Jan. 19, 1926. 1,570,430

C. L. BOWERS

MEMORANDUM PAD EQUIPMENT FOR TELEPHONES

Filed March 7, 1922 2 Sheets-Sheet 1

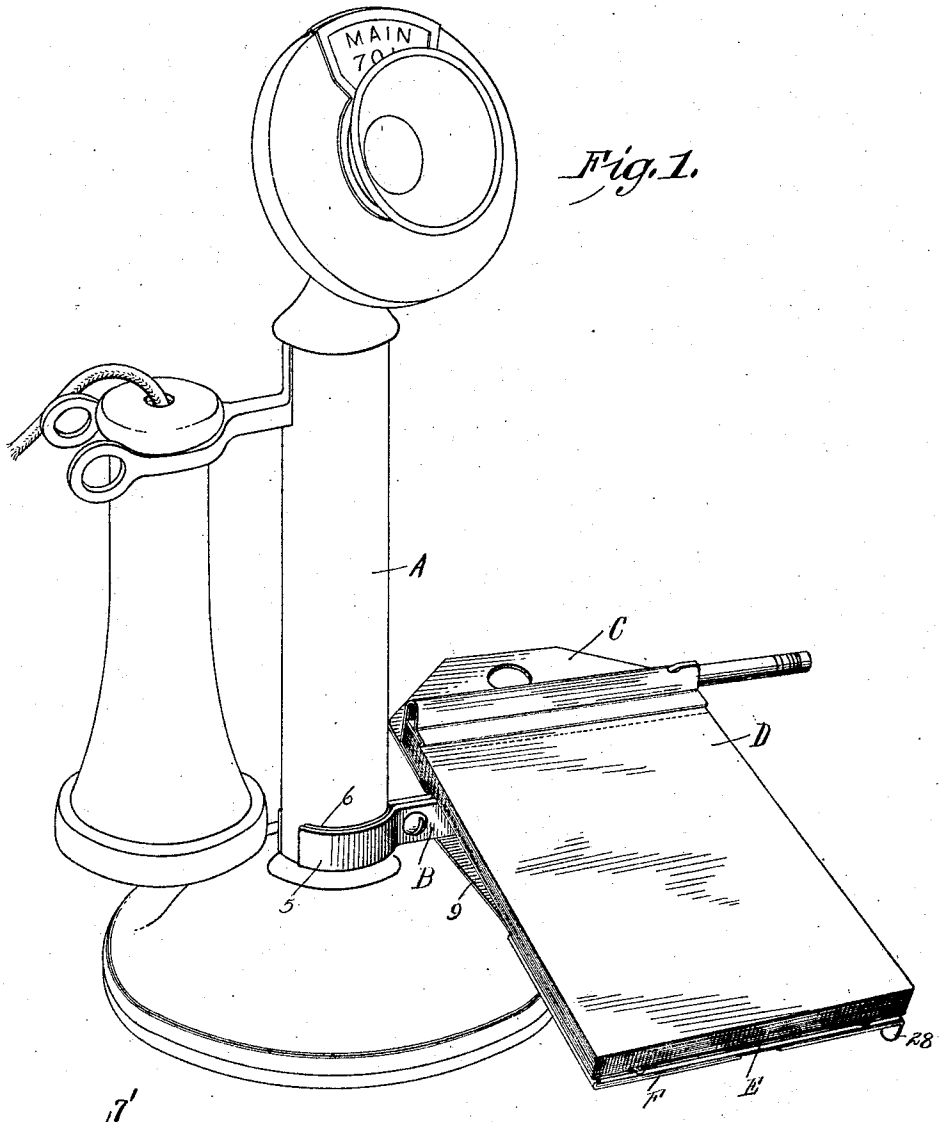


Fig. 1.

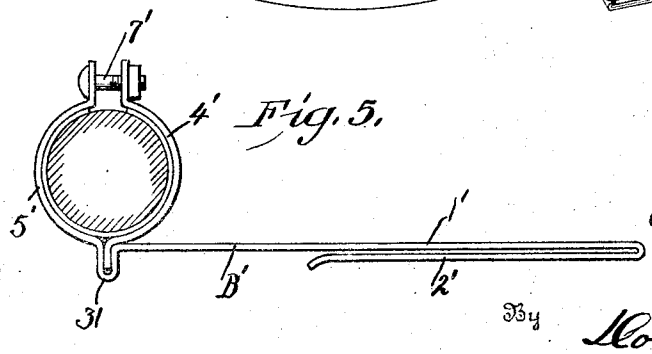


Fig. 5.

