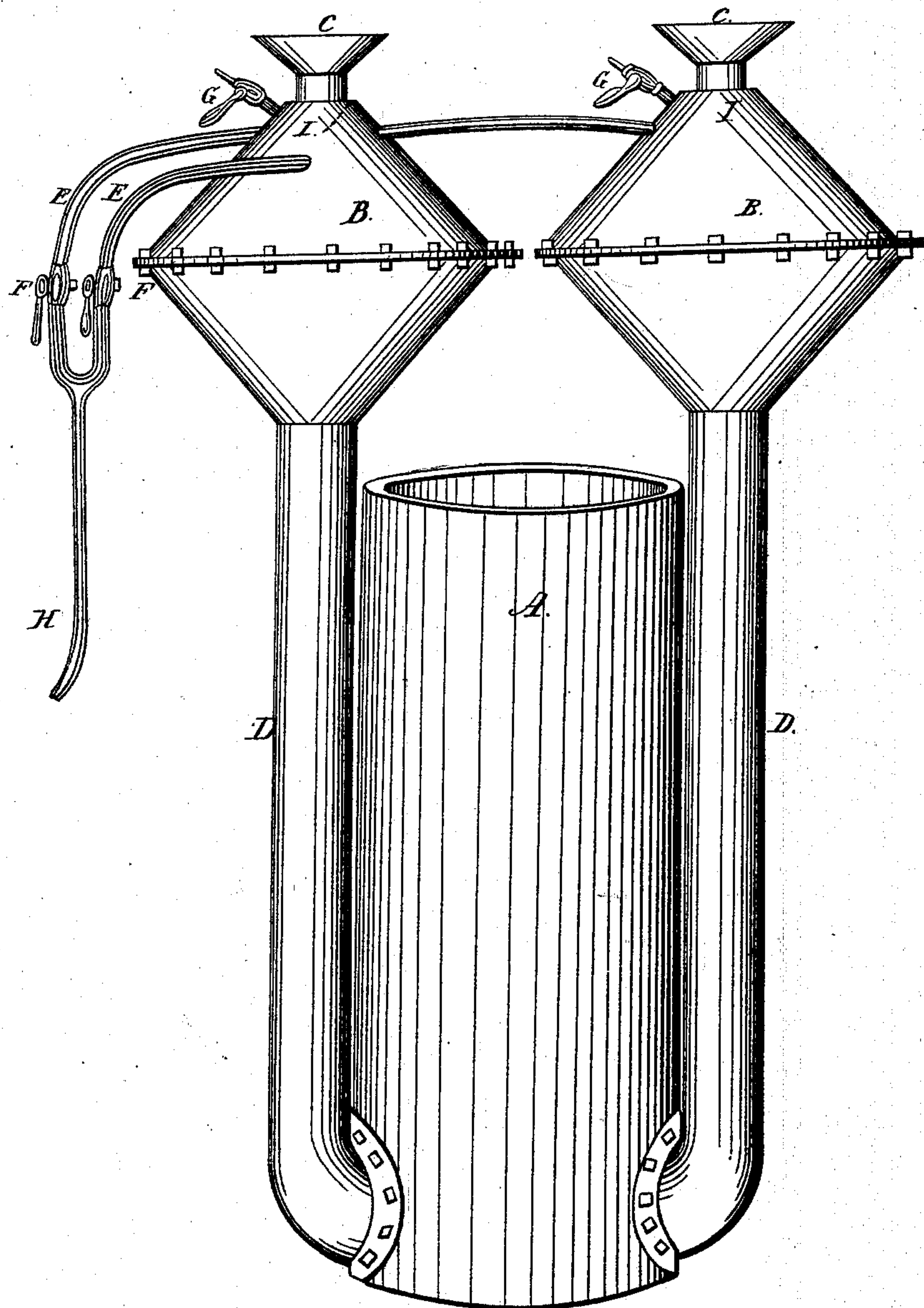


E. BROWN.  
Dry Amalgamator.

No. 59,955.

Patented Nov. 27, 1866.



Witnesses:

*Alex. Stevenson*  
*David Shepard*

Inventor:

*Edmund Brown*  
*By John W. North*  
*Attorney*

# United States Patent Office.

## IMPROVEMENT IN SEPARATING GOLD AND SILVER FROM ORES.

EDMUND BROWN, OF CHICAGO, ILLINOIS.

*Letters Patent No. 59,955, dated November 27, 1866; antedated October 20, 1866.*

### SPECIFICATION.

#### TO ALL WHOM IT MAY CONCERN:

Be it known that I, EDMUND BROWN, of the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Machine for Separating Gold and Silver from Quartz; and I hereby declare the following to be a clear and exact description of the same, reference being had to the accompanying drawings which form a part of this specification.

A is a kettle, of convenient depth and diameter to be placed in a properly constructed furnace. B B are hollow cylinders for receiving the quartz. D D are tubes for conducting the quartz from the receivers into the bottom of the kettle. E E are pipes for conducting air into the receivers from an air force-pump. F F are cocks for stopping or continuing the pressure of air in the receivers. G G are cocks for discontinuing the pressure of air in the receivers. I I shows the position of two valves which close when the air pressure is applied.

The method of operating this machine is substantially as follows: The machine is first placed in a properly constructed furnace, an air force-pump attached to the pipe H, and the kettle A filled with lead and heated sufficiently for amalgamating. The receivers B B are then filled with quartz through the funnels C C, the cocks G G are closed and the cocks F F opened; the air force-pump attached to the pipe H is then set to work, which immediately creates a pressure in the receivers B B, closes the valves I I, and forces the quartz down through the tubes D D into the bottom of the kettle A, where it comes in contact with the lead. After the quartz has been run out of the receivers B B the cocks G G are opened, and the air in the receiver allowed to escape, when the same operations are repeated.

#### *Claim.*

What I claim, and desire to secure by Letters Patent, are—

1. The application of compressed air for forcing the quartz down into the lead.
2. The tubes D D, running down the outside of the kettle, allowing the quartz to become thoroughly heated and desulphurized; the whole combined and arranged for the purpose specified.

EDMUND BROWN.

Witnesses:

ALEX. F. STEVENSON,  
DANIEL SHEPARD.