Dec. 26, 1939. E. V. POSTON 2,184,469

PAVING BRICK

Filed June 24, 1938

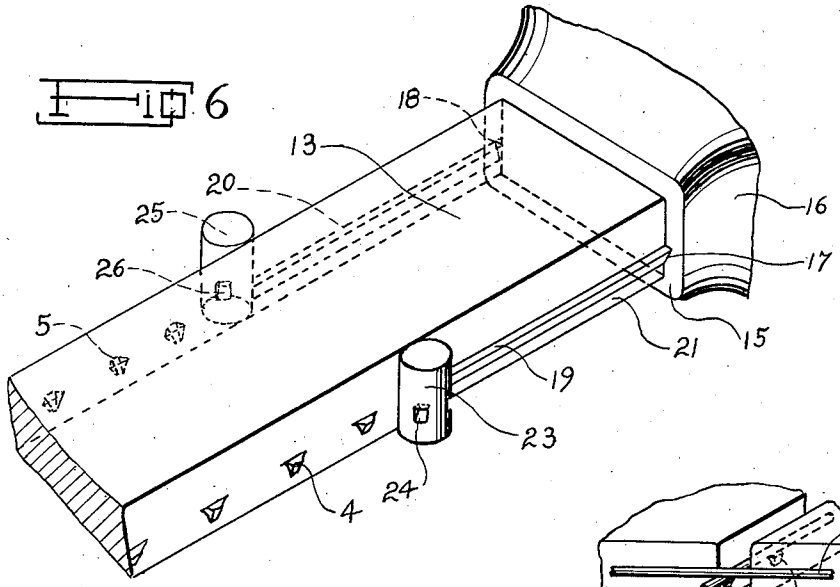


FIG. 6

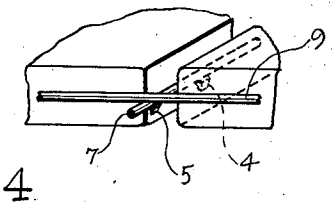


FIG. 4

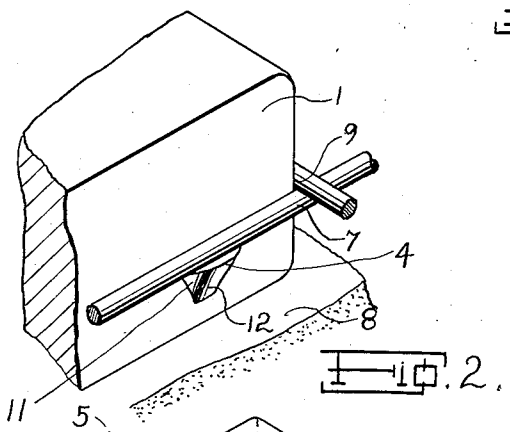


FIG. 2.

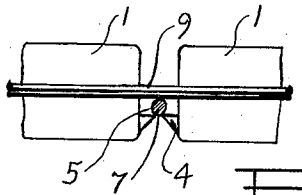


FIG. 3

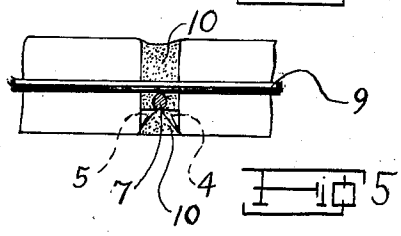


FIG. 5

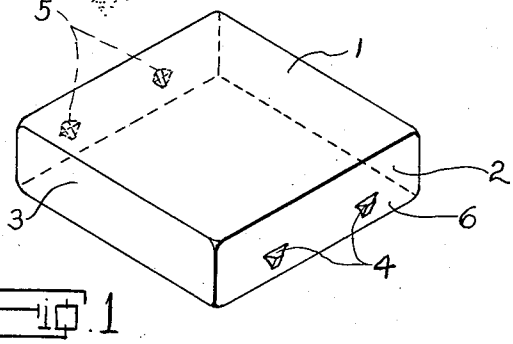


FIG. 1

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PAVING BRICK

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6 Claims. (Cl. 94—14)

My invention relates to paving bricks and more especially to paving bricks adapted to be used in connection with re-inforcing rods for strengthening the pavement.

