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RECORDING MECHANISM

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FIG. 1

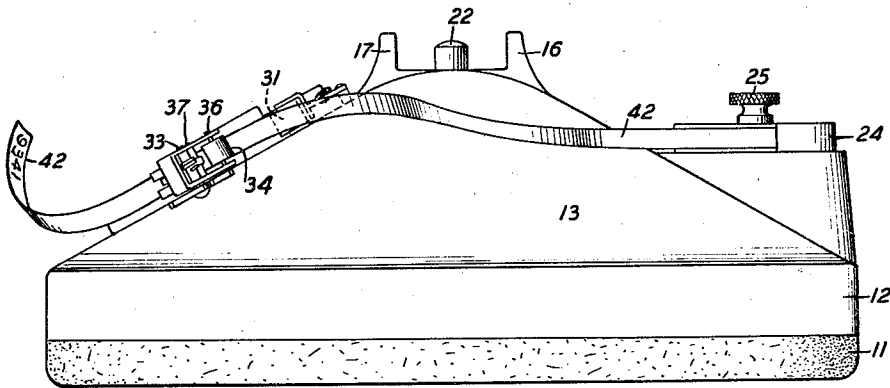


FIG. 2

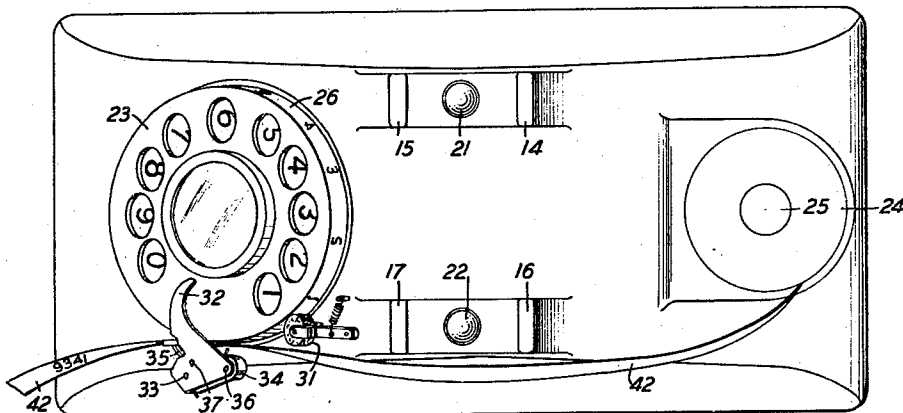
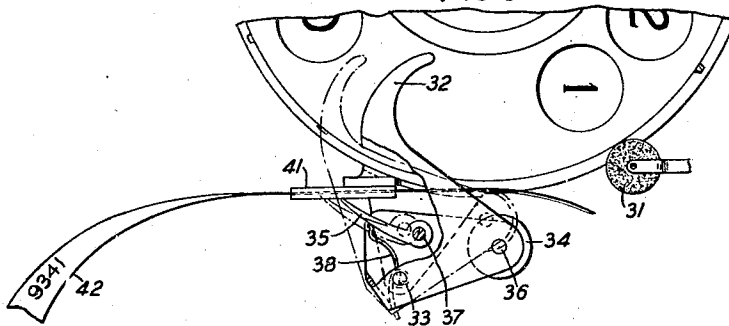


FIG. 3



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RECORDING MECHANISM

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3 Claims. (Cl. 234—33.5)

This invention relates to a recording mechanism and particularly to a recording mechanism for use with telephone substation apparatus of the automatic or dial type.

5 An object of the invention is to record at the telephone substation the telephone numbers "called" or dialed from the station.

Certain telephone subscribers make a practice of keeping in memorandum form a record of the calls dialed from their station, usually marking down the numbers on a convenient pad after the complete number has been dialed or perhaps after the conversation has been terminated. Records prepared in this manner have been found to be somewhat unreliable, however, as the subscriber may forget to mark down a call or the telephone may be used during the absence of the subscriber by other persons, who may neglect to record the calls which they make.

10 According to a feature of the present invention the numbers called are automatically recorded as dialed, only the usual steps necessary in operating the standard rotary type of calling dial being involved in the entire procedure.

15 In accordance with a particular embodiment of the invention, a call sender of the rotary or dial type, as described for example in Forsberg United States Patent 1,161,854 issued November 30, 1915, is provided with a printing surface the characters of which correspond to those on the number plate of the dial. This printing surface may be in the form of a rim carried by the finger hole wheel. A reel carrying a supply of paper tape is provided, the free end of the tape being passed through a guiding mechanism associated with the finger stop of the dial. A feeding mechanism for the tape and an inking roller are also provided.

20 It is of course well-known that the method of "dialing" a number by means of the standard rotary type of call sender referred to involves placing a finger in the aperture of the finger hole wheel corresponding to the digit on the number plate which is to be dialed and rotating the finger hole wheel until the finger contacts the finger stop. In accordance with the arrangement contemplated by the present invention the finger stop is pivoted, contact with it by the finger being effective to rotate it slightly. Rotation of the finger stop is effective to force a portion of the paper tape into contact with a character on the printing surface, which character is thereby printed on the tape.

25 A thorough understanding of the invention and of the various advantageous features thereof

may be gained from consideration of the following detailed description and the annexed drawing, in which:

Fig. 1 is a side elevation of a telephone handset mounting provided with a recording mechanism in accordance with the present invention;

Fig. 2 is a top view of the mounting shown in Fig. 1; and

Fig. 3 is a detailed view of a portion of the mechanism showing particularly the paper tape feeding and guiding arrangement.

