

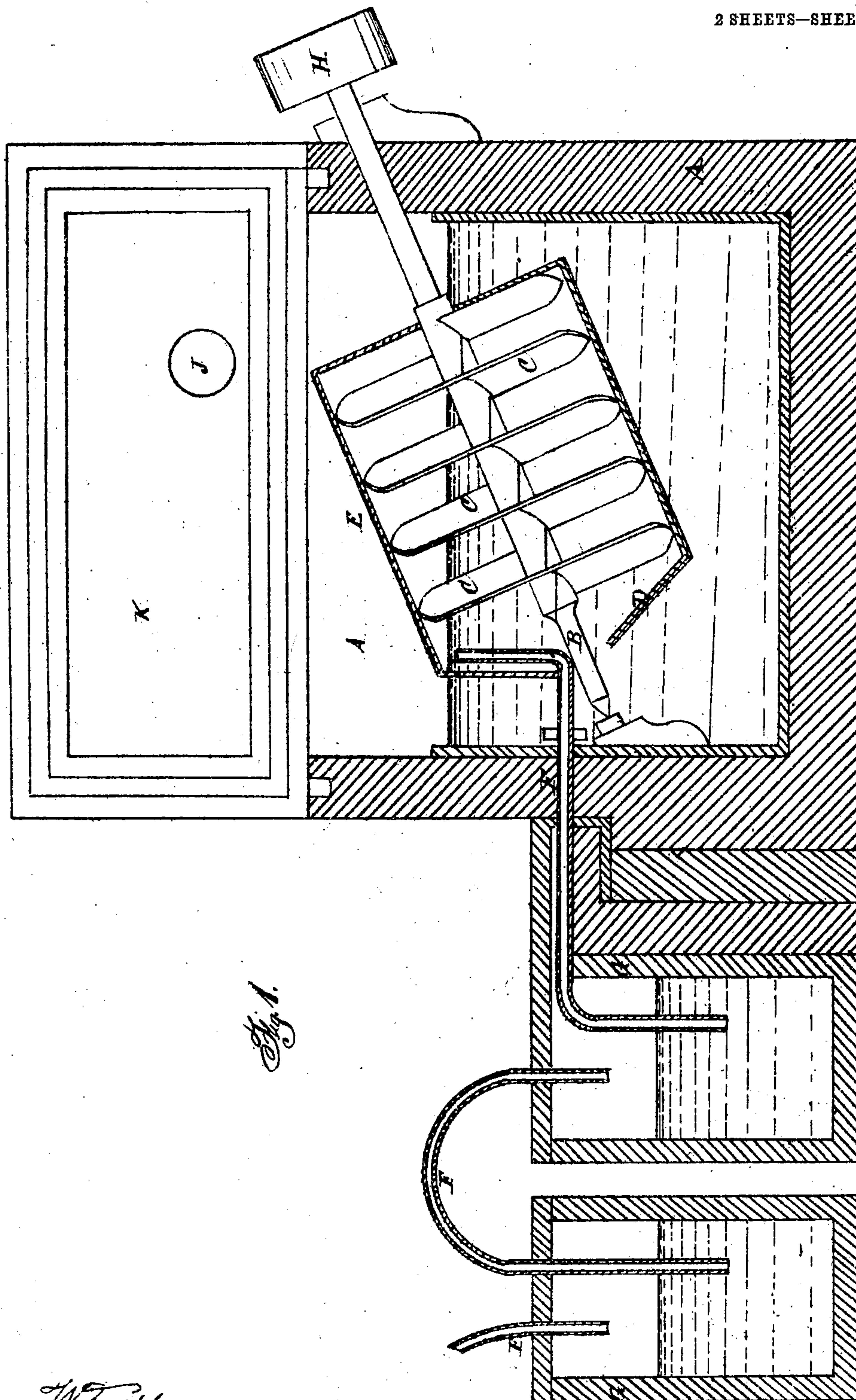
No. 73,519.

PATENTED JAN. 21, 1868.

F. FORMHALS.

MACHINE FOR COLLECTING AND CONDENSING METALLIC VAPOR.

