(No Model.)

2 Sheets—Sheet 1.

A. W. BROWNE.

ADJUSTABLE BRACKET.

No. 526,020. Patented Sept. 18, 1894.

FIG. 1.

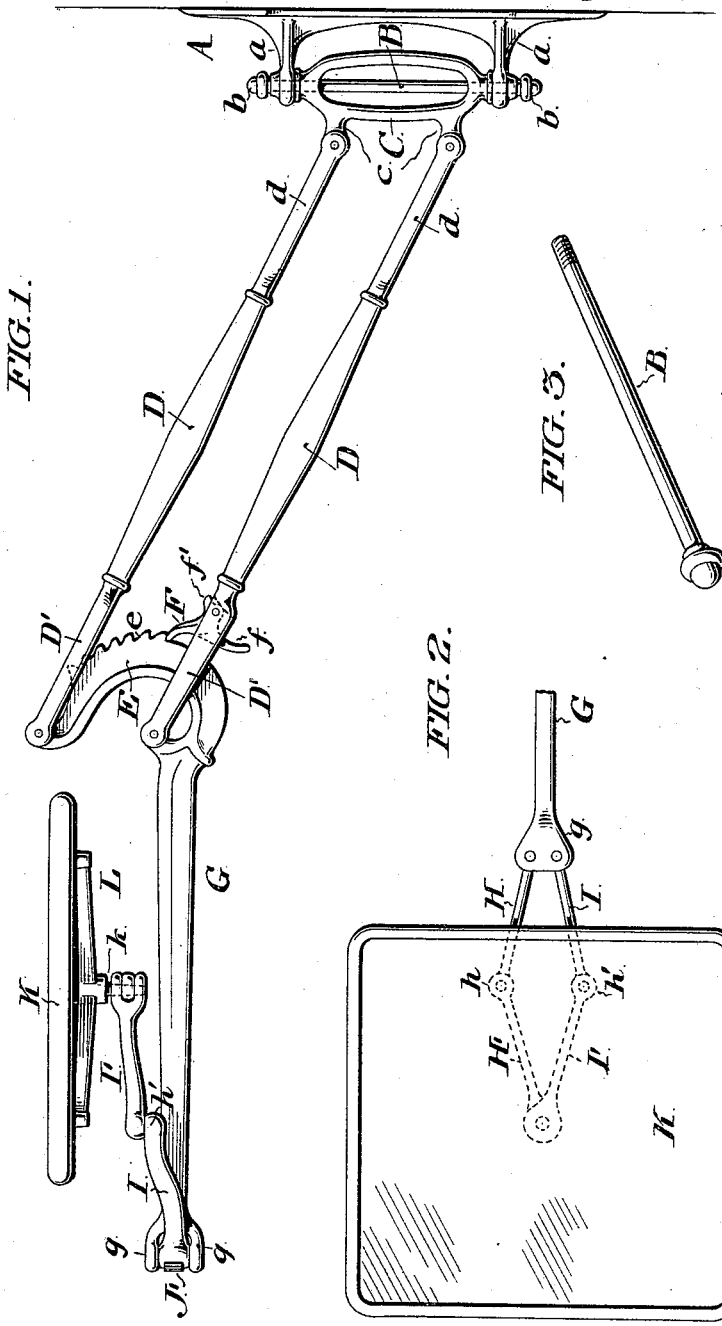

FIG. 3.

FIG. 2.

