

No. 848,624.

E. L. BELL.
ADJUSTABLE MIRROR.
APPLICATION FILED JULY 30, 1906.

PATENTED APR. 2, 1907.

3 SHEETS—SHEET 1.

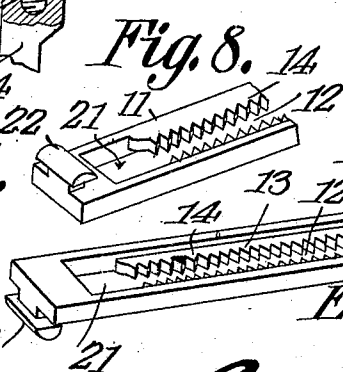
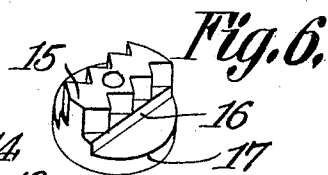
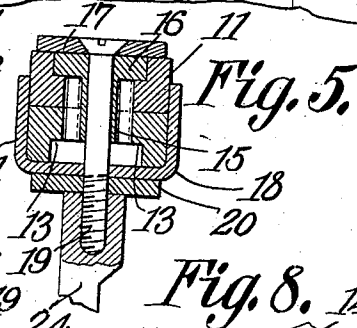
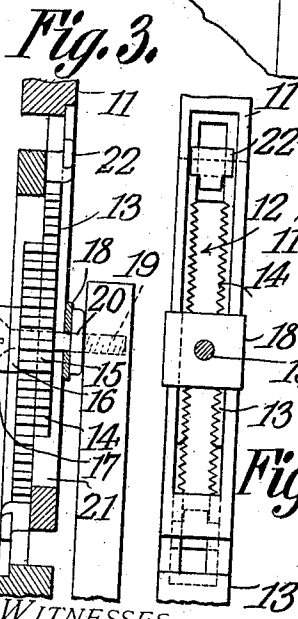
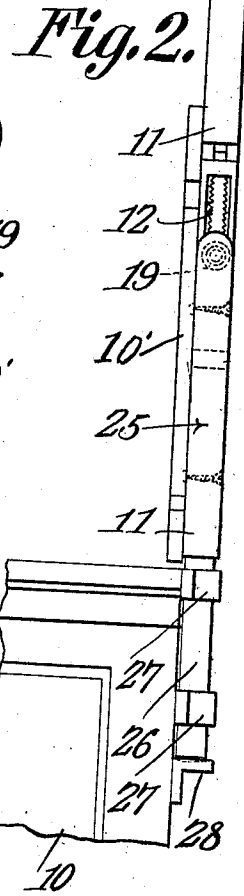
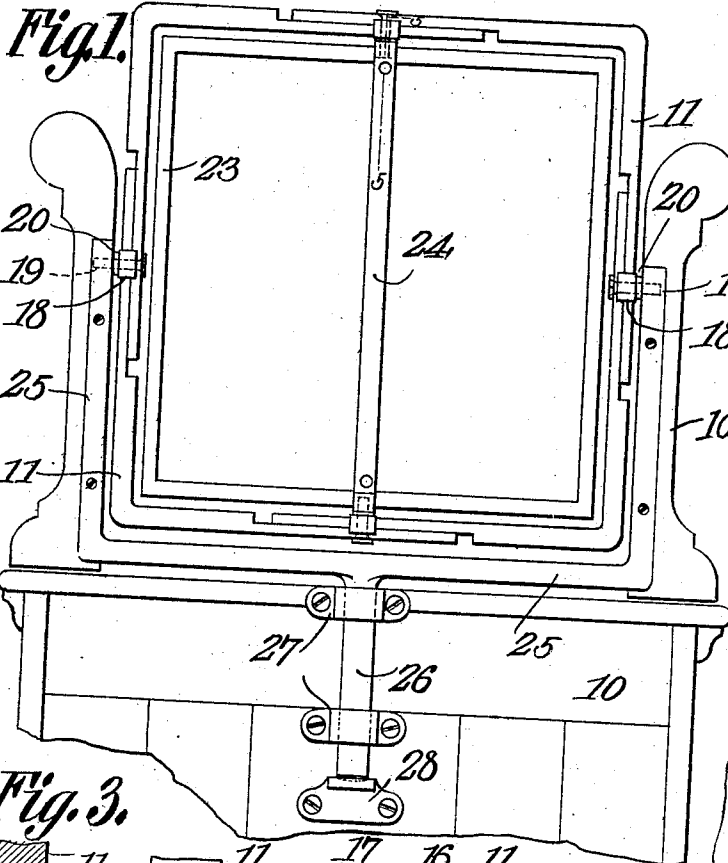


Fig. 4.

