

No. 859,729.

PATENTED JULY 9, 1907.

E. BETZ.

PRINTING OR REGISTERING BEAM FOR WEIGHING SCALES.

APPLICATION FILED JAN. 23, 1905.

2 SHEETS—SHEET 1.

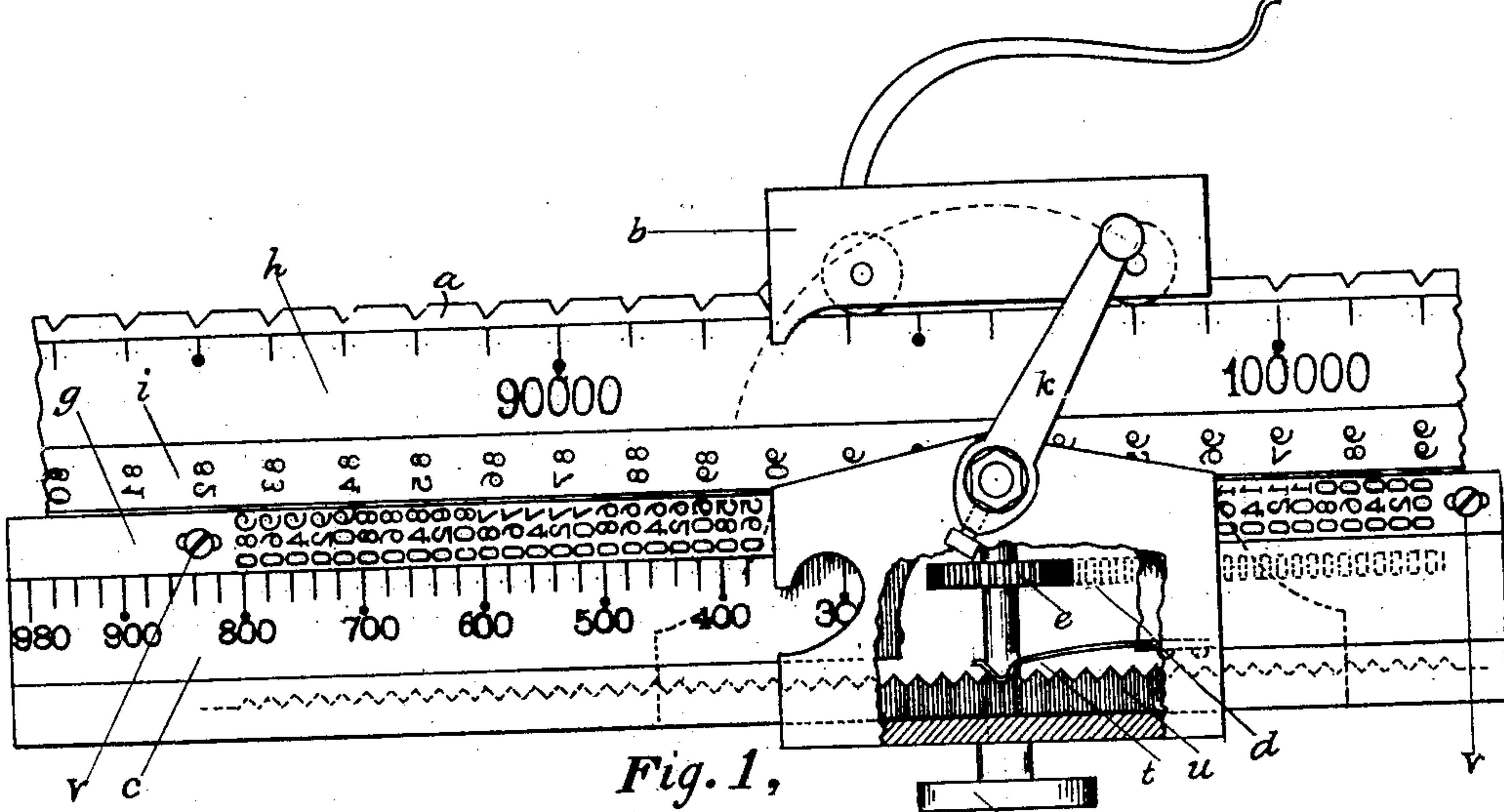


Fig. 1,

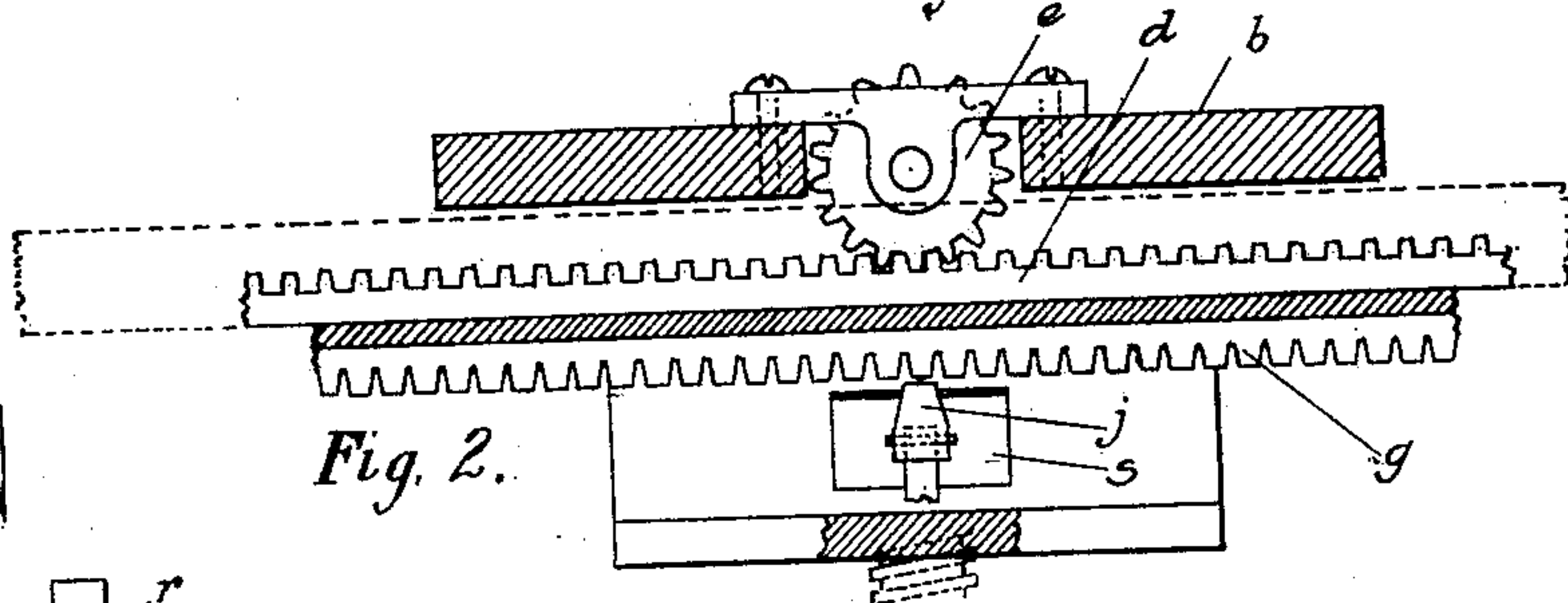


Fig. 2.

