No. 794,043. PATENTED JULY 4, 1905.

W. B. OLIVER.

BRACKET.

APPLICATION FILED MAY 28, 1904.

2 SHEETS—SHEET 1.

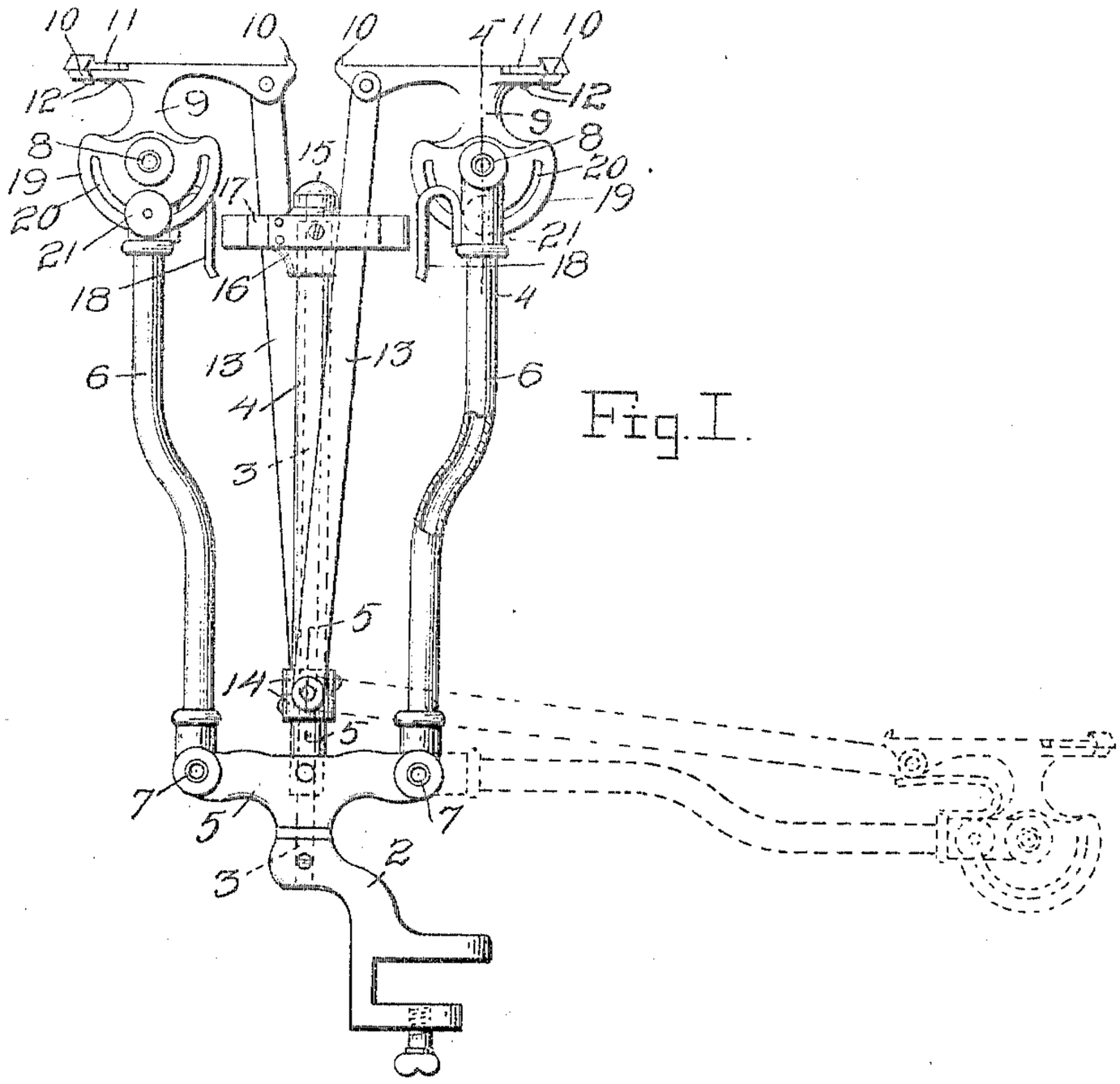
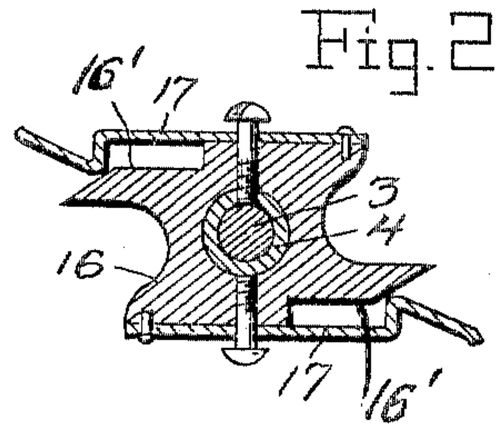


Fig. I.

