No. 771,343. PATENTED OCT. 4, 1904.

K. WEMAN.

TELEPHONE.

APPLICATION FILED JUNE 23, 1903.

NO MODEL.

Fig. 1.

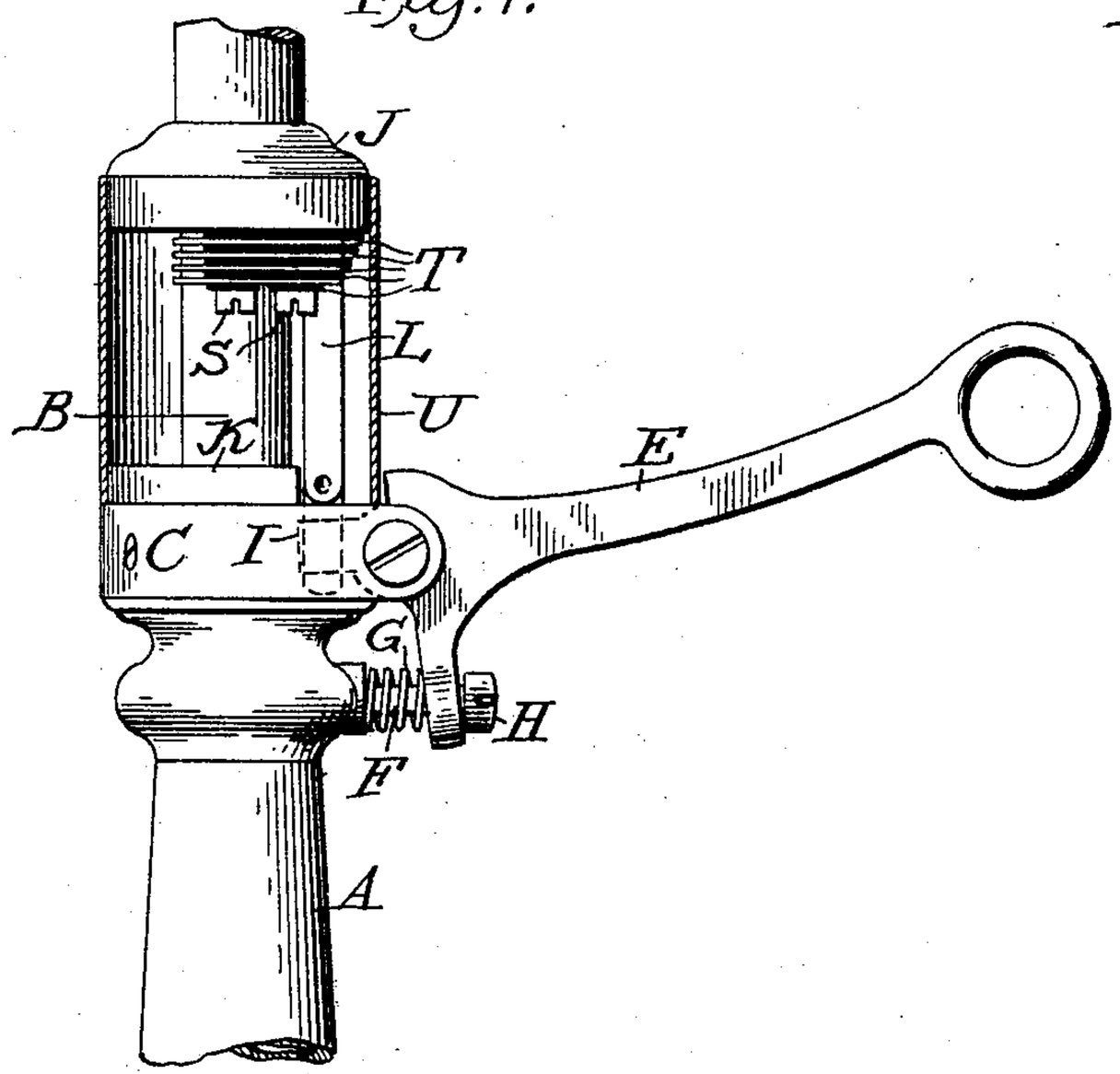


Fig. 2.

