

No. 684,976.

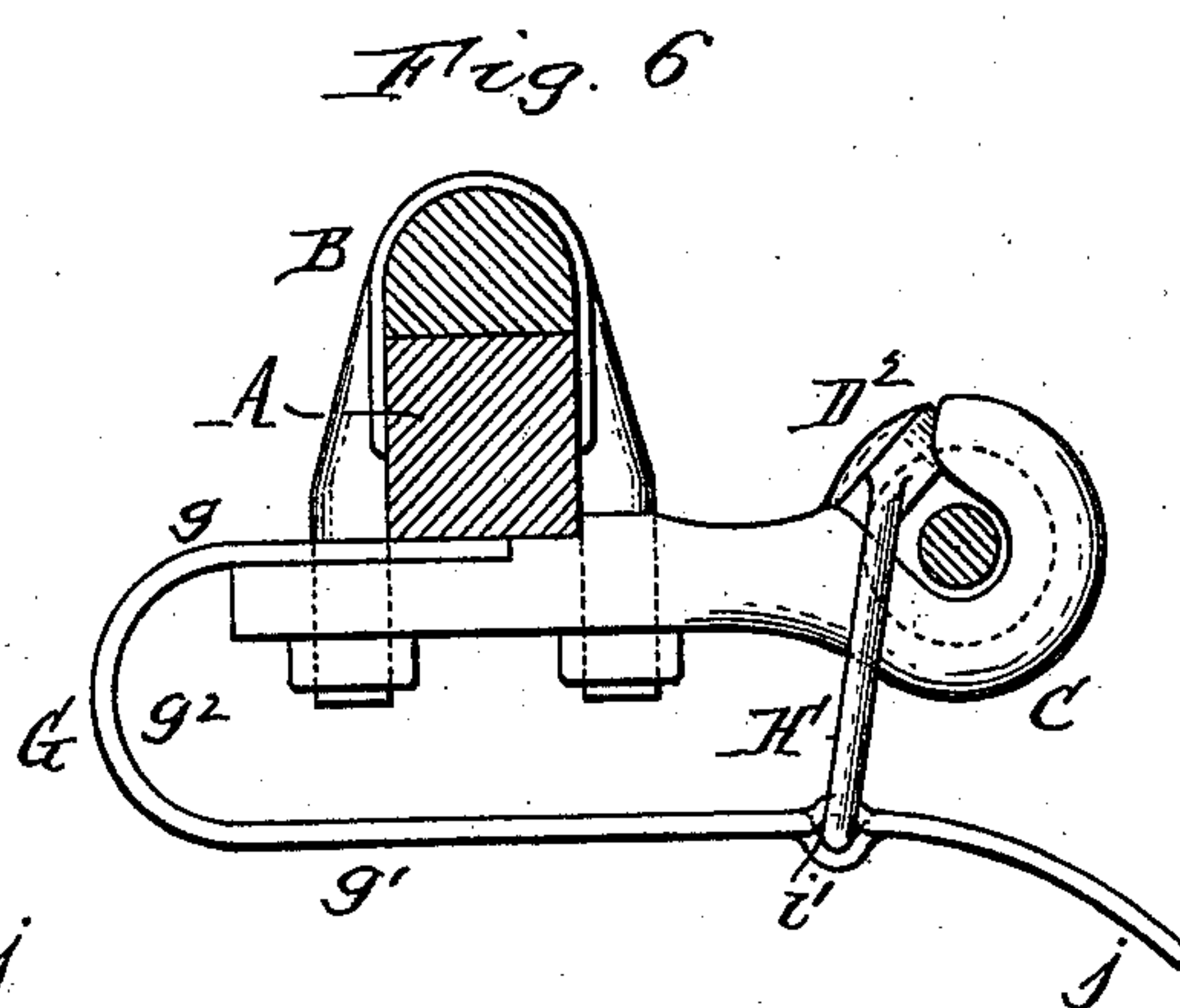
