

No. 634,977.

Patented Oct. 17, 1899.

F. BANK.

HOLDER FOR PRINTING FILMS.

(Application filed Apr. 7, 1899.)

(No Model.)

FIG. 1.

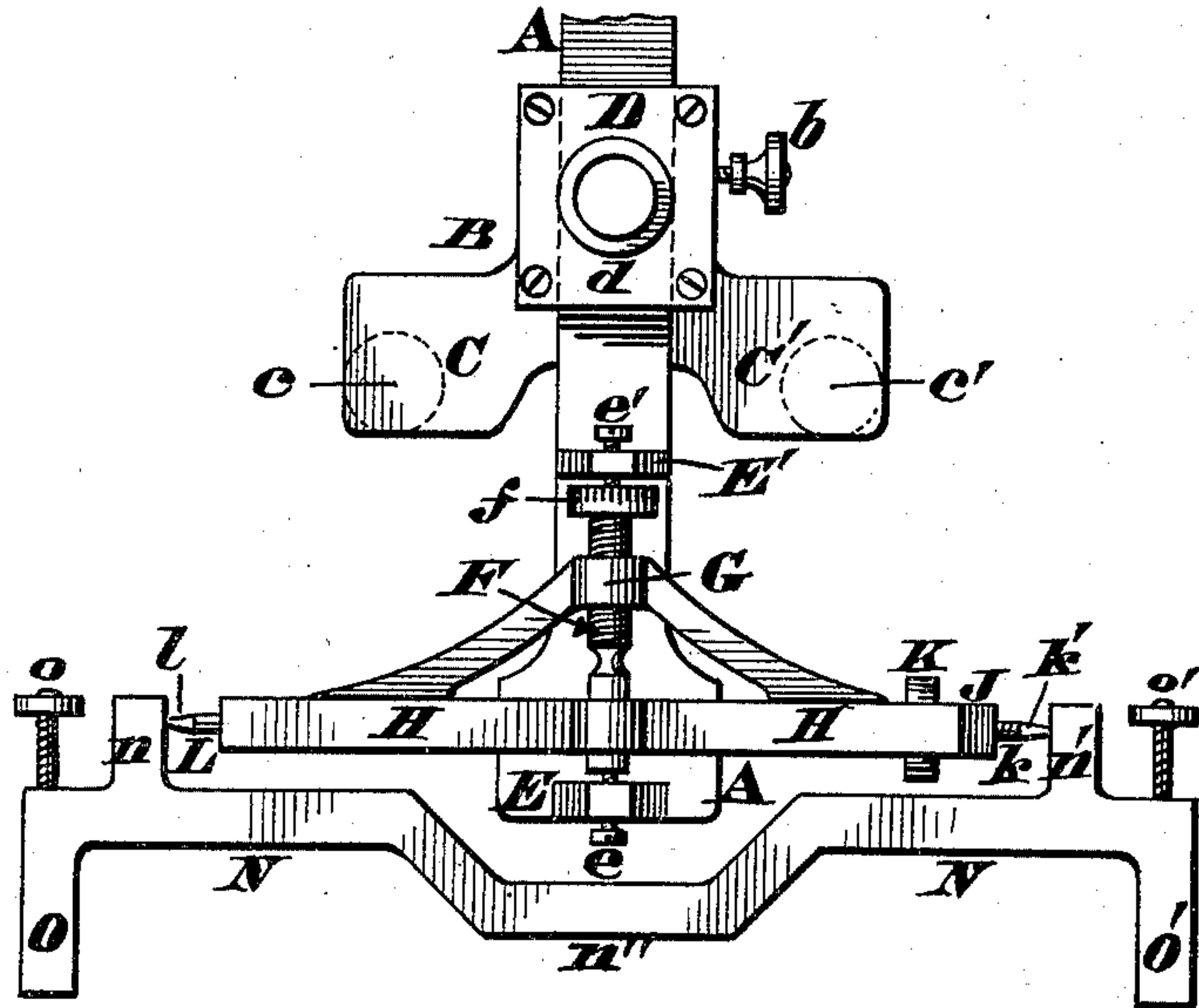


FIG. 2.