A further purpose of my invention is to provide a paving brick having integral lugs on two opposite sides which, when aligned in the pavement will provide a suitable support for re-inforcing rods while the concrete mixture or other binding agent is being poured into the space between the paving bricks.

A particular purpose of my invention is to provide paving bricks with one or more integral, preferably wedge-shaped lugs and approximately one-fourth the way up above the bottom edge of the brick and on two opposite upright surfaces thereof and shaped to define a sort of bracket support for re-inforcing rods used in the pavement and laid between the adjacent rows of paving bricks so that when such re-inforcing rods are supported by these lugs at their elevation, the binding agent may easily pass around the rods to fill the space between the paving bricks, leaving the re-inforcing rods at a desirable elevation above the bottom surface upon which the paving brick may rest where the re-inforcing rod will remain to re-inforce the brick pavement after the concrete or other binding agent has been poured.

I attain the objects of my invention by the improved paving brick described in this specification, recited in the claims and illustrated in the accompanying drawing wherein like reference numerals indicate like parts in the several figures.

Referring to the figures:

Fig. 1 is a perspective of a paving brick provided with integral lugs on two opposed edges for the support of re-inforced rods.

Fig. 2 is a detail of a portion of a paving brick with re-inforcing rods supported by the integral improved supporting lugs of my invention.

Fig. 3 is a detail showing a portion of two adjacent paving bricks with the lugs on their adjacent edges supporting a re-inforcing rod and showing a cross rod supported by the same.

Fig. 4 is a perspective of the detail shown in Fig. 3.

Fig. 5 is a detail similar to Fig. 3 but showing the space between adjacent paving brick to be filled with a similar or other binding agent.

Fig. 6 is a perspective illustrating a manner in which paving bricks may be marked with the supporting lugs by rollers as the ribbon of clay moves out of the die, which has its mouth shaped in a manner that will form a strip along the opposite edges of the column of clay only to be rolled down flat with the clay column edge in all places except where the lug is to be left.

I shall now point out the merits of my invention as I refer to the figures in the drawing.

For instance, I prefer to use my novel improvements in paving bricks in conjunction with paving bricks which are the subject matter for patent applications which have been filed.

In my present brick construction, I propose to provide a paving brick 1 whose horizontal dimensions are approximately square and whose depth is slightly less than approximately one-half one of its horizontal dimensions, the top surface of which paving brick is preferably rough, with two of its opposite upright surfaces provided with one or more integral supporting lugs for re-inforcing rods and its other two upright surfaces wire-cut.

Thus, it will be noted that upright sides 2 and 3 are provided with supporting lugs 4 and 5 respectively and these supporting lugs are preferably located approximately one-fourth of the way up above the bottom surface 6 of the paving brick 1.

This particular location of the elevated position of lugs 4 and 5 is preferred for the purpose of holding re-inforcing rods 7 at a suitable level above the supporting surface 8 for the paving bricks 1; and while re-inforcing rods 7 lay in the space between adjacent paving bricks disposed in one direction, then the reinforcing cross rods 9 will be laid in the space between adjacent bricks at right angles across rods 7 and supported thereby.

It will be noted in Figures 3, 4 and 5 that lugs 4 and 5 on adjacent faces of adjacent bricks will directly support reinforcing rods 7 and 9 in a position that will permit the concrete or binding agent 10 to be poured in the space between adjacent paving bricks and completely fill the space as it easily passes around the reinforcing rods 7 and 9. It is thought by engineers that the most effective level for re-inforcing rods in a brick pavement is found to be between the center and the bottom of the brick and I have therefore chosen to locate lugs 4 and 5 approximately one-fourth of the way up on the paving brick from the bottom surface thereof so that when the re-inforcing rods 7 and 9 are supported by integral lugs 4 and 5 on adjacent brick walls, these reinforcing rods will be embedded in the binding agent at the level where they will be most effective in providing the reinforcing strength for which they are intended.

It will be noted on lugs 4 and 5 that I have

preferably given these lugs a wedge shape with their top surface 11 parallel with the top surface of the paving brick and with the outer surface 12 of the lugs sloping inwardly and downwardly in wedge formation.

When these paving bricks are to be laid in place, it is necessary that they be aligned in both directions and in order to facilitate a satisfactory alignment it would be preferable to use a removable templet or pattern which will normally be held in place slightly above the supporting surface for the bricks and it is my purpose to give these lugs a sort of wedge shape, as illustrated, so as to make it easier to slip the paving bricks into the space provided for them in the templet without the lug catching on the templet as the brick is being placed into position.

