

No. 713,873.

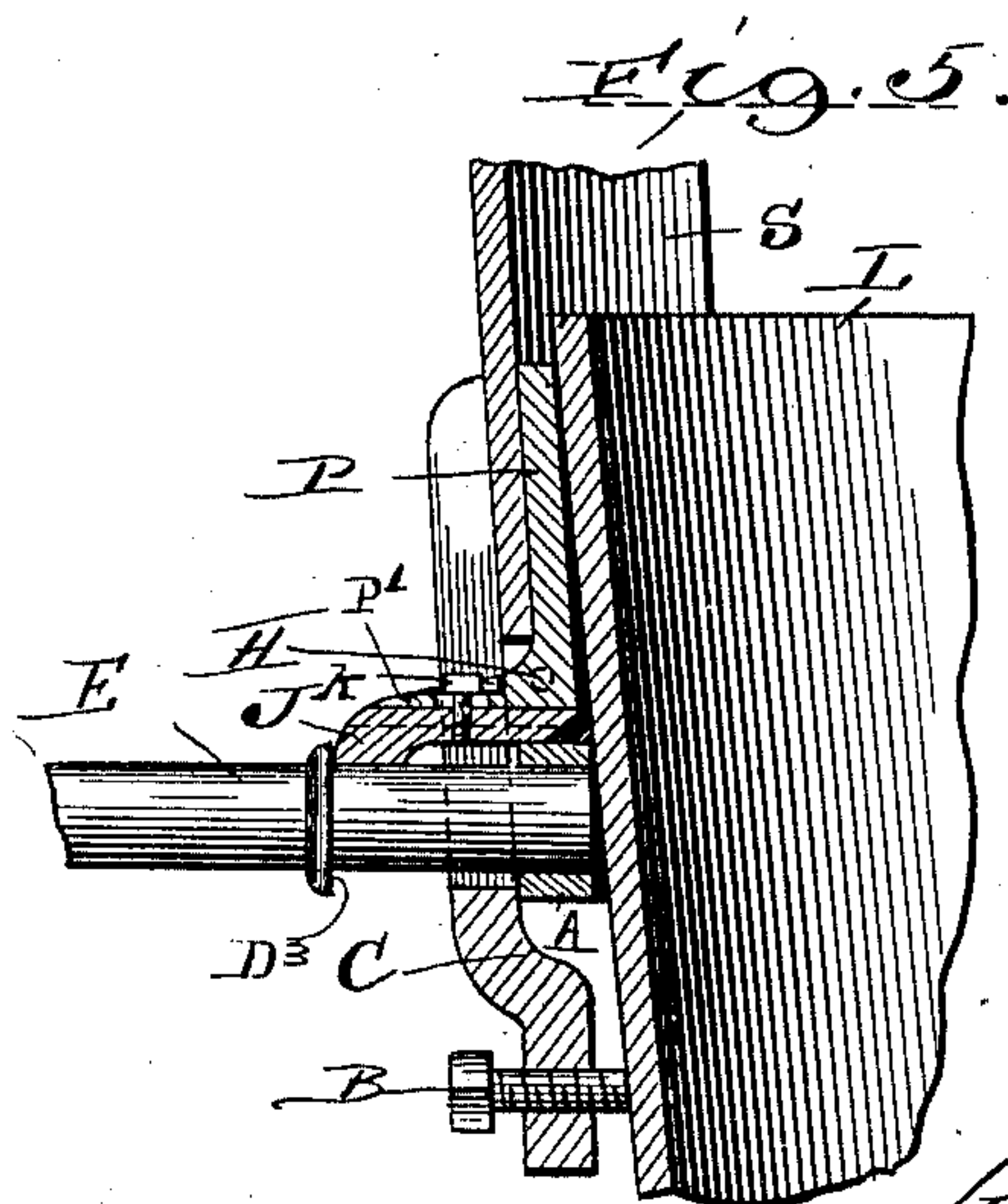
