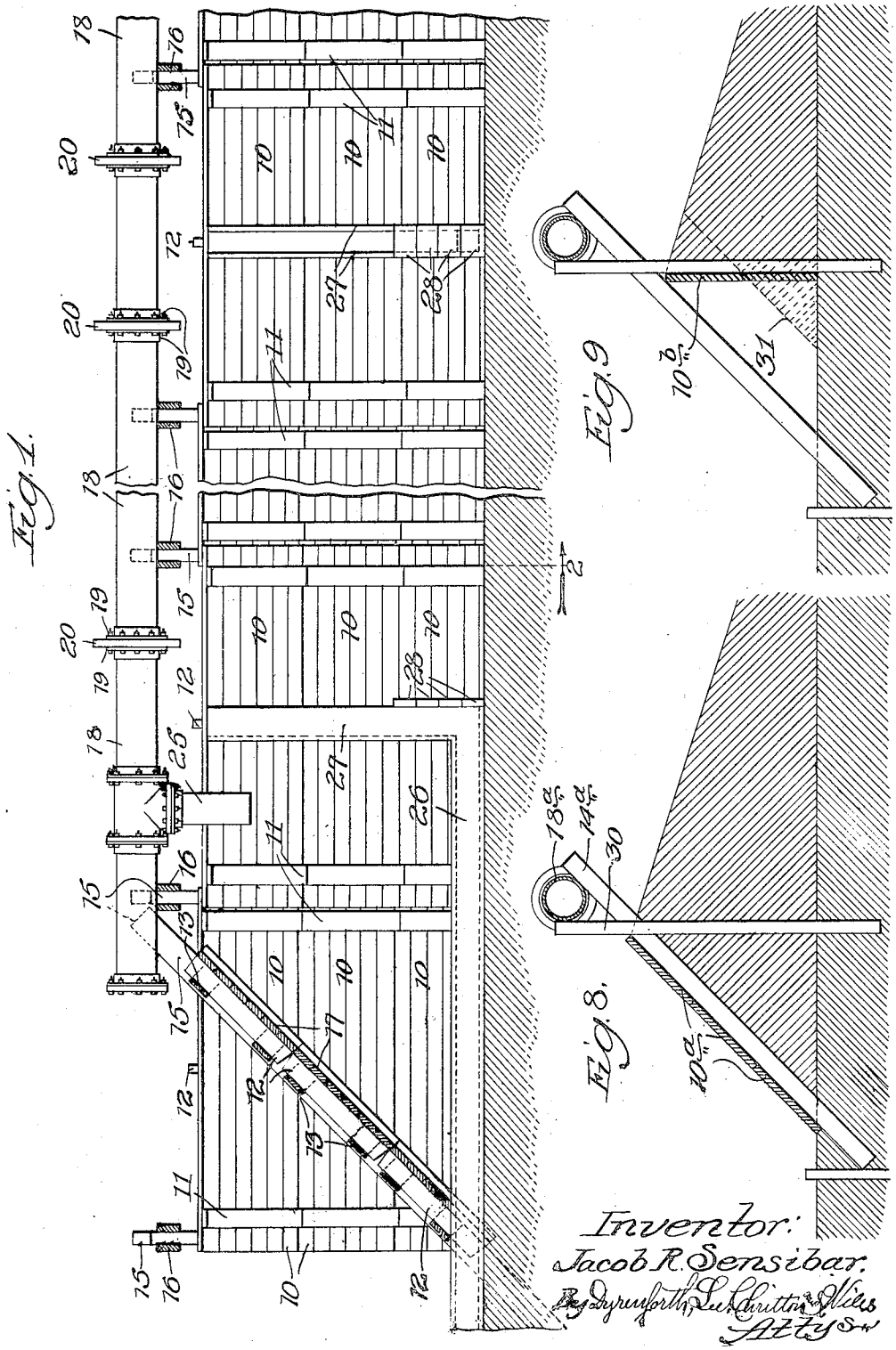
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J. R. SENSIBAR

