

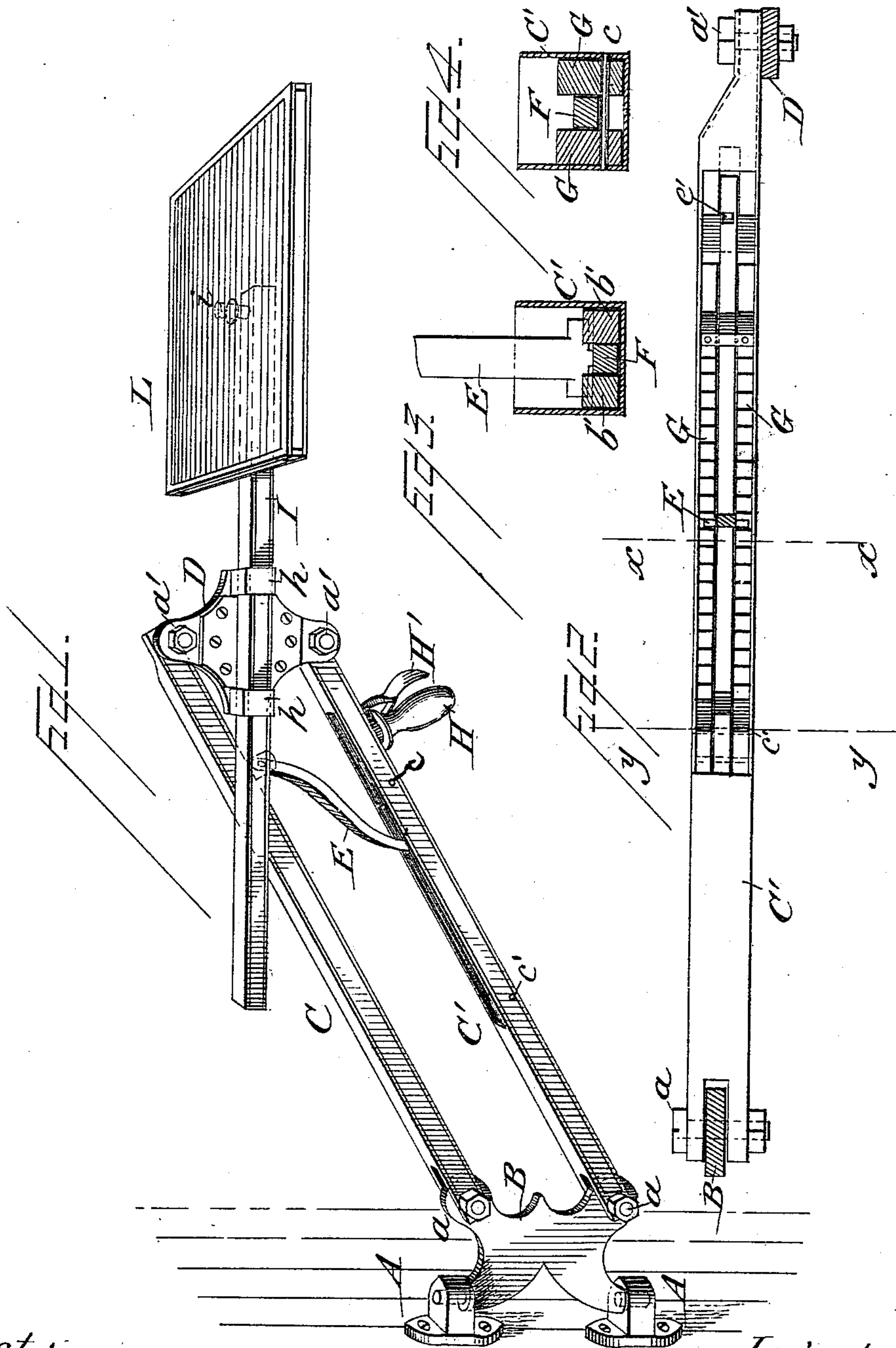
(No Model.)

2 Sheets—Sheet 1.

J. HOOD & S. H. REYNOLDS.
DENTAL BRACKET.

No. 420,069.

Patented Jan. 28, 1890.



Attest:

H. H. Schott

A. Burroughs

Inventor.