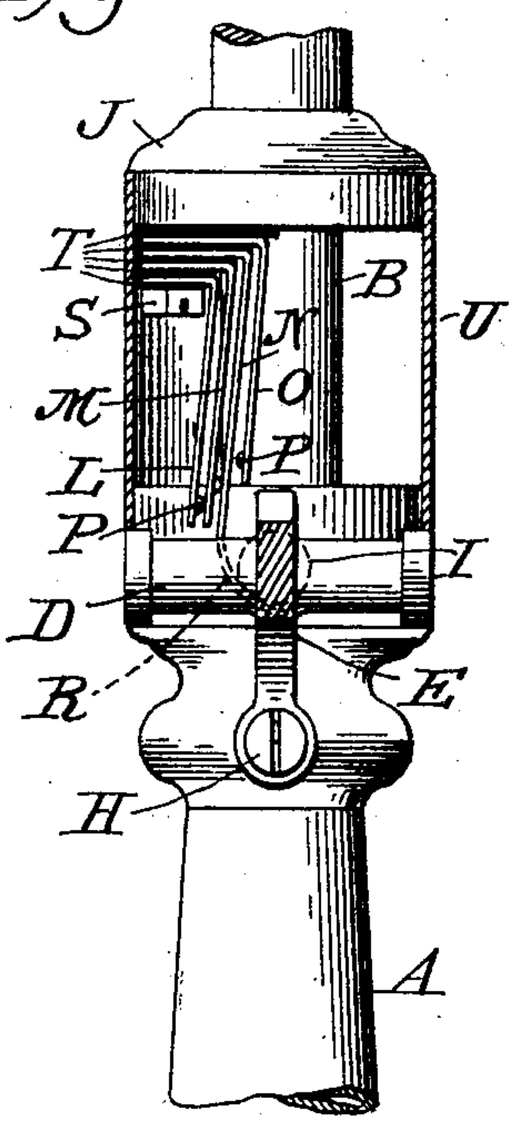


Fig. 3.

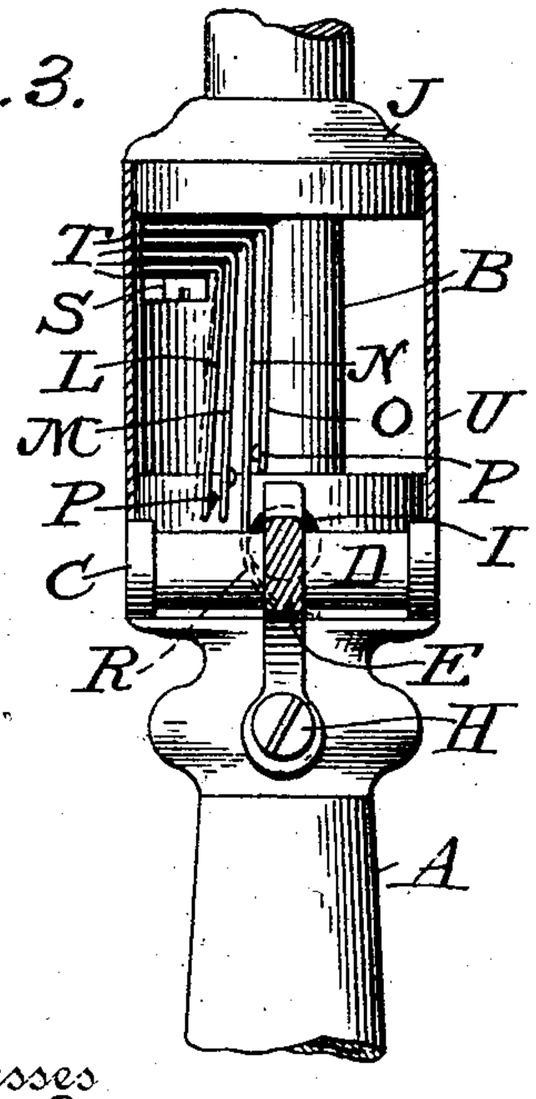
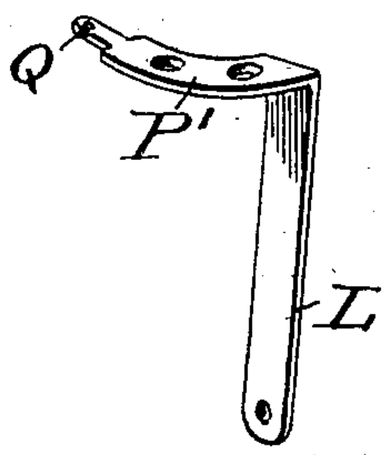


