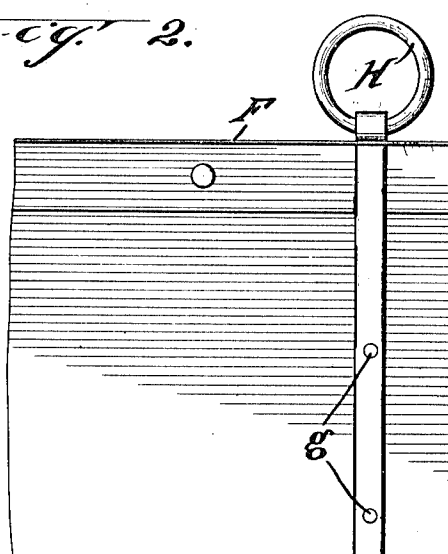
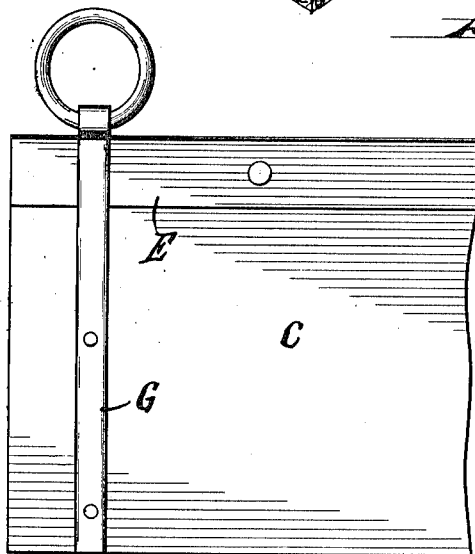
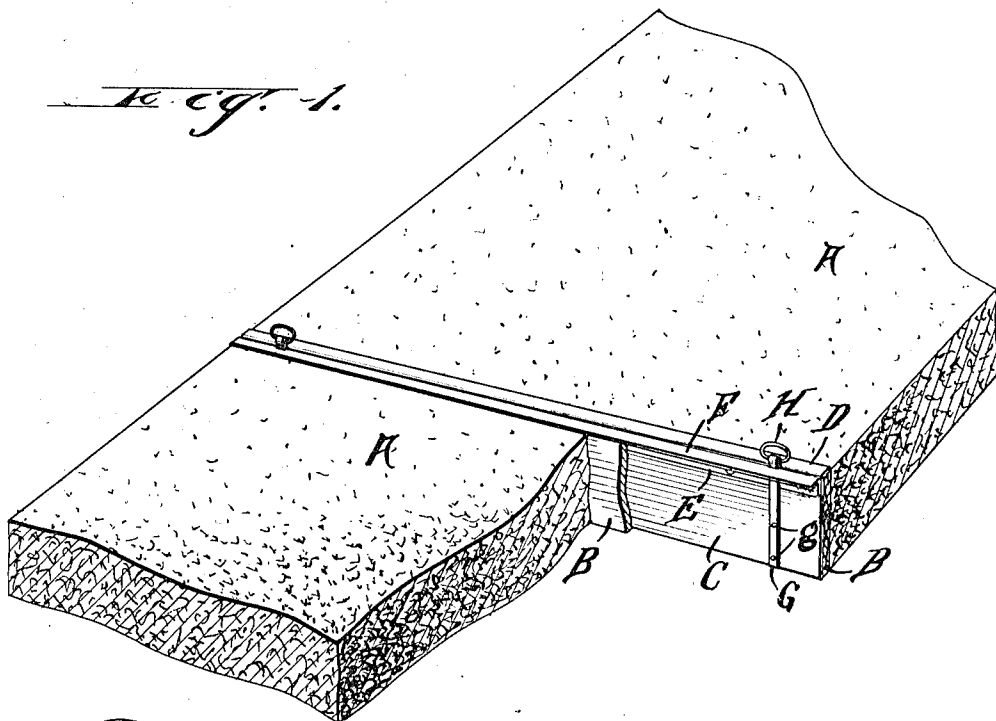


T. E. DOCKERY.
 DEVICE FOR MAKING EXPANSION JOINTS IN CONCRETE WORK.
 APPLICATION FILED MAY 5, 1910.

1,001,626.

Patented Aug. 29, 1911.

2 SHEETS—SHEET 1.



Witnesses
R. L. Farrington
 J. D. Bremer.