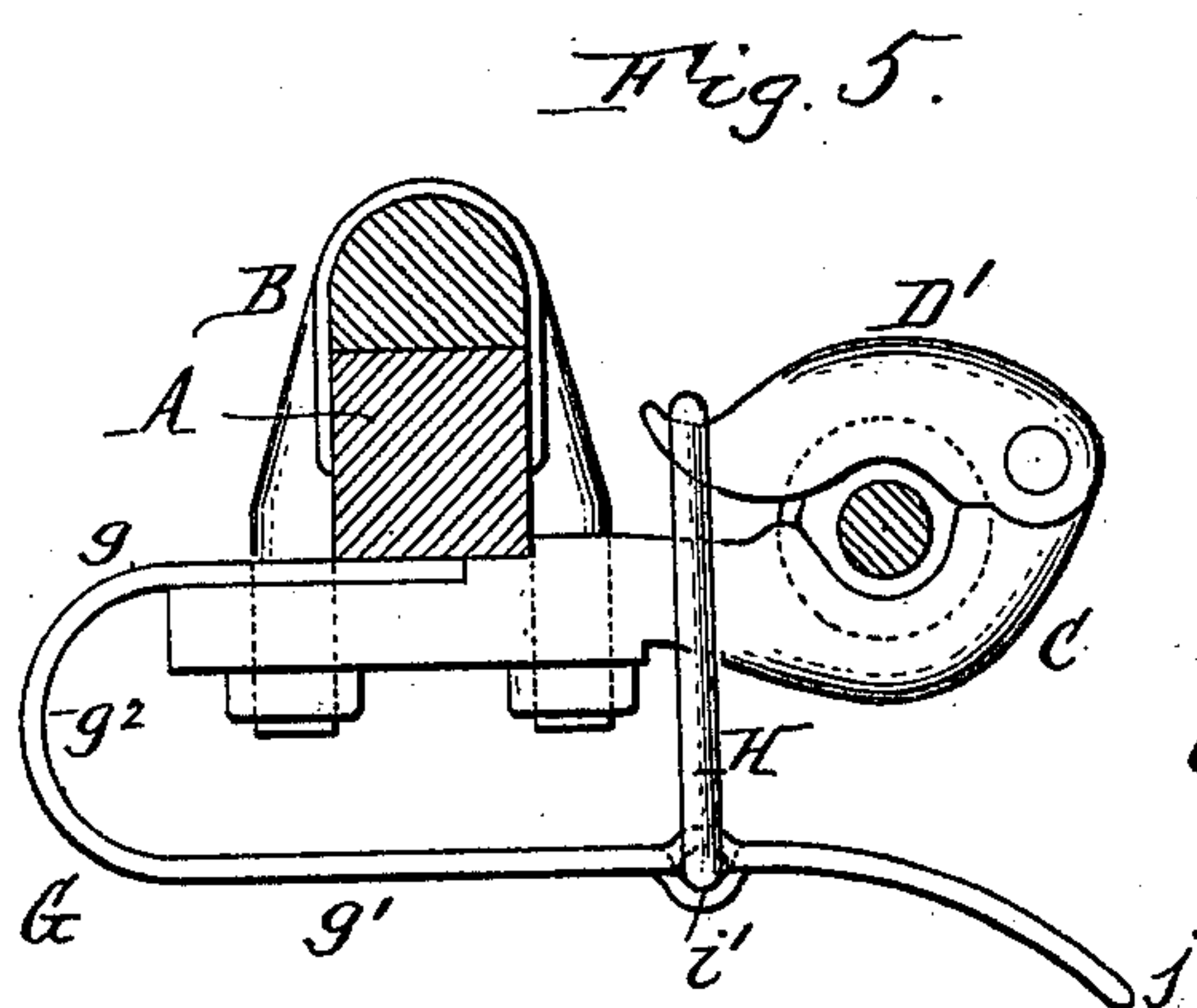
