April 30, 1935. C. A. STEPHENSON 1,999,948

TELEPHONE ATTACHMENT

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Fig. 1

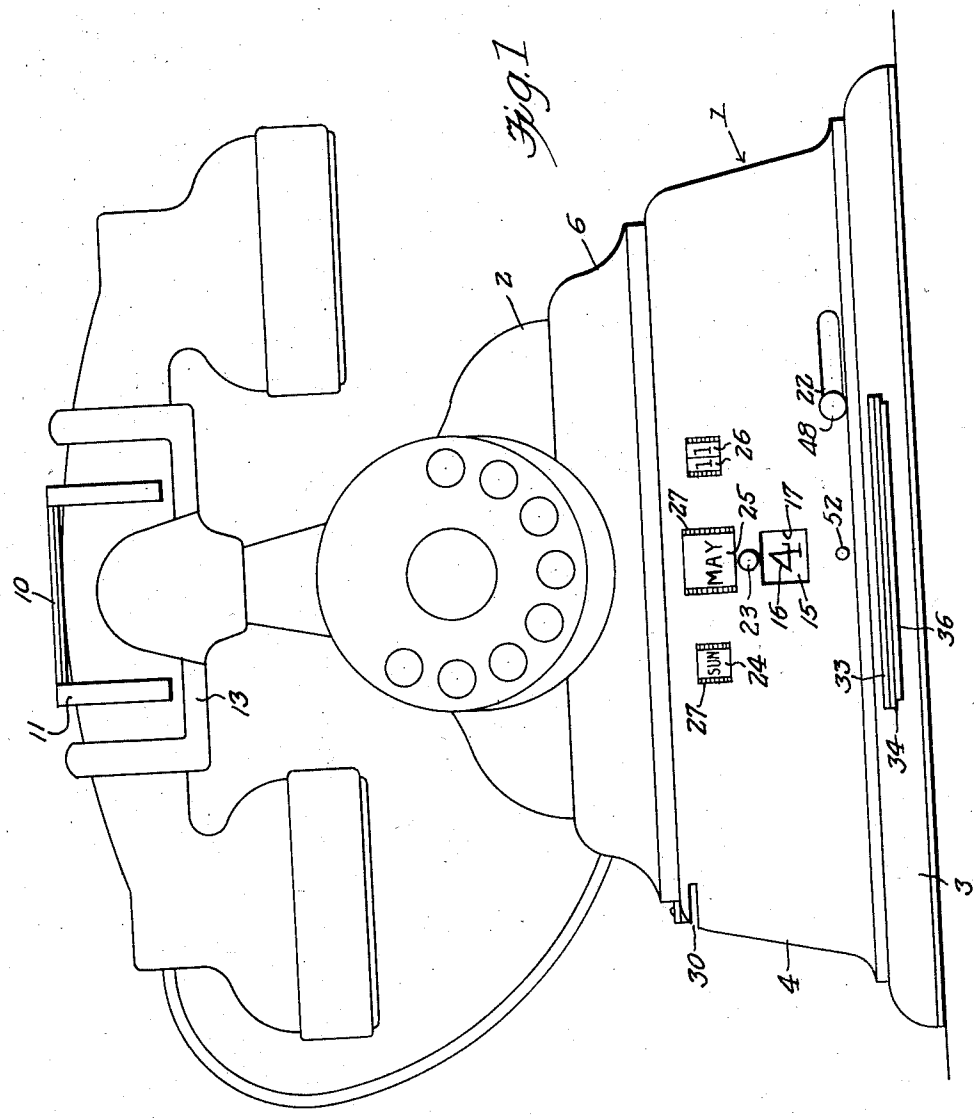
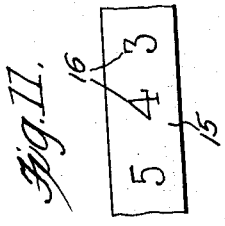


Fig. 11.



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Fig. 2.