Fig. 7.

WITNESSES:

E. J. Hammett
W. N. Woodward

Endo L. Bell,
INVENTOR

By *Chas. H. Coe*
ATTORNEYS

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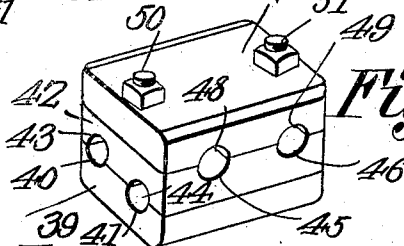
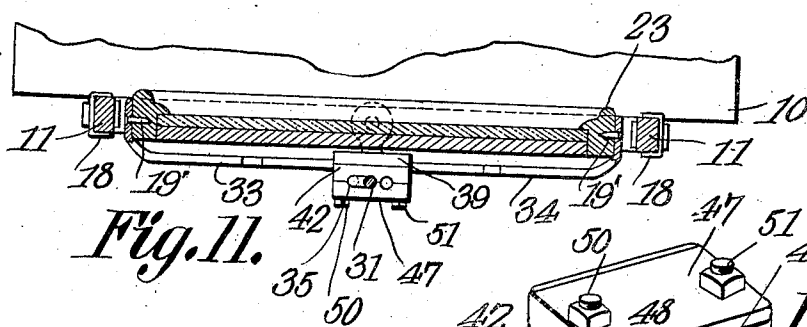
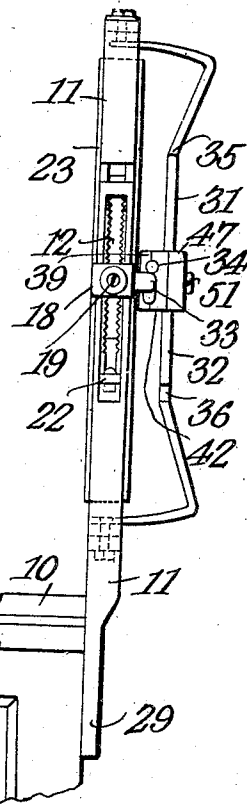
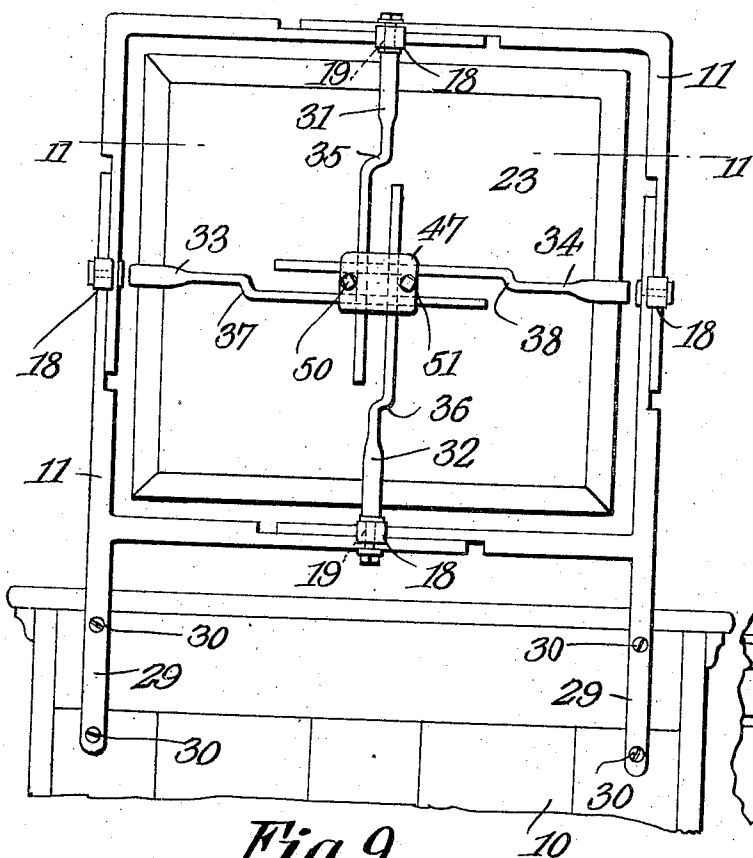
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3 SHEETS—SHEET 2.



