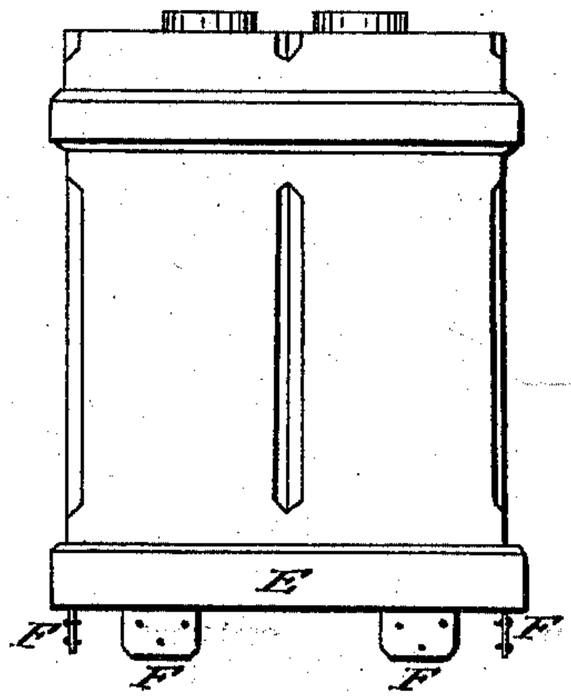
2 Sheets—Sheet 1.

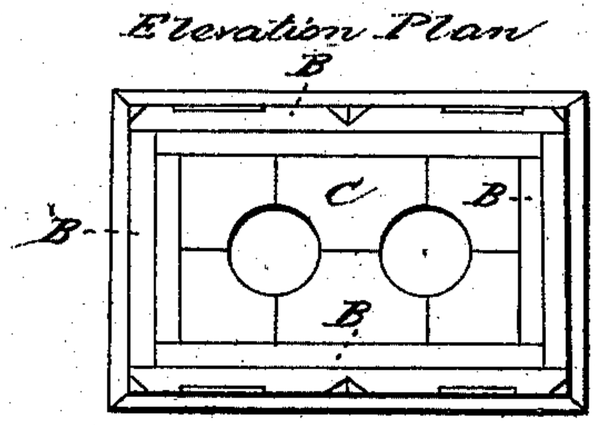
P. PORTOIS.

Chimney.

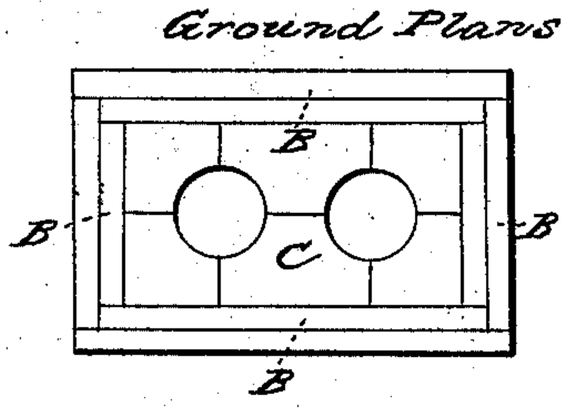
No. 94,972. Patented Sept. 21, 1869.

