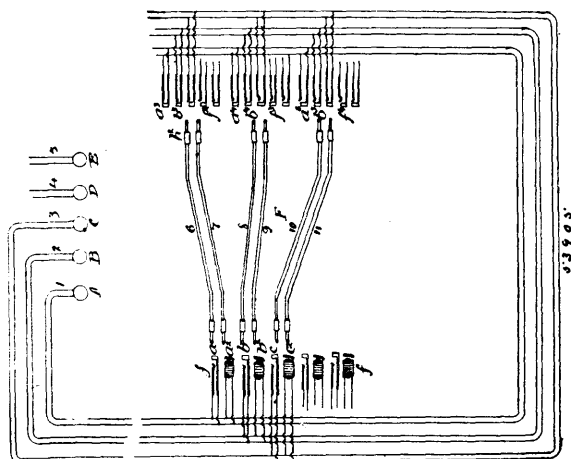


rent in the other branch is prevented while incoming telephonic currents are directed through the telephone-receiver, substantially as described.

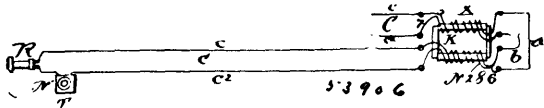
No. 53,905. Switchboard for Telephone Exchanges.
(*Echange de téléphone.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Joseph Phineas Davis, New York, State of New York, U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—In combination, an annunciator-switchboard containing a connection-socket and an annunciator for each telephone line of the exchange, a multiple switchboard of several sections each having in it a terminal connection-socket of each line of the exchange, and trunk-lines extending from the said annunciator-board to each section of the said multiple board, as described.

No. 53,906. Multiple Telephone. (*Téléphone multiple.*)

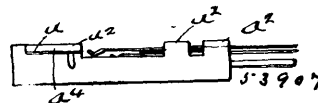


The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Frank Albert Pickernell, Newark, New Jersey, and Frederick Stanton Perrin, New York, State of New York, both in the U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. The combination of a metallic telephone line-circuit, a second main metallic telephone-circuit having for one of its sides or conductors a portion of both of the conductors in parallel of the first circuit, and a double-wound electromagnetic resistance or choking-coil having its two windings serially but oppositely connected in the conductors of the said first circuit at points beyond or outside the portion of them which forms one side of the second circuit, and adapted thereby to offer a minimum impedance to currents flowing through the conductors of the said first circuit in series, and a maximum impedance to currents flowing through the same conductors in parallel, substantially as specified. 2nd. The combination of two main telephone-circuits, each having an outgoing and a return conductor, and a third telephone-circuit whose direct and return conductors are formed of the two conductors in parallel of the said two original circuits respectively, one or both of said original circuits being longer than the said third circuit, or having an extension or prolongation beyond an end thereof, with an electromagnetic device interposed in circuit with the two conductors of each extension, immediately beyond the end of the said third circuit, and adapted to oppose a maximum impedance to currents traversing the conductors of the said extension in parallel, and a minimum impedance or simple resistance to currents traversing the said conductors in series, whereby the said original circuit extensions may be segregated from the said third circuit, and prevented from disturbing the balance thereof, substantially as specified. 3rd. The combination in a system of multiple telephony of two metallic telephone-circuits each extending between two terminal stations, electromagnetic resistance or single-wire choking-coils bridged between and connecting the two conductors of both of the said circuits at one or more pairs of stations located thereon, terminal conductors, including station telephones, uniting the central points of the said electromagnetic resistances of the two circuits at any pair or pairs of such stations, to form thereby one or more superimposed or phantom circuits, each having its two sides formed of portions of the two conductors in parallel of the two original circuits, and a series of double-wound electromagnetic resistances or choking-coils, associated with each of the said original circuits, and

having their two windings serially connected in the two conductors thereof, the said choking-coils being interposed in pairs in their respective constituent circuits, at points between any two of the said extra or superimposed circuits, and so connected as to offer a maximum impedance to currents passing in parallel and the minimum impedance to currents passing in series over the conductors of the said two original circuits.

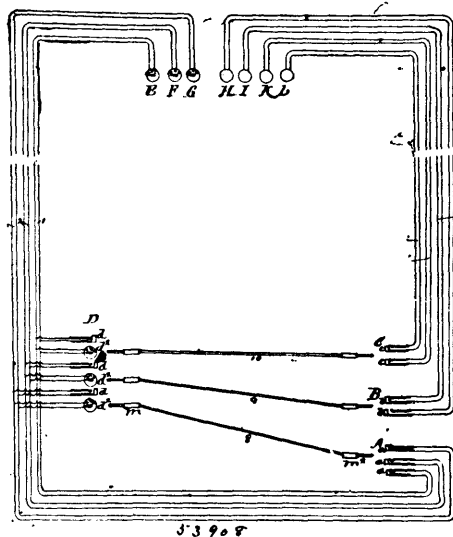
No. 53,907. Spring Jack for Telephone Switchboards.
(*Cric à ressort pour échanges de téléphones.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Harry Bates Thayer, New York, State of New York, U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. In a spring-jack switch, the combination with a pair of terminals or contacts connected with the opposite sides of a telephone line, of a connecting plug adapted to be inserted into said switch and carrying contacts adapted to engage said terminals, a thimble forming one terminal of an electric circuit and mounted in front of said pair of terminals, a flexible tongue forming the other terminal of said electric circuit and resting opposite said thimble, said plug being provided with a sleeve adapted to be inserted between said thimble and said tongue to electrically unite the same, the flexible tongue serving to press the sleeve firmly against the thimble and thus insure a good electrical contact between the sleeve, the thimble and the contact spring, substantially as described. 2nd. In a strip of spring-jacks, the combination with the strip or block *a* carrying the projections *a*², *a*³, ridge *h*³, and seat *a*⁴, and upon which the contacts of the spring-jacks are mounted, of the test-rings *d* forming a complete ring at the top of the strip and carrying each a slot in the upper side, the thin strip of metal *e* carrying the tongues *e*², adapted to extend through the slots provided in the test-rings, and the plate *g* resting upon the strip *e*, substantially as described. 3rd. The combination with a number of spring-jack switches situated side by side to form a strip of spring-jack switches, of a pair of line springs or contacts for each said spring jack switches, said line springs or contacts being connected with the telephone lines, a plug adapted to be inserted into a switch and carrying contacts adapted to engage the terminals of the spring-jack switch, a thimble for each spring-jack switch, the thimbles being partially cut away upon one side to form a slot, and a strip of metal situated at the side of said thimbles and carrying a number of tongues, one projecting into the slot or cut-away portion of each of said thimbles, said plug being provided with a sleeve adapted when the plug is inserted in a switch-socket to pass between its thimble and the tongue corresponding thereto to electrically unite the same, substantially as described.

No. 53,908. Switching Apparatus for Telephone Exchanges. (*Commuteur pour échanges de téléphones.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Joseph Phineas Davis, New York, State of New York, U.S.A., 28th October, 1896; 6 years. (Filed 21st August, 1896.)

Claim.—1st. In combination, several telephone-lines extending to terminal connection-sockets, an indicator for one of the lines adapted to indicate any of several objects, means for controlling the indica-