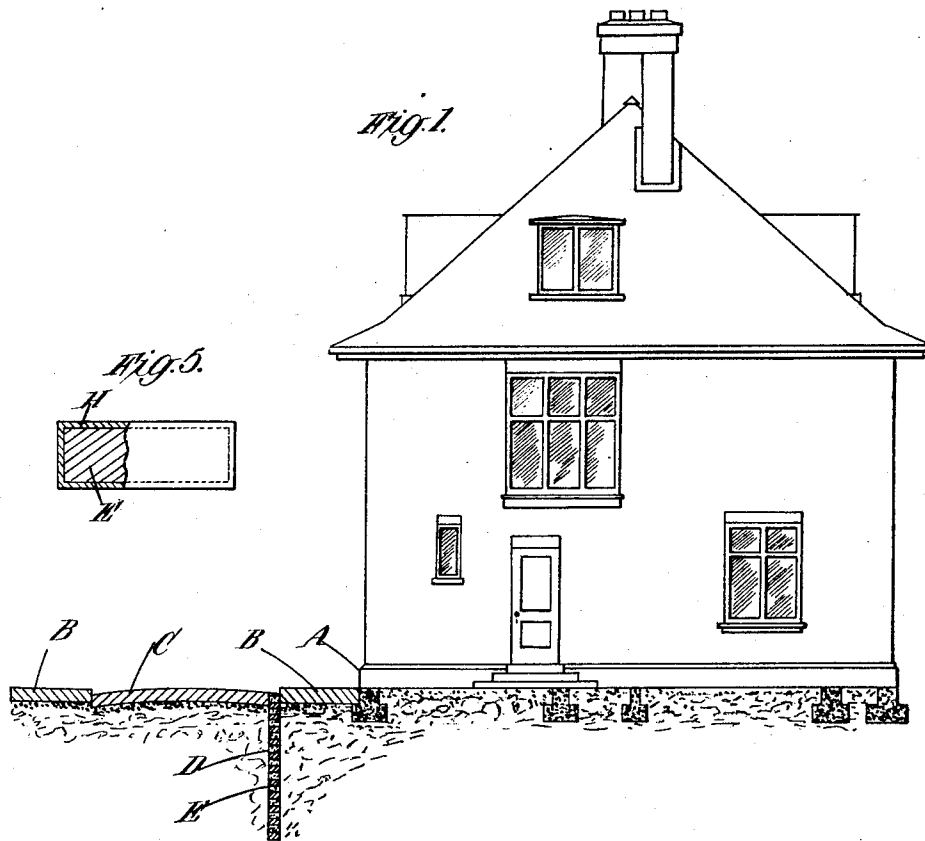
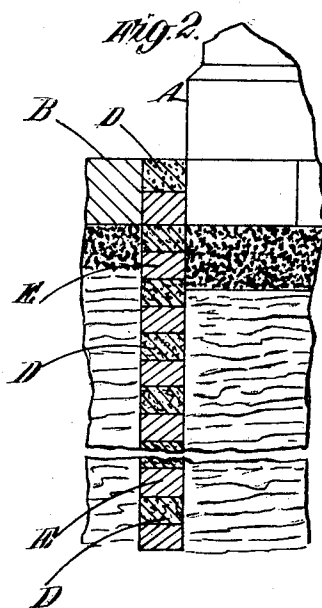
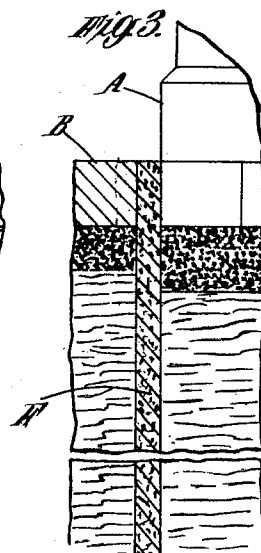
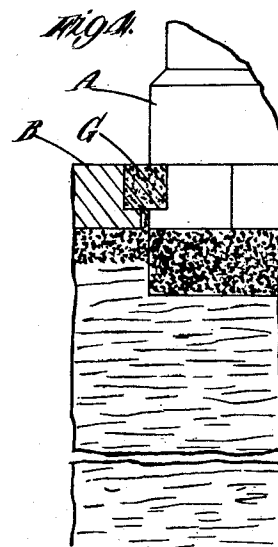


