

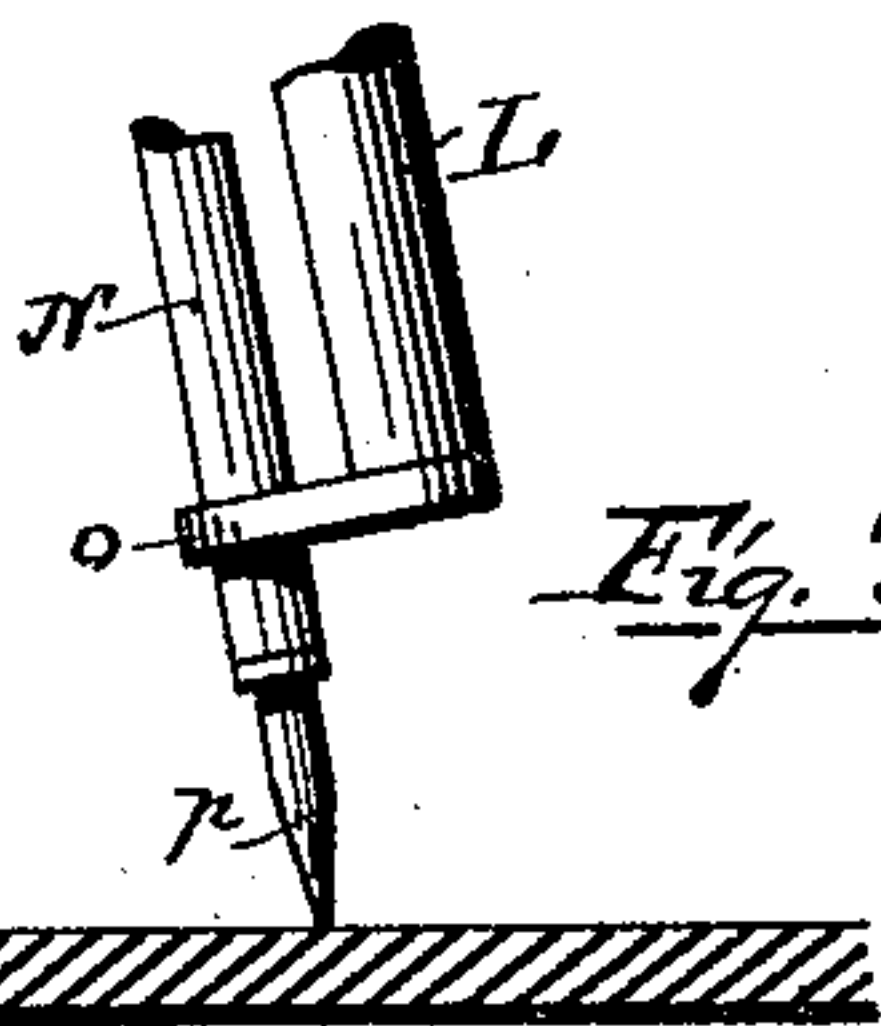
