New Trigger Dial

This dial retains the well-known trigger action of the former G.E.C. trigger dials, which have been standardised for many years by the British Post Office and many Overseas Administrations. The appearance of the new dial has, however, been redesigned to harmonise with the "New Gecophone" (described in G.E.C. Telecommunications No. 29) and the B.P.O. Telephone No. 706, and its use in this connexion is approved by the Council of Industrial Design.

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Fig. 1.—New trigger dial.

The mechanical operation of the new dial is similar to that of the previous G.E.C. trigger dial and, like its predecessor, the dial has been standardised by the British Post Office. It maintains the same simplicity of operation, high standards of reliability, accuracy and freedom from service troubles that have been features of G.E.C. dials for many years. The dial has a normal operating speed of 10 pulses per second and pulse ratio of 2 1 break to make. Dials having other commonly used ratios are available when required.

The new dial is interchangeable with previous G.E.C. dials. When required to replace dials on existing telephones, the new dial is supplied having the normal type of number ring behind the finger plate, but when it is used in the "New Gecophone" a blank ring of appropriate colour is fitted behind the finger plate and the numbers and/or letters are displayed on a separate number ring that fits on the telephone case around the outside of the dial, as shown in Fig. 6.

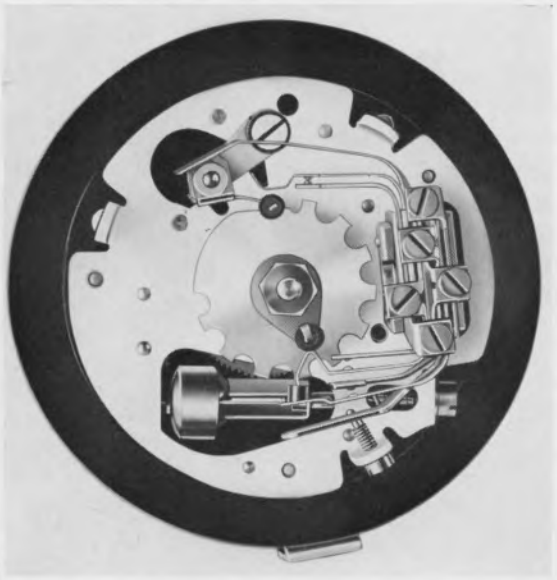

Fig. 2.—New dial—rear view.

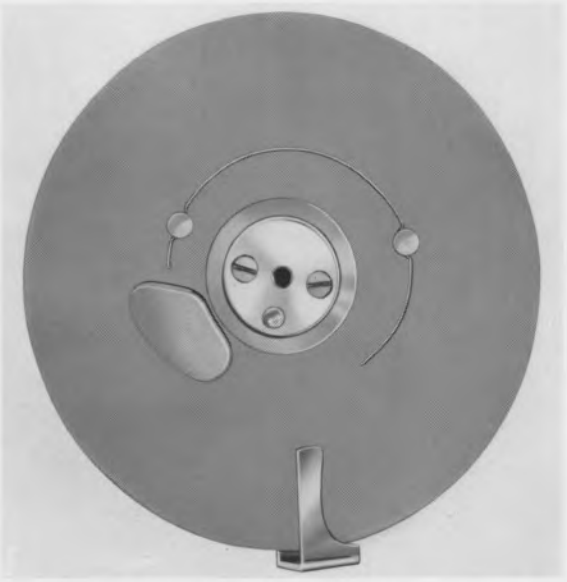

Fig. 3.—Dust-proof seal.

Fig. 4.—Illustrating removal of protector with rubber suction pad.

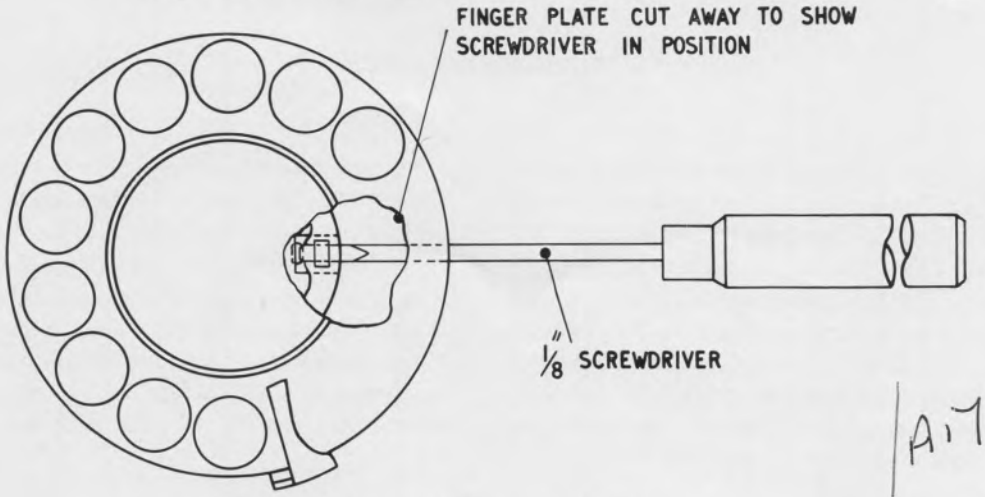

Fig. 5.—Illustrating removal of protector with screwdriver.

The finger plates are made of a high-grade plastic material, replacing the stainless steel plate formerly used, and are supplied in colours to match the telephones in which they are used. In the single-colour telephones these are black, yellow, red, ivory, and blue. In the two-tone grey and two-tone green telephones, the finger plates match the cases and the number rings and blank rings match the handsets.

Fig. 6.—"New Gecophone" fitted with new dial.

Whereas in previous dials the instruction card holder was a separate part mounted in the centre of the finger plate, the plastic finger plate is formed so that the holder is now part of the plate. It takes the form of a recess below the surface of the finger plate to a depth equal to that of the instruction card and its protective window, thus giving the surface of the dial a smooth and pleasing appearance.

A wire circlip is not required to hold the instruction card and its protector in position. Three small pips protruding from the periphery of the protector allow it to fit securely into the finger plate. To remove the protector, and hence instruction card, a rubber suction pad is available which fits over the protector and allows it to be withdrawn. Alternatively, a narrow screwdriver can be inserted behind the finger plate in the "3 o'clock" position. The tip of the screwdriver is then located behind an ejector plate and by turning the screwdriver the instruction card and its protector are ejected.

The metal case of former dials is also replaced by one of plastic material. The dial mechanism is mounted on a steel base plate and the whole fits into the moulded dial case. Apart from the easier accessibility resulting from mounting the mechanism on a flat base plate, the steel plate gives better support to the centre bearing.

When the dial is mounted in the "New Gecophone" the case is not seen as the dial is sunk into the telephone so that the surface of the blank ring of the dial is on the same plane as the outer number ring on the telephone case.

Occasional faults have occurred on the previous dial due to the silver pulsing contacts developing a high contact resistance. Although this occurs only rarely an attempt is made to prevent it altogether by fitting palladium pulsing contacts in the new dial.

In the "New Gecophone", a cover is fitted over the back of the dial to prevent dust or other foreign matter entering the mechanism or springsets. Further, a dust-proof seal is fitted between the number plate and the centre spindle. This seal is self adjusting to account for any eccentricity in the manufacture of the number ring or the centre spindle.

Other minor alterations are made in the new dial, for example, the finger stop, which is still made of stainless steel, is a different shape, and the dial instruction card has been redesigned, in keeping with modern trends.

Patents

Various features of the dial described in this article are the subjects of the following British Patents and Patent Applications :—

837033	782436	524262
822746	657002	522807