

and clean stone screenings or slag grit will re-establish a wearing surface which will withstand moderate traffic for several years.

Don't Wait Too Long

The fact that a road is newly constructed and needs no repairs should be only an added incentive to protect the surface before the forces of destruction have full sway and put the road into such a condition that oiling of the surface preserves only the portions that remain intact, and permits the impact of heavy moving vehicles to enlarge any potholes or depressions, so that the effect of the oiling becomes nullified. The success will be no greater than that of trying to stop holes in a roof caused by dry rot or physical damage, by painting the remaining surface. The time to oil is now, before destruction starts, and repeat the treatment, according to the intensity desired, as required, successive treatments decreasing in intensity.

As in any material application, the best material applied to the purpose at hand in the most skilful and careful manner, gives the best appearance and the most lasting qualities. Oil that requires a small amount of heat to permit the most efficient operation of a pressure distributor, applied to a thoroughly clean, swept road, and covered with sufficient gravel or screenings to completely cover the surface immediately after application, has given complete protection against excessive rainfall by which untreated roads have been partially destroyed.

Objections Temporary

Objections as to odor and color of asphaltic oils are temporary and personal. The odor is slight at any time, and vanishes as the road dries. The color can only be objected to when tracked into the residences of the property-owners, and any oil (if of value as a binder), if permitted to adhere to other objects, will form a nucleus around which the objectionable particles of dirt will collect, whether the oil possesses a color or not.

At seashore or other resorts where unpleasant, personal contact with the new surface is an obvious objection, treatment early in the year would permit a finished surface to be presented during the season and would meet with the approval of all.

Where the road surface is of a material that is finely divided and does not permit of sweeping, oil containing a minimum of asphalt, lightly applied, will allay the dust for a season, though the protection against such traffic as a road so constructed should be called upon to stand is more nominal than real. The small degree of porosity and close formation of the surface prevents the absorption of any binder except such as can be carried by the lighter carrier in the oil.

As the character of the surface of the road changes so that a heavier oil can be applied, two light applications in a season permit a rapid drying of the surface and a penetration of the asphalt sufficient to reduce, to a negligible amount, the ability of traffic to pick up the oil.

HIGHWAY TRAFFIC REGULATIONS

SUGGESTED general highway traffic regulations, accompanied by an interpretative bulletin, are now being sent out by the tens of thousands as a part of the campaign inaugurated by the U.S. Council of National Defense through its Highways Transport Committee, to the end that the number of accidents on the highways be decreased.

Police records, it is said, especially in recent months, emphasize the vital need for concerted action looking to the safety of life and limb, and intelligent study along the lines of simple and easily understood highway regulations.

The view of experts who have given the subject of traffic regulations extended study is that uniformity, especially as to the fundamentals in traffic regulation, is necessary if success in combatting this evil is to be in proportion to the need for the same.

The Council of National Defense believes it is possible, through the adoption very generally by municipalities of the

suggested regulations which it is distributing to the public, to reduce to a most gratifying extent the number of accidents growing out of the rapidly increasing number of motor vehicles on the highways.

The key to the solution of the problem of how best to protect those travelling on the highways, especially in the cities and towns, both pedestrians and drivers of vehicles, says the council, is through education of the public. Once the standardization of highway traffic regulations is brought about through co-operation by authorities in the principal cities of the country, this education of the public as to the need for observation of rules laid down in these regulations, it is believed, may fairly quickly be brought about.

The regulations being distributed by the Council through its Highways Transport Committee stress the necessity for caution being exercised at crossings, roadway intersections and junctions, where most accidents occur. This caution implies extreme care on the part of drivers and constant watchfulness upon the part of both drivers and pedestrians.

MONTREAL AQUEDUCT ARBITRATION

City Must Pay \$308,000 to the Cook Construction Co., Who Claimed \$1,775,000—Company Is Held Responsible for the Break in the Concrete Conduit

CLAIMS aggregating \$438,000 have been allowed against the city of Montreal by the award of the Board of Arbitration in the suit for \$1,775,000 brought against the city by the Cook Construction Co. as damages for the cancellation of the aqueduct contract. Counter-claims to the amount of \$130,000 were conceded by the board, leaving a balance of \$308,000 to be paid by the city to the construction company.

The arbitrators were W. F. Tye, consulting engineer, Montreal; J. M. R. Fairbairn, chief engineer of the C.P.R.; and Aimé Geoffrion, K.C., Montreal.

The company originally claimed \$1,900,000 and the city claimed \$50,000, but these amounts were later reduced respectively to \$1,775,000 and \$412,000.

A feature of the arbitrators' judgment is that the Cook Construction Co. is held responsible for the break in the conduit, December 25th, 1913, when most of the people of Montreal were deprived of water for several days. On this account the city was awarded \$81,889 as compensation for lack of precaution by the company.

In this portion of the award Mr. Tye dissented, but Messrs. Fairbairn and Geoffrion were of the opinion that the company is liable for the reason that it had been emphasized in the contract that the conduit was the sole source of water supply for the greater portion of the city of Montreal, and that extreme precaution would be required in connection with it, and that the contractor would be held responsible if he were to damage it.

Mr. Tye dissented on the ground that the city engineers had misled the company in regard to the reinforcement of the conduit, the tamping of the backfill, and the underdrain, and because the city had not informed the company of a washout that had occurred before the signing of the contract.

The largest individual item of damages awarded to the company was on account of delays. The amount claimed under this head was \$600,000; the amount awarded was \$215,881.

The agreement to arbitrate the differences between the company and the city was made nearly two years ago, and since then witnesses and experts galore have been called to enlighten the arbitrators regarding the responsibility for one of the biggest municipal tangles in which Montreal has ever become involved.

According to the terms of the arbitration, each party pays its own costs for legal advice and witnesses, while all other costs are equally divided.