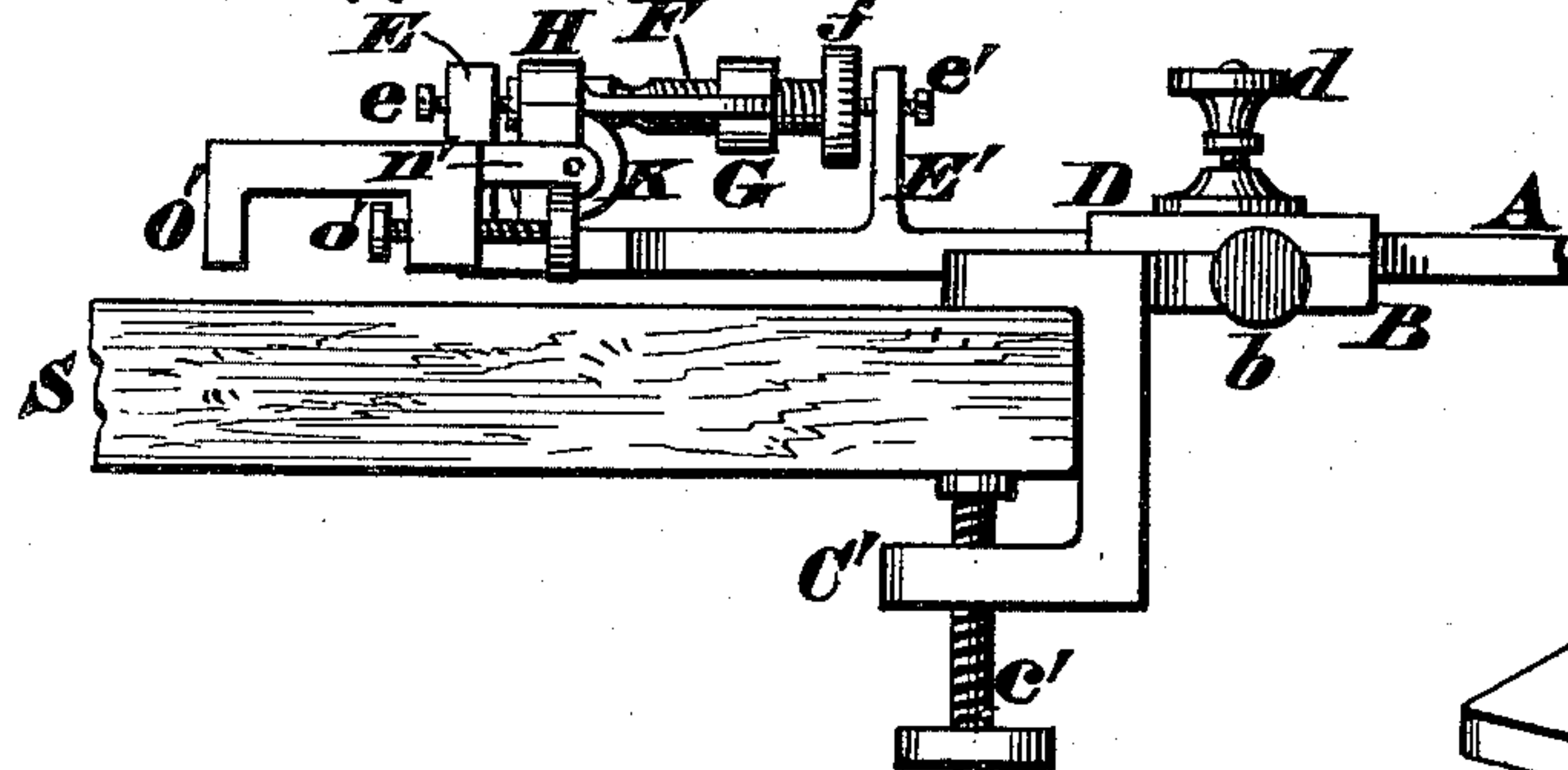


FIG. 3.

