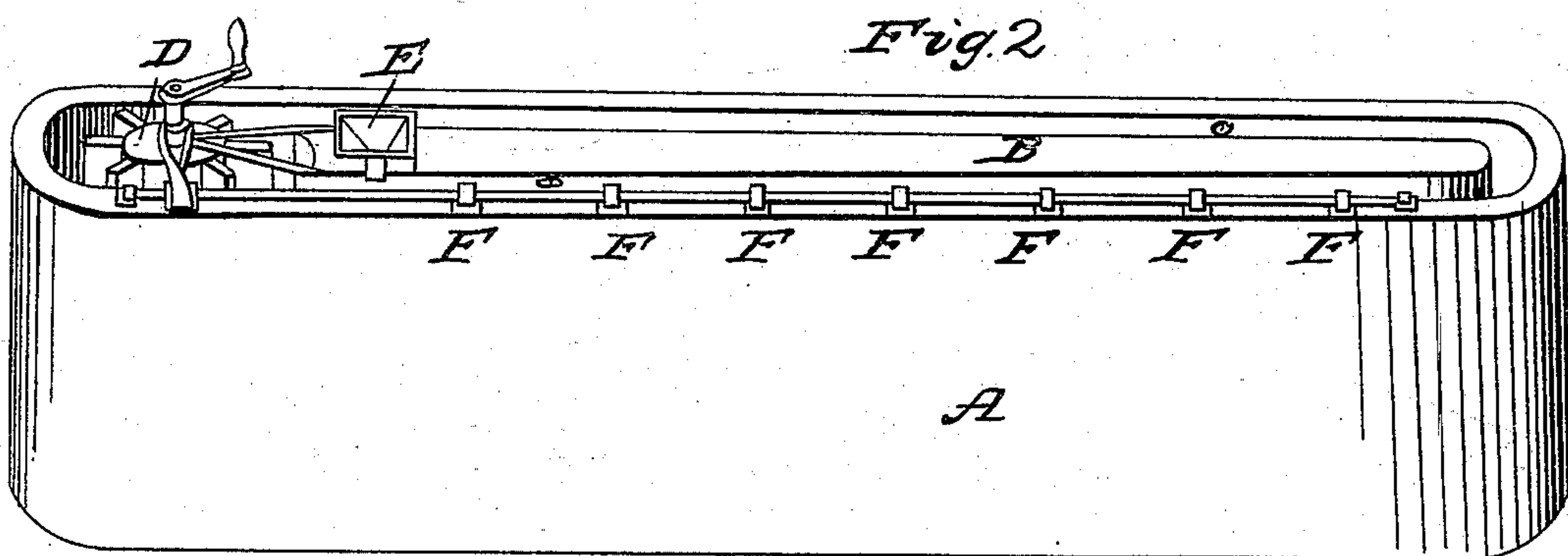
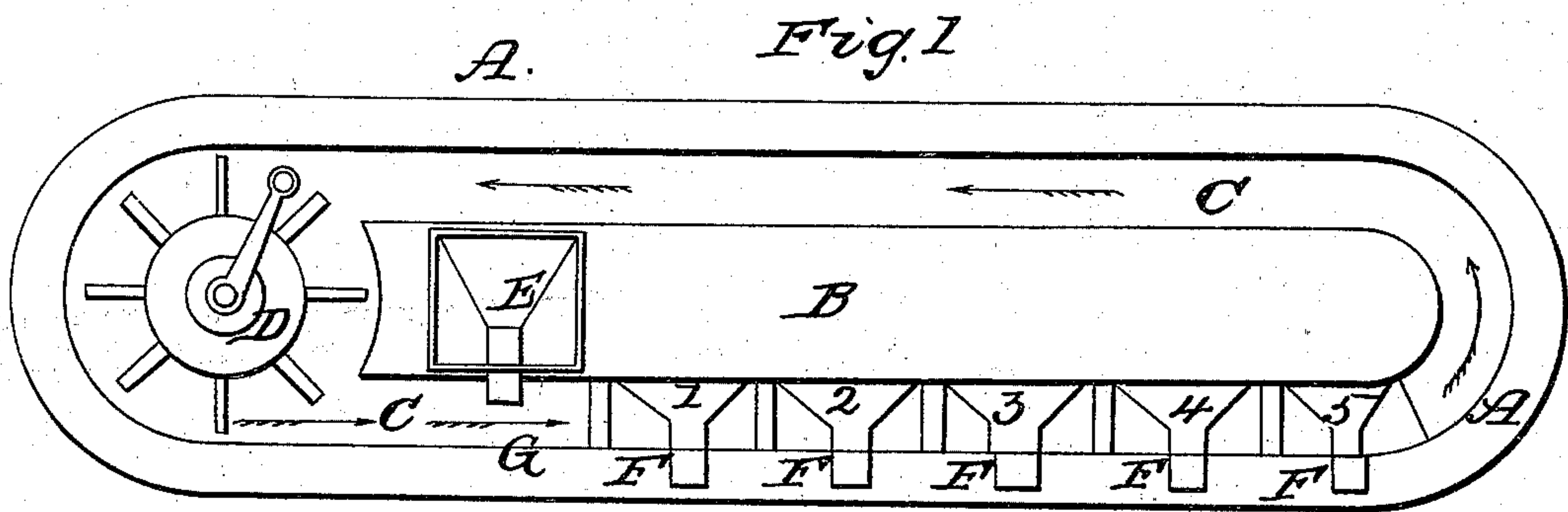


F. A. MORLEY.  
Ore Separator.

No. 42,392.

Patented April 19, 1864.



Witnesses  
Charles L. Ellis  
Hiram Morley

Inventor  
Franklin A. Morley.

# UNITED STATES PATENT OFFICE.

FRANKLIN A. MORLEY, OF SODUS POINT, NEW YORK.

## IMPROVED ORE-SEPARATOR.

Specification forming part of Letters Patent No. 42,392, dated April 19, 1864.

*To all whom it may concern:*

Be it known that I, FRANKLIN A. MORLEY, of Sodus Point, in the county of Wayne and State of New York, have invented a new and useful Ore-Separator for Extracting Metal from Stamped Ores; and I do 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 separating the mineral from the refuse portion by use of a horizontal current of water, formed by artificial means, the unseparated material being thrown into the current at a given point, the metal, by means of its greater specific gravity, reaches the bottom first, and is deposited in a front receiver, while the lighter refuse material, as it is longer suspended in the current, is swept farther along and into another receiver, making a very simple and efficient separator.

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

In the accompanying drawings, Figure 1 is a top plan, and Fig. 2 is a perspective view.

A A in Fig. 1 is an elongated water-box, with a center, B, which forms a circuitous water-channel, C C, of the depth of the box.

D is the water-wheel, by means of which a continuous current is produced in the direction of the arrows.

The stamped ore, with the water used in the stamping operation, is admitted into the hopper E, and, passing into the current of water at G, is swept along into the receivers 1, 2, 3, 4, and 5, the heavier and metallic portion reaching the bottom first and lodging in the receivers 1 2, while the residue is carried along into the other receivers 3 4 5.

The recesses F F F, &c., are for the accommodation of elevators whereby the separated material is brought to the surface and deposited in suitable receptacles or receivers, leaving the water to be used over and over again continuously.

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

The use of a horizontal current of water produced by the water-wheel D, or its mechanical equivalent, for the purpose of conveying materials of different specific gravities into different receptacles, substantially in the manner and for the purpose described.

FRANKLIN A. MORLEY.

Witnesses:

ELIADA PETTIT,  
HORACE MORLEY.