

C. W. OSBORNE.
DRAINAGE SYSTEM.
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963,316.

Patented July 5, 1910.

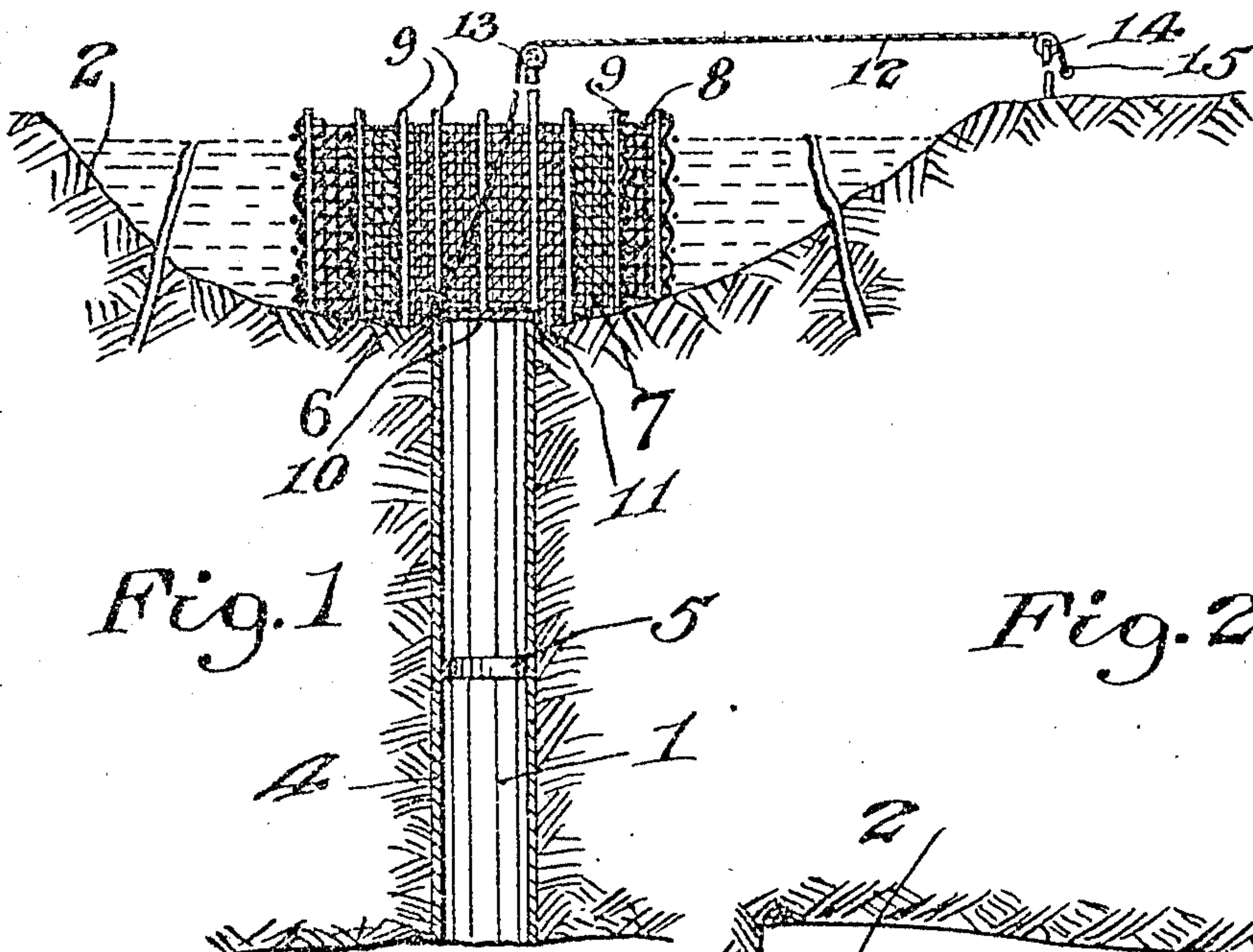
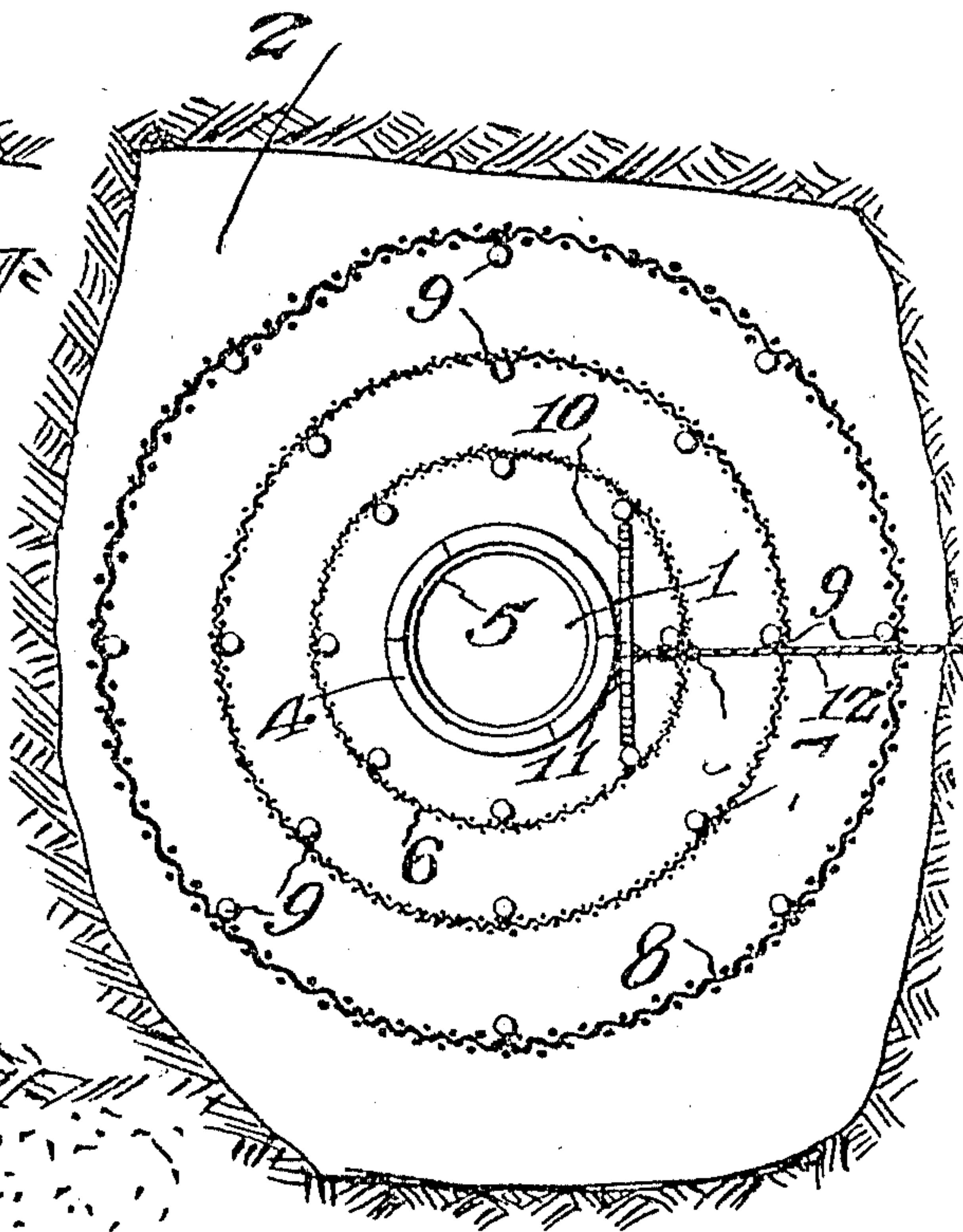
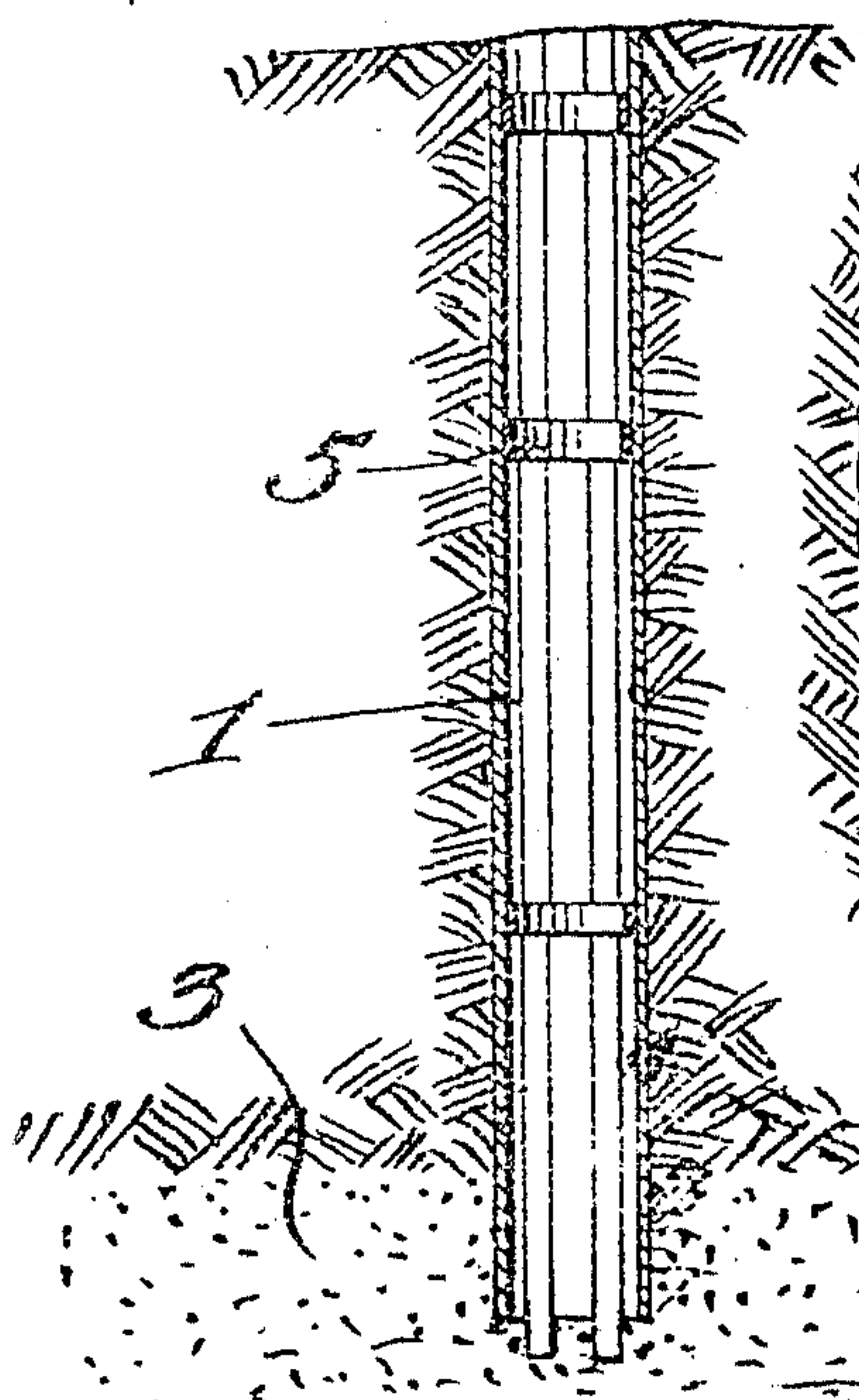