WITNESSES:

C. H. Woodward

Endo L. Bell.

By

Chenoweth
ATTORNEYS

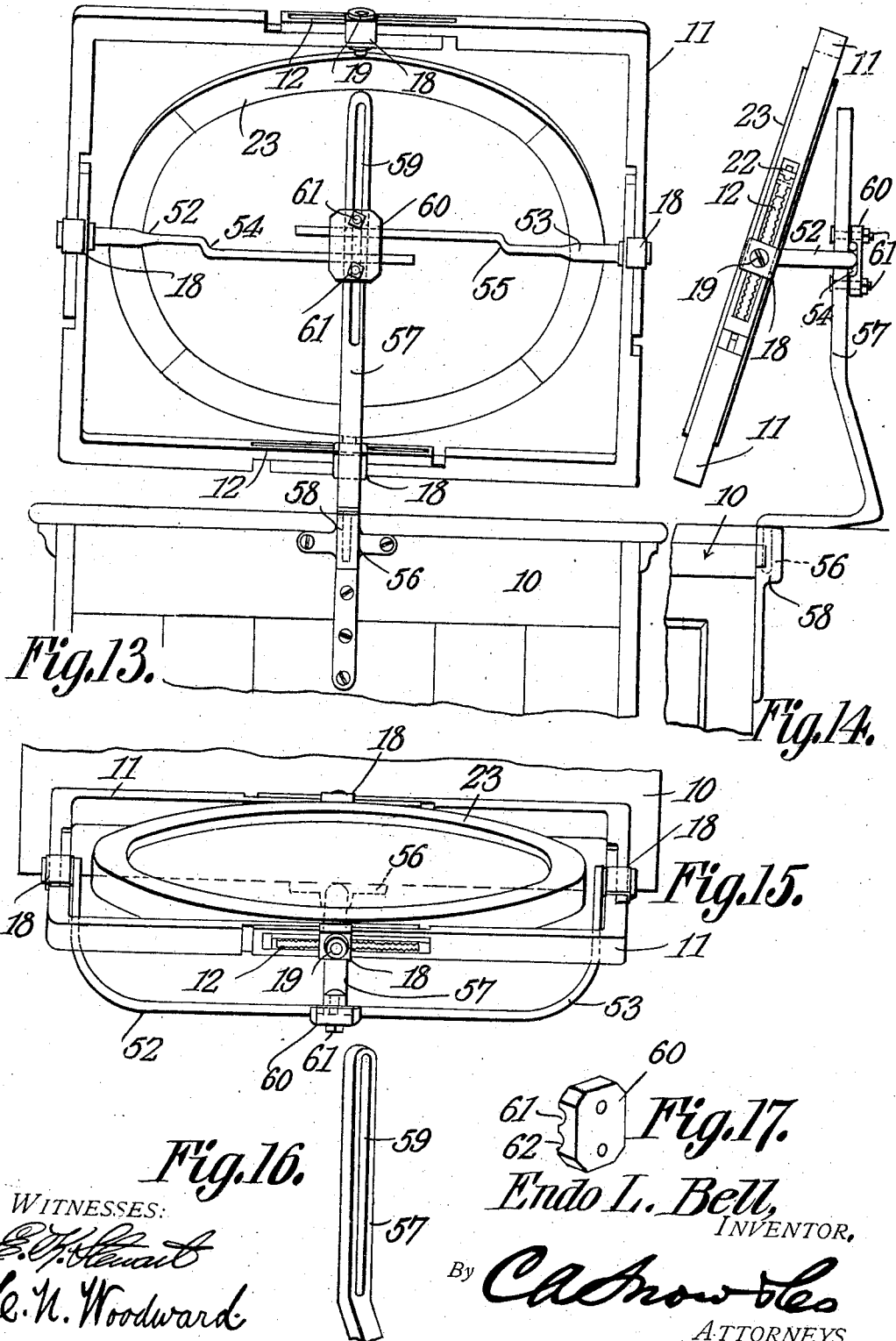
INVENTOR.