Inventor
Clyde L. Bowers

By Mosey & Cole
Attorney

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Fig. 2.

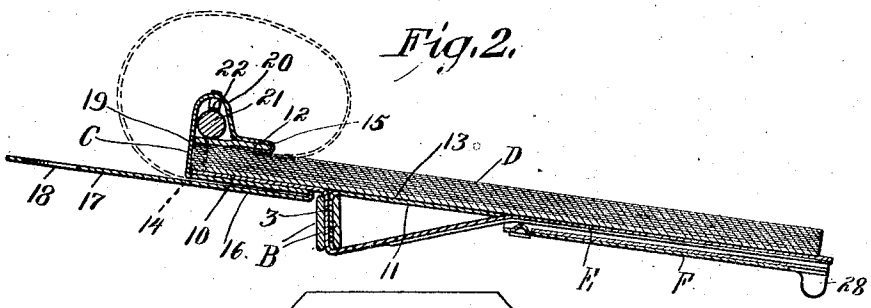


Fig. 3.

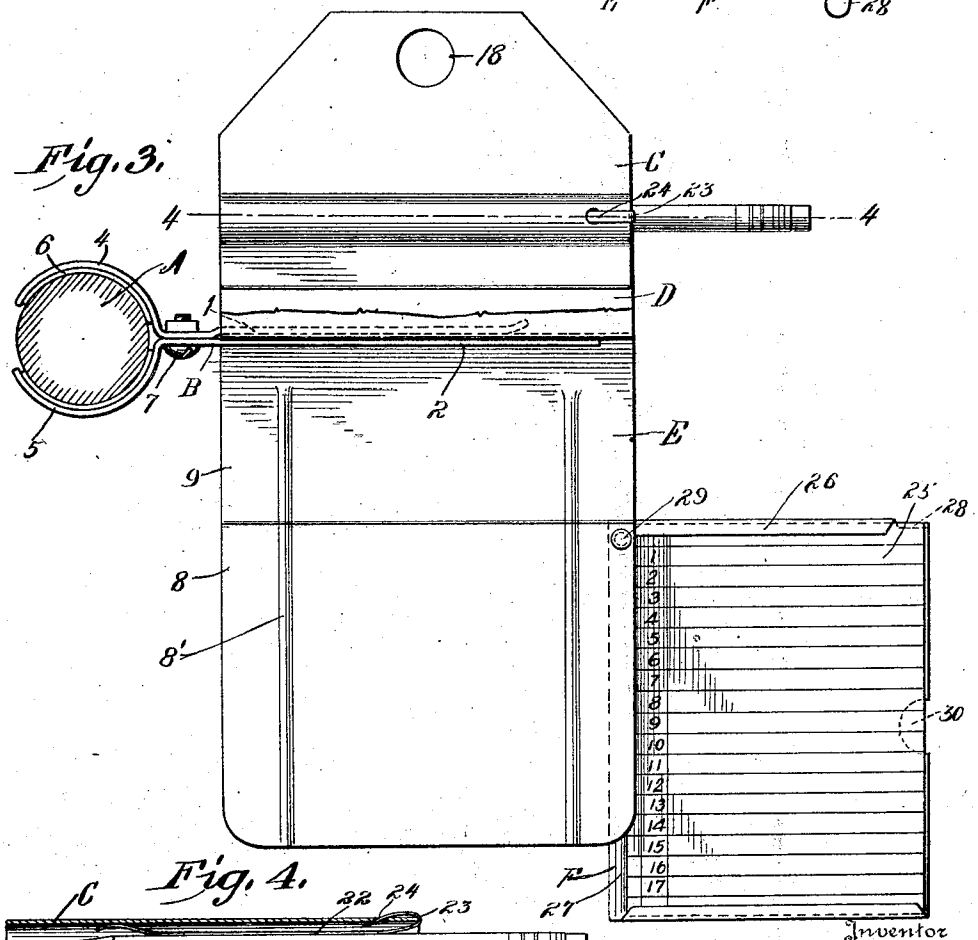


Fig. 4.

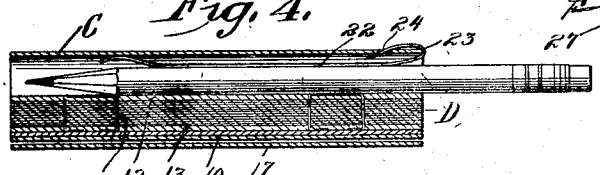


Fig. 6.



Inventor

Clyde L. Bowers

By Mosey & Cole

Attorney

Patented Jan. 19, 1926. 1,570,430

UNITED STATES PATENT OFFICE.

