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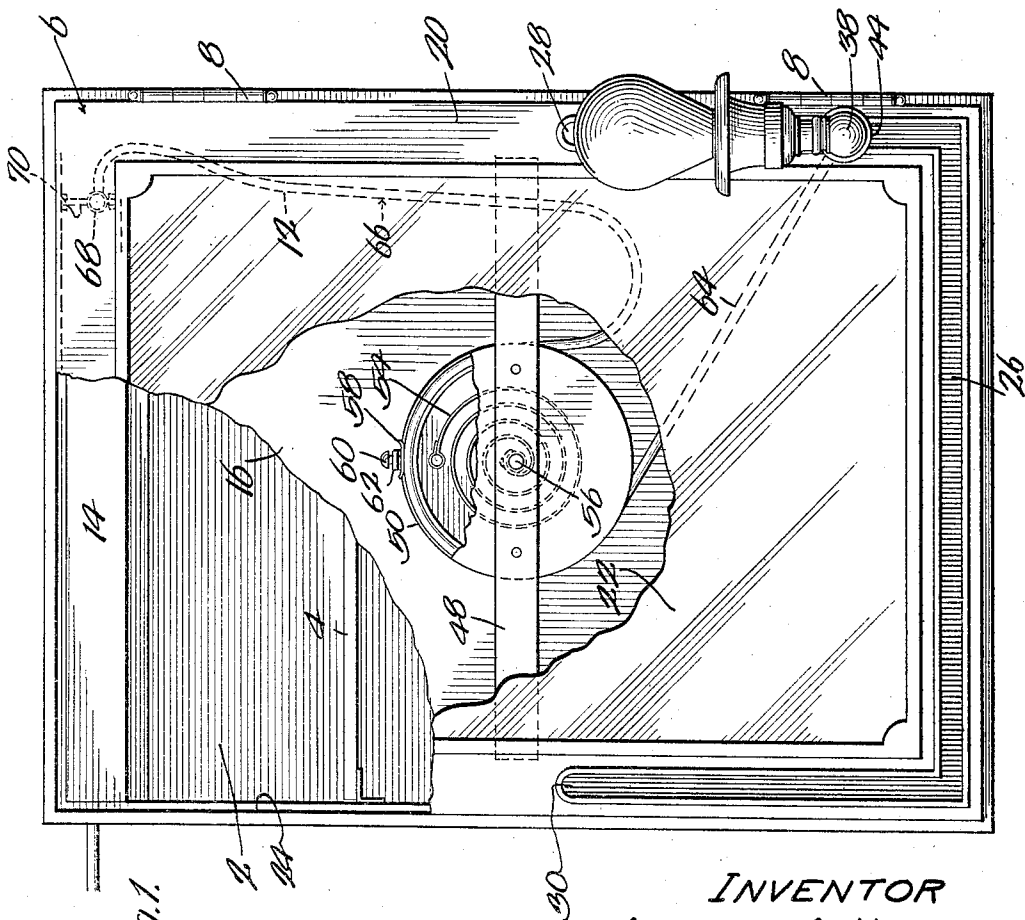
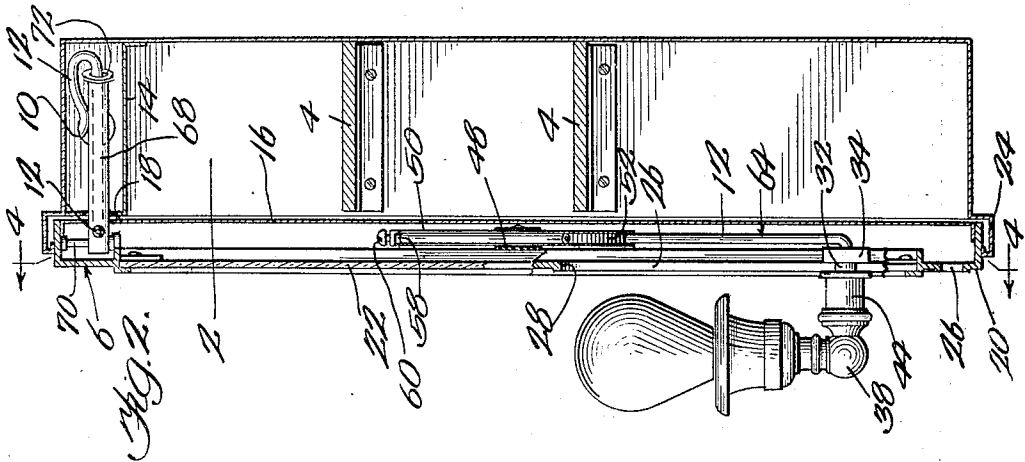
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ADJUSTABLE LAMP SUPPORT