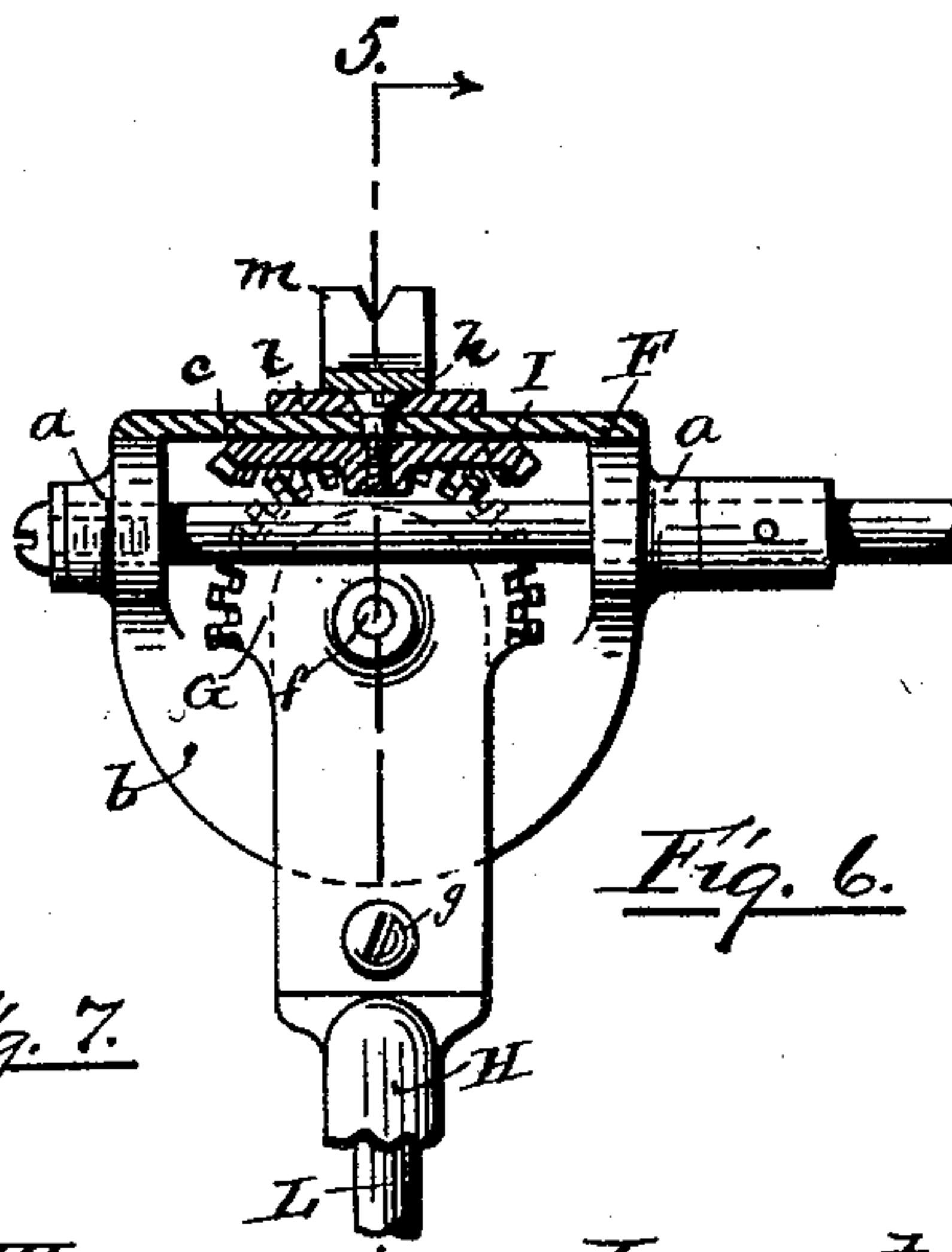