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E. L. BELL,
ADJUSTABLE MIRROR.
APPLICATION FILED JULY 30, 1906.

3 SHEETS—SHEET 3.



WITNESSES:
E. W. Stewart
C. H. Woodward

Endo L. Bell
INVENTOR,
By *C. H. Snowles*
ATTORNEYS

UNITED STATES PATENT OFFICE.

ENDO L. BELL, OF NORFOLK, VIRGINIA.

ADJUSTABLE MIRROR.

No. 848,624.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed July 30, 1906. Serial No. 328,445.

To all whom it may concern:

Be it known that I, ENDO L. BELL, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented a new and useful Adjustable Mirror, of which the following is a specification.

This invention relates to devices for supporting mirrors and like structures to enable them to be adjusted to any desired inclination, and has for its object to improve the construction and increase the utility and efficiency of devices of this character.

With these and other objects in view, which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, as hereafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are designated by like characters of reference, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation.

In the drawings, Figure 1 is a rear elevation of the improved device applied to a bureau or similar article of furniture. Fig. 2 is an end elevation of the same. Figs. 3 and 4 are enlarged details of one of the joint portions of the adjustable supporting-frame. Fig. 5 is a section, enlarged, on the line 5 5 of Fig. 1. Fig. 6 is a perspective view, enlarged, of one of the locking-blocks. Fig. 7 is a perspective view, enlarged, of a portion of one of the side members of the adjustable frame viewed from the outside. Fig. 8 is a view of the member illustrated in Fig. 7, viewed from the inside. Fig. 9 is a view similar to Fig. 1, illustrating a modified construction of the improved device. Fig. 10 is a side view of the construction shown in Fig. 9. Fig. 11 is a section on the line 11 11 of Fig. 9. Fig. 12 is a perspective view, enlarged, of the clamp-blocks employed in the modified structure shown in Figs. 9, 10, and 11. Fig. 13 is a view similar to Figs. 1 and 9, illustrating another modified construction of the improved device. Fig. 14 is a side view of the construction shown in Fig. 13. Fig. 15 is a plan view of the parts shown in Fig. 14. Fig. 16 is a perspective view of the supporting-standard employed in the modified structure shown in Figs. 13, 14, and 15. Fig. 17 is a perspective view of the clamp-block em-

ployed in the modified construction shown in Figs. 13, 14, and 15.

The improved device is adapted more particularly for attachment to bureaus, chiffonniers, and similar articles of furniture and for the purpose of illustration is shown applied to a conventional article of this class, a portion of which is shown at 10.

The improved device comprises in general an adjustable frame adapted to fit mirror-frames of various forms and sizes, adjustable connecting means between the adjustable frame and the mirror-frame, and adjustable connecting means between the adjustable frame and the supporting structure.

The adjustable frame portion of the device consists of four right-angle-shaped members 11, overlapping at their ends, with the overlapping portions "halved" or "scarfed," so that the size of the frame is not increased where the overlaps occur. The overlapping portions are slotted longitudinally, as at 12, and the inner faces of the slots provided with longitudinal recesses, whereby shoulders 13 are formed, the inner faces of the shoulders carrying spaced teeth 14. The shoulders and teeth are formed in both of the overlapping portions of the frame members and are of uniform size, so that they register no matter what position the overlapping portions are caused to assume. The shoulders 13 and their teeth 14 stop short of the full length of the slots 12 at one end, as indicated at 21, to provide a space for the insertion of T-heads 22 on the frame members, as hereafter described. Fitting through each of the slots 12 is a locking-block 15, having teeth corresponding to the teeth 14, equal in thickness to both sets of the registering-teeth 14 in the overlapping portions, so that when disposed in position in the slots the blocks engage both sets of the teeth, and thus firmly lock the frame members from longitudinal movement. The blocks 15 are also provided with shoulders 16 for bearing upon the shoulders 13 and with lateral projections 17 for bearing over the adjacent face of the overlapping portions of the frame members. A sheet-metal guard-plate 18 is disposed over the overlapping frame members opposite the locking-blocks and through which and the block 15 a bolt or screw 19 is arranged, as hereafter described, the guard-plate being trough-shaped, as shown, and bearing over the edges and one side of the overlapping portions. The screw

