## **Abstract of Telephone Patents**

granted in the United States

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TELEPHONE REPEATER.—This invention relates to telephone repeaters, and provides a new and improved device of this description. It is particularly adapted to be used in con-nection with a charged line, central energy system. David H. Wilson, New York, N.Y., assignor, by Mesne Assignments, to David H. Wilson & Robert Bines, Trustees, New York, N.Y. 1059 690 1.059,690.

TELEPHONE METERING SYSTEM.—The invention provides a telephone receiver having both metering mechanism and associated control means carried by the receiver shell and preferably mounted for the most part within it, only those parts protruding beyond the shell which are to be manipulated in the ordinary use of the receiver. Edward H. Martin, Webster City, Iowa. 1,059,745.

RELAY FOR UNDULATORY CURRENTS.—This invention relates to relays for undulatory currents of that kind in which an exhausted discharge tube having a cathode and an anode is used, the proportional reproduction of the line currents being obtained by influencing the cathode rays emitted through an electromagnetic or electrostatic action of the line currents.

Eugen Reisz, Vienna, Austria-Hungary, assignor, by direct and Mesne assignments, to the firm of Relais-Gesellschaft M. B. H., Vienna, Austria-Hungary. 1,059,763.

CALLING DEVICE.—This invention relates to a device for controlling the actuating circuits of electrically controlled mechanism, such as that employed in a telephone exchange; and it is directed more particularly toward the provision of a calling device for controlling the operation of switching mechanism located at the distant end of a circuit with which the calling device is associated, for the purpose of causing the switching mechanism to act under the control of the calling device to connect the associated circuit with any one of a number of other telephone lines or circuits.

Frank R. McBerty, New Rochelle, N.Y., assignor to Western Electric Co., Chicago, Ill. 1,059,944.

DESK TELEPHONE.—This invention has for its object the provision of improved facilities within a portable telephone for effecting certain circuit changes by means of springs or similar circuit changing apparatus therein.

Alexander C. Reid, Genoa, Ill., assignor to Cracraft, Leigh Electric Co., Genoa, Ill. 1,060,211.

INTERCOMMUNICATING TELEPHONE SYSTEM.— This invention relates to intercommunicating telephone systems, and especially to those which are connected through a trunk line to a central station. It looks chiefly to the provision of such a system in which calls coming over a trunk may be readily transferred from one the intercommunicating substations to another, without danger of causing a premature disconnect signal at the central station.

Leon D. Barrows, New York, N.Y., assignor to American Telephone & Telegraph Co. 1,060,308.

KEY CONSTRUCTION AND SUPPORT FOR TELE-PHONIC APPARATUS.—This an escutcheon face key board with keys in a horizontal row or line across the face thereof, and spring blades supported by the same unitary part that constitutes the escutcheon front, this unitary part being formed in such a way as to adapt itself to the purpose of holding the spring blades, supporting the various pivot axes of the keys, serving the purposes of the escutcheon front, accommodating the requisite movement of the keys and properly separating the keys from one another and giving their support adequate rigidity in all directions.

Wallace Pfau Andrick, Edgar Lowe, and Howell W. Haff, Jamaica, N.Y., assignors to Kellye Monroe Turner, Jamaica, N.Y. 1,060,576.

PASSENGER DRIVER TELEPHONE SIGNAL SYSTEM FOR VEHICLES.—This invention relates to a speaking and signaling apparatus for closed body vehicles such as town cars, taxicabs, etc., whereby the occupant or passenger can signal

to the driver to attract his attention and then convey a message telephonically, and whereby the driver can respond by speaking through a direct audible device such as a tube or sound-amplify-

Herman G. Pape, Buffalo, N.Y. 1,060,851.

TELEPHONE SIGNAL.—An object of this invention is to provide a mechanism to be used in connection with a telephone subscriber's set, in which the signal cannot be initiated until a coin is inserted, whereby a certain and variable number of predetermined emergency calls may be sent to the central station without the necessity of inserting a coin or other token, for each call as usual.

Arthur U. Gerber, Chicago, Ill. 1,061,238.

SELECTIVE SYSTEM OF TELEPHONY.—The primary object of the invention is the provision of a telephone system, employing an exchange and a series of subscribers' outfits, all being connected in series in a loop circuit, there being in the exchange a selecting apparatus, whereby the operator when called, operates the apparatus to connect the calling subscriber to a called subscriber, simultaneously locking out all other subscriber and shunting their outfits, so that such locked out subscribers, and shunting their outfits, so that such locked out subscribers cannot interfere with the parties talking, and cannot themselves call the exchange until such parties have completed their conversation, and rung off, at which time the selecting apparatus at the exchange is automatically operated by the removal of the jack plug, and all subscribers' outfits placed again upon the line in condition for calling or being called.

Ruben C. M. Hastings, Columbus, O., assignor to The International Telephone Co., Columbus, O. 1,061,285.

SELECTINGAPPARATUS FOR TELEPHONE SYSTEMS. —The invention relates to an improved selecting apparatus to be mounted in the central or exchange of a telephone system, whereby the operator may select and signal a single or selected called subscriber and simultaneously shunt all other subscribers. This particular instrument is designed for use in connection with the system of selective telephone, as set forth in the

preceeding patent.
Ruben C. M. Hastings, Columbus, O., assignor to The International Telephone Co., Columbus, Ohio. 1,061,286.

TELEPHONE SYSTEMS.—The invention consists generally of a shunt and lock out device located at each sub-station and controlled from the exchange through the medium of a selecting apparatus, the primary object being the provision of a means whereby the transmitter and a receiver at the uncalled substations are shunted from the line and the local battery circuits

A further object is the provision of a signaling device in each sub-station to indicate the condition of the sub-stations relati-

vely to the line or talking circuit.

Ruben C. M. Hastings, Columbus, O., assignor to The International Telephone Co., Columbus, Ohio. 1,061,287.

TELEPHONY.—This invention relates to semi-automatic telephone exchange systems of that type in which the calling subscriber is connected with an automatic selecting mechanism at the exchange through a cord and plug connection established

by an operator. Charles A. Bals, Chicago, Ill., assignor to Corwin Telephone Co. 1,061,515.

TELEPHONE EXCHANGE SYSTEM.—This invention has for its objects, first, the provision of improved means for governing the association of the operator's telephonic outfit with the line connectors that are employed to unite subscribers' lines in conversation, and second, the provision of means whereby an operator is prevented from listening to the conversation of both parties to an established connection.

Charles A. Bals, Chicago, Ill., assignor to Corwin Telephone

Co. 1,061,516.

CONTROLLING APPARATUS.—This is a scheme for controlling automatic telephone switches by what are called "counting" devices consisting of a series of relays successively "counting" devices consisting of a series of relays successively energized by impulses sent from the switch as it steps. The object of the present invention is to accomplish this method of control with a single set of "counting" devices instead of arranging them in pairs as heretofore practiced.

William G. Blauvelt, New York, N.Y., and Edward C. Molina, of East Orange, N.J., assignors to American Telephone & Telegraph Co. 1,061,519.

BUSY SIGNAL ATTACHMENT FOR TELEPHONES.— This invention relates to an improvement in attachments for telephones, and particularly for an attachment, the purpose of which is to show whether or not another telephone upon the same circuit is being used, thus avoiding the annoyance incident to breaking in upon a line which a telephone is being used.

Adam M. Beeler, Seattle, Wash. 1,061,589.