

No. 641,748.

Patented Jan. 23, 1900.

T. SMITH.
ADJUSTABLE BRACKET.

(Application filed Feb. 20, 1899.)

(No Model.)

3 Sheets—Sheet 1.

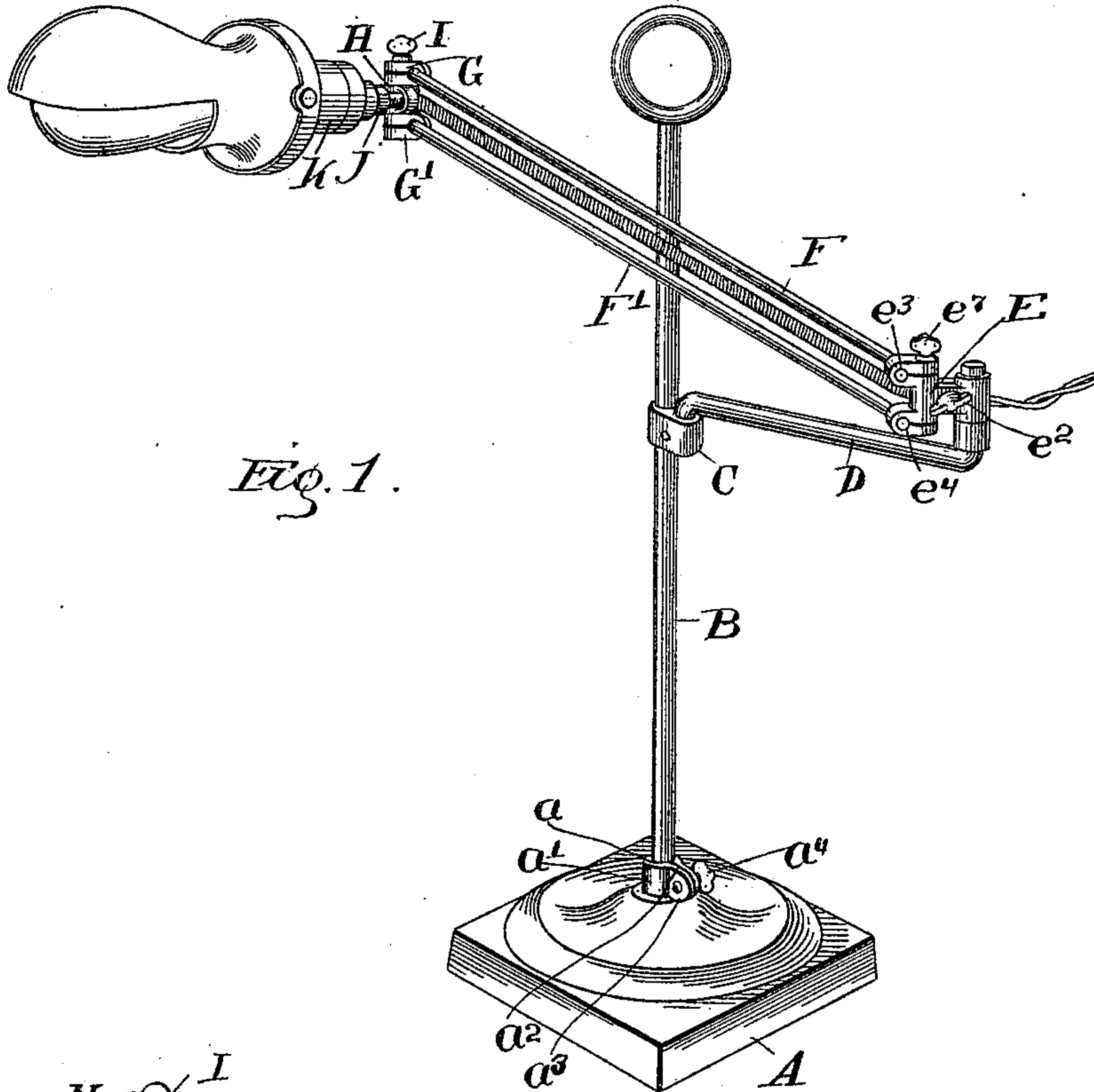


Fig. 1.

