

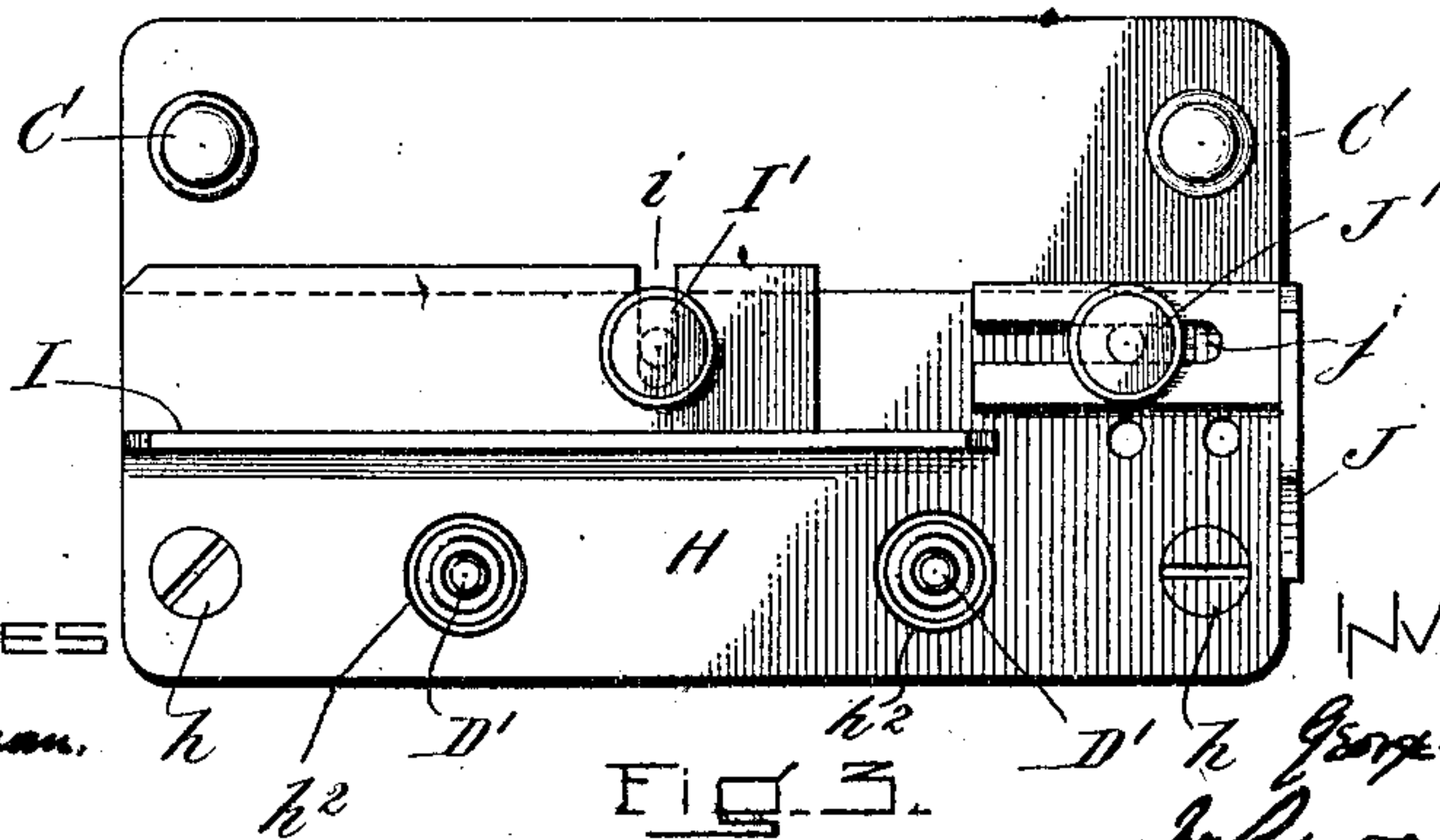