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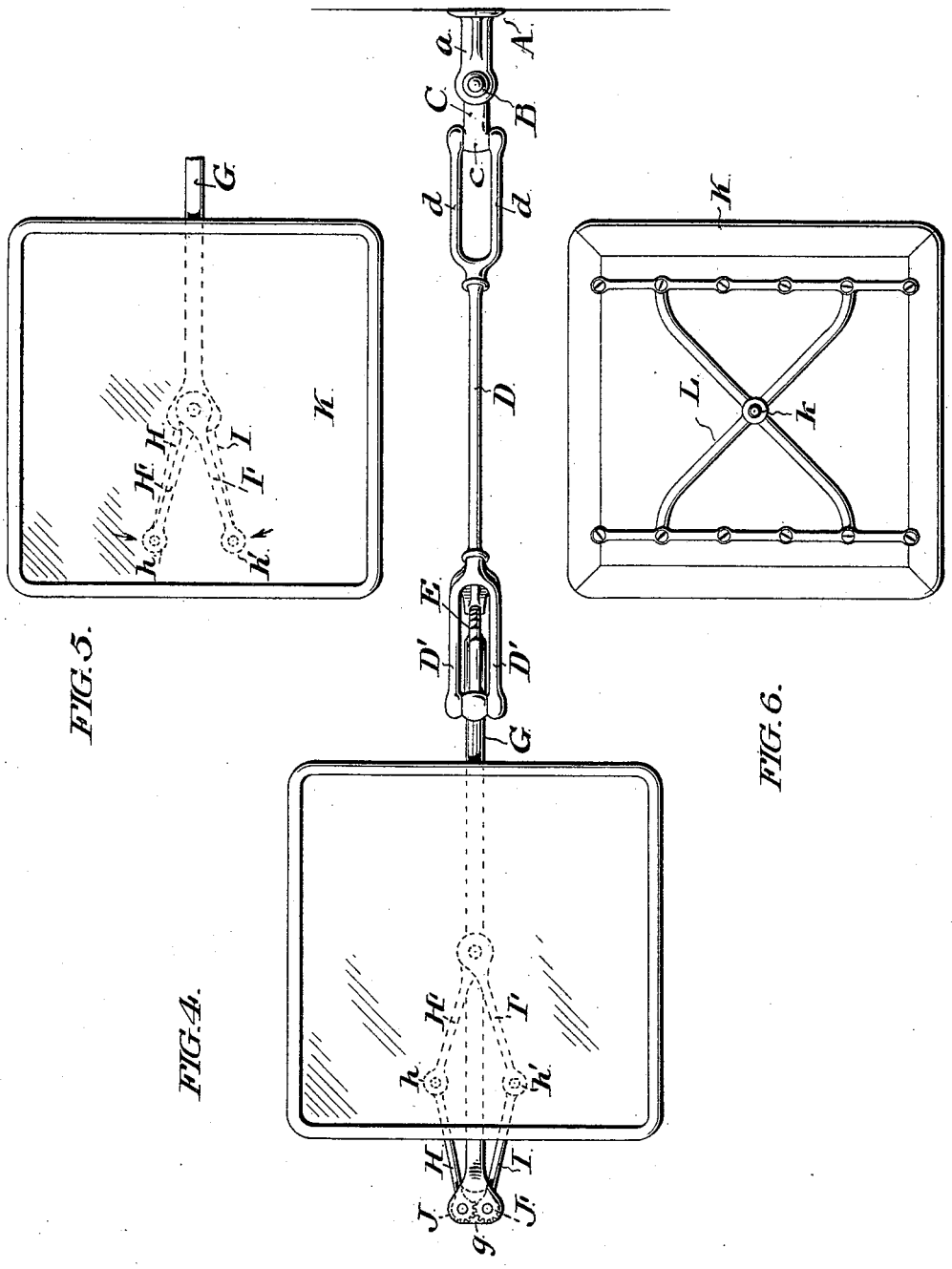

FIG. 5.

FIG. 6.

FIG. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ARTHUR W. BROWNE, OF PRINCE'S BAY, NEW YORK, ASSIGNOR TO THE S. S. WHITE DENTAL MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA.

ADJUSTABLE BRACKET.

SPECIFICATION forming part of Letters Patent No. 526,020, dated September 18, 1894.

Application filed December 26, 1893. Serial No. 494,801. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR W. BROWNE, a citizen of the United States, residing at Prince's Bay, in the county of Richmond and State of New York, have invented certain new and useful Improvements in Adjustable Brackets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain improvements, as hereinafter claimed, in brackets of the class provided with jointed arms adapted to swing horizontally and vertically to enable articles supported by the brackets to be held in desired positions of adjustment.

In the accompanying drawings which show my improvements as embodied in a bracket especially adapted for dentists' use, Figure 1 is a side elevation, with a table or tray for dental implements carried by the bracket shown as in its most elevated and retracted position. Fig. 2 is a plan view of the outer portions of the bracket and the table carried thereby adjusted to its outermost or most advanced position. Fig. 3 is a view in perspective, on an enlarged scale, of the pintle or pivot rod of the joint which connects the bracket arm carrier with lugs of the bracket support or wall plate. Fig. 4 is a plan view with the parts in the position in which they are shown in Fig. 1, and a portion of the bracket broken away to show the gears connecting the toggle levers. Fig. 5 is a plan view of the outer portion of the bracket and the table carried thereby adjusted to a position intermediate the positions in which it is shown in Figs. 1 and 2; and Fig. 6 is a bottom view of the table.

A bracket support or wall plate A having, as usual, screw holes to adapt it to be screwed in proper position to locate the bracket upon a wall, window frame, &c., as desired, is provided with horizontally projecting lugs or short arms *a a*, the one above the other in the same vertical plane. These lugs are provided with bearings for a hinge pintle or pivot rod B which passes through the lugs and through a bracket arm carrier C which is provided with bearing lugs *c c* to which the parallel bars or rods D D of the inner or main portion of the sectional bracket arm are pivoted.