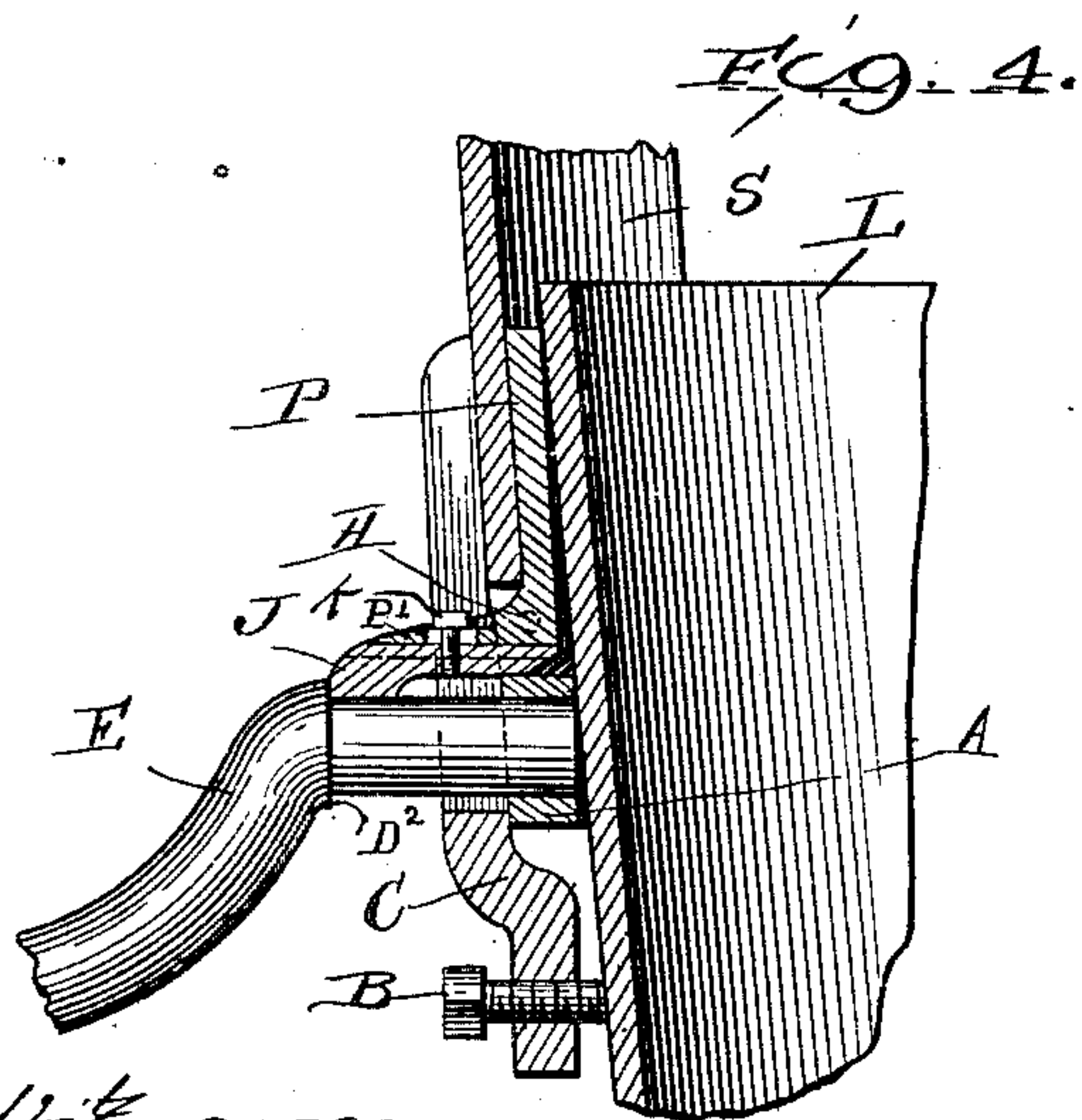
