B. W. SWEET.

TELEPHONE DESK SET.

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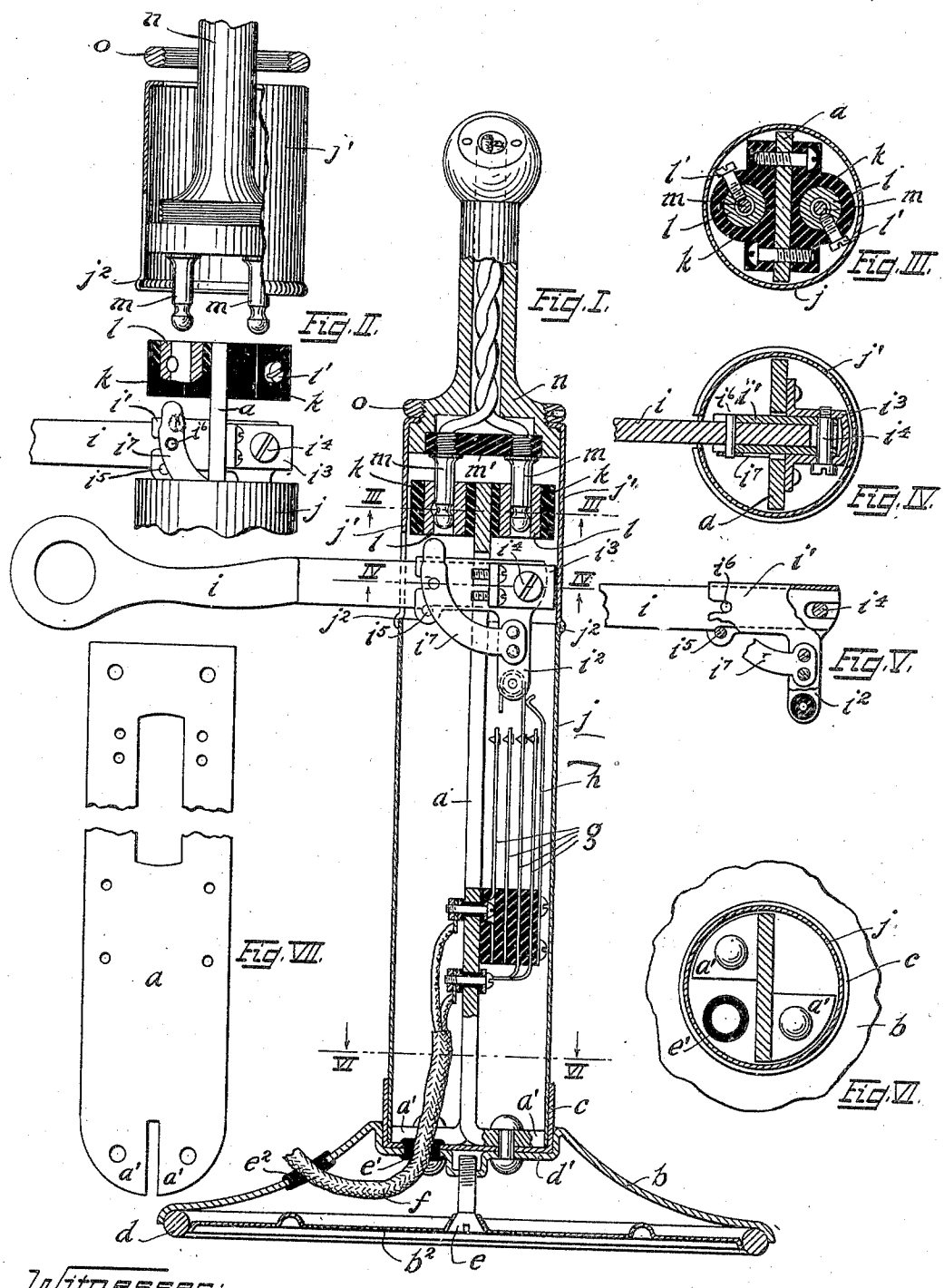
950,809.