Thus the wedge shaped surface of the lug will have a tendency to pass by the templet more easily without catching on the templet, or spacer, or aligning device that may be used.

Engineers, working in this art, will readily recognize the fact that reinforcing rods 7 and 9 will not need to be permanently carried by lugs 4 and 5 but will only need to be supported thereby until the concrete or other binding agent that is poured between paving bricks fills the space between the adjacent paving bricks and hardens about reinforcing rods 7 and 9, giving them ample support without any excessive strain upon lugs 4 and 5 thereafter.

It will be noted in Fig. 6 that when the column of clay 13 is forced out of the mouth 15 of die 16 then the wedge shaped nicks 17 and 18 in the sides of mouth 15 will produce wedge shaped side ribs 19 and 20 on the opposite sides 21 and 22 of column 13.

My supporting lugs are preferably formed then by providing a side roller 23 on side 21 with wedge shaped recess 24 therein and by providing side rollers 25 on side 22 with recess 26 therein.

Thus, as column 13 moves out of die mouth 15, rollers 23 and 25 will roll against the surface 21 and 22 respectively of column 13 mashing its ribs 19 and 20 respectively as they roll but in those places where recesses 24 and 26 of rollers 23 and 25 respectively strike ribs 19 and 20 respectively, the recess thus formed will leave that much of the rib in place to define supporting lugs 4 and 5 along the side of clay column 13.

When clay column 13 is subsequently wire-cut into lengths approximately, the same as the width of the column, then there will always be one or more such supporting lugs on the opposite sides of each paving brick unit.

I am aware that in this art there have been occasions when paving bricks were provided with integral spacers which amounted to a sort of spacing lug but in those instances, the spacers were of such form and construction as to make them contact the surface of the adjacent bricks. Thus, in those forms and construction of lugs, the spacers as used, were not made in any manner that would be used as supports for reinforcing rods as the case in this instance.

It is obvious that I would not wish to be limited to the method of forming these supporting lugs as illustrated in Fig. 6 since other methods could be practical in accomplishing this result.

I will not wish to be limited in the form of supporting lugs which I am preferably providing but having thus described the salient features of my invention, what I claim is:

1. As a new article of manufacture, a paving brick, two opposed edges of which are provided with integral lugs each shaped to define horizontal ledges providing supporting brackets for re-inforcing rods laid between the bricks in a brick pavement.

2. A paving brick shaped on two opposed edges to define lugs forming horizontal ledges for the support of re-inforcing rods when the rods are laid into the space between the paving brick rows in a pavement.

3. A paving brick whose horizontal dimension is approximately square, and whose depth is approximately one-half one of its horizontal dimensions, and with two of its opposed edges provided with integral protruding wedge-shaped lugs each shaped to define horizontal ledges for the support of re-inforcing rods laid between brick rows in a pavement.

4. An approximately square paving brick, two opposite sides of which are shaped to provide a plurality of spaced integral supporting lugs each shaped to define a horizontal ledge and each disposed nearer the bottom edge than the top edge of the brick in the same horizontal plane for the support of re-inforcing rods while a binding agent is poured into the space between adjacent paving bricks holding such rod, and to encompass the rod.

5. A paving brick which on two of its opposite sides is shaped to provide spaced horizontally aligned integral lugs each shaped to define a horizontal ledge for the support of reinforcing rods with the top of such lugs below the middle of the brick and the bottom terminating short of the brick base.

6. A paving brick comprising in integral combination an approximately square paving brick body, two opposite sides of which body are shaped to provide a plurality of supporting lugs each shaped to define a horizontal ledge for supporting re-inforcing rods, said lugs disposed on the same horizontal level nearer the bottom edge than the top edge of said brick and each of said lugs having its lower sides tapered inwardly and downwardly; whereby said paving bricks may be placed in a pavement in a relative spaced relation permitting the support of reinforcing rods jointly on adjacent lugs of adjacent brick sides to register said rods at their most effective level of elevation between adjacent bricks and thus to hold said re-inforcing rods during and after the pouring of a binding agent into the space between adjacent paving bricks and to completely encompass said re-inforcing rods.

EMMETT V. POSTON.