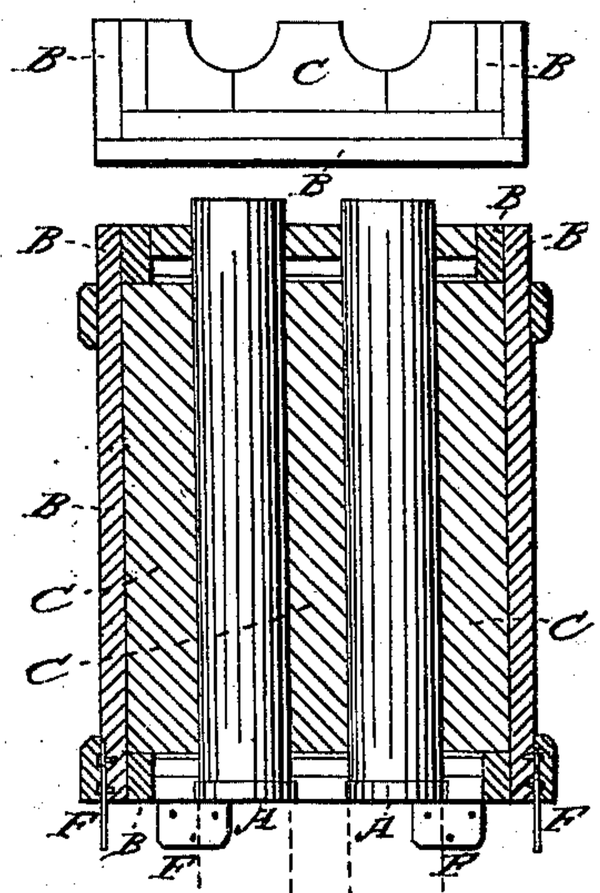


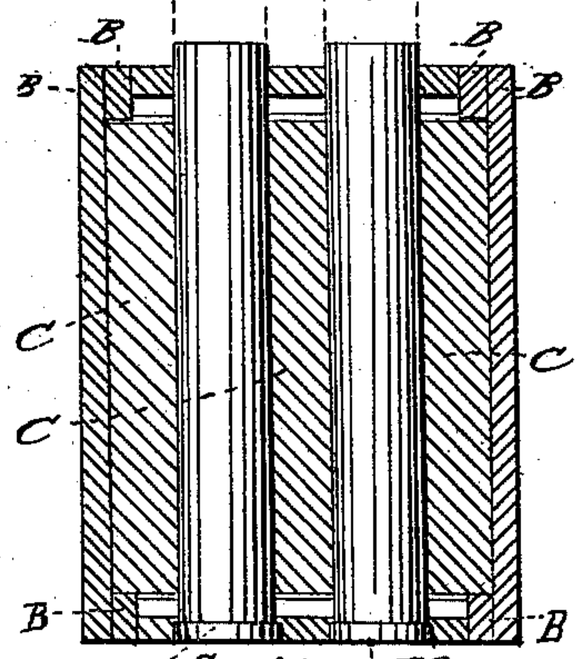
Elevation Plan



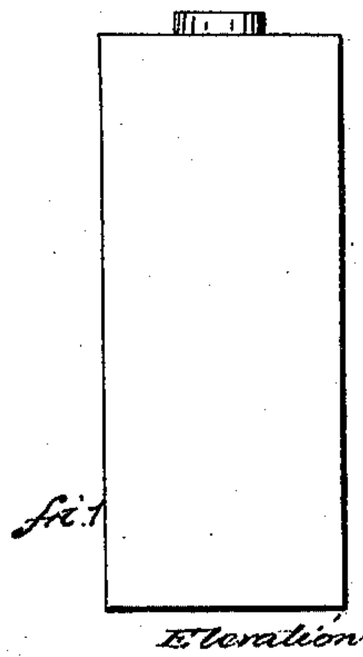
Ground Plans



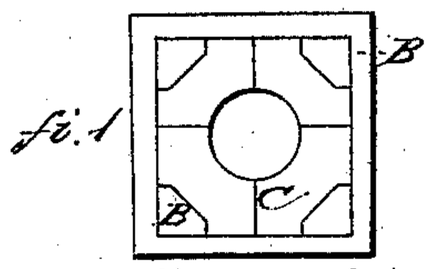




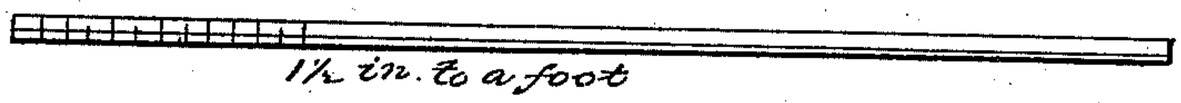
A Section Plans A



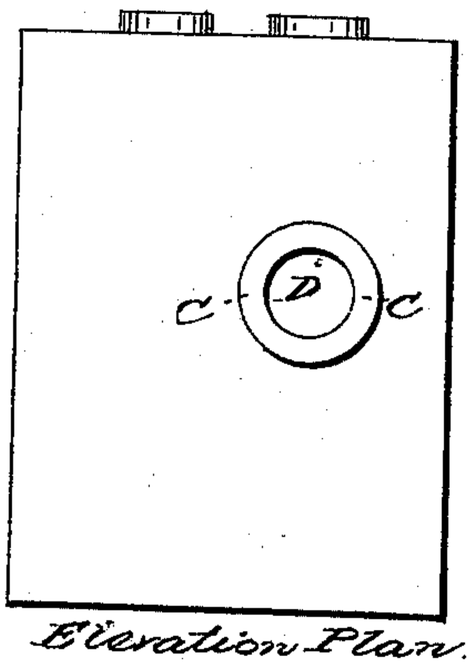
Elevation Plan



Ground Plan



1½ in. to a foot



Elevation Plan.

