Dec. 11, 1928. 1,694,736

J. B. FENDER

CONCRETE CULVERT

Filed March 29, 1928 2 Sheets-Sheet 1

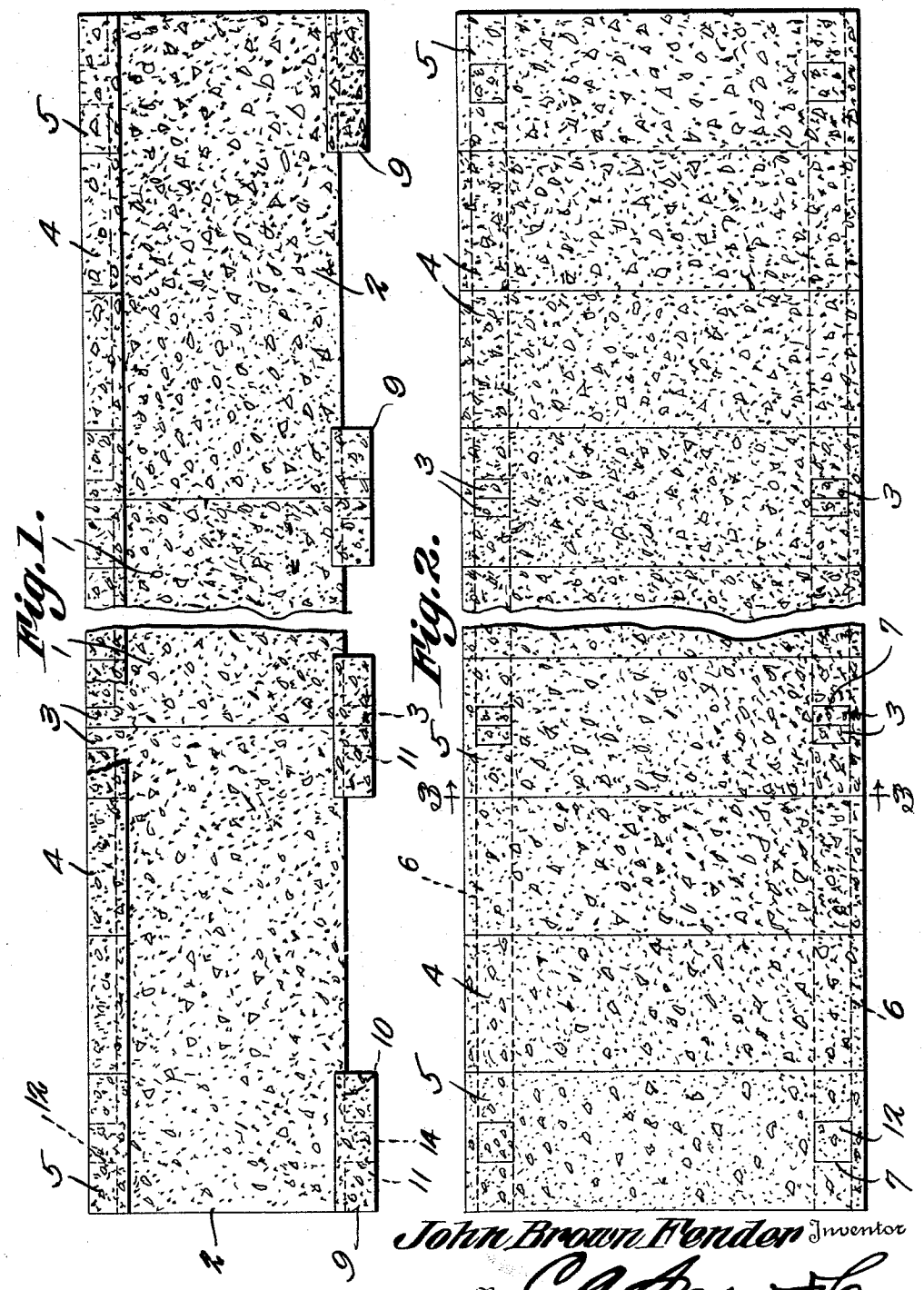


Fig. 1.

