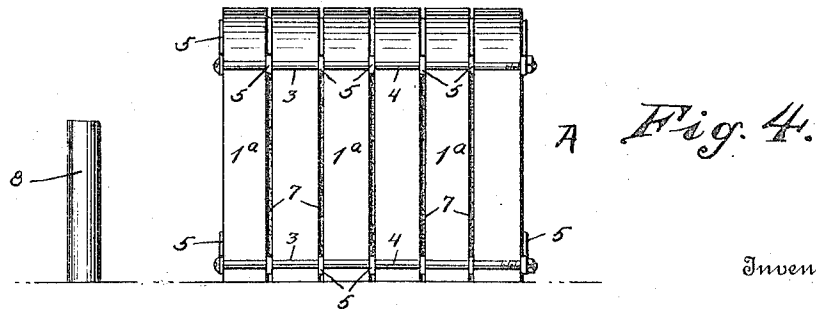
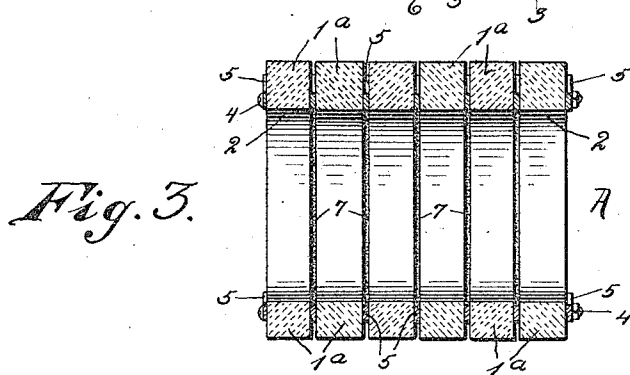
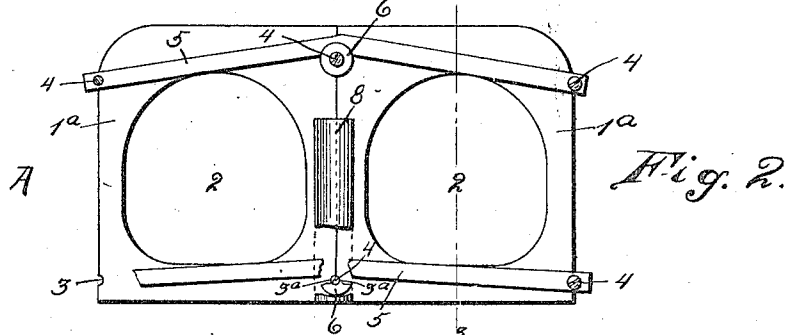
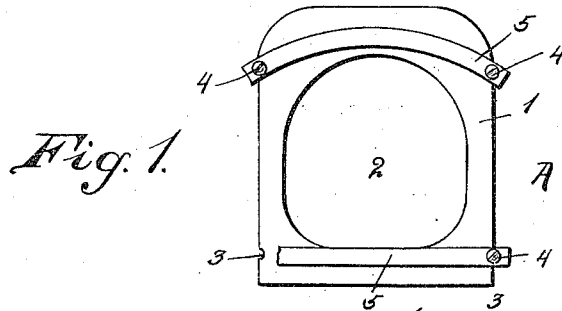


J. GIBSON.
CULVERT.
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1,004,866.

Patented Oct. 3, 1911



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Witnesses

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UNITED STATES PATENT OFFICE.

JOHN GIBSON, OF FROMBERG, MONTANA.

CULVERT.

1,004,866.

Specification of Letters Patent.

Patented Oct. 3, 1911.

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To all whom it may concern:

Be it known that I, JOHN GIBSON, a citizen of the United States, residing at Fromberg, in the county of Carbon and State of Montana, have invented certain new and useful Improvements in Culverts, of which the following is a specification.

My invention relates to culverts and has for its object the improvement of culverts by forming them of blocks of reinforced concrete, each block forming a complete transverse section of a culvert channel, said blocks being of a size capable of easy transportation and in assembling bound together by rods arranged longitudinally of the culvert structure and cross rods secured to the longitudinal rods between the several blocks and at the ends of the structure.

My invention will be described in detail hereinafter and illustrated in the accompanying drawings in which—

Figure 1 is an end view of a culvert consisting of a single channel, Fig. 2, a similar view of a culvert consisting of two parallel channels, Fig. 3, a longitudinal sectional view through one of the channels in Fig. 2, and Fig. 4, a side view of the culvert shown in Figs. 2 and 3.

In the drawings similar reference characters will be used to indicate corresponding parts in the several views.

My improved culverts as shown in Figs. 1 and 2 are composed of a plurality of blocks 1 of reinforced concrete material, the blocks used in the culvert illustrated in Fig. 1 being designated 1. Blocks 1, as shown, are in form complete cross-sections of the culvert A, having a hole 2 therein that forms the channel when the blocks are assembled.

The sides of blocks 1 are formed with notches or recesses 3 to receive longitudinal tie rods 4 that serve to bind the blocks 1 together end to end, and cross rods 5 connecting rods 4, said cross rods 5 in Fig. 1 being shown only at the end of the culvert but as shown in Fig. 3 the rods 5 may be secured between the several blocks as well as at the ends of the culvert.

In the culvert shown in Figs. 2, 3 and 4 two parallel channels are provided for and

it will be apparent that the multiplication of channels may be continued indefinitely, limited only by the requirements of the stream to be drained. The blocks 1^a used in making culverts with a plurality of parallel channels have the notches shown at 3^a, to receive the tie rods 4, seated between the blocks, arranged side and side, formed semi-circular in cross section so that the edges of the two sets of blocks on the two sides of the intermediate rods engage one another.

6 indicates plates mounted on the ends of rods 4 between the blocks to more securely bind them.

As hereinbefore stated the cross rods 5 on the culvert shown in Figs. 2, 3 and 4 are mounted between the individual blocks constituting the culvert or obviously between groups of the blocks. The spaces between the blocks where the cross-rods are mounted may, if found necessary, be filled with concrete or other plastic material as shown at 7.

8 indicates a post positioned opposite the meeting edges of the blocks 1^a a short distance up stream from the culvert to form a breakwater to intercept floating trash and direct it into the channels flowing through the culvert openings and prevent it from lodging against the culvert between the openings.

Having thus described my invention what I claim is—

1. A culvert comprising a plurality of blocks arranged side to side, each block comprising a cross-section of a culvert channel and having recesses in their sides, and rods mounted in said recesses longitudinally of the culvert and holding the blocks in an assembled position.

2. A culvert comprising a plurality of blocks arranged side to side, each block comprising a cross-section of a culvert channel, rods secured to the blocks longitudinally of the culvert and holding them in an assembled position, and cross rods secured to the longitudinal rods.

3. A culvert comprising a plurality of blocks arranged side to side and edge to edge, each of said blocks comprising a cross-section of the culvert channel, rods secured to the ends of the culvert and between the

blocks longitudinally of the culvert channels, and cross rods connecting the longitudinal rods at the ends of the channels and between blocks intermediate of the ends of
5 the channel.

4. In combination with a culvert having a plurality of channels, a post secured in a line between the pair of channels in advance of the up-stream end of the culvert to form

a breakwater for the partitions between the 10 channels.

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

JOHN GIBSON.

Witnesses:

W. W. PATTERSON,
GEO. W. PIERSON.