LARGE PAVING CONTRACT AWARDED.

Approximately $1,800,000 was voted recently by the Detroit, Michigan, city council for new pavements, and of this amount about $906,000, almost exactly one-half of the total, was earmarked to be used for paving with creosoted wood blocks. The remainder was divided among asphalt, granite and other types of pavements, about $400,000 being devoted to sheet asphalt.

Tenders for the supply of creosoted wood block were called for a few weeks ago. A special despatch to *The Canadian Engineer* last Monday announced that the Detroit city council had met and awarded the contract for the entire $906,000 worth of wood block paving to the United States Creosoting Company, of which the Canada Creosoting Company, whose plant is at Trenton, Ontario, is a branch.

A thorough investigation of paving materials was made in the year 1911 by the Detroit Board of Commerce. Foundations, manner of laying and methods of testing were studied, as well as every criticism that was advanced by the manufacturers of the various paving materials.

An interesting booklet announcing the results of the investigation has been issued under the title of "A Message from the Business Men of Detroit Regarding Their Pavements." Copies of this booklet will be sent to interested persons on request by the Canada Creosoting Company, Canadian Pacific Building, 1 King Street East, Toronto.

The first creosoted long leaf yellow pine wood block was laid in Detroit in 1905, and since then about 320,000 square yards have been laid. The only appropriation asked for the maintenance of the entire 320,000 square yards was $500, allowed in 1912. The specifications now in vogue in Detroit call for a 3½-inch block, with twenty pounds of creosote oil to the cubic foot. No guarantee deposit fund is required from the manufacturers, as past experience with the block has been so satisfactory that no charge could be made against such a fund.

The large demand for wood block came principally from property owners, not only in the downtown section but also in the residential section. There are now between sixty and seventy streets in Detroit laid with wood block, over seventy per cent. of the work being done by the city with its own men, under the title of resurfacing work. Some interesting data is given in the booklet above mentioned regarding just what wood block pavements are, their advantages, method of inspection, etc. The following quotations from the booklet are interesting:—

"For wood block pavements the favorite wood is yellow pine. To prevent decay, the wood blocks, after being cut, are placed in a cylinder and impregnated with creosote oil by a thorough vacuum process, which drives the creosote to the heart of the wood. The creosote, being a perfect antiseptic, makes the wood immune from wet rot or decay of any kind.

"The blocks are laid in the pavement on a foundation of concrete. The concrete is brought to a smooth surface by a coating of mortar or by the spreading of a sand cushion. The blocks are laid with the grain vertical with a tight joint and brought to a uniform level by tamping.

"The first effect of traffic on the wood block pavement is to broom the edges of the wood slightly, thus closing the joints and making them practically invisible, except near the curb where there is less wear. In consequence, wood block pavements frequently are mistaken for sheet asphalt.

"During the first year, traffic hammering upon the end of the grain pounds it down and mats the fibre, thereby reducing the total depth of the block by about one-eighth of an inch. The blocks cannot splinter or split because each block is imprisoned by the adjacent courses and has no room to spread. The wood does not wear away because of its resilient and fibrous nature. As a result of this hammering, the surface gets so tough that subsequent traffic has no effect upon it and during the next ten years the pavement, so far as can be seen, undergoes no change whatever.

"Modern wood block paving in the United States runs back to 1900, when the first creosoted wood pavements were laid in Massachusetts. The pavement on Tremont Street, Boston, laid in 1900, is still there and giving excellent service under the heavy traffic of that central thoroughfare. There are now many miles of wood block pavement in the principal American cities, notably New York, Chicago, St. Louis, St. Paul and Philadelphia. It is widely recognized by engineers to be the highest type of pavement and has been so recognized abroad for many years. The great streets of the world, such as Champs Elysees of Paris, and The Strand and Regent Street, London, are paved with wood.

"Briefly summarized, the advantages of wood block pavement are maximum durability, no expense for maintenance, noiselessness (an important civic asset), cleanliness, perfect contour, creates no dust, reflects less heat than lithic pavements, gives easy traction.

"The commissioner of public works, on the awarding of a contract for creosoted block, appoints a responsible chemical testing bureau as the city's representative to see that the specifications adopted by the city are absolutely lived up to.

"The chemists are sent to the plant of the manufacturer as soon as the process of manufacture is started. The oils are analyzed, the lumber inspected, and an accurate record kept of the quantity of oil impregnated in each cubic foot of lumber.

"The daily record of car numbers, showing contents of cars with name of consigneee is forwarded to the commissioner of public works, together with a statement analysis of the oil and the grade of lumber.

"Material not in accordance with the specifications is rejected at the manufacturing plant."

The booklet is well illustrated with fifty photographs of Detroit Streets and about an equal number of photographs of letters from Detroit firms relating their experiences with wood block pavements.

HIGHEST AND LOWEST POINTS IN THE WORLD.

The maximum difference in elevation of land in the United States is 14,777 feet, according to the United States Geological Survey, Mount Whitney, the highest point, is 14,501 feet above sea level, and a point in Death Valley is 276 feet below sea level. These two points, which are both in California, are less than 90 miles apart. This difference is small, however, as compared with the figures for Asia. Mount Everest rises 29,002 feet above sea level, whereas the shores of the Dead Sea are 1,290 feet below sea level, a total difference in land heights of 30,292 feet. Mount Everest has never been climbed.

The greatest ocean depth yet found is 32,088 feet, at a point about 40 miles north of the island of Mindanao, in the Philippine Islands. The ocean bottom at this point is therefore more than 11½ miles below the summit of Mount Everest.

The difference in the land heights in Europe is about 15,868 feet.