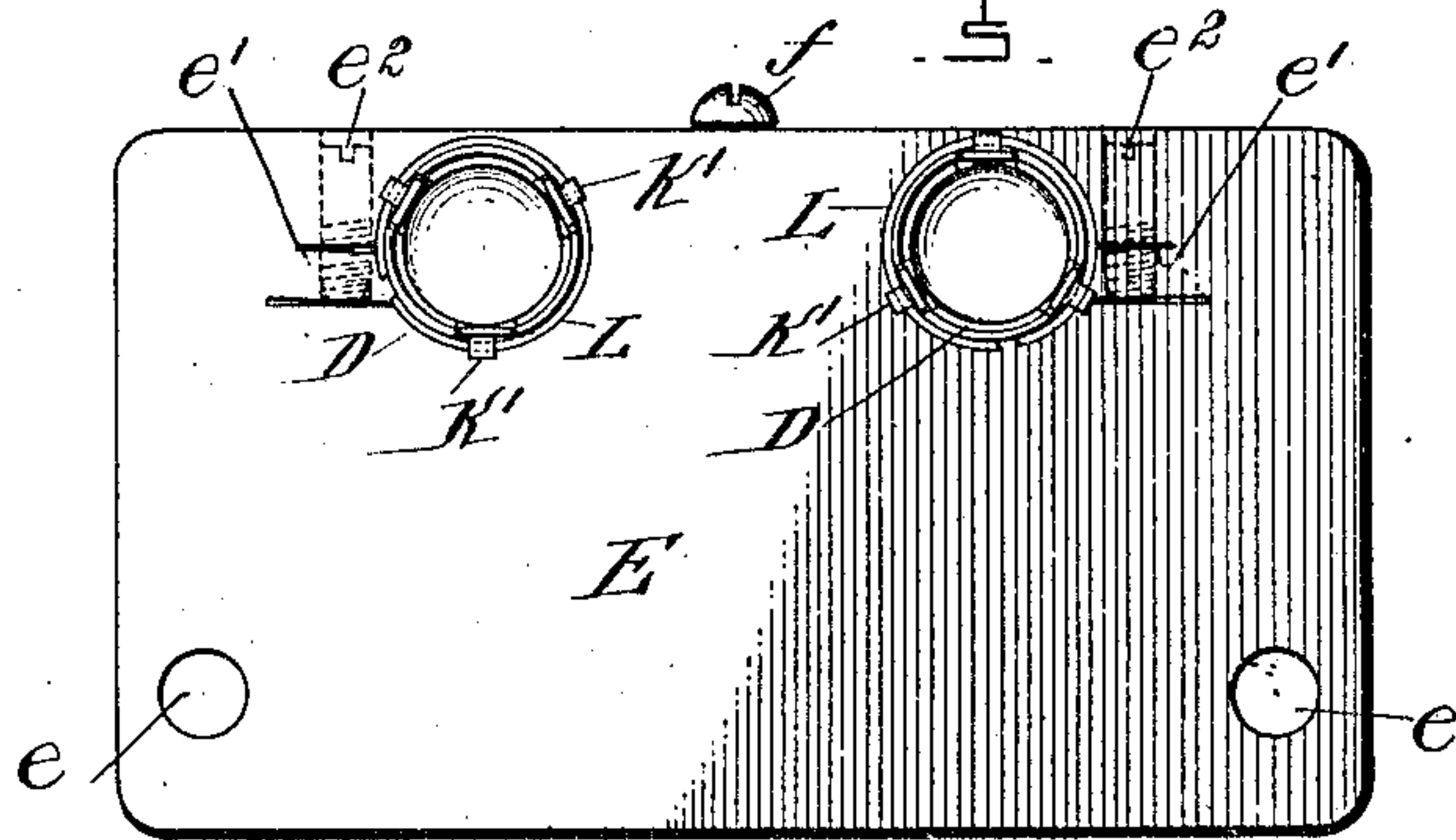