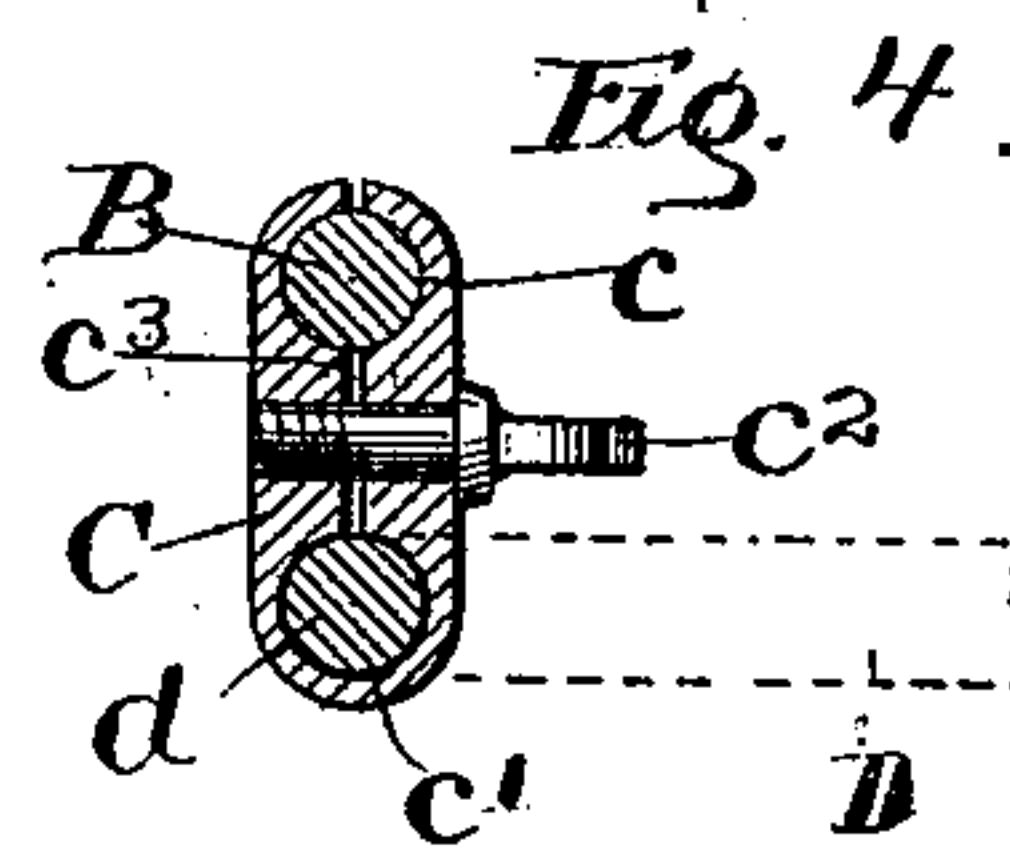


Fig. 4.

