(No Model.)

J. W. MacKNIGHT.

ARTIFICIAL PAVEMENT.

No. 373,295. Patented Nov. 15, 1887.

FIG. 1

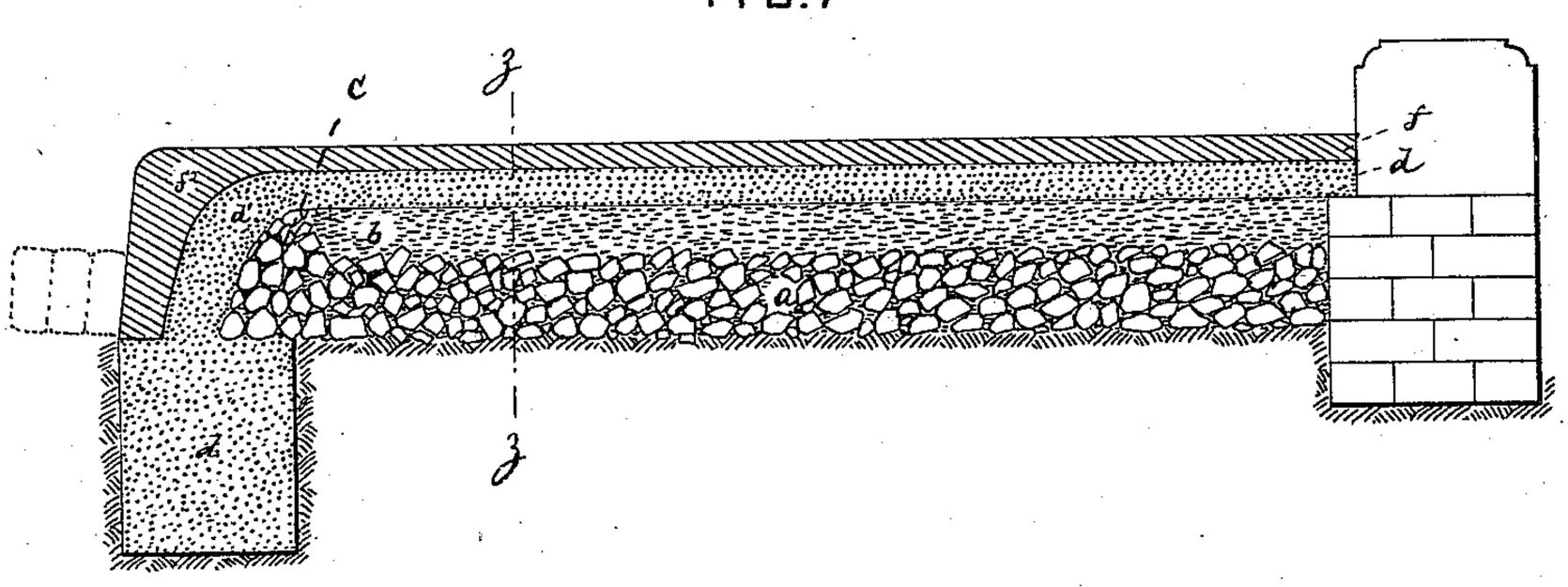

FIG. 2

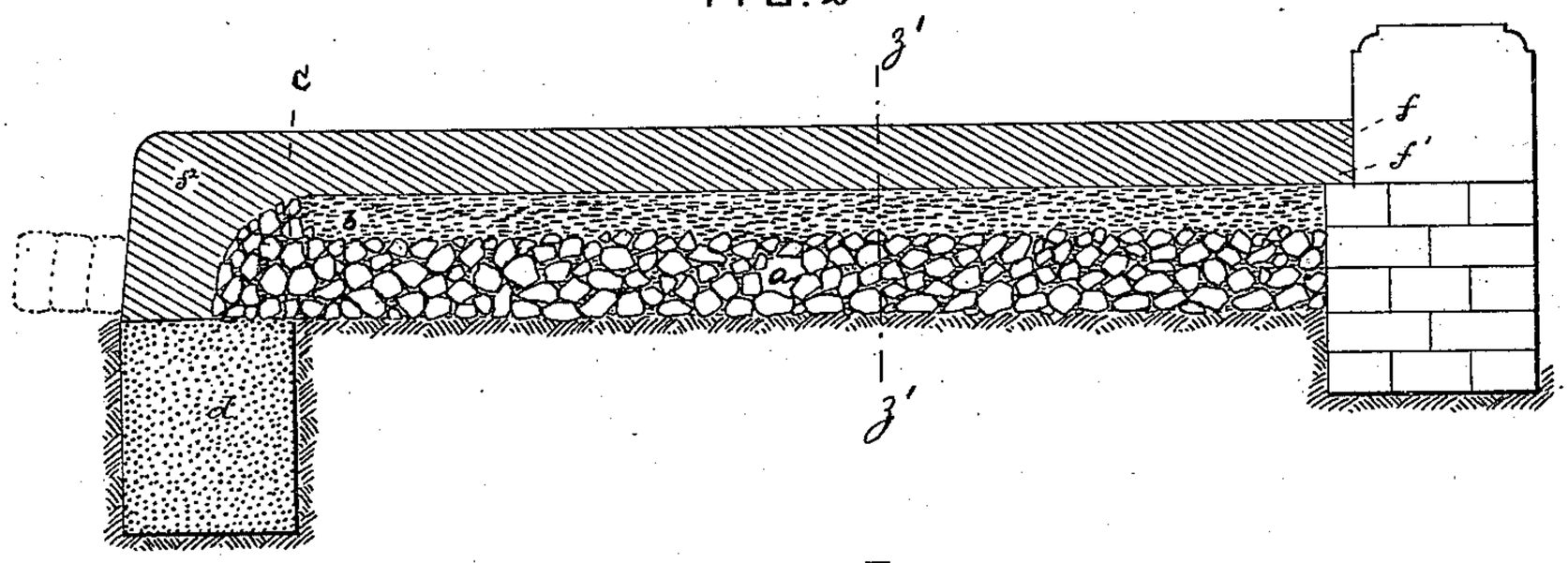

