

towns and cities carefully and thoroughly inspected, from its source to its distribution, and the condition of the cows supplying it, and their management, sharply looked after.

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## THE PNEUMATIC SEWAGE SYSTEM.

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Few questions have proved to be more difficult of satisfactory solution than that of the best method for the removal of sewage from large towns. The water-carriage system was thought to be the most complete that could possibly be adopted, but the escape of deadly gases from the drains into our houses and streets has ever been a source of grievous anxiety and a fruitful cause of disease and death. No problem, perhaps, has given greater perplexity to modern mechanics than that of discovering some efficacious means of preventing the escape of these poisonous effluvia, and the ingenuity of inventive genius has been almost exhausted in vain attempts to produce traps and valves to completely intercept them.

A new system—the PNEUMATIC, proposed by Captain Charles T. Liernur, Military and Civil Engineer, who has had practice in engineering on both sides the Atlantic—is being brought into use in Holland and Austria, and it appears is likely to work very satisfactorily. The pneumatic system “proposes to draw off fecal matters and the polluted air by pipes connecting with steam-worked air pumps. These pumps are attached to air-tight reservoirs beneath ground, in which, by exhaustion about three-fourths vacuum is constantly maintained. From these large tanks, pipes are laid along the principal streets, and at intervals smaller street tanks are placed, communicating by small, short conduits (or pipes, with a sort of valve in each,) with the closets in each house. By partial exhaustion of the air in each of these receptacles for the sewer gas and effete matter, without the aid of water to flush the closets, the gas is drawn off from the house pipes and lodged in the main reservoirs, where it is finally disposed of without detriment to