2 SHEETS—SHEET 1.



Witness  
Henry Haight

Inventor  
Ferdinand Formhals

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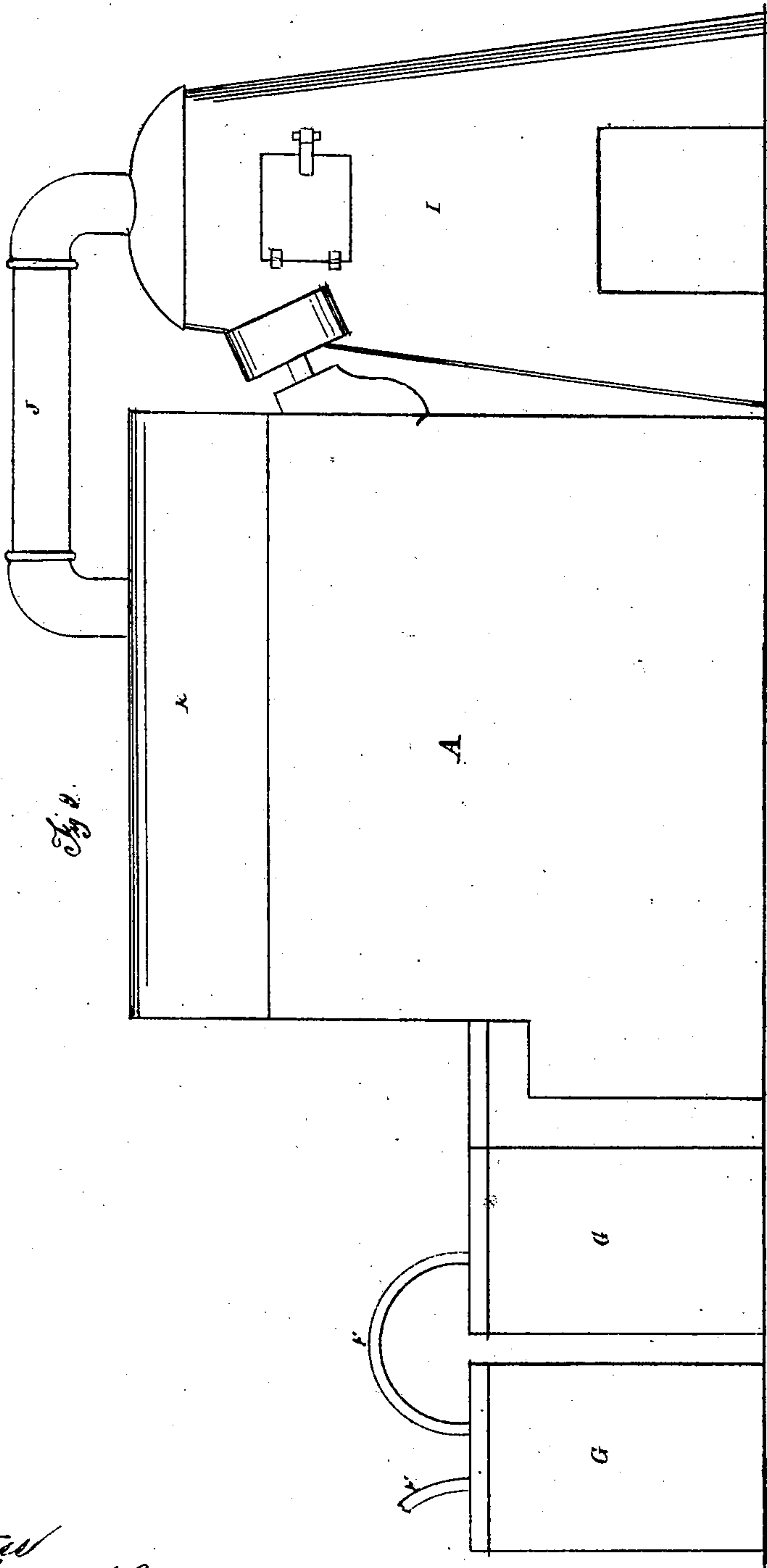


Fig. 2.

