

(No Model.)

H. HAUSTEIN.

VENTILATING AND ILLUMINATING VAULT COVER.

No. 512,440.

Patented Jan. 9, 1894.

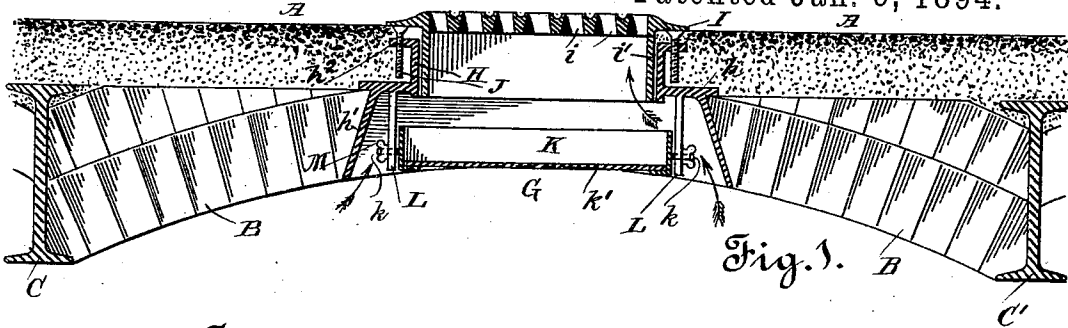


Fig. 2.

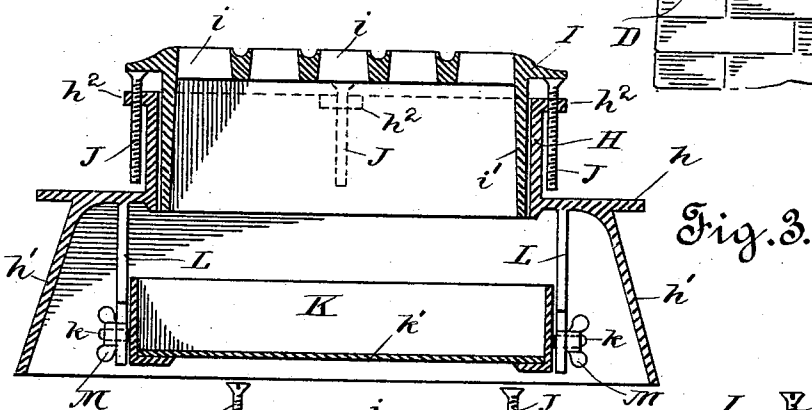
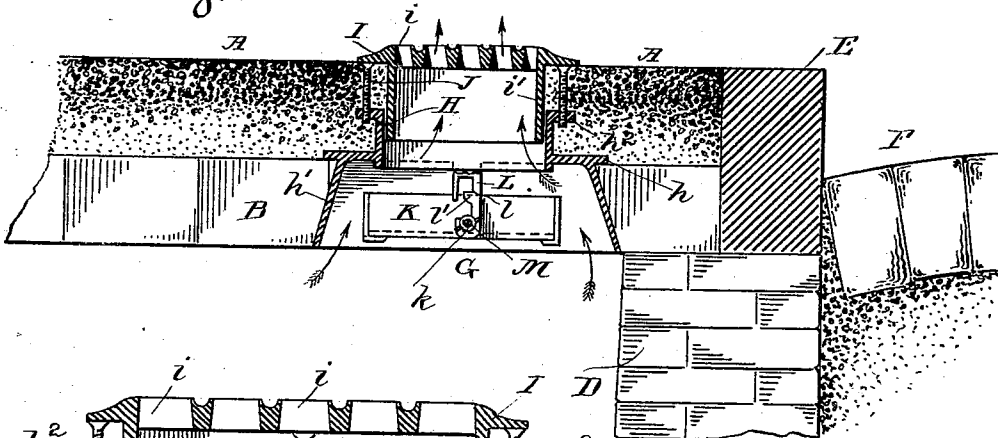
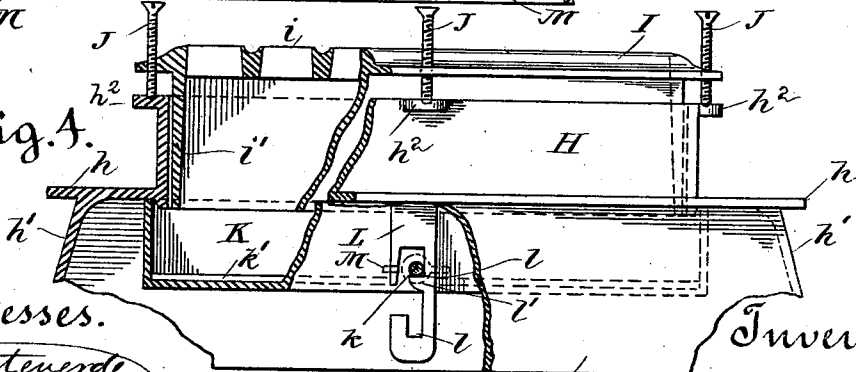