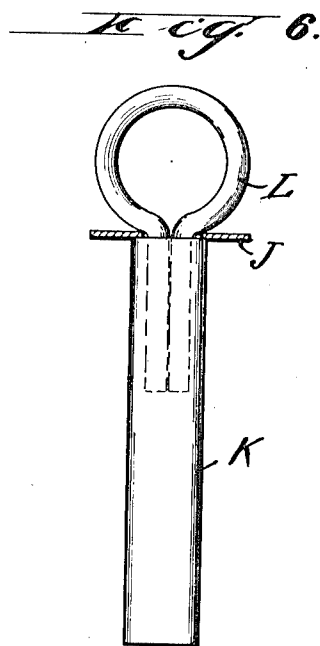
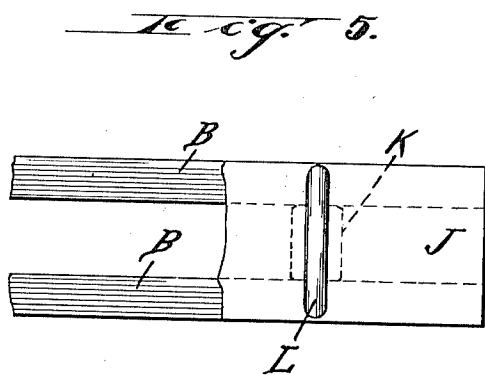
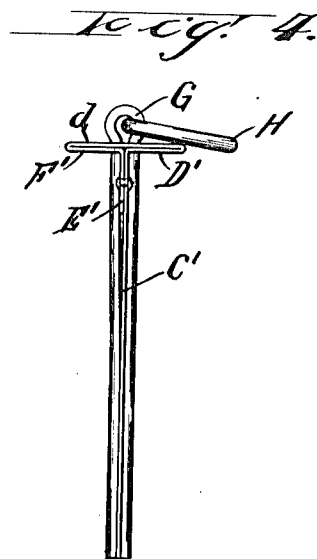
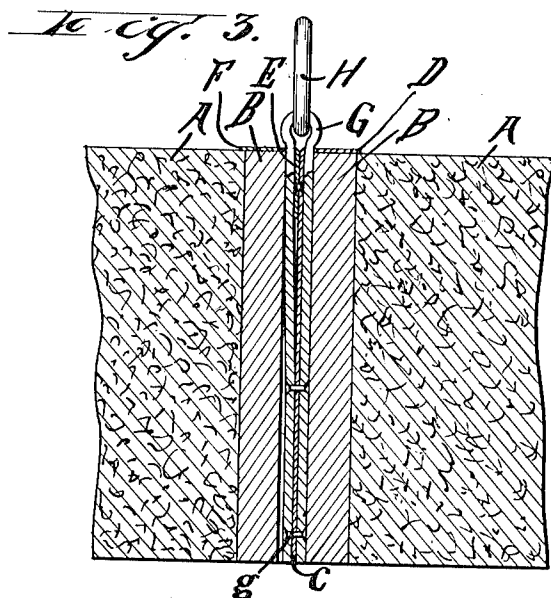
Inventor
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 by *Ernest Schuler*
H. G. S.

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2 SHEETS—SHEET 2.



Witnesses

R. L. Farrington
 J. D. Bremer.

by

Inventor:
 Thomas E. Dockery
 Edward Wheeler
 Attys.

UNITED STATES PATENT OFFICE.

THOMAS E. DOCKERY, OF FOND DU LAC, WISCONSIN.

DEVICE FOR MAKING EXPANSION-JOINTS IN CONCRETE-WORK.

1,001,626.

Specification of Letters Patent.

Patented Aug. 29, 1911.

Application filed May 5, 1910. Serial No. 559,607.

To all whom it may concern:

Be it known that I, THOMAS E. DOCKERY, a citizen of the United States, residing at Fond du Lac, county of Fond du Lac, and State of Wisconsin, have invented new and useful Improvements in Devices for Making Expansion-Joints in Concrete-Work, of which the following is a specification.

My invention relates to improvements in devices for making expansion joints in concrete work.

Heretofore, the prevailing practice has been to employ ordinary wooden boards as spacing members in laying side walks or concrete beds for streets, and after the concrete has set, to remove the boards. It is, however, usually necessary to destroy the boards in order to remove them, for the reason that the concrete tends to adhere to the boards, and the boards swell, by absorbing moisture from the concrete, and thus exert a great binding pressure against the blocks of concrete. I have also experimented with metallic spacing members, but although these do not swell, yet the metal surfaces adhere to the concrete with much greater tenacity than the wooden boards and it is practically impossible to remove them. Further, a metal spacer of the required thickness is too heavy to be practical for the desired purpose and the object of this invention is therefore to provide means to facilitate the removal of the spacers, whether of wood or other suitable material, by first removing, or readjusting a member which does not contact with or adhere to, the concrete.

In the following description, reference is had to the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a pair of concrete blocks with a spacer embodying my invention in position of use between them. Fig. 2 is a side view of the metallic spacing member with the central portion broken away. Fig. 3 is a sectional view, showing portions of two concrete blocks with my invention in position of use, said sectional view being drawn transversely to the spacer. Fig. 4 is an end view of the metallic spacing member, showing a slightly modified form of construction. Fig. 5 is a plan view of a spacing device, showing another modification of the

metallic portion. Fig. 6 is an end view of the metallic portion of the device illustrated in Fig. 5.

Like parts are identified by the same reference characters throughout the several views.