Fig. 2.

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Fig. 3.

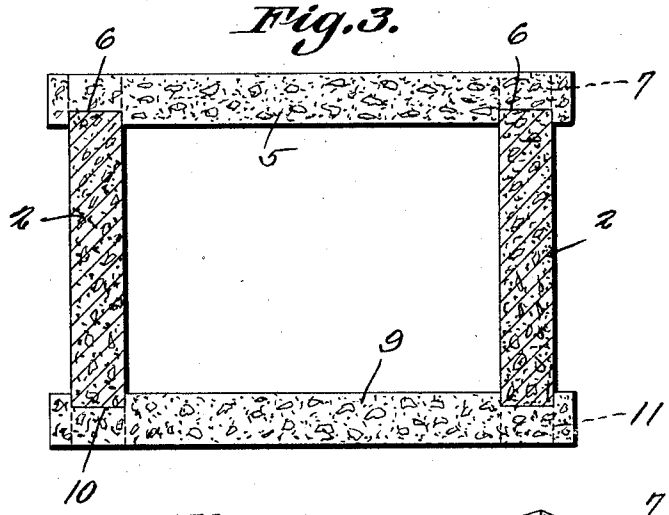


Fig. 4.

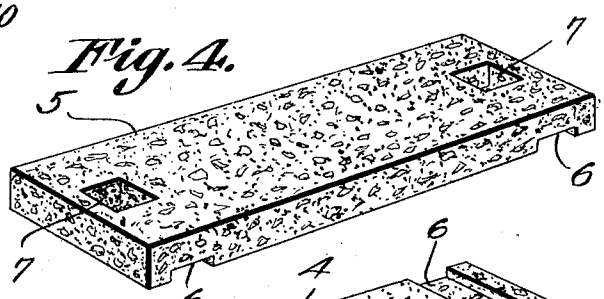


Fig. 5.

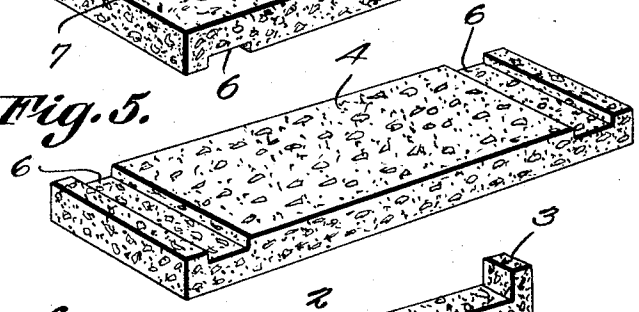
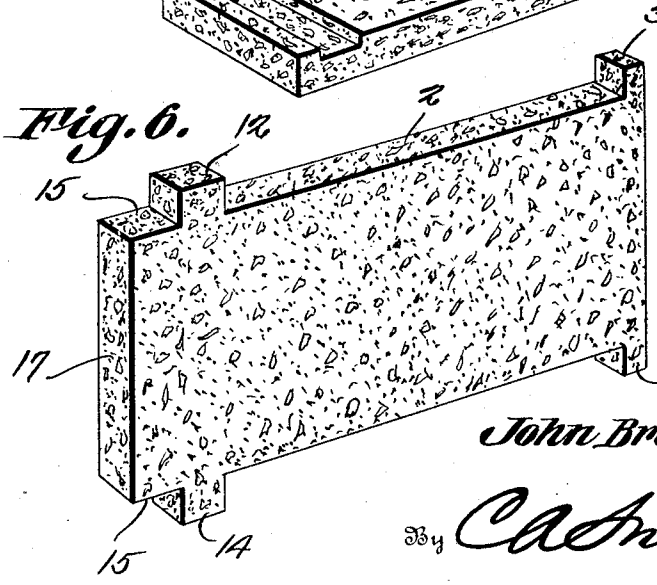


Fig. 6.



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Patented Dec. 11, 1928. 1,694,736

UNITED STATES PATENT OFFICE.

JOHN BROWN FENDER, OF KAUFMAN, TEXAS.

