May 24, 1927. 1,629,544

W. F. SHAW

APPARATUS FOR INSTALLING PAVEMENT SEPARATOR JOINTS

Filed Sept. 2, 1924

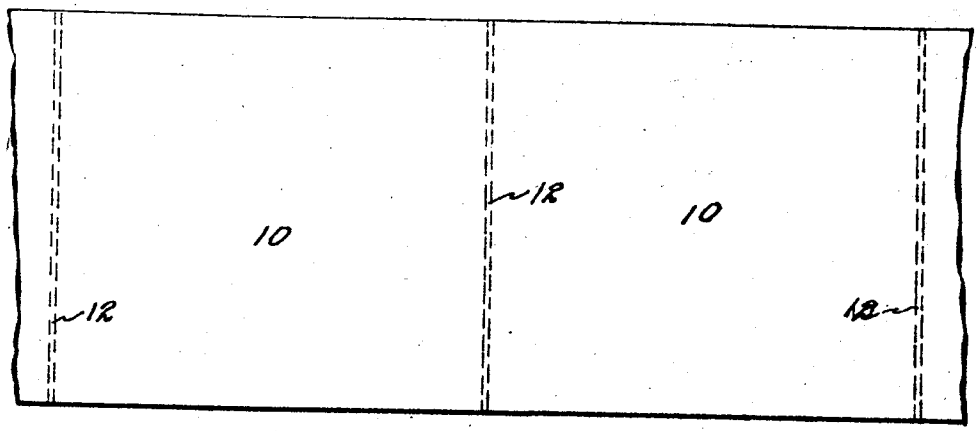


Fig. 1

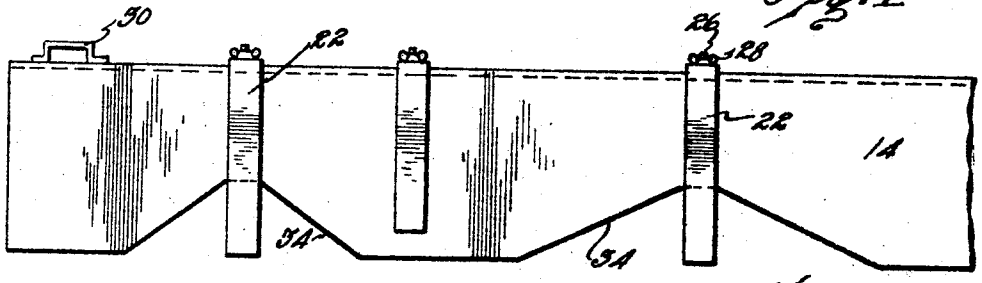


Fig. 2

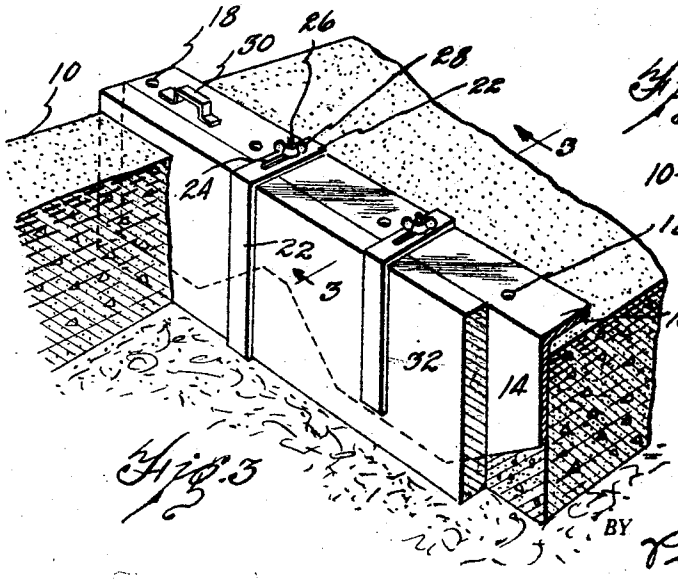


Fig. 3

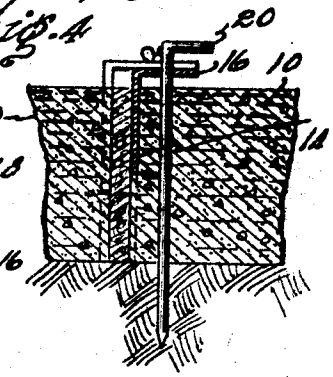


Fig. 4

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UNITED STATES PATENT OFFICE.

