

The Pendant Telephone

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The Author describes the new Pendant Telephone and Dialling Unit which was made available to the public on the 1st March, 1939.

Introduction.

ARTISTIC appearance and convenience to the user are important factors in the design of any telephone instrument. Many business executives prefer to have their tables free from obstructions and in some situations, such as stock exchanges and hotel lifts, space economy is very desirable. To meet such needs a new telephone instrument described as the pendant telephone and an associated dialling unit have been designed in

collaboration with the Plessey Co., Ltd., and have been coded as "Telephone No. 246, Black," and "Mounting Dial Auto No. 16" respectively. The unit has been favourably commented upon when fitted for trial to the service lines of certain higher Post Office officials.

Primarily the telephone was designed for use in desk knee-holes, a typical installation when not in use being illustrated in Fig. 1, whereas Fig. 2 shows a different installation ready for establishing a call.

The telephone itself may be used without the dialling unit at non-dialling stations where a compact wall instrument is required, but its use in this manner on direct exchange lines in manual areas is not encouraged in view of the ultimate conversion to automatic working. This instrument is subject to a special charge and is at present only supplied in black, but may be introduced in the standard colours later if demands justify this course.

Telephone.

Essentially the telephone comprises a standard handset together with a switch-hook bracket moulded in bakelite with a metal backplate. The instrument is used in conjunction with a separate bell set incorporating the induction coil, and this arrangement, together with the provision of sufficient contacts on the switch-hook spring set enables the one type of pendant telephone to be used on all systems. The bell set may be accommodated in any unobtrusive position to the requirements of the subscriber. Some novelties in the general design include the use of an extensible handset cord and the general adoption of rubber sleeves at the cord entry holes in the telephone where hitherto the majority of cord faults has occurred.

Fig. 3 illustrates the inside of the telephone and the backplate used for fixing the instrument direct to an upright or to the table-mounting bracket. This bracket, coded as "Bracket Mounting B.U." is reversible for a left- or right-handed fixing, but normally the telephone should be to the left and the dialling unit to the right of the user. The internal connections are all accessible and brought out to separate terminals which are in turn wired through a cord to a terminal block for connection to the external wiring. Because of the alternative methods of



FIG. 1.—TYPICAL INSTALLATION.



FIG. 2.—TELEPHONE AND DIALLING UNIT READY FOR USE.

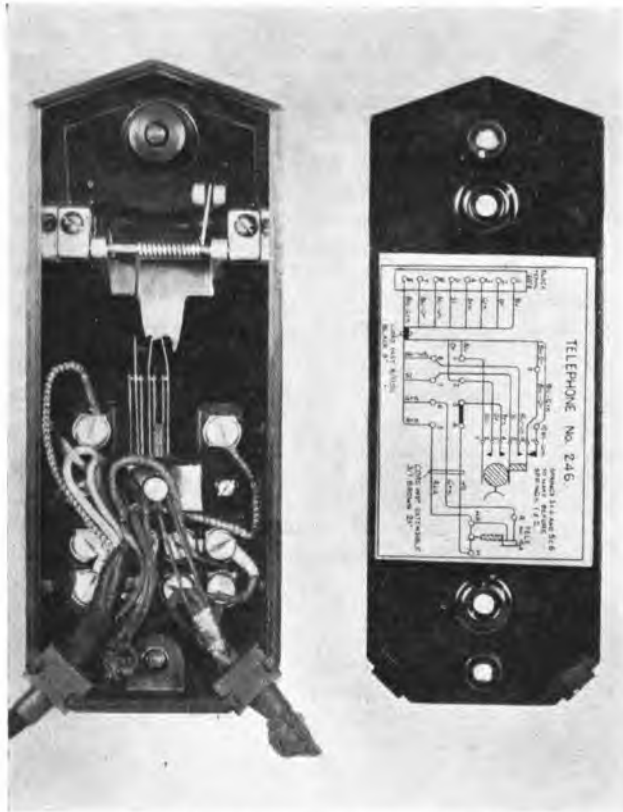


FIG. 3.—INTERIOR OF THE TELEPHONE.

mounting the telephone previously mentioned, the positions at which the two cords are brought out of the instrument body are interchangeable, so that the handset cord is at the side adjacent to the user in any particular installation.

