

other years, had been cut almost to pieces were at the end of 1909, after a season's treatment of oil, well preserved, and went into winter in good condition.

In most cases where oil was applied it was applied cold during the summer months, but in some cases, where the work was done late in the fall, the oil was heated.

One of the principal reasons for selecting a grade of oil that could be applied cold was its cheapness, as in most cases the appropriation for this class of work was very small.

It has been generally considered that the road to be treated with oil should be absolutely dry. In the experiments carried on in New York State during last season good results were secured in several cases by oiling damp roads, but in wet or muddy roads it was found that where the road was slightly damp the penetration of the oil was better, and it took less to cover the same area, and the general conclusion was that the final results were better than when the oil was applied to dry surfaces.

One thing must be watched, and that is, the road must be swept as clean as possible, so that the oil will not be carried away in clouds of dust. The rotary sweeper will do this work very successfully. The cost of the oil treatment varies greatly because of the amount of material to be used; the freight rates and the rate per gallon is far from uniform. A fair average for a sixteen-foot roadway is about three thousand eight hundred gallons per mile, or per square yard one half gallon. Of course, these figures vary according to the character of the roadway, newness of metal, etc.

Not only will the oiling of roads give a better highway, but it will usually be found cheaper than sprinkling with water, and, as in many municipalities they have not enough water for lawns and house use in the dry season, oiling of roads will be another saving on the water supply. This, too, must be considered as an advantage.

GARBAGE AND REFUSE COLLECTION.

Many towns and villages have not a regular system of collecting garbage, but two or three times a year the municipality collects the ashes, garbage, dead animals, etc., and the methods of their disposal is something that affects not only the health of the town immediately, but frequently has to do with the health of certain sections of the town for many years to come.

Before this collection is made the householders should be required to separate the refuse into at least two classes. Ashes, tins and other non-organic matter may with considerable safety be used to fill in ravines and depressions. Ashes may also be used to repair the highways. In the disposal of the organic matter greater care must be exercised, as fills made of this material will very shortly become a public nuisance and frequently spreaders of disease.

In some cities this refuse is compressed and disposed of to the market gardeners as fertilizers. It also has a fuel value, as some makers of producer gas engines claim that from garbage and rubbish they are able to develop two horse power per thousand of population. This is a matter of some interest to municipalities with their own lighting and pumping plant.

The fuel value of such refuse has been demonstrated many times, but the difficulty has been in securing financial returns from the intermittent supply of garbage.

CITY PLANNING.

About a month ago we had an article on the planning of a town. We are pleased to know that it has been quoted by several journals.

On May 2nd, 3rd and 4th, at Rochester, N. Y., there is a conference of city engineers to discuss the planning of towns and cities. Good will certainly come from the conference of the educational campaign that will follow the discussion by experts.

The bringing together of men interested in this special work—men with an intimate knowledge of the blunders of the past and clear ideas as to what is required by a large city—will be productive of good.

Although it will be difficult, and in some cases impossible, for engineers to carry out in full their ideas, there is not a town or a city where, by giving careful thought, some improvement may not be made as to the laying out of the city and the beautifying of the boulevards and parks.

THE AMERICAN SOCIETY OF ENGINEERING CONTRACTORS.

During recent years technical societies have grown up without number. Each city and centre of any pretensions to-day has from one to six technical societies, all doing good work and filling a particular want in a certain field.

A little over a year ago a movement was started in the United States to organize a Society of Engineering Contractors. Although this society was to contain many technical men, it was not expected that it should be a technical society. It was hoped that this society would be more practical, and composed of men more interested in construction and erection than in theory and design.

The idea seemed to be welcomed by a large body of contractors and engineering contractors, who to-day are responsible for the carrying out of the plans and designs of the engineer.

In addition to the exchange of ideas on the best way to do things, it was felt that this society could do much for the larger body of contractors in the way of watching legislation, specifications and conditions governing bonds. In the short time that this society has been in existence it has shown the necessity for such an institution, and already in the matter of legislation, both at Ottawa and at Washington, as well as in the smaller legislative centres, the members of this society, both as individuals and as members of a large organization, have had a good effect on legislation.

To-day the membership of this organization numbers over eight hundred, and it would have been double that number had it not been for the little family trouble which now bids fair to retard the growth of this new organization. Strange that a body composed of men with such large interests should so soon be split into two factions, and it is to be hoped that the trustees will find some happy solution to the present trouble, so that this very necessary organization may continue, and that their field of usefulness will be greatly enlarged on this continent.