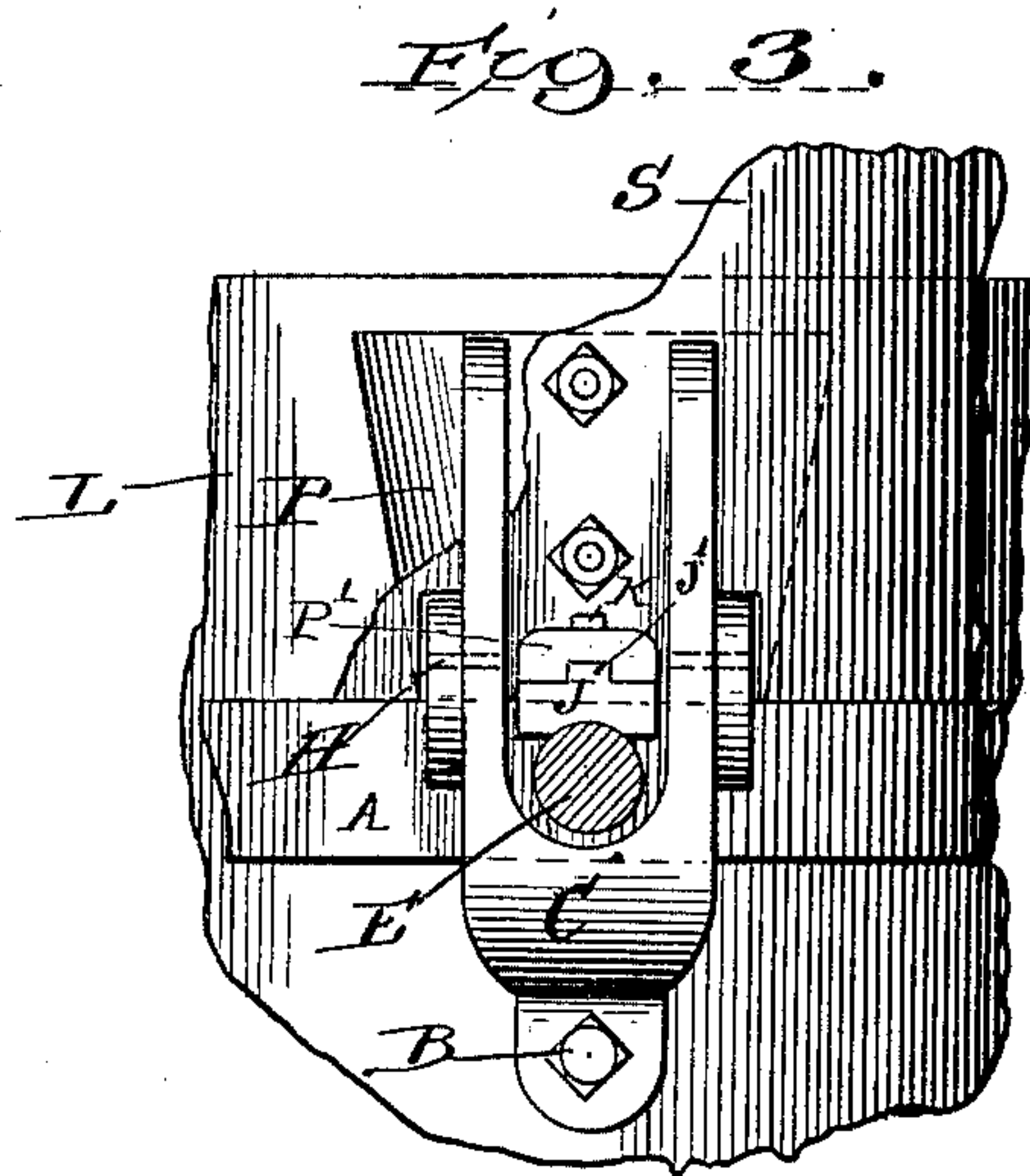
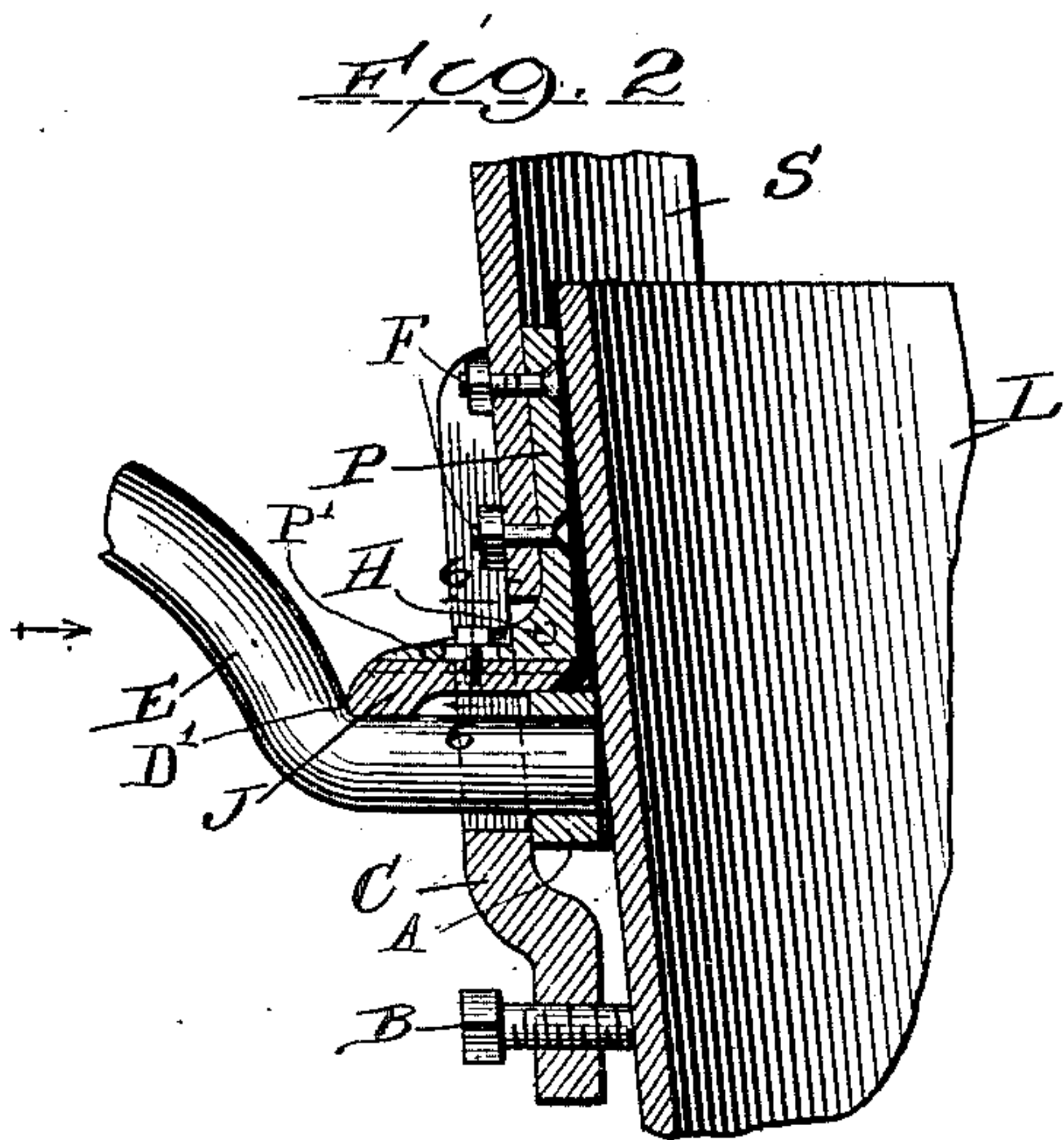