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P. F. SHERGOLD

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MEANS FOR PREVENTING OR REDUCING THE TRANSMISSION
TO BUILDINGS OF VIBRATIONS CAUSED BY ROAD TRAFFIC
Filed April 15, 1927



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UNITED STATES PATENT OFFICE

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MEANS FOR PREVENTING OR REDUCING THE TRANSMISSION TO BUILDINGS OF VIBRATIONS CAUSED BY ROAD TRAFFIC

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The object of this invention is to provide means for preventing or reducing the transmission to buildings of vibrations caused by road traffic (which vibrations are especially objectionable where the vehicles passing along the road or street are numerous or heavy) thus eliminating or partially eliminating structural strain.

According to this invention sheets or small blocks of material of a resilient or shock absorbing nature and possessing great durability under conditions of varying temperature and moisture are placed at or below the level of the pavement or road surface, either between the curbstone and the gutter or close to the sunken part of the building, in such a manner that while not normally in compression to any considerable extent they cannot be readily displaced either mischievously or accidentally. Suitable materials for the purpose of my invention are rubber, asbestos or compressed cork covered with rubber. Ordinary bricks coated with rubber, and reinforced concrete blocks coated with rubber have also been found suitable. Thus the vibrations produced by vehicles travelling on the roadway will be to a great extent intercepted or cushioned by the material.

In order that the said invention may be clearly understood and readily carried into effect, the same will now be more fully described with reference to the accompanying drawings or diagrams illustrating for exemplifications of the said invention.

Figure 1 represents in cross section a roadway having sidewalks at each side and a house or other building at one side.

Figure 2 represents on a larger scale an alternative arrangement of similar vibration intercepting devices placed under the sidewalk at the inner side thereof.

Figure 3 represents a modification in which a sheet of resilient material is placed between the sidewalk and the house.

Figure 4 represents another modification

in which a block of resilient material is fitted in recesses formed respectively in the pavement of the sidewalk and in an underground part of the house wall.

Figure 5 represents a resilient component.

A represents the house wall, B the pavement of the sidewalk, C the roadway, D (Figures 1 and 2) blocks or bricks of resilient material arranged in column alternately with ordinary bricks E or blocks of building stone or the like. The column of blocks may however be all rubber, which may if desired be of different degrees of hardness in the alternating blocks; or alternatively bricks coated with rubber H as in Figure 5 may be used. The resilient material may in some cases be laid outside the wall in thin sheets as at F, Figure 3, or may be arranged in single blocks G, Figure 4, of somewhat larger dimensions at the ground level along a wall which encloses a cellar or otherwise enters the ground. The inner walls or partitions of a building as well as the outer ones may be provided with such resilient devices. In this case, when the invention is applied to an existing inner wall, the base or underground part of the wall would be laid bare to an extent determined in accordance with the periodicity of the vibrations expected, the wall cleaned and any considerable irregularities of surface removed therefrom, and a layer of a bitumastic compound, rubber cement, or composition of a like nature applied to the exposed wall surface. Sheets, slabs, or bricks of a resilient material or laminated with a resilient material would then be built up vertically against the wall. In the case of using laminated bricks or blocks this would complete the process but when using resilient sheets, slabs, or bricks another coat of a bitumastic compound, rubber cement, or composition of a like nature would be added outside the resilient structure, and an outer wall of cement, bricks, or any other suitable building material built up to enclose

the said resilient structure. The screen thus formed becomes an integral portion of the building itself.

It is obvious that the arrangement may be varied in many ways, and should be chosen to suit the peculiarities of any local conditions, having regard to the direction of the vibratory waves experienced.

What I claim and desire to secure by Letters Patent of the United States is—

1. Means for intercepting the transmission to a wall of a building of vibrations in an approximately horizontal direction caused by traffic, wherein laminated resilient materials are built up vertically in contact with said wall, extending below the ground level, and an exterior structure is provided to preserve the formation of the laminated structure, said laminated structure comprising different materials possessing different degrees of resiliency.

2. Means for intercepting the transmission to buildings of vibrations caused by road traffic, wherein resilient materials are built up in a column comprising bricks coated with rubber located below the level of the surface adjacent to the building in such a manner that while not normally in compression to any considerable extent they cannot be readily displaced

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