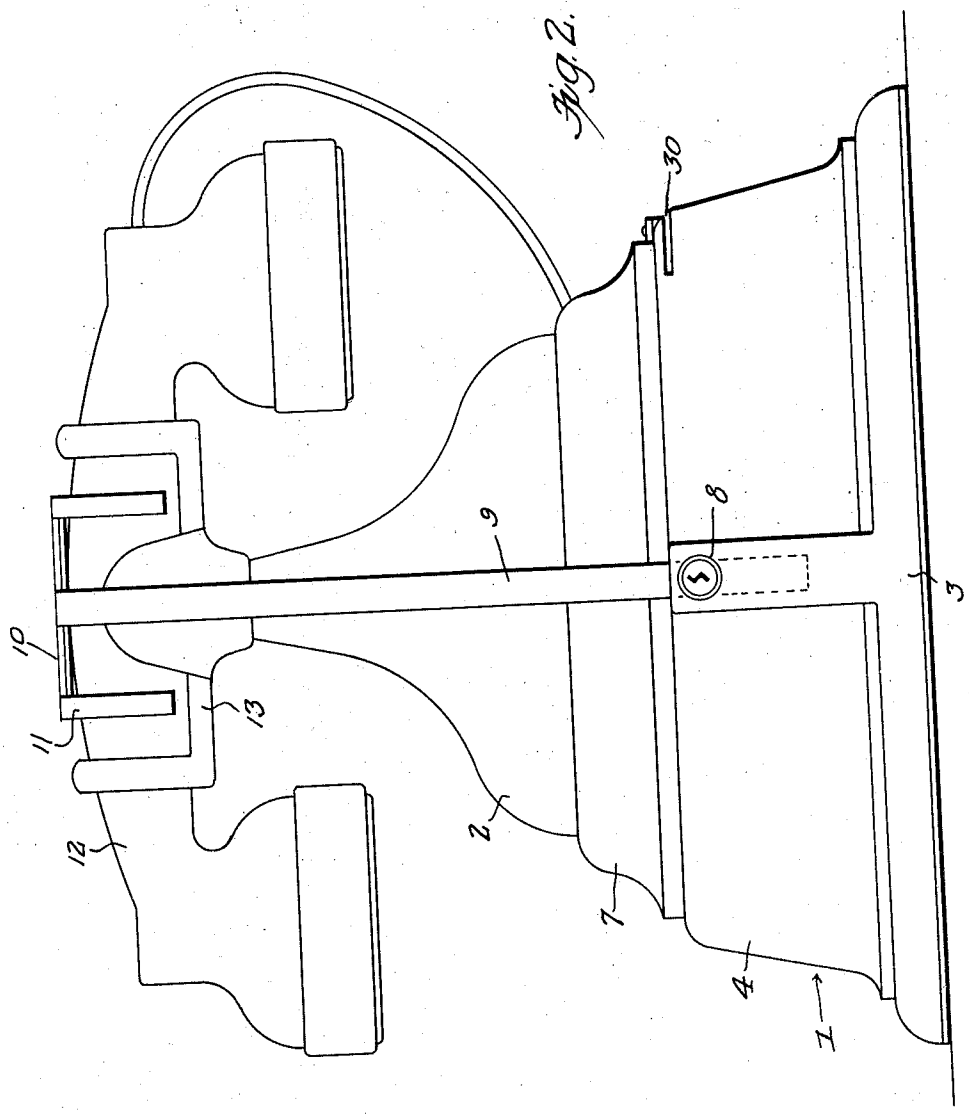
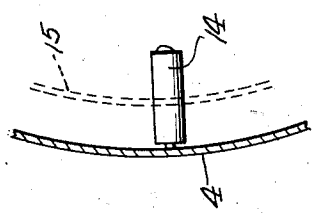


Fig. 7.