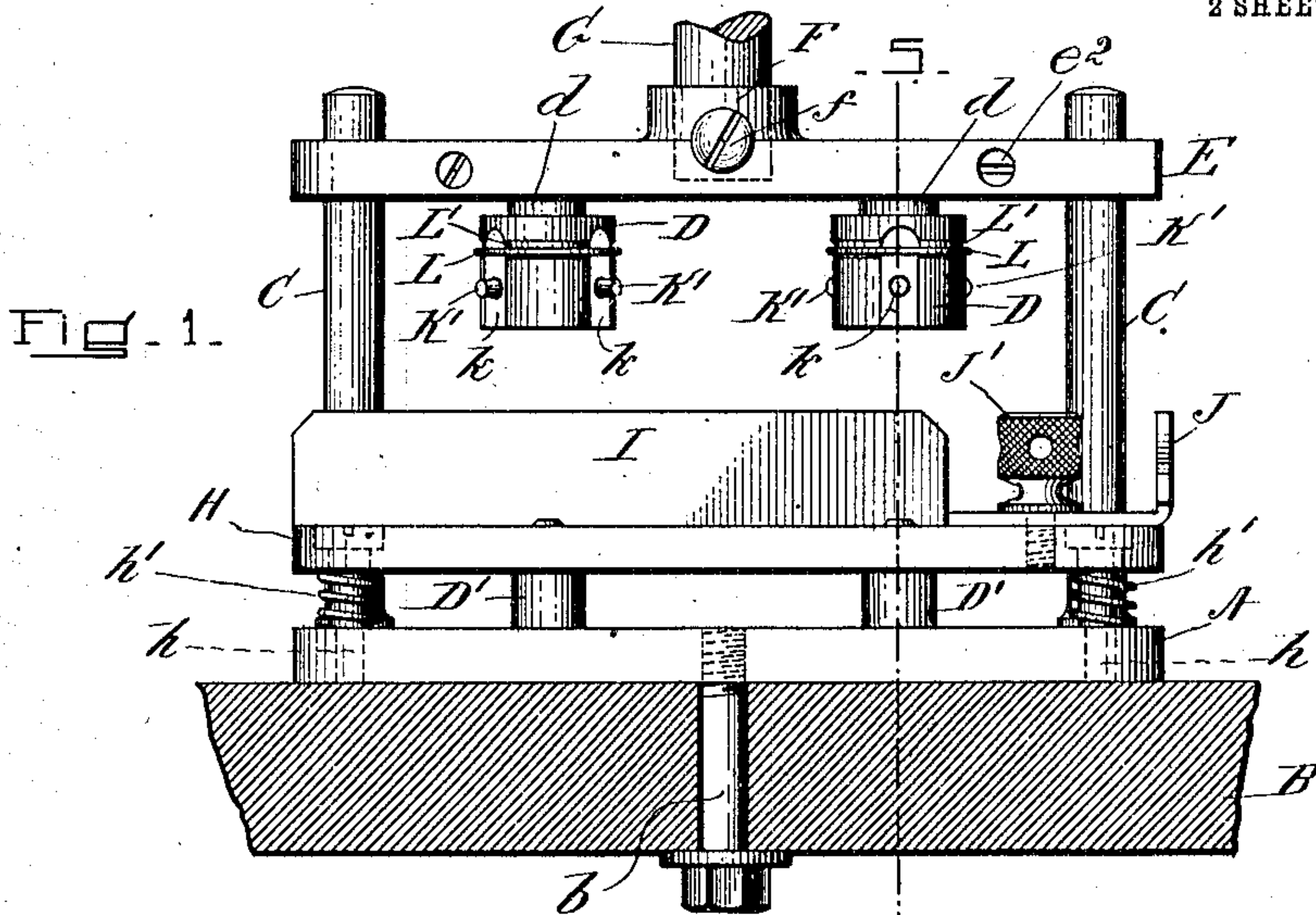
No. 871,591.