Fig. 4.



Witnesses
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No. 771,343. Patented October 4, 1904.

UNITED STATES PATENT OFFICE.

KLAS WEMAN, OF NEW YORK, N. Y.

TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 771,343, dated October 4, 1904.

Application filed June 23, 1903. Serial No. 162,704. (No model.)

To all whom it may concern:

Be it known that I, KLAS WEMAN, a subject of the King of Sweden and Norway, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Telephones, of which the following is a full, clear, and exact specification.

My invention relates to telephone desk sets; and it consists, essentially, in providing a series of parallel contacts arranged longitudinally above the switch-hook, which carries an insulating pin or projection for actuating the contacts.

The invention also comprises a sleeve or casing surrounding the contacts and upon the removal of which the contacts are at once accessible.

The invention further contemplates certain combinations of parts hereinafter fully described, and particularly pointed out in the claims.

The objects of my invention are to provide a construction giving ready access to the contacts for purpose of inspection, adjustment, or removal, to so construct the invention that the screws or other means holding the contacts will enter into metal, and to make the contact-springs of such shape and length that they cannot be broken unless considerable force is applied thereto.

By my invention I have overcome the existing defects and provide a neat and positively-operating instrument which may be readily repaired and is easily kept in proper condition.

In the accompanying drawings, forming part of my application, and wherein like reference characters denote like parts throughout the several views, Figure 1 is a side elevation of a desk set, part of the sleeve being cut away to show the interior construction. Fig. 2 is a front elevation of a desk set, the switch-hook and part of the casing being cut away. In this view the switch-hook is supposed to be in the position shown in Fig. 1. Fig. 3 is a view similar to Fig. 2, the switch-hook being down; and Fig. 4 is a perspective view of one of the contact-springs.

Referring to the drawings, A represents the telephone-frame or standard through which the supporting-tube B passes centrally. Partly surrounding the standard A is a U-shaped piece of metal C, through the ends of which a rod D passes which acts as a pivot for the switch-hook E. Projecting outwardly from the standard A and below the plane of the hook E is a pin F, surrounded by a spring G, which tends to press the switch-hook upwardly. The upward movement of the switch-hook is limited by the screw-head H of the pin F. Formed integrally with the switch-hook or otherwise secured thereto is an insulating-pin I, projecting into the telephone.

The supporting-tube B carries a casting or head J and therebelow a flange K, having the front portion milled or cut out, as shown clearly in Fig. 1. The part of the frame A adjacent to the flange K is cut away flush with the latter.

