May 31, 1949. G. A. HIGBEE 2,471,430

TELEPHONE NUMBER LISTING ATTACHMENT

Filed Jan. 19, 1945 4 Sheets-Sheet 1

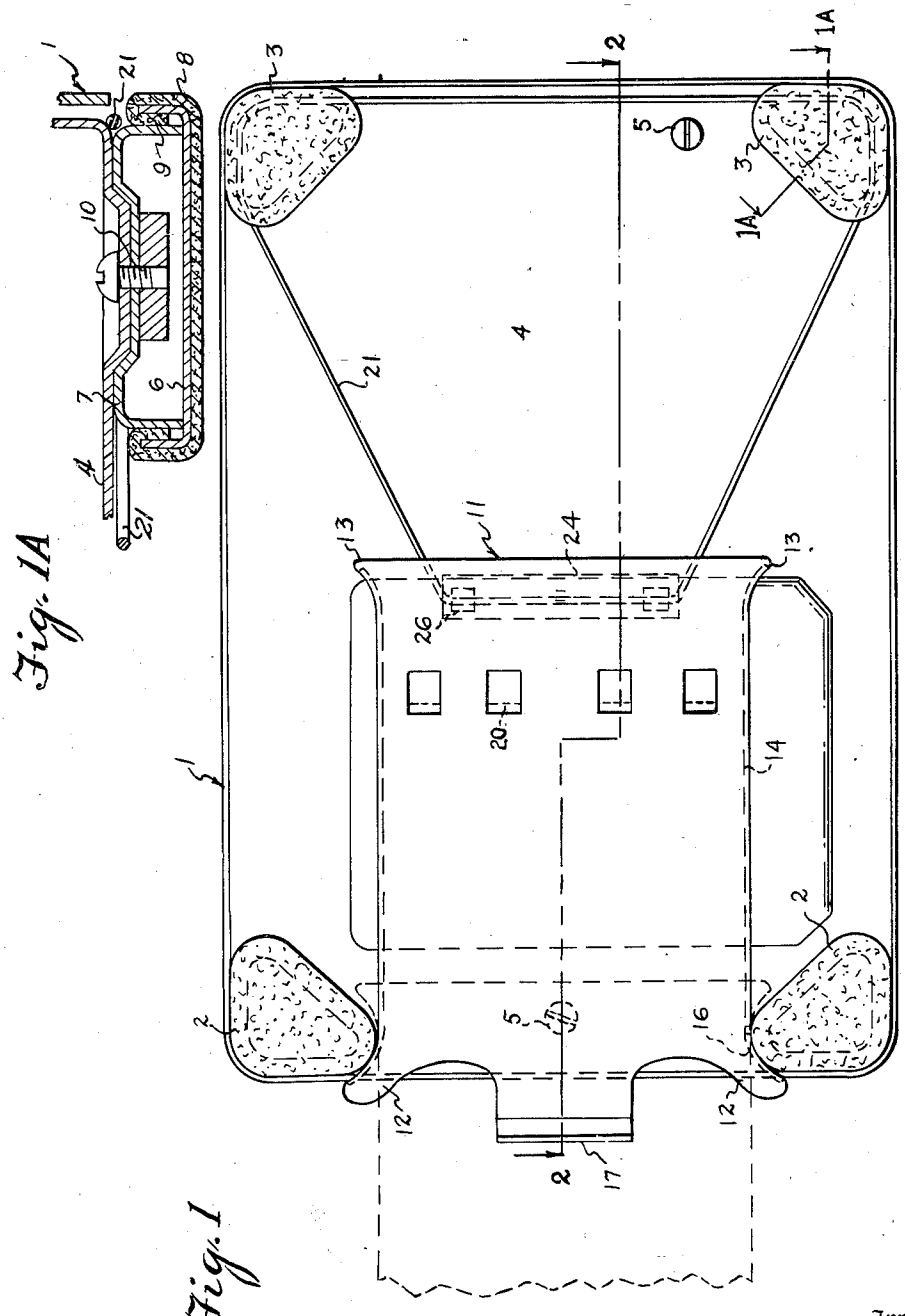


Fig. 1A

Fig. 1

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