

No. 706,068.

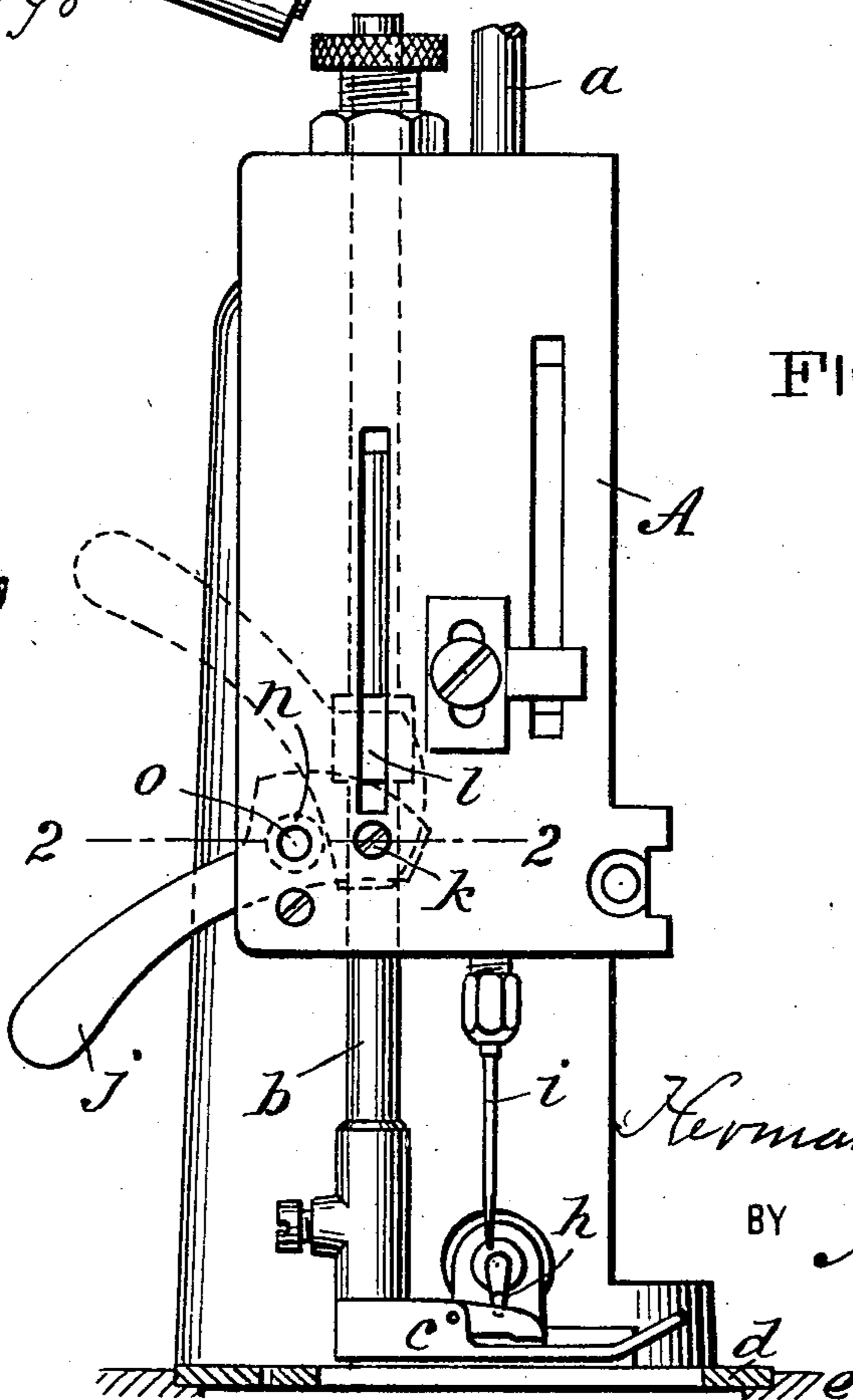
