Jan. 12, 1926. 1,569,000

W. H. CATER

WEIGHT FOR SINKING WELL CASINGS

Filed Oct. 7, 1925

Fig. 1.

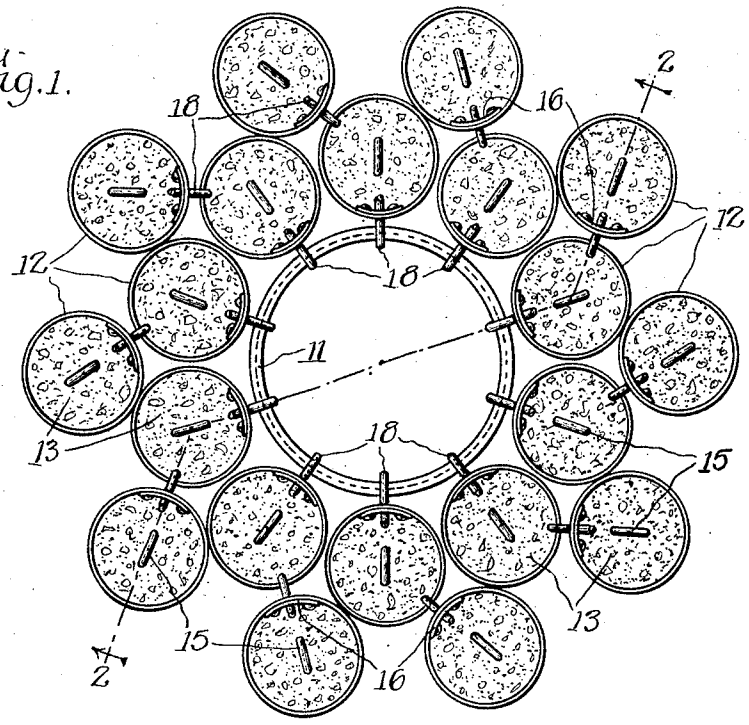
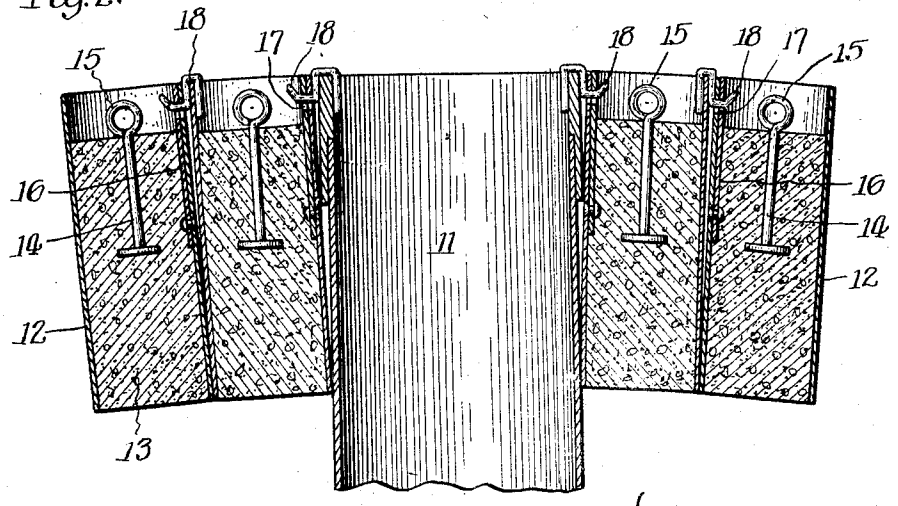


Fig. 2.



Witness:
A. J. Sauser.

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Patented Jan. 12, 1926. 1,569,000

UNITED STATES PATENT OFFICE.

WILLIAM H. CATER, OF CHICAGO, ILLINOIS.

WEIGHT FOR SINKING WELL CASINGS.

Application filed October 7, 1925. Serial No. 60,950.

To all whom it may concern:

Be it known that I, WILLIAM H. CATER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Weights for Sinking Well Casings, of which the following is a specification.

In the sinking of well-casings and similar structures, it is desirable or necessary to weight the top, exposed end thereof to facilitate its downward travel.

In some instances, it is required that the weight shall be unevenly disposed or arranged on the casing, as for instance, when the latter exhibits a tendency to descend not exactly vertically.