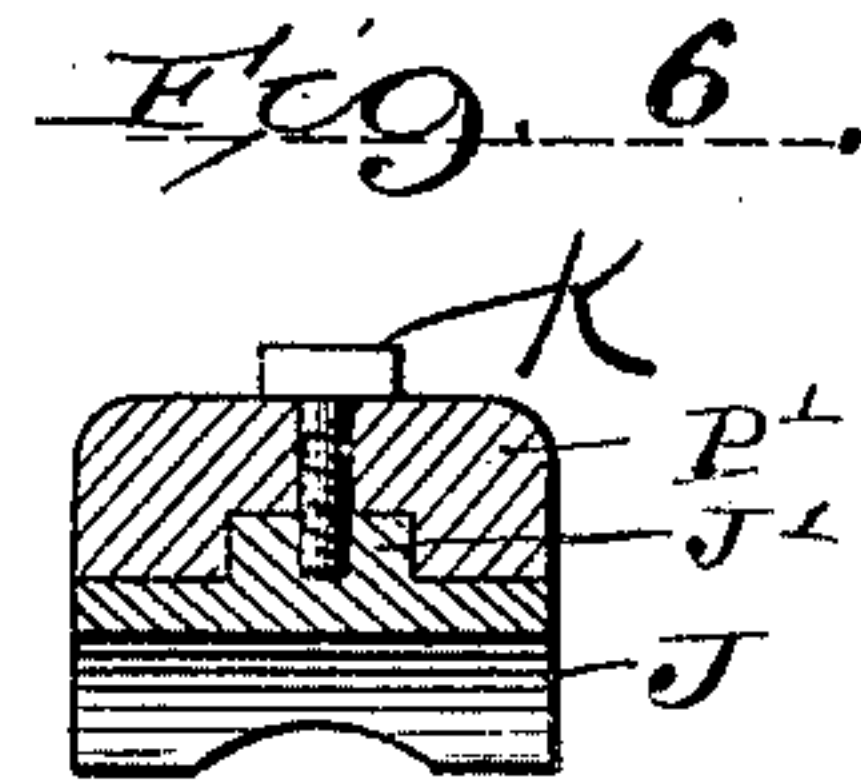
