

Abstract of Telephone Patents granted in the United States last month

Prepared for *The Canadian Municipal Journal* by

Edward E. Clement,

Telephone Patent Expert, Washington, D.C.

Art of Nullifying Inductive Disturbances. — **Athearn.** — Signals are transmitted over a group of lines for the purpose of inducing electromotive forces in through lines of the system to neutralize inductive effects in all the lines due to an external source. Assigned to American Telephone & Telegraph Co., New York. — 940,654.

Electrical Conducting System. — **Athearn.** — This is the system for practicing the previous method. It includes the group of lines and inductive windings connected on one side to the lines of one group and on the other to lines of a second group, with means for preserving electrical continuity of the primary group independently of the associated lines. Assigned to American Telephone and Telegraph Co., New York. — 940,655.

System for Nullifying Inductive Disturbances. — **Barrett.** — This system is related to those previously mentioned, also presenting separate groups of conductors, a transformer connected on the two sides of the respective groups, primary ground connections, and a condenser and retardation coil in each ground. Assigned to American Telephone and Telegraph Co., New York. — 940,658.

Telephone Key and Means for Actuating the same. — **Christensen.** — A semi-automatic exchange system. Each operator's connecting circuit has a key with means for retaining the same in the position to which it is moved, and means common to all connecting circuits whereby the operator may effect the release of all the keys. Assigned to American Telephone and Telegraph Co., Boston, Mass. — 940,673.

Telephone System. — **Hulfish.** — Multiple answering terminals cooperating with ordinary cord circuits at different positions, while a line selector at each position picks up and identifies calling lines for that position to the exclusion of others. Assigned to McMeen & Miller, Chicago. — 940,693.

Telephone System. — **Stone.** — The inventor seeks to eliminate side tones, his circuit including an electro-responsive device and one of the windings of a transformer, the transmitting circuit including the other winding of the transformer, and a signalling device and source of energy in the transmitting circuit with means for regulating the mutual effect of the windings. Unassigned. — 940,746.

Telephone System. — **Wallace.** — Metallic filament lamps are placed directly in the lines at central. Assigned to Vot Berger Co., La Crosse, Wis. — 940,994.

Telephone Attachment. — **Mitchell.** — A simple cam switch is adapted to cut a divided line over one way of the other in a well known manner. Assigned one-fourth to Hammed B. Hurt and one-fourth to James W. McCrary, Franklin, Tex. — 941,086.

Telephone System for Auditoriums. — **Turner.** — Transmitters are distributed through an auditorium at fixed points, a number of receivers are connected up together, and a switching station located so that the operator can connect any one or more of the transmitters with the receivers. Unassigned — 941,114.

Antiseptic Mouthpiece for Telephones. — **Rowlands.** — Mouth-piece lining is of absorbent material carrying a hygroscopic substance, has a jacket of sheet metal, and an annular cover fitting over the jacket and retaining the lining. Assigned one-half to Walter S. Wood, Schenectady, N. Y. — 941,173.

Telephone Cabinet. — **Oxford.** — In this cabinet the body is hung on hooks on the backboard, and a hinged door is employed in addition. Unassigned. — 941,336.

Telephone System. — **Webster.** — A plurality of relays for each line respond to currents of different strengths so as to light lamps on different divisions of the switchboard. Each subscriber has grounding buttons with different resistances to opposite sides of line. Assigned to Kellogg Switchboard & Supply Co., Chicago, Ill. — 941,666.

Telephone Line Selective Switch Device. — **Swanson.** — Extension lines are connected through main exchange lines in this system by automatic means at the substation, comprising a relay responsive to main battery and operator's keys at central and repeating winding for ringing in. Assigned one-fourth to T. F. Robinson, St. Paul, Minn. — 941,743.

Desk Telephone. — **Corwin and Bals.** — In this desk set switch springs, coil and terminal rack are in the base, the inner shell of which when removed carries with it the vertical members housed in the standard. Assigned to Corwin Telephone Manufacturing Co., Chicago, Ill. — 941,762.

