

ROAD BUILDING PROSPECTS IN U. S.

At the second annual Convention of the Asphalt Association, held in New York, April 13, President Draney predicted that, unless reactionary pessimism grips the United States, 700,000 men will be needed in the building of the 35,000 miles of new highways contemplated this year under the billion dollar road programme outlined by the Federal Government and the states and counties. Three hundred thousand more men, he said, will be needed in the quarries, gravel-pits, cement, brick and asphalt plants and factories devoted to the manufacture of road machinery. The road building boom, he thought, will work great benefit to the railroads by bringing into service one hundred thousand idle freight cars to transport one hundred million tons of road materials.

"To get a great army of one million men, now for the most part unemployed," said President Draney, "at building highways is to solve in part not only the acute unemployment problem facing the nation but also part of the rail troubles. Furthermore, money in plentiful quantities would be released for local circulation through wages to local labor and in payments to local producers of stone, gravel, sand and other materials, thus easing the pressure brought about by the reductions in the price and demand for agricultural products. Stimulation in the production of trucks, machinery and raw materials and in engineering and the employment of labor can positively be accomplished with an untrammelled road building programme. At the same time we would be reducing the dangers to travel by abolishing railroad grade crossings, more adequately bridging rivers and smaller streams, putting the outlying districts closer to medical and hospital aid and would bring the farmer and his market in closer touch."

Taking the stand that efficient engineering and executive management are essential to the improvement of the nation's highways; that highway expenditure should be proportioned to traffic importance; that advantage should be taken of every opportunity to benefit by the road building experience of other nations; that the unemployed of the nation should receive employment as quickly and extensively as possible, and that a vigorous public works programme will offset industrial depression, the association adopted resolutions as follows:

1. Urging Congress to pass the Federal aid appropriation of \$100,000,000, thus assuring a continuance of road building under the supervision of skilled state and federal engineers.

2. Urging that highway management be divorced from politics and all materials and methods entering into highway construction be placed in open competition.

3. Declaring that every highway be required to show traffic justification for its construction, thus guarding against waste and extravagance.

4. Memorializing Congress to authorize the United States to join the Permanent International Association of Road Congresses made up of the highway departments of all nations.

5. Urging the Interstate Commerce Commission to authorize a reduction in freight rates for road materials, thus stimulating the road building programme.

6. Recommending that public officials carry forward road building programmes to the extent permitted by appropriations available, thus giving employment to many hundred thousand men now out of work and utilizing tens of thousands of idle open top freight cars."

DRAINAGE AND HOUSING SCHEMES.

It is interesting to note that in some of our housing schemes concrete apparently has to be laid under certain pipes, but not under others, owing presumably to the greater strength possessed by reinforced concrete pipes as distinguished from those which are not so strongly reinforced. In the advice given in the report of the committee appointed by the Local Government Board to consider questions of building construction it was pointed out that economies could be effected by the use of standardized concrete manholes which could be made at centres in parts and put together on the site. It was stated that they could be suitably reinforced and jointed so as to form strong and watertight manholes. This advice has been followed with very satisfactory results, and seems to have led to the increased use of concrete pipes. The high price of stoneware pipes, of cast-iron pipes, and of brick sewers has certainly tended to increase the importance of the concrete pipe. We have the choice of several pipes. Some have the defect that the joints cannot be made watertight—they cannot be used for watertight sewers. Others can only be so used if they are grouted in after they are made; these joints are not good. The question of the strength of the pipe, especially where the pipe is made in long lengths, becomes very important when the cost of concrete required for foundations or for lateral support is considered. If a pipe is strong enough to support itself over a span of, say, 9 ft., as in the case of a cast-iron pipe, and if the joints are of such a character that they will withstand the strains set up by a slight settlement, it is clear that the amount of concrete required to support them will under favorable conditions become a very small matter; but where the joints are of doubtful character or where the pipes are not strong enough to withstand the strains of slight settlement, it is clear that there will be much additional labor expended and material used in grouting round the joints and in putting in concrete. From a casual inspection of work on housing schemes, it certainly does appear that a great deal of concrete and grouting is done which might be avoided if the pipes and joints were of different character. It is even possible to see concrete pipes which had been grouted in and which had been supported on mass concrete, and concrete pipes in other trenches which have simply been laid and jointed without any grouting or concreting, and which appear to be equally satisfactory or more so. One draws the obvious inference that one pipe is very much better than the other. Possibly it may be much more expensive, but even so it is difficult to believe that the final result is not better and cheaper in the case of the pipe that has the greater strength and the better joint. Drainage engineers will do well to take into account the manner in which concrete and reinforced concrete are taking the place of the older materials.

CITY ZONING IN U. S.

The State Legislature of Minnesota has just passed an Enabling Act, making it possible for the cities of Duluth, Minneapolis and St. Paul to do Zoning under police supervision. In the city of St. Paul a Zoning Survey is now under way which will be submitted to the Council this fall. The survey is being carried on by the local Engineering Office of the Saint Paul City Planning Board. Messrs. Bennett & Parsons, city planners, have been retained as consultants in the preparation of the ordinance.