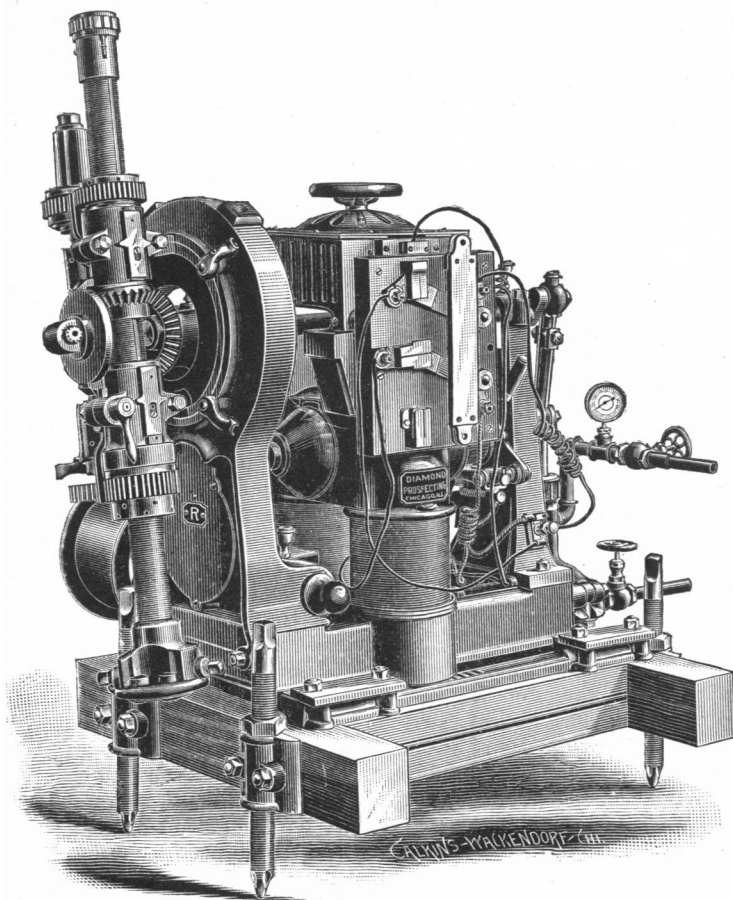


our dwelling-houses will be entirely done away with. Already, within a few months past, companies have been formed, for the purpose of introducing this important and necessary invention, in Washington, D.C., Boston, Mass., and Portland, Me.; and others are in process of organization in Providence, R.I., New York City, and Hartford, Conn. Parties wishing information on the subject can address the secretary of the New England Heating and Ventilating Company, 85 Water Street, Boston, Mass.

AN ELECTRICAL DIAMOND-DRILL.

THE electric motor is rapidly winning an important place for itself in mining operations. Already there are electric coal-cutting machines, electric hoists, electric mine locomotives, and electric drills, some of which have been described and illustrated in these columns. One of the latest devices in this



AN ELECTRICAL DIAMOND-DRILL.

line, the Sullivan electric diamond-drill, operated by a Thomson-Houston motor, is shown in the accompanying illustration. In the form shown, the drill is intended mainly for prospecting, though of course it is equally well adapted to underground work. One of the difficulties heretofore encountered in using diamond-drills in underground work, as well as in prospecting where the ground is rough or mountainous, has been that of getting power to operate the machine. By the use of electric power, however, this difficulty is entirely overcome. The dynamo may be located at any convenient point, and the current transmitted to the drill by insulated wire in the usual manner.

This machine is compact, occupies but little space, and may be operated by any intelligent workman. It will drill a hole to a depth of three hundred feet, and in any direction, the drill being fed forward by a friction feeding device at a speed proportioned to the hardness of the material operated upon. The machine is manufactured by the Diamond Prospecting Company of Chicago.

THE ELECTRIC-LIGHT CONVENTION.

THE eleventh convention of the National Electric-Light Association was held at Kansas City, Mo., on Feb. 11 to 14, the sessions being held in the Coates Opera House. When the convention was called to order by the president, E. R. Weeks, there were about one hundred and fifty members and guests present, the attendance increasing to three hundred before the convention ended. After an address of welcome by the mayor of Kansas City, President Weeks briefly reviewed the growth of the association, and outlined the programme arranged by the executive committee. The rest of the session was taken up by routine business.

On the 12th the committee on the abolition of duty on copper presented its report, and recommended that all members place themselves in communication with their respective members of Congress, with the view of securing the removal of the duty on copper. The committee on standardizing potentials on electric street-railways and that on harmonizing insurance and electrical interests presented reports, which were full of interest, and evoked considerable discussion. The papers read at this session were one on central-station construction, by C. J. H. Woodbury, and one on the history and theory of the steam-engine, by F. E. Sichel.

On Thursday the 13th, after the reading of communications and action thereon, George E. Palmer read a paper on the economic generation of steam, written by George H. Babcock. After this and the papers of the previous session had been discussed and commented on by the members, a paper entitled "A Recent Edison Central Station and the Results thus far obtained" was read by C. J. Field. This paper brought out a long and interesting discussion. T. Carpenter Smith followed with a paper on a universal system of central-station accounts. At the afternoon session the following papers were read and discussed: "The Cost of the Products of Central Stations," by A. J. DeCamp; "Nine Years with the Arc-Lamp," by M. D. Laws; "Arc-Light Carbons," by E. F. Peck; "How our Paths may be Paths of Peace," by H. W. Pope; and "Safety and Safety Devices in Electrical Installations," by Professor Elihu Thomson. The report of the committee on data was then received, and a resolution adopted petitioning Congress to authorize and direct the superintendent of the census to collect certain data in relation to the electrical industry in addition to that already provided for by law, and asking for a special appropriation of fifty thousand dollars to carry on the work.

On Friday, the last day of the convention, the following papers were read and discussed: "Electricity as applied to Street-Railways," by F. J. Sprague; "Prodigality in Economy," by C. C. Haskins; "Line Insulation from the Standpoint of Practical Experience," by C. A. Harber; and "How to locate Grounds on Arc-Light Circuits," by J. E. Lockwood. At the afternoon session, after an exhibition of and address upon the phonograph and graphophone, by E. H. Johnson, committees were appointed on the revise of the by-laws and constitution of the association, on underground conduits and conductors, and on the relations between parent companies and sub-companies.

The officers for the ensuing year are as follows: president, M. J. Perry of Providence, R.I.; first vice-president, E. A. Maher, Albany, N.Y.; second vice-president, C. L. Edgar, Boston; executive committee, C. R. Huntly (Buffalo, N.Y.), chairman, E. R. Weeks (Kansas City), James E. English (New Haven, Conn.), J. J. Burleigh (Camden, N.J.), M. D. Law (Philadelphia), M. J. Francisco (Rutland, Vt.), A. F. Mason (Boston), J. A. Seely (New York), H. K. Thurber (New York). The semi-annual meeting next August will be held at Cape May, N.J.

During the four days of the convention there was an extensive collection of electric apparatus on exhibition in Casino Hall, near the headquarters of the association. The hall was brilliantly illuminated by both arc and incandescent lights, and the attendance was good. Electric motors of various sizes were exhibited by the Sprague, the Crocker-Wheeler, and the C. & C. motor companies of this city, the Elektron Company of Brooklyn, the Detroit Motor Company of Detroit, the Baxter Company of Bal-