Fig. 2.



Witnesses
C. K. Reichenbach.
James L. Norris, Jr.

Inventor
William B. Oliver.
By James L. Norris.
Attorney

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2 SHEETS—SHEET 2.

Fig. 3.

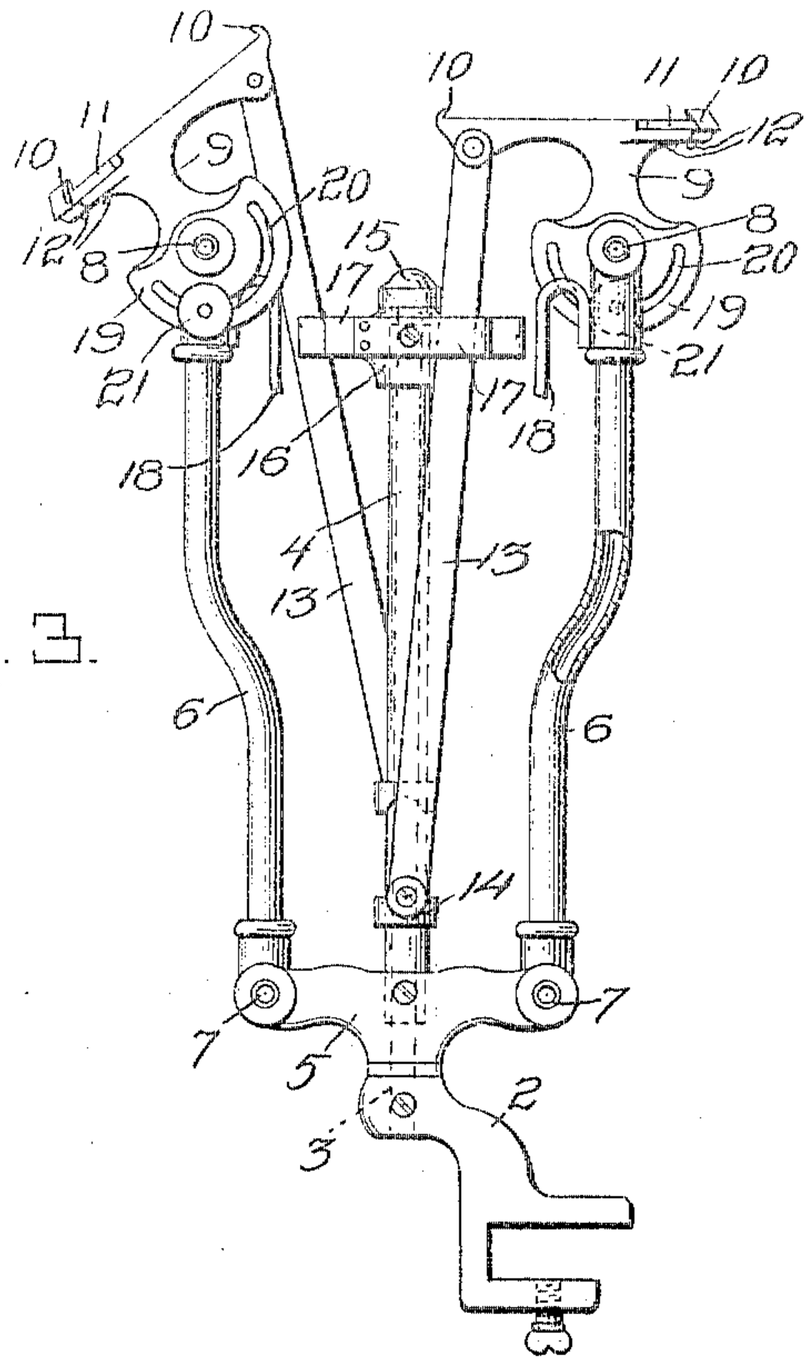
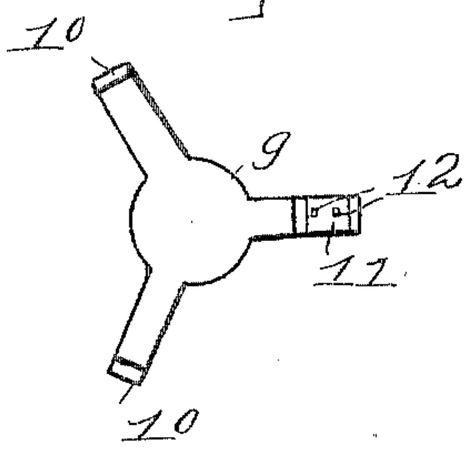