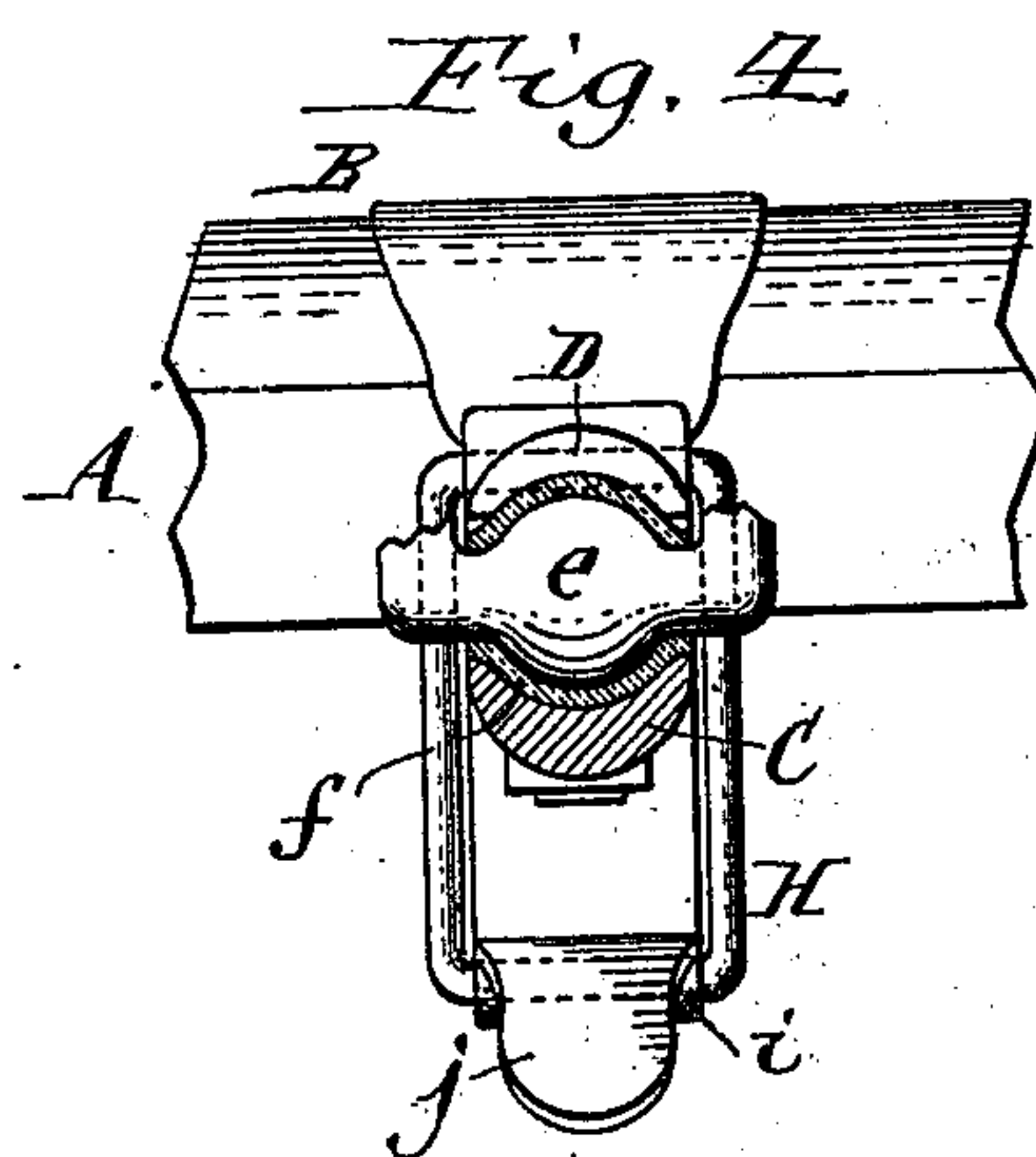