Original Filed May 11, 1927

2 Sheets-Sheet 1



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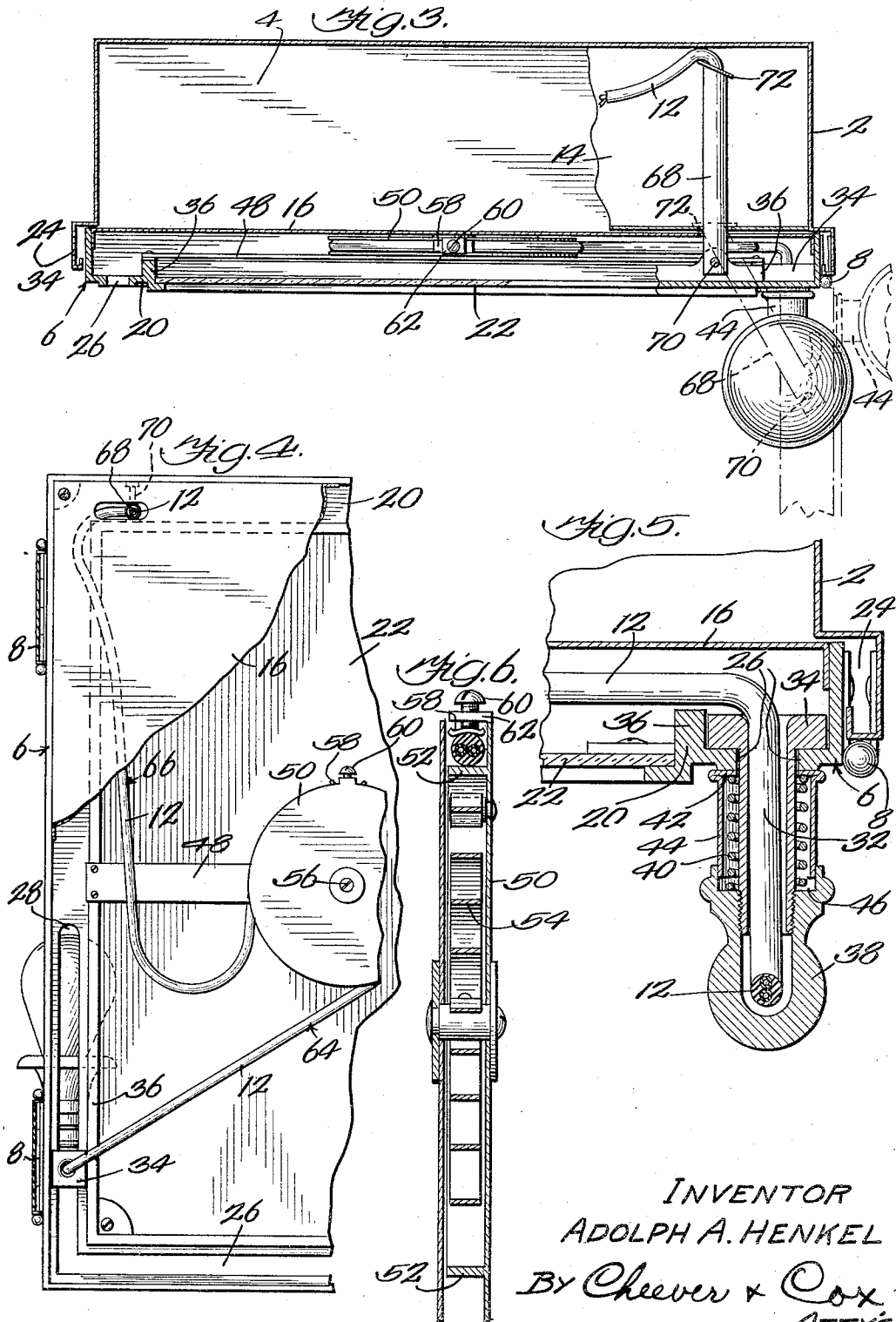
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## UNITED STATES PATENT OFFICE