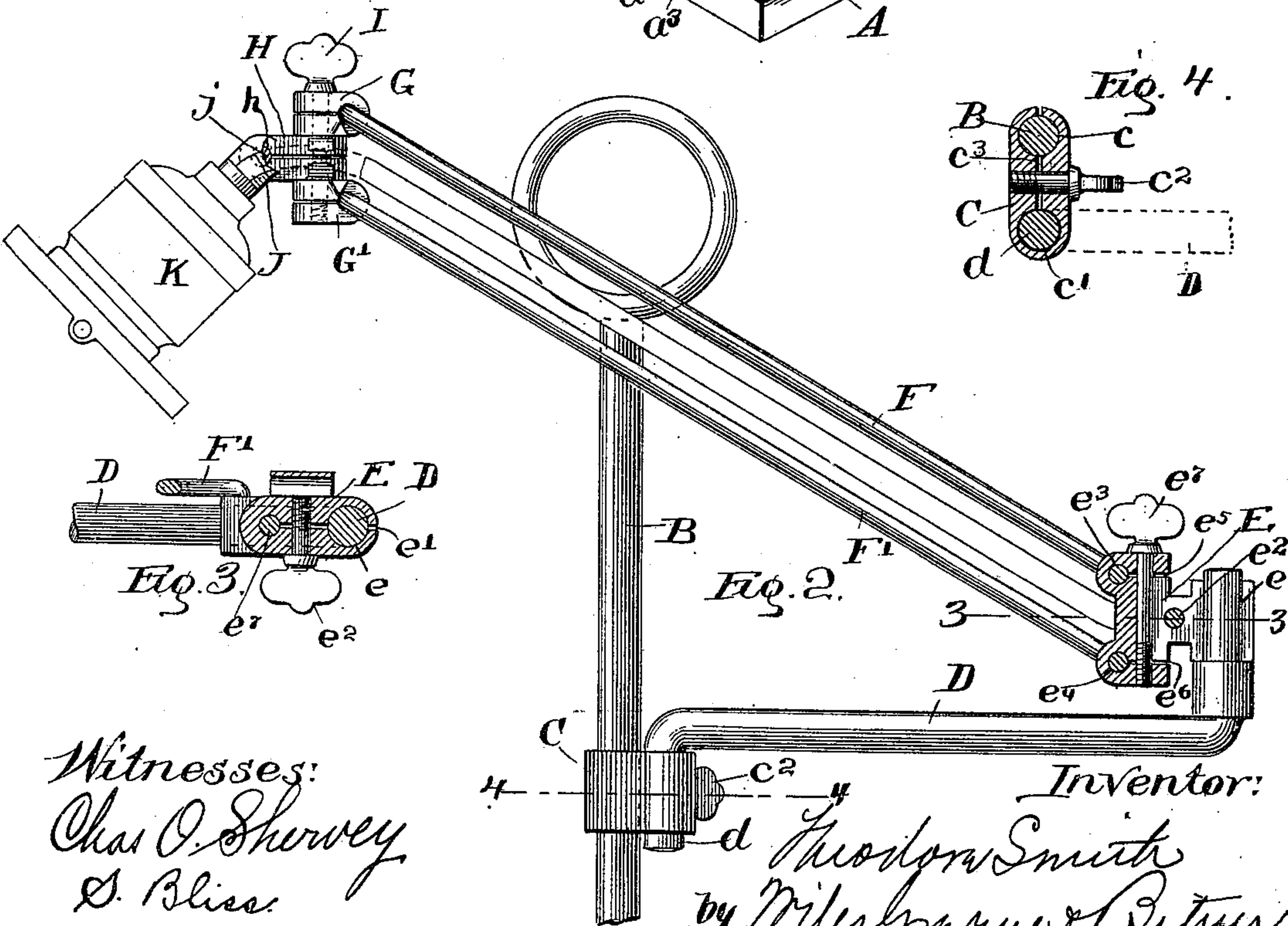


Fig. 3.

Fig. 2.