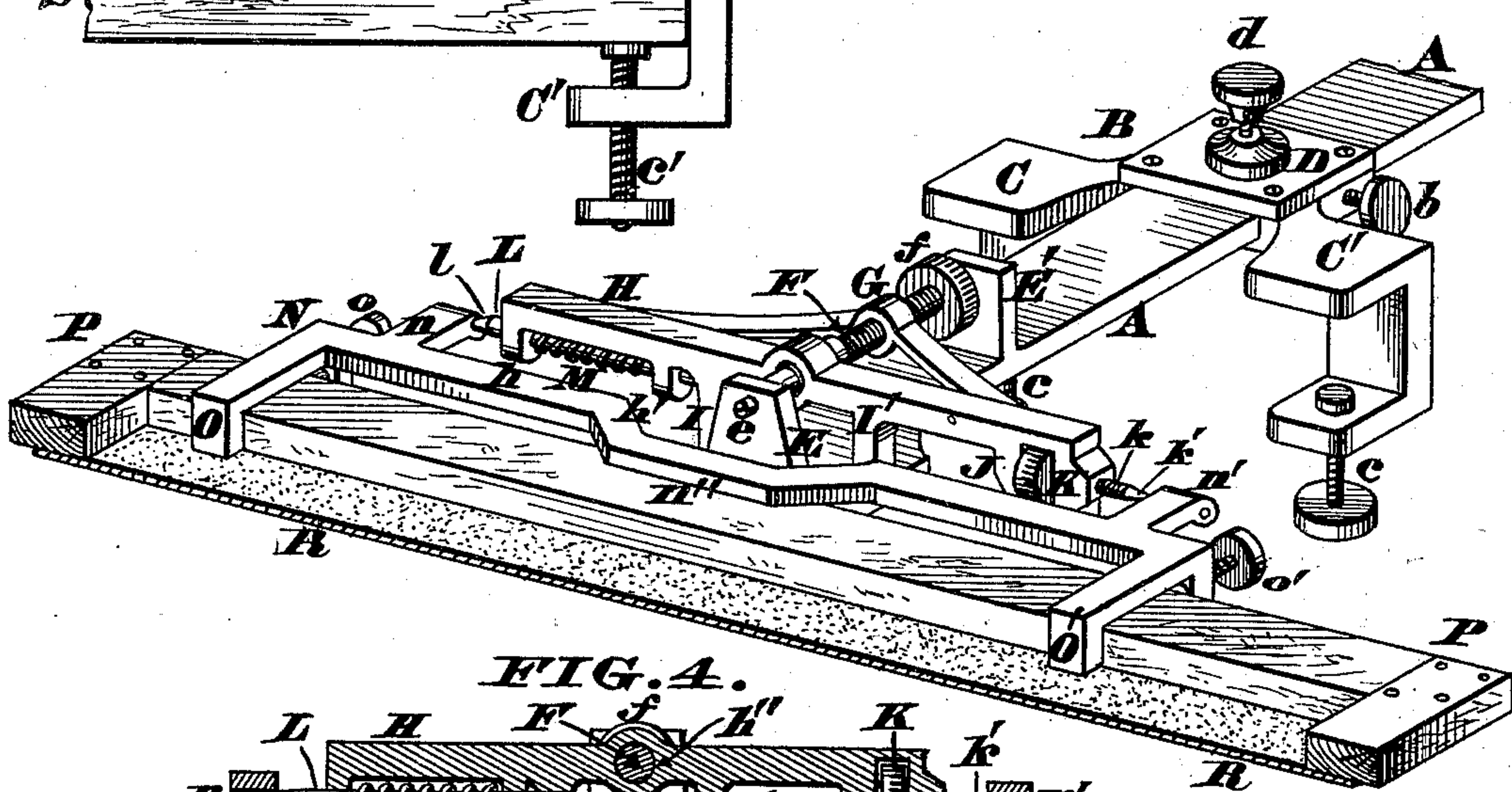
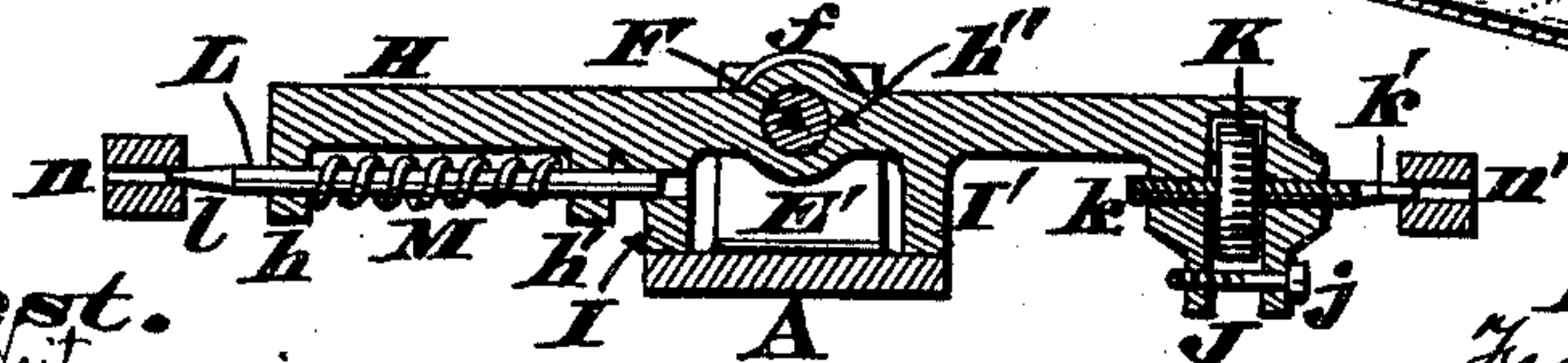