Weights used for this purpose are ordinarily exposed to the weather and are not infrequently subjected to rough treatment.

My present invention aims to provide a new style and type of such weight which may be easily and quickly applied to the well-casing, whose position thereon may be varied or shifted with facility, which will not become damaged or injured in ordinary service, and which may be readily handled and brought to position for support on the casing, etc.

For attainment of these and other desirable objects, I have provided the present desirable and preferred embodiment of the invention, illustrated in the accompanying drawing, forming a part of this specification, and throughout the several views of which like reference characters have been employed to designate the same parts.

Those skilled or trained in this art will have no difficulty in understanding the structural and functional advantages of the new weight from this illustration and from the following detailed description.

In the drawing referred to:

Figure 1 is a plan view of the top end of the well-casing or screen equipped with a plurality of the new style of weights; and

Figure 2 is a vertical section on the line 2—2 of Figure 1.

By reference to this drawing, it will be seen that the top or upper end section of the upright well-casing or screen being sunk or driven down into the earth is supplied with the reference numeral 11.

Each of the weights of suitable diameter comprises a cylindrical, sheet-metal shell or casing 12, conveniently open at both ends, and partially filled with a mixture 13 of comparatively small iron or other heavy members or particles embedded in cement or concrete, whereby the loaded shell thus has substantial and adequate weight to perform its required function.

This encased, hardened mixture may conveniently or appropriately extend to the lower end of the shell as shown, but it terminates short of the upper end thereof leaving a suitable space or cavity.

In such filling, before it hardens or sets, the headed stem or shank 14 of an eye-bolt is embedded, the loop or eye 15 of such bolt projecting out of the filling or charge and being located, however, within the shell in the space thereof at its upper end, all as is clearly shown, whereby the eye of the bolt is not likely to become damaged or injured.

One side-wall of the shell is internally reenforced by a plate 16 riveted thereto, the wall of the shell and such plate having registering holes or apertures 17.

These weights, which can be easily rolled around as required without injury to bring them to suitable position, because they have no projections subject to damage, may be lifted into place or into the correct location by any appropriate hoisting means applied to their eye-bolts.

Such weights are designed to be held or fastened around the top of the casing by hooks 18 taking or extending over the top margin of the casing and into the holes 17, as is fully presented in the drawings, the unfilled or vacant spaces in the tops of the weights receiving or accommodating the inwardly-protruding parts of these sustaining hooks.

If additional weights are required to be applied, they may be hooked on to the other weights already hung on the casing, in which case the cavities in the weights receive both ends of the fastening hooks.

In this way, any reasonable degree of downward pressure may be applied or imposed on the casing by merely attaching additional weights, all of which will be in substantially the same horizontal plane, so that they will not interfere with the descent of the casing.

I claim:

1. A weight for well-casings and the like, comprising a metal shell, a filling for said

shell terminating short of an end of the shell and containing relatively-heavy particles and cement, a reenforcing plate inside of said shell, the latter and said plate being apertured in register with one another and opposite the unoccupied space of the shell, whereby the apertures may accommodate a supporting hook with a part thereof received in the empty portion of the casing, and an eye-bolt having its shank embedded in said filling with its eye in the empty space of the shell whereby it is protected by the latter.

2. A weight for well-casings and the like, comprising a metal shell, a filling for said shell terminating short of an end of the shell, a reenforcing plate for said shell, the latter and said plate being apertured in register with one another and opposite the unoccupied space of the shell, whereby the apertures may accommodate a supporting hook with a part thereof received in the empty portion of the casing, and an eye-bolt having its shank embedded in said filling with its eye in the empty space of the shell whereby it is protected by the latter.

3. A weight for well-casings and the like, comprising a metal shell, a filling for said shell terminating short of an end thereof, and a reenforcing plate for the shell, the latter and said plate being apertured in register with one another and opposite the unoccupied space of the shell, whereby the aperture may accommodate a supporting hook with a part thereof received in the empty portion of the casing.

4. A weight for well-casings and the like, comprising a metal shell, and a filling for said shell terminating short of an end thereof, said shell having an aperture through its wall opposite the unoccupied space of the shell, whereby the aperture may accommodate the supporting hook with a part thereof received in the empty portion of the casing.

In witness whereof I have hereunto set my hand and seal.

WILLIAM H. CATER. [L. S.]