Fig. 1

Fig. 2



WITNESSES:—

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UNITED STATES PATENT OFFICE.

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DRAINAGE SYSTEM.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES W. OSBORNE, a citizen of the United States, residing at Lubbock, in the county of Lubbock and State of Texas, have invented certain new and useful Improvements in Drainage Systems, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in devices for draining low, wet lands or lake basins such as are found in Texas.

The object of the invention is to provide a drain tube or cribbing of peculiar construction which may extend from the surface to a lower strata of gravel and sand and which has at its top means for preventing it from being filled with leaves, twigs, and other trash.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section through my improved drain device; and Fig. 2 is a top plan view.

In the drawings 1 denotes a vertical passage or well which may be drilled or dug from the surface 2 of the lake basin to a lower strata 3 of sand, gravel, or the like, through which the water draining from the surface 2 will pass. The passage 1 is lined with a tube or cribbing 4 of any suitable form and construction but preferably made of longitudinal sections of unequal length so that the alternate sections or staves project beyond the intermediate ones at the lower ends of the device. Bracing rings 5 may be arranged within the tube or cribbing for supporting its sections.

Surrounding the upper end of the tube or cribbing, which end of the latter is disposed at or below the surface of the ground, I provide a series of annular or circular concentric strainers 6, 7 8; made from different sized mesh woven wire and secured to an annular series of upright posts 9 as shown more clearly in Fig. 1. The outermost

strainer or screen 8 is made preferably, from comparatively coarse wire netting, the intermediate one 7 is made of somewhat finer mesh material while the inner one 6 is of still finer mesh material. These several strainers or screens extend from the surface upwardly to a point above high water mark in the lake basin or lowland where the drain device is located. It will be understood that one or more of the drain devices may be provided in each lake basin and that they may be of any size.

In order to permit the upper end of the well or passage 1 to be closed so that water may be allowed to remain in the basin long enough to thoroughly saturate the soil, I provide a removable top or cover 10 for the flat upper end of said well. This cover which is preferably hinged as shown at 11 is adapted to be raised or lowered by means of an operating wire cord 12 or the like. The latter is attached to the cover 10 and passed over a guide pulley 13 on one of the posts, and also over one or more similar guides 14, and may have a hand piece 15 at its other end. This removable cover or lid for the well is exceedingly advantageous in the lake basins above referred to because in winter and early spring such basins are usually dry, and should there be little rain the water may be allowed to accumulate until the crop has been sufficiently watered and by raising the lids of the well water may be quickly drained off.

Having thus described the invention, what is claimed is:

1. The combination of an upright drain pipe extending from the surface of the ground downwardly, a series of concentric rows of posts rising from the surface of the ground around the top of said pipe, and concentric strainers of different sized mesh woven wire secured to said posts.

2. The combination of a drain pipe arranged in the ground and extending from the surface downwardly, said pipe being composed of an annular series of longitudinal sections or staves, the alternate staves having their ends projecting beyond the intermediate ones, supporting rings for said

staves arranged within the tube, and a series of annular concentric upright strainers arranged on the surface of the ground around said pipe.

- 5 3. The combination of an upright drain pipe or well extending from the surface downwardly, a straining device or screen surrounding the upper portion of the same,

a removable lid for the top of the pipe or well, and means for actuating said lid.

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

CHARLES W. OSBORNE.

Witnesses:

O. L. SLATON,

N. S. POSEY.