

The Municipal System of Glasgow.

(Special correspondence.)

When visiting Canada three years ago I was gravely informed by a leader of industry in Toronto that I lived in a happy city where no taxes were paid. Unhappily, the information was novel and out with my experience, but the impression is, no doubt, widespread that in Glasgow the municipalization of water, gas, tramways and telephones had led to profits so remarkable that the citizens sat under the vine and fig tree, paying no local rates. There never was a greater delusion. We pay heavier rates than are paid in most other Scots towns, and have no better security for life and property than they. We dwell in a municipality which has reduced the glorifying of itself to an exact science, while the citizens who reside within the boundaries are made to pay sweetly for the amenities guaranteed to those without. The control of the water and lighting has long been in the hands of the city council, and there can be no doubt that the city has derived great benefit. The water supply comes from Loch Katrine, many miles away among the beautiful scenery of the Trossachs, and the project which brought a plentiful supply of pure water into our midst was one of the most far-seeing on record. The City of Glasgow used to be surrounded by many mushroom or parasitic burghs, which secured great benefit from their proximity to Glasgow, but contributed nothing to its rates. Loch Katrine water was one of these boons. Now Glasgow has swallowed up most of these parasites—and so far there is a measure of fairness in the result—but many inequalities remain. Gas and electric lighting are also in the hands of the city council, and that is as it should be, because, unlike water, every citizen gets what he needs, and pays for it by meter. But with water it is different. A uniform rate per £ of rental is levied for water, and the householder who wastes just pays the same as the householder who conserves the precious fluid. (It is precious in a community of 750,000 souls.)

Of course, when the city council took over the water companies' rights and secured a monopoly, and also secured the sole right to manufacture and sell gas, the existing companies had to be bought up at prices fixed by valuers, but when the city took over the tramways or street cars nothing of the kind occurred. These were operated by a private company, which laid the rails and paid a heavy rent for use of the streets, which they were bound to maintain in good order so far as concerned the portions on which their rails were laid. This private company had a lease or prescriptive right to lay down rails in the streets for a period of about twenty-five years, at the end of which time it was within the option of the city authorities either to renew the lease to the company or to take over the whole concern. The council elected to do the latter, and on 1st June, 1901, they electrified the whole system, substituting electric traction by means of overhead trolleys for the system of horse haulage which had been in vogue from the laying down of the first rails in 1870. It was felt by many of the citizens that, while no doubt the private company had made a bargain, and were, therefore, under no disadvantage, they were not too handsomely treated by the city authorities. Be that as it may, the tramway system of Glasgow is supposed to be a crowning illustration of the success of municipalization. Undoubtedly a very large number of citizens travel by the cars, which are well-appointed, kept in ideal order, and run at great speed. What is doubted is whether the cars pay; that is to say, would the cars pay a dividend to the shareholders were they owned by a private company, which paid a big rent for the use of the streets, kept up the streets so far as operated by the company, and paid taxes and rates on the rental of premises and streets? These are questions about which many citizens have grave misgivings, and in respect of which there is constant bickering in the town council and the press. The convenience to the citizens who travel out into the country is undoubted. For a penny one can ride at least 1½ miles and often more, and for three pence he can travel seven miles. But the citizen who wants to move from point to point in the center of the city is not so generously catered for. He is mulcted in heavy damages, because while he is rated heavily for the capital required to start the cars, he does not find a car when one is wanted. He is charged a half-penny fare for certain distances, but if he should chance to need to travel from the center of one of these divisions to the center of the next he is charged one penny for what may be less than a half-penny distance. Besides, the octopus-like branching out of the tramway system into rural districts, while advantageous in many ways, tends to the depopulation of the centers, and makes the rates much heavier for those who remain in the center.

The general situation is this: Everybody approves of the municipality having control of water and light, as well as police and parks, cleansing and street maintenance. Many are in doubt regarding the financial success of the tramway

system, and some question the policy that is being pursued. A minority alone approve of a municipal telephone system, which appears to be rather a bad egg. There is no imputation of jobbery in connection with municipal affairs, and, as a rule, the questions which divide us on imperial politics are kept severely outside of municipal affairs. In my opinion, the policy of municipalizing water, lighting, street cars, etc., is sound and defensible on one condition, and on one only—the absolute purity of the municipal system, the absence of hoodlum-hunting on the part of civic rulers, and the employment of a superior grade of public servants. Corruption is inseparable from municipal government when it is made the plaything of party politicians. What is wanted everywhere is the best class of citizens to interest themselves in municipal affairs. If the vicious system of making the success of municipal servants dependent on their adherence to either political party be introduced, then farewell to all that is right and pure among such servants. Banish national politics from municipal management, dethrone all "hoodlums," and to that end let the best men in a community interest themselves in local politics. "SCOTLAND YET."