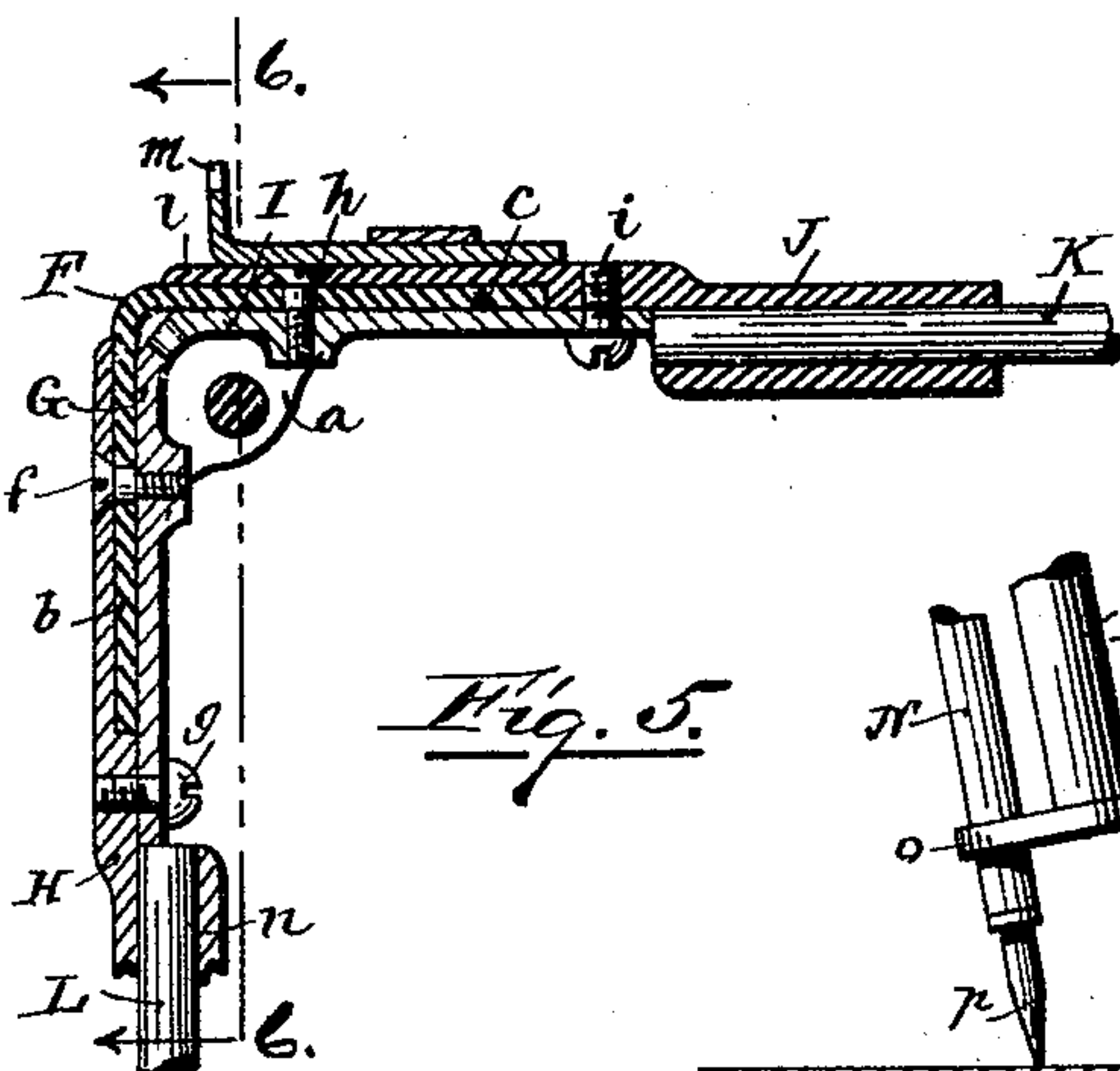