ADOLPH A. HENKEL, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO  
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## ADJUSTABLE LAMP SUPPORT

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My invention relates to shiftably mounted lighting devices for walls, supports of various kinds, wall frames or wall cabinets or the like equipped with mirrors, and one of the broad aspects of my invention resides in providing a simply constructed mounting for an electric light fixture whereby it may be quickly and easily shifted along its support to various positions of adjustment and firmly yet resiliently held in such position and all the while maintaining the lighting of the electric lamp. Another one of the objects of my invention is to provide a lamp mounting for a frame or cabinet wherein the lamp may be bodily moved to various positions of adjustment relative to, and preferably along the edge of, the mirror, such for instance as an adjustment of the lamp into position on either side of the mirror, or adjacent the lower or upper portions of the mirror, so that objects located at such relative positions may be better illuminated and reflected in the mirror. Another object of my invention is to provide the frame or support or cabinet with a connection to a source of current and with a preferably slotted track extending about portions of the mirror margin and adapted to receive a lamp mounting in a manner firmly to hold the lamp in the track in various positions of adjustment therealong while maintaining the connection to the source of current.

Another object of my invention resides in adapting my invention to that type of cabinet which has a hinged door with a mirror mounted on the door, and particularly in mounting the bodily shiftable lamp directly upon the door and providing a flexing current-carrying connection from the lamp on the movable door to the source of current on the stationary cabinet body together with means for taking up slack in the flexible connection when the lamp is shifted into various positions of adjustment whereby the connection is maintained substantially taut, and the danger of pinching it and causing a short circuit is eliminated.

Another object of my invention resides in providing means for eliminating the possibility of crimping the flexible connector

where it connects the stationary cabinet body and the swingable door.

Another object of my invention resides in arranging the flexible connection so as to permit the cabinet door to swing to open and closed positions while maintaining the connection from the source of current on the cabinet body to the lamp on the door and particularly in providing means for preventing pinching or crimping of the connection when the door is swung and thereby eliminating any danger of short circuits. A further object is to form this means in such manner as to prevent crimping of the connection so that it also functions as a stop to limit the outward swing of the cabinet door.

Other objects of my invention are to provide an automatically shiftable reel upon which the flexible connection winds or unwinds itself as the lamp is shifted along the track about the mirror.

A further object of my invention is to provide a novel construction of lamp mounting for resiliently holding the lamp firmly in outstanding adjusted position in the track while permitting it freely to be moved along the track and for constructing this mounting so that the flexible connection may be attached to the lamp socket and to the source of current.

A further object of my invention is to provide a simple type of shiftable lamp mounting for a frame, wall support, cabinet, or the like, and wherein the lamp is provided with a longitudinal guide or guide-way which comprises forming the mounting carrying the electric lamp with two relatively movable clamping members adapted to engage opposed faces of the guide or guide-way together with resilient means for yieldingly holding the clamping members firmly in position against the walls of the guide or guide-way and in such a manner as to hold the lamp mounting firmly yet shiftably in any adjusted position along the guide or guide-way while, at the same time, maintaining the electric connection to the lamp mounting from the source of current on the support.

Further objects of my invention reside in the novel details of the lamp mounting and

clamping means which provide a very simple, effective type of device.

These and other objects of my invention will be apparent from a perusal of the following specification when taken in connection with the accompanying drawings wherein

Figure 1 is a front view of my cabinet with certain parts broken away.

Figure 2 is a sectional side view thereof.

Figure 3 is a plan sectional view.

Figure 4 is a rear view on line 4—4 of Figure 2.

Figure 5 is a sectional view of the lamp mounting; and

Figure 6 is a sectional view of the winding reel.