WITNESSES:

J. A. Jabens

J. H. Pl[illegible]

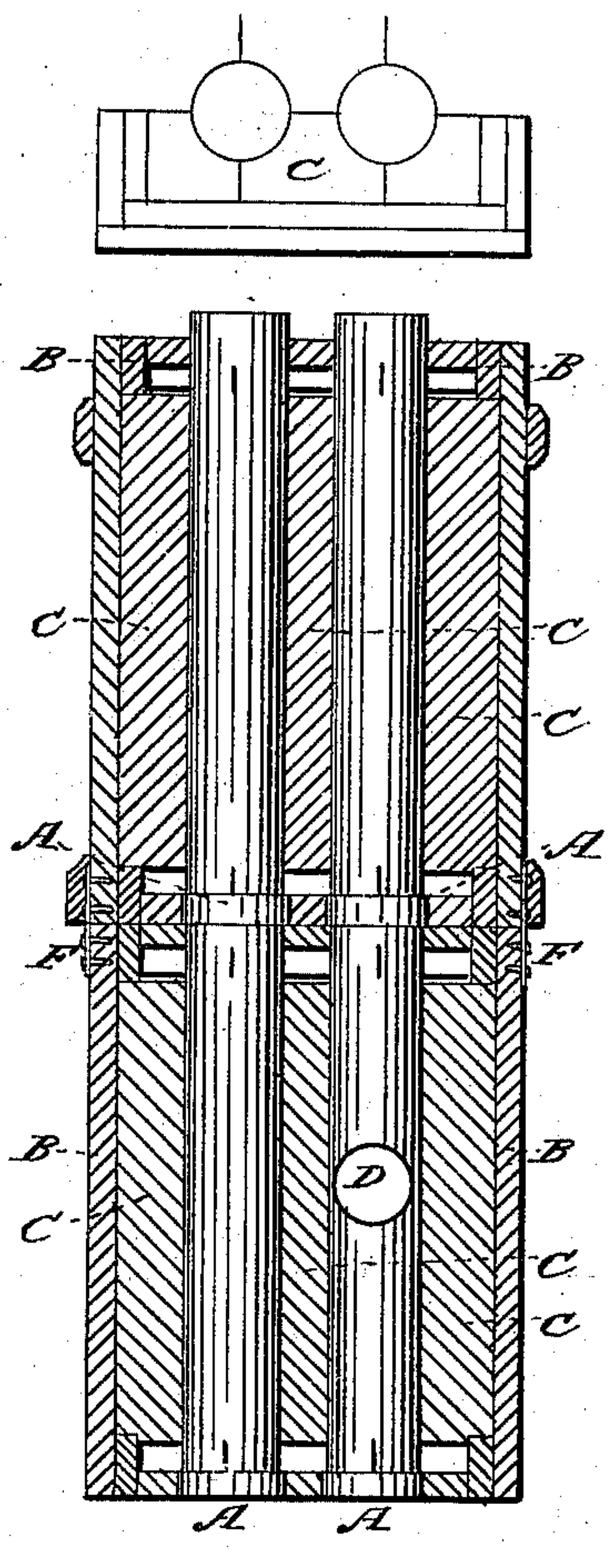
INVENTOR:

