nite places. This petition is referred to the legislative committee on water supply, which appoints a day for a hearing on the petition and requires the petition to be published in local papers. At the appointed hearing, the petitioners and those interested for or against the petition appear before the committee and state their arguments. If the committee sees sufficient ground for reporting the bill, it does so, and it then becomes part of the regular business of the Legislature, to be taken up in turn. The committee may order amendments to the bill before reporting it, or reject it altogether. Another legal point which may arise is the requirement in this State that all plans of dams, which by breakage would endanger life or property, must be submitted to the county commissioners for the county in which they occur.

The supplying of a small city or town offers much less difficulty than a large city on account of the small quantity needed. This can be supplied by comparatively small streams, which can be kept free from impurities at a small expense. With a large city this case is different. The large quantity needed necessitates often a number of sources, and presents many knotty problems in providing a sufficiently pure and abundant supply. When possible, a gravity system is the most desirable, provided it can be furnished at a less cost than the capitalized cost of pumping from a nearer source, combined with the first cost of the nearer works. The limits of a gravity supply will be found in many cases very exacting, and pumping is by far the most common for our smaller communities. When pumping is employed, to avoid the cost and difficulty of continuous pumping, a reservoir is located on a conveniently near summit and filled as often as necessary, the town or city being supplied by the reservoir. A system of direct pumping called the Holly system has been tried, but in all cases reported has resulted in complete failure as regards the essential objects of a water supply. Its engines are costly and complicated, differing essentially from the ordinary pumps by the large air chambers to even out the pressure and capability of slow rate of speed. Such engines are extremely uneconomical in their working, and are liable to derangement.

To avoid the cost of expensive earthen reservoirs, and to get head where sufficiently high locations are not attainable, stand pipes or tanks are often used. These are constructed of wrought iron boiler plates, and arranged for complete circulation in the interior. To accomplish this the supply pipe is carried nearly to the top, while at its base a check valve is arranged so that the water can only flow out, all coming in being carried to the top and showered down. Such stand pipes or tanks usually contain about a day’s supply, and are kept constantly full by the pumps. They are located so as to have the field of distribution between them and the pumps if possible, to give a circulation in the piping. Pumping machinery is often duplicated when a stand pipe is used, to prevent danger from breaks in the pump ordinarily used. Pumps especially designed in style and size for supplying, one the daily demand, and one the fire service, are often used.

The system with a storage reservoir is perhaps the best after the gravity system, the direct pumping with stand pipe next, and the direct pumping alone, last.

The probability of a visit this summer from the dreaded Asiatic cholera is awakening a new interest in sanitary matters. To give pure air, ground and water is the province of sanitarians. Sewerage and drainage accomplish the first two, when rightly applied and used. The third is the object of the public water supply.

February Weather on Blue Hill.

THE Blue Hill Meteorological Observatory, described in Tech No. 4, is the highest station within ten miles of the Atlantic coast, and hence the observations made there have a special interest. The observatory was formally opened Feb. 1, 1885, since which time observations have been taken every eight hours, synchronous with those of the United States Signal Service.

February will long be remembered for its