In the present application I have illustrated and described my invention as adapted to a cabinet, preferably a wall cabinet somewhat like the type used in bathrooms and which are provided with a hinged door carrying a mirror. It must be obvious that the invention is equally applicable to various types of cabinets and also to wall frames panels or other supports and also to various fixtures carrying mirrors. In the illustrated embodiment, the cabinet 2 is shown as provided with the usual body having suitable shelves 4 therein and a door 6 mounted on hinges 8 to swing to open and closed position. The rear or side of the cabinet body proper is formed with an opening 10 through which passes electrical wiring 12 connected to a source of electrical current. I preferably provide the top of the interior of the cabinet with a transverse partition 14 extending horizontally thereacross so as to form a separate chamber or compartment adapted to contain the entering portion of this electrical conductor and the guard therefor, which is hereinafter described. The front of this compartment is closed by a vertically extending partition 16 formed with an opening 18.

In certain other aspects of my invention, it comprises a panel support or any type of frame, provided with a guide, and herein shown as a slotted guide, wherein there is also provided a lamp mounting carrying an electric lamp which mounting is in turn provided with two clamping members or feet, at least one of which is relatively movable along or with respect to the mounting, and resilient means preferably interposed between the clamping members and operative to maintain the clamping members firmly in clamping engagement with the walls of the guide or slotted guide-way whereby firmly to hold the lamp resiliently in adjusted position, yet permitting it to be slid along the guide or guide-ways in a very easy fashion while maintaining the electric contact, and this construction further includes the arrangement of the mounting of the electrical connections and the clamping members and resilient means to provide a very ornamental

electric and fire fool-proof lamp mounting for the purposes set forth.

The door of the cabinet carries the usual type of mirror, and I mount an electrical lamp or lamps directly upon the mirror frame of the door so that the light will be relatively close to a person as he views himself in the mirror. The lamp is mounted thereon so that it can be bodily shifted along the margin of the mirror into various positions of adjustment. In the present instance the lamp may be shifted from a position about midway of the vertical margin of the mirror downward, thence along the basal margin of the mirror, and thence upward along the margin of the opposite vertical edge of the mirror. This arrangement provides practically all needed adjustments to enable persons to see themselves clearly illuminated by the lamp. If desired the lamp may be mounted to be movable entirely around the margin of the mirror, or two lamps may be mounted, one on each side, and movable along the edges of the mirror as above described. The foregoing arrangements permit a tall or short person to see himself or permit a person to see clearly either side of his face as in shaving.

To the end of permitting the foregoing adjustments of the lamp, the door front is formed with a preferably metallic frame 20 to receive the mirror 22. The edge of the frame 20 when in door closing position fits into the flanged edge 24 of the cabinet body as shown clearly in Figure 3 of the drawings. At desired points I provide the frame 20 with a guideway herein shown as a slotted track 26 or tracks along the margin of the mirror. For instance in Figure 1 the track is shown as extending from a point 28 along the vertical side of the mirror, then along the lower side of the mirror, and thence upward along the opposite side of the mirror to the point 30. This provides a continuous track substantially about three sides of the mirror. The points 28 and 30 may be extended upward if desired. This will permit a higher adjustment of the lamp for tall people.

The electrical lamp which fits in and slides along this slotted track comprises a tubular mounting 32 having a relatively thick flanged foot or clamping member 34 on its inner end and a thread on its outer end. The foot lies within a channelway formed on the inner face of the frame by means of the marginal wall of the frame and a spaced inward projecting flange 36 continuous and parallel with the wall of the frame. This way exactly receives the foot 34 so that the tubular sleeve is guided along the track. The outer end of the sleeve 32 has screwed thereon the lamp fitting 38 which is formed with an angularly disposed socket for the lamp. This fitting and the socket are of any desired construction and are hollow to receive the electrical con-

nections or wires to the lamp. These wires pass inward through the hollow sleeve 32. Surrounding the sleeve 32 is a coiled spring 40, the inner end of which engages the flanged end 42 of casing or shoe 44 enclosing the spring and sleeve 32. The inner end of this casing 42 comprises a second clamping member which cooperates with the first clamping member 34 and is shiftable along the tubular mounting 32 by means of the spring 40 to maintain the clamping members 34 and 42 firmly against the opposed walls of the slotted guide-way. The outer end of the spring 40 engages seat 46 on the near end of the lamp fitting 38, which fitting at this point is formed with an inward projecting circular flange adapted overlappingly and telescopingly to receive the outer end of the casing 44 to permit relative movement between the casing and the lamp mounting. In other words, since the flange 42 of the casing is firmly backed against the door frame at the margins of the slot formed by the track and since the outer end of spring 40 presses against the lamp fitting, the entire lamp mounting including the flanged foot 34 will be firmly and resiliently pressed outward against the inner wall of the track effectively and firmly to hold the lamp mounting in adjusted position. This construction eliminates the necessity of providing exposed connectors for the lamp mounting to slide upon and make electrical contact against, and by the same token permits the use of a flexible connector or wires attaching to the lamp and passing through the tubular socket and passing into the interior of the support or mounting.

