relative position is devoted to the circuit and apparatus corresponding to each generator.

From the above it may be seen that the arrangement is in parallel courses; that like apparatus is arranged in rows or courses parallel with the long axis of the generating and distributing stations; that the main circuits and the unlike apparatus performing the successive functions of these circuits form 22 courses transverse to the same, and that the courses of the two directions form, as it were, a rectangular or checker-board figure covering an area nearly 1000-ft. square. The arrangement of these courses in logical sequence provides the short and direct route for the main cables previously mentioned. Such symmetry of arrangement, while difficult to attain in a crowded plant or at points of congestion, is of marked value in emergency, especially in a plant of many units, and becomes vital when the units are of such dimensions that the accidental crippling of one costs the output of many smaller plants.

Where the cable tunnels commence, the power-house and gallery are widened toward the cliff. Immediately above the tunnel entrance are the main generator switches, and on one side the duplicate turbine-driven exciters and their governors, and on the other the motor-actuated main field rheostats. In front of the switches are a few panels of switchboard carrying exciter rheostats and switches, controls for actuating penstock valves, and the necessary circuits and apparatus for a limited local distribution. Relief valves and small drainage-pumps are the only operating machinery beneath the main floor, while upon it, in addition to the generating units, there are only duplicate electrically driven pumps supplying the storage tank and transformer cooling coils at the distributing station. For air circulation and ventilation and to avoid dampness from spray as well as to insure cool generators in hot weather, a cold air supply to each generator is provided from a sub-floor chamber communicating with external shafts and heated air escapes through large roof ventilators.

At the distributing station the low-pressure bay contains upon the main floor the 12 000-volt automatic oil circuit-breakers in double column and, in the chamber beneath, only the sectional duplicate bus-bars and their immediate connections. In the transformer-rooms the transformers stand in pits six feet below main floor level, and parallel with them adjacent to the high-pressure bay are corresponding pits for static interrupters or other protective apparatus. Beneath both and between their foundations are accommodated the several systems of piping for water, oil and drainage and the main cable-ways to the transformers above. Each transformer is