

# 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.

**Telephone Ringer. — Tideman.** — A core head adapted to be screwed into the core of the magnet, the shank of the head being split so that it screws in with friction. Patent unassigned. — 901,215.

**Telephone Ringer. — Tideman.** — A ringer frame formed by the two permanent magnets held together by the two magnetic end yokes, one of said yokes supporting the magnet cores and the other yoke supporting the armature. Patent unassigned. — 901,216.

**Telephone Ringer. — Tideman.** — A permanent magnet formed U-shaped with its poles bridged by a magnetic yoke carrying the electromagnets. Patent unassigned. — 901,269.

**Telephonic Transmitter. — Warrell.** — A granular transmitter comprising a casing, a diaphragm and a rear electrode which is surrounded by insulation. Granular material fills the casing whose inner surface as well as that of the diaphragm is covered with insulation. Patent assigned to the Enelectric Co. — 901,570.

**Multiparty Line Telephone Exchange System. — Babcock.** — This system is an improvement over that shown in patent No. 824,701, July 3, 1906. Uses common battery at the substations for signalling current in a step by step party line selective system. Also shows improved supervisory signals. Patent assigned to the Stromberg-Carlson Telephone Co. — 901,669.

**Multiple Switchboard Jack. — Birsfield.** — Spring jacks for multiple telephone switchboards which serve the double purpose of acting as conductors and securing together the front and rear walls of the jack strip. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,672.

**Supervisory System. — Conner.** — Comprises two supervisory lamp signals, one controlled from each side of the circuit through a compound relay. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,683.

**Telephone Exchange System. — Conner.** — The selective switch mechanism and automatic controlling mechanism therefore are comprised in a unitary structure or key. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,684.

**Telephone Exchange System. — Conner.** — Provides a universal cord for both local and toll connections. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,685.

**Telephone Exchange System. — Conner.** — A scheme in which the operator controls the application of ringing current to the called line by a novel adjustment and arrangement of controlling and supervisory relays. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,686.

**Telephone Transmitter. — Conner.** — A transmitter in which the range of variation of resistance is greatly increased by the vibration of both electrodes against the granules. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,687.

**Switchboard. — Conner.** — An improved switchboard providing hinged panels arraying the operating parts, said panels arranged to swing back so that they are accessible for repair without disturbing the operator. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,688.

**Telephone Exchange System. — Conner.** — This is a party line ringing arrangement in which current is fed through commutators from the several generators to the various divisions in successive order, thus reducing the load on the generator at any given moment. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,689.

**Telephone Exchange System. — Davis.** — Scheme by which the subscriber automatically cuts off generator current from his line when he removes his receiver from the hook. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,696.

**Automatic Telephone Exchange System. — Dunham.** — Switching circuit of the Strowger type which relates particularly to selectors and their controlling circuits. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,698.

**Receiver. — Goldberg.** — A head receiver in which the casing is formed of magnetic materials which takes the place of the permanent magnet thus reducing the weight of the apparatus. Patent assigned to Stromberg-Carlson Telephone Mfg. Co. — 901,704.

**Subscribers Telephone Circuit. — Post.** — Substation common battery subscribers circuit having the usual condenser and taking battery supply through the ringer instead of through a choke coil. Patent assigned to Kellogg Switchboard and Supply Co. — 901,738.

**Telephone System. — Corwin.** — The operators set is connected to cord through multiple contracts of two sleeve relays, one of which is associated with the answering and the other with the calling plug. Patent assigned to Corwin Telephone Mfg. Co. — 901,785.

**Indicator for Telephone Calls. — Ducharme.** — A call indicator worked by the ringer and adapted to be returned to normal position after operation by the removal of the receiver from its hook. Patent unassigned. — 901,894.

**Telephone Repeater. — Lindsey.** — A movable coil repeater having receiving electromagnet with a magnetic circuit nearly closed, and the coil around the pole piece in the opening being attached to the transmitter diaphragm so that it acts directly on the same. Patent unassigned. — 901,974.

**Microphone Apparatus for Telephone and other Circuits. — Majorana.** — This is an electro-hydrodynamic microphone. Patent unassigned. — 901,977.

**Telephone Transmitter. — Atwood.** — Transmitter of the solid back type especially designed for out of door use having waterproof cover for the diaphragm held on to the mouthpiece and telescoped members clamped together by a clamping ring which covers the outer joint and makes the instrument waterproof. The terminals project through holes in the rear wall of the case and are accessible without disturbing the adjustments. Patent assigned to Western Electric Company. — 902,043.

**Selective Signaling System. — Manny.** — This is a step by step clock work selector for party lines. Escapement is controlled from the central office. Patent assigned to The Manny Signal Co. of Milwaukee. — 902,099.