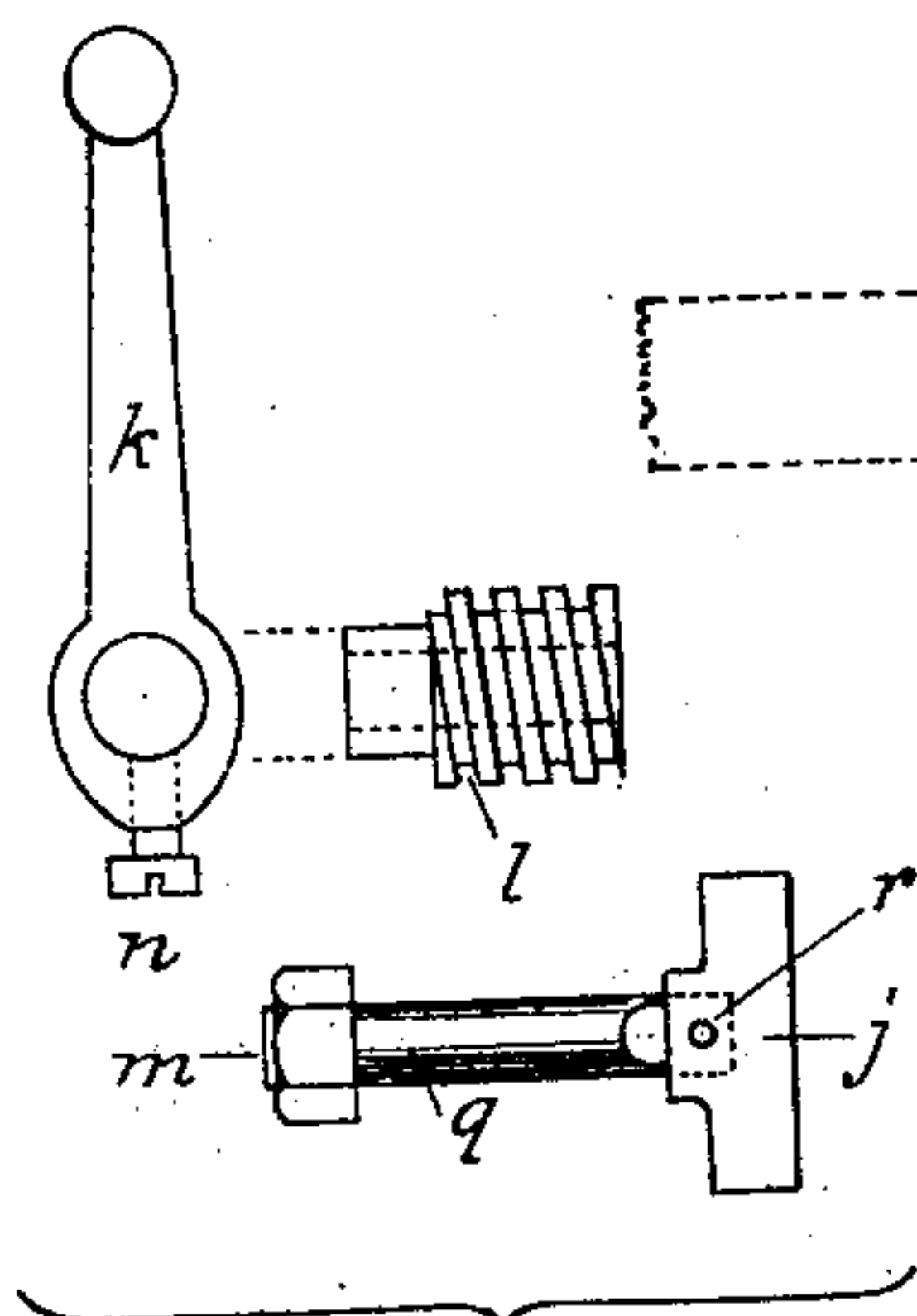


Fig. 3.