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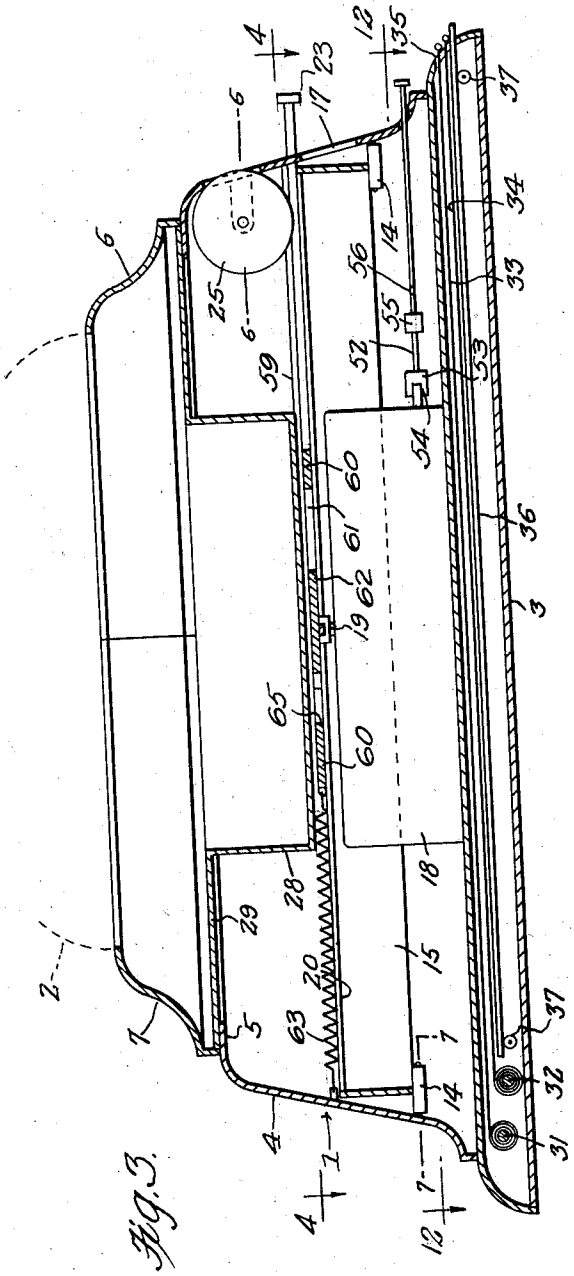


Fig. 3.

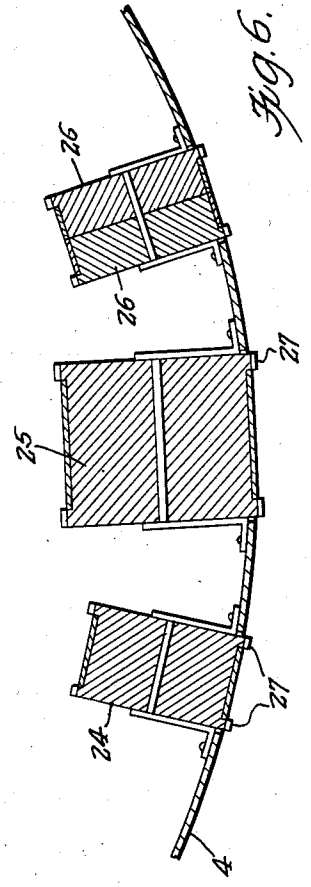


Fig. 6.

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Fig. 4.

