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ings, 25 cycles being too low a frequency for inside illumination. Turning back towards the right could be seen what was claimed to be the largest single cell of storage battery in the world. It was capable of giving 30,000 amperes for a short time. Beyond this there was a good sized model of the Niagara Falls power plant, showing the buildings, water intakes, etc. There was also a large model of one building with the end cut off, with a model generator run by a small turbine located in the wheel pit, which was also open on one side. Looking straight ahead, across the aisle was seen an induction motor made by the Stanley Instrument Company. This is of especial interest because of the fact that the moving part is magnetically suspended, in fact revolving in mid-air, with no jewels. Models showing this readily were shown, besides a number of complete meters.

On the south side of the building in this section were exhibits of Mr. R. J. Arnold, with blueprints, drawings, etc., of different installations of his, and exhibits of many small companies making lamps, snap switches, small motors, fans, etc., of but passing interest. On the other side of the building and occupying the whole northwest section, was the exhibit of the General Electric Company. Here were located the transformers, with a suitable switchboard, taking care of the lighting of the grounds. Near by was a 25 cycle synchronous motor belted to a 60 cycle generator used for running the arc lamps in the building in the evening. A large steel bell ring for one of the new Niagara generators, was seen to attract much attention, being set upon edge with a carpet running through it for every one to walk through. One of their new types of compensated alternator was of much interest, though the details of construction were not easily seen. Some exhibition panels of instruments, switches, etc., series arc and incandescence lamps with automatic regulating transformers, a mining locomotive, an arc generator and some motors completed this part of the exhibit.

Farther along was a street railway motor equipped with the General Electric multiple unit system of control, which was operated several times a day, apparently to show out a very vociferous phonograph exhibit, near by. In front of this exhibit was a large model of the General Electric works at Schenectady, Lynn, and Harrison, showing their great number of buildings in an interesting way. Opposite, in the center, was the exhibit of the Northern Company, of direct current motors, and adjoining this that of the Stanley Company of Pittsfield, Mass. Here was shown a 900 K. W., 12,000 volt generator, the largest on the grounds, a smaller synchronous motor continually in operation, directly connected to a direct current generator, a switchboard with the different Stanley instruments upon it, and with various switches, fuses, etc., circuit-breakers, transformers, etc. One of the most interesting things was the 60,000 volt switch, one of many used on the long power transmission lines installed by the Stanley Company in California. A large relief map of a part of California, showing the lines of the Standard Electric Company, was an interesting part of the exhibit.

Passing on were to be seen the chloride accumulator and other batteries of the Electric Storage Battery Company, and beyond, omitting some minor exhibits, were found the Crocker-Wheeler Company, with a large number of small motors, and

across the aisle the Bullock and Wagner exhibits. Here are shown lines of transformers, alternating and direct current motors, and some direct current generators. When I visited the exhibit a three panel switchboard with Wagner instruments and switches was being erected by Mr. L. J. Belknap (U. of N., '98), who is in the Buffalo office of the two companies.

We would now come to the center of the building, which was occupied by the Westinghouse Company with by far the most conspicuous exhibit. A small three cylinder Westinghouse gas engine, directly connected to a generator, was at the entrance to the exhibit and back farther was a large three cylinder gas engine, 12 or 15 feet high, similarly connected to a much larger generator. Both were in operation most of the time and were fully as silent as steam engines could have been. There was a large switchboard with various indicating instruments, some large transformers and some high tension transformers with an electric sign where 60,000 to 100,000 volt discharge from metallic letters on a plate glass sign, gave true artificial lighting. Display cases and racks with switches, instruments, etc., stands of photographs of Westinghouse installations, etc., surrounded the exhibit. At night the whole space was lit up by several hundred Nernst lamps, which attracted much attention. Individual lamps and parts were shown and explained by an attendant. This lamp seems destined to take an important part in lighting in the future, especially in stores, lecture rooms, etc., where bright illumination is desired without the bother of removing carbons as with the arc lamp.

Passing beyond the Westinghouse exhibit were found exhibits of many small companies, of porcelain fire blocks, switches, arc lamps, and small motors, the different electrical papers, some phonographic companies, etc. Near the east end were some interesting telephone exhibits, one of the Buffalo Bell Telephone Company with a switchboard in constant use, with provision for communicating with the rest of the city, and one of an independent company which had a complete telephonic network over the exposition grounds and had a fine switchboard.

But few of the visitors to the exposition ever looked at the power house, a large, barnlike structure in the back part of the grounds. In it were located some direct current generators for direct current power used in the grounds, and a Sturtevant, a Westinghouse, and a Warren alternator, the latter out of commission most of the time, which did the daylight lighting and furnished the alternating power. In the machinery building were shown some electric automobiles, and there were several in constant use on the grounds for mail collection, ambulances, etc.

In the government building, in the latter part of the exposition, there was a wireless telegraphy exhibit, showing, I think, the apparatus used by the government. Though there were some things absent which one would naturally have expected to be present, I think that the exhibit well showed the great advance in the electrical industry since the Chicago exposition of 1893.

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