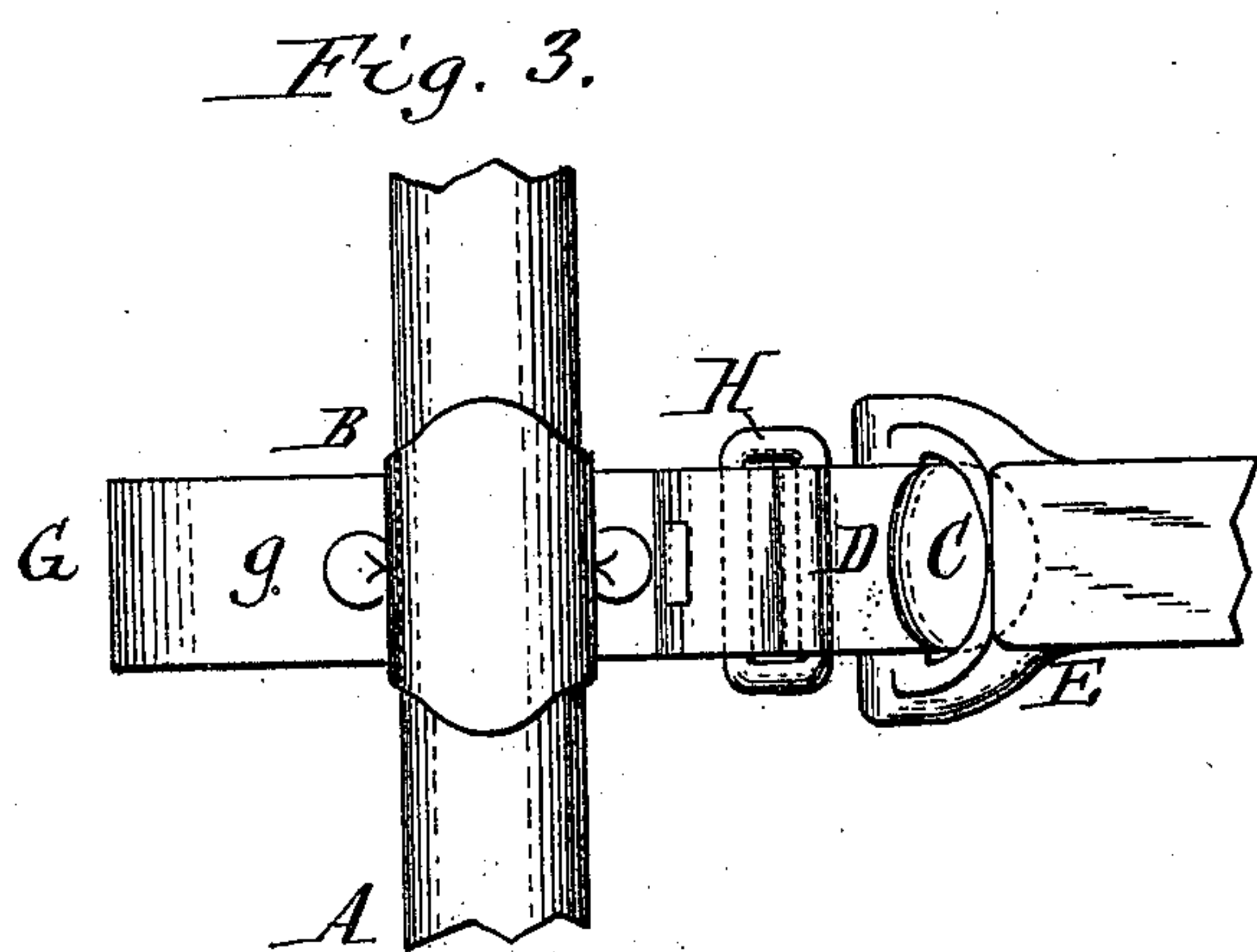
