

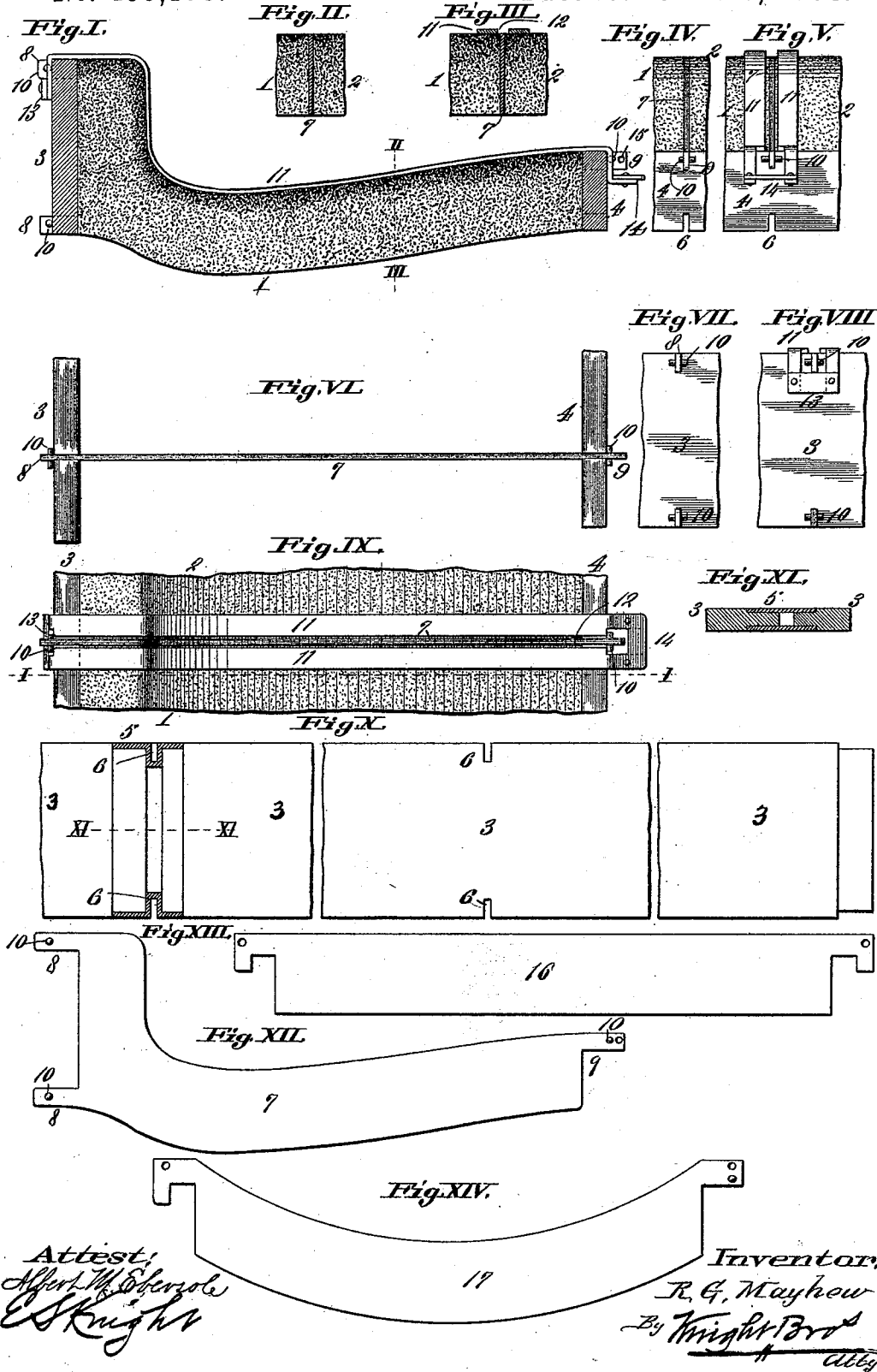
(No Model.)

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METHOD OF AND APPARATUS FOR FORMING JOINTS IN CONCRETE WALKS, &c.

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UNITED STATES PATENT OFFICE.

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METHOD OF AND APPARATUS FOR FORMING JOINTS IN CONCRETE WALKS, &c.

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To all whom it may concern:

Be it known that I, RUBERTUS G. MAYHEW, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Methods of and Apparatus for Forming Joints in Concrete Walks, Curbs, and Gutters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming
10 part of this specification.

My invention relates to an improved method of forming clear, open joints between adjacent blocks of artificial stone or concrete walks, curbs and gutters, and relates further
15 to an improved apparatus for carrying the method into effect; and my invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a vertical section, taken on line
20 I—I, Fig. IX, showing a curb and gutter, and a frame in section, and showing the foot-strip in edge view. Figs. II and III are detail, vertical sections, taken on line II—III, Fig. I; Fig. II showing the foot-strip removed. Figs.
25 IV and V are detail views looking at the gutter side of the apparatus; Fig. V showing the foot-strip applied, and Fig. IV having it removed. Fig. VI is a top view of the frame and dividing strip or templet. Figs. VII and
30 VIII are detail views looking at the curb end of the apparatus; Fig. VIII showing the foot-strip or piece applied, and Fig. VII having it removed. Fig. IX is a detail top view, showing the adjacent ends of two blocks of combined gutter and curb, and also showing the
35 frame and the dividing strip and foot-piece. Fig. X is an enlarged, detail view of the curb side of the frame, illustrating a coupling by which a number of sections of the frame can be secured together. Fig. XI is a detail, horizontal section, taken on line XI—XI, Fig. X.
40 Fig. XII is an enlarged, view of one of the division strips for the combined gutter and curb. Fig. XIII is a similar view of a strip for use in making a pavement or sidewalk; and Fig.
45 XIV is a similar view of a division strip for making a simple gutter.