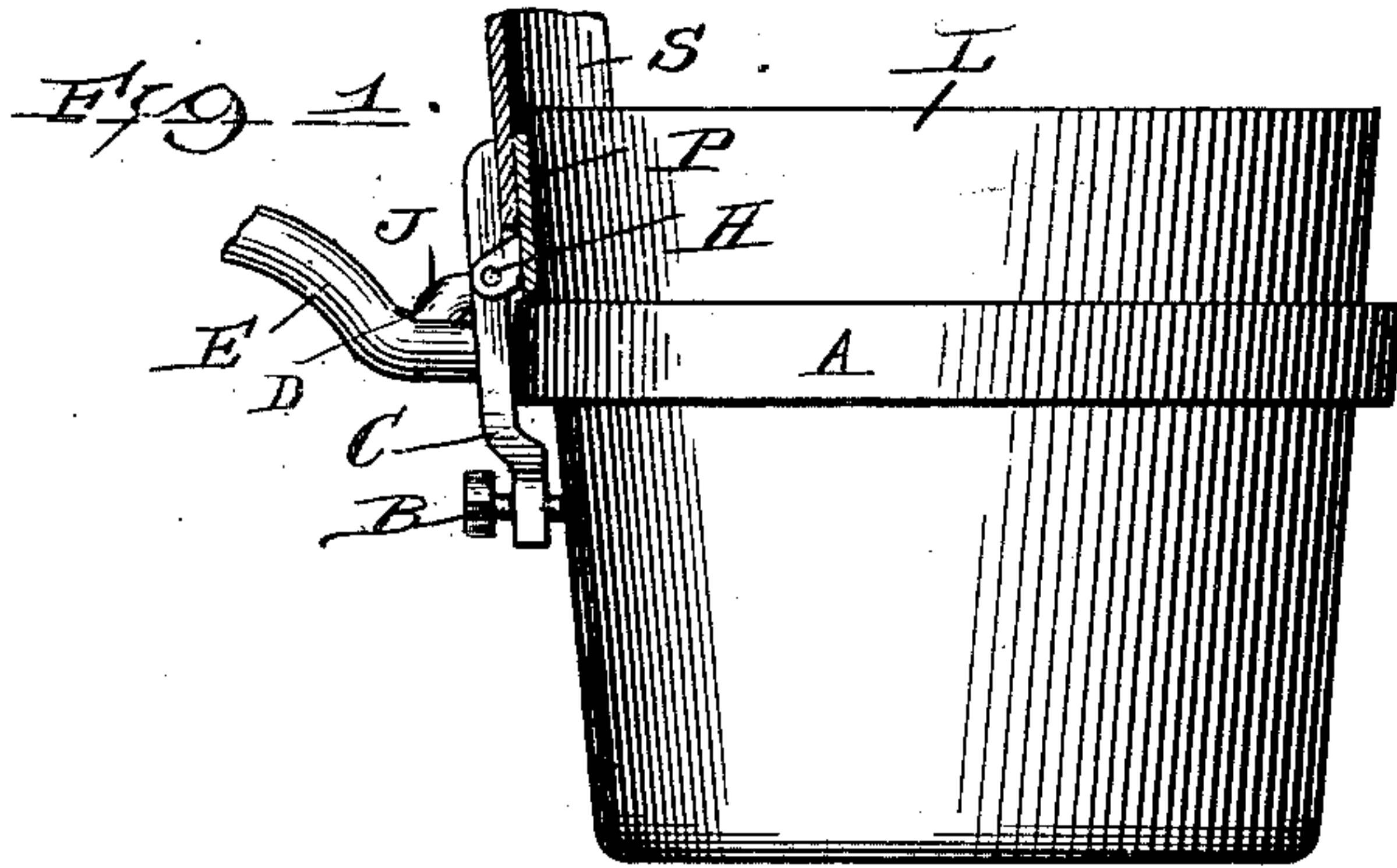
Patented Nov. 18, 1902.