Cords.

The requirements governing the choice of the handset cord length are somewhat conflicting, as it is essential to have the standard length of 42 in. when the telephone is in use, and yet when normal the cord must be short enough to clear the floor. It was finally decided to adopt an extensible cord having a normal length of 21 in. and capable of extension to 42 in. This cord incorporates the usual tinsel-plaited conductors, which extend and collapse round a central elastic core. Other types of extensible cords have been and are under test, but that at present adopted appears to be the most promising, and its introduction on the pendant telephone affords an opportunity for a valuable service trial.

Dialling Unit.

The dialling unit, which is of the drawer type, has three main components: a moulded bakelite mounting for the dial, a cadmium-plated metal slide housing the mounting and an eight-way terminal block. The underside of the unit is illustrated in Fig. 4, where the long trapped securing screw for the dial, and the bakelite dust cover and securing ring have been specially shown. The cord which connects the dial to the terminal block is secured by the two insulating

clamps indicated. This cord must have great flexibility and endurance, and consequently cordage similar to that used for switchboard cords was chosen and, in spite of the large conductor cross-section, the manufacturers were able to provide the usual bound loops, small enough to fit the 8 B.A. terminal screws on the dial.

In order to ensure a smooth, pleasing action when withdrawing the mounting for use, the slide has been lined with felt, and to secure rigidity when fully withdrawn, the cross-bar indicated in Fig. 4 registers in the slots in the mounting side. A special bracket coded as "Bracket Mounting B.V." has been designed to support the dialling unit where direct fixing is impracticable, and this bracket may be used for left- or right-hand fixing as with the telephone supporting bracket.

Fitting.

When installing a pendant telephone the brackets mentioned above may be used where direct fitting of either component of the installation is impracticable, and a number of alternative fixing holes has been provided to ensure a satisfactory fixing. The alternative mounting for the telephone shown in Fig. 2 has been obtained by using the appropriate bracket.

A further novel feature is the introduction of a schedule of stores required for any particular installation, shown on the first panel of each installation wiring diagram for the instrument. It is hoped that these schedules will be of service to the fitting staffs concerned.

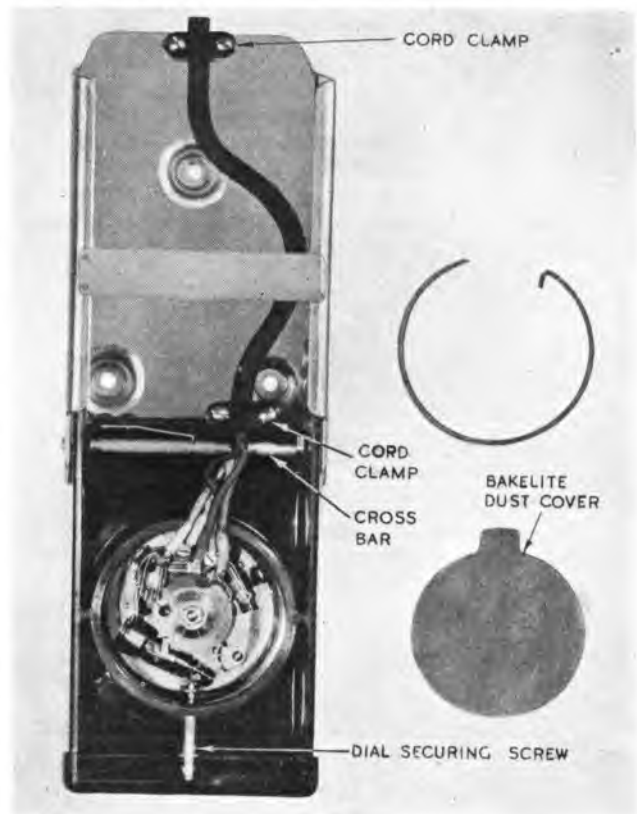


FIG. 4.—UNDERSIDE OF THE DIALLING UNIT.