The concrete blocks A, A, are formed in the usual manner, my improved spacer being used to serve as transverse walls of a mold, in which said blocks are cast. This spacer consists of two members B, B, which preferably consist of comparatively thin wooden boards. These are separated by a metallic spacing member, which is withdrawn preparatory to the withdrawal of the boards, as hereinafter explained. The metallic member comprises a piece or strip of sheet metal C, the upper edge of which is turned horizontally to form a laterally extending flange D. An angle iron strip of similar material is riveted to the upper portion of the piece C with one flange E extending vertically and another flange F extending horizontally, the latter flange projecting in the opposite direction from the flange D and said flanges F and D being adapted to rest upon, or project over the upper margins of the boards B. A strip of metal is folded upon itself to form a staple shaped member G, the legs of which pass through suitable openings in the flanges D and F, and downwardly along the sides of the member C, and are secured thereto by rivets *g*. The ring H passes through the folded upper portion of this member G and may be exposed above the flanges D and F, although it is not essential to my invention that either the ring H or the member G should project above said flanges D and F, it being immaterial whether said flanges D and F are uniformly in the same horizontal plane or depressed at intervals for the reception of the rings H.

It will be observed, (Figs. 3 and 4), that as the member G embraces not only the member C, but also the flange E near the upper margin of the member C, the legs of the staple shaped member G will-converge slightly toward their lower ends, where they are riveted to the member C. It will also be observed that the boards B, B, do not bear upon the metallic member, except at intervals where these staple shaped members G are located. It therefore follows

that the metallic member may be easily withdrawn from the boards B, B, but, owing to the tapering form of the member G, the latter will become loose as soon as it is lifted slightly by a tool or tools applied through the rings H. As soon as the metallic member is removed, the boards B, B, may easily be loosened by tipping or prying them inwardly toward the space formerly occupied by the metallic member, and when they are thus separated from the same, these boards may be easily removed without destroying them.

The flanges D and F form a cap which covers the space between the boards B, B, and prevent such space from becoming filled with concrete. Referring to Fig. 4, it will be observed that a similar cap may be formed by employing a piece or strip of sheet metal C' bent outwardly at D' along its upper margin and then folded upon itself to form a cap d, the material being then again folded upon itself to form the flanges F' and E', corresponding with the angle iron flanges F and E in Figs. 1, 2 and 3. It will therefore be understood that it is not material to my invention how the metallic spacing member is formed.

In Fig. 5, it will be observed that I have dispensed entirely with the sheet metal strip interposed between the parts B, B, and have employed a cap member J to which posts K are pivotally connected at intervals, these posts K serving as spacing members for the boards B, B. These posts K are preferably rectangular in cross section and provided with rounded corners. When adjusted to spacing position, their longer diameters are interposed between the boards B, B, but by rotating them one quarter of a turn, their shorter diameters will be interposed between the boards, whereupon they may be easily withdrawn. In this construction, the cap J is connected with the posts K by an eye bolt or other suitable member L, adapted to facilitate the manipulation and withdrawal of the posts K and this member L passes through suitable apertures in the cap K and is connected with the post K in any suitable manner.

Walls of paper, or other inexpensive substance, may be substituted for the wooden walls B and left in position, when the metallic member is removed, or the metallic surfaces may be covered in any manner with a non-metallic substance, such as grease, to prevent adhesion. In such cases,

the paper or the layer of grease constitute the transverse walls of the mold.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An expansion joint for concrete work, such as pavements and sidewalks, comprising the combination with a pair of flat surfaced removable members of a material to which concrete will not adhere, a metallic web between said members provided with vertically extending spacing ribs, an elongated cap connected with the upper margin of said web, and covering the gap between said first mentioned removable members.

2. In an expansion joint for concrete work, such as pavements and sidewalks, the combination with a pair of flat surfaced elongated non-metallic members, of a metallic web interposed between said members and provided at intervals with downwardly tapered ribs, said web being provided with a flange along its upper margin, and a cap plate connected with said flange and covering the gap between the non-metallic members, said non-metallic members being adapted to form walls of a mold and being unconnected with any other parts of said mold, whereby a removal of the web and spacing members will permit the individual removal of the non-metallic members.

3. An expansion joint for concrete work, comprising the combination of a set of removable flat surfaced members of a material to which concrete will not readily adhere, a metallic spacing member between the flat surfaced members, including a web provided at intervals with downwardly extending ribs and having its upper margin turned horizontally to form a supporting and strengthening flange, and a cap plate covering said flange and spanning the space between the first mentioned members.

4. An expansion joint for concrete work, comprising the combination of removable mold members, a cap plate spanning the space between them, and depending metallic spacing members connected with the cap plate, said mold members comprising flat surfaced, unattached wooden boards.

In testimony whereof I affix my signature in the presence of two witnesses.

THOMAS E. DOCKERY.

Witnesses:

LEVERETT C. WHEELER,
I. D. BREMER.