Secured to the casting J or to another appropriate part of the desk set are contact-springs L M N O, each of the contacts, except N, being provided near its lower extremity with a small contact-point or projection P. The contacts are angular in shape, the shorter part of the angle P′ being substantially semicircular and provided with an aperture Q, through which the wire is threaded. The contact N, which is the longest of the four, is elongated into a curved toe R, which maintains constant engagement with the insulating-pin I, as shown in dotted lines in Figs. 2 and 3. The contacts L and M are of equal length, being somewhat shorter than the contact N, and the contact O is the shortest of all and terminates at a point on a plane with the upper surface of the flange K. The contacts are secured by their upper portions to the casting J or other appropriate part by means of screws S, passing through the contacts into the supporting part. The contacts are insulated from each other and from the screws S and supporting part by insulating-pieces T. In order to protect the contacts from tampering and the influences of dirt, moisture, &c., I provide a sleeve U, which may be secured to the flange K and casting J in any appropriate manner and is adapted to slide up on the head, and thereby give access to the contacts.

The operation of the invention is as follows: Normally the receiver is suspended from the switch-hook, and the latter is down. The con-

tacts will then assume the position illustrated in Fig. 3—*i. e.*, the contact between springs L and M is broken, but closed between N and O—and no call is sent to the central station. When the receiver is lifted from the hook, the spring G will force the latter upward, causing the insulating-pin to ride upon the toe of contact N, pressing the latter from O against contact M and pressing contact M against contact L. In this manner the circuit is made and a call sent to the central station.

While throughout this specification I have described and illustrated but four contacts, it will be obvious that a greater number may be employed, such additional springs being placed on the side of the pin I opposite to that where the four contacts appear. It will be equally obvious that my invention is not limited to securing the contact-springs to the head or casting J, but that I may secure such contacts to any point above the pin I where the operation will be equally satisfactory.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a telephone desk set, the combination of a switch-hook, a head or casting, situated above the hook, a series of contacts depending from the head, a flange below the casting, a sleeve inclosing the contacts and secured to the head and flange, and an insulating-pin for actuating the contacts, substantially as described.

2. In a telephone desk set, the combination of a switch-hook, a head or casting, situated above the hook, a series of contacts depending from the head, a flange having a portion thereof milled away, below the head or casting, a sleeve inclosing the contacts and secured to the head and flange, and a pin for actuating the contacts, substantially as described.

3. In a telephone desk set, the combination of a switch-hook, a head or casting, situated above the hook, a series of contacts depending from the head and a pin for actuating said contacts, each of said contacts comprising a substantially semicircular part and a second part bent in a plane at right angles to the semicircular part, substantially as described.

4. In a telephone desk set, the combination of a switch-hook, a head or casting, situated above the hook, a series of contacts depending from the head, an insulating-pin for actuating the contacts, and a sleeve surrounding the contacts and adapted to slide up on the head and give access to the contacts, substantially as described.

5. In a telephone desk set, the combination of a frame, a sleeve mounted thereon, a series of contacts inclosed by said sleeve, a flange cut out to receive the lower parts of the contacts a switch-hook and a pin operated by the switch-hook for actuating the contacts, substantially as described.

6. In a telephone desk set, the combination of a frame, a supporting-tube passing therethrough, a head or casting carried by said supporting-tube, parallel contacts depending from said casting, a sleeve inclosing said contacts, a flange above said frame, a switch-hook and a pin operated by said switch-hook for actuating the contacts, said flange and frame being constructed to permit of the free movement of the lower parts of the contacts, substantially as described.

7. The combination of a supporting-tube, a head concentric therewith, a flange below and concentric with the head, contacts depending from the head, a sleeve surrounding the contacts, a switch-hook pivoted at a point exterior to the sleeve, and an insulating-pin projecting interiorly beyond the sleeve and adapted to actuate the contacts, substantially as described.

8. The combination of a supporting-tube, a head mounted thereon, a flange partly milled away below the head, contacts depending from the head, one of said contacts having a curved toe, a sleeve surrounding the contacts, a switch-hook pivoted outside the sleeve and an insulating-pin projecting within the sleeve and adapted to ride upon the curved toe, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

KLAS WEMAN.

Witnesses:
ETHEL C. SMITH,
WM. KUEHNE.