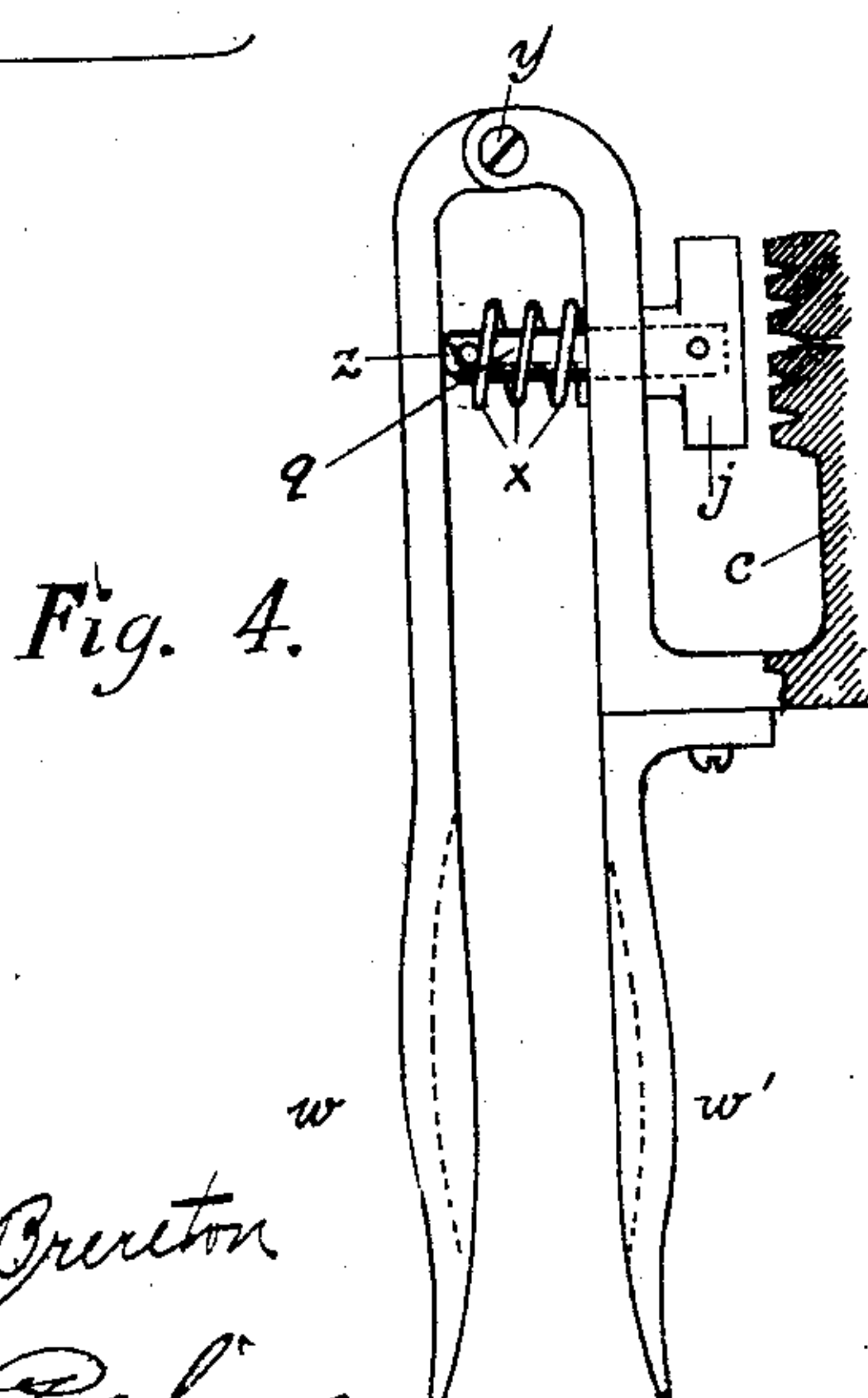


Fig. 4.