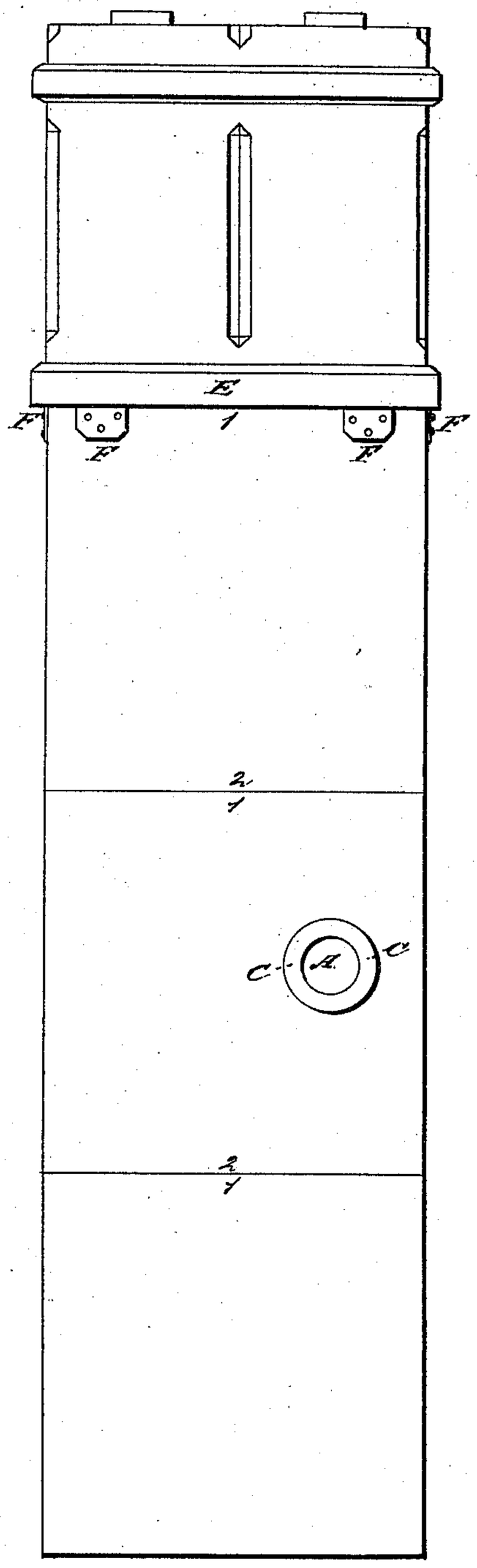
2 Sheets—Sheet 2.

P. PORTOIS.

Chimney.

No. 94,972. Patented Sept. 21, 1869.





WITNESSES:

J. A. Jabens,

J. H. C. Bond

INVENTOR.

United States Patent Office.

PETER PORTOIS, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 94,972, *dated September* 21, 1869.

CHIMNEY.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, PETER PORTOIS, of the city and county of San Francisco, in the State of California, have invented a new and improved Mode of Constructing Earthquake and Fire-Proof Chimneys; and I hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in galvanized iron or copper flues or tubes, enclosed in a wooden box or frame-work, filled in, between the flues and frame-work, with pieces of brick and clay, as shown on the ground and section and elevation plan of the drawings.

To enable others skilled in the art to make and use my invention, I proceed to describe its construction and operation.

I make the iron or copper flues or tubes of convenient length and circumference, and insert one into the other, so as to give a proper length to the chimney, as shown on the section-plan by letter A.

I enclose these flues in a wooden box or frame-work, as shown on the section, ground, and elevation-plan, by letter B.

I fill in the space between the frame-work and the flues with broken bricks, or clay, marked letter C on the plans.

The different frame-works, with the flues and filling-in, put and fastened the one upon the other, with clay between the joints, and securely fastened with iron fastenings to the upright studdings of the building, make the length and body of the chimney.

I then free the whole, so as to receive the inside finish, corresponding with the inside finish of the house.

On the different floors where it is convenient or necessary to insert a stove-pipe, I make an opening to the flue, surrounded with clay, as shown on the section and elevation-plan by letter D. Such opening is made of iron or copper, fastened to the flue.

The outside portion of the chimney, marked by letter E, is finished in an ornamented style, and securely fastened to the inside chimney by iron fastenings, marked on the plan by letter F.

The plans are shown with two flues, but the chimney can be made with one, as shown by Figure 1, or any larger number.

A chimney made in this way will not crack by the shaking of the building by an earthquake, or any other cause, and will not expose the building to the damage of fire from any defects in it.

The top of the chimney is to be covered with a plate of iron, having openings for the flues.

I claim as my invention, and desire to secure by Letters Patent—

The chimney, consisting of the galvanized iron or copper, or other metallic tubes or flues, surrounded by the concretion C, composed of clay and broken bricks, or their equivalents, the whole enclosed in the wooden box or frame-work B, all substantially in the manner and for the purposes set forth.

PETER PORTOIS.

Witnesses:

F. A. FABENS,

J. H. BLOOD.