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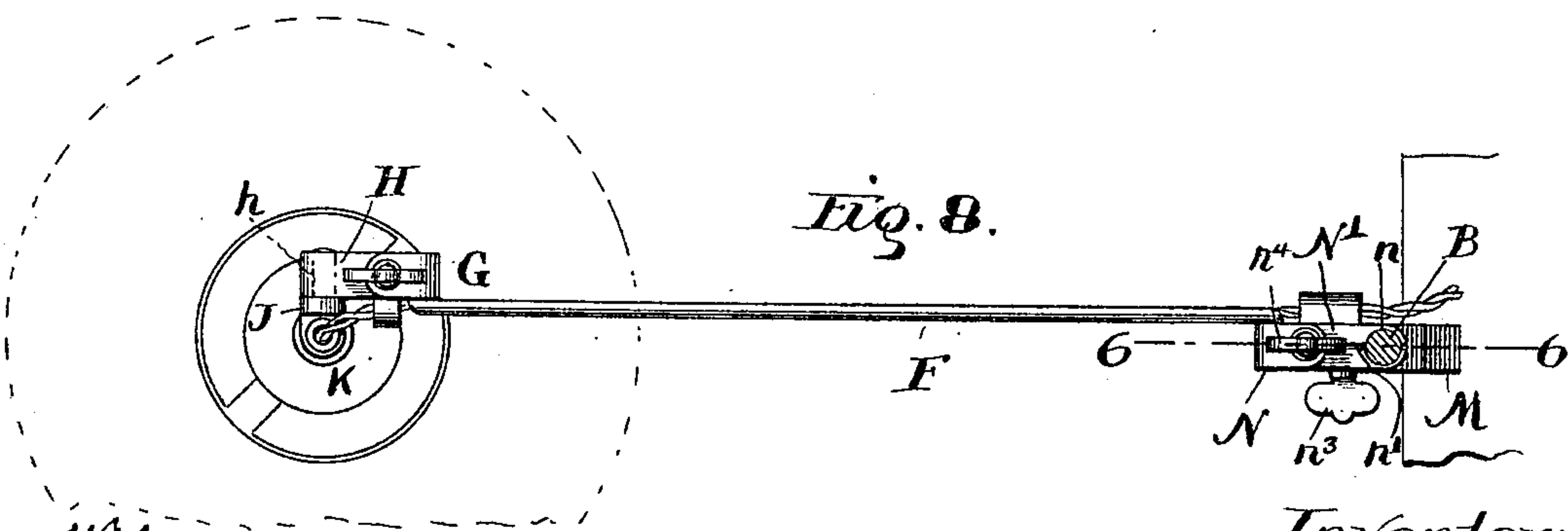
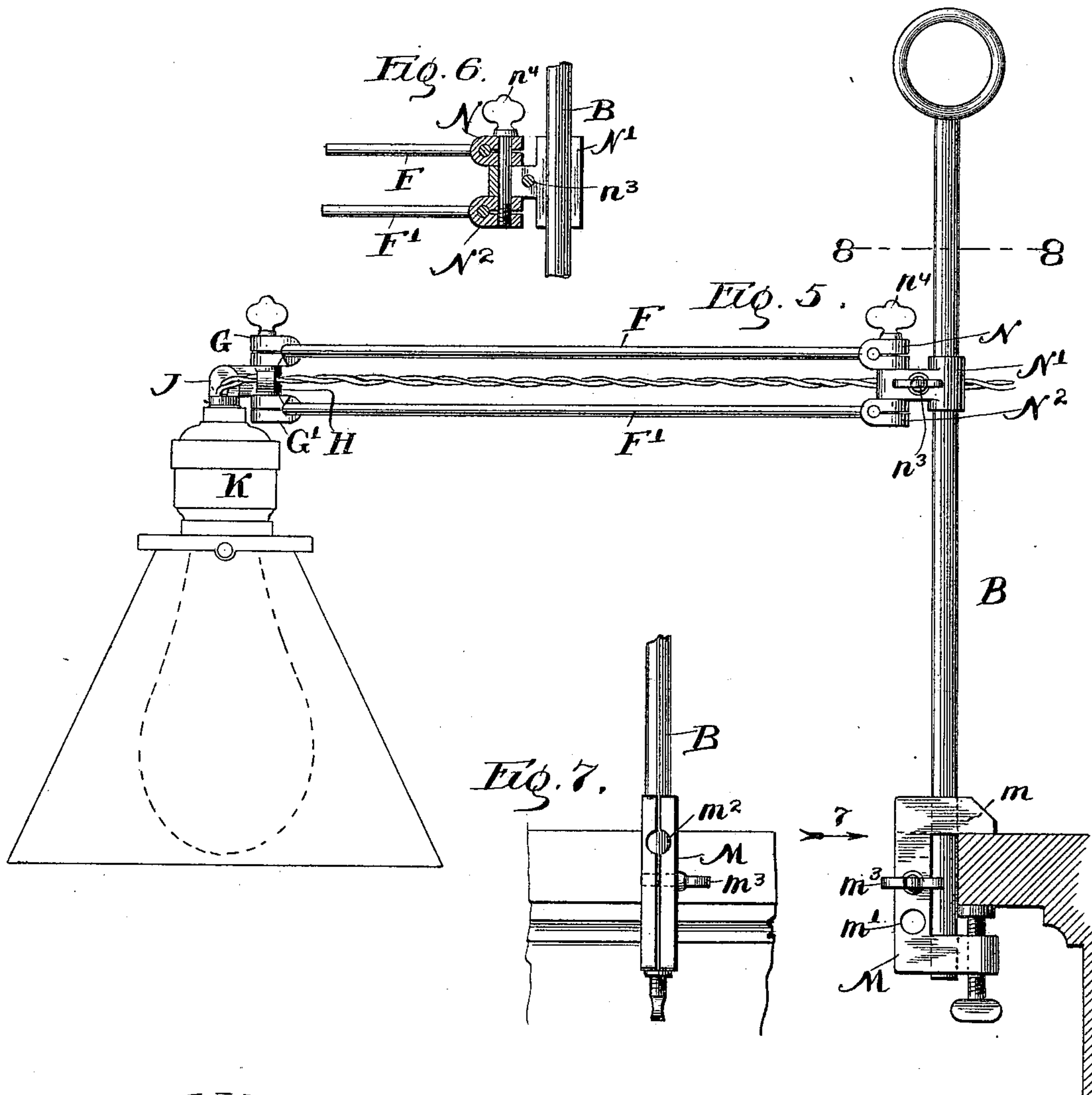
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3 Sheets—Sheet 2.