PATENTED NOV. 19, 1907.

G. A. HOLMES.
ATTACHMENT FOR SETTING PRESSES.

APPLICATION FILED JULY 10, 1907.

2 SHEETS—SHEET 1.



WITNESSES

Joseph T. Brennan.
C. S. Woodbury

INVENTOR

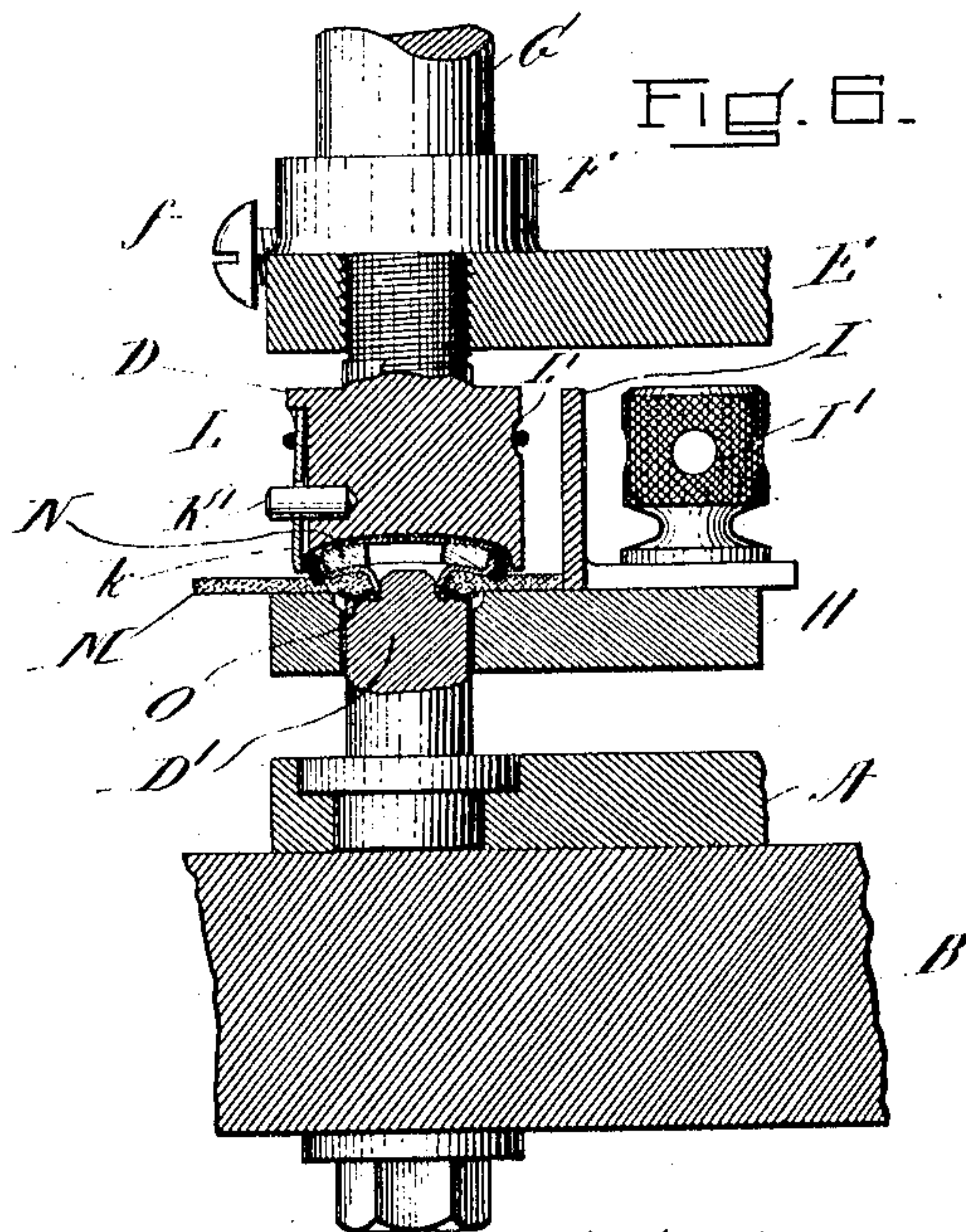
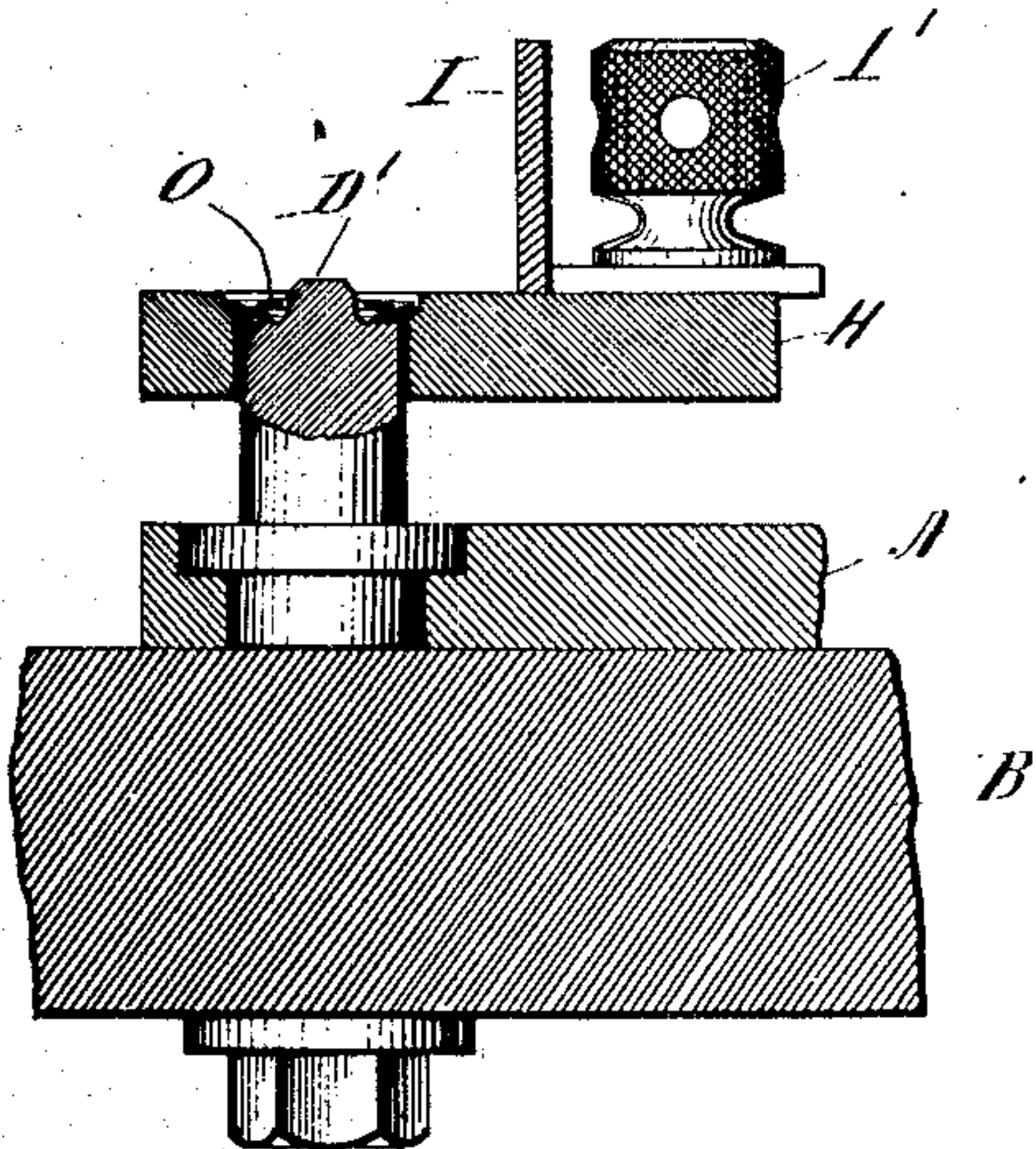