I will describe the apparatus to which my invention relates, and a description of it will
50 make clear my improved method.

Referring to the drawings, 1, 2, represent

the adjacent ends of two blocks of artificial stone or concrete combined gutter and curb.

3, 4, represent the frame, 3 being a strip forming the vertical or outer edge of the curb, 55 and 4 a strip which forms the vertical or outer edge of the gutter; these strips being put in place before the concrete is applied. These strips may be of any desired length, and they may each consist of a number of sections 60 joined together by couplings 5, as shown in Figs. X and XI, the coupling having a socket on each end to receive the adjacent ends of the sections, and it may have one pair of the notches 6 hereinafter referred to. At suitable intervals, corresponding with the width
65 of the blocks, the strips 3 and 4 are provided with notches 6.

7 represents a division strip or templet, formed with projections 8, which fit in the 70 notches 6 of the strip 3, and provided with a projection 9 which fits in the upper notch 6 of the strip 4; the object of having a notch in the lower side of the strip 4 being simply to permit either side or edge of the strip 4 to be placed uppermost. These division strips
75 or templets 7 are put in place before applying the concrete to form the blocks, and they are held in place and act to tie the frame, (consisting of the strips 3 and 4) together, by 80 means of pins 10. The strips 7 are preferably made slightly wedge shape, or tapering from top to bottom, being thinner at the bottom than they are at the top.

When the frame, consisting of the strips 3 85 and 4, is in place, and the division strips 7 applied, the blocks are formed by applying the concrete, the division strips dividing the gutter and curb up into blocks of the size corresponding to the distance between the 90 strips.

After the concrete is applied, and has become slightly set or hardened, a foot-piece 11 is placed over the division strips, as shown in Fig. IX, the strip having a slot 12 which 95 receives or allows the passage of the division strip, (see Figs. III and V.) The curb end 13 of the foot-piece fits beneath the upper projection 8 of the curb end of the division strip, and the other end of the piece 11 is provided with a foot-rest 14. The pin 10 is now
100 removed from the lower projection 8 of the

curb end of the division strip, and one foot being placed on the rest 14 of the foot-piece, an upward pull is exerted on the adjacent end of the strip 7, and the strip thus withdrawn 5 from between the blocks, and to facilitate the removal of the strips 7, the projection 9 at this end, to which the power is applied, may be provided with a perforation 15, as shown in Fig. 1 to receive a hook or instrument in 10 the hands of the operator. As the division strip is withdrawn, the foot-piece serves to prevent the upward strain on the blocks, and also serves to prevent the cracking or crumbling of the edges of the blocks adjacent to 15 the strip. The taper or draft of the division strips permits their easy removal. It will be understood that as the power is applied to one end of the division strips, the strips will be removed in an arc of a circle, of which the 20 upper projection 8, at the curb end of the strip, is the center, the upper edge of the piece 3 of the frame serving as a fulcrum. The strips 7 are thus much more easily removed than they would be were they bodily removed 25 in a vertical or upward direction.

I have described the form of division strip for use in forming combined gutters and curbs, but if a simple pavement or sidewalk is being formed, a division strip 16, such as is shown 30 in Fig. XIII, would be used in connection with the frame 3, 4, and foot-piece 11, and if a simple gutter is to be formed, a division strip 17, such as is shown in Fig. XIV would be used in connection with the frame and foot-piece.

35 By the use of my apparatus and method, a clear cut, open joint is formed between the adjacent blocks, which permits the blocks to heave and move independently of each other under the action of frost in cold weather, and 40 ample space is given between the blocks to allow for expansion and contraction.

I claim as my invention—

1. The method of forming joints between

blocks of concrete or artificial stone, which consists in placing in position a frame to form 45 the vertical edges of the blocks, then inserting a division strip, then forming the blocks, then applying a foot-piece, and finally withdrawing the division strip; substantially as set forth.

2. The method of forming joints between 50 blocks of concrete or artificial stone, which consists in placing in position a frame to form the vertical edges of the block, then inserting a division strip bearing at one end on the 55 frame, then forming the blocks, then applying a foot-piece, and finally withdrawing the division strip by swinging the same vertically upon its bearing end, substantially as set forth.

3. The improved apparatus for forming 60 joints between adjacent blocks of concrete or artificial stone, which consists of the notched, longitudinal strips 3 and 4, division strips 7, provided with lugs fitting in the notches of 65 said strips 3 and 4, and the slotted foot-piece 11 substantially as set forth.

4. The improved apparatus for forming joints between adjacent blocks of concrete or 70 artificial stone, which consists of the notched, longitudinal strips 3 and 4, tapering division strips 7, provided with lugs fitting in the notches of said strips 3 and 4, and the slotted 75 foot-piece 11, substantially as set forth.

5. An apparatus for forming joints between adjacent blocks of concrete or artificial stone, 75 which consists of the longitudinal strips 3 and 4, dividing strips extending from one longitudinal strip to the other and having projections fitting in notches in the longitudinal 80 strips, and the slotted foot-piece 11, having ends 13 and 14, substantially as and for the purpose set forth.

RUBERTUS G. MAYHEW.

In presence of—

ALBERT M. EBERSOLE,
E. S. KNIGHT.