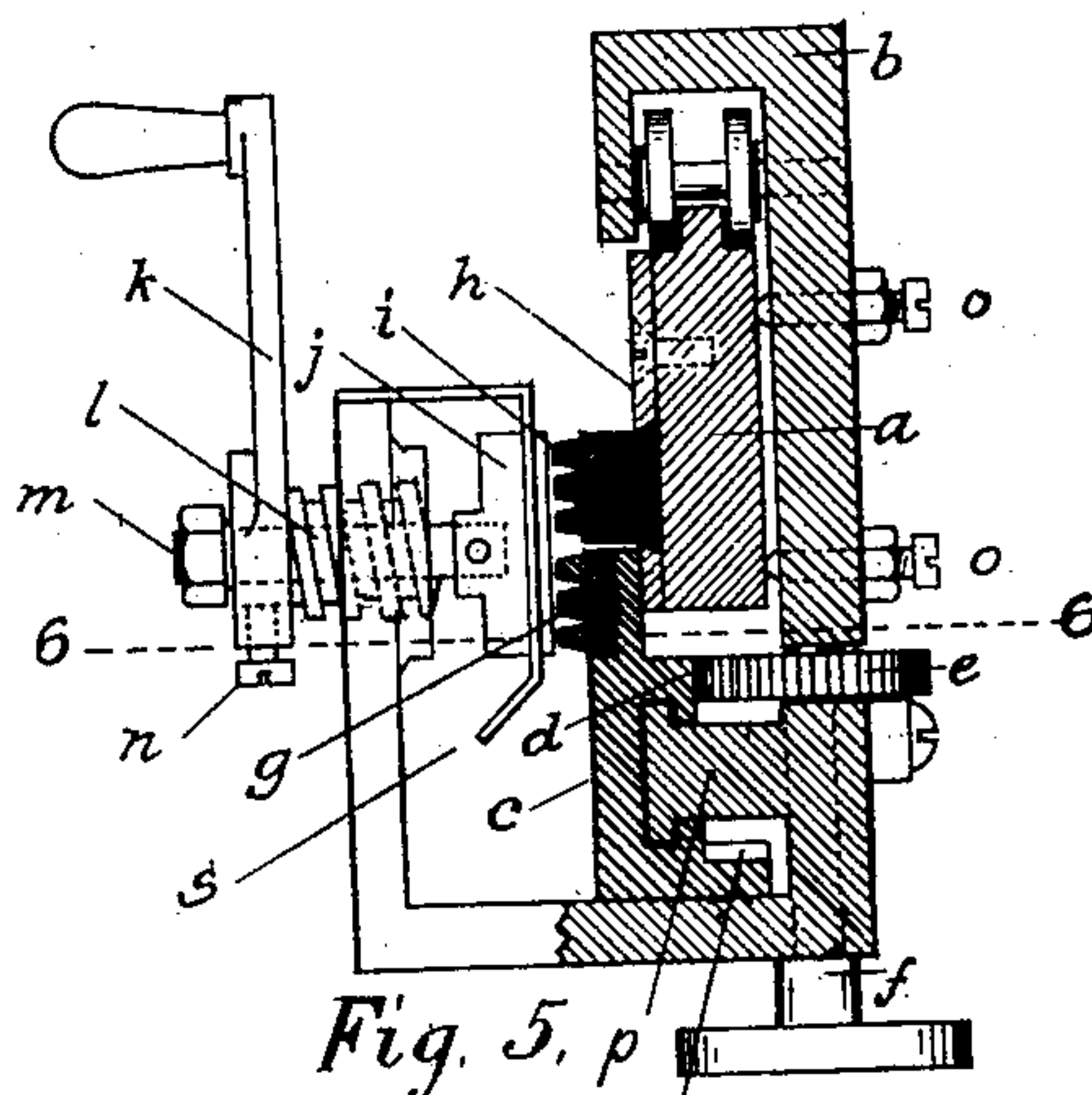


Fig. 5.

Witnesses
Frank M. Burton
Albert Poplins

Inventor
Eugene Betz
By Sturtevant & Greeley
Attorneys

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2 SHEETS—SHEET 2.