Fig. 6.



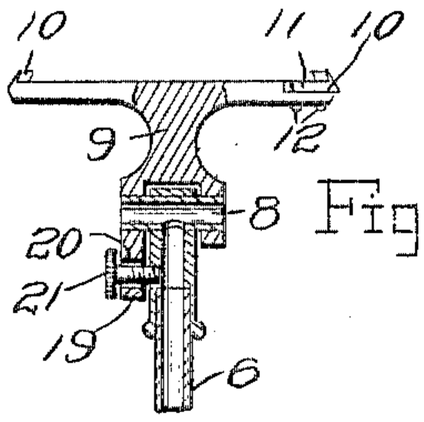


Fig. 4.

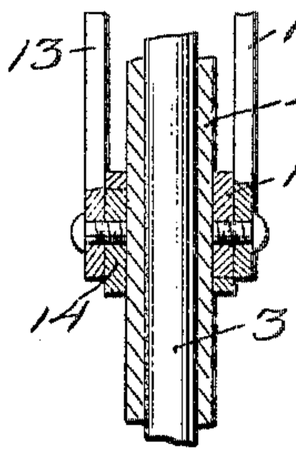


Fig. 5.

Witnesses
C. K. Reichenbach.
James L. Norris, Jr.

Inventor
William B. Oliver.
By James L. Norris,
Attorney

No. 794,043. Patented July 4, 1905.

UNITED STATES PATENT OFFICE.

WILLIAM B. OLIVER, OF BALTIMORE, MARYLAND, ASSIGNOR TO OLIVER MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

BRACKET.

SPECIFICATION forming part of Letters Patent No. 794,043, dated July 4, 1905.

Application filed May 28, 1904. Serial No. 210,259.

To all whom it may concern:

Be it known that I, WILLIAM B. OLIVER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Brackets, of which the following is a specification.

This invention relates to brackets; and the object of the invention is to provide a simple and effective article of this character which can be readily attached to a desk, table, wall, or other part.

The bracket involves in its construction an article-support which may carry any desirable object—such as a telephone, telephone-directory, a lamp, or the like—and which is mounted for upward-and-downward movement, so that in the case of a telephone, for example, such instrument may be operated while the user is either standing or sitting, means being provided to normally hold the said article-support in a horizontal or approximately horizontal position. In addition to the upward-and-downward movement that the article-support has it also has a circular movement, whereby it can be swung around to obtain ready access to the article thereon from different places.

Other objects and advantages of the invention will be set forth fully in the following description, while the novelty of the invention will be embraced in the claims succeeding said description.

In the drawings accompanying and forming a part of this specification I illustrate clearly one simple and convenient adaptation of the invention, which I will hereinafter set forth; but I do not limit the invention to the disclosure thus made, for certain variations may be adopted within the scope of my claims.

Referring to the drawings, Figure 1 is an elevation, partly in section, of a bracket including my invention and showing by dotted lines one of the supports and its coöperating parts as shifted. Fig. 2 is a horizontal sectional plan view, the section being taken centrally through the head member or block. Fig. 3 is a view corresponding substantially to Fig. 1 and illustrating one of the supports tipped. Fig. 4 is a vertical sectional elevation of one of the supports, a coöperating link, and certain immediate parts, said section being taken on the line 4 4 of Fig. 1. Fig. 5 is a sectional elevation showing the manner of connecting the inner links hereinafter described and a rotative or turnable member. Fig. 6 is a top plan view of one of the article-supports.

Like characters refer to like parts throughout the several figures.

The bracket constituting my present invention involves in its organization an attaching device, and the same may be of any desirable character. The attaching device illustrated is denoted by 2, and it is represented as consisting of a clamp the jaws of which are adapted to fit over the edge of a desk, table, or any other suitable device, what is shown as the under jaw being provided with a holding-screw tapped therethrough, the upper end of which is adapted to engage the under side of the part which the two jaws straddle in order to hold the attaching device or clamp firmly and solidly in place.

