

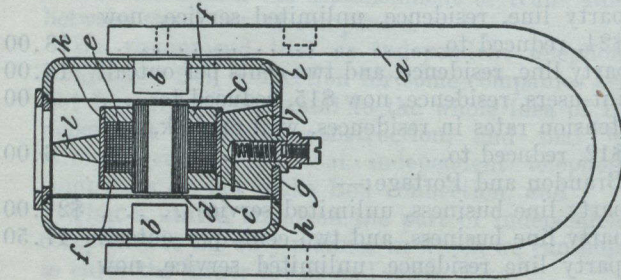
ABSTRACT OF TELEPHONE PATENTS

Granted in the United States during last month, prepared for *The Canadian Municipal Journal* by Edward E. Clement, Telephone Patent Expert, Washington, D.C.

Automatic Signal Alarm. — Brown. — Vibrating bell with disc circuit breaker actuated by a buzzer. Unassigned. — 912,359.

Telephone Attachment. — Lyda et al. — A hinged cover for mouthpiece with advertising matter on it. Unassigned. — 912,701.

Telephone System. — Dean. — Two-wire multiple common battery exchange system with line relay in series and shunted during connection. Assigned to Kellogg Switchboard & Supply Co. — 912,822.



Telephone Receiver, No. 912,878

This is an improved telephone receiver, giving much more pronounced results, i. e., vibrations of greater amplitude or sound of greater volume, than the ordinary receiver. As shown in the accompanying cut, it has a large open horse shoe magnet (a) with pole pieces (b) between which the diaphragms (c) are placed, having between them a bar electromagnet of which (e) is the winding and (f) are the spool heads of insulating material. The casing is made in three parts, a central ring (g) and two pieces (h) and (i), which hold the diaphragms between them.

Telephone Receiver. — Nicholson. — A powerful receiver with long horseshoe magnet having inturned poles with two diaphragms, a cord, and a winding between them. Assigned to The New Phonopore Telephone Co., London, England. — 912,878.

Telephone Repeating Apparatus and Circuits. — Skidmore. — Cord Circuit for the Shreeve repeater of the Bell Company. See patent No. 835,037. This uses resistance coils on some coils to balance up. Assigned to American Telephone & Telegraph Co. — 912,908.

Ringing Key. — Weman. — Rotatable selective key with vertical sets of springs around it actuated by pushing down after rotating. Indicating arrow on button. Unassigned. — 913,080.

Telephone Exchange System. — Babcock. — Common battery system with subscriber's transmitter connected from ground to a middle point on the receiver windings so as to take current over the line wires in parallel. Unassigned. — 913,451.

Multiplex Telephony. — Latour. — Mercury vapor rectifiers producing intermittent direct current to carry back superposed telephone waves. Assigned to General Electric Co. — 913,521.

Telephone Call Mechanism. — Zabst. — Step by step selective mechanism mounted under one gong of the ringer. Unassigned. — 913, 607.

Call Distributing Telephone Exchange Details. — Browne. — Incoming calls automatically switched on to idle cord circuits, in a common battery system. Assigned to American Telephone & Telegraph Co. — 913,613.

Germicide Lining for Mouthpiece for Voice Transmitting Instruments. — Williams. — Paper bag liners with clamping ring for telephone mouthpieces. Unassigned. — 913,792.

Testing System for Telephone Lines. — Winston. — Magneto circuit with central office battery for test connected through tertiary to one side of operator's telephone. Assigned to Kellogg Switchboard & Supply Co. — 913,795.

Telephone Transmitter. — Adams-Randall. — High resistance transmitter with granular material in a long channel in the back plate, taking current from its ends. Unassigned. — 913,931.

Telephone Transmitter. — Clausen. — Improvement on American Electric sealed button transmitter, having insulated electrodes and auxiliary diaphragms. Assigned to American Electric Telephone Co. — 913,944.