Bank of Locking Switch Keys. — **Corwin and Bals.** — Interlocking keys in a row with notched stems cooperating with pins on a sliding bar. Some key will switch after interlocking the others and at least one does so before interlocking. Assigned to Corwin Telephone Manufacturing Co., Chicago, Ill. — 941,763.

Telephone Exchange System. — **Zahm.** — Bridged common battery automatic exchange circuit. Apparatus of Strowger type with battery put on calling line through a differential release relay and on called line through a pair of controlling relays which cut off the differential relay if called subscriber hangs up first, leaving ordinary release relays in circuit. Assigned one-fourth to Edward E. Clement, Washington, D. C. — 941,839.

Harmonic Signaling System. — **Manson.** — In this selective ringing system pole changers supplied from an auxiliary battery are bridged across the main battery with a retardation coil. Assigned to The Dean Electric Co., Elyria, Ohio. — 942,091.

Mechanical Code Signalling Device. — **Meissner.** — In this code device a plug is inserted and a magneto crank turned when a perforated plate passes over the plug tip, making and breaking the circuit, the plug being automatically locked and similarly released. Unassigned. — 942,334.

Portable Telephone. — **Mulot.** — Portable set with a plug fitting sockets at a number of stations on a common line. — Unassigned.

Signaling Apparatus for Telephone Systems. — **Welty.** — In this selective 4-party line system biased polarized ringers are employed in combination with condensers connected in series, whereby the ringers may be operated by either the charge or discharge of the condensers, and the windings of the ringers being arranged so that the magnetic fluxes will permit only one ringer to respond to a particular current or combination of currents. Unassigned. — 942,763.

Method of, and Apparatus for, Repeating Telephone Currents. — **Campbell.** — According to this method a series of condensers receive the charges in turn from the incoming line and are then mechanically separated and caused to discharge in turn in the outgoing line, the operation being of course continuous. Unassigned. — 942,885.

Apparatus for Receiving Submarine Sounds. — **Garrett & Lucas.** — This is a scheme for receiving vibrations transmitted through a body of water to the hull of a vessel. Carbon transmitters applied to the hull are liable to changes in sensitiveness, and the present inventors substitute a transmitter comprising a nickel rod surrounded by primary and secondary coils, a receiver being connected interchangeably through a double-throw switch with similar coils on either port or starboard bow so as to determine direction in a well understood manner. A weight is placed on the end of each nickel rod and the operation of course depends upon the property of the material by which changes of stress produce corresponding changes in magnetization which are communicated to the receiver coil. Unassigned. — 942,897.

Telephone Receiver Support. — **Mogridge.** — The receiver is carried on an arm formed up from a metal strip with a calming ring attaching it to the transmitter head. Unassigned. — 943,033.

Telephone Call Register System. — **Kibbe.** — In this scheme a register is employed common to a number of cords, and on one side is connected to one of each of the cord conductors and through exterior contacts, while a contact member forms the terminal of the other side which is adapted to be engaged by said exterior contacts of the cords. Unassigned. — 943,081.

Selective Signaling Apparatus. — **Leich.** — Different frequencies are employed in this scheme, the ringing apparatus being in two classes, ringers of one class tuned to respond to definite frequencies, those of the other class nontuned, but provided with series impedance to limit their operation to frequencies other than those for which the ringers of the first class are tuned. Assigned one-third to J. G. Ihmsen and one-third to Max W. Zabel, Chicago, Ill. — 943,115.

Mouthpiece for Telephone Transmitters. — **Jamieson.** — This is essentially an open ended funnel connected to the transmitter through its side by an elbow coupling. Unassigned. — 943,149.

Illuminated Telephone Dial. — **Hallock.** — A mortise in the support back of the dial receives a small incandescent lamp, from which the dial has a slot in register with the mortise covered with a translucent indicator disc. Unassigned. — 943,305.

Sanitary Telephone Transmitter. — **Calcutt.** — A main diaphragm is covered by an auxiliary diaphragm, and a lid is pivoted over this carrying an antiseptic pad, which would be wiped across the auxiliary diaphragm so as to clean it. Unassigned. — 943,386.