Means are provided for connecting the source of electrical current in the cabinet body with the lamp on the swinging door. In the present instance I provide flexible electrical connections which comprise the electrically insulated wires 46, and I provide means for preventing the wires from becoming worn, chaffed, or pinched during the operation of shifting the lamp or of opening or closing the cabinet door. This is most important because if the wires become worn a short circuit will result with danger of fire. Within the door compartment I rotatably mount on the cross brace 48 the reel 50. The reel comprises the stationary shaft 56 which passes through a bearing in the crossbrace, and two spaced circular side plates forming therebetween at their peripheral portions a circumferential channel. This channel is preferably formed by in-turned portions 52 (Fig. 6) of the side plate. In addition I mount a helical spring 54 within the compartment formed by the plates and attach the inner end of the spring to the stationary shaft 56 and attach the outer end of the spring by means of a pin to one of the side plates whereby the reel will be uniformly impelled in one direction. The flexible elec-

trical connections pass from the lamp around the peripheral channel of the reel 50 and are firmly attached to the reel at a portion of the circumferential channel by means of a shoe 58 pressed into gripping engagement with the flexible connections by means of the screw 60 passing through an ear 62 on one of the plates of the reel. The spring is arranged to exert a constant pull upon that end of the flexible connection which is attached to the lamp mounting so that when the lamp is slid along its track to a position farther removed from the axis the flexible electrical conductors will be held taut while at the same time unwinding from the reel, and if the lamp mounting is moved in its track closer to the axis of the reel, the latter will wind the flexible connection upon it, thereby taking up any slack in that portion 64 of the flexible connection. That portion 66 of the connection which leads to the source of current connection in the cabinet passes freely upward and thence through a substantially tubular, preferably metallic, guide or guard 68 which, as shown in Figures 2 and 3, is pivotally mounted on a pin 70 in the upper portion of the track or way formed by the frame of the door. This guard is formed with a lateral hole near the pivotal pin mounting, and is open at its opposite end whereby the flexible connection may pass into the guard through the former hole and pass out through its open end. This open end is provided with a lateral projection 72, which is adapted to abut against a stop formed by the front wall of the upper compartment. This wall is otherwise provided with a hole through which the guard projects into the upper cabinet compartment as shown in Figure 2. This foot or stop 72 limits the outward swing of the door. The rigid guard forms a means for protecting the flexible connection during the opening and closing movements of the door since the connector might be caught or pinched and thereby a short circuit might be produced.

It will be appreciated that my invention is equally applicable to various types of supports including a wall mounting for a mirror instead of the cabinet in which the door is provided with a mirror, except that in case of the wall frame or mounting there would be no need for the guard but the reel or its equivalent would be used to take care of the loose flexible connection when the lamp mounting was being moved along the track. Thus in the various adaptations of my invention, and particularly in its adaptation to a cabinet I have provided a most advantageous construction for firmly and resiliently maintaining the lamp illuminated in its various positions of adjustment, and have provided a simple and inexpensive means for maintaining the electrical connections hidden and fool-proof while at the same time

permitting the facile adjustment of the lamp along its track and its firm engagement with the track in any desired position. The reel mechanism also provides a simple and inexpensive means for eliminating the slack in the flexible connection and for preventing possible short circuiting due to wear or injury to the electrical connection both within the door compartment and at the hinged connections between the cabinet proper and the swingable door.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A device of the class described comprising a wall frame having a mirror and a connection to a source of current, said frame having a track along a portion of its margin, a lamp mounted to slide in the track and an electrical connection from the source to the lamp and including a resilient slack wire take up constructed and arranged to permit the lamp to be bodily shifted along the margin of the mirror from one side of the mirror across the adjacent side and thence along the side opposite the first named side without breaking the current connection.

