

## Costly Sequel to Typhoid Epidemic

To see a man walking home wards hugging a big bottle of water under his arm, or, perchance, drawing it behind him in a child's wagon, is the curious sight that meets the stranger's gaze in a city of Eastern Ontario. When he seeks to learn the reason, he discovers that this is an aftermath of a typhoid epidemic that occurred two years ago. There is plenty of water for household purposes, but drinking water costs like any other beverage. One passes stores where the window-dresser has exercised his art in arranging water-bottles artistically. Advertisements recommending this or that kind of water are displayed upon the bill-boards and on the screens at the moving-picture shows. Hotels and restaurants specify in the menu the variety of water supplied to their patrons.

The situation above described may be interesting, but it should never have arisen. When we reflect on the addition to the already high cost of living, the added expense to which the city must sooner or later be driven to provide a pure water supply, the financial loss it has already suffered in providing medical attendance and hospital accommodation during the epidemic, and, above all, the lives lost and the homes saddened during that outbreak, the importance of jealously guarding a public water-works system from contamination is borne in upon us. Let other cities take warning, for in no other department of civic government will carelessness or parsimony reap a more sure or more terrible punishment than in that which is concerned with Public Health.

## Durability of Ties

The average life of untreated ties as reported by the steam roads is as follows: cedar, nine years; tamarack, eight years; hemlock, seven years; Douglas fir, seven years; jack pine, six years; spruce, six years. As recent statistics bear evidence, cedar is the species principally used, because of its durability, but the supply of cedar is rapidly becoming exhausted. Unless preservative treatment of ties is introduced, the short-lived species will have to be used untreated, which, on account of the necessary frequent renewal, will increase the cost of mileage maintenance. If treated ties were used, which would cost thirty cents extra per tie for creosoting and equipping with the plates, the inferior species, which are very plentiful and cheap in Canada, could be used with economy. With such a treatment these woods would last at least fifteen years, and if protected from wear would probably last much longer. —Canadian Forestry Journal.

## A Leak in a Pipe is a Leak in a Pocket Book

**Water Waste Raises Rates—Sound Plumbing Necessary**

The property owner pays for water waste in two ways. He pays for additions to the plant, such as new watersheds, reservoirs, tunnels, and pumping stations, rendered necessary by the waste, and he pays for the higher operating expenses caused by the increased consumption.

In New York City, for example, thanks to its prodigal water waste, taxpayers must pay \$260,000,000 for a new system of supply, and \$10,000,000 more for a tunnel to carry it from the reservoirs. When the times come for the distribution of the new supply, new pipes must be laid in the city streets, for the old pipes will be unable to withstand the pressure. Likewise, new pipes must be laid in the buildings. And the taxpayer will see the cost of the new city mains reflected in his tax bill and will give the plumber more money for putting new pipes in his building.

If New York's water supply had been properly conserved, storage reservoirs, built at a cost of \$50,000,000 or \$60,000,000, would have furnished a sufficient supply, even though two years passed without a rainfall.

People let their faucets drip, let their pipes leak, and give no heed. They think water is as plentiful as air. They do not know that a drip of  $\frac{1}{32}$  of an inch in diameter, estimated on the meter value of water at \$1 per thousand cubic feet, represents in a year the loss of \$11.68. In metered property in New York, where owners have called in the services of experts to locate leakage, they have saved from one-sixth to two-thirds of their annual water bill. Hotels, restaurants and apartment houses are especially liable to this waste. The average owner or lessee seldom has the knowledge to enable him to ascertain the one or more causes that produce water waste. He would be making a good investment in engaging a competent individual or firm to inspect his water supply plant regularly, and to make repairs to fixtures or pipes whenever they become necessary.

## Concrete Homes in Town and Country

Although the use of concrete for many constructive purposes has been growing in popularity from day to day, there are still many fields in which its utilization has not been exploited to any extent. Perhaps the most noteworthy example among these is the construction of residences. The chief reason for this lies in the fact that the esthetic possibilities of concrete have been hitherto but little realized in Canada, while the decorative advantages of a stucco faced concrete structure have been almost entirely neglected.

When the era of concrete construction first dawned in Canada, it became apparent that, as a building material, it would supersede brick, stone and wood to no inconsiderable extent. Concrete houses became an economic possibility, but the decorative side of the matter was unfortunately almost entirely neglected. Anything more unsightly than the first efforts of Canadian builders along these lines it would be difficult to imagine. As a result of these earlier efforts the material has since been but little utilized for house-building purposes. Apartment houses have, it is true, been built from time to time out of concrete blocks, but only the cheaper forms of city residences have been constructed out of this material.

There are, however, a number of ways by which an artistic result may be attained in dwellings of concrete construction, and the first and foremost of these is by the use of stucco. To the architect, the utilization of this material opens up a field of unlimited esthetic possibilities; while to the home builder the use of concrete and stucco offers an opportunity for the exercise of a very considerable economy as it is claimed that this form of construction, while very durable, is very much cheaper than stone or brick.

It is, however, in the construction of summer homes, both large and small, that the widest use may be found for this material. Stucco lends itself to any decorative effect which depends on the immediate surroundings of a house, for, if it is properly made, it harmonizes well with nature's varied colours. There is no form of residence which

## Simple Precautions May Prevent Fires

**If Slashings are removed the danger is decreased**

If owners of lands adjoining railway lines would remove or destroy at a safe time of the year, the slashings and other unnecessary inflammable material for a distance of 100 feet outside the right-of-way, a very large percentage of the damage from railway fires would be prevented. All reasonable precautions that railway companies can take will not wholly prevent disastrous fires, so long as adjoining lands are allowed to constitute fire-traps, as is now the case with so large a percentage of forest lands along railway lines. —C.L.

appeals more strongly to the eye than a low, gable-roofed, stucco-clad concrete house; a house with white framed casement windows and vine-clad walls; a home nestling among clumps of trees and surrounded by the vivid verdure of summer. Landscape architects in the United States are beginning to realize the scenic qualities of stucco and it is fast growing in popularity as a decorative medium in house construction.

Still another of the numerous methods by which concrete blocks can be given a finished appearance, is that of surfacing them with a sand blast. The surface cement is worn away by the sand; the broken stone, of which it is partly composed, appears; thus giving the block something the appearance of a polished limestone breccia. A glance at any pavement, from which the surface cement has been worn away by the countless footsteps of the hurrying multitude, will serve to convey a very rough idea of the appearance a sand-polished cement block presents. If the mixture has been made with proper care, the block can be given quite an effective-looking surface, and, so far as appearances go, it is infinitely superior to the ordinary concrete block. If its one disadvantage lies in the fact that surfacing by sand renders the block more liable to erosion.

The use of concrete for residences offers many advantages; it is both economical and durable, and houses built of it are cool in summer and warm in winter. When the esthetic possibilities the material offers become more widely appreciated, it is sure to gain in popularity; and the time is at hand when stucco-clad concrete houses will be made use of far more than they are at present, as these materials offer Canadian architects and builders an opportunity which they cannot afford to neglect.—W.L.C.

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The highest success is to do some worthy thing that no one ever thought of doing before.

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