CLYDE L. BOWERS, OF WASHINGTON, DISTRICT OF COLUMBIA.

MEMORANDUM-PAD EQUIPMENT FOR TELEPHONES.

Application filed March 7, 1922. Serial No. 541,785.

To all whom it may concern:

Be it known that I, CLYDE L. BOWERS, a citizen of the United States of America, and a resident of Washington, District of Columbia, have invented certain new and useful Improvements in Memorandum-Pad Equipments for Telephones, of which the following is a specification.

This invention is an improvement in memorandum pad equipment for telephones, of the general type in which a memorandum or note pad is supported on a telephone standard in convenient position for notations to be made upon the pad during a telephonic conversation.

One of the principal objects of the invention aims at the provision of a pad clip and a pad-supporting plate, the clip being designed for ready attachment to a memorandum pad whereby the pad may be conveniently carried about, or suspended, while not in actual use on the supporting plate, the supporting plate being designed to cooperate with the clip in supporting the pad on the telephone standard, while notes are being made.

To this end, the pad clip and supporting plate are designed to be quickly and easily detachably connected together, and when so attached to co-operate in supporting the pad and in binding it in fixed position on the supporting plate.

A further object is to provide for the ready connection and removal of the supporting plate relatively to the standard, and to this end, the plate is provided with a portion which is readily engageable by, and removable from a supporting arm, which latter may be attached to the standard.

Another object is to provide for rendering the support with, or without the pad and clip attached thereto, readily attachable to and detachable from the supporting arm, without disturbing the latter or removing it from the standard.

A further object is to provide means for supporting a pencil in convenient position relative to the pad and to accomplish this, the pad clip is so formed as to accommodate the pencil, the conformation of the clip also serving to lend to it, a resiliency which is utilized in connecting it with the pad, and in co-operating with the supporting plate in maintaining the pad in position thereon.

A further object is to provide a directory and supporting means therefor, of such nature that the directory may be quickly accessible, when needed, without disturbing the memorandum pad, and may when not in use be adequately protected and housed beneath the supporting plate.

With these and other objects in view, which will be apparent as the description proceeds, the invention resides in the construction, combination and relation of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which like characters of reference indicate like figures throughout the several views, and in which,—

Figure 1 represents a view in perspective of a desk-telephone with the invention applied thereto.

Figure 2 represents a longitudinal sectional view.

Figure 3 represents a plan view, the pad being shown as broken away, and the directory being indicated in its extended position.

Figure 4 represents a transverse sectional view on the line 4—4 of Figure 3.

Figure 5 represents a plan view of a modified form of supporting arm.

Figure 6 represents a sectional view through a modified form of supporting plate.

Referring more particularly to the drawing, A indicates the telephone standard, B indicates the supporting arm, C indicates the clip, D the memorandum pad, E the supporting plate, and F the directory.

The supporting arm B comprises two strips of metal 1 and 2, preferably of a resilient nature, one of which is slightly longer than the other, and the other of which at its outer end is slightly out-turned to allow the web portion 3 (Figure 2), of the supporting plate to be readily inserted and forced between the plates composing the supporting arm. At their inner ends, these plates are oppositely curved as at 4 and 5, respectively, to partially encircle the standard A, and on the inner faces, the curved portions are faced with felt or the like as at 6. Means are provided for detachably connecting the two plates together at a point adjacent the standard, and this means is indicated in the drawings as a bolt and nut 7. The length of the curved portions 4 and 5 is such, and the degree of their curvature is such, that as the plates composing the arm are forced together by the fastening means

7, a fulcruming action will take place at the point of fastening, such as will force the plates 1 and 2 together, and retain them in that position, so that when the supporting plate is engaged between the two plates, it will be strongly supported in position, without any tendency of play occurring between the web and the plates.

The supporting plate E in marginal configuration is substantialy rectangular, and is so formed as to provide a base portion 8, composing the lower end of the plate, an inclined brace portion 9, an upper portion or extension 10, and a substantially vertical web portion 3. This web portion connects the forward end of the inclined brace 9 with the lower end of the extension 10.

In manufacturing the supporting plate, the same is stamped into the shape described, and at the same time the base 8 and brace 9 are longitudinally corrugated as at 8′, to add rigidity to the supporting plate. The web portion 3 is of a width substantially equal to the width of the supporting arm B, and the angular relation given to the web portion with respect to the plane of the supporting plate is such, that when the web portion is engaged between the plates of the supporting arm, a convenient angular disposition, with respect to the horizontal, is given to the supporting plate E, so that the pad, when arranged on the plate, will be in convenient position for writing.