2. The combination of a cabinet having a connection to a source of current, a door hinged to the cabinet and provided with a mirror, and a lamp mounted on the door and bodily shiftable along the vertical and horizontal margins of the mirror from one side of the mirror across the adjacent side and thence along the side opposite the first named side and an electrical connection from the source of current to the lamp and including a resilient slack wire take up adapted to permit the lamp to be lighted in any of its positions of adjustment without crimping the wire.

3. The combination of a support having a connection to a source of current, a frame hinged to the support, a lamp mounted on the frame and bodily shiftable along the margin of the frame into various positions of adjustment and a flexible connection from the source to the lamp and means for preventing crimping of the flexible connection upon shiftable movement of the frame.

4. The combination of a cabinet having a connection to a source of current, a door hinged to the cabinet and provided with a mirror, a lamp mounted on the door and bodily shiftable along the margin of the mirror into various positions of adjustment, and a flexible connection from the source to the lamp, a guard for preventing crimping of the flexible connection upon opening and closing of the door, said guard serving as a stop to limit the opening movement of the door.

5. In combination a frame having a connection to a source of current and having a slotted track, a lamp mounting comprising a

tubular portion projecting through the slot of the frame and having a foot engaging the inner face of the frame, a lamp socket connected to the outer portion of the tubular portion, a sleeve telescopically engaging the socket and surrounding the tubular portion, and a coiled spring between the sleeve and the tubular portion and normally urging the socket and foot outwardly to hold the lamp mounting firmly in various positions of adjustment along the track, and a connection from the source of current to the lamp and passing through the tubular portion.

6. In combination with a cabinet having connection to a source of current and having a door hinged thereto, a mirror in the door and a lamp mounted on the door and bodily shiftable along the marginal portions of the mirror into different positions of adjustment, a rigid tube hingedly mounted on the door adjacent the hinge of the door, said tube having an aperture adjacent its pivotal connection and having its opposite end open and a flexible connection from the source of current passing through the open end of the tube through the tube and through the opening adjacent its pivot and connecting to the lamp mounted on the swingable door whereby to prevent crimping of the connection during opening and closing of the door.

7. In combination with a cabinet having a connection to a source of current and provided with a door hinged thereto, a mirror on the door, a lamp mounted on the door and bodily shiftable therealong into various positions of adjustment relative to the mirror, a rigid guard pivoted to the door adjacent its hinge axis, and a flexible connector from the source of current to the lamp, said connector passing through the guard to prevent crimping of the connector during the opening and closing of the door.

8. In combination with a cabinet having a connection to a source of current and provided with a door hinged thereto, a mirror on the door, a lamp mounted on the door and bodily shiftable therealong into various positions of adjustment relative to the mirror, a rigid guard pivoted to the door adjacent its hinge axis, and a flexible connector from the source of current to the lamp, said connector passing through the guard to prevent crimping of the connector during the opening and closing of the door, said guard having a lateral projection on its free end adapted to contact with a portion of the cabinet to limit the outward swing of the door.

9. A device of the class described comprising a frame, guide-ways in said frame presenting intersecting vertical and horizontal paths, a lighting fixture carried by said frame, and means for connecting said lighting fixture with a source of current, said lighting fixture being bodily shiftable along the intersecting paths of said frame.

10. In combination, a supporting member having a connection to a source of current, said member being provided with a longitudinal guide providing clamping surfaces, a lamp mounting for adjustment along said guide, a lamp carried on the outer end of said mounting, means for constantly connecting the lamp to the source of current on the supporting member, the inner end of said mounting having a rigid clamping member engaging one portion of the clamping walls of said guide, there being a second clamping member operatively associated with respect to said mounting for engaging other clamping surfaces of said guide, and means for resiliently pressing said clamping surfaces of the mounting against the clamping surfaces of the guide in such a way to maintain the mounting in firmly adjusted position on the guide, while permitting it to be shifted laterally therealong.

11. The combination of a main frame, a member mounted on and shiftable relative to the main frame, said member being provided with an extended guide-way therealong, a lamp mounted on said shiftable member and bodily shiftable along the guideway in the various positions of adjustment, means for slidably and yieldingly holding said lamp in said positions of adjustment, and a flexible connection from said lamp passing through said shiftable member and to said frame for connection to a source of current, means associated with the slack in said flexible conductor for protecting said slack from injury during the shifting movement of the lamp along the guide-way and during the shifting movement of the member relative to the main frame.

