

## MUNICIPAL DEPARTMENT

### COST AND REPAIR OF ASPHALT PAVEMENT.

Asphalt is eventually the cheapest form of pavement that can be laid when it is considered that it is guaranteed to be kept in repair by the contractor for five years or more, when opened for excavations can be repaired with greatest ease and perfection and maintained for the city after the expiration of the guarantee for a long period of years at a reasonable price, can be more cheaply cleaned and causes less wear and tear upon horses and vehicles than any other form of pavement, thus benefiting the community in a very general way.

It may originally cost double the price of a macadam surface, but the repairs upon the latter are so expensive that often in three years the cost has been equalized, while the asphalt pavement may be maintained for many years at a cost of from two to ten cents per yard per annum, and finally resurfaced for half its original cost. In Buffalo asphalt pavements are in use to-day which, with a few minor repairs, have been subjected to traffic for twenty years, and the same is the case in other cities.

We have in the asphalt pavement, therefore, cheapness and durability combined, because economical maintenance, and not cheap first cost, is the best economy.

This, however, is true of asphalt pavements only if, as has been said, the highest grade of material is used and the most skilled labor employed, because nothing is more worthless or expensive to maintain than an inferior bituminous concrete. The prices paid must be large enough to warrant good work. Too cheap pavements are the most costly in the end because necessarily inferior.

The success of asphalt pavements early led, as has been said, a large number of irresponsible persons to go into the business with a resulting demoralization of prices, and many

pavements or imitations of them have been laid upon which more was expended for repairs than would equal the cost of original high grade surface. Imitations of asphalt have been introduced at frequent intervals to the taxpayer, who has only learned of their inferiority by experience. Washington years ago went through this experience with coal tar and to-day there is still too much similar experimenting going on with by-products of manufacturing processes.

The chief cause of failure in asphalt surfaces is, however, lack of skill and experience on the part of irresponsible contractors.

The necessity of prompt repairs is a fact that is self evident on a railway, but is not always so carefully regarded in connection with pavements. Too many pavements, whether stone, brick or macadam, are allowed to deteriorate until they are in a bad condition, because they are not actually dangerous and because satisfactory repairs are expensive and generally impossible. It is not possible to replace a stone block or brick pavement in such a way that the repairs are invisible, but with asphalt this is quite possible, and, as the latter surface shows the smallest de-

fects, attention is attracted to condition at once and repairs are so readily neglected.

Repairs to asphalt pavements the first five years are guaranteed by the contractor for any deterioration of the material other than that which can be again contracted for with a view to a subsequent period at a reasonable cost. Cuts made for gas, water or sewers can be replaced in asphalt so perfectly that the place can not be detected, and if it is necessary to renew the entire surface of a street, this can be done by patching the old surface with heaters to a depth of one-half to three-quarters of an inch, removing the inferior material and replacing it with new surface. It is quite unnecessary, as in many cases with asphalt and now with other pavements like granite, brick, to tear up old surface to foundation. The economy in this direction is immense.

Of course the cost of maintenance of a pavement, asphalt or stone, depends upon the traffic to which it is subjected. But an asphalt pavement can be maintained under the heaviest traffic at a reasonable expense.

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