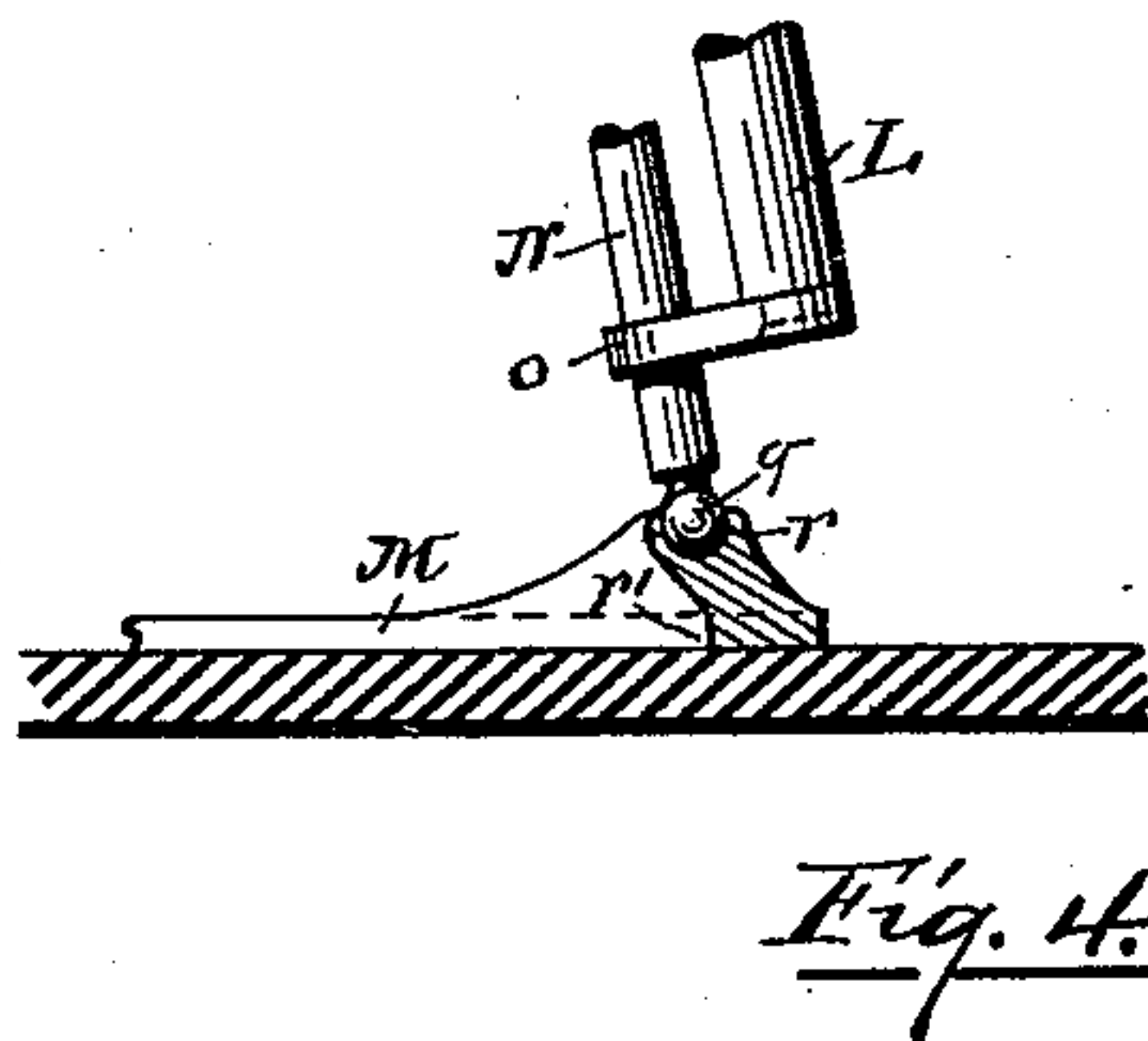