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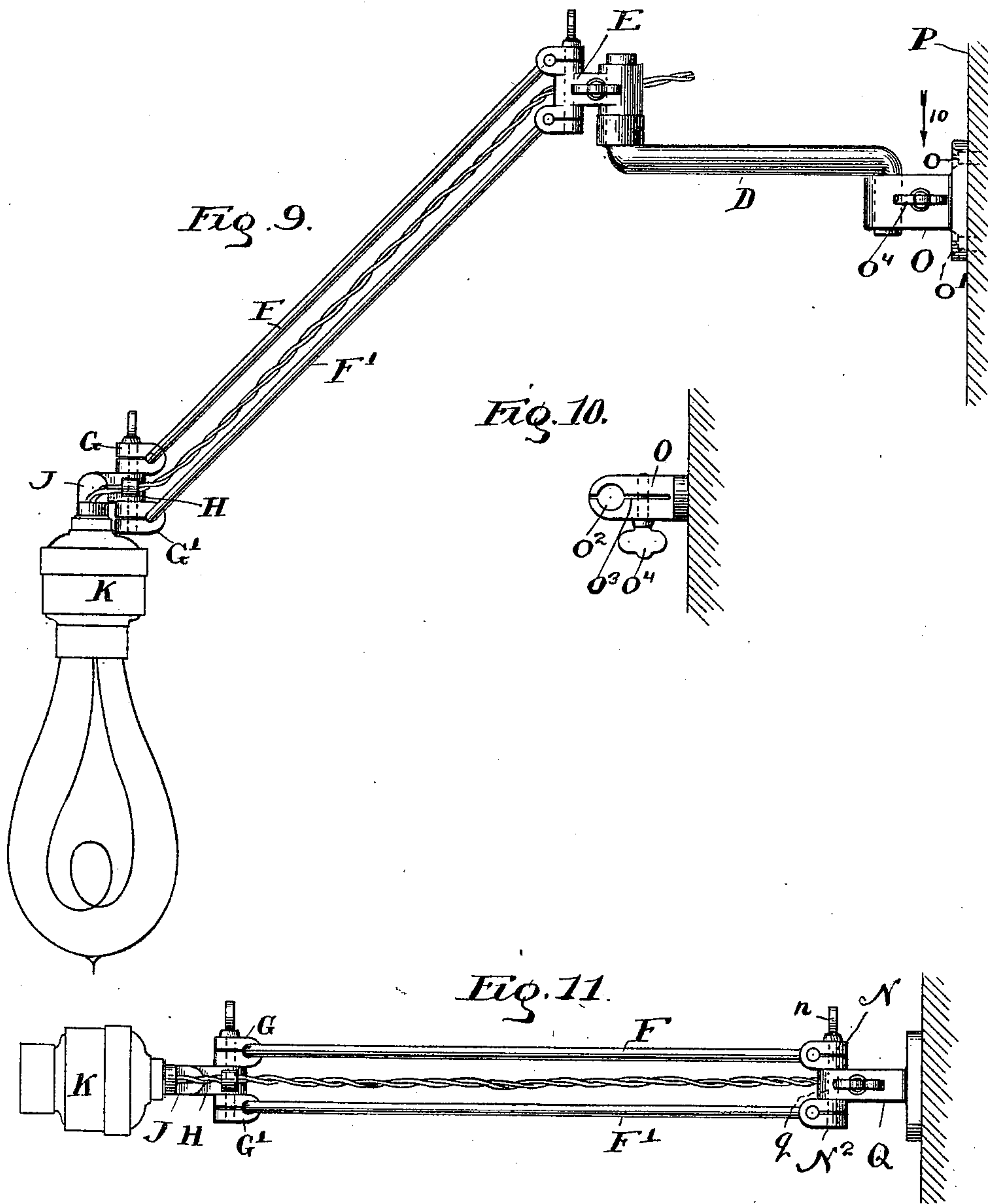
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3 Sheets—Sheet 3.



