This invention relates to expansion jointing materials for use between adjacent blocks, slabs and like sections of concrete or the like which together form structures or roadways. Sections, blocks, slabs and the like such as are used in structures and roadways are usually of large mass and are liable to movement due to expansion and contraction when exposed to differing atmospheric temperature conditions such as those of summer and winter.

In order to permit such movement of the sections it is customary to leave a gap or fissure between adjacent sections and thereby prevent undue stresses being established in the structure with resultant cracking or deformation.

It is also customary to fill such gaps with compressible material in order to prevent ingress of water, breaking away of the edges of the sections under load and so forth. Of the materials which have been tried hitherto, bitumen and compounds of like nature have not proved entirely satisfactory as they do not possess sufficient elasticity and resiliency in use. These compounds have been filled into the gaps in a plastic state but due to their lack of elasticity and resiliency have tended to be squeezed out from between the sections when they expand during the summer and to leave a space or depression between the sections when they contract in winter.

It is an object of the present invention to provide an expansion jointing material of suitable resiliency and elasticity which overcomes the foregoing objections, and with this object in view the present invention comprises, from one aspect, an expansion jointing material for structures, roadways and the like of concrete or the like which contains or consists of liquid rubber latex and granulated cork.

From another aspect the invention consists in a method of forming an expansion joint between opposing surfaces of blocks, slabs and the like of concrete or the like, which method consists in applying a mixture of liquid rubber latex and granulated cork to the said surfaces.

In a preferred form the liquid rubber latex and granulated cork are mixed to form a paste-like mass. By way of example only it may be said that a suitable mixture consists of 20 ounces of granulated cork mixed with 50 fluid ounces of 60% concentrated liquid rubber latex. The invention is not, however, limited to the use of a mixture of these specific proportions. The mixture is desirable made as required shortly before it is to be used. The paste-like mass is filled solidly into the expansion joint with a suitable trowel or iron. The finish of the filling is preferably left high to allow for setting shrinkage or alternatively this shrinkage is made good with more material after it has occurred. The mixture hardens by losing moisture to the air and the concrete and at the same time tenaciously adheres to the concrete surfaces on either side of the gap into which it is inserted.

This illustrated in the accompanying drawing in which 10 and 11 are the concrete blocks or the like and 12 is the filling. After a few days the surface remaining open to the atmosphere may be painted over with liquid rubber latex without any cork addition, or if it is desired to protect the surface from the action of light it may be painted over with a chlorinated rubber varnish after a week or so when the latex has thoroughly dried out. Aluminium powder may also be mixed with the chlorinated rubber varnish if desired. The edges and exposed surfaces immediately adjacent to the gap may also be given the protective coating of varnish. These coatings are indicated at 13.

It is to be understood that an expansion jointing in accordance with this invention may be used in connection with either existing structures or roadways or in connection with structures or roadways in process of building. In the latter case wood slips are inserted between sections where expansion joints are to be formed in the usual manner and withdrawn before the final set of the concrete takes place. The cavity left between the sections is then filled with the rubber latex and cork mixture as previously described after final setting of the concrete has taken place.

I claim:

1. An expansion joint of the character described, comprising a mixture of liquid rubber latex and granulated cork positioned within the joint to be sealed, and from which the liquid constituents have been evaporated; and a coating comprising chlorinated rubber applied to the exposed surfaces of said joint and jointing material.

2. The method of making an expansion joint at a gap between blocks or slabs of stone, concrete and the like, which comprises filling the gap with a plastic jointing material consisting of a mixture of liquid rubber latex and granulated cork which is capable of hardening or setting; and subsequent to such hardening or setting applying a coating of chlorinated rubber to the surface of the material exposed at the gap.

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