

is carried. This may be characterized rather as a monumental misuse than as a use of water.

The practical utility of water for domestic purposes is measured by its purity. When polluted, it becomes the worst of all sources of disease. In our present state of civilization it would be thought that, at least, we would be careful to provide pure water. Such is not the case. In this city at the present time, families who are especially careful are buying water for drinking purposes, while Montreal is struggling with a serious outbreak of fever, probably the result of the use of impure water.

The utility of the streams for the purposes of power and navigation is measured by the volume at the low-water stage. At the high-water stage, the excessive flow is wasted, and, not only so, but it always does serious damage. The damage is not, as popularly supposed, measured by the destruction of houses, buildings, fences and other visible property. The more serious damage is by the erosion of soil and consequent loss of fertility.

Most of the rainfall and snowfall which does not evaporate or run to the sea remains in the soil. This water is essential to the production of vegetation. Without it, crops become an impossibility. When the supply is lowered beyond the necessities of the crops the fertility and productive power are lowered. It is popularly supposed that nature regulates this. So it does, but under the influence of conditions created by man, and, where evil conditions are allowed to arise, the necessary supply of ground-water diminishes. It is, for instance, a known fact that, in certain upland parts of the eastern United States the average level of the ground-water, that is, the water held in the soil, has fallen by from 10 to 40 feet, while springs and wells have permanently failed. In these districts thousands of abandoned farms are to be found.

While the stock of water from rain and snow cannot be increased, the quantity available for use can be greatly augmented:

1. By methods of agricultural treatment which diminish the runoff and hold the proper quantity for absorption by the soil.
2. By catchment areas which prevent the spring freshets, obviating the destructive force which results in erosion, and making use of the water stored to supplement the flow in seasons of low water. Works of this character are now being constructed on the upper reaches of the Ottawa, and similar works will undoubtedly be required in many sections of the country. These works are essential to securing the full and proper use of our natural advantages in water supply. It is not