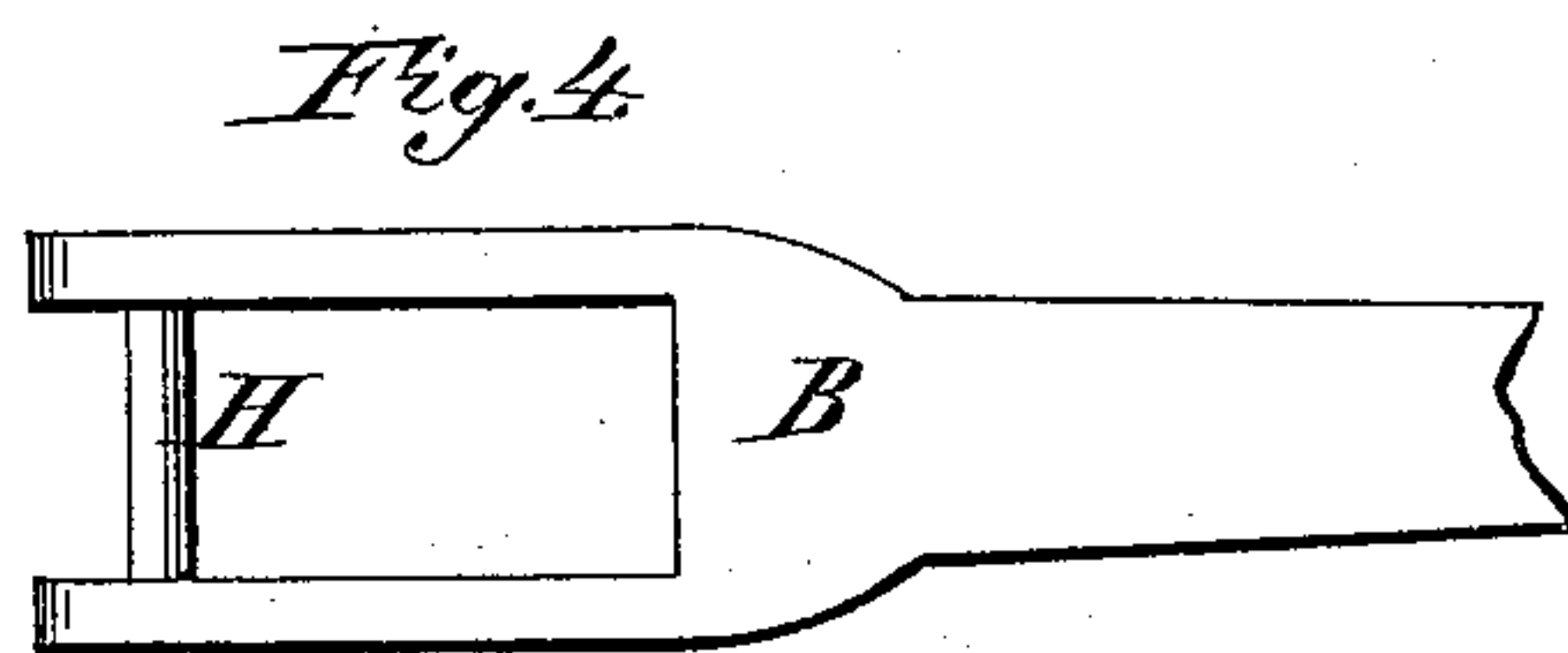
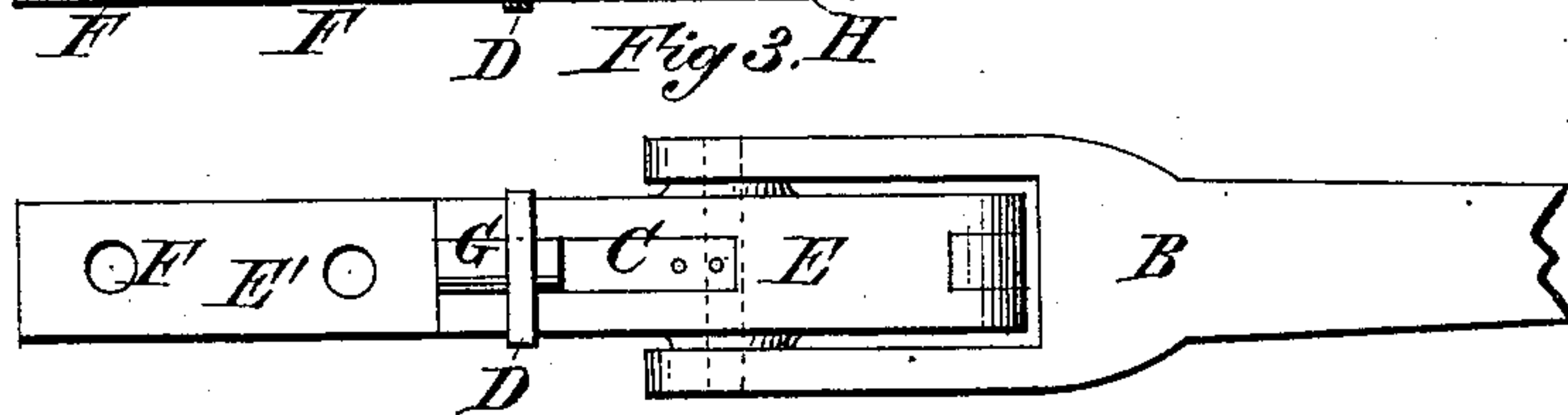