METHOD OF BUILDING DYKES

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J. R. SENSIBAR

METHOD OF BUILDING DYKES

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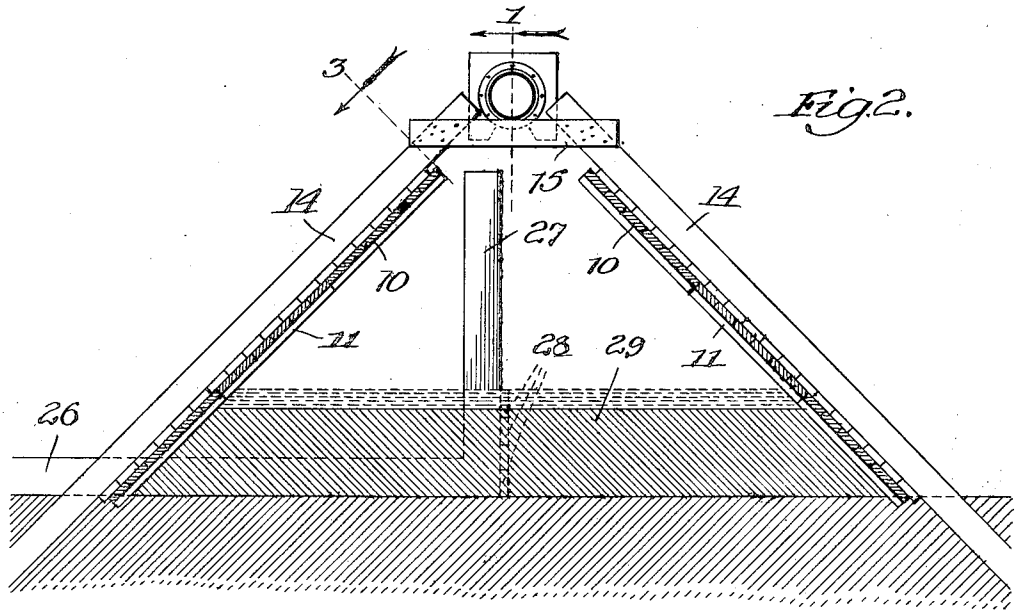


Fig. 2.

Fig. 3.

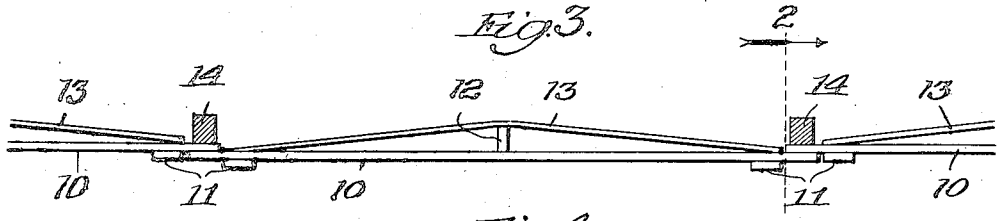


Fig. 4.

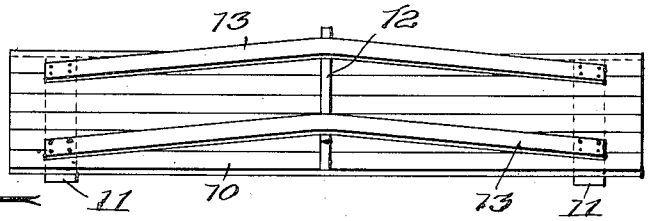


Fig. 6.

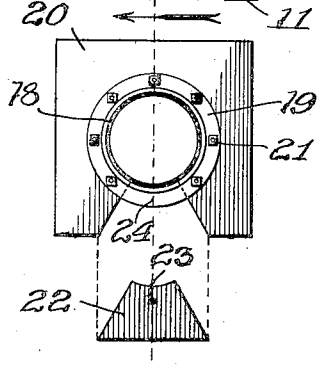


Fig. 5.

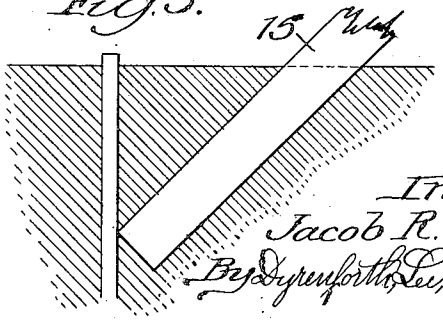
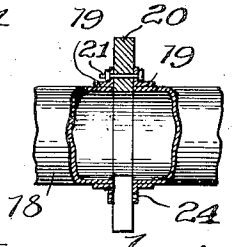


Fig. 7.



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UNITED STATES PATENT OFFICE.

JACOB R. SENSIBAR, OF CHICAGO, ILLINOIS.

METHOD OF BUILDING DYKES.

Application filed March 25, 1921. Serial No. 455,475.

To all whom it may concern:

Be it known that I, JACOB R. SENSIBAR, a citizen of the United States, residing at 133 W. Washington Street, Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Method of Building Dykes, of which the following is a specification.

This invention relates to method of building dykes and is fully described in the following specification and shown in the accompanying drawings, in which:

Fig. 1 is a vertical longitudinal section on the line 1 of Fig. 2;

Fig. 2 is a transverse vertical section on the line 2 of Fig. 1;

Fig. 3 is a partial section on the line 3 of Fig. 2;

Fig. 4 is a perspective of a side board;

Fig. 5 is a detail of a method of anchoring a side brace;

Fig. 6 is a transverse section on a pipe showing a gate;

Fig. 7 is a partial longitudinal section on the line 7 of Fig. 6; and

Figs. 8 and 9 show cross sections of modifications of the form used and of the method of forming a dyke.

The forms are made up of side boards 10 having nailing strips 11 to which longitudinal boards are nailed. A center brace 12 secured on the opposite side is turned edgewise and bracing boards 13 bent thereover as shown in Fig. 4 are nailed to the back of the side board.

