

The present invention relates to telephone instruments and more particularly to instruments provided with a cradle for supporting a hand micro-telephone.

The cradle is generally made movable so that instrument contacts can be controlled by the weight of the hand micro-telephone, but it is also often arranged that the cradle is a fixture and the hand micro-telephone when placed on the receiver presses down a spring-controlled spindle which operates on the instrument contacts. Sometimes the spindle has at the end, operated on by the hand micro-telephone, a short and narrow platform which is situated in or enters a recess in the cradle when the instrument is not in use.

On account of the possible collection of dust around the spindle and/or platform and under the platform with the consequent impediment to its movement, the restoring spring of the spindle has to be made rather heavy which is a disadvantage as the user of the instrument may not replace the hand micro-telephone in its proper position and its weight may be to some extent, ineffective.

The present invention refers to instruments with a fixed cradle and has mainly in view contact control arrangements little liable to obstruction by dust and thereby permitting of the use of a lighter restoring spring.

In this invention the contact control spindle is provided with a comparatively long platform which enters at each end, the forked end of the cradle. Suitable guides are provided to prevent any turning of the spindle and the recesses which they enter are open at the bottom end. In a preferred form the ends of the platform are turned downwards and situated in vertical recesses in the cradle ends where ample clearance can be given and dust

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or other obstructions easily removed.

A further feature of the invention relates to the supporting arrangements of the spindle and platform. According to this feature, the spindle is journalled in a tubular shaped casting provided with a flange at its upper end and a platform-type lower end on which contact springs and terminal blocks are mounted. The same screws that secure the cradle to the top of the instrument may serve to clamp the casting to the underside of the casing top.

Reference will now be had to the accompanying drawings which show a table telephone embodying the invention.

In the drawings Fig. 1 is a front view in section, Fig. 2 is an end view with part of the casing removed and Fig. 3 is a top view of the instrument.

The numeral 1 designates the base of the instrument which closes the bottom of the casing 2. On the upper end of the casing 2 is secured by means of screws the cradle 3 with its forked ends 4 for the purpose of holding the hand micro-telephone. Attached rigidly to the underside of the top of the casing 2 is the tubular casting 5 which carries at its lower end the plate 6 on which are mounted the requisite terminals and contact springs. The tubular casting 5 is fixed to the top of the casing by the same screws that secure the cradle in position.

Journalled within the tubular casting 5 and passing out through a hole in the cradle and top of the casing 2 is the spindle 7 which operates on the contact springs 15 by means of an insulating cam at its lower end and at its upper end it carries the platform 8. The upper end of the spindle may be moulded into the platform

which may be of insulating material. The platform 8 runs the whole length of the cradle 3 and projects into the forked ends 4. The ends of the platform which act as guides are bent at right angles to its length and parallel to the length of the spindle, so that they are in line with the ends of the cradle and slide freely with a vertical motion in recesses 9 in the ends of the cradle.

By arranging the guides for the moving platform 8 at the extreme ends of the fixed cradle and by making the platform wider than the hole for the spindle 7 to prevent direct entry of large particles, it is possible to give larger clearances between the sliding parts of the platform and the grooves 9 in the cradle, and between the spindle 7 and the bearing in which it operates, all of which obviate the necessity for a strong restoring spring.

The platform 8 when the hand micro-telephone is removed is forced upwards by the spring 10 which is situated between the shoulder 11 on the spindle 7 and the bearing 12 of the tubular casting 5. A removable pin 13 near the lower end of the spindle limits the upward motion of the platform so that the bent ends of the platform do not leave the recesses 9. The recesses 9 being bottomless, dust does not collect therein.

Due to the platform extending the whole distance between the forked ends of the cradle its depression is assured even though the hand micro-telephone be replaced carelessly as so long as one end of the hand micro-telephone is between the forks it will be resting on the platform and will depress it.

The numeral 14 in Fig. 3 indicates a mounting on the casing for the dial in the case where the instrument is used in an automatic telephone system.