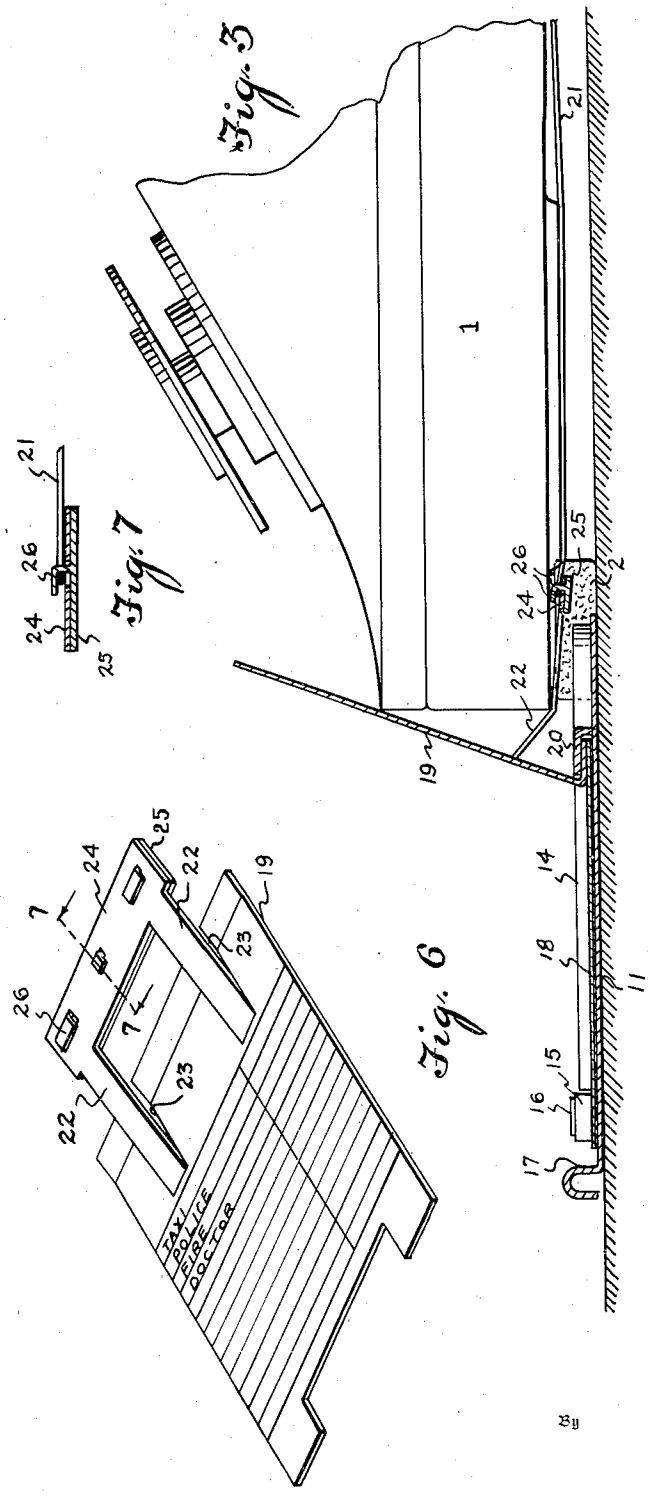
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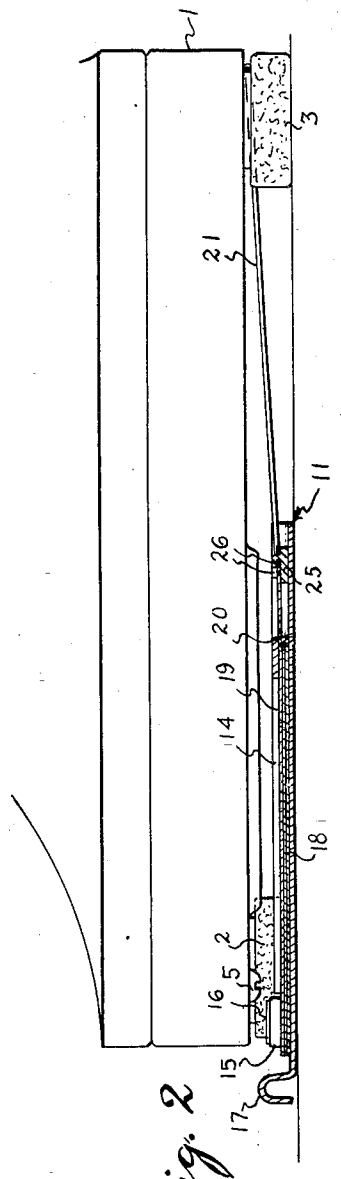
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Fig. 4