Telephone Mouthpiece. — Gibson. — Perforated metal base or cup carrying screw threads, and serving to attach a glass mouthpiece. Assigned to The Gibson Mfg. Co., Danbury, Conn. — 913,947.

Cord Connector and Rack. — Hill. — Switchboard cord

terminal rack having groups of clips collectively on their support. Assigned to Kellogg Switchboard & Supply Co. — 914,045.

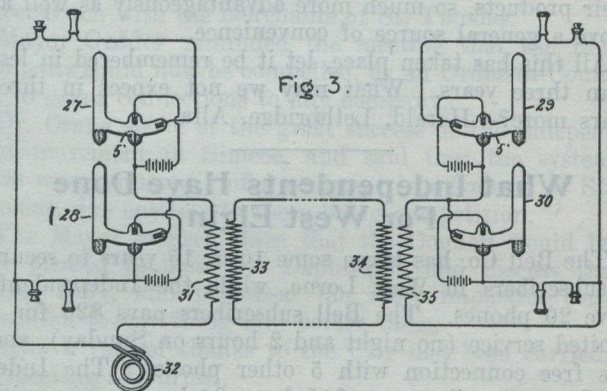
Antiseptic Lining for Mouthpiece. — Scroggs. — Perforated conical liner for a mouthpiece with interposed absorbent material impregnated with antiseptic. Unassigned. — 914,194.

Telephone Disinfecter. — Dohney. — Mouthpiece plug with flexible arms attached through an eye on a transmitter by means of a cord. Unassigned. — 914,395.

Lock-out for Party Line Telephones. — Wagner et al. — Lock-out relay with armature mechanically controlled by hook. Any station coming in on a busy line will have its relay held up. Assigned to The Gravity Lockout Co. of Toledo, O. — 914,468.

Telephone System. — Wood. — Cam switchboard with loops having clearing out drops and battery connections, and keys for connecting the receiver of one set and the transmitter of another in one branch, the source and drop in another branch, and the other transmitter and receiver with sets in still another branch, the branches containing receivers and transmitters being multiplied across the branch containing the battery and drop. Assigned to Charles Cory and John M. Cory. — 914,690.

Registering Mechanism for Telephones. — Greene et al. — Mechanically connected meter for an automatic telephone actuated when a dial is used, the telephone being normally locked. Unassigned. — 914,715.



Mercury Rectifier, No 913,521

This invention employs a mercury vapor rectifier, and alternating current for telephonic transmission, and especially multiplex work. The patentee says in regard to his object:

In carrying out my invention I impress on the line wire an alternating current and I provide suitable means for superimposing on the positive half waves of this current a series of fluctuations such as are given out by an ordinary telephone transmitter when that instrument is subjected to sound vibrations produced by the human voice. Similarly I superimpose on the negative half wave fluctuations produced in a second transmitter. As all of one message is carried by the positive half waves of the alternating current and all of the other message is carried by the negative half waves, certain special means are necessary at the sending station for impressing on each of these half waves the proper fluctuations and for subsequently delivering these two kinds of half waves to the line conductor as an alternating current. Similarly there must be provided at the receiving station means for sorting out the positive half waves from the negative half waves, and thus delivering to the receiving instruments their respective messages. To effect this selective action on the alternating current I may make use of the peculiar property of a mercury vapor rectifier whereby half waves of one polarity are freely transmitted while half waves of the other polarity are entirely suppressed.

Referring to the diagram herewith, the rectifier (1) comprises an evacuated tube (2) of glass, with carbon electrodes (3 and 4) and a mercury electrode (5). A condensing chamber (7) is provided, and a storage battery (6) maintains the arc after it is formed. Then if an alternating pressure is impressed on electrodes 3 and 5, current will flow for the half waves during which time electrode (5) is cathode, but will not flow during the other half period. In this manner each of the rectifiers shown operates as a valve to permit the passage of current of one polarity but not of the other, and the circuit can readily be traced with this in mind.