John Hood

Stephen H. Reynolds

By W. H. Chandler
Att'y

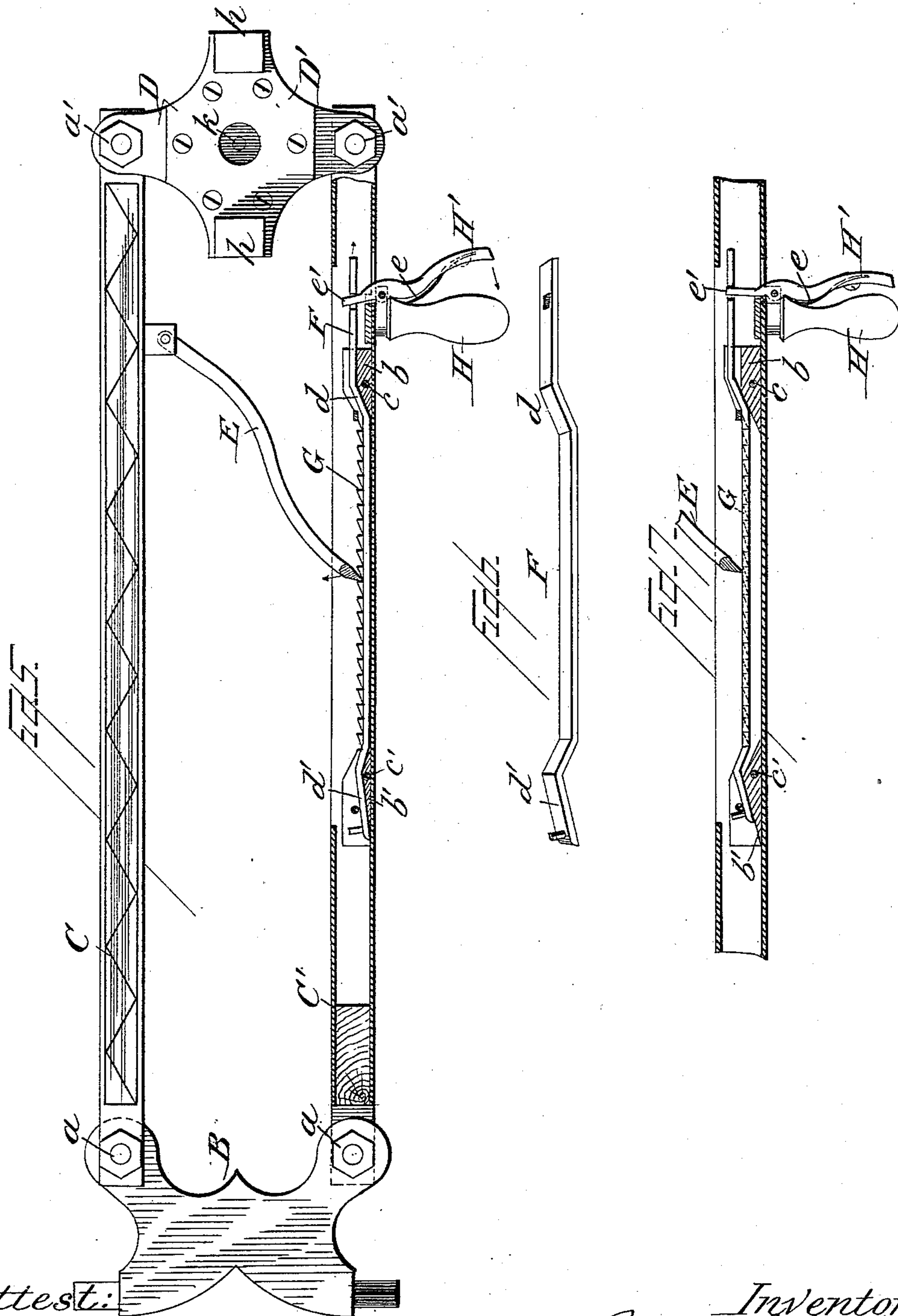
(No Model.)

2 Sheets—Sheet 2.

J. HOOD & S. H. REYNOLDS.
DENTAL BRACKET.

No. 420,069.

Patented Jan. 28, 1890.



Attest:
H. H. Schott
J. Burroughs

Inventor
John Hood
Stephen H. Reynolds
By W. T. Chandler
Attorney

UNITED STATES PATENT OFFICE.

JOHN HOOD AND STEPHEN H. REYNOLDS, OF BOSTON, MASSACHUSETTS.

DENTAL BRACKET.

SPECIFICATION forming part of Letters Patent No. 420,069, dated January 28, 1890.

Application filed May 10, 1889. Serial No. 310,291. (No model.)

To all whom it may concern:

Be it known that we, JOHN HOOD and STEPHEN H. REYNOLDS, citizens of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Dental Brackets; and we do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in that class of brackets especially intended for the use of dentists as a receptacle for the instruments and other articles they may be using in their various operations, the object being to produce a simple, strongly-constructed, and ornamental bracket, which may be turned to the right or left and adjusted vertically to any desired altitude.