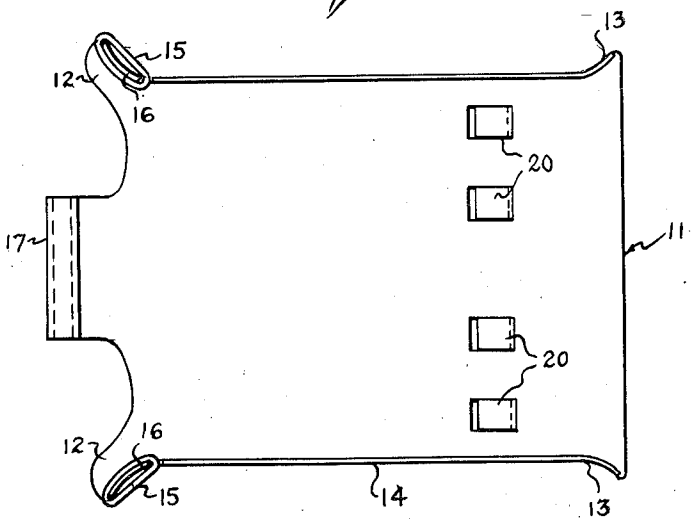
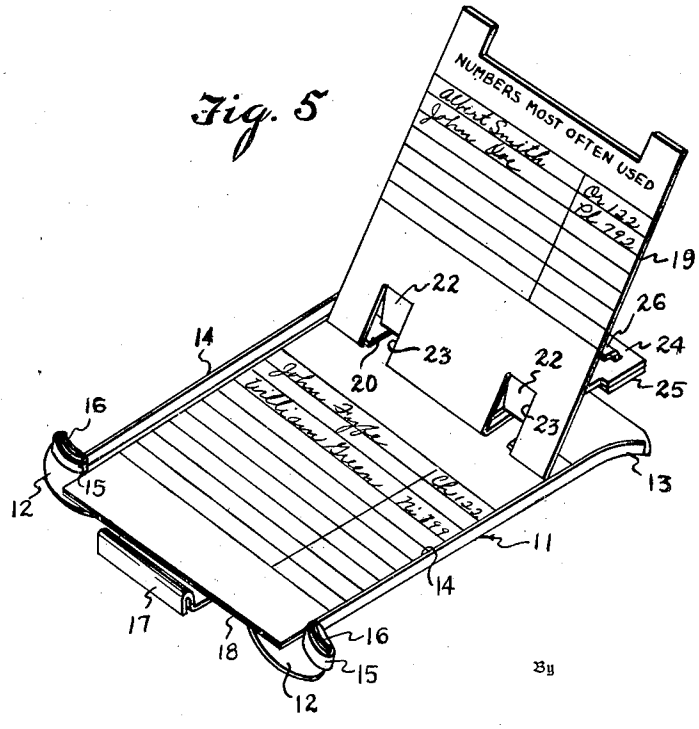