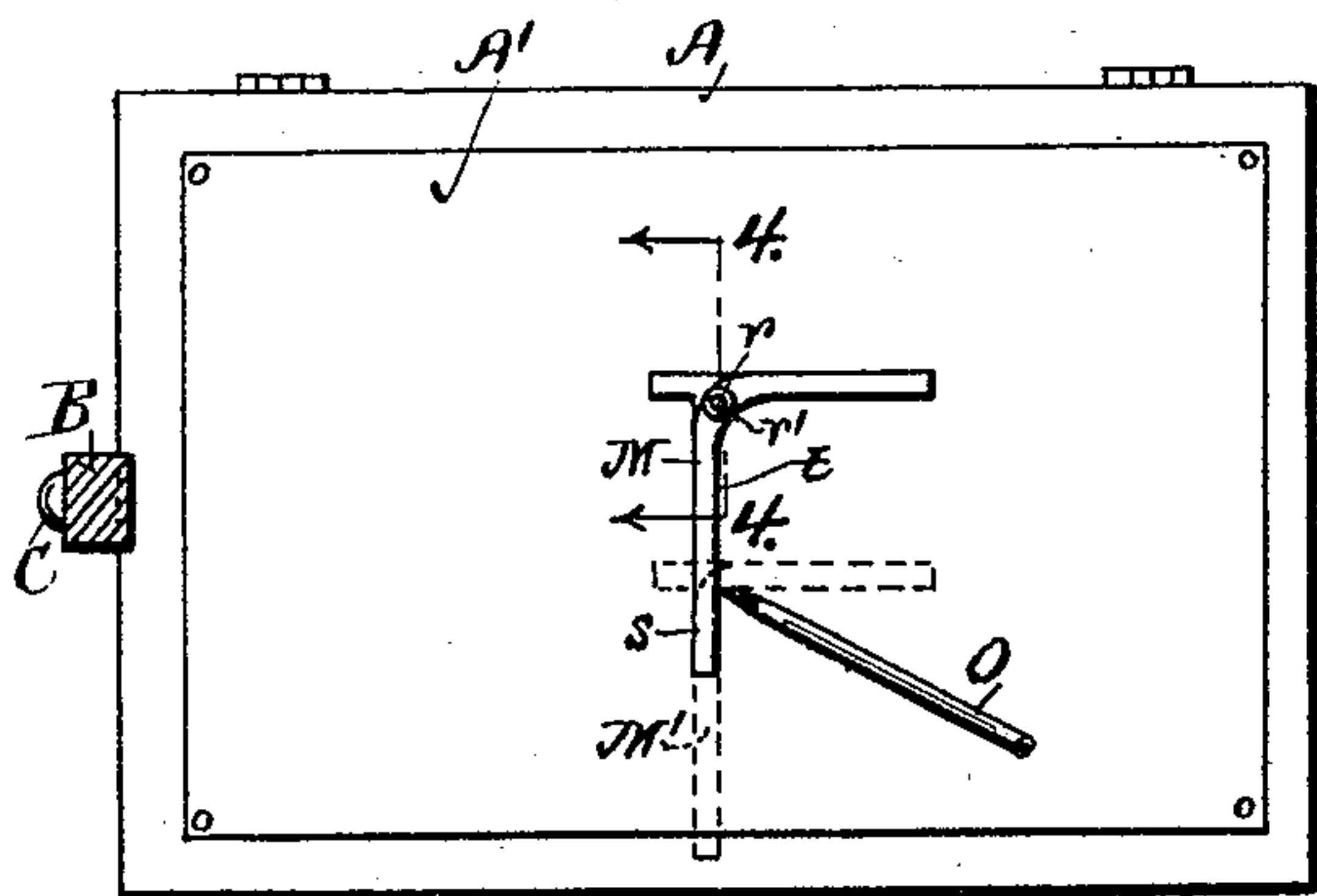
