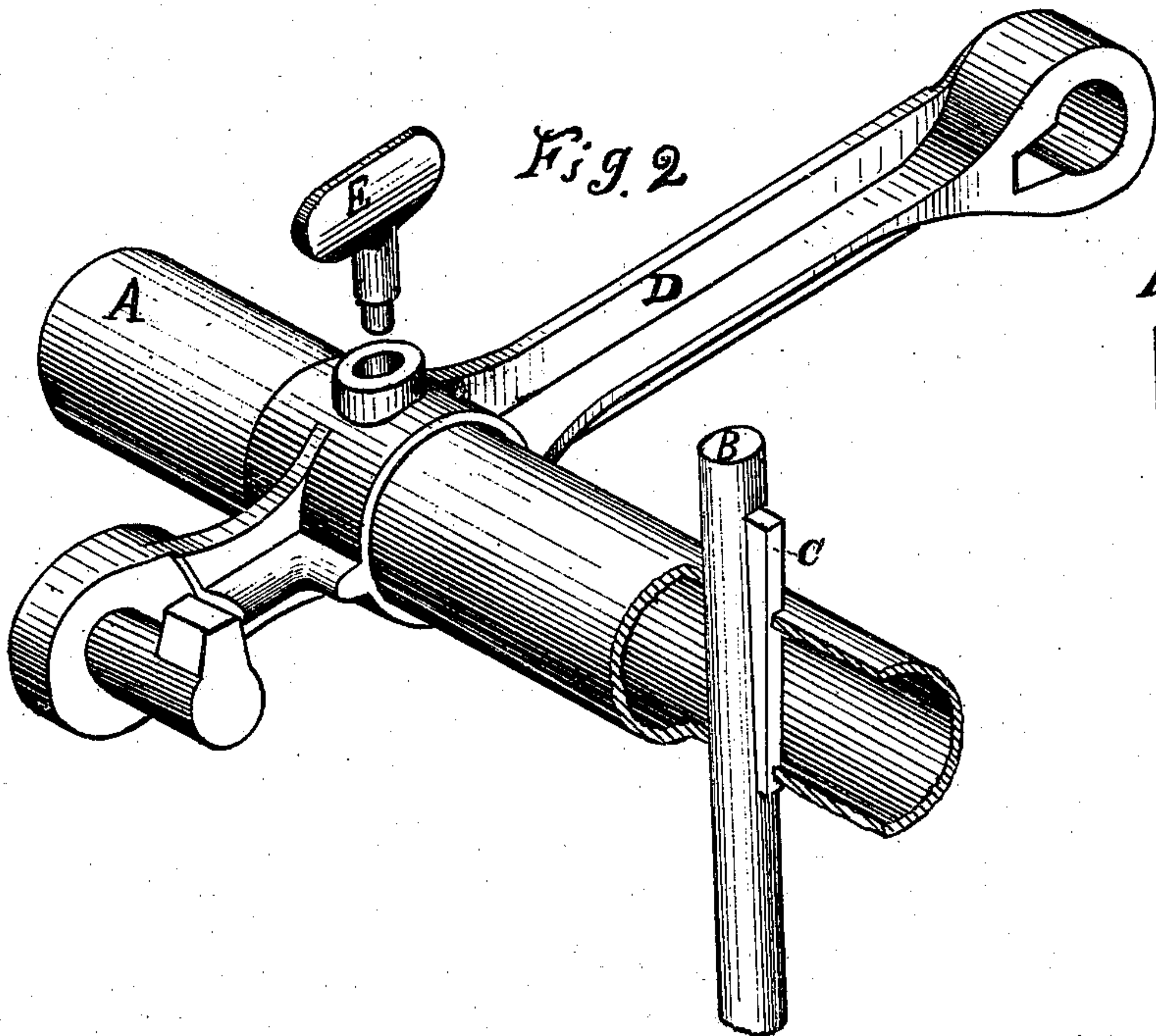
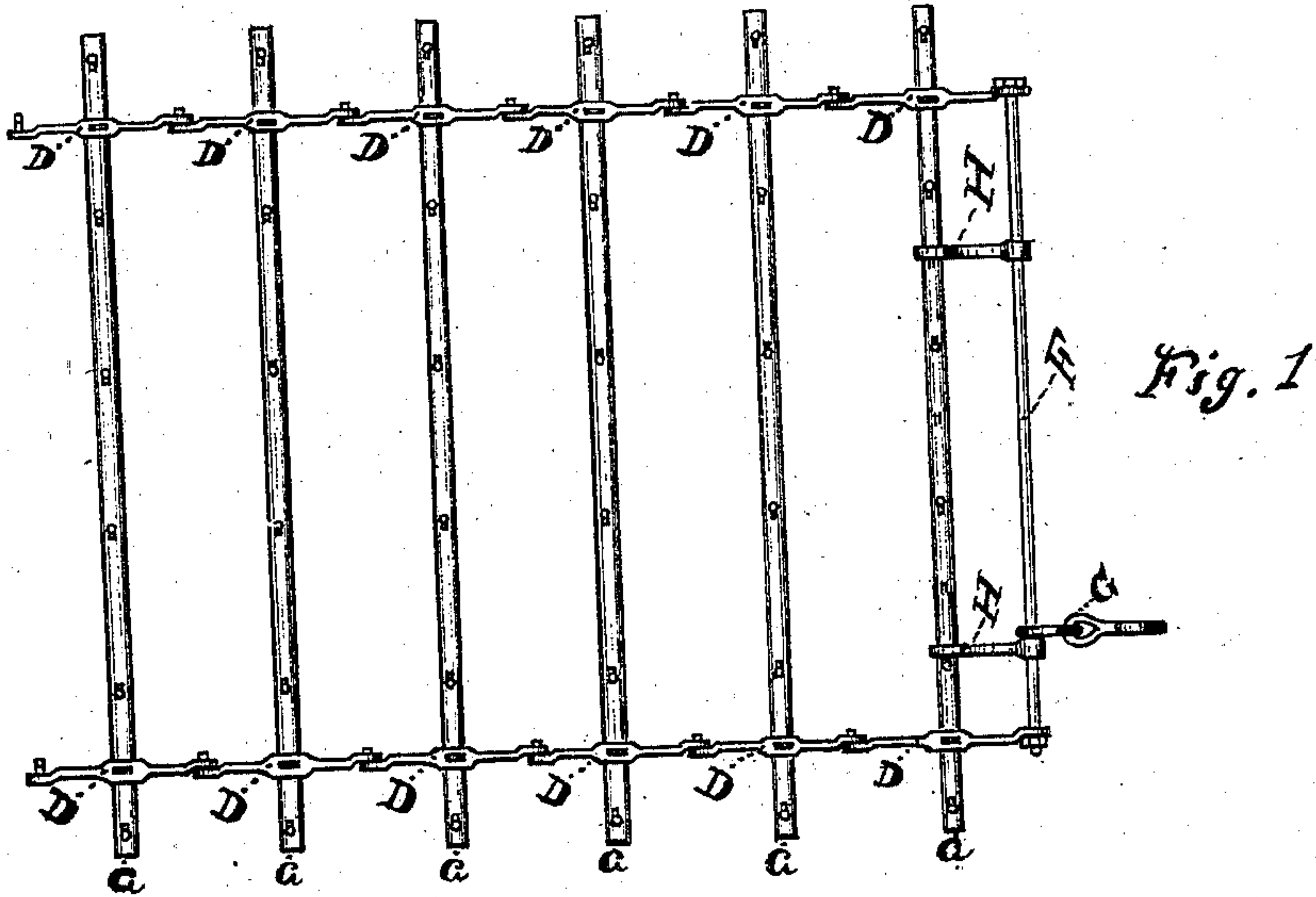