Fig. 5



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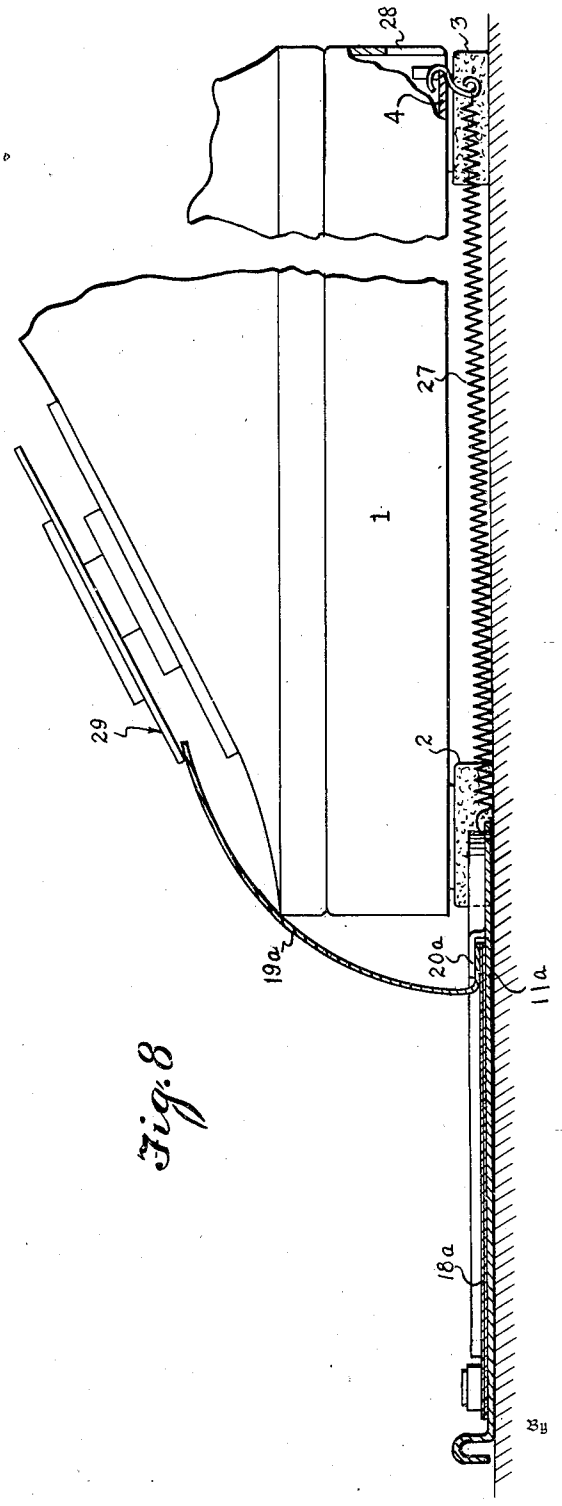


Fig. 8

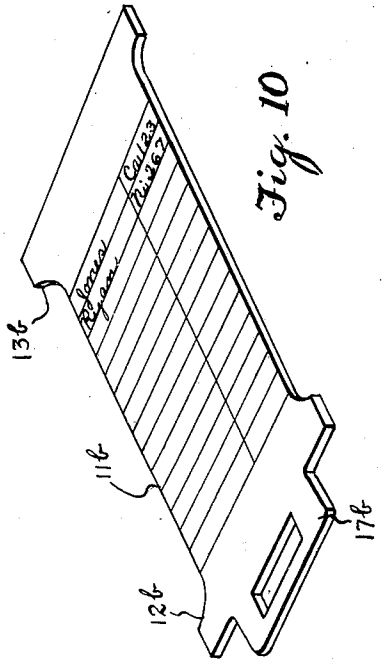


Fig. 10

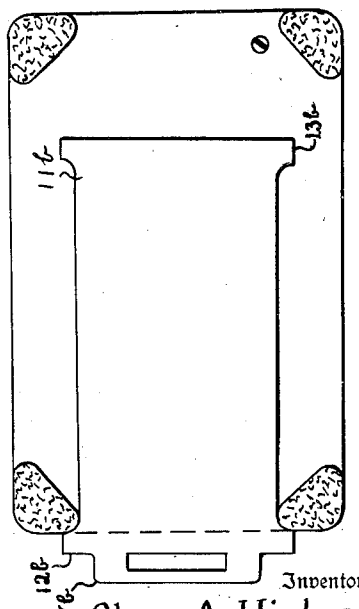


Fig. 9

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UNITED STATES PATENT OFFICE

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TELEPHONE NUMBER LISTING ATTACHMENT

Glenn A. Higbee, Detroit, Mich.

Application January 19, 1945, Serial No. 573,500

19 Claims. (Cl. 40—10.5)

1

This invention relates to drawer accessories for telephones and may be considered an improvement on the attachment disclosed by my pending application, filed February 16, 1944, under Serial Number 522,669 now Patent No. 2,432,760, dated December 16, 1947. The designated application discloses a drawer normally disposed beneath a telephone stand of the modern type having supporting feet, said drawer being slidable in and out between two of said feet and carrying a numbers list or the like.

