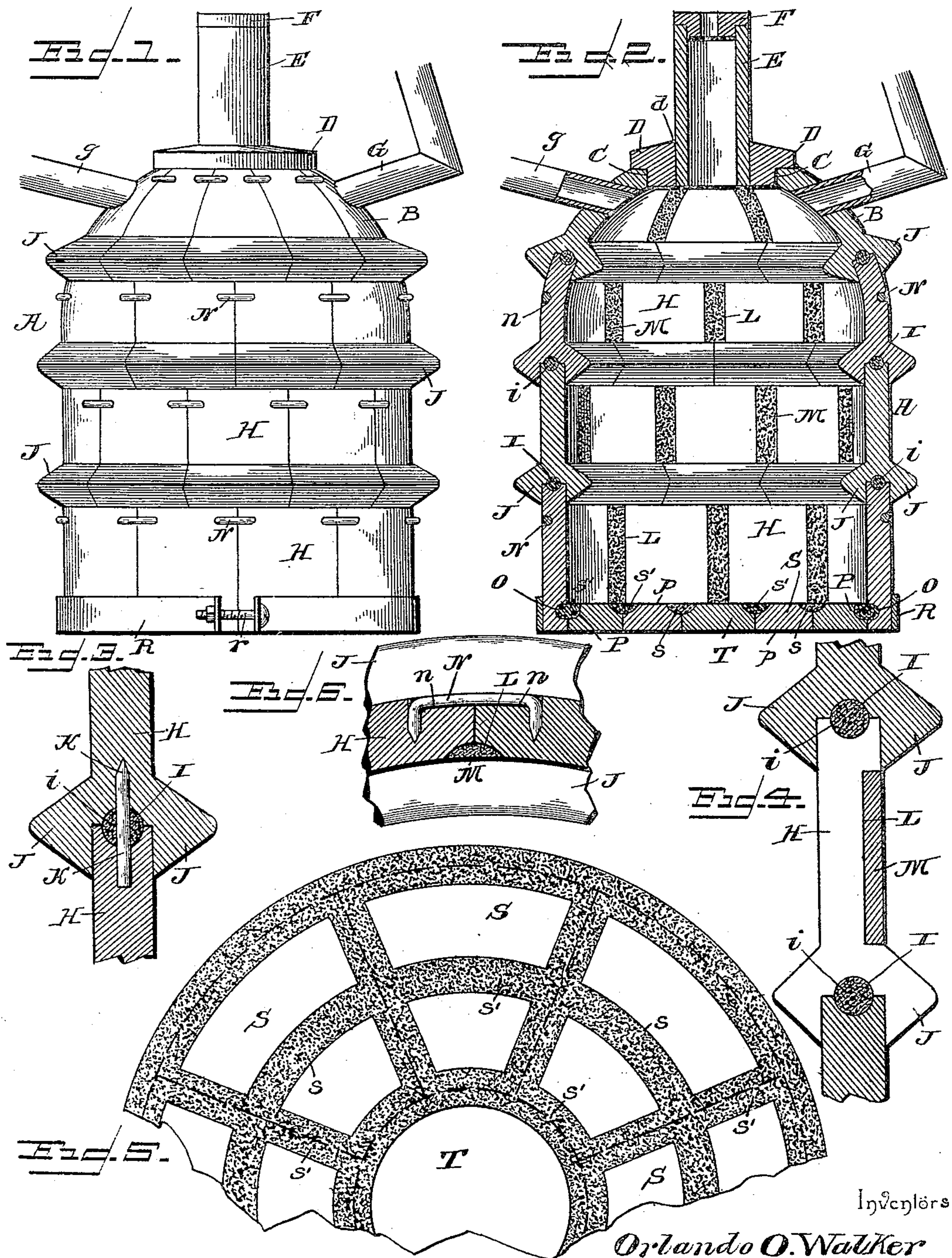


(No Model.)

O. O. WALKER & R. G. MOON.  
PORTABLE CISTERN.

No. 529,511.

Patented Nov. 20, 1894.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ORLANDO O. WALKER AND ROBERT G. MOON, OF BEDFORD, IOWA, ASSIGN-  
ORS, BY DIRECT AND MESNE ASSIGNMENTS, TO SAID MOON AND C. S.  
McCLOUD, OF SAME PLACE.

## PORTABLE CISTERN.

SPECIFICATION forming part of Letters Patent No. 529,511, dated November 20, 1894.

Application filed November 17, 1893. Renewed October 18, 1894. Serial No. 526,322. (No model.)

*To all whom it may concern:*

Be it known that we, ORLANDO O. WALKER and ROBERT G. MOON, citizens of the United States, residing at Bedford, in the county of Taylor and State of Iowa, have invented a new and useful Portable Cistern, of which the following is a specification.

This invention relates to portable cisterns; and it has for its object to provide an improved cistern of this character which can be readily set up in any position designed for the location of a cistern, and which can be easily cleaned out and repaired.

To this end the main and primary object of the present invention is to construct a sectional cistern, the several parts of which shall be firmly joined together in water tight joints which will withstand long usage, while at the same time providing a construction which can be easily repaired and taken apart for removal and replacement in another position.

With these and other objects in view which will readily appear as the nature of the invention is better understood the same consists in the novel construction, combination and arrangement of parts, hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a side elevation of a portable cistern constructed in accordance with this invention. Fig. 2 is a central vertical longitudinal sectional view thereof. Fig. 3 is an enlarged detail vertical sectional view showing the joint between the top and bottom meeting edges of the section blocks. Fig. 4 is a similar view showing the joint between the side meeting edges of the blocks. Fig. 5 is an enlarged detail plan view of the sectional bottom. Fig. 6 is an enlarged horizontal section taken through one of the joint hooks of the section blocks.