or bolt 19 passes through a washer 20, bearing upon the overlapping portions of the framemembers opposite to the guard-plate 18.

The terminals of the scarfed portions are each provided with a T-shaped projection 22, adapted to pass through the vacant spaces 21, as before described, and movable over the shoulders 13 as guides when the frame members are adjusted.

With a frame formed with four of the adjustable angular members 11 it will be obvious that by simply detaching the screws or bolts 19 and removing the blocks 15 the frame members can be increased or decreased to any required extent within the range of the slots 12, and when the required adjustment is secured the blocks and other parts are restored to hold the frame members in the adjusted position.

Keepers 27 are secured to the back of the supporting structure 10, and rotatably mounted within them, with its lower end resting on a bracket 28, is a stud 26, extending downward from a yoke 25, which is disposed above the rear portion of the structure 10 and has standards 10' secured to the sides thereof, said standards having the appearance of the usual mirror-supports of a bureau or other article of furniture. This yoke and the standards constitute a movable supporting device. A bar 24 is extended between the upper and lower sides of the adjustable frame 11, and into the ends of this bar are extended two of the pivot members 19, as shown in Fig. 5. The mirror is attached to this bar, and therefore is free to swing therewith within the frame 11. Said frame 11 is pivoted at the sides within the end portions of the yoke 25, the bolts or screws 19 being preferably utilized as the pivotal means.

By this arrangement the mirror is free to swing within the adjustable frame horizontally upon the upper and lower pivots 19, while the frame, together with the mirror, is free to swing vertically upon the side pivots, and the yoke, together with the adjustable frame and mirror, is free to swing horizontally upon the stud 26 and within the keepers 27. By this simple means the mirror may be adjusted to any desired angle or inclination.

In the construction shown in Figs. 9, 10, and 11 the lower side members of the adjustable frame are extended downwardly, as at 29, and attached by screws 30 to the supporting structure 10 and the pair of upper and lower pivots 19 extended into the ends of two vertical arms 31 32. The ends of the horizontal arms 33 and 34 are pivotally connected to opposite sides of the mirror-frame 23, as shown at 19' in Fig. 11, so that said mirror-frame will have a vertical swinging movement between the arms 33 and 34 and will be capable of swinging in a horizontal plane upon the pivots at the ends of the arms

31 and 32. The arms 31 32 are curved rearwardly to provide spaces for the mirror to swing in and are offset at 35 36, so they can be overlapped without throwing the pivots 19, on which the mirror and the arms 33 and 34 swing, off the center, while the arms 33 34 are likewise offset, as at 37 38, to prevent throwing the pivots 19' of the mirror-frame off the center, as will be obvious. The overlapping ends of the arms are united by a three-part clamping device, one part 39 disposed between the overlapping portions of the arms 31 32 and the mirror-frame and provided with spaced half-bearings 40 41 to receive the arms at one side, a central part 42 bearing against the part 39 and having half-bearings 43 44 for receiving the other side of the arms 31 32, and with reversely-disposed half-bearings 45 46 for receiving the overlapping portions of the arms 33 34, and an outer part 47, bearing against the central part 42 and having half-bearings 48 49 to receive the other side of the arms 33 34. The three parts 39, 42, and 47 are united by clamp-bolts 50 and 51. By this simple arrangement the arms may be readily adjusted correspondingly with the adjustments of the frame within which the mirror is supported.