An object of the present invention is to dispose a drawer beneath a telephone stand so as to be largely concealed when not in use and to attach it to the stand by a simpler, less expensive and more easily applied means than has heretofore been available.

Another object is to attach a drawer or other slide to and beneath a telephone stand by a resilient connection, which serves additionally to retract the drawer and yieldably hold it retracted.

Another object is to adapt a drawer or the like installed beneath a telephone stand to be resiliently retracted, and to provide a simple and unique latch for resisting retraction.

Another object is to utilize two of the feet of a modern telephone stand as guides for a drawer or other slide normally underlying such stand, and to provide stops on the drawer coacting with said feet or one of them to limit projection and retraction of the drawer.

Another object is to equip a slide installed beneath a telephone stand with improved sound-deadening and shock-absorbing stops for limiting retraction.

Another object is to provide resilient means for retracting a slide beneath a telephone stand and to further utilize said resilient means to give effect to a latch element for yieldably resisting retraction.

Another object is to equip a sliding drawer or the like with a latch element in sheet form and disposed normally substantially parallel to the drawer and to adapt said element to be automatically raised to a latching position when the drawer is drawn out, at the same time exposing certain printed or written information carried by said element.

Another object is to utilize such a latch element as a cover for a pad of sheets carried by the slide and serving to carry or receive additional information.

Another object is to establish a resilient connection between a telephone stand and a drawer

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or the like slidable beneath the stand, said connection serving the triple purpose of mounting the drawer on the stand, retracting the drawer following use thereof, and actuating a latch element by which the drawer is yieldably held in its projected position.

These and other objects are attained by the construction hereinafter described and illustrated in the accompanying drawings, wherein;

Fig. 1 is a bottom plan view of a telephone stand equipped with a drawer in accordance with one form of the invention, the drawer being shown retracted.

Fig. 1A is a cross sectional view of one of the rear feet of the telephone stand, taken on the line 1A—1A of Fig. 1.

Fig. 2 is a sectional elevational view of the stand and drawer, taken on the line 2—2 of Fig. 1.

Fig. 3 is a view similar to Fig. 2 but showing the drawer latched in its projected position.

Fig. 4 is a top plan view of the drawer, omitting the pad of sheets which the drawer carries.

Fig. 5 is a perspective view of the drawer and pad, showing the cover sheet of the pad raised to its latch-forming position.

Fig. 6 is a perspective view of said latch-forming cover in its lowered position.

Fig. 7 is a sectional detail of a portion of said cover, taken on the line 7—7 of Fig. 6.

Fig. 8 is a view in longitudinal sectional elevation of a drawer projected from a telephone stand shown in said elevation, illustrating a modified provision for retracting the drawer and holding it projected.

Fig. 9 is a bottom plan view of a telephone stand, showing the relation thereto of a somewhat different drawer.

Fig. 10 perspectively shows the drawer appearing in Fig. 9.

Referring now in greater detail to the drawings, and describing first the construction shown in Figs. 1 to 7 inclusive, the reference character 1 designates a modern cradle-type telephone stand having a rectangular hollow base and padded supporting feet 2 and 3 on its bottom face. The feet 2 are attached to the front corner portions and the feet 3 to the rear corner portions of a bottom cover plate 4 rigidly carried by the stand within its rectangular base. The plate 4 is secured in place by screws 5 and each of said feet comprises (see Fig. 1A) a lower upwardly dished stamping 6, an upper stamping 7 downwardly dished within the lower one and a pad 8

stretched across and around the lower stamping and having its margin 9 downturned and firmly clamped between the two stampings. A screw 10 secures each foot rigidly to the plate 4, drawing the stamping 7 firmly against said plate. It is to be noted that the pad, in embracing the upturned edge of the stamping 6 is spaced slightly downward from the plate 4, use being made of this feature as hereinafter appears. The described stand construction is highly standardized and in common use, it being important to note that the chamber produced beneath said stand is quite shallow. There is some variation of the chamber height in different models the range being from about one tenth to one eighth of an inch.