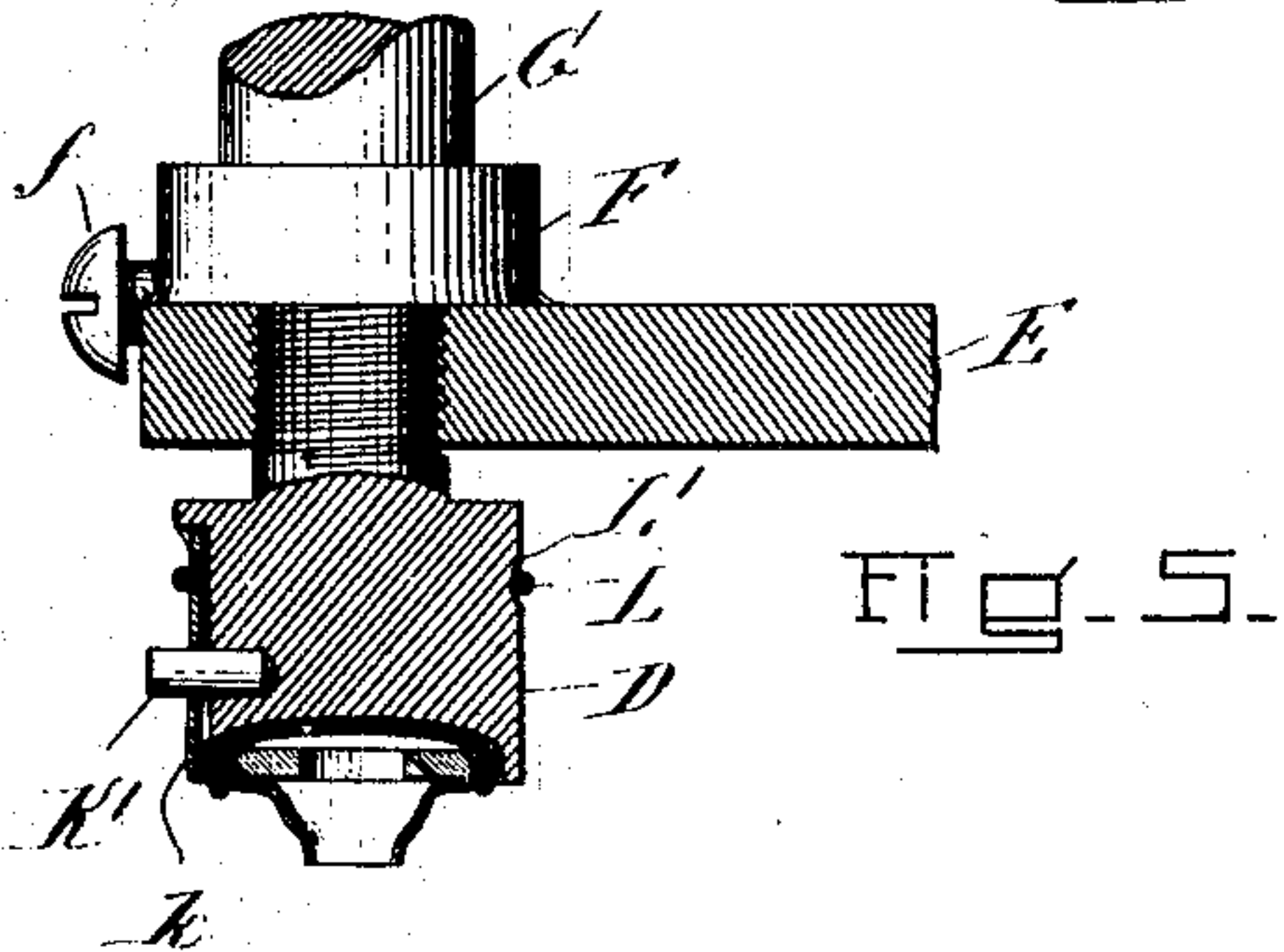
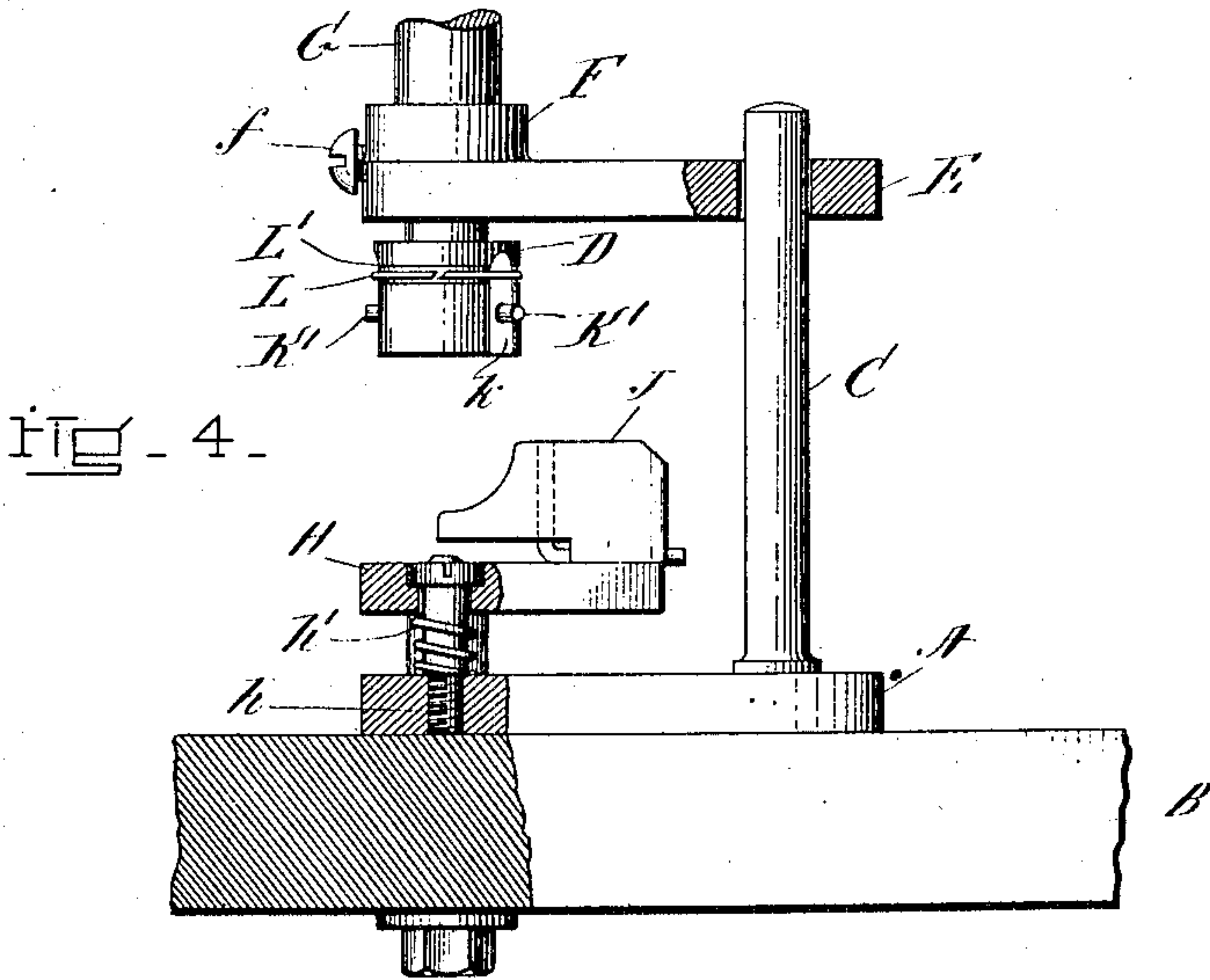
George A. Holmes
By Robert D. Hutchell
Attorneys