CONCRETE CULVERT.

Application filed March 29, 1928. Serial No. 265,639.

This invention aims to provide a reenforced concrete culvert which may be made at a comparatively small cost, out of sections, the culvert being so constituted that the constituent parts thereof may be handled readily, without resort to derricks or other lifting means of a like kind. The invention aims to provide a permanent culvert which will cost very little to install, the culvert being of such a nature that it can be taken down, moved, cleaned out, and replaced, at little cost, and without the use of tools. A further object of the invention is to supply a culvert which will fit shallow ditches. A further object of the invention is to provide novel interengaging elements whereby the parts of the culvert are held together. A further object of the invention is to supply a culvert which can be turned out cheaply, because there are few different parts to be manufactured.

It is within the province of the disclosure to improve generally and to enchance the utility of devices of that type to which the invention appertains.

With the above 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 the invention herein disclosed, may be made within the scope of what as claimed, without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 shows in side elevation, a culvert constructed in accordance with the invention, parts being broken away;

Figure 2 is a top plan wherein parts are broken away;

Figure 3 is a cross section taken approximately on the line 3—3 of Figure 2;

Figure 4 is a perspective view showing one of the cross plates;

Figure 5 is a perspective view illustrating another of the cross plates inverted from the position which it will assume in the culvert.

Figure 6 is a perspective view illustrating the side-forming slabs which are used at the ends of the culvert.

The culvert forming the subject matter of this application has side walls which are made up of slabs 1 and 2, disposed end to end. The slabs 1 and 2 are provided with upstanding lugs 3 at their meeting ends. The top of the culvert is formed of cross plates 4 and 5 provided near to their ends with transverse grooves 6 in which the upper edges of the side-forming slabs 1 and 2 are received. The cross plates 5 have openings 7 communicating with the grooves 6 and receiving the lugs 3 of adjoining slabs 1 and 2.

The slabs 1 and 2 are provided with depending lugs 8 at their meeting ends. Transverse base pieces 9 are provided, and the base pieces have cross grooves 10 in which the lower edges of the side-forming slabs 1 and 2 are mounted. The base pieces 9 are provided with openings 11 communicating with the grooves 10 and receiving the depending lugs 8 of the slabs 1 and 2. The base pieces 9 are duplicates of the cross plates 5 shown in Figure 4. This reduces the cost of the culvert, because the number of different parts is reduced. The slabs 2 at the ends of the culvert differ from the intermediate slabs 1 only in the fact that they have, near to their outer ends, upstanding lugs 12 and depending lugs 14 which, as shown in Figure 6, are twice the size of the lugs 3 and 8. The lugs 12 and 14 are set in, as shown at 15 in Figure 6, far enough from the outer ends 17 of the slabs 2 so that the lugs 12 will be received in the openings 7 of the terminal cross plates 5 and so that the depending lugs 14 will be received in the openings 11 of the terminal base pieces 9.

The device forming the subject matter of this application is very simple in construction. It calls for no tools in setting up or taking down and may be moved about and repaired, as occasion may require, with the expenditure of a small amount of labor and little or no costly erecting machinery.

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

1. A culvert the side walls of which are made up of slabs disposed end to end, the slabs being provided with upstanding lugs at their meeting ends, the top of the culvert being formed of cross plates provided near to their ends with transverse grooves in which the upper edges of the side-forming slabs are received, certain of the cross plates having openings communicating with the grooves and receiving the lugs of adjoining slabs.

2. A culvert the side walls of which are made up of slabs disposed end to end, the slabs being provided with upstanding lugs at their meeting ends, the top of the culvert

being formed of cross plates provided near to their ends with transverse grooves in which the upper edges of the side-forming slabs are received, certain of the cross plates having openings communicating with the groove and receiving the lugs of adjoining slabs, the slabs being supplied with depending lugs at their meeting ends, and transverse base pieces having cross grooves in which the lower edges of the side-forming slabs are mounted, the base pieces having openings, communicating with the cross grooves and receiving the depending lugs of the slabs.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

JOHN BROWN FENDER.