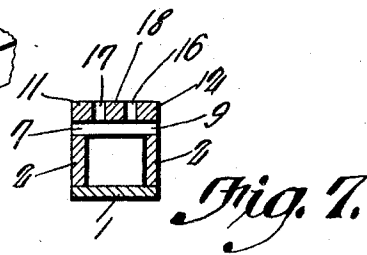
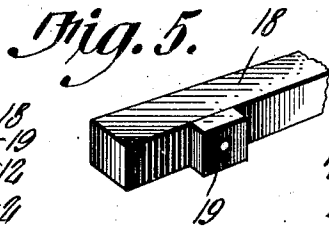
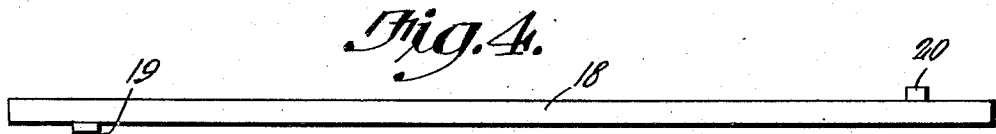
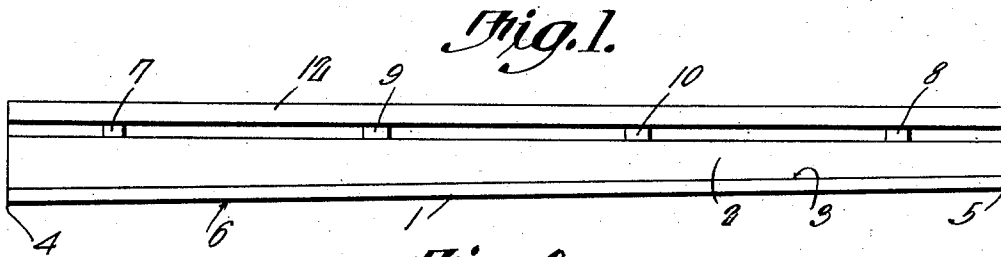


R. B. HIBBS.
CULVERT.
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1,048,071.

Patented Dec. 24, 1912.



Witnesses

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CULVERT.

1,048,071.

Specification of Letters Patent.

Patented Dec. 24, 1912.

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To all whom it may concern:

Be it known that I, R. BAZELL HIBBS, a citizen of the United States, residing at Orofino, in the county of Clearwater and State of Idaho, have invented a new and useful Culvert, of which the following is a specification.

The device constituting the subject-matter of the present application, is a culvert adapted to be placed transversely of a highway, for the purpose of catching the water which flows downhill in the wheel-ruts, the culvert constituting means for conducting the water laterally into the side ditches.

The present invention aims to provide a culvert of the type above specified, which may be cleaned out readily, and to this end, the grating of the culvert is provided with a removable intermediate bar, novel means being provided for spacing the intermediate bar from the side bars, and for preventing the intermediate bar from moving longitudinally.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings,—Figure 1 shows the invention in side elevation; Fig. 2 is a top plan; Fig. 3 is a top plan, the intermediate bar being removed; Fig. 4 is a top plan of the intermediate bar; Fig. 5 is a perspective of one end of the intermediate bar; Fig. 6 is an end elevation of the culvert; and Fig. 7 is a transverse section on the line 7—7 of Fig. 2.

In carrying out the invention there is provided a trough comprising a bottom 1 and side walls 2, the side walls 2 tapering, as indicated at 3, from one end 4 of the culvert toward the other end 5 thereof, so that the bottom 1 of the culvert is given a slope, as indicated at 6, for the obvious purpose of conducting the water laterally into the side ditches.

End cross bars 7 and 8 are secured to the upper edges of the side walls 2, intermediate cross bars 9 and 10, located between the end cross bars 7 and 8, being secured likewise to the upper edges of the side walls 2. The

cross bars 7, 8, 9 and 10 support a grating, the same comprising longitudinal side bars 11 and 12 which are secured to, and rest upon, the cross bars 7, 8, 9 and 10, adjacent the ends of the cross bars. Primary separating blocks 14 are located in the angles defined by the end cross bars 7 and by the side bars 11 and 12, the primary separating blocks 14 being rigidly mounted, and being connected with the end cross bar 7 or with the side bars 11 and 12, as may be considered desirable. Other primary separating blocks 15 are similarly mounted upon the end cross bar 8. A secondary separating block 16 is held fixed in the angle defined by the intermediate cross bar 9 and the fixed side bar 12, the separating block 16 upstanding above the upper face of the cross bar 9. Another secondary separating block 17 is held fixed in the angle defined by the intermediate cross bar 10 and the side bar 11, the separating block 17 upstanding above the upper face of the intermediate cross bar 10. The separating blocks 16 and 17 are diagonally disposed, as will be evident when Fig. 3 of the drawing is examined. The grating further includes a removable intermediate bar 18, equipped, adjacent its ends, and upon opposite side faces, with locking blocks 19 and 20. The removable intermediate bar 18 is supported by the cross bars 7, 8, 9 and 10, the spacing blocks 14, 15, 16 and 17 serving to prevent the removable intermediate bar 18 from moving transversely. The locking block 19 of the removable intermediate bar 18 engages with one of the spacing blocks 14, and the locking block 20 engages with one of the separating blocks 15, longitudinal movement of the intermediate bar being thereby prevented.

In practical operation, the culvert, constructed as above described, is disposed transversely of the roadway. The water flowing down hill will pass between the bars 11, 12 and 18, or will pass between the bars 11 and 12 and the upper edges of the side walls 2, the water thus entering the trough, whereupon the trough, owing to the inclination of its bottom 1, as indicated at 6, will carry the water laterally into the side ditches.

When it is desired to clean out the culvert, the intermediate bar 18 may be lifted out of place readily. Longitudinal movement of the intermediate bar 18 is prevented by the coöperation between the lock-

ing blocks 19 and 20 and the spacing blocks 14 and 15, respectively. Transverse movement of the removable intermediate bar 18 is prevented by the separating blocks 14, 15, 16 and 17.

Having thus described the invention, what is claimed is:—

1. In a culvert, a trough including a bottom and side walls; cross bars connecting the upper edges of the side walls; side bars secured to the cross bars; and a removable intermediate bar supported upon the cross bars between the side bars; separating blocks upon certain of the cross bars and engaging opposite sides of the intermediate bar to separate the intermediate bar and the side bars; and locking blocks upon the intermediate bar, engaging certain of the separating blocks to hold the intermediate bar against longitudinal movement.

2. In a culvert, a trough including a bottom and side walls, end cross bars and in-

termediate cross bars connecting the upper edges of the side walls; side bars secured to the cross bars; spaced primary separating blocks held upon the upper faces of the end cross bars; diagonally disposed secondary separating blocks held in the angles defined by the intermediate cross bars and the side bars; a removable intermediate bar held spaced from the side bars by the separating blocks and resting upon the cross bars; and locking blocks upon the side faces of the intermediate bar, the locking bars being engaged with certain of the primary separating blocks.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

R BAZELL HIBBS.

Witnesses:

P. H. BLAKE,
BLAIR E. HOOE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."