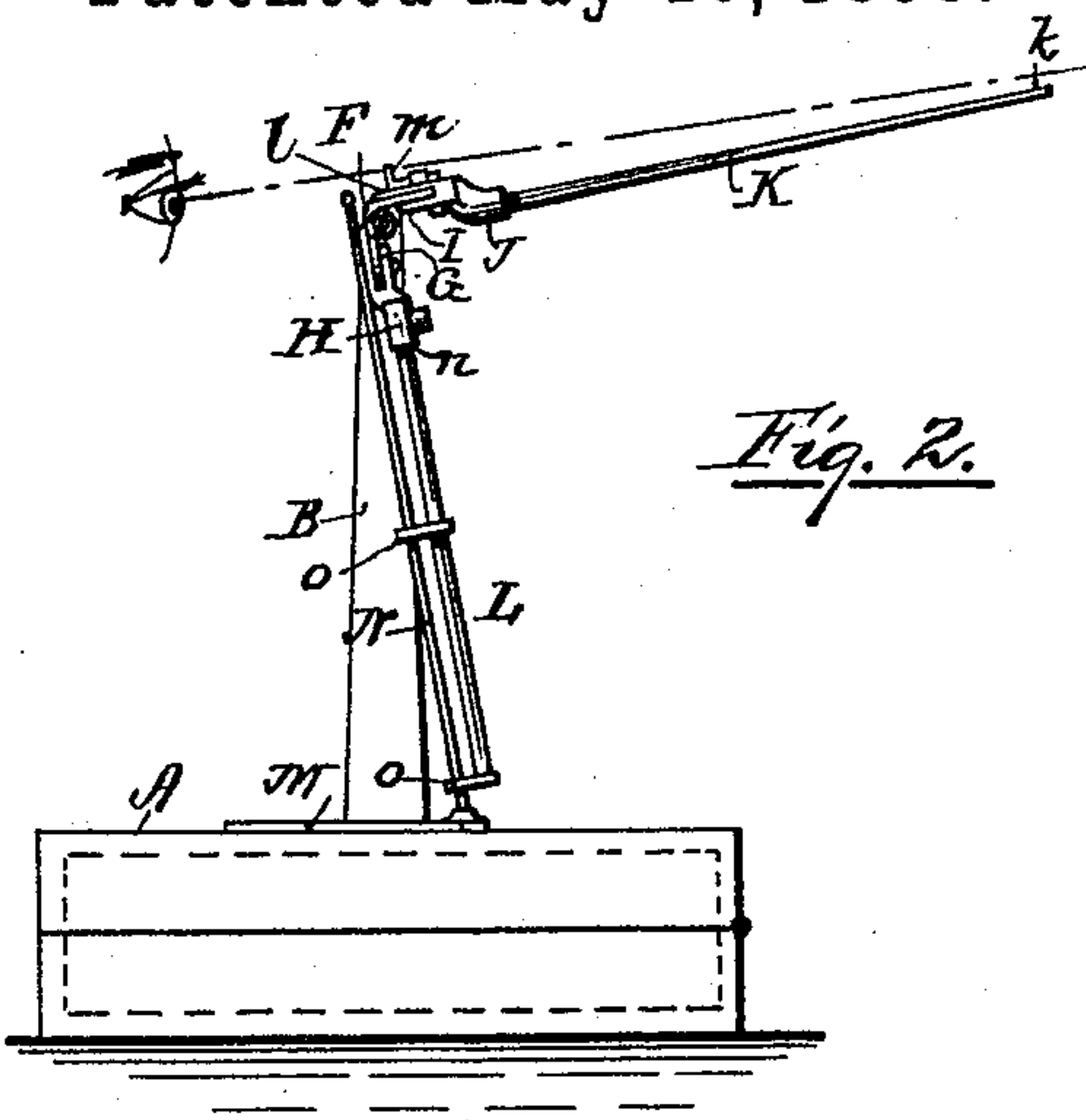
