The most ordinary pipes will bear a pressure with safety of 300 feet head of water. The pipes at present laid in the city, are all under 12 inches diameter, and capable of bearing a pressure of 450 feet and upwards ;—the strength of metal in pipes of these dimensions being determined, not by the water pressure they are to sustain, but by what is requisite to make a good casting. They are in fact subject to strains from their position in the streets, which call for greater strength than what is required to resist the water pressure.

With an efficient head pressure great economy in the distribution is secured—a smaller sub-main or service pipe will supply the place of a larger one with a lower head. The "high service" remedies the common evil of a failure in the delivery at points most distant from the reservoir, and in the upper stories of buildings which may have a plentiful supply in the cellar. With a "low service",—while the city is drawing,—the water is not allowed time to ascend to the height due to the reservoir head—except at night. The remedies for this are—pipes of extravagant dimensions, or a reservoir sufficiently elevated above the point of delivery to feed the service pipes faster than the consumption,—and send on the surplus to the higher, or the more distant points.

But it is as a safe-guard against fire that the high service is to be chiefly commended. Too many towns are restricted to—or are content with,—a pressure sufficient only to fill the engine tanks—relying on manual labor to throw the water on the flames. This need not be the case with Montreal—for here the merchant may have his private hose on ever floor of his warehouse, and by simply turning a cock play upon a fire as soon as discovered.

In the important process of cleansing the streets the benefits of a heavy pressure are apparent, enabling you to *scour* instead of simply *wetting* them ; and the greater