Referring now to the drawing, there is shown in Figs. 1 and 2 a telephone handset mounting of the general type disclosed in Patent 2,008,287 issued July 16, 1935 to G. R. Lum. The mounting comprises a base 11 and a casing or housing including a base portion 12 and a pedestal portion 13. Tines 14, 15, 16, and 17 extend from the pedestal portion and define a cradle for the handle (not shown) of the hand telephone. Plungers 21 and 22 are depressed when the handle is placed in position in the cradle being effective when depressed to interrupt the talking circuit. A rotary call sender or dial 23, which may be of the general type described in the Forsberg patent mentioned above is mounted on one of the sloping ends of pedestal portion 13 while a reel 24 is mounted on the opposite end of the pedestal. This reel carries a supply of paper tape upon which the numbers are to be recorded, a knob 25 being provided for manually rotating the reel as desired.

The finger hole wheel of the dial is provided with a printing surface 26 which is in the form of a rim extending from and rotatable with the finger hole wheel. Embossed characters as "1", "2", "3", etc. are provided on the printing surface, these characters corresponding to the digits on the number plate which are visible through the finger holes. The characters on the printing surface are offset slightly with respect to the associated finger holes in order that said characters will be in proper printing position when the finger stop is moved as subsequently described. An inking roller 31 is mounted in cooperative position with respect to the printing surface and acts to "ink" the characters as the finger hole wheel is rotated.

Finger stop 32 is rotatably mounted on pivot 33 while pressure roller 34 and feed pawl 35 are supported by the finger stop being mounted on respective pivots 36 and 37. Spring 38 is also mounted on pivot 33, the free end of the spring normally being in engagement with a slot provided in feed pawl 35.

A paper guide 41 is mounted adjacent to the finger stop, the free end of paper tape 42 being fed through this guide.

Let us assume now, for purposes of illustration, that the number "123" is to be dialed. The subscriber inserts his finger in that aperture of the finger hole wheel of the dial which is above "1" on the number plate and rotates the finger hole wheel in a clockwise direction. The finger stop 32 is contacted by the finger of the subscriber and is moved from the position shown by full lines in Fig. 3 to the position shown by the dotted lines. The character "1" on printing surface 26 has been carried by this rotation of the finger hole wheel from its normal position to "printing" position, being "inked" in passing by roller 31.

Movement of finger stop 32 is effective, first, to move feed pawl 35 forward, as shown by the dotted lines, paper tape 42 being moved forward a corresponding distance due to engagement of the end of pawl 35 therewith and, second, to bring pressure roller 34 forward to the position shown by the dotted lines, the roller at this point forcing the paper tape into engagement with printing surface 26. As stated above character "1" has been brought into "printing" position, i. e., the position at which the pressure roller contacts the paper tape so that "1" is now printed on the tape.

As the subscriber removes his finger from the finger hole, the finger hole wheel and finger stop 32 both return to their normal positions. The subscriber then dials "2" and then "3" the digits "2" and "3" being printed on the tape in a manner similar to that just described. After the complete number has been dialed and recorded, the subscriber may move finger stop 32 one or more times in order to step the paper ahead so that a blank space on the tape will separate the number last recorded from the next number called. Movement of the finger stop does not, of course, result in printing any characters on the tape so long as the finger hole wheel has not been moved from its normal position.

While a specific embodiment of the invention has been selected for detailed description, the invention is not, of course, restricted in its application to the embodiment described. The embodiment described should be considered as illustrative of the invention, rather than as restrictive thereof.

What is claimed is:

1. A number recorder for use with automatic telephones of the type provided with call senders,

including a single movable finger operated wheel for actuating said call sender, printing characters carried by the peripheral edge of said wheel, a paper web on which said characters may be recorded, a movable finger stop associated with said finger operated actuating wheel, means mounted on said finger stop and effective upon movement thereof to cause engagement of said paper web and certain of said printing characters and a pawl pivotedly mounted on said finger stop with its free end in engagement with said paper web, said pawl being effective upon movement of said finger stop to advance the paper web to a new printing position.

2. A recording device for use with automatic telephones of the type provided with call senders, including a single rotatable finger wheel for actuating said call sender, a flat strip attached to the peripheral edge of said wheel and rotatable therewith, printing characters on said strip, a paper tape on which said characters may be recorded, a finger stop associated with said finger wheel, said finger stop being movable, means associated with said finger stop and effective upon movement thereof for causing engagement of said paper tape and certain of said characters, and additional means associated with said finger stop and in engagement with said paper tape effective upon movement of said finger stop to advance the paper tape to a new printing position.

3. A recording device for use with automatic telephones of the type provided with call senders, including a single rotatable finger wheel adapted to be rotated by the finger of the operator to actuate said call sender, printing characters carried by the peripheral edge of said finger wheel, a paper strip on which said characters may be recorded, a movable finger stop adapted to be engaged by the finger of the operator before the completion of each forward rotation of said finger wheel and to be moved thereby from its normal position to an advanced position, means carried by said finger stop and effective upon movement thereof from said normal position to said advanced position to cause engagement of said paper strip and certain of said printing characters and additional means carried by said finger stop and engaging said paper strip effective upon movement of said finger stop from said normal position to said advanced position to cause advancement of said paper strip to a new printing position.

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