Fig. 6

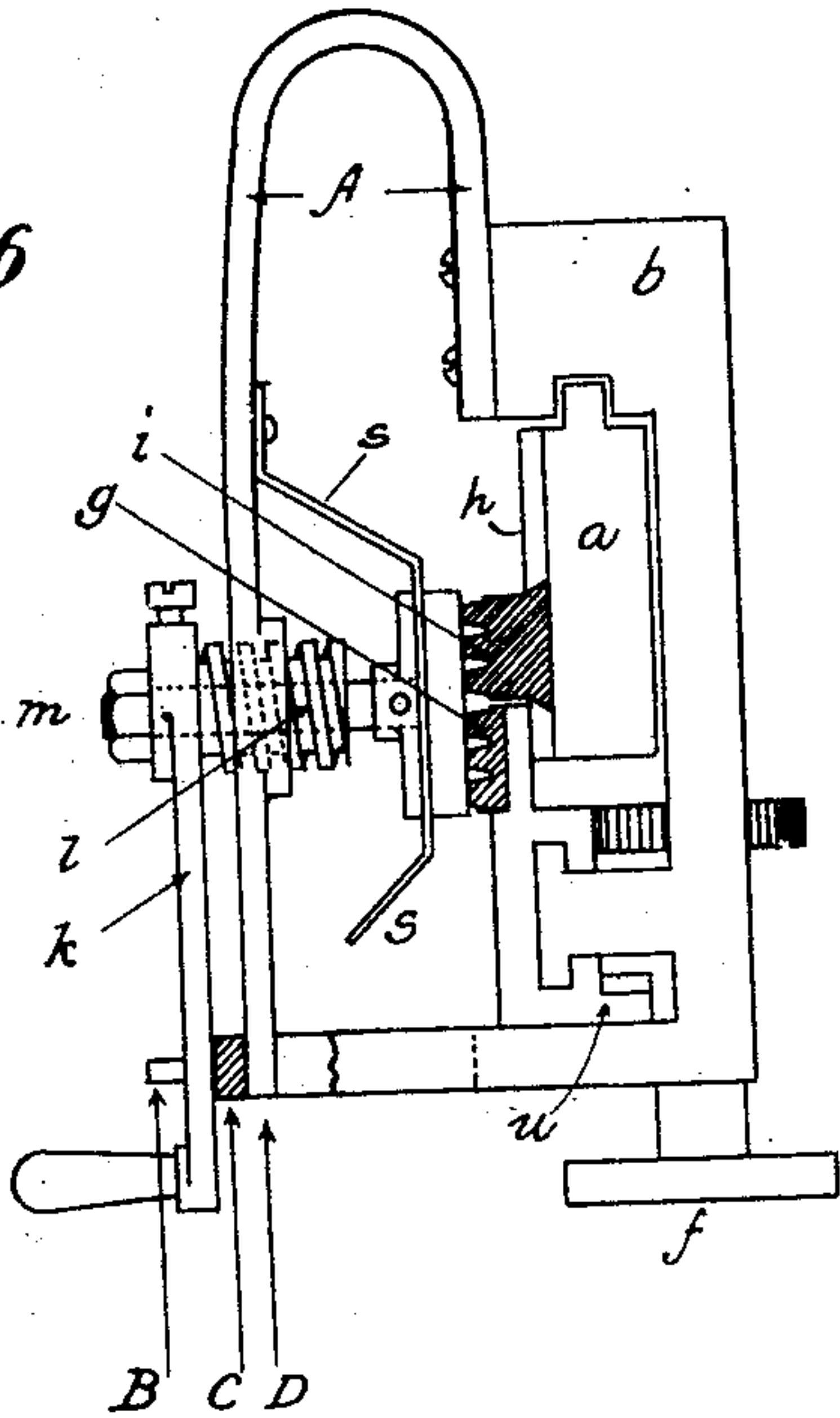


Fig. 7.