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APPARATUS FOR INSTALLING PAVEMENT SEPARATOR JOINTS.

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My invention relates to an improved work support for the installation of a separator joint in pavement construction and to an improved method of installing such separator joint in the laying of the pavement.

My invention is designed to be used in installing a separator joint in a pavement during the laying thereof and is particularly intended for use in connection with concrete pavement construction. In the construction of concrete pavements it has been found desirable to provide at determined intervals a break or joint in the concrete slab. This joint, or rather the separator strip which forms the joint, may be provided in different classes of material. Metal strips and wood strips, though in many respects unsuitable, have been used for this purpose but one of the most desirable of materials is an asphalt composition strip which when properly installed adheres tenaciously on opposite sides to the abutting concrete slab and provides an impervious jointure which permits contraction and expansion of the concrete to accommodate for varying weather conditions and wears evenly with the wear of the concrete pavement.

Considerable difficulty is experienced in installing suitable asphalt composition strips. This is due to the fact that it is not easy to support the strip at the proper place in the roadway during the laying of the pavement. For this reason other less suitable joints have been widely used and asphalt composition when used for this purpose is generally reinforced so as to provide a self-supporting strip. This reinforced strip is unsatisfactory because of its failure to adhere to the abutting concrete slab portions, thereby leaving a crack or opening in the pavement. Furthermore, its resistance is such that it does not accommodate easily for contraction and expansion of the concrete.

I have provided an improved method and apparatus whereby a suitable separator joint may be easily and cheaply installed during the laying of the pavement. My apparatus is of such a character as to support the separator joint at the desired position in the roadway in such a manner that the pavement when laid engages each side of the separator strip so as to hold the same securely in place and the installing apparatus may be easily and quickly removed after use. I provide a support along one side of which the separator joint may be detachably fastened. This support is adapted to be located at the desired position in the roadway. The pavement is poured on both sides of the support. The construction is such that the pavement engages the separator strip on both sides. The support is detached from the separator strip and being of thin material strengthened against distortion it is easily removed from the pavement without displacing the separator strip thereby leaving the strip in the desired position to serve as a break or joint in the pavement.

In the drawings,—

Figure 1 is a plan of the pavement with the separator joints therein.

Fig. 2 is a side elevation of my improved support for the installation of separator joints.

Fig. 3 is a perspective of the pavement broken away, showing the method of using my improved apparatus.

Fig. 4 is a vertical sectional view taken on line 4—4 of Fig. 3.

In the drawings, let 10 indicate the concrete pavement and 12 the separator joints which break the continuity of the concrete slab. I provide a suitable plate 14 which is preferably made of thin metal and is turned over on the upper edge as at 16 to form a flange which strengthens the plate against distortion and serves other purposes hereinafter referred to. The flange is provided with suitable apertures 18 through which pins 20 extend to engage the roadway to hold the plate in the desired upright position. A suitable number of clamps 22 are provided. These clamps may be slotted as at 24 to receive a tightening bolt 26 which bolt is provided with a nut 28 by means of which the clamp is secured at adjustable positions relative the plate. The plate may be provided with handles 30.

The plate above described is adapted to support the separator strip or joint 32. This strip is fastened to the side of the plate by the clamps 22 so as to be held in the upright position and the plate is located at the desired place in the roadway.

The plate is cut away as at 34 at intervals along its lower edge throughout its entire length. As a result of these openings that side of the separator strip adjacent to the plate is exposed to be engaged by the pave-

ment which extends, when freshly poured, through the openings in the plate.

When the plate carrying the separator strip is located in the roadway the pavement is poured on both sides of the plate and the concrete runs through the openings 34 in the plate and as a result the strip 32 is engaged on both sides by the concrete. After the desired lapse of time the clamps are loosened and the plate is removed. Due to the fact that the separator strip is held in place by the concrete engaging the same on each side the removal of the plate does not cause its displacement.

What I claim is:

In a work support for a pavement separator joint, a supporting plate having a flange on one side along its upper edge, pins extending removably through said flange into the roadway to maintain the plate in the upright position during the laying of the pavement to make a break therein, said plate having a width and length substantially equal to that of the separator joint to be supported by it and provided with clamping means to hold the separator joint against the side of the plate opposite the flange and having openings along its lower edge whereby both sides of the separator joint are exposed to the pavement structure to be engaged thereby.

In testimony whereof, I sign this specification.

WILLIAM FOSTER SHAW.