Upon the upper part of the attaching device or clamp 2 an overhanging arm, from which the vertically-disposed shaft or spindle 3 rises, the lower end of the spindle being shown as stepped into the hub at the outer terminal end of the arm of the clamp. The said clamping member and spindle are rigidly united in any desirable way. This vertical spindle or shaft 3 constitutes the axis or center of an elongated sleeve or tube 4. It will be apparent that the sleeve or tube 4 turns on the vertical shaft 3, and said sleeve or tube, in connection with a base member hereinafter described, constitutes in the

present case a carrier for certain of the parts hereinafter described, from which it will be evident that said parts are located above the attaching device or clamp 2.

Associated with the rotative sleeve or tube 4, which in the present instance is arranged to have a movement throughout a complete circle, is a base member 5, the two parts being suitably united in any desirable way, whereby said base member will turn with the sleeve or tube and on the hub of the attaching or clamping device 2. From the body of the said base member 5 two arms radiate oppositely, and to the outer ends of said arms links, as 6, are pivotally connected, the pivots being designated by 7 and being shown as hollow or in the form of tubular rivets for a purpose that will hereinafter appear. The links 6 are represented as being tubular, although this is not essential, for they may be made solid, and the same applies to the pivots 7. The pivots 8, which unite the upper ends of the respective links 6 to the article-supports 9, are also represented as being tubular or hollow; but they, like the links 6 and pivots 7, may be of some other desired form. The lower ends of the links 6 are therefore jointed to a common base member 5, while the upper ends of said links are jointed to article-supports, as 9. The connection between each link 6 and a coöperating article-support 9 is centrally of the latter.

Each pivot 8 and each pivot 7 has in its body a perforation, the several perforations opening into the respective bores of the tubular links 6, thereby providing conduits for the reception of wires which lead to telephonic instruments adapted to be sustained upon the article-supports 9 when the latter are used for such purpose. Said article-supports, however, may be used for carrying other objects than telephones. They may be used as supports for lamps, books, or anything else of a like nature. Each article-support is shown as consisting of three equidistantly-disposed arms radiating from a central body or hub and provided at their outer ends and upper sides with lugs, as 10, for engaging an article in order to positively hold such article in place. At least one lug 10 on each support 9 is shown as adjustable, the adjustable portion in each case being denoted by 11. By moving the adjustable part or slide 11 outward it will be apparent that a telephone-stand can be readily put upon the coöperating support 9, and when this is done the slide 11 will be moved inward, so that the lug carried thereby will be brought into engagement with the base of the telephone, lamp, or the like. In practice means, as screws 12, are provided for holding the two slides in their adjusted position.

Coöperative with the links 6 are links 13, the upper ends of said links 13 being jointed to the respective article-supports 9, while the lower ends of said links are similarly connected to superposed collars, as 14, slidable upon the sleeve 4, for a purpose that will hereinafter appear. The connection between the upper ends of the links 13 and the article-supports 9 is in each case to one of the arms of the latter. When the collars 14 are in their lowermost positions, the article-supports 9 will be horizontally disposed, and by virtue of the fact that the distance between the pivots of the respective pairs of links 6 and 13 is uniform said horizontal disposition will be maintained while the support 9 is being moved from its topmost to its lowermost position, during which motion the coöperative links 6 and 13 will swing from an approximately vertical to an approximately horizontal position.

Normally the two pairs of links 6 and 13, as previously indicated, stand vertically, and the collars 14 are so positioned as to maintain the two parts horizontal, at which time they are adapted to uphold and by virtue of their construction effectively prevent displacement of telephones. When the several links are in their upright or normal positions, they are locked positively, as will hereinafter appear, so that in the case of telephones on said supports a user can utilize the telephones while standing. By swinging the supports 9 downward, which operation is brought about by the release of latches, as will hereinafter appear, said supports can be brought to about the level of a desk or equivalent article, so that a user can employ the phones while seated at such desk. By virtue of the fact that the supports are connected with the attaching device through the aid of turning means said supports can be swung round to any desirable extent in order to provide for the comfort of the user. By virtue of the construction illustrated the supports can be moved through a complete circle or any part thereof. I have illustrated two of said supports. It is apparent that one of them may be omitted and the same advantageous results hereinbefore pointed out can be secured. Ordinarily, however, two are associated together, although this number may, if desired, be increased, these being points of individual preference.