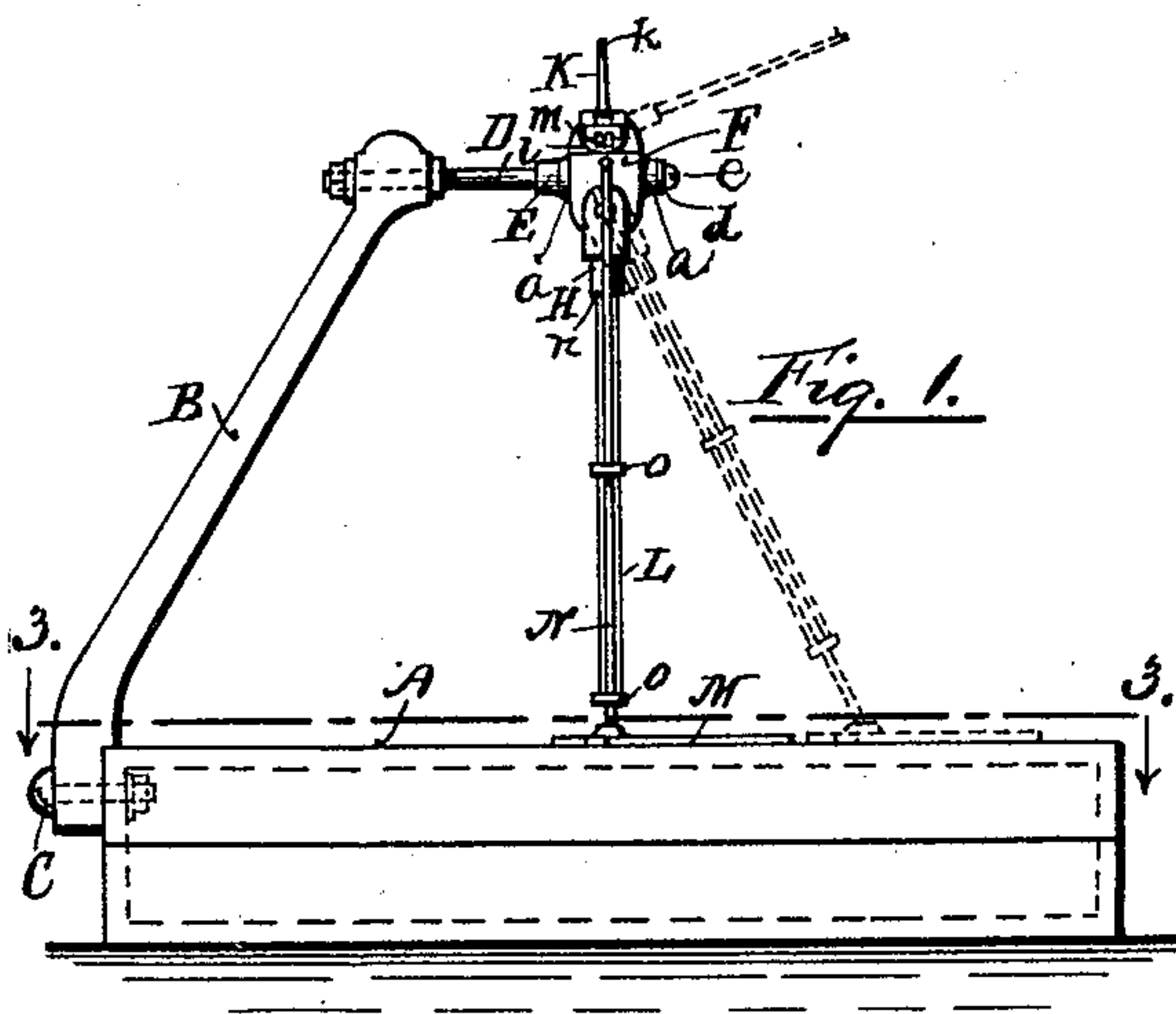
(No Model.)