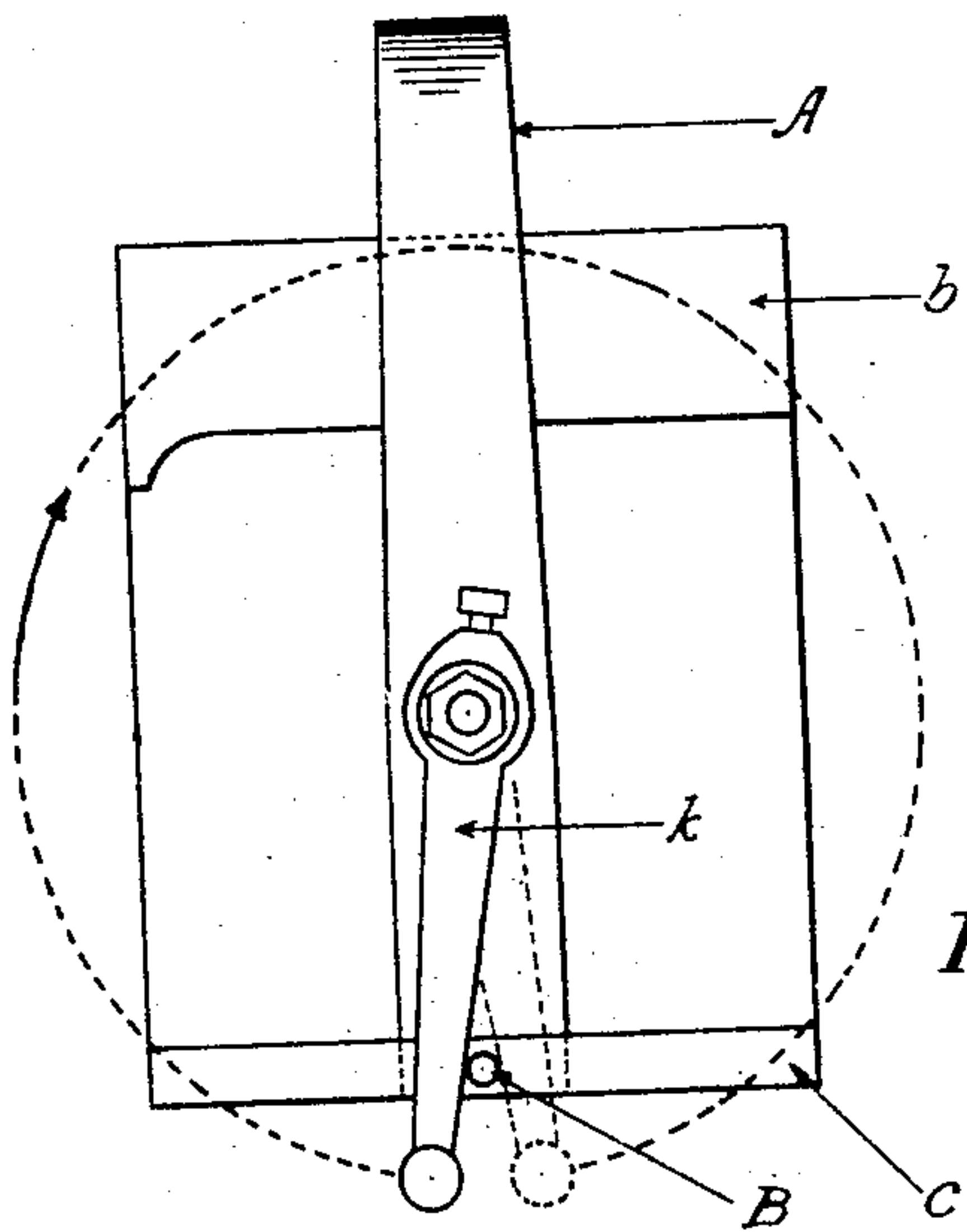
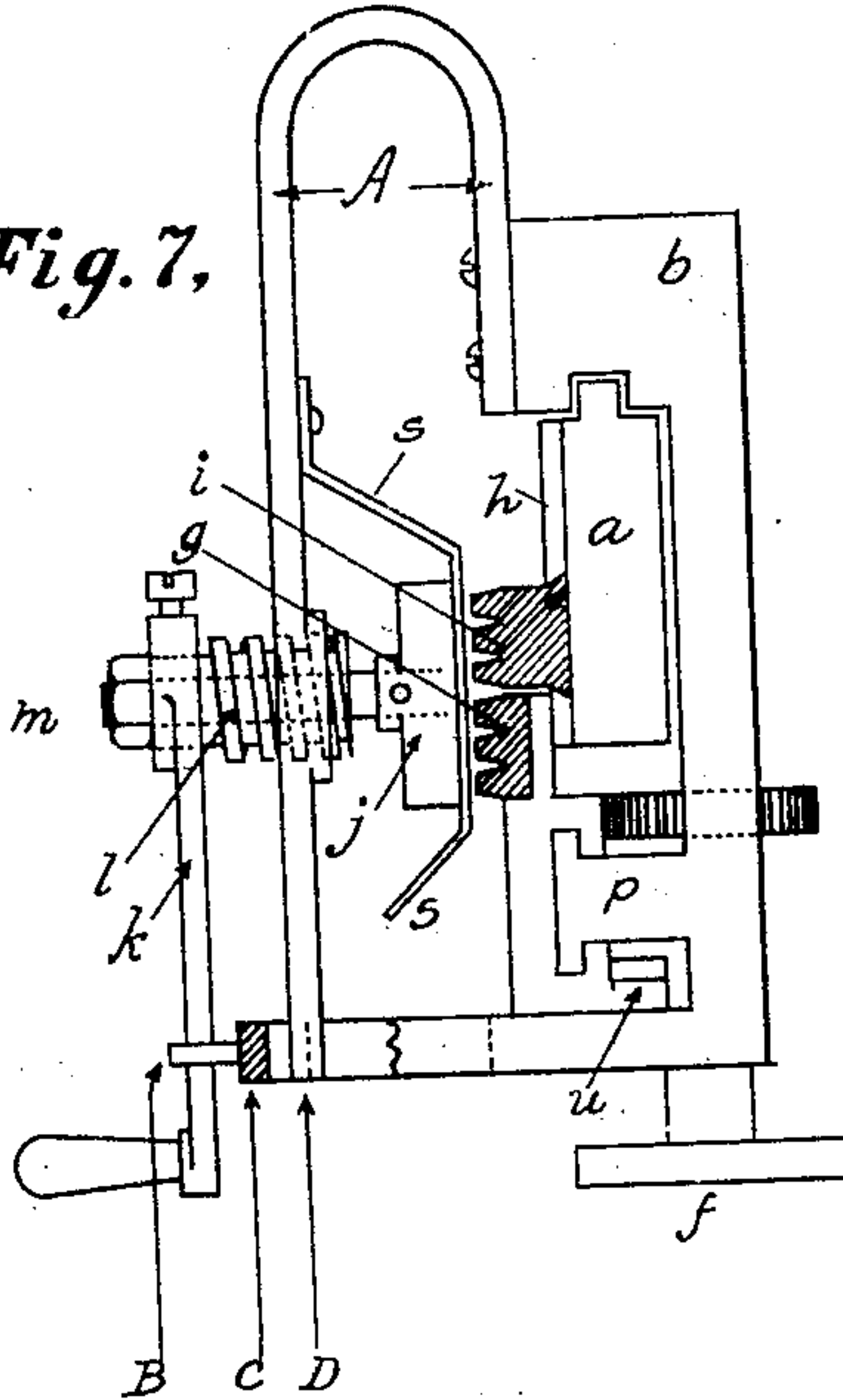