Patented Mar. 1, 1910.



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UNITED STATES PATENT OFFICE.

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TELEPHONE DESK-SET.

950,809. Specification of Letters Patent. Patented Mar. 1, 1910.

Application filed April 1, 1907. Serial No. 365,698.

To all whom it may concern:

Be it known that I, BURTON W. SWEET, a citizen of the United States of America, and a resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Telephone Desk-Sets, of which the following is a specification.

My invention relates to improvements in telephone desk sets, and has for its object the construction of an extremely cheap, convenient, light and serviceable instrument. To this end the desk set is constructed, as far as permissible, from sheet metal stampings and interchangeable separable parts, so that the electrical apparatus may be readily inspected, adjusted and repaired.

Ordinarily desk sets comprise a large number of cast or spun parts, which add appreciably to the weight and cost of the complete instrument. In addition, a number of types of desk sets are so constructed that the switch springs and electrical connections are very inaccessible, or may be reached only by practically disassembling the entire instrument. These are features, which obviously are undesirable and should be avoided, and in my improved desk set, light stampings have displaced cast metal parts, while by means of a simple removable casing or casings, the electrical parts of my desk set are partially or entirely exposed for the purpose of renewal, adjustment or repair. The switch springs and their associated connections with the conducting cord, need not be disturbed, being permanently mounted upon a supporting-plate and base.

For complete access to the interior of the standard, or for convenience of replacement, the transmitter head is made removable, while a convenient removable receiver-hook, or support, is associated with the switching mechanism. However, I shall not attempt further to describe the features of construction, except in connection with the accompanying drawings which illustrate the preferred embodiment of my invention, wherein:—

Figure I is a vertical section of the improved desk set embodying my invention. Fig. II is a view of certain details thereof in side elevation and partially broken away, which shows the partial separation of the members of said desk set. Figs. III and IV respectively are cross-sectional views on lines III—III and IV—IV, Fig. I. Fig. V is a fragmentary view illustrating the removable receiver-support. Fig. VI is a cross-sectional view on lines VI—VI, Fig. 1; and Fig. VII is a plan view of the blank forming the supporting plate, partially broken away.

To avoid any misconception, and to make my description perfectly clear, I have employed the same characters of reference throughout the accompanying description and upon the drawings, to indicate similar parts.

Referring first to Fig. II, it will be seen that the transmitter head, the upper section of the casing and its retaining ring, have been removed from their attachment upon the central supporting plate, thus exposing the removable receiver support and permitting its detachment. These parts are all shown properly assembled in the vertical sectional view which I shall now describe in detail.

The central supporting plate *a*, Fig. VII, has outwardly bent lugs *a'* which are firmly riveted within the cup *c* and dished portion *d'* of the stamped metal base *b*. Said base is closed by a corrugated bottom plate b^2, which clamps in place the leather ring *d*, and is removably held in position by the screw *e*. Through the two eyelets *e'* e^2, which may be formed of metal or insulating material, extends the conducting cord *f* whose individual conductors are connected with the switch springs *g* insulatingly mounted upon the lower portion of the supporting plate *a*. A stiff clock-spring *h* bears upon the longer or actuated spring of the said contact springs, which is looped over an insulating sleeve upon the depending arm i^2 of the pivoted bell-crank member of the hook switch. A housing i^3 secured near the upper end of the supporting plate, pivotally mounts this bell-crank member, which is adapted to accommodate the receiver-support or hook *i;* the inner end of which is slotted and shouldered respectively to engage the cross pins i^4 i^5, while a pin i^6 passes within the slot within said pivoted bell-crank member *i'*, and is normally held by means of the lateral spring i^7, which snaps over the head of said pin (see Fig. II). Merely by releasing the spring, however, the receiver-support or hook *i* is readily removed from the upper bell-crank arm, and permits the lower sec-