E. GRANT.

SHIELD HOLDER FOR FOUNDERS' LADLES.

(Application filed Sept. 30, 1901.)

(No Model.)



Witnesses:
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By

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UNITED STATES PATENT OFFICE.

EDWARD GRANT, OF BRADLEY, ILLINOIS.

SHIELD-HOLDER FOR FOUNDERS' LADLES.

SPECIFICATION forming part of Letters Patent No. 713,873, dated November 18, 1902.

Application filed September 30, 1901. Serial No. 77,066. (No model.)

To all whom it may concern:

Be it known that I, EDWARD GRANT, a citizen of the United States of America, and a resident of Bradley, Kankakee county, Illinois, have invented certain new and useful Improvements in Shield-Holders for Founders' Ladles, of which the following is a specification.

The general objects of my invention are to provide convenient means for rigidly yet detachably uniting the ladle and a handle and for fixing a shield in position to protect the hands of the user from the heat radiated from the ladle.

With these objects in view I provide a handle adapted to hold a shield and a device to engage the handle on one side and the ladle on the other and to exert any desired pressure tending to separate them, thus rendering their engagement rigid.

A founder's ladle is usually a tapered cup seated wedge-like in a ring at the end of a handle, and as it is frequently necessary to detach the cup the latter or its lining is often injured by the blows or jarring required to detach it. Such ladles are not ordinarily provided with hand-shielding devices nor with any devices by which a shield may be conveniently secured in place. My devices remedy these evils.

In the accompanying drawings, Figure 1 shows in elevation a common ladle with my devices added. Fig. 2 is a sectional elevation. Fig. 3 is a view in the direction of the arrow of Fig. 2. Figs. 4, 5 show modifications of the handle. Fig. 6 is a section on the line 6 6, Fig. 2.