Glasgow, Scotland.



Baron Black (imp.) (788) (12021).

Three year-old Clydesdale Stallion. Second at the Canadian National, Toronto, and first at the Central Canada, Ottawa, 1905. Imported by Smith & Richardson, Columbus, Ont.

HORSES.

Improvement of Horse Stables for the Winter.

While some horse stables are properly built and kept in good repair, and as a consequence, require no particular fitting for winter, there are many that, from want of proper construction, neglect of repairs, or other causes, are not in a condition to afford health and comfort for the horses. The principal points to be considered are convenience, comfort and ventilation. In most cases it is not easy to alter the convenience to any great extent without practically changing the internal economy of the compartment. By convenience we mean arrangements by which horses can be fed, groomed, watered, etc., and by which the stable can be kept clean with as little work as possible, and provision made for harness, forks, shovels, brooms, etc., where they can be reached handily when required, and in the same time be in such a position that they cannot be readily knocked down and injured, or whereby a horse may be injured. In regard to these points, of course, each stable must be treated according to its peculiar situation and construction, and as no general rule can be set down, we will pass it over, and consider "comfort" and "ventilation." These two points are inseparable, as no animal can be said to be comfortable without at least fair ventilation. We will assume that the stable is so built that it can be made sufficiently warm. The average trouble is (at least where horses are stabled in the basement of a barn, as a large percentage of our farm horses are) that the stable, when doors and windows are closed, is too warm and close, and when any of these

are closed it becomes too cold. Of course, in any case, in cold weather, the problem is all that is required is to keep the openings unclosed, but in cold weather this cannot be done without lowering the temperature of the stable too much and producing such a degree of discomfort to the horses and such a degree of danger to their health. The question now arises, "What is ventilation?" Perfect ventilation is said to be the removal from a compartment of vitiated air as soon as it is formed, and its immediate replacement with pure air of the proper temperature, and to prevent condensation and the consequent formation of moisture. Perfect ventilation is practically impossible, and all we can do is to attain it as near as practicable. Again, the question may be asked, "What vitiates the air?" All students of physiology know that the blood of a living animal must have a constant supply of oxygen and be relieved of carbonic acid and other impurities in order that life may be maintained. The animal inspires pure air which contains a percentage of oxygen, some of which is taken up by the blood in the air cells, and at the same time the carbonic acid and other impurities pass from the blood into the air cells, and are expelled

from the body in the expired air. Hence, the expired air contains more carbonic acid and less oxygen than the inspired air, and if this process be kept up without the compartment receiving a supply of fresh air, the animals breathing the same air again and again, we can readily see that it soon becomes so impure as to be incapable of performing its proper functions. The great question of ventilation, then, is to keep up the supply of fresh air and the exit of foul air, without reducing the temperature of the building below the point compatible with comfort, say 40 to 45 degrees F. In many stables ventilation is more a matter of accident than intelligent planning. There are many systems of ventilation, but they all have the object noted in

view, and all are more or less successful. Expired air is, except in a very warm atmosphere, warmer than inspired air, and as heat tends to expand and make lighter, it, of course, ascends, and the fresh air occupies the lower portion of the compartment. Hence, in order to allow exit to the impure air there must be openings at a greater or less distance from the floor, through which it may escape. These openings may be many or few; better results are probably attained from several small ones than from one or more large ones. The openings should be continued with a shaft or tube to the eave or ridge of the building, and open in such a manner that it is not easy for wind to enter and make a downward instead of an upward current. When the external openings are smaller than the internal it tends to create a draft, and if they open under the eave it is probably better than at the ridge. These shafts may be four inches square, or larger, according to their number and the number of animals in the stable. Large ventilators on the roof, with large shafts, say two feet square or larger, as are seen on many stables, are not satisfactory, as they are about as liable to convey the cold wind into the stable as the foul air out. Hence, the exits should be so arranged as to avoid this. The question then arises how to introduce fresh air without lowering the temperature too much. One plan is to conduct it down a shaft that is continued by a revolving cowl erected upon the ridge, so arranged with a wing or tail that the mouth is always open to the wind. Another method is to have openings directly through the walls into the stable. In either case the openings into the building must be supplied with movable lids that can be left open, partly open, or closed, according to the weather, else on very cold days the stable will be very cold. These plans necessitate considerable and