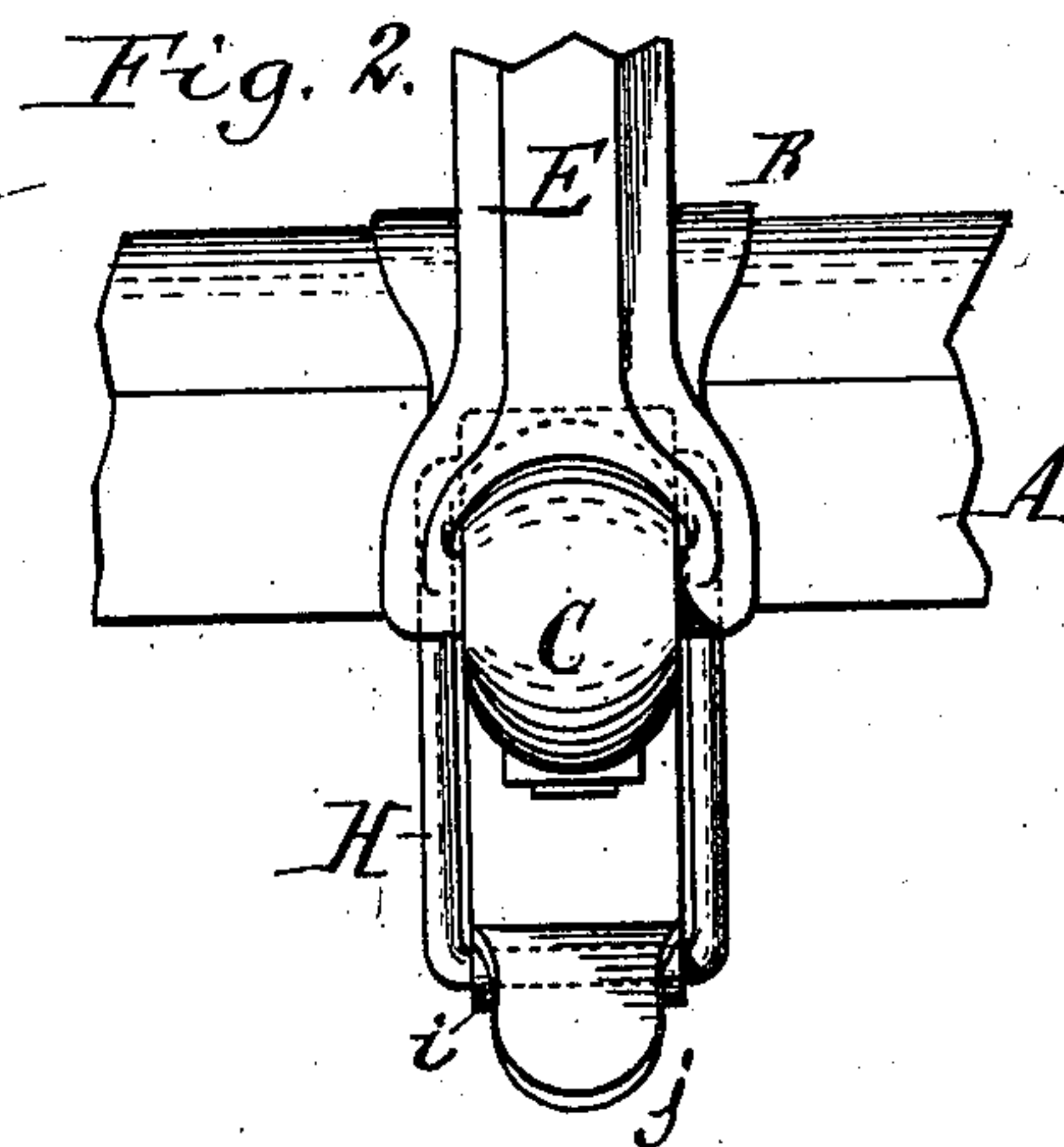