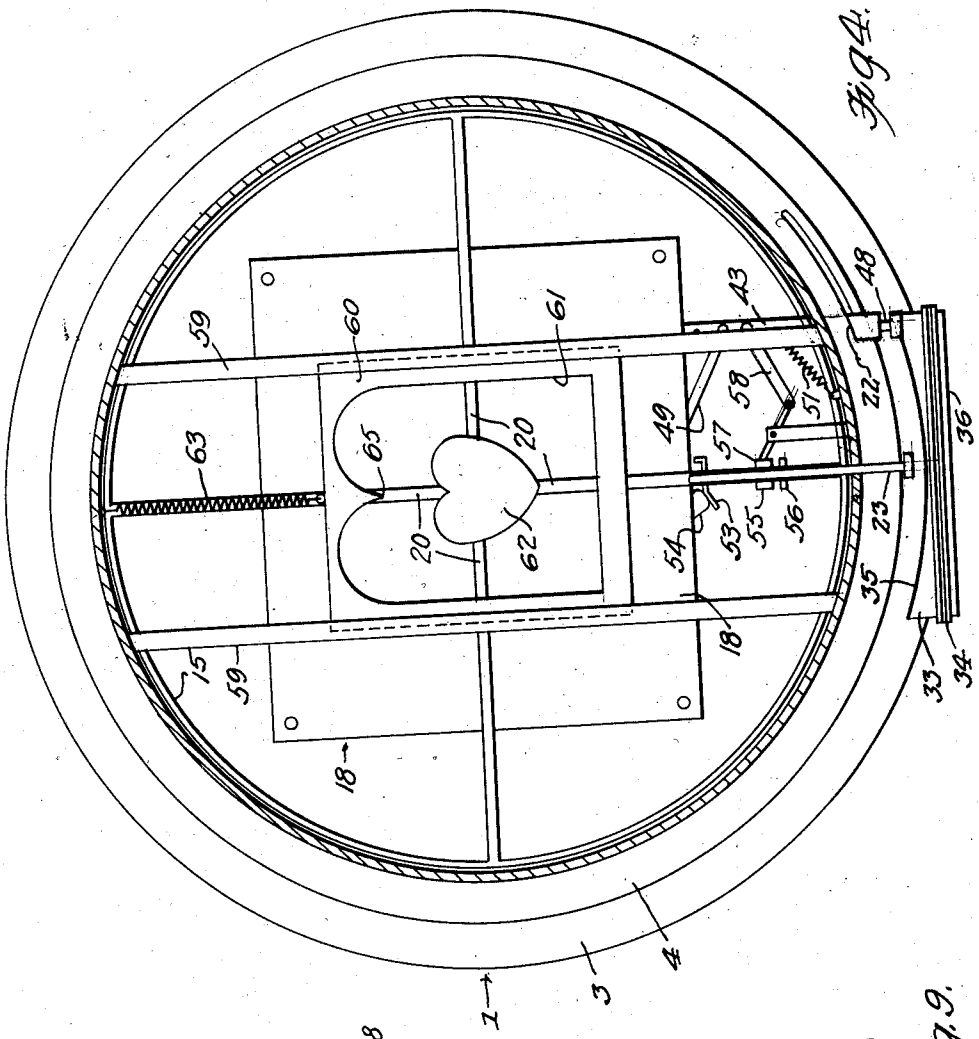


Fig. 8.

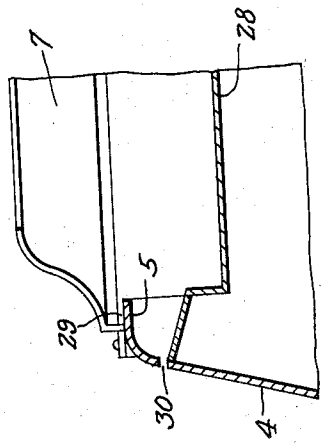
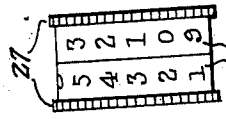


Fig. 9.



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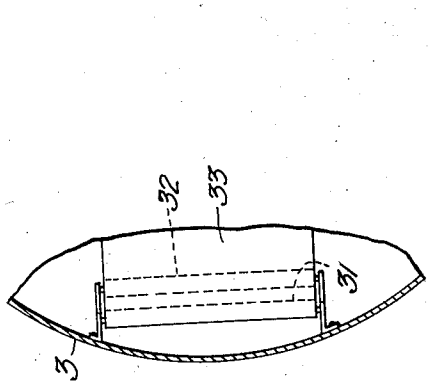