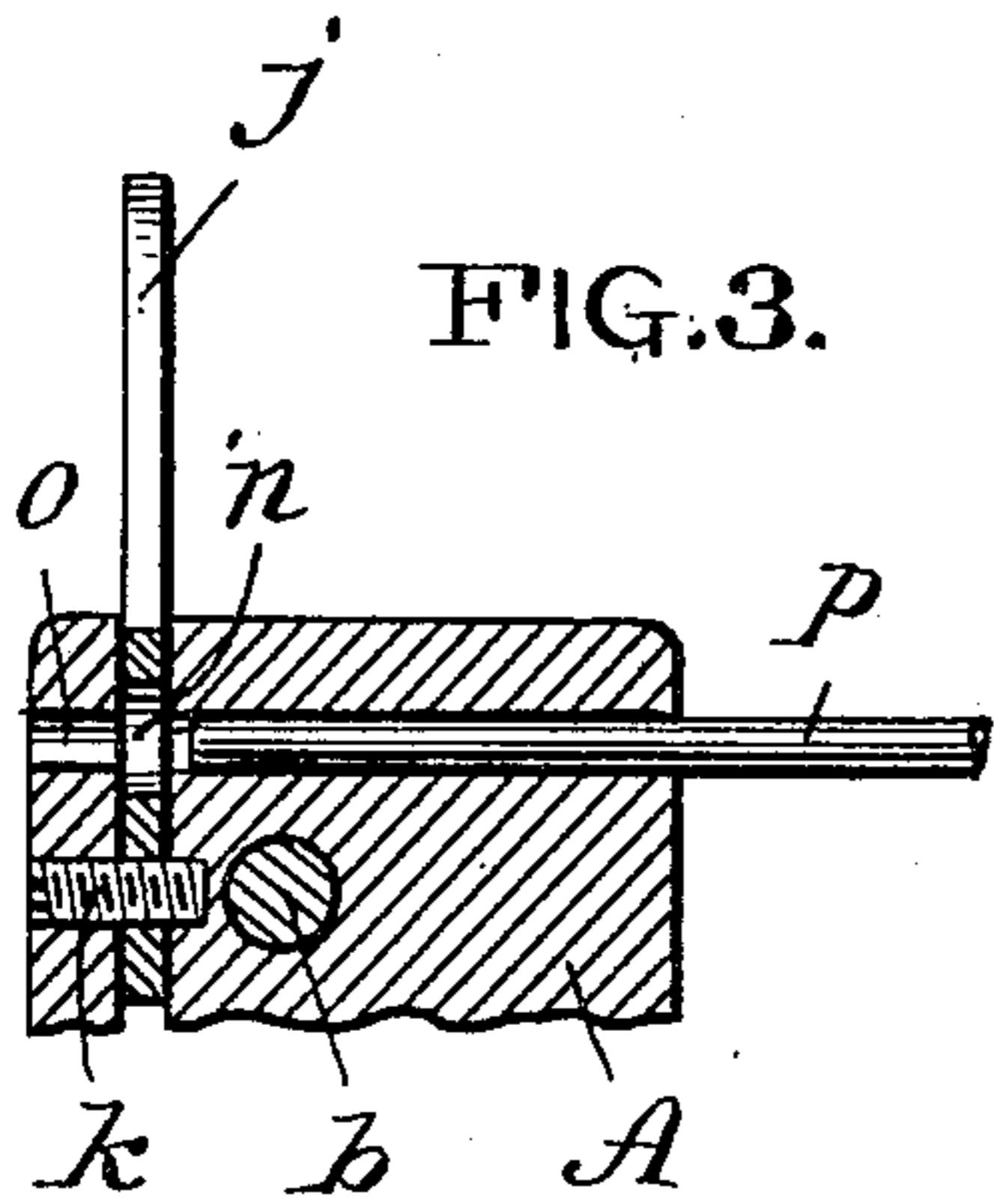