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UNITED STATES PATENT OFFICE.

THEODORE SMITH, OF GEORGETOWN, ILLINOIS.

ADJUSTABLE BRACKET.

SPECIFICATION forming part of Letters Patent No. 641,748, dated January 23, 1900.

Application filed February 20, 1899. Serial No. 706,139. (No model.)

To all whom it may concern:

Be it known that I, THEODORE SMITH, a citizen of the United States of America, residing at Georgetown, in the county of Vermilion and State of Illinois, have invented certain new and useful Improvements in Adjustable Brackets, of which the following is a specification.

My invention relates to certain improvements in adjustable brackets designed especially for the supporting of electric lamps, the purpose being to provide a bracket having an easy universal adjustment as to position at its free end and a convenient means of attachment to any ordinary support at its fixed end.

To such purpose the invention consists in certain novel characteristics which will appear in their preferred specific embodiment in the drawings and in the accompanying specification and the essential features of which will be pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of the complete apparatus in its preferred form. Fig. 2 is a side elevation of a portion of the same with one of the knuckles in vertical longitudinal section. Fig. 3 is a horizontal section in line 3 3 of Fig. 2. Fig. 4 is a similar section in line 4 4 of Fig. 2. Fig. 5 is a side elevation of the bracket shown in connection with a clamp for attaching it to a shelf, table, or similar device. Fig. 6 is a vertical longitudinal section in line 6 6 of Fig. 8. Fig. 7 is an end view of the clamp shown in Fig. 5 looking in the direction of the arrow 7. Fig. 8 is a plan view of the parts shown in Fig. 5, the post being in cross-section and the line of section being taken at 8 8 in Fig. 5. Fig. 9 is a side elevation of the bracket shown in connection with the wall-bracket and a horizontal swinging arm. Fig. 10 is a plan view of the wall-bracket, and Fig. 11 is a side view of the bracket hung directly upon a wall-bracket similar to the one shown in Fig. 10.