The sleeve 4 is held against accidental outward displacement by a cap, nut, or the like, as 15, upon the upper end of the vertical shaft or spindle 3, and below said nut or cap I have represented a head member or block, as 16, connected rigidly with the sleeve or tube 4 in any desirable way. To the opposite sides of this head member or block 16 are connected spring-latches, as 17, each latch being adapted to engage a coöperating

link 13 when said links are seated in recesses or notches 16′ in the opposite sides of the head member or block. The outer or free ends of the latches and the adjacent faces of the recesses diverge outward. Normally, as will be understood, the latches engage the two links 13 to hold the same approximately vertically, at which time shoulders near the outer free portions of the latches fit against the links. To free a link 13, the coöperating spring-latch 17 is pressed laterally outward by a comparatively light force in order to disengage the shoulder thereon from the cooperating link, at which point the latter, and hence the connected support 9, is released, whereby the latter can be swung downward until the two links 13 and 6 occupy a horizontal or substantially horizontal position or to any other intermediate point. When the support 9 is returned to its initial position and just before said initial position is reached, the link 13 will strike the outwardly-beveled end of the latch 17, so as to automatically press the same laterally, and when said link is fully seated in its notch in the block or head member 16 the shouldered portion of the latch will automatically spring into engagement with the link 13 to prevent accidental displacement of the same.

To prevent undue shock to the parts when either or both of the supports are moved from their upper to their lower positions, I provide buffers adapted to engage suitable movable parts, as will now appear. These buffers are represented as consisting of bowed springs, as 18, suitably rigidly connected to the inner upper sides of the two links 6. When a support 9, therefore, is swung from its topmost to its lowermost position and just before the latter position is reached, the inner arm of said support will strike the free portion of the spring or buffer 18 to prevent possible derangement of the parts. Said spring also prevents the pivot between the link 13 and support 9 from crossing a center line intersecting the lower pivot of the link 13 and the upper pivot of the link 6, and thereby prevents further downward movement of the parts.

It will be apparent that the supports 9 may carry any other object than a telephone. For example, they may sustain a lamp, a bowl, or a shelf or leaf upon which a book can rest. When the support 9 is to be used as a book-rest or as a rest for a leaf or its equivalent upon which a book is directly upheld, it is desirable, although not absolutely essential, that said support should be tipped or inclined, and this result is brought about through the intervention of the collars 14, which have hereinbefore been described as slidable upon the sleeve 4. It will be apparent that upon the elevation of a collar 14 the link 13, connected therewith, will be thrust upward in order to apply a like movement to the inner portions of the coöperating support 9, whereby the latter can be tilted. When the collars 14 are in their adjusted positions, they are thus maintained by means of screws tapped therethrough and adapted to engage the sleeve 4.

In practice I may hold either bracket 9 at any position between its topmost and lowermost adjustments, and I have illustrated in the drawings means for positively locking the same in said intermediate adjustment. To the under sides of the supports 9 segments, as 19, are connected, said segments and supports being made integral, if desired, by casting. Each segment has an arcuate or semicircular slot, as 20, concentric with the respective pivots 8 and through which a headed screw, as 21, is passed. The threaded portions of the screws are tapped into the links 6 near the supports 9. Normally the heads of the screws 21 are free of the segments 19, whereby the two pairs of links 6 and 13 may be freely moved through any part of a quadrant. Should it be desired to hold either bracket in an intermediate position, this result can be instantly brought about by running a coöperating screw 21 inward until its head binds against the coöperating segment 19, at which time the result desired is attained. To release the parts, the screw 21 will be loosened, whereby the support can be readily returned to its primary position or to any other desired place.

From the foregoing description it will be obvious that my bracket includes a part rotative through a complete circle backward or forward, or through any portion of a circle, which rotative part has associated therewith, through the intervention of a suitable linkage connection or connections, one or more article-supports, the whole structure being mounted in the present case above the point of support of such rotative member, although I do not limit myself to this particular relation. However, it is ordinarily preferable.

It will be apparent that when the two pairs of links 6 and 13 are in their normal positions they are substantially vertical and are in parallelism, or substantially in parallelism, with the sleeve or tube 4, whereby when the links are held in such normal positions the structure as a whole occupies a comparatively small space laterally, which is an important consideration.