Fig. 10

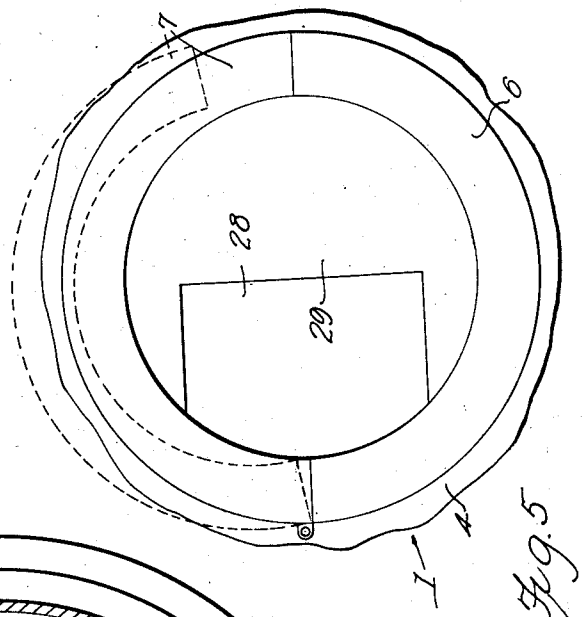


Fig. 5

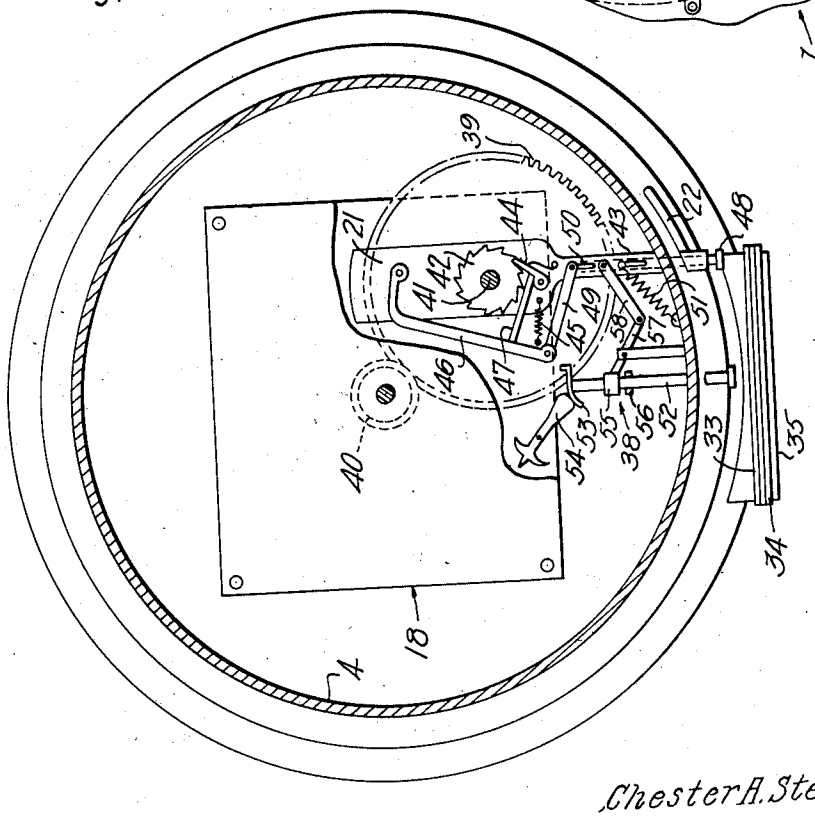


Fig. 12

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UNITED STATES PATENT OFFICE

1,999,948

TELEPHONE ATTACHMENT

Chester A. Stephenson, Pelham, N. Y.

Application June 30, 1933, Serial No. 678,529

1 Claim. (Cl. 161—19)

The present invention pertains to telephone attachments and has for one of its important objects to provide, in a manner as hereinafter set forth, an attachment of this character embodying means whereby the length of time consumed by each call may be conveniently ascertained and recorded.

Another important object of the invention is to provide a telephone attachment embodying a novel construction, combination, and arrangement of parts through the medium of which unauthorized use of the telephone may be prevented.

Other objects of the invention are to provide an attachment of the aforementioned character which will be simple in construction, strong, durable, efficient and reliable in use, compact, attractive in appearance and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a view in front elevation of the invention, showing a telephone mounted thereon.

Figure 2 is a rear elevational view.

Figure 3 is a view in vertical longitudinal section through the attachment.

Figure 4 is a view in horizontal section, taken substantially on the line 4—4 of Figure 3.

Figure 5 is a view in top plan of the upper portion of the invention.

Figure 6 is a detail view in horizontal section through the day, month, and date drums, taken substantially on the line 6—6 of Figure 3.

Figure 7 is a detail view in horizontal section, taken substantially on the line 7—7 of Figure 3.

