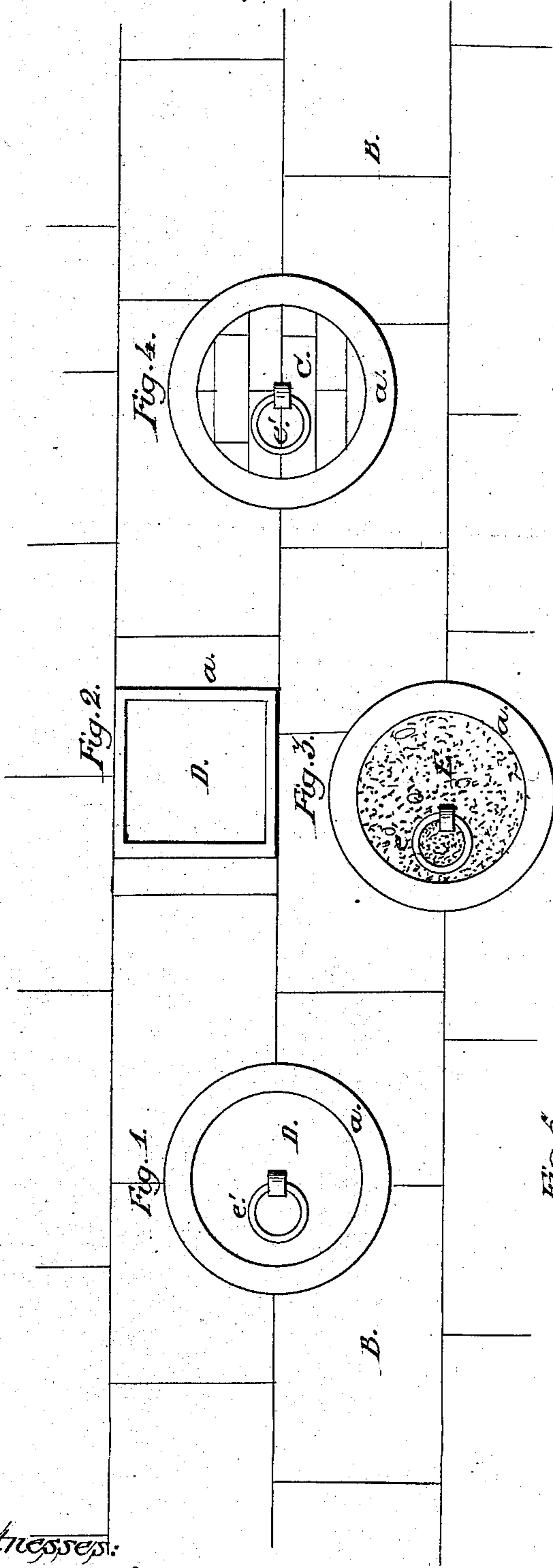


G. H. Palmer,

Vault Cover.

No. 88,504.

Patented Mar. 30, 1869.



Witnesses:

James S. Graham
Alex. F. Roberson.

Inventor:
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UNITED STATES PATENT OFFICE.

GEORGE H. PALMER, OF NEW YORK, N. Y., ASSIGNOR TO WM. DALE, OF
NEW YORK CITY.

IMPROVED VAULT-COVER.

Specification forming part of Letters Patent No. 88,504, dated March 30, 1869.

To all whom it may concern:

Be it known that I, GEORGE H. PALMER, of the city, county, and State of New York, have invented a new and useful Improvement in Covers for Openings in Sidewalks, Pavements, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved method of constructing the movable or fixed covers for coal, gas, water, or other openings in sidewalks or street-pavements, whereby the danger of slipping upon them is prevented.

It consists in the construction of the covers as shown, and hereinafter more fully described.

In the accompanying plate of drawings, Figures 1, 2, 3, and 4 are plan views of several different forms of my invention. Fig. 5 represents a central vertical section of a sidewalk or pavement with one form of my invention, also in section, in position therein. Fig. 6 is a like view, with another form of my invention, in section, in position therein.

Similar letters of reference indicate corresponding parts.

The cover, in all forms of my invention, consists of a dish, A, filled with a single flag-stone, D, as shown in the drawings, Figs. 1, 2, and 5, or with bricks C, properly masoned in, as shown at Figs. 4 and 6, or with concrete E, as shown at Fig. 3, or with blocks of wood or other suitable material having, when finished, a rough or corrugated surface, or may be, when preferred, filled with the same material as the surrounding walk or pavement B.

The dish A may be made of cast-iron or other material having sufficient strength and enduring qualities, either circular or rectangular in form, of such diameter or dimensions as to fit the opening to be covered, and of such depth inside as to receive the stone, brick, concrete, or other material in sufficient quantity. The dish A is furnished on the outside, at the top,

with a flange, *a*, as shown, of sufficient width only so as to prevent the said dish A from being forced through the pavement or walk B, and to prevent the leaking of water around the cover, said flange *a* being corrugated or roughened on the upper face to prevent slipping thereon. The dish A is also furnished with two or more projections, *a'*, by means of which the said dish A is prevented from turning in the pavement. The bottom of the dish A may be formed of parallel bars or grates, when preferable. The dish A is also furnished on the bottom with a staple, *e*, by means of which the same may be secured upon the pavement, over the opening in the same, by a chain, F, in the usual way.

The entire cover may be furnished, when required, with a ring and ring-bolt, *e'*, or with two or more of such rings and ring-bolts, by means of which said cover may be conveniently removed from or replaced upon the opening in the walk or pavement B.

The advantages of covers for openings in walks so made, as above shown and described, are that persons or animals walking over or upon the same are less liable to slip and fall, and to injury from slipping and falling, than by the use of the covers for such purpose now in common use.

The cover should be so let into the surrounding pavement, over the opening in the same, as, when in position, to be level or even therewith, as shown in the drawings.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A cover for the openings in walks, pavements, &c., composed of a dish, A, filled with stone, brick, concrete, artificial stone, wood, or other like material, substantially as shown and described.

GEORGE H. PALMER.

Witnesses:

FRANK BLOCKLEY,
ALEX. F. ROBERTS.