Fig. 8,

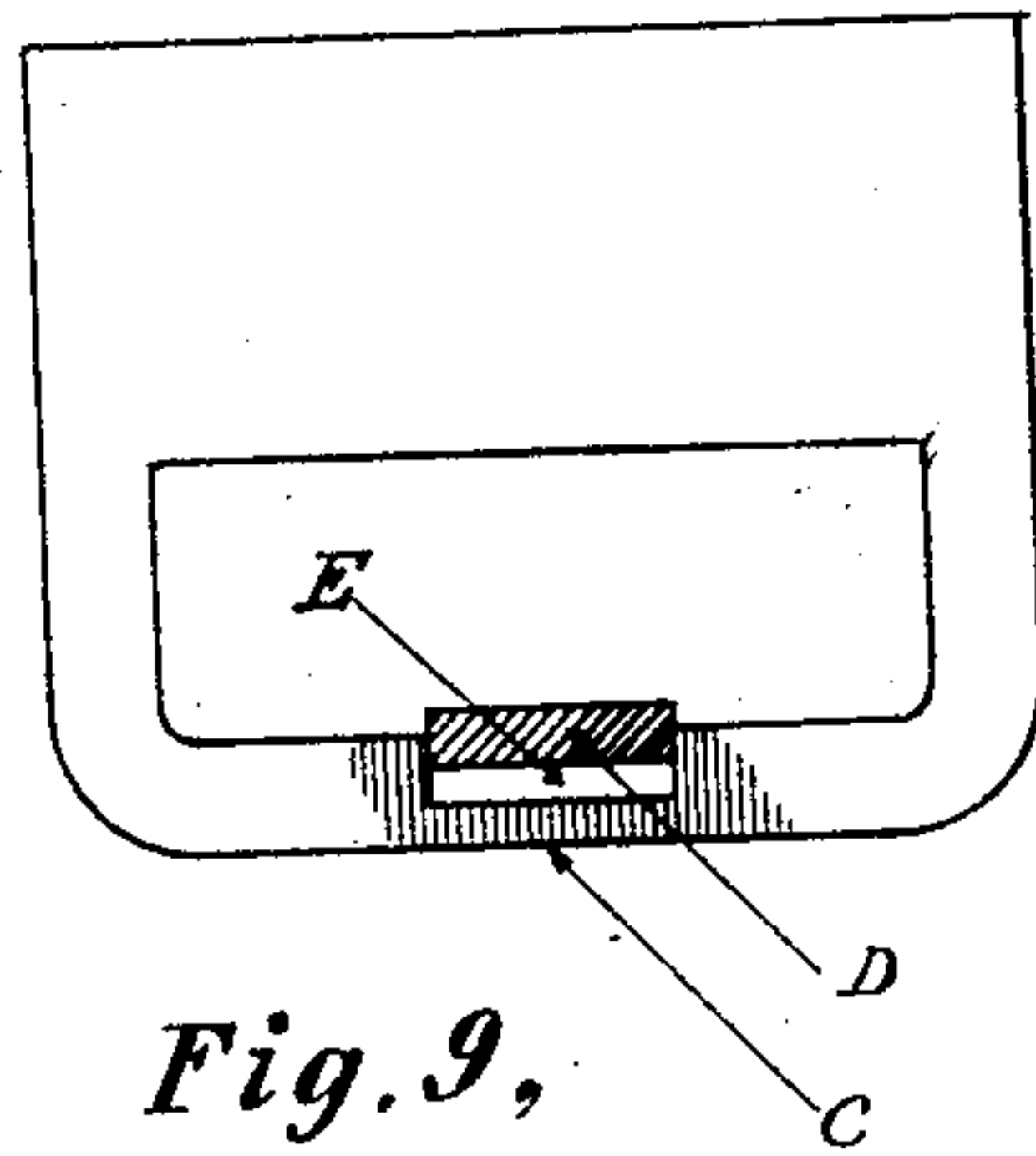


Fig. 9,

Witnesses

Frank G. Brerton.

Albert Perkins

Eugene Betz ^{Inventor}
By *Sturtevant & Greeley*
Attorneys.

UNITED STATES PATENT OFFICE.

EUGENE BETZ, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE E. AND T. FAIRBANKS AND COMPANY, OF ST. JOHNSBURY, VERMONT, A CORPORATION OF VERMONT.

PRINTING OR REGISTERING BEAM FOR WEIGHING-SCALES.

No. 859,729.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed January 23, 1905. Serial No. 242,377.

To all whom it may concern:

Be it known that I, EUGENE BETZ, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Printing or Registering Beams for Weighing-Scales, of which the following is a description, reference being had to the accompanying drawing, and to the letters and figures of reference marked thereon.

My invention relates to an improvement in printing or registering beams for weighing scales, and the object of the invention is to provide certain improvements in the details of such devices among which may be mentioned the arrangement of type and the manner of attaching the same to the beam; an improvement in the means for impressing the card or ticket upon the face of the type.