Referring to Figs. 1 to 4, inclusive, A is a preferably weighted base provided with a central opening a , adapted to receive a supporting-post B. Upon the base A, about the opening a , rises a boss a' , split upon one side a^2 and having horizontal projecting ears a^3 upon

that side provided with a clamping-screw a^4 to either clamp the boss about the post B. or to take up any lost motion caused by the wear of the parts.

The post B is preferably of sufficient height to give a considerable vertical range of movement, and a clamp C is provided for attachment to the post, said clamp having substantially parallel perforations c c' , the former being adapted to receive the post and the latter to receive a downwardly-bent end d of a horizontal swinging arm D, and a clamping-screw c^2 being provided to tighten the clamp upon the post. To permit of this, the clamp is split, as seen at c^3 . The outer end of the arm D is turned upward and receives a clamping-block E, provided with a vertical perforation e to receive the end of said arm D, and slit radially of said perforation, as seen at e' , to permit of the tightening of the block upon the arm D. A clamping-screw e^2 is provided for this purpose. Said block E has two preferably horizontal perforations e^3 e^4 and horizontal slits e^5 e^6 extending from said perforations to the outer surface of the block. A clamping-screw e^7 extends through both of these horizontal slits, bearing upon the outside surface of the block at one end and threaded in the portion thereof beyond the slit upon the opposite side, so that the tightening of the screw draws the walls of both horizontal perforations together with equal tension. In these horizontal perforations are held the bent ends of two vertically-swinging rods F F', the opposite ends of which are also bent into horizontal lines and extend into two clamping-blocks G G', spaced apart by an intermediate clamp H, through all of which extends a clamping-screw I. The blocks G G' are slit horizontally in planes passing through the perforations which receive the rods F F', and the intermediate clamp H is also slit horizontally and has a horizontal perforation h , in which is pivoted a laterally-extending pivot j upon a clip J, adapted to receive an ordinary lamp-socket K. The clamping-screw I bears upon the outer side of the upper block G and is threaded in the under side of the block G', so that it tends to draw the slit portions of the three clamps together, giving a friction-bearing upon both

of the rods F F' to hold the lamp at any elevation, a similar bearing upon the intermediate clamp H slightly resisting the horizontal oscillation of said clamp upon the clamping-screw, and therefore holding the lamp in any position reached by swinging it upon this pivot. The drawing of the split portions of the clamp H together binds them about the pivot j, holding the lamp in any position reached by vertical oscillation upon this pivot.

Referring to Figs. 5, 6, 7, and 8, modifications are there shown both of the base and of the clamp at the inner ends of the rods F F'. The modifications in the base are intended to provide means for utilizing any suitable fixed object, as a shelf, counter, desk, or indeed almost anything to which an ordinary clamp can be applied.

M is a clamp of ordinary construction, except that it has a longitudinal and two lateral perforations at right angles to each other. The longitudinal perforation is seen at *m*, a lateral perforation at *m'*, and a transverse lateral perforation at *m*². The clamp is split longitudinally and substantially midway between its opposite sides, and a clamping-screw *m*³ is provided for drawing said opposite sides together. The lower portion of the clamp is not slit and acts as a sort of hinge, so that when the upper portions are brought together the two parts of the perforation *m'* are thrown slightly out of line, which serves the purpose of clamping the supporting-post in these perforations. The bringing of the two sides of the clamp together tightens them upon the post in either of the other perforations. The clamp for securing the inner ends of the rods F F' to the post B is composed of three blocks N N' N², the blocks N N² being similar to the blocks G G', and the block N' being held between the two in a manner similar to the clamp H of Fig. 2 by a screw *n*⁴. The clamp N, however, has a vertical perforation *n*, a slit *n'* passing through the perforation, and a horizontal clamping-screw *n*³ for drawing the opposite sides of the slit together upon the post B.