FIG. 5

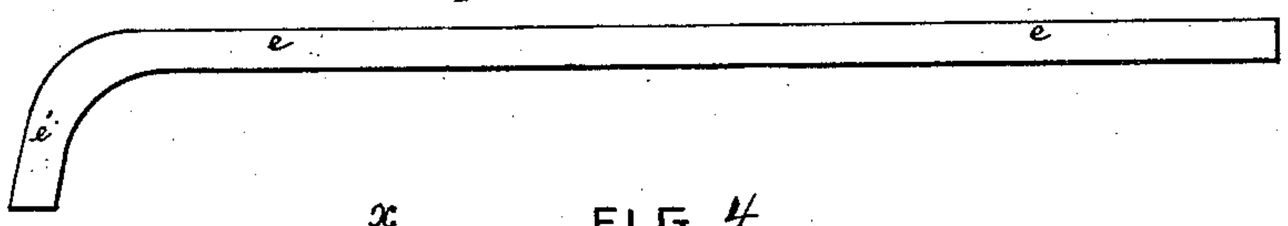

FIG. 4

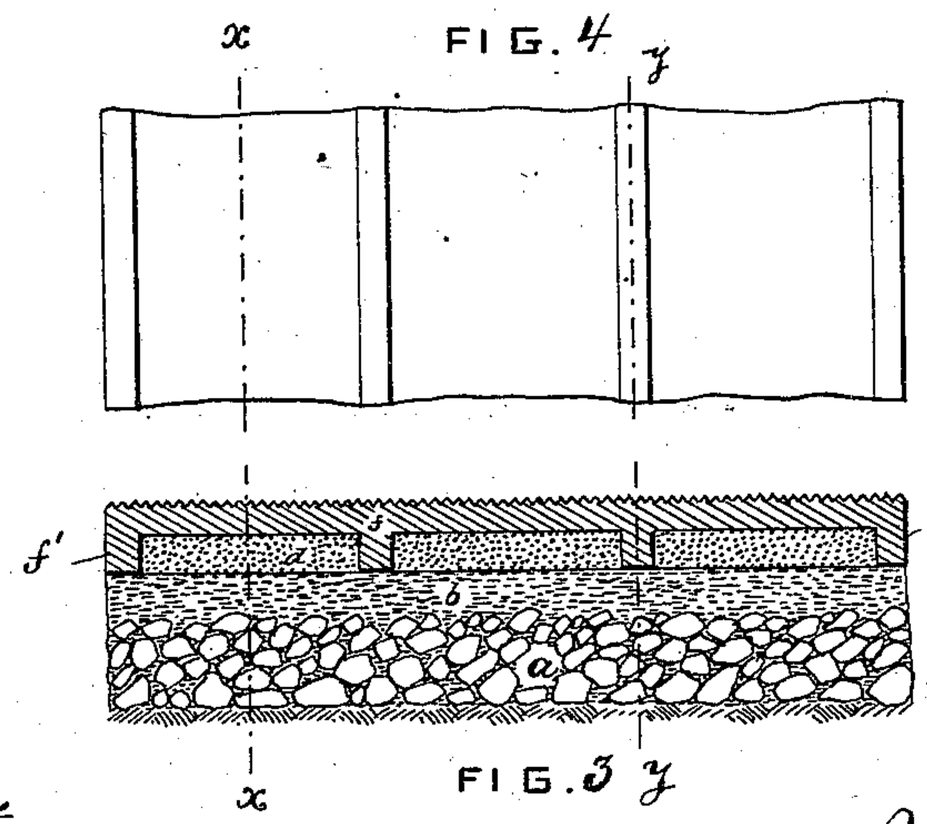

FIG. 3

WITNESSES

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ARTIFICIAL PAVEMENT.