FIG. 4.



Attest.

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HOLDER FOR PRINTING-FILMS.

SPECIFICATION forming part of Letters Patent No. 634,977, dated October 17, 1899.

Application filed April 7, 1899. Serial No. 712,040. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK BANK, a citizen of the German Empire, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Holders for Printing-Film Frames; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form a part of this specification.

My invention comprises a cheap and simple holder for the ready and convenient manipulation of those frames having printing-films secured to them, the principal feature of said device being a single light rigid stock or blade adjustable within a clamp or other fastener capable of being applied to the edge of a table or bench upon which the work is placed. This rigid stock carries a main frame adjustable longitudinally of said stock by a finely-threaded micrometer-screw, and said main frame has pivoted to it a secondary frame provided with means for holding a printing-film frame. Furthermore, this secondary frame can be adjusted transversely of the stock and at a right angle thereto by another finely-threaded micrometer-screw and is capable of being turned up on its pivots to afford convenient access to the under or prepared surface of the film secured to the printing-frame, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a plan of my improved printing-frame holder. Fig. 2 is a side elevation showing said device clamped to a table or other level support for a piece of work. Fig. 3 is a perspective view showing a printing-frame grasped by the holder. Fig. 4 is a longitudinal section of the main adjusting-frame.

A represents a single light rigid blade or stock, usually of metal, and adapted to traverse a clamp B, having a pair of jaws C C', provided with binding-screws c c'. Clamp B has, further, a cap D, wherewith is engaged a binding-screw d. b is another binding-screw projecting from one side of the clamp, which screws b d prevent longitudinal, lateral, and vertical shifting of the stock A after it has once been properly adjusted to the work to be done. That end of the stock the

most remote from the clamp is furnished with a pair of vertical standards E E', having tapped in them horizontal screws e e', that serve as centers for a finely-threaded micrometer-screw F, having a dial-head f, and this screw engages with a nut G of the main adjustable frame, the principal member of which is a single cross-bar H, pierced at its mid-length, as at h'', to permit free passage of an unthreaded portion of said screw. Again, this bar has a pair of downwardly-projecting bearers I I', that rest upon the stock A, and thus retain the frame H and its attachments in their proper horizontal positions. (See Fig. 4.) Projecting from the under side of this frame is a forked lug J, having the dial-head K of a finely-threaded micrometer-screw k fitted between its two parts, the exposed end of said screw terminating with a tapering point k'. Tapped in the lower end of this lug is a screw j, the tightening of which takes any wear and tear of this part of the holder. Frame H has two other lugs h h', traversed by a pin L, having a tapering point l and surrounded by a coiled spring M, so arranged as to shift said frame to the right.