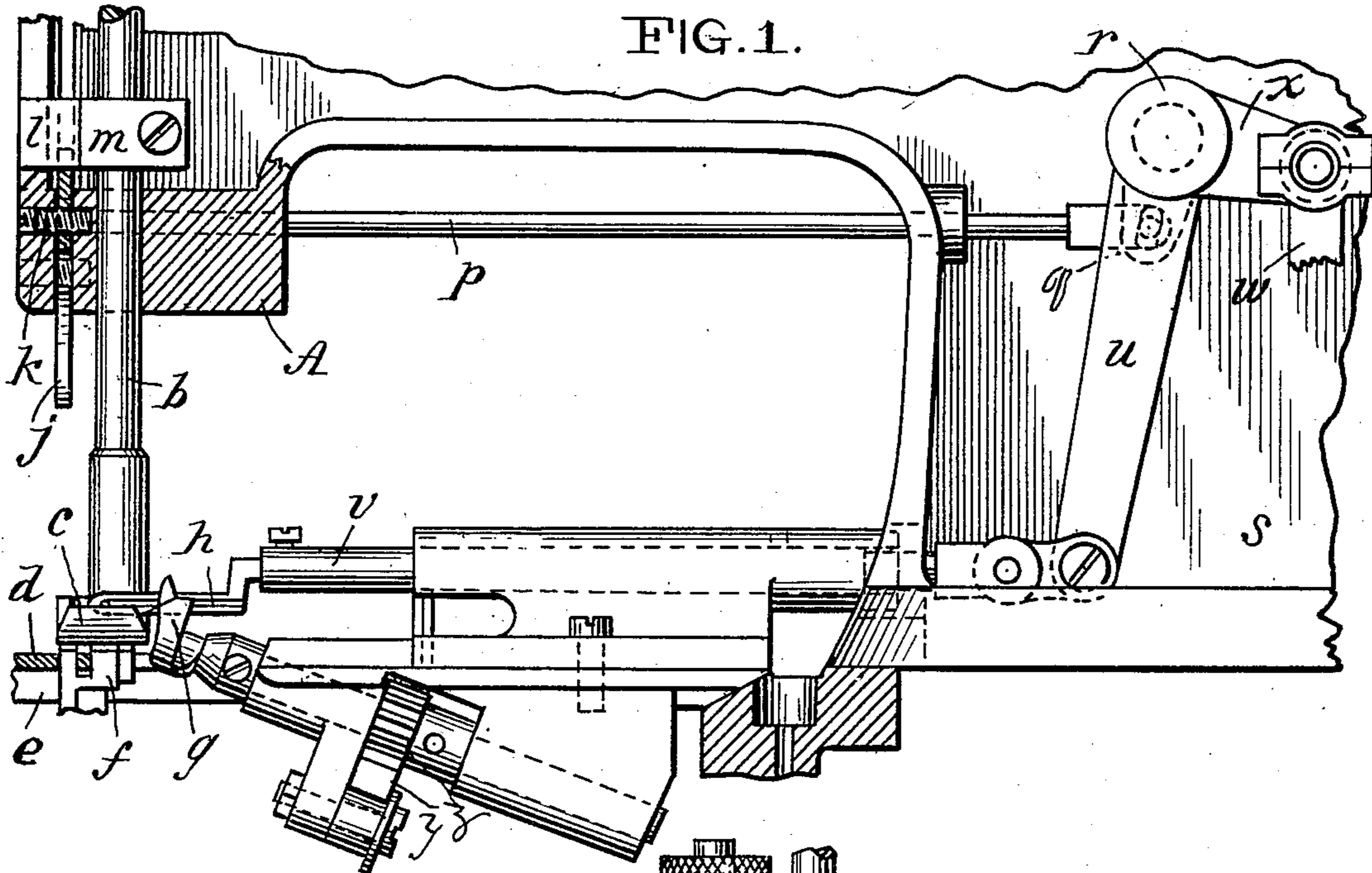
Patented Aug. 5, 1902.