Figs. 9 and 10 show a wall-bracket O, adapted to be secured to the wall P by means of two screws *o o'*. Said bracket has a vertical perforation *o*², a slit through the same *o*³, and a clamping-screw *o*⁴. The bracket is intended to receive the horizontal oscillating arm D. (Shown in Figs. 1 and 2.)

Fig. 11 shows a wall-bracket Q, provided with similar means of attachment to a wall and also with a vertical perforation *q*, adapted to receive the clamping-screw *n*⁴ of Figs. 5 and 6, thus arranging the swinging arms F F' in a substantially vertical plane.

Considerable variation in form and arrangement of the various parts above described is possible without departing from the essential features thereof. I do not, therefore, limit myself to the exact form, arrangement, construction, or combination above specifically described.

I claim as new and desire to secure by Letters Patent—

1. In a device of the class described, the combination with a suitable support, of a removable post supported therein, means for clamping the post in said support, a vertically-adjustable block provided with means for clamping it to the post, an arm pivoted at one end to said block upon a vertical pivot and swinging in a horizontal plane, a block pivoted to the other end of said arm upon a vertical pivot, and swinging in a horizontal plane, a series of arms pivoted upon horizontal pivots to said second block at one end and swinging upon said pivots in vertical planes, a block pivoted to the opposite ends of said series of arms upon horizontal pivots, means for clamping said series of arms against oscillation upon their pivots, a block pivoted to said third block upon a vertical pivot and means for the attachment of a lamp-socket pivoted to said fourth block upon a horizontal pivot; substantially as described.

2. In a joint, the combination with a block having a plurality of perforations and slits upon one side of each of said perforations, of two or more members having pivotal portions in said perforations and a clamping device bearing upon the outer sides of the outside slit portions and thereby tending to contract all of the perforations upon the pivots; substantially as described.

3. In a joint, the combination with two blocks having substantially parallel perforations and slits extending from one side of the same, of two members having pivotal portions in said perforations, an intermediate block, and a clamping-screw passing through the three blocks and bearing upon the outside of the slit blocks, whereby the screw contracts the slit blocks upon the pivotal portions of the two members, clamps them upon the intermediate block and acts as a pivot for said intermediate block; substantially as described.

4. In a joint, the combination with a block having two series of perforations, the perforations of each series being substantially parallel and the perforations of the two series being substantially at right angles to each other and each perforation being slit upon one side, of clamping-screws for each series and pivoted members having pivotal portions in said perforations; substantially as described.

5. The combination with a clamping-block having a slit and two perforations, one in the plane of the slit and one intersecting said slit, of a post fitted to both of said perforations and means for clamping the opposite sides of the slit toward each other to contract one of said perforations and throw the two portions of the other out of line; substantially as described.

6. The combination with a post adapted thereto of a clamping-block having two perforations at right angles and a slit through

one and transverse to the other, said block being provided with a clamping device for drawing the opposite sides of the slit together, thereby contracting the perforation in the slit and throwing out of line the two portions of the transverse perforation; substantially as described.

7. The combination with a post, of a universal clamping-block therefor provided with means for conveniently fastening it upon a suitable object, said clamping-block having three perforations, two of which are in the same plane and any one of which is at right angles to both of the others, slit through two of the perforations and transverse to the other and a clamping-screw for drawing the opposite sides of the slit together, contracting the perforations in the slit and throwing out of

line the parts of the perforation transverse thereto; substantially as described.

8. In a joint, the combination with a block having a perforation and a slit upon one side thereof, of a member having a pivotal portion pivoted in said perforation, a second block and a clamping-screw drawing the second block and the slit portions of the first block together and acting as a pivot between the two blocks; substantially as described.

In witness whereof I have hereunto set my hand, at Chicago, in the county of Cook and State of Illinois, this 16th day of February, A. D. 1899.

THEODORE SMITH.

Witnesses:

CHAS. O. SHERVEY,
S. BLISS.