H. C. GLADDING.

APPARATUS FOR DRAWING IN PERSPECTIVE.

No. 497,317.

Patented May 16, 1893.



Witnesses.

Charles Harrigan
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UNITED STATES PATENT OFFICE.

HENRY C. GLADDING, OF PROVIDENCE, RHODE ISLAND.

APPARATUS FOR DRAWING IN PERSPECTIVE.

SPECIFICATION forming part of Letters Patent No. 497,317, dated May 16, 1893.

Application filed February 10, 1893. Serial No. 461,825. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. GLADDING, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Apparatus for Drawing in Perspective, of which the following is a specification.

The object of my invention is to provide a simple and convenient apparatus adapted for sketching the outline of natural objects in perspective, and it consists in the improved construction and arrangement of parts as hereinafter fully set forth.

In the accompanying drawings:—Figure 1, represents a front elevation of the apparatus. Fig. 2, represents a side view of the same. Fig. 3, represents a horizontal section taken in the line 3, 3, of Fig. 1. Fig. 4, represents an enlarged detail section taken in the line 4, 4, of Fig. 3. Fig. 5, represents an enlarged detail section taken in the line 5, 5, of Fig. 6. Fig. 6, represents an enlarged detail section taken in the line 6, 6, of Fig. 5. Fig. 7, is a detail view showing a modification.

In the drawings, A represents the drawing board upon which the paper A' for the drawing is to be secured.

B is an inclined standard attached to the board A, by means of the bolt C, and to the upper end of the standard B is secured the stud D upon which is placed the fixed collar E, and beyond the collar E upon the stud D is loosely held the knee F comprising the hubs *a, a*, and the arms *b* and *c* at right angles to each other, the knee F being held to turn loosely upon the stud, by means of the screw *d* and washer *e*.

To the inner side of the arm *b* of the knee F, is pivoted the segment gear G, by means of the screw *f*, and to the gear G is secured the socket piece H, by means of the screw *g*. The segment gear G meshes with the corresponding equal segment gear I, pivoted to the under side of the arm *c* of the frame F, by means of the screw *h*, and the gear I is attached to the socket piece J, by means of the screw *i*, and in the socket *j* is placed the light wooden arm K provided at its outer end with the forward sight *k*, and upon the backward extremity *l* of the socket piece J, is secured the rear sight *m*.

Within the socket *n* of the socket piece H,

is secured the downwardly extending arm L provided with the perforated guiding ears *o, o*, loosely holding the sliding rod N, which may be either provided at its lower end with a pencil *p* as shown in Fig. 7, or be provided with a spherical end *q*, which is held in the hemispherical socket *r* of the ruler M, which is adapted to be moved over the surface of the paper A', and serves to guide the point of a hand operated pencil, in ruling lines from one established point in the perspective drawing upon the paper, to another established point. The ruler M is undercut at the inner angle *r'*, so that the angular point *r'* will be in line with the axis of the sliding rod N, as shown in Fig. 4.

The operation of the apparatus will be as follows: The paper A' being first placed in position on the board A, and the ruler M placed thereon, with the spherical end *q* of the sliding rod N, in the socket *r*, of the ruler M, then by directing the sights *k* and *m* on the arm K, toward a point in the object to be drawn in perspective, and placing the point of a pencil at the angle *r* thus locating the said point upon the paper A', as shown by the ruler M', Fig. 3, in dotted lines, and then sighting the arm K toward another point in the object, the arm *s* of the ruler being held against the side of the pencil while the forward sight *k* of the arm K is being moved from the first to the second position, and as the arm K is being moved to the second line of sight, the arm L and sliding rod N will be moved in the same direction as the arm K, and each at an equal angle with its former position, whereby the ruler M will be moved to the position shown by the full lines in Fig. 3, and as the ruler is now held with its ruling edge *t* in contact with the previously placed pencil O, the movement of the said pencil along the edge *t* to the new position of the angle *r'*, will properly mark a right line of the drawing. When it is not desired to use the ruler, as when drawing the outline of the features of a landscape, then the ruler may be dispensed with and the pencil *p* be employed at the end of the sliding rod N as shown in Fig. 7 and by means of the said pencil the relative position of the various points of the perspective drawing may be determined and the connecting lines drawn upon the paper.

The horizontal movement of the sighting arm K, in order to draw a line at right angles to the first mentioned line, is shown by the dotted lines in Fig. 1.

5 I claim as my invention—

1. The combination with the drawing board, the standard, and the pivotally held knee, of the sighting arm, the loosely sliding rod, and the gears for operating the said arm and rod
10 with equal angular movement, and in the same direction, substantially as described.

2. The combination with the drawing board, the supporting standard, and the pivotally held knee, of the sighting arm, the loosely sliding rod, the ruler socketed to the rod, and
15 the gears for operating the said arm and rod with equal angular movement, substantially as described.

HENRY C. GLADDING.

Witnesses:

SOCRATES SCHOLFIELD,
JAMES W. BEAMAN.