

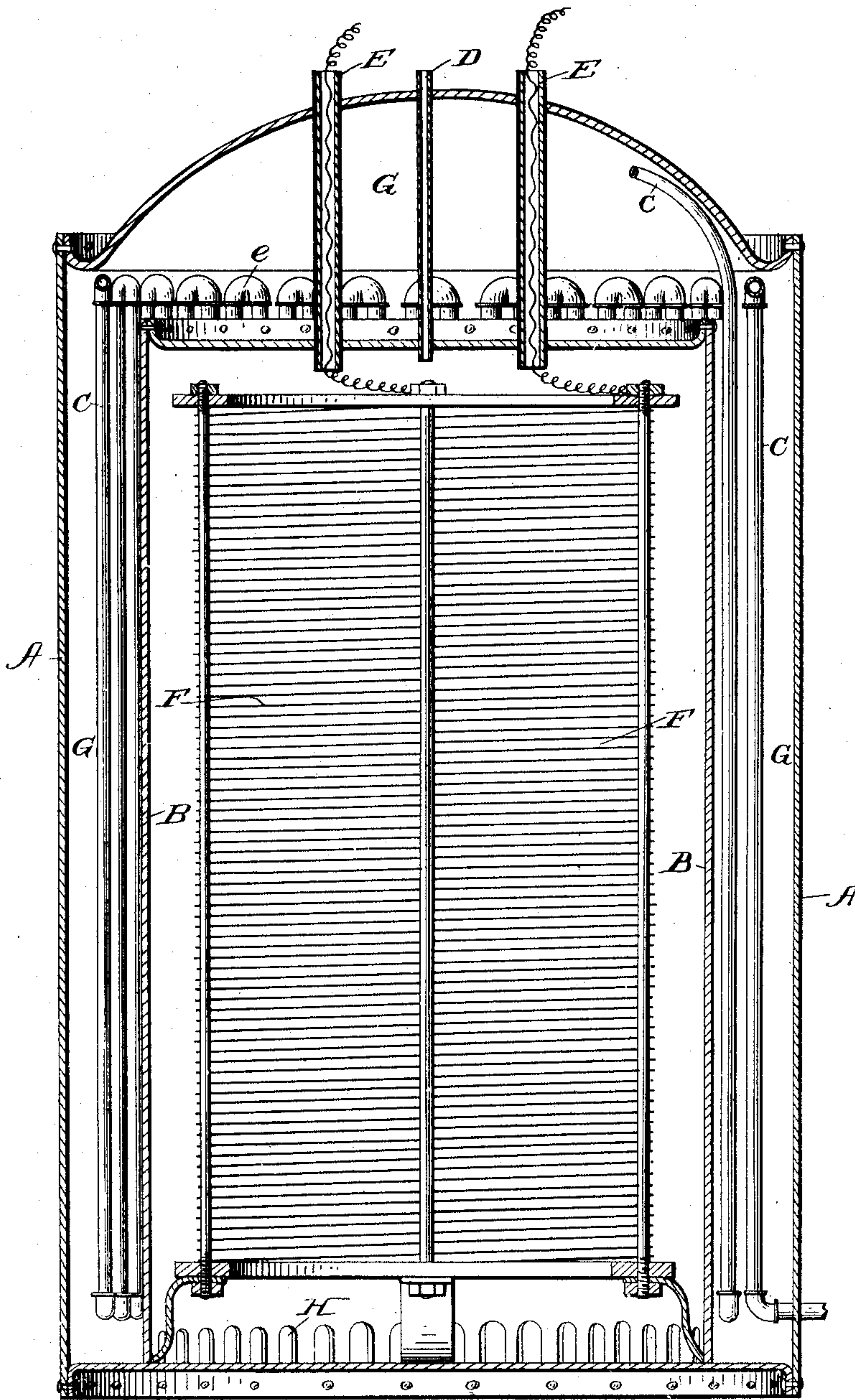
No. 628,702.

Patented July 11, 1899.

J. A. ELLIOTT.
ELECTRICAL HOT AIR HEATER.

(Application filed Jan. 10, 1898.)

(No Model.)



Inventor

John A. Elliott

Witnesses

C. A. Hunt
J. A. Elliott

by *A. B. Wilson & Co.*

Attorneys

UNITED STATES PATENT OFFICE.

JOHN A. ELLIOTT, OF BUTTE, MONTANA.

ELECTRICAL HOT-AIR HEATER.

SPECIFICATION forming part of Letters Patent No. 628,702, dated July 11, 1899.

Application filed January 10, 1898. Serial No. 666,262. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. ELLIOTT, a citizen of the United States, and a resident of Butte, in the county of Silver Bow, State of Montana, have invented certain new and useful improvements in electrical hot-air heaters designed to be applied to any character of heating by hot air and especially intended for thawing frozen placer-ground for mining purposes, of which the following is a specification.

In the drawing the figure is a vertical sectional view, partly in elevation, of an electrical hot-air heater embodying the improvements of my invention.

My invention relates to electrical hot-air heaters designed for use in heating air for general purposes, and especially designed for use in thawing frozen placer-ground for mining purposes.

Referring by letter to the accompanying drawing, A designates an air-tight tank or envelop, and B designates an inner drum containing a coil of electric wire F.

C designates an air-pipe which enters the tank A near the bottom of the same. Air is forced through pipe C, which is coiled around the tank B by any suitable air-pump attachment, and the air thus forced through the pipe C is carried around tank B and is discharged into the chamber G at the top of the

tank A and is forced by the action of said air-pump through said chamber G to the bottom of the tank B, where it passes through openings or holes H and comes directly in contact with the coil of the electrical heater F and is discharged through the smaller pipe D and conveyed through suitable piping to any point at which it may be needed for use.

E E are insulated pipes through which the connecting-wires pass to binding-posts of the coil F, supported within the tank B.

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

The combination of an outer air-tight tank, of an inner casing spaced therefrom to form top and side chambers, said casing being provided with openings at its base, of an air-pipe entering the side chamber and discharging into the top chamber, said pipe being formed with coils vertically disposed within the side chamber, an electric heater with suitably-insulated connections within the inner chamber, and an air-pipe discharging from the inner casing, as set forth.

Dated at Butte, Silver Bow county, Montana, December 8, 1897.

JOHN A. ELLIOTT.

Witnesses:

WILLIAM I. LIPPINCOTT,
J. E. RICHARDS.