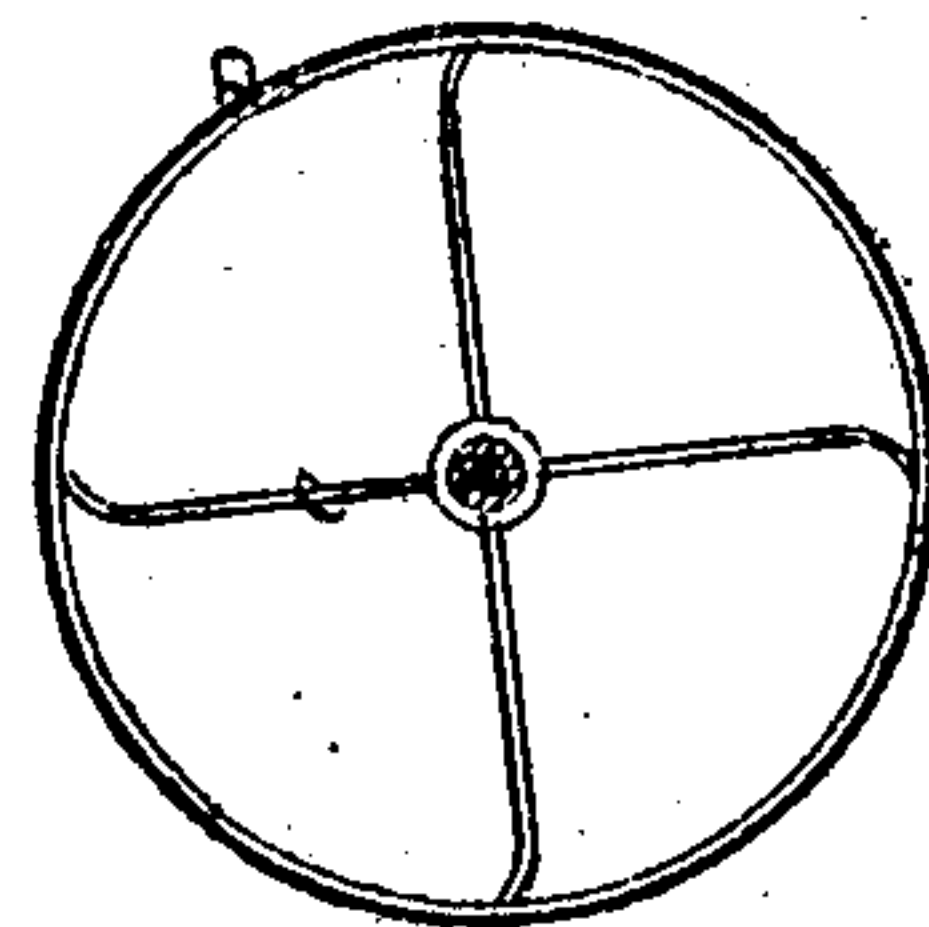


Fig. 3.

Witness  
Henry Hough

Invented  
Ferdinand Formhals

# United States Patent Office.

FERDINAND FORMHALS, OF SAN FRANCISCO, CALIFORNIA.

*Letters Patent No. 73,519, dated January 21, 1868.*

## IMPROVED MACHINE FOR COLLECTING AND CONDENSING METALLIC VAPORS.

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

### TO WHOM THESE PRESENTS SHALL COME:

Be it known that I, FERDINAND FORMHALS, of the city and county of San Francisco, State of California, have made a new and useful invention for condensing the fumes of quicksilver, which I call the Cagniardelle-Draught and Submerger, of which the following description, together with the accompanying drawings, and with the figures and letters thereon, will enable every one skilled in the art to manufacture and use the same.

The purpose of my invention is to construct a cagniardelle principally of wood, to act as a draught-blower and submerger to produce a rapid and perfect condensator of vapor by so cheap a process as to admit of working the poor qualities of cinnabar.

Figure 1 is a sectional view of the box. A, metallic cover; K, mandrel; B, spiral; C C, space above the water; E, pipe to tank; F, tanks; G G, pulley; H I, furnace; J, pipe from furnace.

Figure 2, box closed. D, jacket; K, metallic cover; J, pipe to furnace; H, driving-pulley.

Figure 3, end view of spiral.

This spiral is formed of thin layers of wood, or in such a manner as to get the desired pitch to produce the greatest amount of power in the machine, and to submerge the vapor in the tanks in a similar manner to washing gases, by bringing the fumes frequently in contact with and passing through water.

1. I claim the construction of the cagniardelle-blower principally of wood.

2. I claim the combination of the cagniardelle with the furnace, in combination with tanks, substantially as set forth and shown, and for the purposes specified.

San Francisco, November, 1867.

FERDINAND FORMHALS.

Witnesses:

JOSEPH H. ATKINSON,  
A. ROSENFELD.