My invention relates in general to construction material and has particular reference to improved expansion joint material which is produced from a compound which will develop in the finished product compressibility, re-expansibility, which will not ooze out of the crevice in which it is installed and which will not become too brittle in cold weather. I accomplish these objects by an improved method of incorporating cellular fibrous material in bituminous material in such a way that the bituminous material does not saturate the cellular fibrous material.

When bituminous matter is heated to a melting point its penetration power on vegetable fibrous fillers is considerable and there is almost immediate penetration of the fibre. It is desirable in order to secure resiliency to incorporate in the bituminous mixture cellular matter in an unpenetrated state, thus securing a jacket about the cellular matter and preserving the inherent cellular construction.

My invention relates to a composition of matter so amalgamated that the penetration powers of the asphalt are greatly retarded. Yet in a heated condition it is possible to incorporate cellular vegetable matter in the asphalt while the latter is in a plastic state. This is accomplished by adding to the asphalt, which is preferably a blown material, mineral matter such as asbestos fibre, or any other suitable filler which will retard the liquid flow tendency of the heated material.

After mixing in this material and continuing the mixture in a plastic state, cellular fibrous matter can be incorporated with a great deal more safety and freedom from penetration. Likewise there may be added to this mixture of asphalt and the retarder latex in an unagglomerated state, or latex which has been cut back with benzol or other suitable solvents. With both these additions to the blown asphalt previous to the mixture of the vegetable fibrous matter which in this instance is preferably excelsior, the vegetable fibrous matter can be incorporated without much danger of penetration. The vegetable fibrous material should preferably be in an undivided state like strands of excelsior, flax straw before crushing, broom corn, grass stems, in fact any fibrous material in its natural state before subdividing.

The proportions in which I mix the asphalt, the flow retarder and the fibrous material may be varied to some extent without impairing the qualities of the resulting material, but I have found it preferable to use approximately sixty percent of asphalt, ten percent of the flow retarder material, and thirty percent of the cellular fibrous material.

Material made as indicated in the above description will have great resilience, due to the fact that the fibrous material remains unpermeated by the asphalt, the penetrating power of which is offset by the flow retarding material.

I claim:

1. The herein described method of producing an expansion joint which consists in first melting bituminous material to a liquid consistency, incorporating therein a flow retarding medium, adding vegetable fibrous material after the flow of the liquid bituminous material has been retarded, mixing the composition into a flowable, plastic mass by continuing the mixing operation for a predetermined period after the materials have been added to the bituminous material, and thereafter forming the mass to shape.

2. The method of producing an expansion joint which consists in melting bituminous material to a liquid consistency, adding a flow retarding medium to the liquid bituminous material to impair its penetrating properties, adding liquid rubber to give elasticity to the finished product, and incorporating vegetable fibrous material to give resiliency to the finished product, mixing all of said materials into a plastic, homogeneous mass and thereafter forming said mass into a desired shape.

3. An expansion joint comprising approximately sixty per cent of asphalt, approximately ten per cent of a flow retarder, and approximately thirty per cent of vegetable fibrous material.

4. An expansion joint comprising about sixty per cent of asphalt, about ten per cent...
of asbestos fibre and about thirty per cent of vegetable fibrous material.

5. An expansion joint comprising about sixty per cent of asphalt, about ten per cent of asbestos fibre about ten per cent rubber, and about twenty per cent of vegetable fibrous matter.

6. An expansion joint comprising preponderant proportion of asphalt, and subordinate proportion of asbestos fibre and vegetable fibrous material.

7. The method of producing material for an expansion joint comprising, heating asphalt to liquefaction, adding asbestos fibre and latex and stirring and then adding vegetable fibrous matter.

8. An expansion joint composed principally of asphalt having incorporated therein cellular fibrous material, and means preventing the saturation of the fibrous material by the asphalt.

9. Construction material composed principally of asphalt having incorporated therein excelsior, and a flow retarding material whereby the excelsior is not saturated with the asphalt.

10. The method of producing compressible and expansible material which consists of melting a quantity of asphalt, stirring a quantity of asbestos fibre into said melted asphalt to reduce the permeability of said melted asphalt, mixing a quantity of cellular fibrous material with said mixture, stirring the combined mass and finally allow it to cool.

Signed at Chicago, Illinois, this 13th day of October, 1925.

ALBERT C. FISCHER.