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY HAUSTEIN, OF SAN FRANCISCO, CALIFORNIA.

VENTILATING AND ILLUMINATING VAULT-COVER.

SPECIFICATION forming part of Letters Patent No. 512,440, dated January 9, 1894.

Application filed September 22, 1893. Serial No. 486,223. (No model.)

To all whom it may concern:

Be it known that I, HENRY HAUSTEIN, a citizen of the United States, and a resident of the city and county of San Francisco, in the State of California, have invented certain new and useful Improvements in Ventilating and Illuminating Vault-Covers, of which the following is a specification.

The object of my invention is to provide a neat-fitting cover for vaults, cellars, and other apartments, that can be readily put into place and adjusted regardless of the depth of the hole where it is to be set, one furthermore that will admit a larger supply of air and light and a better diffusion thereof than is usually obtainable with devices of this class.

To this end, my invention consists, first, of a cover adjustable by means of suitably combined screws and lugs above a curb fitted within the opening provided for the admission of air and light into the place where the cover is to be used, for instance in a sidewalk and brick-arch overlying a basement in a modern building, so that the greater or lesser thickness of the sidewalk over the arch will not require a change in the construction of the device in so far as finding a seat for it and providing for its proper adjustment are concerned.

The invention further consists in providing said curb with a lateral flange by means of which it may be readily seated and said flange with a downward flaring extension that affords room within it for a vessel wider than the curb and yet leaves ample space for the circulation of air through the opening where the curb is seated.

It further consists in making said vessel with a detachable glass bottom and upwardly movable within said flaring extension toward the bottom of the curb, thereby insuring the transmission of light at all times, affording facilities for cleaning the vessel, and allowing either a partial or total closing of the air-opening in the curb.

It further consists of the several minor combinations of parts hereinafter set forth and pointed out in the claims.

Referring now to the accompanying drawings for a detailed description of my invention,—Figure 1 is a longitudinal section of a sidewalk supported over a cellar by I-beams

and brick-arches and provided with my improved vault-cover. Fig. 2 is a cross-section of the same, showing also the outer supporting wall, the curbstone, and part of the street and gutter. Fig. 3 is an enlarged sectional elevation of the cover removed from place to better show its details of construction. Fig. 4 is a side elevation, partly in section, taken from one of the sides of Fig. 3.

Like letters of reference designate like parts in the four views.

A represents the sidewalk, which may be made up of any suitable material, as concrete, asphalt, &c. B is one of the brick-arches that support it, and C C' are the I-beams between the various arches.

D is the outer supporting wall, E the curbstone above it, and F the street.

G is an opening made in the sidewalk and the arch beneath it for the purpose of ventilating and admitting light into the basement below. Within the upper part of the opening G, in the sidewalk, is placed a curb H consisting preferably of a quadrangular frame or band surrounded by a lateral flange *h* by means of which it is seated upon the arch B, the curb projecting above and slightly below its seat, as shown. The lower part of the opening, in the arch, which is made flaring downward, is lined with a similarly-shaped extension of the curb, *h'*, projecting downwardly from the flange *h* near the point where its edge bears upon the arch. It is upon the curb H that the cover I properly so called is set.