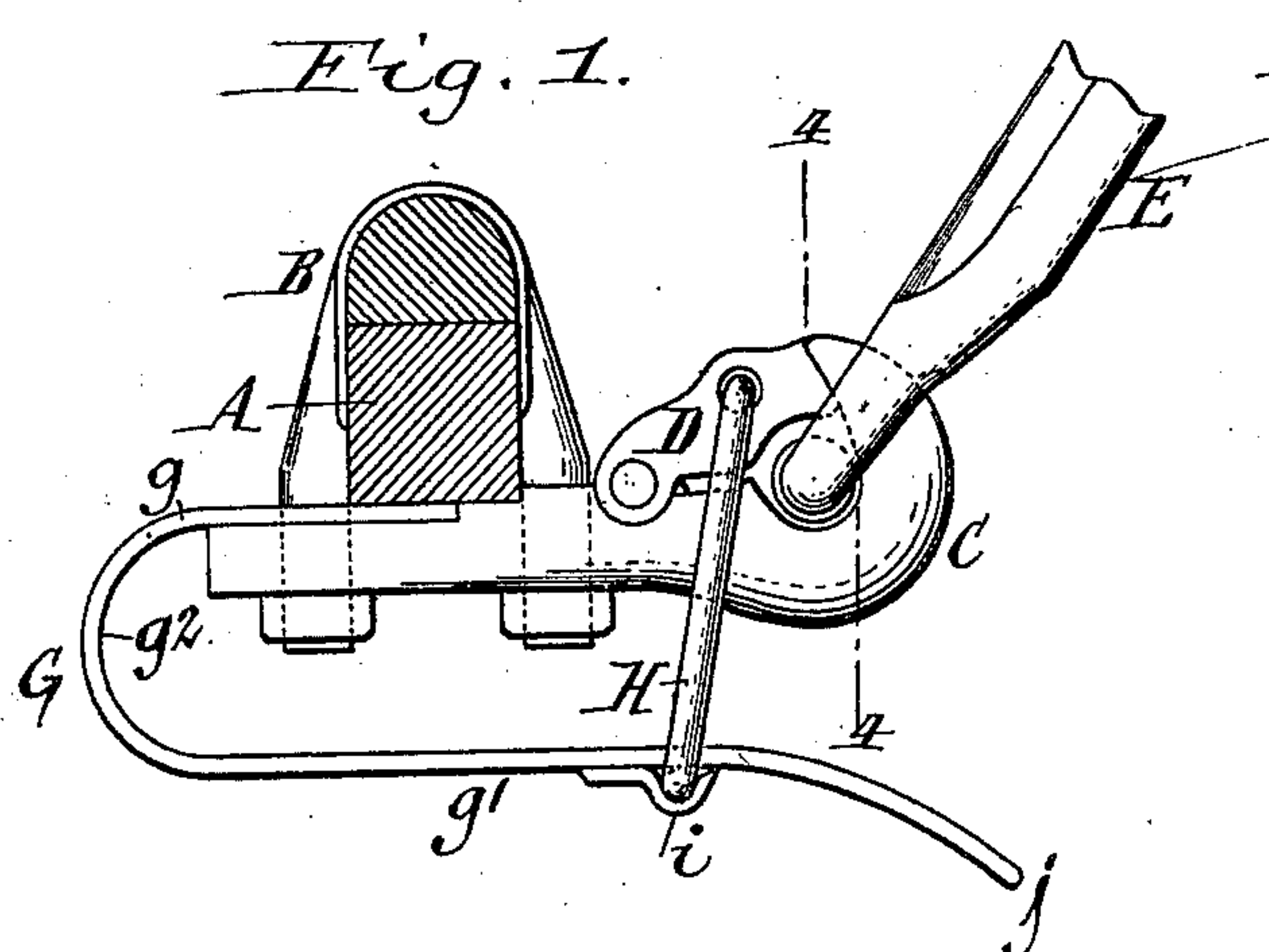
Patented Oct. 22, 1901.