Co-operating with the brace portion 9, in additionally bracing the supporting plate, is a stiffening plate 11, which bridges the gap between the base 8 and extension 10 of the supporting plate, and which is arranged in co-planar relation with those parts. This stiffening plate may be soldered to the supporting plate at the junction of the base 8 and brace 9 thereof, and at its opposite edge the stiffening plate may be turned down and soldered to the web 3. Of course other means than soldering may be utilized for retaining the stiffening plate in position.

If desired, the stiffening plate may form an integral part of the supporting plate, and may be stamped up from the brace portion 9 thereof, as indicated in Figure 6.

In either method of manufacture, the stiffening plate is formed to cover a sufficient portion of the breadth of the supporting plate to adequately rigidify it in conjunction with the brace portion 9.

The pad clip C, like the supporting plate, is also stamped and formed from a single piece of sheet metal, and is designed primarily for use in connection with the well known type of memorandum pad which includes in its construction, a tab, indicated at 12 in the drawings, at the upper end of its front face. These pads are usually manufactured with a paste-board back 13, and with suitable fasteners 14 connecting the tab and back and passing through the sheets forming the pad.

The clip is formed with a tab-engaging lip 15 (Figure 2), which is substantially U-shaped in cross section, and which slidably engages the tab in the act of attaching the clip to the pad. The clip also includes a pad-supporting, and plate-engaging tongue 16, which engages the back of the pad when the clip is connected therewith for normally supporting the pad, and which also engages the extension 10 of the supporting plate when the pad is positioned thereon, serving to clamp the extension between the pad and the tongue. The tongue is formed by bending the metal upon itself, the lower ply being extended as at 17 to form a carrying and holding means for the clip and pad. The plys are brought together sufficiently to form a bight into which the leaves of the pad may be caught when turned upwardly, as indicated in Figure 2, for the purpose either of calling someone's attention to the fact that a notation for them has been made, or for holding the successive leaves out of the way in making notations extending over several leaves. The extended portion 17 is provided with an opening as at 18, which serves the purpose of allowing the clip to be hung upon a hook or support while not being used.

The portion of the metal forming the clip which connects the lip 15 and the tongue 16, is bent upwardly as at 19 with respect to the tongue, to form a stop for the upper end of the pad, and is then bent over as at 20, for the purpose of effecting a resiliency between the lip 15 as a whole, and the tongue 16, and also to provide a recess in which a pencil 21 may be carried.

The position of the wall 19 of the clip with respect to the tongue 15 is such that the tab 12 of the pad may be moved lengthwise (that is in a transverse direction with respect to the pad as an entirety), into the lip, being in such movement engaged between the walls of the lip, and when the pad is thus positioned in the clip, the wall 19 will prevent longitudinal relative movement of the pad and clip in one direction, while the lip will prevent longitudinal relative movement in the other direction.

In forming the clip, such resiliency is imparted between the tongue and lip, and such relative position is given to these parts that the pad when attached to the clip is held snugly between them, and when the pad is positioned on the supporting plate by the engagement of the clip over the extension 10 thereof, a clamping action will take place by reason of the thickness of the extension 10, whereby to hold the pad securely in detachable position upon the supporting plate.

A leaf-spring 22 is utilized to assist in holding the pencil in place, and one end of the spring is bent over the edge of the metal as at 23 (Figure 4), and is then directed through an opening in the portion 20 of the clip, as at 24, to retain the spring in place. The other end of the spring is bent up into contact with the metal as indicated, so that a pencil may be inserted from either end, and when so inserted, will be detachably retained in position.

The directory F is in the form of a plate shaped to receive a plurality of cards 25, on which desired entries concerning telephone numbers, addresses, and the like, may be made. These cards may be made of white celluloid, printed as indicated in the drawings, or cards of other materials and designs may be used, as desired. The upper and lower marginal edges of the plate forming the directory support are turned over as at 26, and spaced sufficiently from the back of the plate to receive the cards, and the inner edge is preferably provided with an upwardly projecting corrugation 27, to form a stop for the inward movement of the cards. The outer edge of the upper over-turned flange 26 is preferably turned downwardly and outwardly to form a thumb-piece 28, whereby the directory may be swung into its closed position beneath the base 8 of the supporting plate, as indicated in Figure 1, or may be pulled out into open position, as indicated in Figure 3. One corner of the plate F is pivotally connected to the base 8 of the supporting plate, near one edge thereof, as at 29, in such a way as to effect a frictional retention of the plate in adjusted position, and in making this connection, I may use a small screw, which passes through the plate, and through washers which space the plate properly from the directory F, and is then encircled by a washer on the under face of the plate, against which washer a nut is turned and locked in any suitable way, the nut being tightened sufficiently to effect a frictional engagement between the parts such as will allow ready adjustment of the plate on its pivotal point, and at the same time, will hold it in adjusted position. The outer edge of the directory plate is provided with a recess as at 30, for receiving the fingers, whereby the cards may be readily put into place and taken from the directory.