Referring to the accompanying drawings, A represents a portable sectional cistern body adapted to be located in any convenient or suitable position usually occupied by cisterns, and said cistern body is of a substantially cylindrical shape, rounded or tapered in at the top as at B, and provided at its upper end with the central opening C, adapted to re-

movably receive the flanged cistern cap D, which can be easily removed when the cistern is taken apart, and said flanged cistern cap D, is provided with a central opening *d*, adapted to detachably receive the lower end of the manhole pipe E, which is sufficiently large to admit of a person gaining access to the interior of the cistern, and the upper open end of said manhole pipe is closed in by the removable platform cap F, on which is adapted to be placed any suitable pump for lifting the water out of the cistern in the ordinary manner.

The upper closed end of the cistern body A, receives the filling pipe G, which leads from any source of supply and is adapted to conduct the water into the cistern, and a similar pipe *g*, also enters the top of the cistern and is designed to carry off an excess of supply, and prevent the cistern from overflowing.

The cylindrical cistern body A, consists of superposed tiers of registering section blocks H, which are arranged so as to break joints and thereby insure water tight connections or joints for the several cistern sections. The registering section blocks H, which make up the body of the cistern A, are segmental in shape in order to complete a circular body when in alignment with each other, and the upper tiers of these section blocks H, are rounded or curved lengthwise in order to complete the rounded or tapered top B. The several segmental section blocks H, are provided at their top and bottom meeting edges with the registering cement grooves I, which completely encircle the cistern body and are adapted to be filled with a cement filling *i*, and such top and bottom meeting edges of the section blocks H, are firmly braced together by means of the depending joint lugs J. The depending joint lugs J, project from both sides and the lower edges of all of the blocks above the lower tier and are adapted to overlap and embrace therebetween the upper edges of the blocks immediately there-below, and this joint between the top and bottom meeting edges of the blocks is additionally braced by means of a number of joint pins K, engaging openings in the top and bottom edges of the sections and cemented firmly in position. The inner side edges of the section blocks H,



are also provided with the vertically disposed joint grooves L, which are adapted to receive a cement filling M, smoothed off flush with the inner wall or faces of the aligned section blocks, and thereby firmly joining the side edges of the blocks and rendering the same water tight, while the outer ungrooved side edges of the registering section blocks are firmly braced by the joint hooks N, bridging the joint at the side edges of the blocks and cemented in position in suitable grooves and openings n, formed in the outer faces of the blocks for the reception of such hooks. The lower tier of aligned section blocks H, are further provided near their lower inner edges with the annular bottom grooves O, adapted to align with the outer shouldered edge P, of the sectional bottom p, said shouldered edge being properly cemented in position by a cement filling Q, which is inserted into the groove O, and the shouldered edge P. This sectional bottom p, is additionally held firmly in position within the lower end of the cylindrical cistern body A, by means of the bottom clamp band R, encircling the outer lower edge of the cistern body and detachably held in position thereon by the bolt r.

The sectional bottom p, comprises a series of registering flat sections or blocks S, provided at their top meeting edges with the registering cement grooves s, corresponding to the grooves L, in the cistern body and adapted to receive a cement filling s', and said registering sections or blocks form a central opening closed in by a center circular block T, fitted in position in the same manner as the other sections of the bottom.

Now from the foregoing it is thought that it will be apparent that the herein described construction of cistern not only renders the same very efficient for the work required of it, but possesses many advantages which will be apparent to those skilled in the art, and we will have it understood that changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a portable cistern, the sectional cylindrical cistern body having a rounded or tapered top provided with a central opening, a flanged cistern cap adapted to be removably fitted in said central opening, a manhole pipe having its lower end fitted into said cistern cap, a removable pump platform fitted in the upper end of the manhole pipe, and filling and overflow pipes leading into the

upper end of the cistern body, substantially as set forth.

2. In a cistern, the combination of a sectional body, the bottom removably fitted into the lower end of said body, and a detachable clamp band encircling the outer lower edge of the cistern body, substantially as set forth.

3. A cistern body consisting of superposed tiers of registering segmental blocks breaking joints and having registering cement grooves at their top, bottom, and inner side meeting edges, substantially as set forth.

4. In a cistern, the sectional body consisting of registering segmental blocks having registering cement grooves at their top and bottom edges, and joint pins joining said top and bottom edges of the blocks and cemented in position by the filling of said grooves, substantially as set forth.

5. A cistern body consisting of superposed tiers of registering segmental blocks having cement grooves at their meeting edges, the blocks above the lower tier being further provided at both sides of their lower edges with parallel depending spaced joint lugs overlapping and embracing there-between the upper edges of the blocks immediately there-below, substantially as set forth.

6. In a cistern, the combination of the cylindrical sectional body consisting of registering segmental blocks having registering cement grooves at their top and bottom edges and their inner side edges, the blocks above the upper tier being provided with depending joint lugs embracing the upper edges of the blocks immediately there-below, cement fillings for the registering grooves, joint pins joining the top and bottom edges of the blocks, and joint hooks bridging the joint at the outer side edges of the blocks, substantially as set forth.

7. The combination with a cistern body having an annular bottom groove near its lower inner edge; of a sectional bottom having a shouldered edge adapted to receive a cement filling also placed in said annular bottom groove, said sectional bottom consisting of a series of registering flat sections or blocks provided at their top meeting edges with registering cement grooves, substantially as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ORLANDO O. WALKER.  
ROBERT G. MOON.

Witnesses:

O. R. OSBORN,  
CHARLIE WALRATH.