The cover I consists of a perforated plate or a plate provided with holes *i* that afford a passage for air and light. This plate is further provided with a downwardly-projecting flange *i'* of a shape similar to that of the curb and snugly fitting therein. By means of this flange the cover may be set at any suitable height above the arch, to conform with the thickness of sidewalk above the same, and yet be in contact with and form joint with the curb. It is held above the curb by means of screws J, which may be applied in different ways, as illustrated in the drawings. Thus these screws may be fitted in internally-threaded holes made in lugs *h²* formed around the upper part of the curb and their heads brought to bear against the under side of the

edges of the cover plate, as shown in Figs. 1, 2, and 3; or else, they may be worked through similar holes formed in the edges of the cover plate and their points driven into unperforated lugs, as represented at Fig. 4. The effect will be the same in either case and if screws of the proper length are selected the cover plate can be brought on a level or substantially so with the surface of the sidewalk, notwithstanding the distance from the brick-arch.

Below the curb within its extension, in the flaring opening of the arch, I place a vessel K the office of which is to intercept and collect rain, water or dirt that may fall or run down through the perforated cover above. This vessel is held up by screws or screw-threaded pins *p* projecting from its sides and passing through notches or cut away portions *l* formed in lugs *L* projecting downwardly from the flange of the curb. Thumb-nuts *M* are used to secure the vessel in place after it has been put up. The lugs *L* are of such length that the bottom of the vessel is substantially in line with and will not project below the bottom of the arch, therefore being out of the way, yet ample provision is made for ventilation, as will be seen by reference to the drawings, the foul air rising freely in the vacant space left between the sides of the vessel and the extension of the curb, as indicated by the arrows in Figs. 1 and 2. The vessel is, however, movable upward toward the curb so as to close partially or wholly the air-opening, as may be found convenient. This is done by raising the vessel so that the pins *k* will rest upon inward projections *l'* formed within the notches or cut away portions *l* of the lugs *L*. The rim of the vessel may then be brought up close to the under side of the flange *h* and fitted around the downward portion of the curb, as shown in Fig. 4, if found desirable. By preference the bottom *k'* of the vessel *K* is made detachable and consists of a pane or plate of glass, or else it may be composed of a perforated plate with lenses set therein. It is thus made to transmit light and can be removed and cleaned at will.

The vessel may nevertheless be made entirely of glass or metal, if desired.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of a curb having a flange by means of which it may be seated and side lugs, a flanged cover fitted in said curb, and screws bearing upon said lugs, and holding up said cover, substantially as set forth.

2. The combination of a flanged curb, lugs projecting downwardly therefrom, a vessel having screw-threaded pins passing through said lugs, and thumb-nuts, substantially as set forth.

3. The combination of a curb, downwardly-projecting lugs having notches or cut away portions and inward projections within the same, and a vessel provided with screws adapted to rest within said notches or cut away portions and upon said projections, substantially as set forth.

4. The combination of the sidewalk having the air and light opening, the arch thereunder provided with a similar but enlarged and flaring opening, the flanged curb seated upon the arch, the flanged cover vertically adjustable within and above the curb substantially on a level with the surface of the sidewalk, the curb extension lining the flaring opening, and the upwardly-movable vessel having its bottom normally in line or nearly so with the lower edge of the curb extension and therefore not projecting below the arch, substantially as set forth.

5. The combination, in a vault-cover of the character described, of indented lugs, a vessel, and pins or screws resting within the indentations of said lugs whereby the vessel may be raised or lowered at will to partially or wholly close the air-opening, substantially as set forth.

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

HENRY HAUSTEIN. [L. S.]

Witnesses:

A. H. STE MARIE,
HENRY P. TRICOU.