The form of supporting arm shown in Figure 5 includes a strip of metal B′, preferably of a resilient nature which, at its outer end, is returned upon itself, so as to form the members 1′ and 2′, which, by the resiliency of the metal, are tensioned towards each other, as are the members 1 and 2 of the form of supporting arm shown in Figure 3. The inner end of the member 2′ may be slightly turned or curved outwardly from the member 1′ so as to allow the insertion of the web portion of the supporting plate between the two members. The end of the supporting arm B′ that is to be attached to the telephone, is bent at substantially right angles to the body portion of the arm and is provided with a U-shaped portion 5′ which connects with the body portion of the supporting arm by means of a crimped portion 31. Into this crimped portion is engaged one end of a U-shaped clamping member 4′, the other end of which co-operates with the outer end of the U-shaped portion 5′ in receiving a bolt and nut 7′, or a similar connecting means. This means will be of such type that the U-shaped portions 5′ and 4′ may be drawn toward each other to clamp the standard and thus connect the supporting arm B′ thereto.

The foregoing detailed description has been given for clearness of understanding, and no undue limitation should be deduced therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

Having thus described my invention what I claim as new is,—

1. In a device of the class described, the combination with a supporting arm attachable to a telephone standard, of a supporting plate attachable to and detachable from the supporting arm without effecting the attachment of the supporting arm relatively to the standard, a pad, and a clip carried by the pad and detachably clamping it against the said plate, whereby the clip and pad may be removed relatively to the arm either alone as a unit, or in combination with the supporting plate.

2. In a device of the class described, the combination with a supporting arm attachable to a telephone standard, of a supporting plate attachable to and detachable from the supporting arm without affecting the attachment of the supporting arm relatively to the standard, a pad, a clip separate from the supporting plate and bodily carried by the pad, said clip detachably clamping the pad against the plate, whereby the clip and pad may be removed bodily and together as a unit relatively to the arm, or may be so removed in combination with the supporting plate.

3. In a device of the class described, the combination of a supporting arm attachable to a telephone standard, a supporting plate mounted on the supporting arm and detachable therefrom, a pad arranged on one side of the supporting plate and having a tab, and a clip having a lip slidably engaging the tab and having a tongue resiliently tensioned toward the lip and co-operating therewith in detachably clamping the pad on the plate.

4. In a device of the class described, the combination of a supporting arm attachable

to a telephone standard, a supporting plate mounted on the supporting arm and detachable therefrom, a pad on one side of the supporting plate and having a tab, and a clip having a lip detachably engaging the tab and having a tongue bearing against the opposite side of the plate and co-operating with the lip in clamping the pad on the plate.

5. In a device of the class described, the combination of a supporting arm attachable to a telephone standard, a supporting plate attachable to and detachable from the supporting arm without disturbing the attachment of the supporting arm relative to the telephone standard, a pad, and a clip to which the pad is detachably connected, said clip having a tongue bearing against the plate and co-operating with the clip, in clamping the clip, pad and plate together.

6. In a device of the class described, the combination with a supporting arm including a pair of members resiliently tensioned towards each other, of a supporting plate having an off-set web portion slidably engageable between the said members.

7. In a device of the class described, the combination with a supporting arm including a pair of members tensioned towards each other, of a supporting plate having an off-set web portion slidably engageable between the said members, and a stiffening plate bridging the said off-set portion and connecting the portions of the supporting plate contiguous thereto.

8. In a device of the class described, the combination of a supporting arm including a pair of members tensioned toward each other, a supporting plate having means slidably engageable between the said members, a pad, and a clip detachably carried by the pad and clamping it against the said plate.

9. In a device of the class described, the combination of a supporting arm including members tensioned toward each other, a supporting plate having a portion slidably engaged between the tensioned members, a pad, and a clip to which the pad is detachably connected, said clip being separate from the plate and clamping the pad there-against.

10. In a device of the class described, the combination of a supporting arm, a supporting plate removably attached to the supporting arm, a clip removably attached to the supporting plate, and a pad removably attached to the clip.

CLYDE L. BOWERS.