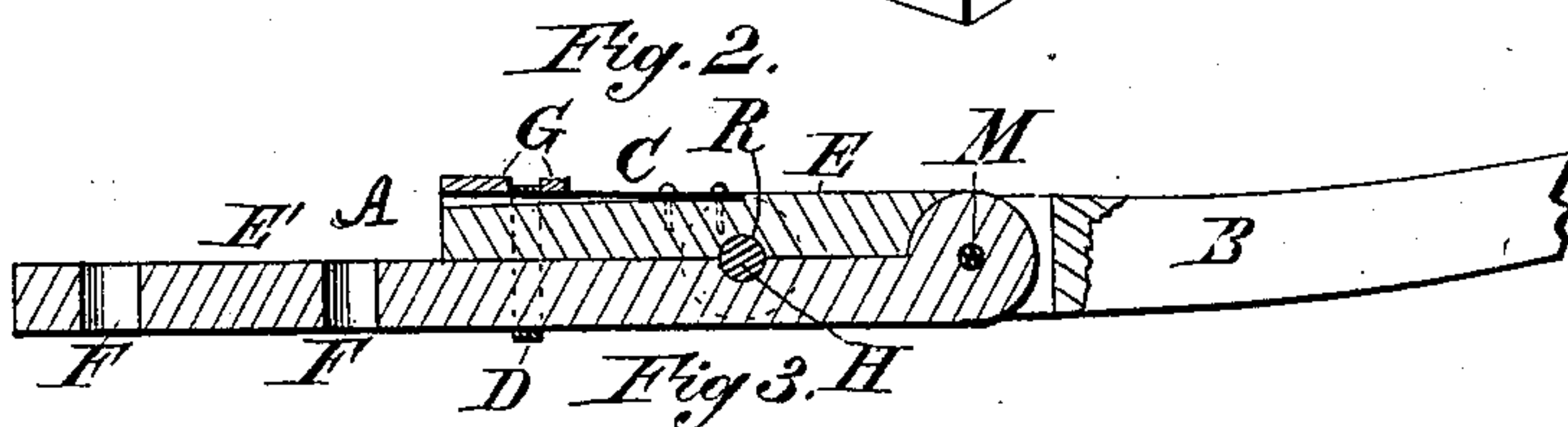
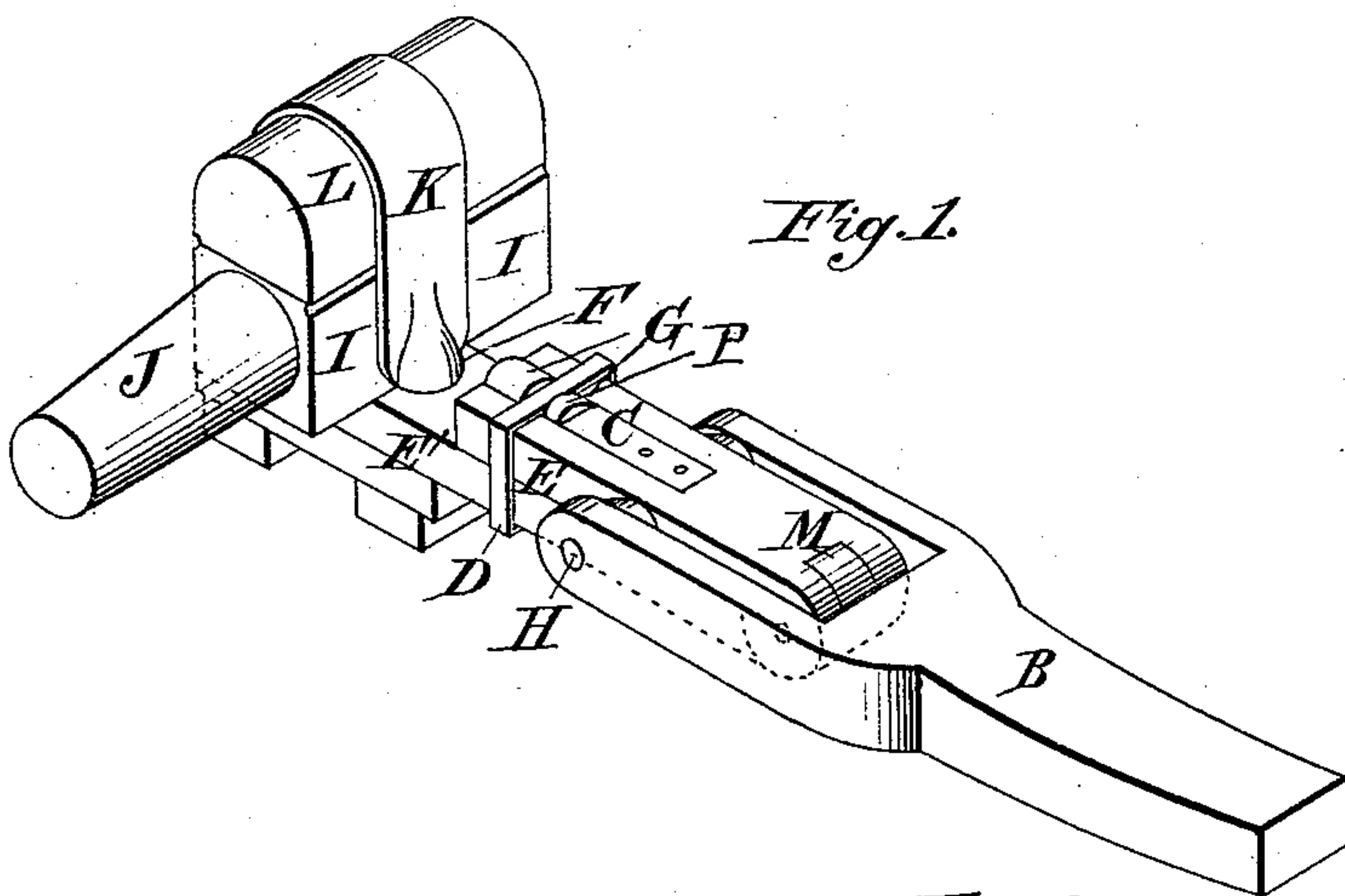