It will be evident that the bracket involves a pair of links and an article-support associated with said links, the latter being suitably pivotally mounted below the article-support, and the pivots for the links are vertically out of line to permit said links to as-

sume a substantially vertical position, which could not be the case were such pivots in line. The pivots just alluded to are of course the lower pivots for the links, and they are represented as being on a diagonal line, so that when they occupy their upright position they fill a relatively small amount of space laterally.

Having thus described my invention, what I claim is—

1. In a bracket, an attaching member, a turnable member associated with said attaching member, a tubular link pivotally associated with said turnable member by a hollow pivot, an article-support pivotally connected with said tubular link by a hollow pivot, the two hollow pivots having perforations opening into the bore of said link, and a second link operatively connecting the article-support and the turnable member.

2. In a bracket, a suitably-supported spindle, a sleeve arranged for turning movement around said spindle and having a head member, an article-support, a pair of links each operatively connected at one end with the sleeve and their other ends being connected with said article-support, said head-piece having a recess to recieve one of the links when the same is in its normal and substantially vertical position, and a latch carried by the head-piece for engaging that link which fits in the recess to maintain the same positively in its normal position.

3. In a bracket, an attaching member, a shaft carried by said attaching member, a base member rotative on the shaft, a sleeve also rotative on the shaft, above said base member and connected with the latter, a support, a link connecting the support and base member, a second link connected with the support, and an adjustable collar on said sleeve, to which said second link is connected.

4. In a bracket, an attaching member, a turnable member associated with said attaching member, an article-support, a pair of links operatively connecting the turnable member and article-support respectively, and a spring constituting a buffer carried by one of the links and engageable by a coöperating moving part when said links are swung downward from a substantially vertical to a substantially horizontal position said spring-buffer serving to bring said links to a state of rest when they are in a substantially horizontal position, and to prevent shock to the links and coöperative parts.

5. In a bracket, a substantially vertically-disposed carrier, an article-support, a pair of links connected operatively to the article-support and carrier, respectively, and arranged to maintain the article-support in a predetermined relation as the said links are swung from a substantially vertical to a substantially horizontal position, and vice versa, and latching means associated with the carrier for engaging one of the links solely when the same is in its vertical position to positively maintain them both in substantially a vertical position.

6. In a bracket, an attaching member, a turnable member associated with said attaching member, an article-support, a pair of links operatively connecting the article-support and turnable member respectively, and arranged to swing from an approximately vertical to an approximately horizontal position, and vice versa and a latch carried by the turnable member for normally engaging one of the links to hold both links normally in an approximately vertical position.

7. In a bracket, an attaching member, a shaft carried by said attaching member, a sleeve turnable on said shaft, an article-support, a pair of links operatively connecting the article-support and sleeve respectively, and arranged to swing from an approximately vertical to an approximately horizontal position, and vice versa, a head member carried by the sleeve, and a spring-latch on the head member for normally engaging one of the links to hold them both in an approximately vertical position.

8. In a bracket, an attaching member, a turnable member associated with said attaching member, an article-support, a link pivotally connected with the article-support and operatively connected with said turnable member, and a segment connected with said support and having an arcuate slot concentric with the pivot between the link and article-support, a screw tapped into said link, passing through said slot and having a head adapted to engage said segment, and a second link operatively connecting the article-support and said turnable member.

9. In a bracket, a carrier, a link pivotally associated with the carrier, the pivot being tubular and the link being tubular, an article-support connected with said link by a tubular pivot, said pivots having perforations opening into the bore of the link, a second link operatively connected with the article-support, and operative connections between said second link and carrier.

10. In a bracket, an attaching member, a shaft carried by said attaching member, a member turnable about said shaft, an article-support, and links connected with the article-support and operatively connected with said turnable member, one of the links being longitudinally adjustable to secure the tipping or tilting of said support.

11. In a bracket, a vertically-disposed spindle, means at the lower end of said spindle for connecting the same rigidly to a suitable support, a turnable member movable

about the spindle through a complete circle, two pairs of links pivoted to the turnable member at diametrically opposite points, and each pair of links being arranged to swing from a substantially vertical to a substantially horizontal position and vice versa, and article-supports pivoted to the outer ends of the two pairs of links.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM B. OLIVER.

Witnesses:
HEATH SUTHERLAND,
DAISY TAYLOR.