It will be seen that the support A and jointed carrier C are hinged together by the pintle in such manner that the carrier may be readily turned horizontally between the lugs of the support. Ornamental nuts *b b* upon the threaded ends of the pintle provide for securing it in place and permit of its being readily detached when separation of the parts is desired.

The rods D D of the sectional bracket arm terminate at their inner ends in forks *d d* which snugly embrace the bearing lugs *c c* respectively, of the jointed carrier C, and pivot pins passing through the forked ends of the rods and through their bearings in the lugs *c c* serve to unite the parts in such manner as to permit of vertical swinging movement of the rods. By heading up or riveting the ends of the pivot pins a very secure jointed connection is made between the rods and their hinged carrier.

At their outer ends the rods D D terminate in forks D′ D′ and are pivotally jointed to a curved detent carrier E so as to maintain the parallelism of the arms at all times. The detent carrier is pivoted between the forks of the arms and provided with the curved row of teeth *e*. A pawl or stop lever F pivoted between the forks of the lower rod D of the bracket arm serves to engage the detent teeth and hold the parts in the desired position of adjustment. The trip arm *f* of the stop lever serves to rock it to disengage it from the detent. The pawl or stop lever is normally held in operative position (engaged with the detent) by gravity. A shoulder or short lug *f′* of the stop lever in rear of its pivot serves by coming in contact with the bracket rod to limit the movement of the stop lever when rocked to disengage it from the detent teeth, and the upper tooth of the detent is made of a length such that the stop lever cannot pass or be rocked clear of it, and thus the downward movement of the outer end of the inner section of the bracket arm is limited by the contact of this tooth with the stop lever. The detent carrier is formed by the curved inner

end or extension of the second section G of the bracket arm.

The second section G of the bracket arm terminates at its outer end in forks *g g* the one above the other, and between these forks are pivoted the inner members H I of two pairs of toggle levers H H′ and I I′. The lever members H H′ are jointed together at *h* and the members I I′ at *h′* with the outer members H′ I′ of the levers located above the inner members thereof to permit of the desired range of adjustment as indicated by the drawings. Gears J J′ of the toggle levers engage them at their ends pivoted to the bracket arm section G, while at their opposite ends the two sets of toggle levers are jointed together by a pivot *k* constituted by a pin attached to the dentist's table or tray K which is thus detachably supported by the bracket. A lamp stand, mirror holder, &c., might be substituted for this table, if desired. The pivot pin *k* is shown as formed with a skeleton metallic frame L to which the wooden top of the table is attached by a number of screws. Warping or splitting of the table may thus be effectually guarded against. The pivot pin *k* is slightly tapered so as to facilitate its connection with its bearing holes in the ends of the toggle levers.

Obviously throughout the horizontal and vertical swinging movements which may be imparted to the bracket the section G of the bracket arm, the toggle levers, and the table are always maintained in a level or horizontal position. The gears connecting the two toggle levers insure their proper operation when actuated by movement of the table to vary its adjustment. By moving the toggle levers in position such that the members H′ and I′ are brought over and parallel respectively with the members H and I, (see Fig. 5) the table becomes locked against further adjustment except by direct manipulation of the toggle levers.

By forking the parallel rods at their inner and outer ends and jointing them to the bracket arm carrier as shown, provision is made for connecting the second section of the bracket arm with the parallel rods in such manner that the longitudinal axis of the second section of the arm is located in a vertical plane passing through the longitudinal axes of both the bracket arm carrier and the parallel rods, thus best adapting the sectional bracket arm to resist torsional strains; while also providing for locating the detent carrier and stop lever F between forks of the parallel rods, and so attaining a symmetrical and strong construction.

I claim as my invention—

1. The combination of the wall plate provided with the bearing lugs, the bracket arm carrier provided with the bearing lugs and pivoted to the wall plate lugs to swing horizontally, the parallel rods forked at their opposite ends and embracing and pivoted at their inner ends to the carrier lugs to swing vertically, the bracket arm section terminating at its inner end in the curved detent carrier pivoted between the forked outer ends of the parallel rods, and the stop lever pivoted between the forks at the outer end of one of the parallel rods, substantially as and for the purpose set forth.

2. The combination of the sectional bracket arm consisting of the parallel rods or main section and the outer or second section adjustably connected therewith, the bracket support or wall plate with which the sectional bracket arm has jointed supporting connection at its inner end to swing vertically and horizontally, the two pairs of toggle levers provided at their inner ends with meshing gears and pivoted to the outer end of the second section of the bracket arm, with the outer members of the toggle levers above the inner members thereof the pivot connecting the toggle levers at their ends opposite their geared ends, and a table, &c., supported by said pivot, substantially as set forth.

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

ARTHUR W. BROWNE.

Witnesses:

GEO. D. HECK,

GRANT CARPENTER.