In the figures, L represents an ordinary ladle, and E a handle having a terminal ring A to receive the ladle and provided with a shoulder D, Fig. 1, between which and the ladle devices are inserted to press the ladle toward that side of the ring opposite the handle, and thus rigidly unite the two without wedging the ladle forcibly into the ring. These devices are a forked lever C and a block P, pivoted at H to the lever C and adapted to fit against the ladle just above the ring A. The block P is provided with a projection P', extending horizontally away from the ladle and provided on its lower face with a groove to receive the corresponding tongue

J' of a member J, sliding longitudinally with reference to the projection and locked at any desired point by a bolt K, passing through a slot in the projection and engaging the member J. Between the body of the block P and the forked upper end of the lever C is placed a shield S of suitable form and size, and through the lower end of the lever passes a screw B. In assembling the devices the fork of the lever C is passed over the handle, the block P is brought against the ladle, as shown, and the shield is put in place, the member J is adjusted to meet the shoulder on the handle and fixed to the projection, and the screw B is then screwed against the ladle with some force, the distance through which it advances being to some extent dependent on the taper of the ladle. Under the action of the screw the parts, reacting against the shoulder D, press the ladle above and below the ring and force it against the opposite side of the latter, thus clamping handle, shield, ladle, and other parts into a rigid whole, and obviously retraction of the screw B again frees the parts.

In Fig. 2 is shown the modification of securing the shield to the block P by bolts F and giving the handle a sharp bend at D' to form the desired shoulder. In Fig. 4 the handle is shown as downwardly curved and cut away to form a shoulder D², extending entirely around it, and Fig. 5 shows a straight handle provided with an annular flange forming a shoulder D³.

Many other changes in construction and arrangement may be made without passing beyond the limits of my invention, which, broadly considered, involves a ladle, a handle, engaging the ladle and resisting the movement of the latter toward the side opposite the handle, and devices reacting against the handle and tending to force the ladle toward the side just mentioned, whereby the ladle and handle are made to form a rigid whole. I wish, therefore, to claim my invention broadly as well as specifically.

What I claim is—

1. The combination with a ladle of a suitable handle detachably engaging the ladle, and intermediate pressure-creating devices adapted to be adjustably fixed in position for continuously exerting any desired pressure

tending to force the handle and ladle apart, whereby the parts become one rigid whole until the adjustment is changed, substantially as set forth.

5 2. The combination with a ladle and a handle engaging the same and resisting its relative movement toward the side opposite the handle, of an intermediate device resting
10 against the ladle on one side and engaging the handle on the other, and means for forcibly adjusting the span of said device, to press the handle and ladle oppositely and thus bind the parts into a rigid whole.

15 3. The combination with a ladle and a handle detachably engaging the same, of a lever reacting centrally against the handle and pressing with its arms against the ladle, and means for at will adjusting its pressure.

20 4. The combination with a ladle and a handle engaging the same, of a device reacting against the handle and acting to press the ladle from the handle, and a detachable shield receiving and transmitting such pressure and thereby itself held in place.

25 5. The combination with the ladle, of a handle having a ring encircling the ladle, of a lever reacting centrally against the handle and pressing with its arms against the ladle, and a shield held in place by the pressure of one
30 arm, substantially as set forth.

6. The combination with a ladle, of a handle having a ring encircling the ladle, a lever reacting centrally against the handle and pressing the ladle with its arms, and a screw passing through one of said arms and tending
35 to swing the lever by pressing against the ladle.

7. The combination with the ladle and a handle having a ring encircling the ladle, and a shoulder at some distance from the latter, of the lever, the block pivoted to the lever and extending against said shoulder, the shield interposed between the lever-arm and block, and the screw passing through the other lever-arm, substantially as set forth. 40 45

8. The combination with the ladle and the handle having the ladle-encircling ring and a shoulder at some distance from the ladle, of the lever, the block pivoted to the lever and having the adjustable projection meeting said
50 shoulder, the shield between said block and one lever-arm, and the screw working in the other arm against the ladle.

Signed at Kankakee, Illinois, this 28th day of August, 1901.

EDWARD GRANT.

Witnesses:

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JOHN B. GRISWOLD.