Beneath the stand 1 in the aforementioned shallow chamber, I install a slide 11 formed preferably of thin sheet metal, the illustrated slide being a shallow drawer. This drawer rests on the surface supporting the stand and is slidable between and guided by the front feet 2 of the stand. The front end of the drawer is integrally formed with a pair of opposite laterally projecting stops 12 engageable with the feet 2 to limit retraction of the drawer, and a pair of similar stops 13 on the rear end of the drawer are engageable with said feet to limit projection. The lateral margins of the drawer are formed with flanges 14 upturned a slight distance preferably about a sixteenth of an inch. These add considerable strength to the drawer and further avoid presenting to the feet thin metal edges which might damage the pads 8 and would not permit satisfactory functioning of the stops 12 and 13. For reasons which will presently appear, the front stops 12 encounter the feet 2 much more forcibly than the rear ones and it is hence preferred to provide shock-absorbing and sound-deadening pads on the stops 12. These may be very easily and inexpensively applied as small rubber bands 15 stretched to embrace upward extensions 16 from the rear edges of the stops 12, and it is preferred to bow the extensions 16 so as to space them from the feet-engaging rear spans of said bands, thus materially increasing their cushioning effect. A handle-forming lug 17 projects integrally forward from the drawer, its forward margin being arched to receive the forward pressure of a finger or to be gripped at the arch ends by a finger and thumb. The drawer carries a pad of sheets 18 for receiving a list of names and telephone numbers, permitting reference to the latter much more easily and expeditiously than does the usual directory. The topmost sheet 19 of this pad is preferably heavier than the others, its top face carrying emergency numbers and such other numbers as are likely to be hurriedly required by any telephone user. The under face of the sheet 19 provides for a written list of certain numbers most commonly required by the subscriber using my accessory. To secure said pad to the drawer, its rear margin is forced beneath a row of keepers 20 formed by tongues struck up from the drawer and bent forwardly at a suitable level above the drawer. The drawer extends, of course, sufficiently reward beyond the keepers 20 to allow a full exposure of the pad while the rear stops 13 are functioning (see Fig. 4). A light band 21 of elastic material such as rubber provides an easily applied and inexpensive means for holding the drawer normally retracted, said band being stretched to embrace the rear feet 3 and to extend from the latter to the rear portion of the drawer. In applying the band to the feet 3, advantage is taken of the small annular spaces occurring above the pads 8, the band being snapped into said spaces, as best seen in Fig. 1A, thus being well restrained from downward escape. Also any cutting action of the band on the pads 8 is avoided by disposing the band in said spaces. I use the sheet 19 as a means of connecting the band to the drawer, the connection being such as to derive from said sheet the function of a latch element. Thus a pair of spaced rearwardly projecting arms 22 are struck out of slots 23 in the rear portion of the sheet 19, a connecting strip 24 being integral with said arms slightly rearward of said sheet. Said arms and strip form a U-shaped yoke which is preferably reinforced by a sheet metal plate 25 conforming to said strip and secured thereto by several hooked tongues 26, two of which also serve for attaching the band 21 to said yoke. By thus connecting the band 21 to the yoke, there is avoided adding the band thickness to that of the drawer and pad, this being important in view of the shallow nature of the chamber receiving these parts.

Obviously the attachment of the described accessory to a telephone stand is quickly and easily effected, it being necessary merely to engage the drawer between the front feet of the stand and snap the band 21 into proper engagement with the rear feet, as Fig. 1 clearly shows. Thus installed, the drawer is almost entirely concealed, there being exposed only the front stops 12 and handle 17. When the drawer is drawn sufficiently forward to expose the pad 18, the top sheet 19 is immediately snapped to its raised position (Figs. 3 and 5), hinging upon its clamped rear margin, the arms 22 flexing to permit application of a rearward pull to said sheet a suitable distance above its hinge axis. In the raised position of said sheet, the most commonly used telephone numbers are exposed on said sheet and ready access is had to the remaining sheets of the pad 18. If it is desired to refer only to the emergency numbers on the top face of the sheet 19, the latter is held down by a slight finger pressure in pulling out the drawer. Release of the sheet 19 from its latching position requires only a slight inward push against the drawer, this reducing the leverage afforded the arms 22 so that the rearward pull on drawer exceeds that tending to lift the sheet 19. As the released drawer snaps back beneath the stand, throwing the stops 12 against the feet 2, the shock and sound of impact are greatly reduced by the cushioning means 15.