12. In a lighting fixture, the combination of a support, having an extended slot therealong, said slot including exterior and interior parallel clamping faces, said interior clamping faces having adjacent angularly disposed guide walls forming longitudinal parallel faces, a tubular lamp mounting having a clamping foot formed with parallel side walls adapted snugly to fit between the parallel guide walls of the slot and said foot having adjacent clamping faces adapted slidably to engage the interior clamping faces of the slot, a cooperative clamping member operatively associated with said mounting adapted to engage the exterior clamping faces of the slot, and spring means urging said clamping members firmly and slidably to engage the clamping faces of the slot, a lamp carried by said mounting and an electric conductor therefrom passing through the hollow mounting.

13. In a wall cabinet, partitions therein forming a shelf receiving section and forming an enclosed chamber spaced from said shelf receiving section, a door hinged to the cabinet and adapted to close the shelf sec-

tion, a mirror in said door, said door having a guide-way extending along a margin of the mirror, a lamp mounting shiftable along the guide-way, a flexible electric conductor passing through said lamp mounting, the rear of the door having a partition to provide an internal door space, a slack take-up device mounted in said space, about which the flexible electric conductor passes, a hollow guard pivotally mounted on said door and passing through registering apertures in the rear door partition and in that portion of the cabinet wall forming said enclosed chamber in the cabinet, said flexible electric conductor passing from the slack take-up device through the hollow guard into the enclosed chamber in the wall cabinet and connecting with a source of current.

14. In a wall cabinet, partitions therein forming a shelf receiving section and forming an enclosed chamber spaced from said shelf receiving section, a door hinged to the cabinet and adapted to close the shelf section, a mirror in said door, said door having a guide-way extending along a margin of the mirror, a lamp mounting shiftable along the guide-way, a flexible electric conductor passing through said lamp mounting, the rear of the door having a partition to provide an internal door space, a slack take-up device mounted in said space, about which the flexible electric conductor passes, a hollow guard pivotally mounted on said door and passing through registering apertures in the rear door partition and in that portion of the cabinet wall forming said enclosed chamber in the cabinet, said flexible electric conductor passing from the slack take-up device through the hollow guard into the enclosed chamber in the wall cabinet and connecting with a source of current, the inner end of said hollow guard being formed with a stop member to contact the wall of the cabinet whereby to limit the outward swing of the door.

15. In a lighting fixture, the combination of a support having an extended guide-way, an electric lamp socket adapted to receive an electric lamp, a tubular mounting on which the socket is mounted, and an electric conductor for the socket passing through the tubular mounting, said tubular mounting rigidly carrying a clamping member engaging a portion of the guide-way to prevent the member and mounting from turning, a cooperative clamping member engaging another portion of the guide-way, said first clamping member being shiftable relatively and in a direction parallel to the longitudinal axis of the tubular mounting, and resilient means for normally urging said clamping members yieldingly to hold the mounting in adjustably shiftable position with respect to the guideway.

16. The combination of a wall cabinet having a door hinged thereto adapted to close

the front of said cabinet, a mirror on said door, an extended guide-way disposed on said door relative to the margin of the mirror, a lamp mounting movable along said guide-way and means for holding said mounting in any shifted position, and a flexible conductor passing through said mounting, and a guard pivotally carried by said door and extending inwardly thereof into said cabinet, said flexible conductor passing through said guard.

17. A cabinet comprising a sheet metal casing providing side walls, a back wall, and a front wall having a forwardly facing mirror, a vertically extending conductor compartment formed in said cabinet behind the mirror, a horizontally extending conductor compartment formed in said cabinet behind said mirror, said cabinet being formed with means forming an aperture communicating from said horizontal compartment with the outside of the cabinet, said cabinet having an elongated slot opening into the vertically extending compartment, a light bracket having an end slidably supported through said slot, said bracket extending to a position outside of the cabinet to illuminate the mirror, a conductor extending through said bracket and into the vertically extending conductor compartment, thence into the horizontally extending conductor compartment, whereby the same may be connected with an external source of light producing medium through the opening of the horizontally extending conductor compartment.

In witness whereof, I have hereunto subscribed my name.

ADOLPH A. HENKEL.

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