The invention consists in various matters hereinafter described and referred to in the appended claims.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a front view showing a portion of the front of the poise removed; Fig. 2 is the horizontal section on the line 6—6, Fig. 5; Fig. 3 represents details of the plunger and operating mechanism; Fig. 4 is a modification of a mechanism for operating the plunger carrying the platen; Fig. 5 is a cross section through the poise and beam, illustrating one form of impressing mechanism; Figs. 6 and 7 are similar views, illustrating a modified form of impressing mechanism in different positions; Fig. 8 is a side view of the poise with the handle for operating the impressing mechanism; and Fig. 9 is a bottom plan view of the poise.

In these drawings, the main beam is shown at *a*, the main poise at *b*, the poise slide which carries the fractional beam at *c*, and *d* is a rack on the poise slide. Meshing into the rack *d* is a pinion *e*, upon a vertical shaft, operated by a thumb piece *f*. The type on the poise slide are represented at *g*. The number plate *h* on the main beam is beveled on its lower edge to engage the beveled edge of the type bar *i*, and the type bar *i* may be adjusted by loosening the screws in the number plate and sliding the type along as desired, and the type bar *g* is slotted at each end as shown in Fig. 1, and held by screws *v* to allow of adjustment. The poise slide *c* is gibbed to the main poise, as shown at *p*. The platen *j* which makes the impression is loosely pinned as at *r*, upon the plunger *q*, which plunger passes through the threaded stem or sleeve *l*, and is held by the nut *m*. The handle *k* is attached to the stem *l* by the screw *n*, the stem *l* being threaded through the front wall of the main poise, so that when the stem is turned the plunger and platen will be moved longitudinally toward the type bars, the platen being pre-

vented from turning by passing through a slot in the plate *s*, which is preferably of spring material, and acts as a stripping plate to prevent the ticket from adhering to the platen of the impressing attachment.

Fig. 4 on Sheet 1 of the drawings represents a modification of the means for operating the platen, the plunger *q*, to which the platen is attached passing through the front extension of the main poise, a long handle *w* being pivoted at *y* and coöperating with a rigid handle *w'*, the handles being held apart by a spring *x* surrounding the plunger and bearing against the pin *z*.

As shown in Fig. 1, as the poise is moved along by the rack and pinion, a spring *t* engages in a notch in the bar *u*, and holds it in position for printing. As shown in said figure, the poises as set would indicate a load of 93,440 pounds, the reading being taken on the left hand side of the poise as usual; the type bar adjustment above referred to being provided for the purpose of allowing the reading at the edge of the poise to be the same as the printing which takes place at the middle of the poise.

Referring to Figs. 6, 7, 8 and 9, the threaded stem *l* passes through a spring *A*, which is attached to the tip of the main poise *b*. The lower end of this spring is free to move in a recess *E* in the lower part *C* of the poise *b*. The handle is represented at *k* and a stop pin *B* is provided to prevent the handle from turning too far.

The mode of operation of the construction just described is as follows: When a ticket is inserted, the handle *k* is turned as shown in Fig. 8. About a quarter of a revolution brings the platen *j* up against the type, but not with sufficient force to print, because the spring *A* has not yet been put under tension. Further movement of the handle will develop the force of the spring, as shown in Fig. 6, so that the ticket is pressed more firmly but with a yielding gradual pressure upon the face of the type, until at last the end *D* of the spring *A* is brought up against the stop *C* at which time the whole force of the spring is developed.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a printing or registering beam for weighing scales, the combination with a beam having a ledge along its lower front face, of a type bar having outwardly tapered side edges, one of which is adapted to engage the ledge on said beam and a securing plate with a beveled edge for engaging the other edge of said type bar and holding the same on said beam, and means co-operating therewith whereby an impression may be taken from said type: substantially as described.

2. In a printing or registering beam for weighing scales, the combination with the beam, of a poise sliding thereon and an impressing attachment carried by said poise and comprising a platen, a plunger, to which the same is

loosely attached, a stem threaded on the poise, through which the plunger passes, and a handle for operating the stem; substantially as described.

3. A printing or registering beam for weighing scales, 20
5 comprising a beam, a poise sliding thereon, and an impressing attachment supported by said poise and comprising a platen, a plunger to which the platen is loosely attached, a threaded stem surrounding the plunger and threaded upon a part secured to the poise, a handle for operating the stem, and stripping plate through which the 25
10 platen is adapted to project; substantially as described.

4. In a printing or registering beam for weighing scales, in combination with the beam having type thereon, a poise sliding on said beam, a spring plate secured to said poise, 15
a stem threaded through said spring plate, and a handle for operating the stem, a plunger passing through the stem and carrying a platen at one end, whereby when the

handle is turned the movement of the stem will develop the force of the spring; substantially as described.

5. In a printing or registering beam for weighing scales, 20
in combination with the beam having type thereon, a poise sliding on said beam, a spring plate secured to said poise, a stem threaded through said spring plate, and a handle for operating the stem, a plunger passing through the stem and carrying a platen at one end, and a stop for limiting 25
the movement of the lower end of the spring; substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses.

EUGENE BETZ.

Witnesses:

H. J. ROBINS,
F. E. CHURCH.