In the construction shown in Figs. 13, 14, and 15 the upper and lower pivots 19' of the adjustable frame are extended to engage the mirror-frame, which in this illustration is shown in elliptical form, while the side pivots 19 of the frame are extended into the outer ends of arms 52 53, the latter having offsets at 54 55 and overlapping at the inner ends. Attached to the rear of the supporting structure 10 is a socket 56, in which a standard 57 swings by a stud 58, the standard curving rearwardly of the structure 10 and with its upper portion longitudinally slotted, as at 59. The overlapping portions of the arms 52 53 bear against the standard 57 transversely of its slot 59, and bearing over the arms opposite the standard is a clamp-block 60, the latter having half-bearings 61 62 for engaging the arms. Clamp-bolts 61 unite the clamp-block to the standard. By this means the frame may be adjusted to the size of the mirror, while the arms 52 53 may be in turn adjusted to the frame.

What is claimed is—

1. A frame having longitudinally-adjustable members, a mirror-frame disposed within said adjustable frame, and means for mounting said mirror-frame for swinging between the members of the adjustable frame.

2. A frame having longitudinally-adjustable members, means for supporting said frame for swinging, a mirror-frame, and means for supporting the mirror-frame between the members of the adjustable frame, the pivots of the two frames being disposed along intersecting lines.

3. A supporting structure, a supporting

device mounted upon said structure to swing horizontally, a supporting-frame, means for mounting said frame to swing vertically upon said device, a mirror-frame, and means for mounting said mirror-frame for swinging horizontally within said supporting-frame.

4. A supporting structure, a supporting device mounted upon said structure to swing horizontally, a frame having horizontally-adjustable members, means for mounting said frame to swing upon said device, a mirror-frame, and means for mounting said mirror-frame to swing from said adjustable frame.

5. A supporting structure, a frame having horizontally-adjustable members, means for mounting said frame for swinging upon said structure, a mirror-frame, and means for mounting said mirror-frame to swing within said adjustable frame.

6. A frame having longitudinally-adjustable members, a mirror-frame disposed within said adjustable frame, arms pivoted at their outer ends respectively to said adjustable frame and mirror-frame and with their inner ends overlapping, and clamping means adapted to be applied adjustably to said overlapping portions of said arms.

7. A frame having longitudinally-adjustable members, a mirror-frame disposed within said adjustable frame, arms pivoted at their outer ends respectively to said adjustable frame and mirror-frame and with their inner ends overlapping, a clamping means comprising superimposed blocks having half-bearings for receiving the overlapping portions of said arms, and means for connecting said blocks.

8. A frame formed of a plurality of L-shaped members having overlapping portions, clamping means applied adjustably to said overlapping portions, a mirror-frame disposed within said adjustable frame, and means for mounting said mirror-frame for swinging from said adjustable frame.

9. A frame formed of a plurality of L-shaped members having longitudinally-slot-

ted overlapping portions, clamp-blocks adjustably disposed in the slots in said portions, means for compressing said overlapping portions upon said blocks, a mirror-frame, and means for mounting said mirror-frame to swing within said adjustable frame.

10. An adjustable frame formed of a plurality of L-shaped members having longitudinally-slotted overlapping portions and spaced teeth extending into the slots, clamp-blocks adjustably disposed in the slots in said portions and having teeth corresponding to and adapted to adjustably engage the teeth in the slots, means for compressing said overlapping portions upon said blocks, a mirror-frame, and means for mounting said mirror to swing within said adjustable frame.

11. A frame formed of a plurality of L-shaped members having longitudinally-slotted overlapping portions, clamp-blocks adjustably disposed in the slots in said portions, a supporting device, pivot-pins extending through said blocks at two opposite sides of said frame and into said device, a mirror-frame, and pivot-pins extending through the other opposite blocks and into said mirror-frame.

12. A frame formed of a plurality of L-shaped members having longitudinally-slotted overlapping portions with spaced teeth within the slots, clamp-blocks adjustably disposed in the slots in said portions and having teeth corresponding to and adapted to engage the teeth within the slots, a supporting device, pivot-pins extending through said blocks at two opposite sides of said frame and into said supporting device, a mirror-frame, and pivot-pins extending through the other opposite pair of said blocks and into said mirror-frame.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ENDO L. BELL.

Witnesses:

E. HUME TALBERT,
JAS. M. WALKER.