These side boards 10 are secured to the side braces 14 which are anchored in the ground at their bottom ends and held at their top ends by horizontal braces 15.

One end of the form which we will call the lower end for the reason that it is the end through which water flows during the process of filling, is closed by means of end boards 16 which are fitted between the side board 10 as shown at the left hand end of Fig. 1. In starting a dyke of this kind the opposite end of the form is closed by similar end board but after a start has been made it is ordinarily closed by the sand forming the lower end of the last preceding section. It will be understood, in this connection, that where a long dyke is to be made it is formed in sections each one continuing from the lower end of the last section.

The horizontal braces 16 also serve to support sections 18 having flanges 19 upon their ends. A wooden block 20 as shown in Figs. 6 and 7 having an opening the size of the opening in the pipe, is secured between adjacent flanges by means of bolts 21. A section 22 is sawed from the lower edge of this block as shown in Fig. 6. When a section 22 is removed an opening is formed at that point at the bottom of the pipe and when it is desired to close the opening the section 22 is inserted and a pin passed through the hole 23 in the section and the holes 24 in the bottom of the flanges.

Water from any suitable source is pumped through the pipe 18 from right to left as shown in Fig. 1. A number of the sections 22 are removed between the sections of pipes thereby permitting sand and water to be delivered into the form at these points. What does not pass through these openings is carried to the end of the pipe and dumped into the lower end of the form to the vertical pipe 25.

At intervals along the form are placed a series of drain pipes which consist of horizontal pipes 26 and vertical pipes 27 similar to those used in my copending application Serial No. 408,492, filed September 7, 1920. One side of the vertical leg 27 is open as shown in Fig. 2 and boards 28 are secured thereon as the height of the sand 29 is raised by being deposited in the form.

As the mixture of sand and water passes through the pipe 18 the sand being heavier naturally is much denser at the bottom of the pipe. Where all of the plugs 22 are removed the ones nearest to the source of supply will receive the greater amount of sand while those farther down the line will receive more water. The result of this is that the dyke will form very much more rapidly at the right hand end with the result that the height of the level boards 28 will be greater at the right hand end than at the left. As the desired level under each of these openings is reached the plug 22 is inserted and the pumping continued through the remaining openings until they too have been filled up to the desired height.

The end board 17 and the vertical pipe 25 are then removel. The side board 10 and the braces 14 at the right hand end are then taken down and the dyke will be found to be self supporting. These frame members are then used to build up from the left hand end of the present form and the pipe extended and new drain pipes 26 inserted

as before. It will be understood that with slight modifications bends may be made in the dyke as desired.

In Fig. 8 I have shown a modification having a single inclined side made of side boards 10^a and side braces 14^a supported by posts 30. The pipe 18^a distributes a mixture of water and sand or the like as before. The sand is deposited substantially as shown and the water is drained off at the side or, where it is desirable, by means of drain pipes 27 as shown in Figs. 1 and 2. Fig. 9 shows a similar method but employing vertical side boards 10^b. When these are withdrawn, the sand will assume substantially the position shown by the dotted line 31. Both of the methods shown in Figs. 8 and 9 are particularly applicable for forming a dyke to enclose a large area which can then be filled in by pumping in a mixture of water and solid matter and draining off the water. It will be apparent that when the level of the sand reaches the top of the boards, the form and the pipe can be carried up and inwardly and a new level made.

While I have shown and described but a few embodiments of my invention, it is to be understood that it is capable of many modifications. Changes, therefore, in the construction and arrangement may be made without departing from the spirit and scope of the invention as disclosed in the appended claims, in which it is my intention to claim all novelty inherent in my invention as broadly as possible in view of the prior art.

What I claim as new and desire to secure by Letters Patent is:

1. The method of forming a dyke consisting of placing upon the ground a form conforming to the desired configuration of the dyke, pumping a mixture of water and solid matter into said form at a plurality of points along its length, the heavier solid matter being deposited at one end of the form and lighter solid matter at the other, draining off the water, leaving the solid matter in said form and removing said form.

2. The method of forming a dyke consisting of placing upon the ground a form conforming to the desired configuration of the dyke, pumping a mixture of water and solid matter into said form at a plurality of points along its length, the heavier solid matter being deposited at one end of the form and lighter solid matter at the other and draining off the water at a plurality of points along said form, leaving the solid matter in said form.

3. The method of forming a dyke consisting of placing upon the ground a form conforming to the desired configuration of the dyke, pumping a mixture of water and solid matter into said form at a plurality of points along its length, the heavier solid matter being deposited at one end of the form and lighter solid matter at the other and draining off the water at a plurality of points along said form, leaving the solid matter in said form, the height of the points at which water is drawn off being raised as the level of the solid matter is raised.

4. The method of forming a dyke consisting of placing upon the ground a form conforming to the desired configuration of the dyke, pumping a mixture of water and solid matter into one end of said form and draining off the water at the other end of the form, leaving the solid matter deposited in said form, the point at which water is drawn off being raised as the level of the solid matter is raised.

JACOB R. SENSIBAR.