H. A. KLEMM.

PRESSER FOOT LOCKING MECHANISM FOR SEWING MACHINES.

(Application filed Sept. 9, 1901.)

(No Model.)



WITNESSES:

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PRESSER-FOOT-LOCKING MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 706,068, dated August 5, 1902.

Application filed September 9, 1901. Serial No. 74,727. (No model.)

To all whom it may concern:

Be it known that I, HERMANN A. KLEMM, a citizen of the United States of America, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Presser-Foot-Locking Mechanism for Sewing-Machines, of which the following is a specification.

My invention relates to overedge sewing-machines in which the locking-thread-loop carrier reciprocates over the presser-foot; and it consists of an automatic locking device to prevent lifting the presser-foot or letting it down at any time when the looper occupies a position in which the presser-foot will collide with it in shifting either way to prevent damage to the looper, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a front elevation of some parts and vertical sections of other parts of a machine provided with my improved automatic presser-locking device. Fig. 2 is an elevation of the same as seen looking from the left hand of the view represented in Fig. 1, with the throat-plate and parts of the bed-plate in vertical section. Fig. 3 is a detail in vertical section of the head of the supporting-arm parallel with but in a plane behind the plane of the section of Fig. 1 and indicated by the line 2 2 of Fig. 2.

A represents the head of the stationary arm, in which the needle-bar *a* and the presser *b* are mounted, as usual.

c represents the presser-foot; *d*, the throat-plate; *e*, the bed-plate, and *f* the feed-dog.

g represents the oscillating hook for bringing the needle-thread loops up to the reciprocating looper *h*, and *i* represents the needle.

The arrangements of the hook and looper are such that the looper reaches over the presser-foot in the forward part of its range in operation or under it if the machine be turned when the presser is up, wherefore there is danger of breaking the looper by shifting the presser-foot while the looper may happen to rest over or under the presser-foot, which it is the purpose of my invention to prevent by automatic action of the machine through a locking device that will effectually prevent shifting the presser-foot by said presser-lifter while the looper is over or under the presser-

foot, but will not obstruct the shifting while the looper rests in any position clear of the range of the presser-foot.

Various contrivances of apparatus may be employed for this purpose; but in this example of my invention I represent a presser-lifting lever *j*, pivoted at *k* and suitably adapted for lifting the presser, as usual, by taking effect on arm *l* of the collar *m*, clamped on the presser-bar, in which lever I provide a hole *n*, which when the lever is in the position allowing the presser to be in the working position coincides with a hole *o* in the head A, in which a rod *p* is arranged, which extends rearward and is connected to a short arm *q* (dotted in Fig. 1) of a rock-shaft *r*, mounted on the standard *s* and having a longer arm *u*, to which the looper-carrying staff *v* is connected for being operated, so that said rod *p* and the looper-staff reciprocate in unison, and the arrangements and adjustments are such that said rod *p* enters hole *n* of lever *j* when the point of the looper advances over the presser-foot and thus locks the presser-lifter, and when the point of the looper retires from over the presser-foot said rod retires from the hole in the lifter and leaves it free to be actuated for lifting the presser-foot, and if after lifting the presser the machine be turned by hand so that the looper reaches under the presser-foot, the rod *p* being at the same time shifted forward under the lever *j*, as will be seen in Fig. 2, will lock said lever and thus prevent the presser from being shifted down and in that way colliding with the looper. Thus the operator is estopped from lifting the presser when it would be injurious to the looper.

The contrivances of the apparatus may of course be modified in various ways, and I do not limit myself to the particular contrivances herein represented.

The means of operating the rock-shaft *r* are indicated by the connecting-rod *w* and arm *x*, and the means of operating the hook are indicated by the reciprocating toothed rack *y* and the pinion *z*; but they form no part of the invention claimed and need not be further described.

What I claim as my invention is—

1. The combination with the looper, presser, and presser-lifter, said looper having means

for working the same within and transversely
of the range of the presser-foot, of the lock-
ing-rod and means for operating the same
synchronously with the looper, said rod auto-
5 matically locking the lifter while the looper
is in the range of the presser-foot, and un-
locking said lifter when the looper retires out
of range of the presser-foot.

2. The combination with the looper, presser,
10 and presser-lifter, said looper having means
for working the same within and transversely

of the range of the presser-foot, means for
automatically locking the presser-foot when
the looper is within the range of said presser-
foot and unlocking the same when the looper 15
is out of the range of the presser-foot.

Signed at New York city this 20th day of
August, 1901.

HERMANN A. KLEMM.

Witnesses:

A. P. THAYER,
C. SEDGWICK.