

It would be of advantage to obtain uniformity—

(1) As regards the specification of the principal characteristics of these binders.

(2) As regards the methods of testing for drawing up these specifications. The Permanent International Commission will be entrusted with the work of enquiring into the best way of standardizing the above.

VIII. Climatic effects.

It appears to be generally agreed that certain tarry, bituminous or asphaltic road crusts (as is also usually the case with all smooth and waterproof road surfaces) may become slippery under certain conditions of weather.

This may be remedied by strewing the surface with coarse, sharp sand; and in most cases a good cleansing of the surface will usually prevent the carriage-way becoming slippery.

IX. Effects on public health, etc.

Sufficient information is now available to enable engineers to select and specify bituminous binders which will have no prejudicial effect upon public health, fish life, or vegetation; but which, on the contrary, will conduce to conditions of considerable hygienic advantage.

X. Cleansing and watering.

It is recognized that carriage-ways properly treated with bituminous including tarry or asphaltic materials require less sweeping and watering than ordinary water-bound macadamized roads, and that they allow of considerable economy being effected under this head.

Fourth Question.—Wood Paving.—The resolutions which were adopted by Sub-section B are the following:—

1. Where gradients permit, wood block pavement is very suitable for streets where the traffic is great, but is not of the exceptionally heavy character usually existing on streets near docks or similar centres of industrial traffic. It should be used where a noiseless pavement is desirable.

It is of great importance that a concrete foundation should be laid of sufficient strength to carry the traffic passing over the pavement.

2. Great care is necessary in the selection of the proper timber for the purpose, and all soft wood blocks should be thoroughly impregnated with a well-proved preservative before being laid.

3. In view of the varying results given by wood pavements, according to local circumstances, it is desirable that further investigations and laboratory experiments should be carried out in connection with the selection of the timber and of the impregnating preservative.

4. Every precaution should be taken in laying the blocks to prevent, so far as possible, the entry of water through the joints.

4a. Hard woods give varying results according to local circumstances, and it does not appear desirable to recommend them for roads with intense traffic in large cities, unless some means are devised to effectively prevent the rapid destruction of the joints and the resulting destructive effect on the concrete below. If these woods are employed, it is desirable not only to prevent the percolation of water through the joints to the foundation, but also to consolidate the blocks as far as possible, so that they may not become rounded at the edges.

Soft woods obtained from suitable kinds of trees, and especially from resinous species, are equally suitable for roads with a comparatively heavy and intense traffic as well as for roads with a light and infrequent traffic. In the latter, however, the blocks are liable to rot if they have not been suitably pickled. It is also desirable to make the joints as small and watertight as possible. On the other hand, their comparatively rapid wear on roads with great traffic should encourage one to make exhaustive investigations into the best means of treating them, so as to increase their strength without prejudice to their elasticity.

5. Subject to certain precautions, such as impregnating of the wood, waterproofing of the joints and surface, frequent cleaning of the roadway, etc., there is no objection to wood pavement from the sanitary point of view.

6. The spreading of gritting is necessary under certain conditions and in certain weather (especially on hard wood paving) to prevent the surface becoming slippery, but the gritting should be done with suitable small gravel chippings or sharp sand, so as to avoid, as far as possible, any injury to rubber tyres.

Fifth Question.—Methods of Lighting Public Highways and Vehicles.—This was considered by Sub-sections C and D combined, and the following resolutions unanimously adopted:—

The section adopts the following resolution unanimously:—

I. For the purposes of a general determination of methods of lighting, highways may conveniently be divided into three classes as follows:—

(1) Important streets in cities, towns or other urban areas in which the traffic after dark is considerable in volume.

(2) Important suburban roads in the vicinity of large towns.

(3) Rural roads in open country, and having regard to modern conditions of traffic, it is essential that adequate lighting by means of fixed lights should be provided in classes 1 and 2.

II. As a general principle in the lighting of all highways which require to be lighted by means of fixed lights, the method of lighting to be adopted should be such as will provide an illumination as uniform and free from glare as possible. The amount of illumination and the position of lamps must be determined with reference to local circumstances.

III. It would be impracticable to light rural roads in open country generally by similar methods to those adopted in urban streets or suburban roads, and the lighting of vehicles running or standing on rural roads at night is, therefore, of the highest importance.

IV. Every vehicle, whether standing or moving, should carry a light of sufficient power at night which can, except when specially authorized, be seen from the rear as well as from the front of the vehicle.

(2) Every motor car must carry after night-fall, two lighted lamps in front, and one at the back; if it is able to move at a high speed it must be fitted in front with a headlight of sufficient illuminating power to light up the road or path for at least 50 yards to the front. In inhabited places where the ordinary lighting is sufficient to allow motorists to see their way and to be easily seen, the light of the