



Organization Chart.

of who should maintain it. In St. Paul, at present, it is laid by the water department at the expense of the owner of the property and thereafter maintained by the water department, also at the expense of the owner of the property.

In this division we also have the problem which, as yet, remains unsolved, service connections to private fire supplies. This has been a subject of much discussion in engineering and waterworks societies, and there is a decided difference of opinion. It is a most important problem, and I believe should be solved by accepting a procedure midway between the theory of the National Board of Fire Underwriters and the practice of some waterworks engineers and executives.

It seems to me that the provisions of the National Board of Fire Underwriters with respect to the size of service connection necessary for supplying automatic sprinkler equipment is in many cases entirely too liberal and does not take into consideration the elements which must enter into a determination of water supply. The board of fire underwriters requires, for instance, that a 6 inch service connection must be supplied for sprinkler equipment located in one fire area in excess of 85 square feet of area. No consideration is given the matter of pressure, and notwithstanding the fact the National Board indicates that one sprinkler head will reasonably protect 10 square feet of area, the manufacturers of automatic sprinkler equipment very often plan and install sprinkler equipment so that one head is placed to considerably less than 10 square feet of area, which makes, under the rules of the National Board of Fire Underwriters, the larger size service connection necessary.

The use of water from the fire service for other purposes than extinguishing fire is a problem which confronts the waterworks executive, and is generally dealt with either by sealing and inspecting all drip valves on the system, or by placing some form of meter or detector in the service line. In my judgment, a clear distinction should be made between supplies to be used for extinguishing fires and those to be used for domestic purposes, and under no consideration should domestic service be taken from a fire supply line. The charge made for private fire service should include water consumed for periodical testing of the system, losses from evaporation and water used for extinguishing fires. This being the case, it is only necessary to introduce in the service connection a device which will indicate that water has been used. The question of how much is not important. This will effectually prevent continuous use of water for any purpose other than that for which the service is installed. If it is found, for instance, that the service is used more frequently than would be necessary for inspection or make-up water, inquiry can be promptly made and the proper remedy applied. It is, I think, important that the consumer to whom private fire service is supplied should be required to