The modification illustrated by Fig. 8 differs from the described construction in replacement of the band 21 by a coiled spring 27 and in requiring a manipulation of the top sheet 19*a* of the pad 18*a* to derive the latch function of said sheet. The spring ends are hooked respectively to the rear end of the drawer, midway of said end, and to the rear edge of the bottom plate 4. Advantage is taken of an aperture 28 occurring as a standard provision in the rear wall of the base to accommodate a conductor cord, said aperture sufficiently exposing the rear edge of the plate 4 to allow the spring to hook said edge. The length of the pad 18*a*, including its top sheet, is such that upon flexing said sheet upwardly and rearwardly after drawing out the drawer, the upper margin of such sheet may be inserted beneath the dialing disc 29 of the stand, a latch function being thus derived. This arrangement achieves most of the advantages of the construction first described,

but is somewhat less convenient and the spring is of course more expensive than the rubber band **21**.

The accessory illustrated by Figs. 9 and 10 consists merely of a cardboard sheet **11***b* freely disposed beneath a telephone stand such as has been described, the front feet **2** of the stand guiding said sheet in a sliding travel and said feet limiting such travel both rearwardly and forwardly through encountering laterally projecting front and rear stops **12***b* and **13***b* on said sheet. Said stops are integral with the sliding sheet and may be formed in the operation of stamping out the sheet, the same being true of a lug **17***b* forwardly projecting from the sheet to serve as a handle. This highly simplified form of the invention may be produced at very little cost, but is suited to carry only a small list of names and numbers, must be manually shifted to both limiting positions, and lacks attachment to the stand.

It is an important characteristic of the invention, in each of its disclosed forms, that any interference with the supporting function of the feet is avoided. This is believed highly desirable since the feet have obviously been carefully and elaborately designed to function in the most satisfactory manner, and their function is a vital one. Normal concealment of the accessory almost in its entirety is another advantage common to the several disclosed arrangements. Numerous sub-phone cabinets have been designed to receive sliding drawers, but they are unduly conspicuous, complicated and costly. My construction disclosed by the aforementioned application eliminates the objections to said sub-phone cabinets, but entails use of a mounting plate for the sliding drawer adding materially to the thickness of the accessory and making installation difficult when the height of the sub-phone chamber is a minimum. The present construction may be readily installed even in a chamber of minimum depth and yet makes ample provision for number entries.

It is to be noted that the rubber band **21** or spring **27**, by connecting the rear portion of the drawer or slide to the rear portion of the stand and maintaining a firm pressure of the front stops against the front feet, permits the stand to be lifted or moved without escape of the drawer from its described position.

What I claim is:

1. In combination with a telephone stand having a plurality of spaced underlying supporting feet, whereby a restricted space is formed beneath such stand, a slide fitted between and guided by two of said feet in travel from a normal position within said restricted space to an exposed position, and stops laterally projecting from the front and rear portions of the slide and coacting with said guiding feet to limit both inward and outward travel of the slide.

2. In combination with a telephone stand having a plurality of spaced underlying supporting feet, a slide fitted between and guided by two of said feet, stops on said slide engageable with the two last-mentioned feet to limit retraction of the slide, and an extensible resilient connection from the rear end portion of the slide to the stand, yieldably assisting retraction of the slide and coacting with said stops to mount the slide on the stand.

3. In combination with a telephone stand having a plurality of spaced underlying supporting feet, a slide slidable between and guided by two of said feet, means normally holding said slide retracted and yieldably resisting its projection, stop means on the slide for limiting its retraction by engagement with the stand, and a flexible latch element on the slide engageable with the stand to yieldably maintain a projected position of the slide.

4. In combination with a telephone stand having a plurality of supporting feet, a slide slidable between and guided by two of said feet, and a resiliently extensible connection from said slide attached to another of said feet for normally retracting the slide and yieldably resisting its projection.

5. In combination with a telephone stand having four spaced feet, a slide slidable between and guided by two of said feet, and an elongated resiliently extensible element extended between and anchored to the other two feet and extended from the last-mentioned feet to the slide, said element holding the slide normally retracted and yieldably resisting its projection.