C. C. BRADLEY.

THILL COUPLING.

(Application filed May 20, 1901.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

CHRISTOPHER C. BRADLEY, OF SYRACUSE, NEW YORK.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 684,976, dated October 22, 1901.

Application filed May 20, 1901. Serial No. 60,975. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER C. BRADLEY, a citizen of the United States, residing at Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Thill-Couplings, of which the following is a specification.

This invention relates to a quick-shifting thill-coupling in which the movable jaw is connected by a downwardly-extending link with a spring, which exerts a constant pressure upon the movable jaw and which permits the latter to be released by pressing the spring upwardly.

The object of this invention is to produce a simple and efficient thill-coupling of this character which is easily manipulated.

In the accompanying drawings, Figure 1 is a side elevation of my improved thill-coupling. Fig. 2 is a front elevation thereof. Fig. 3 is a top plan view thereof. Fig. 4 is a vertical cross-section in line 4-4, Fig. 1, with the thill-iron broken away. Figs. 5 and 6 are side elevations showing slightly different embodiments of my invention.

Like letters of reference refer to like parts in the several figures.

A represents the front axle of a vehicle; B, the clip applied to the same; C, the lower fixed jaw of the thill-coupling, which is secured to the axle by this clip, and D the upper movable jaw, which is pivoted at its rear end to the fixed jaw, as shown, or arranged in any other suitable manner.

E represents the thill-iron, which is provided with a draft pin or knuckle *e*, of any suitable construction. The knuckle shown in the drawings is spherical and surrounded by a spherical washer *f*, which is seated in the correspondingly-shaped bearing-surfaces of the jaws C and D.

G is a bent spring, which has a short upper arm *g* and a long lower arm *g'*, both arranged horizontally, or substantially so, and connected at their rear ends by a curved portion *g''*. The upper short arm of the spring is secured between the axle and the fixed jaw. The long arm *g'* of the spring extends forwardly underneath the lower fixed jaw of the coupling and is connected with the upper movable jaw by a link H. The latter extends downwardly from the movable jaw to the lower

arm of the spring on both sides of the jaws and spring and is attached to the lower arm of the spring in any suitable manner. In Figs. 1 to 4 the connection is made by a clip *i*, and in Figs. 5 and 6 by cutting slits in the spring and bending the parts between and outside of the slits in opposite directions to form a socket *i'*. The long arm of the spring is provided at its front end in front of the link H with a curved thumb-piece *j*.

In the construction represented in Fig. 5 the movable jaw D' is pivoted at its front end to the fixed jaw and the link H rests upon the free rear end of the movable jaw.

In the construction represented in Fig. 6 the movable jaw D² is formed in one piece with the upper ends of the side bars of the link H' and is not attached to the fixed jaw.

By pressing upwardly against the thumb-piece the long arm of the spring is raised and the movable jaw moved up to release the draft-knuckle. The spring exerts a constant downward pressure upon the movable jaw and holds the latter tightly upon the draft-knuckle and the latter against the fixed jaw. The draft-knuckle can be readily released by a simple upward movement of the long arm of the spring.

My improved thill-coupling is very simple in construction and can be produced at comparatively small expense.

I claim as my invention—

The combination with the fixed and movable jaws of a thill-coupling, of a bent spring having its upper arm secured and having its lower arm extending forwardly underneath the fixed jaw, and a link extending from the movable jaw down to the lower arm of the spring and attached directly thereto, intermediate of the ends thereof, whereby the free end of the lower arm of the spring extends forwardly beyond the link and constitutes a thumb-piece for operating the link and said movable jaw and the spring operates as a lever for operating the link and movable jaw, substantially as set forth.

Witness my hand this 15th day of May, 1901.

CHRISTOPHER C. BRADLEY.

Witnesses:

C. S. BUNNELL,
F. L. SCHARFF.