SPECIFICATION forming part of Letters Patent No. 373,295, dated November 15, 1887.

Application filed August 12, 1887. Serial No. 246,756. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. MACKNIGHT, of the city of New York, county and State of New York, have invented a new and Improved Artificial Pavement, of which the following is a specification.

This invention relates to an artificial pavement of great durability. The upper layer of this pavement, and also the layer next below, are curved downward at the curb, and thus the ordinary flags or curb-stones are dispensed with. The result is a pavement of superior finish and strength, and one which leaves no seams at the curb.

The invention consists in the various features of improvement, more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my improved pavement on line *x x*, Figs. 3 and 4. Fig. 2 is a similar section on line *y y*. Fig. 3 is a vertical transverse section on the lines *z z*, Fig. 1, and *z' z'*, Fig. 2. Fig. 4 is a bottom view of part of the uppermost layer, and Fig. 5 a side view of the joist *e*.

In laying my improved pavement I proceed as follows: After the ground has been properly leveled a layer of irregularly-broken rocks, *a*, is placed upon it. These rocks should be preferably packed on edge between coal-ashes. Upon the rocks *a* is placed a layer of coal-ashes, *b*, which extends to a short distance within the front of layer *a*. Here the layer *b* is re-enforced by a front edging of stones, *c*, as shown. Upon the layer *b* there is placed a layer, *d*, of flintic concrete, consisting of one part of ashes, one part of sand, and a suitable quantity of cement. Into this layer there are embedded a number of parallel joists, *e e*, extending from the coping or house-line to the curb. At the curb the joists *e* have a downward extension or nose, *e'*, which projects forwardly at an obtuse angle. In this way a number of parallel grooves will be formed in the layer *d*, extending from house-line to the curb and thence downward at an obtuse angle to the entire depth to which the layer *d* is laid. This depth is such that layer *d* laps at the curb over both the layers *a* and *b*, as shown at *d'*, and of course also over edging *c*. The layer *d* being put and packed in position and the joists *e* being removed, the top layer, *f*, is put in place. This layer consists of crushed trap-rock and cement, the proportions being three parts of trap-rock to one part of cement. In laying this layer *f* the grooves of layer *d* are first filled up with the plastic material of which layer *f* is composed, and then the layer *f* proper is superposed upon layer *d* from end to end. In this way ribs or tongues *f'* will be formed on the lower surface of layer *f* that enter the grooves of the layer *d*, and thus securely connect the layers. These tongues and grooves, connecting one layer of plastic material to another, prevent cracks from forming in the upper layer, and also generally strengthen the entire structure. At the curb the layer *f*, similar to layer *d*, projects downward at an obtuse angle, the upright portion f^2 of such layer covering and concealing the upright portion *d'* of layer *d*. In this way a strong curb is formed for the pavement and the ordinary blue-stone curbs are entirely dispensed with. As the grooves in layer *d* extend not only along the horizontal portion, but also along the upright portion *d'*, the upright portion f^2 of layer *f* will likewise be connected by tongues and grooves to the upright portion *d'* of layer *d*. Thus the curb is materially strengthened and the vertical part f^2 of the upper layer, *f*, is prevented, even when cracked, from automatically falling down by its own gravity.

The surface of the pavement is corrugated by rolling, as shown in Fig. 3.

I claim as my invention—

1. A pavement consisting of a series of layers, of which the upper layer is curved downward at the curb, substantially as specified.

2. A pavement consisting of a series of layers, of which the two uppermost layers are curved downward at an obtuse angle at the curb and overlap the lowermost layers, substantially as specified.

3. A pavement consisting of a series of layers, of which the upper plastic layer, *f*, is provided with downwardly-projecting ribs *f'*, that are embedded while in a plastic condition into grooves formed in the layer *d*, next below, substantially as specified.

4. A pavement consisting of a series of layers, of which the layer *d* has grooves extending from house-line to the curb and thence downward, and the uppermost layer, *f*, has ribs that engage said grooves, substantially as specified.

JOHN W. MACKNIGHT.

Witnesses:

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