No. 871,591.

PATENTED NOV. 19, 1907.

G. A. HOLMES.
ATTACHMENT FOR SETTING PRESSES.
APPLICATION FILED JULY 10, 1907.

2 SHEETS—SHEET 2.



WITNESSES
Joseph T. Brennan.
E. S. Wadley

INVENTOR
George A. Holmes
by Robert Litchfield
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE A. HOLMES, OF NEWTON, MASSACHUSETTS.

ATTACHMENT FOR SETTING-PRESSES.

No. 871,591.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed July 10, 1907. Serial No. 383,030.

To all whom it may concern:

Be it known that I, GEORGE A. HOLMES, a citizen of the United States, and resident of Newton, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Attachments for Setting-Presses, of which the following is a specification.

My invention relates to presses for setting eyelets, glove fasteners and the like; particularly to the construction of gang-die setting presses in which more than one eyelet or fastener is attached to goods at the same time.

The object of my invention is to provide a convenient, easily adjusted and accurately operable gang-die attachment for setting presses and consists in the improvements herein to be described.

In the drawings hereto annexed:—Figure 1 is a front elevation of the operating devices which constitute the setting press attachment; Fig. 2 is a bottom plan view of the upper die plate; Fig. 3 is a top plan view of the lower die plate; Fig. 4 is a side elevation, partly in section, of the setting attachment shown in Fig. 1; Fig. 5 is a cross section on an enlarged scale of a portion of the attachment shown in Fig. 1 on the line 5—5; the upper die plate being shown in elevated position; and Fig. 6 is a cross sectional view similar to Fig. 5 showing the parts in closed setting position.

The base plate A of my gang-die setting attachment is provided with means such as the screw *b* for attachment to the bed B of a setting press, the base plate A being screw threaded for the reception of the screw *b*. Posts *h* are screwed into the base plate A from above and constitute front guides and stops for the work holding plate H which is normally held elevated against the heads of the posts *h* by means of coiled springs *h'* which surround the said posts. This work holding plate is also perforated at *h*² to accommodate the lower setting dies D'. Upon the work holding plate H there are mounted adjustably the rear gage I and end gage J, the rear gage I being slotted at *i* to admit the shank of the binding screw I' and the end gage J being slotted at *j* to accommodate the set screw J'. On the base plate A there are mounted vertical guiding posts C upon which the upper die plate is guided in its reciprocating movements. The upper plate E is provided near its front

edge with screw threaded apertures to hold the upper die members D, each of which has a screw threaded shank which enters a screw threaded hole in the upper reciprocating plate E. A boss F is formed on the upper die plate E into which the plunger G of the setting press may be inserted and in which it may be held by the set screw *f*. The adjustment of the upper die members D in the plate E is effected in the following manner and by the following devices: As the shanks of the upper die members are screw threaded they can obviously be turned up or down to any desired height in the setting attachment.

In the manufacture of the upper die plate, after the holes for the die members D have been screw threaded, holes are bored from the front of the die plate to receive the binding screws *e*² and when these holes have been suitably threaded, saw cuts *e'* are made in the plate extending from the screw threaded holes for the die members D into the body of the plate a suitable distance so that a tongue is left between these two saw cuts. When the die members D are adjusted to the proper height the binding screws *e*² are set up so as to draw the screw threaded end of the integral tongue between the saw cuts *e'* tightly against the screw threaded shank of the die member, thus holding the latter securely in its previously adjusted position.