In constructing this bracket a turning base is provided with pintles at each end, said pintles turning in supports, which may be secured in any suitable place that will bring the bracket into the position desired by the operator. To this turning base is pivoted two arms formed of tubular metal and having a rectangular cross-section. These arms extend parallel with each other from the turning base and are connected at the ends opposite said base by a plate to which the arms are pivoted. This plate carries two loops, through which passes an extension-bar. On one end of this bar is carried the bracket-shelf, mounted upon a pivot projecting upward from the bar, so that the shelf may be turned in any direction. To permit the shelf to be adjusted vertically a portion of the upper side of the lower tubular arm is removed and a double ratchet placed within the same. A pawl attached to the lower side of the upper arm engages with the teeth of this ratchet and supports the arms and shelf in any desired position. To release the pawl from the teeth of the ratchet a cam-bar is placed in the space between the two parts of the ratchet. A longitudinal movement of this cam-bar in one direction raises the pawl until it is clear of the ratchet-teeth, when the arms, together

with the shelf, may be adjusted vertically as desired, the parallel arrangement of the arms and the construction of their connections preserving the horizontality of the shelf under all circumstances. A spring returns the cam-bar to its normal position beneath the teeth of the ratchets and the pawl again engages with said teeth.

To fully understand the construction, it will now be described in detail in connection with the accompanying drawings, which illustrate this invention.

Figure 1 is a perspective view of the bracket as arranged for use. Fig. 2 is a top or plan view of the lower arm, showing the position of the ratchet therein. Fig. 3 is a transverse section of the same on line $x x$, showing the relative positions of the ratchets, cam-bar, and pawl when engaged. Fig. 4 is a transverse section of the same on the line $y y$. Fig. 5 is a side elevation of the arms of the bracket and their connections, one side of the lower arm broken away. Fig. 6 is a perspective view of the cam-bar. Fig. 7 shows a longitudinal section of the lower arm, the cam-bar being in the position it occupies when the pawl is raised out of the teeth of the ratchet.

In the figures, A A represent two supports secured to the wall of a room or other suitable place. These supports carry the turning base B, which is provided with pintles that enter holes formed for their reception in the supports A. As will be seen, this base B turns freely from side to side, and to it are pivoted by the bolts $a a$ the two arms C and C'. These arms are composed of metal tubing rectangular in cross-section and slotted at the ends, which are attached to the turning base so that they may embrace the same, thus forming in connection with the bolts $a a$ a strong joint flexing vertically, but when said arms are turned to either side carrying the base with them. To the opposite ends of the arms from their point of connection with the turning base is pivoted by means of the bolts $a' a'$ the connecting-plate D. As the distance between the arms C and C' at their points of attachment is the same at both ends, it is evident that they will be parallel to each other at all times, no matter what their inclination to a vertical line may be.

In order to sustain the arms in the desired

position, a pawl E is hinged to the under side of the arm C, its free end resting in a groove in the lower arm C' and engaging therein with the teeth of the double ratchet G, secured in the bottom of said groove, the two parts being connected at each end by the inclines *b* and *b'* and secured to the arm by the pins *c c*, passing through the inclines and ratchets and also through the side of the arm.

To raise the pawl out of the teeth of the ratchet when it is desired to elevate or lower the shelf carried by the bracket, a cam-bar F is placed between the two parts of the ratchet. This cam-bar is provided with inclines *d* and *d'*, which ride upon the inclines *b* and *b'* of the ratchet. It will be apparent that when the cam-bar is moved to the right the inclined portions *d* and *d'* will ride upon the inclines *b* and *b'*, carrying the body of the cam-bar with them, and consequently forcing the free end of the pawl out of its engagement with the ratchet, when the arms may be given any desired vertical position. The cam-bar being returned to its place by a spring, (indicated in Fig. 8,) the pawl drops into the notches of the ratchet and the arms are retained in position. The devices employed for operating the cam-bar consist of a handle H, firmly attached to the under side of the arm C', a lever H', pivoted to said handle, with its upper end passing through an opening or mortise *e'*. In one end of the cam-bar the spring *e* is secured to the lever, its free end bearing against the handle, so as to keep the cam-bar normally below the bottom of the ratchet-teeth, thus preventing any interference of the same as related to the pawl.

Secured to one face of the plate D by screws is a plate D', which carries two rectangular

loops *h h*, through which loops passes the shelf-bar I. This bar may be adjusted in said loop to any point in its length, and is held in the desired position by a set-screw *k*, (indicated in Fig. 5,) passing through the plate D, with its point bearing against the side of the bar I. A shelf L is carried upon the bar I, being retained in position by a pivot *i*, projecting upward from the bar. This shelf carries the instruments, and, as shown, may be turned into any desired position, and raised or lowered to suit the wants of the operator.

Having thus described our invention, we claim as new and desire to secure by Letters Patent the following:

As an improvement in adjustable brackets, the turning support, the hollow rectangular parallel arms and the connecting-plate at the opposite end of the arms, in combination with the double ratchet placed in the lower of said arms, the pawl pivoted to the upper of said arms engaging said ratchet, the cam-bar moving between the parts of the ratchet, the inclines for elevating said cam-bar, the handle H, the lever pivoted to said handle engaging with the cam-bar, and the spring secured to said lever adapted to return the parts to their normal position after the disengagement of the pawl by the cam-bar, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN HOOD.
STEPHEN H. REYNOLDS.

Witnesses:

EUGENE H. MOORE,
GEO. B. FREELAND.