

learn easily the lessons He sets them; who do not need ever much chastening. Ready to take the lowest seat at feast or synagogues there is a Divine and approving tenderness in the voice which says, "Friend, come up higher."—*Morning Star*.

## DEFECTIVE DRAINAGE.

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In pursuing the study of the causes of typhoid fever, the fact that in the *decomposition* of animal and vegetable matter is found the chief factor of this fatal malady cannot but lead to the question,—are not many other diseases traceable to the same source for their causes?

Throughout country towns and villages, where the drinking water is obtained from wells and springs, sufficient care is not usually exercised in guarding against their impregnation with excremental matter, sewage, dirty refuse or waste water, barn-yard soakage, rotting vegetables, decaying wood, or even dead animals. Neither are the dwellings carefully protected from the effects of decomposition within them or their immediate surroundings. Foul air from cellars containing the various winter's stores, such as vegetables, fruits, meats, etc., which from their nature are constantly undergoing decomposition, old neglected drains, which have become obstructed or partially obliterated, the practice of throwing out the slop or vegetable waste somewhere near the kitchen, the location of the pigsty conveniently near, and the well perhaps so situated as to receive the percolated deposits of both the privy and barn-yard, are all sources of great danger to health and life.

An adjacent "rich and fertile soil in which decomposable substances are retained near the surface by any cause, whether a clay subsoil, or a ledge of rock, or a protracted drought, is a soil favorable to the production of Typhoid Fever." The same conditions apply with equal force to Cerebro-Spinal Meningitis, and perhaps other febrile diseases whose cause seems yet in obscurity.

With an inherited predisposition chiefly, and perhaps, without in a continuous exposure to the cold, sour, soil moisture of undrained lands, there can be no doubt that consumption finds its most prolific excitant.

A debilitated system, a badly nourished infant, an overworked adult, or the declining health and vigor of age, all are peculiarly susceptible to these influences.

Impoverished, partly devitalized blood is peculiarly susceptible to the subtle effects of the products of decomposition. These become direct poisons, and produce their

effects in the various forms of febrile disease.

With what excessive care, then, should all sources of impurity, either of air, water, or food be watched and avoided? And with redoubled care should those having hereditary predisposition to disease watch and guard against all these health-destroying conditions.

*Decomposition*, although nature's handmaid in the ever-changing elementary reconstruction of material substances, is always presenting dangerous factors to health, and yet by a wise provision, nature usually so indicates their presence by conditions more or less offensive to the senses, that her warnings may be heeded and their evil effects avoided.

As *air, water, food and sunlight* are the sources of healthful life, so when contaminated, or deficient in their just and due proportions, are health and life jeopardized. Therefore purity and abundance should always be our chief solicitude.

The air should not be contaminated with poison or miasm from defective drains, decomposing waste, either animal or vegetable.

The water we drink should be guarded from all impurities, such as are percolated from filthy sources, as cesspools, privies, barnyards, pigsties, or the waste of manufactories.

The food we eat should be fresh, good, wholesome, well cooked, easily digested, and taken in due proportions. Not the least important is free exposure to sunlight. Its effects are both chemical and mechanical. It purifies the air of rooms or close places; it imparts vigor and strength to struggling life; it gives cheerfulness to the desponding, and restores health to the invalid. Neither animal nor vegetable life can be maintained healthful without it.

Drainage in its various applications is one of the chief means of remedy for these various conditions. Not only of lands adjacent to dwellings, but the proper drainage of the immediate dwellings is of the utmost importance.

The following extract from a paper on "Drainage for Health," by Hon. H. F. French, aptly illustrates the usual conditions found in old farm-house cellars:

"In it have been stored all the potatoes, turnips, cabbages, onions, and other vegetables for family use. The milk and cream, the pork and beef, and cider and vinegar, have all met with various accidents, and from time to time have had their juices in various stages of decay absorbed by the soil of the cellar bottom. The cats, so neat and peculiar in their habits, have slept there to fight the rats and mice, who have had their little homes behind the walls for half a century, and the sink spouts have for the same term poured into the soil close by,