P. PFEIFER.

HARROW.

No. 174,089.

Patented Feb. 29, 1876.



WITNESSES

W. H. Parmelee  
Henry Roberts

INVENTOR

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# UNITED STATES PATENT OFFICE.

PETER PFEIFER, OF DURHAMVILLE, NEW YORK.

## IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. **174,089**, dated February 29, 1876; application filed January 17, 1876.

*To all whom it may concern :*

Be it known that I, PETER PFEIFER, of Durhamville, in the county of Oneida and State of New York, have invented certain Improvements in Harrows, of which the following is a specification :

The invention consists, first, in an improved arrangement of the locking mechanism in relation to the harrow; and, secondly, in a method of holding the teeth in three different angles; and, third, in a rod on the front of harrow, with two governors to regulate the harrow.

Figure 1 is a view of the harrow to which the improvements are applied. Fig. 2 is a perspective view of tooth and key, and iron pipe-beam inserted through the connecting-beam with thumb-screw. Fig. 3 is a detached view of the pipe-beam, showing how it is fastened with the thumb-screw when set in different angles.

A is the iron pipe-beam. B is the harrow-tooth fastened in beam A, with key C. D is the connecting-beam fastened on the beam A with the thumb-screw E. The thumb-screw E has a pivot on the lower end when thus inserted in pivot-bearings 1 2 3, as shown in Fig. 3, to hold the beam A when set in different angles. The beam A is firmly held at the different angles with the thumb-screw E, in the connecting-beam D. The beam A is attached close to the rear end of connecting-beam D, as shown in Fig. 2, and thus forms the fulcrum of the harrow when in operation, or beam A may be placed in the center of the connecting-beam D, as shown in Fig. 1, and

give it more of a flexible motion, if required. On the rear end of beam D is an upturned end, and on the front end is an eye to receive the upturned end of the next connecting-beam, when raised at a right angle and inserted through the eye, and as it is brought back to a level position it is locked together, as shown in Fig. 1. Harrows constructed in this manner are easily put together or taken apart when required. F is a rod through the eyes of the connecting-beams D, on the front of harrow. The draft of harrow comes on the rod F. In turning around, the clevis G slides from end of rod F to the other end. H H are two governors on the rod F. If one or more beams be taken from the harrow the governors are to be moved from each end, so that no two teeth follow in the same track, as shown in Fig. 1. When the beams are attached again, the governors H H are to be moved back to govern the teeth in the harrow.

Having thus fully set forth the invention, I claim—

1. In a harrow, the connecting-beam D, constructed with locking-socket and lug, and with beam-socket, in combination with perforated beam and set-screw, substantially as and for the purpose described.

2. In a harrow, the combination of the rod F and the draft-governors H H, as and for the purpose described.

PETER PFEIFER.

Witnesses:

W. H. PARMALEE,  
HENRY ROBERTS.