I have shown the die members D, D', as adapted to attach a snap fastener member, such as formed by the cap N and securing collet O (see Figs. 5 and 6) to the flap of a glove or other garment indicated at M (Fig. 6). The cap part of the socket member is temporarily held in the upper die member D by the following devices: Three short pins K' are inserted in the side of the die member D and the holding clips *k*, which are suitably perforated, are slipped over these pins. The die member D has a groove L' turned in its surface and a clip girdle L consisting of a split spring ring is snapped over the upper ends of the clips *k* holding them securely in place and providing yielding means by which, when a snap fastener cap piece such as N is pressed up against the lower face of the die member D the fastener member may be held in proper position for the setting operation.

As the above described gang-die setting attachment is entirely self contained, it requires no painstaking adjustment in the setting press. Setting presses such as are usu-

ally employed for work of the character described have lower die attachments for single dies such as the screw *b*, in proper alinement with the reciprocating plunger *G* and this alinement of the parts of the press is all that is necessary to insure the proper operation of my die setting attachment, for the reason that the attachment itself provides all the necessary devices for adjustment and for accurately guiding the operative parts during all their movements. By adjusting the rear gage *I* and end gage *J* all the garments of a given lot, say of gloves, may have their snap fasteners quickly and accurately attached with the assurance that the spacing and placing of fasteners on the goods will be uniform throughout the series. When all the work appropriate to the given attachment is finished it can be detached from the setting press in a moment and another similar attachment previously prepared can be substituted in its place without requiring any delay for adjustment of parts.

A further practical advantage of my improved press attachment lies in the facility with which two or more fasteners can be attached without previous perforation of the glove or other article of apparel; by causing the eyelet portions of the fasteners to do their own perforation. The springs *h'* are sufficiently resistant to oppose the initial pressure of the upper die head and compel the eyelet parts of the fastener members to perforate the goods held by the plate *H*. When this has been accomplished, further descent of the upper die head compels the plate *H* to descend against the stress of the springs *h'*, allowing the final setting operation to take place. Heretofore, single dies have been used, with spring sustained sleeves to sustain the goods and compel self perforation by the fastener eyelet. But when the gang-dies have been used or fasteners attached in two or more places to the same article it has been necessary to mark the goods so accurately that the fasteners shall be uniformly and properly spaced; where such marking is necessary it is just as well to perforate the goods beforehand as to mark them, so that in such cases, self perforation by the eyelet part of the fasteners is of no particular practical advantage. By the arrangement above described which includes the work holding plate *H* which itself carries the gages *I* and *J*, a self perforating setting attachment is provided whereby two or more fasteners may be set at the same time and all of the garments of a given lot have their fasteners placed thereon uniformly and ac-

curately; and as the marking or preliminary perforation of the goods is obviated much time will in the aggregate be saved by the employment of my improved attachment.

What I claim and desire to secure by Letters Patent is:

1. In a gang-die attachment for setting presses, the combination of a base plate, means for attaching the base plate to a press bed, lower die members on the base plate, guides mounted on the base plate, an upper plate guided by and reciprocating on said guides and provided with upper die members, and means for attaching said upper plate to an actuating plunger.

2. In a gang-die attachment for setting presses, the combination of a base plate, means for attaching the base plate to a press bed, lower die members on the said plate, a work holding plate yieldingly supported on the base plate having apertures registering with the lower die members, guides mounted on the base plate, an upper plate guided by and reciprocating on said guides and provided with upper die members, and means for attaching said upper plate to an actuating plunger.

3. In a gang-die attachment for setting presses, the combination of a base plate, means for attaching the base plate to a press bed, lower die members on the said plate, a work holding plate yieldingly supported on the base plate and having apertures registering with the lower die members, guides mounted on the base plate, an upper plate guided by and reciprocating on said guides and provided with upper die members, means for attaching said upper plate to an actuating plunger, and rear and end gages adjustably mounted on the work holding plate.

4. In a gang-die attachment for setting presses, the combination of a base plate, means for attaching the base plate to a press bed, lower die members on the base plate, guides mounted on the base plate, an upper plate mounted to reciprocate on said guides and provided with upper die members, the said upper die members provided each with a plurality of laterally placed clips, and a clip girdle consisting of a spring embracing the clips and die member and means for attaching said upper plate to an actuating plunger.

Signed by me at Boston, Massachusetts this first day of July 1907.

GEORGE A. HOLMES.

Witnesses:

JOSEPH T. BRENNAN,
MARY A. O'BRIEN.