

THE METROPOLITAN TELEPHONE CO'S. NEW CENTRAL STATION AND GREAT SWITCHBOARD.

The Metropolitan Telephone Company, of New York, have recently erected a new central station building in Cortlandt Street, which is of special interest as embodying the latest improvements in telephone central station work and accessories, as well as containing the largest switchboard in the world. At present about 2,500 subscribers use it, but all the connections are prepared for 6000, and the board can be extended so as to include 10,000. The building is fireproof throughout.

The cellar is excavated under the sidewalk and roadway of the street. In its front end are the terminals of several subway conduits partially occupied by cables. At present forty-nine lead-incased cables enter the building (Fig. 1). Each cable contains about one hundred wires, arranged in pairs, the wires of each pair being twisted about each other. The object of this disposition is to ultimately use the wires in complete metallic circuits, the twisting of each pair being for the purpose of reducing induction. At present ground circuits are generally used, so that nearly one-half of the wires in these subways are idle. The cables run thence to the testing room (Fig. 7). The wires from the street lines are connected to binding screws. House cables run up from this room to the top of the building, where the switchboard is placed. The ends of the street cables are opened, and the pairs of wires are kept separate, and, by testing with a bell and battery, are traced to their out-door terminals. Each pair is numbered, and connected through the box with corresponding binding screws. The same operation is performed in the building for the house cables leading upward, and by the connection boxes all is placed in correct circuit. The wires are all india-rubber coated.

Entering the switchboard room, they are distributed on the cross connecting board along the walls, thence communicating with the mass of wires that run along the back of the switchboard proper. The board stands about eight feet in height upon a slightly elevated platform. Its total length is 258 feet, and it is divided into forty-three sections, each six feet long.

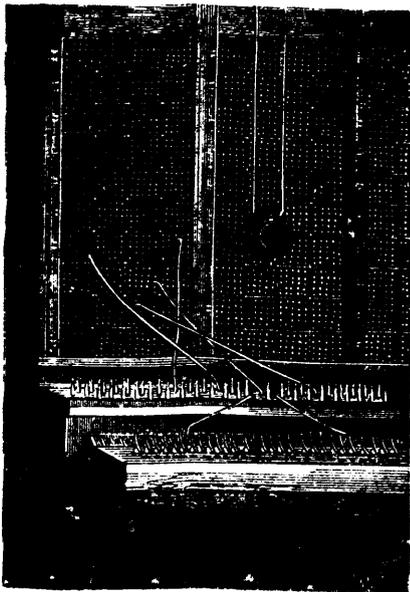


FIG. 2.—ARRANGEMENT OF SPRING JACKS, SWITCHES, AND ANNUNCIATORS ON SWITCHBOARD.

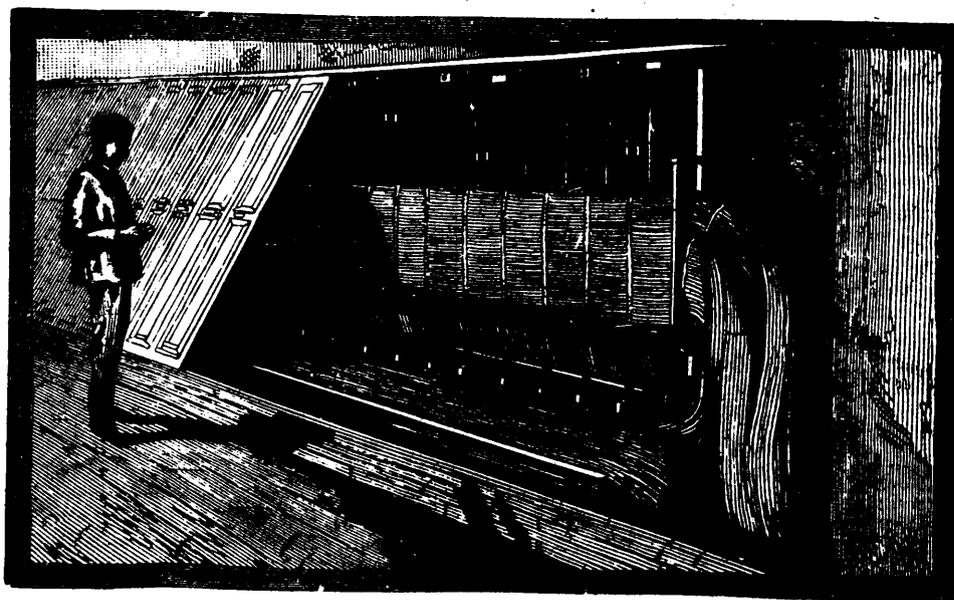


FIG. 3.—REAR VIEW OF SWITCHBOARD, SHOWING CABLES.