The tapering or conical points k' l constitute pivots of the secondary adjustable frame N and fit in bearings of short arms n n', projecting laterally from said frame. Furthermore, this frame, which is merely a light rigid bar, is bent in its center, as at n'', so as to clear the standard E when said frame is turned up to a vertical position. Frame N has at its opposite ends clamps O O', provided with binding-screws o o' for grasping a printing-frame P, to which is secured the margins of a film R, whose under surface may be stippled, ruled, or cross-hatched or otherwise prepared to produce certain "effects" well known to those who use such printing mediums.

S, Fig. 2, is a table or bench or other level support for a piece of work upon whose upper surface is to be transferred the stippling of the printing-film in the usual way.

Preparatory to using my holder the clamp B is first firmly secured to the edge of table S, and then the screws b d are slackened, so as to enable the stock A to be shifted until the two frames H N are brought to the desired position over the work, after which ad-

justment said screws are tightened to prevent said stock accidentally shifting in any direction. The printing-frame proper, P, is next grasped by the clamps O O' of the holder, and the film R, after being inked, is brought to bear upon the piece of work laid upon the table S, and the stippling, lining, or cross-hatching of said film is at once transferred to said work. The frame N is now swung up to expose the impression just made, and if it is desired to render the print more intense said frame is again lowered after the holder has been so shifted as to increase the diameter of the stipple-dots or thicken the ruled lines at the second impression. This strengthened or deepened impression may be effected by properly shifting either or both of the adjustable frames H N.

If the printer concludes that a very slight shifting of the main frame H will produce the desired effect, the head *f* of micrometer-screw F is grasped and is turned the distance of one or more of the graduations on said dial-head; but if he decides that the secondary frame N must be shifted the other micrometer-screw *k* is properly turned by means of its dial-head K.

From the above description it is evident the main frame of my holder is adjusted longitudinally of its stock, while the secondary frame is adjusted transversely of said stock and at a right angle thereto, which simple manipulations will afford all the different effects required in printing from films of the character described. It is also evident these effects can be produced by the use of one stock and two micrometer-screws, thereby dispensing with other expensive and complicated printing appliances employed by some for accomplishing the same results.

By thus availing myself of the advantages resulting from the use of a pair of microm-

eter-screws the main and secondary frames of my instrument can be adjusted with positive motions, which shifting although imperceptible to the eye have appreciable results on the work, especially in the production of very fine lining, hatching, stippling, &c.

I claim as my invention—

1. In a holder for printing-films, a single stock; a main frame adjustable longitudinally of said stock; a secondary frame pivoted to said main frame, and adjustable laterally of said stock, and, applied to said secondary frame, a device for holding a printing-film frame, substantially as herein described.

2. A holder for printing-films, which device includes a single stock A, provided with standards E E', a micrometer-screw F, *f* applied to said standards; a main adjustable frame H, provided with bearers I, I', lugs *h*, *h'*, J, and a nut G, traversed by said screw F; a pivot L Z, traversing said lugs *h* *h'*, a coiled spring M, surrounding said pivot; a micrometer-screw pivot K *k* *k'*, engaged with said lug J; and a secondary frame N *n* *n'*, carried by said pivots, and furnished with clamps O o, O' o', all as herein described, and for the purpose set forth.

3. In a holder for printing-films, a laterally-shiftable secondary frame; a longitudinally-shiftable main frame, to which said secondary frame is pivoted; a single stock carrying said main frame, and a clamp B traversed by said stock, said clamp being provided with jaws C, C', binding-screws *b*, *c*, *c'*, *d*, and cap D, all arranged as herein described, and for the purpose stated.

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

FREDERICK BANK.

Witnesses:

JAMES H. LAYMAN,
JESSE M. SIMON.