Figure 8 is a fragmentary view in vertical section through that portion of the invention which includes the coin receiving slot.

Figure 9 is a detail view in elevation of the date indicating drums.

Figure 10 is a view in horizontal section through a lower rear portion of the device, showing the mounting of one of the web rollers.

Figure 11 is a fragmentary view in elevation, showing a portion of the time indicating ring.

Figure 12 is a view in horizontal section, taken substantially on the line 12—12 of Figure 3.

Referring now to the drawings in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a support which is designated generally by the reference numeral 1. Mounted on the support 1 is a conventional telephone 2 of the hand type.

The support 1 includes a hollow metallic base 3 of circular plan upon which a casing 4 is fixed. At its top, the casing 4 terminates in an inturned flange 5, said casing 4 being open at its bottom and top, as illustrated to advantage in Figure 3 of the drawings. Fixed on top of the casing 4 is a stationary telephone retaining flange sector 6 upon which is pivotally mounted for swinging movement a complemental retaining flange 7. As may be apparent, the flanges 6 and 7 are engageable with the base portion of the telephone 2 for securing said telephone on the support 1.

Mounted on the casing 4 is a barrel type lock 8 which receives a clamping arm 9. At its upper end, the arm 9 terminates in a cross head 10 having substantially U-shaped fingers 11 on its ends engageable with the hand piece 12 of the telephone 2 for retaining said hand piece in the hook 13 of the telephone. The locking arm 9 also functions as a stop to prevent the pivoted retaining flange 7 from being swung to open position which would permit removal of the telephone from the support.

Mounted horizontally in the casing 4 on supporting rollers 14 is a time indicating ring 15 having minute indicating numerals 1 to 12, inclusive, on its outer periphery, as designated by the reference numeral 16. The minute numerals 16 are observed through a window 17 which is provided for this purpose in the front of the casing 4. The time indicating ring 15 is driven by a clock motor 18 which is mounted in the casing 4 on the base 3. A shaft 19 rises from the clock motor 18 and has fixed thereon a plurality of arms 20 which radiate to the ring 15. The clock motor 18 is wound and controlled through the medium of a mechanism which is designated generally by the reference numeral 38.

As illustrated to advantage in Figure 12 of the drawings, the mechanism 38 includes a comparatively large gear 39 which is in mesh with the spring winding gear 40 of the clock motor 18. The gear 39 is fixed on a shaft 41 upon which a ratchet gear 42 is also fixed. Journaled for swinging movement on the shaft 41 is a lever 21 which includes a tubular handle portion 43 which is operable in a slot 22 provided therefor in the lower portion of the casing 4. The lever 21 is operatively connected to the ratchet gear 42 for actuating the gear 39 in one direction to wind the clock motor 18 through the medium of a spring-pressed pawl 44 which is pivotally mounted on

said lever 21. A spring 45 returns the lever 21 to retracted position.

Also pivotally mounted on the lever 21 is an angular lever 46 which includes a finger 47 which is engageable with the pawl 44 for disengaging said pawl from the ratchet gear 42. Slidably mounted in the tubular handle portion 43 of the lever 21 is a stem 48 which is operatively connected to the lever 46 by a link 49, a slot 50 being provided in said tubular handle portion 43 to accommodate the connection between the stem 48 and the link 49. A spring 51 is connected to the stem 48 for engaging the finger 47 with the pawl 44.

The mechanism 38 still further includes a plunger 52 which is slidably mounted in the casing 4 and which has mounted on its inner end a brake 53 which is engageable with the pallet lever 54 for stopping the clock motor 18. Slidably mounted on the plunger 52 is a collar 55 which is engageable with a pin 56 for disengaging the brake 53. A pivotally mounted lever 57 is operatively connected to the collar 55 and said lever, in turn, is operatively connected to the tubular handle portion 43 of the lever 21 by a link 58.

Mounted horizontally in the casing 4 is a pair of spaced, parallel channel bars 59 in which a resetting plate 60, for the time indicating ring 15 is slidably mounted. The plate 60, it will be noted, is in the form of a plate having an opening 61 therein which receives a heart shaped cam 62 which is fixed on the arms 20 of the indicating wheel 15. The plate 60 is formed to provide a pointed projection 65 which is operatively engageable with the cam 62. A rod 23, which extends slidably through the casing 4, is provided for actuating the plate 60 for resetting the time indicating ring 15. A spring 63 is provided for yieldingly maintaining the plate 60 in inoperative position.