tion j of the casing to be lifted from its protecting position about the switch springs. A sectional insulating block k k is attached at the upper end of the supporting plate and mounts the conducting sleeves l l, and the retaining screws l' l', which are respectively adapted to receive and engage the terminal conducting stems m m insulatingly held by a rigid diaphragm m' within the transmitter head n, through which the conductors interiorly extend to the transmitter. The upper section j' of the casing is shouldered at j^2 to engage the top of the casing j, while above said casing section j' is held in place by means of the threaded retaining ring o, which preferably is removable by means of a suitable spanner or wrench.

The novel features of my improved removable switch hook are claimed in a separate divisional application, Serial No. 518,480, filed September 20th, 1909.

From the foregoing, those conversant with the art will readily understand the advantageous features of construction and operation which are present in my improved desk-set as herein explained. Accordingly I claim, and desire to secure by Letters Patent, together with such modifications as may be made by mere skill, the following:—

1. A telephone desk-set equipped with two removable non-telescoping casing-sections, separable in a horizontal plane, a central supporting-plate, and means for removably retaining them individually in place thereabout substantially as set forth.

2. A telephone desk-set having a supporting-plate permanently mounted upon its supporting-base, switch-springs insulatingly mounted on said plate, conducting-cord members permanently connected with the springs, fixed contacts for the transmitter, and a removable transmitter-head and transmitter-contacts associated therewith, substantially as set forth.

3. A telephone desk-set having a stamped-metal base, an attached stamped-metal supporting-plate, a removable switch-hook member pivotally mounted thereon, and a removable casing-member positioned about the supporting-plate and beneath the switch-hook member, substantially as set forth.

4. A telephone desk-set having permanently connected switch-springs, conducting-cord members, co-acting contacts for the transmitter, insulating supporting-plate and base, a removable transmitter-head and its contacts, and a removable casing retained thereby, substantially as set forth.

5. A telephone desk-set having permanently attached base, supporting-plate, switch-spring and conducting-cord members, and removable sectional-casing, switch-hook and transmitter-head members, substantially as set forth.

6. A telephone desk-set having a removable transmitter head, terminal-parts insulatingly mounted thereon, and insulated conductive-sockets respectively adapted to receive the terminal-parts and complete the circuit to the transmitter, substantially as set forth.

7. A telephone desk-set having permanently attached supporting-plate and base members, a tubular casing comprising horizontally-separable non-telescoping members surrounding said plate, and means for removably securing the same from above, substantially as set forth.

8. A telephone desk-set having a central supporting-plate mounting the operative-parts of said set, a two-section non-telescoping casing therefor, comprising individual removable tubular members, and means for removably securing the same from the upper portion of said casing, substantially as set forth.

9. A telephone desk-set having a dished stamped-metal base, a stamped-metal plate vertically secured thereto by an integral angularly-bent part, and a tubular casing for said plate removable from its unattached end, substantially as set forth.

10. A telephone desk-set having a dished stamped-metal base affording an inwardly-extending cup or depression, a stamped-metal supporting-plate having laterally-bent lugs secured to said base, and a removable tubular casing for the plate, normally seated in the cup or depression, substantially as set forth.

11. A telephone desk-set having a central supporting-plate mounting the operative-parts of the set, a tubular casing-section surrounding its lower portion, a removable receiver-support positioned above the same, an upper casing-section, a transmitter-head about which it may be slipped, and means for normally securing the parts together upon said plate, substantially as set forth.

12. A telephone desk-set having a central supporting-plate mounting the operative-parts of the set, a removable transmitter-head adapted to be carried from its upper end, and separable connector-members respectively carried by said head and plate, substantially as set forth.

Signed at Cleveland, this 12th day of March, A. D. 1907, in the presence of two subscribing witnesses.

BURTON W. SWEET.

Witnesses:
F. C. VALENTINE,
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