6. In combination with a telephone stand having a plurality of supporting feet, a slide slidable between and guided by two of said feet, and an elongated resiliently extensible element having spans extended from said slide to and looped over at least one other of said feet, the last-mentioned foot having a shoulder above which said element is engaged to prevent its escape.

7. In a telephone attachment, a slide installed beneath a telephone stand and slidable to an exposed position, a latch element carried by said slide and movable on the slide to a position for engaging and cooperating with the stand to yieldably resist retraction of the slide from the exposed position, and a common means for holding the slide normally yieldably retracted and holding the latch element in its said position, when the slide is exposed.

8. A telephone attachment as set forth in claim 7, said common means being an elongated resiliently extensible connection between the latch element and stand.

9. A telephone attachment as set forth in claim 7, said latch element being upwardly movable from the slide in assuming its latching position, and engageable with a peripheral face of the stand to resist slide retraction.

10. A telephone attachment as set forth in claim 7, said latch element being pivoted on the slide and extending from its pivot toward the front of the slide, when confined beneath the stand, said common means being effective on the latch element to swing it up to a latching position, when said element is withdrawn from beneath the stand.

11. In combination with a telephone stand, a slide installed beneath the stand and slidable to an exposed position, an information sheet normally disposed substantially flat on said slide and pivoted to the slide to swing upwardly about an axis transverse to the slide travel, and means acting on the slide through said sheet to yieldably assist retraction of the slide, and further effective in a projected position of the slide to swing the sheet to a raised position, exposing information on that face of the sheet which normally confronts the slide and engaging the sheet with a peripheral face of the stand to yieldably maintain the exposed position of the slide.

12. In a slide for installation beneath a dial-type telephone stand and for sliding to a projected position, means for holding the slide normally retracted and resiliently resisting its projection,

and a latch element on the slide engageable with the dial of the stand to maintain a projected position of the slide.

13. A slide as set forth in claim 12, said latch element being a flexible information sheet attached at one edge to the slide and normally projecting toward the front of the slide.

14. A slide having a projecting stop embraced by a tensioned band, said resilient band having a span spaced from the stop affording a yielding of such span under impact.

15. In combination with a telephone stand having spaced supporting feet, a slide fitted between and guided by two of said feet, the vertical extent of the slide being less than that of said feet, whereby interference with the supporting function of the feet is avoided, a pair of stops oppositely laterally projecting from the front end of the slide and engageable with the two guiding feet to limit retraction of the slide, and a pair of stops oppositely laterally projecting from the rear end of said slide and engageable with the two guiding feet to limit withdrawal of the slide.

16. In combination with a telephone stand having spaced supporting feet, a slide disposed beneath said stand and engageable with the surface supporting the stand, and slidable between and guided by two of said feet, means beneath the stand reacting between the slide and stand to exert a retractive pull on the slide, and a pair of stops oppositely laterally projecting from the front portion of the slide, said means resiliently holding the stops against said guiding feet and resisting dropping of the front end of the slide when the stand is lifted.

17. In combination with a telephone stand, a slide installed beneath such stand and slidable to an exposed position, an information sheet normally disposed substantially flat on the slide and projecting normally toward the front of the slide from an axis about which said sheet is adapted to swing upwardly, said sheet having an opening extending forwardly from the rear edge of the sheet, and a tongue attached to the sheet at the front end of such opening and rearwardly extending beyond the sheet, said tongue normally occupying said opening, and an extensible resilient connection from the peripheral portion of the stand to said tongue, acting through said sheet to resist withdrawal of the slide, and effective in a withdrawn position of the slide to raise the sheet to a latching position of exterior engagement with the stand.

18. The combination set forth in claim 17, said tongue being integral with said sheet and comprising a portion struck out of said opening of the sheet.

19. In combination with a telephone stand having a plurality of supporting feet, a slide fitted between and guided by two of said feet and formed with stops engageable with said guiding feet to limit withdrawal of the slide, the vertical extent of the slide being less than that of the feet, whereby interference with the supporting function of the feet is avoided, a resilient extensible element extending from the rear portion of said slide beneath the stand to the peripheral portion of the stand for yieldably resisting withdrawal of the slide, and an information pad secured to the slide and having its top sheet upwardly flexible in a position of the slide established by said stops to exteriorly engage the stand and resist retraction of the slide.

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