Rotatably mounted in the upper front portion of the casing 4 is a day indicating drum 24, a month indicating drum 25, and a pair of complemental date indicating drums 26, the latter being mounted on a single shaft. The drums 24 to 26 are observed through openings provided therefor in the casing 4, said drums including milled marginal flanges 27 which project through the openings to facilitate manual setting of the drums each day.

Mounted in the casing 4 is a coin box 28 which, in the embodiment shown, comprises a supporting flange 29 which rests on the inturned flange 5 of said casing 4. Coins are deposited in the box 28 by persons using the telephone through a slot 30 which is provided for the purpose in an upper portion of the casing 4. It will thus be seen that access to the coin box 28 may be had by removing the telephone 2 from the stand 1. It will further be seen that the coin box 28 may be removed, if desired, by swinging the pivoted retaining flange 7 to open position.

Journaled horizontally in the rear portion of the base 3 are spring actuated rollers 31 and 32 upon which index and recording webs 33 and 34, respectively, are windable. The webs 33 and 34 are adapted to be withdrawn for use through an opening 35 which is provided therefor in the front of the base 3. Also operable in the opening 35 beneath the webs 33 and 34 is a plate 36 which functions as a support when writing on said webs 33 and 34. Supporting rollers 37 are provided for the plate 36 in the base 3.

Briefly, the attachment functions in the following manner: The hand piece 12 of the telephone is released by disengaging the locking arm 9 therefrom after the proper key has been inserted and turned in the lock 8. The person using the telephone then pushes the stem 48 inwardly against the tension of the spring 51 for retracting the finger 47, thus permitting the pawl 47 to engage the ratchet gear 42, as shown in Figure 12 of the drawings. The tubular handle portion 43 of the lever 21 is then swung to the right in the slot 22 against the tension of the spring 45 for winding the clock motor 18. When the lever 21 is released it is returned to retracted or inoperative position by the spring 45 and the spring 51 functions to engage the finger 47 with the pawl 44 for disengaging said pawl from the ratchet gear 42, thus permitting the spring motor to unwind. Movement of the tubular portion 43 of the lever 21 to the right in the slot 22 actuates the lever 57 through the medium of the link 58 for shifting the collar 55 into engagement with the pin 56 for disengaging the brake 53 from the lever 54 of the clock motor, thus permitting said clock motor to start. The clock motor 18, as previously stated, actuates the ring 15 and the minute indicating numerals 16 thereon are observed, one at a time, as they pass the window 17. When the conversation is terminated, the slidable plunger 52 is pushed inwardly for stopping the clock motor 18 and the time which the call has consumed is ascertained through the window 17 and recorded on the web 34. The rod 23 may then be pulled outwardly to reset the ring 15. As also hereinbefore set forth, the drums 24 to 26, inclusive, are manually set each day.

Any desired indicia may be recorded on the web 34 by first withdrawing the plate 36 from the hollow metallic base 3 and then pulling said web 34 outwardly thereover, said plate 36 thus functioning as a support or table for the web. The index web 33 may be used in a similar manner should it be desired to write thereon.

The clock mechanism may include an alarm to ring at intervals of three or five minutes or at any other intervals. While a spring clock motor is indicated in the drawings, an electric clock mechanism may, of course, be used if desired. The mechanism 38 and the resetting mechanism for the time indicating ring 15 are not claimed as a part of the invention.

It is believed that the many advantages of a telephone attachment constructed in accordance with the present invention will be readily understood, and although the preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:

A telephone attachment comprising a support for the telephone, said support including a casing, horizontal rollers journaled in the casing, said casing having a window therein, a ring rotatably mounted in the casing on the rollers having minute indicating numerals on its outer periphery observable through the window, a motor mounted in the casing, a shaft rising from the motor and operatively connected to said motor, and radiating arms connecting the ring to the shaft for actuation by said shaft.

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