P. A. OWEN.
Thill-Coupling.

No. 217,636.

Patented July 15, 1879.



Attest:
H. H. Schott
D. P. Cowl

Inventor:
Philip A. Owen
per J. H. Parker & Co
attys.

UNITED STATES PATENT OFFICE.

PHILIP A. OWEN, OF NASHVILLE, TENNESSEE.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **217,636**, dated July 15, 1879; application filed June 10, 1879.

To all whom it may concern:

Be it known that I, PHILIP A. OWEN, of Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Improvement in Shaft-Jacks for Buggies and other Vehicles, of which the following is a specification.

The object of my invention is to provide a shaft-jack, so that shafts may be attached to and detached from buggies and other vehicles at will, and almost instantaneously, without the aid of bolts and nuts.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a perspective view of the shaft-jack and shaft-iron combined. Fig. 2 is a vertical section through the shaft iron and jack; Fig. 3, plan view of the shaft iron and jack; Fig. 4, plan view of the shaft-iron.

A is a shaft-jack, made of iron or any suitable metal, and made in the shape as shown in Fig. 1. It is divided into two pieces, E and E'. The upper piece, E, turns or works on a joint or hinge, M. C is a spring on the upper face of E, and secured to the same by pins or any appropriate way to accomplish the purpose desired, and provided with catches G, which serve to hold and keep the band D firm and in its proper position, and prevent it from slipping.

D is a band around E and E', and is movable, and is for the purpose of holding E and E' together, to keep the shaft-iron B secure. R is a slot, in which works the bolt H of the shaft-iron B. One-half of this slot is in the lower face of E and the other in the upper face

of E', and the surface of the slot R is chilled or made hard to prevent wear by friction.

J is a spindle of an axle. I I is a buggy-axle. L is the axle-stock. K is a clip, that holds the shaft-jack A to the axle, as shown in Fig. 3. F F are holes, through which the clip K passes. B is a shaft-iron, made in the shape as shown in Fig. 2. It is made of iron or any other suitable material, and is secured or attached to the shaft by bolts, or in any other manner to make it secure.

H is a stationary bolt or pin in B, which works in the slot R.

The manner of operation is as follows: To detach the shaft, the band D is drawn from around E by pressing down the spring G, and E is lifted up, and the shaft-iron B, with the shaft, is withdrawn. To attach the shaft, H is placed in the slot R, E is let down, the band D drawn over, and the shaft is thus attached.

What I claim as new and of my invention, and for which I desire to secure Letters Patent, is—

The shaft-iron B, having the cross-piece H, in combination with the shaft-jack A, having the lower lip, E', and the upper lip, E, hinged together in front, the spring-catch C, having lugs G, and the band D, fitting, when fastened, between said lugs, all substantially as and for the purpose specified.

PHILIP A. OWEN.

Witnesses:

JNO. H. BASKETTE,
HARRY HARRISON.