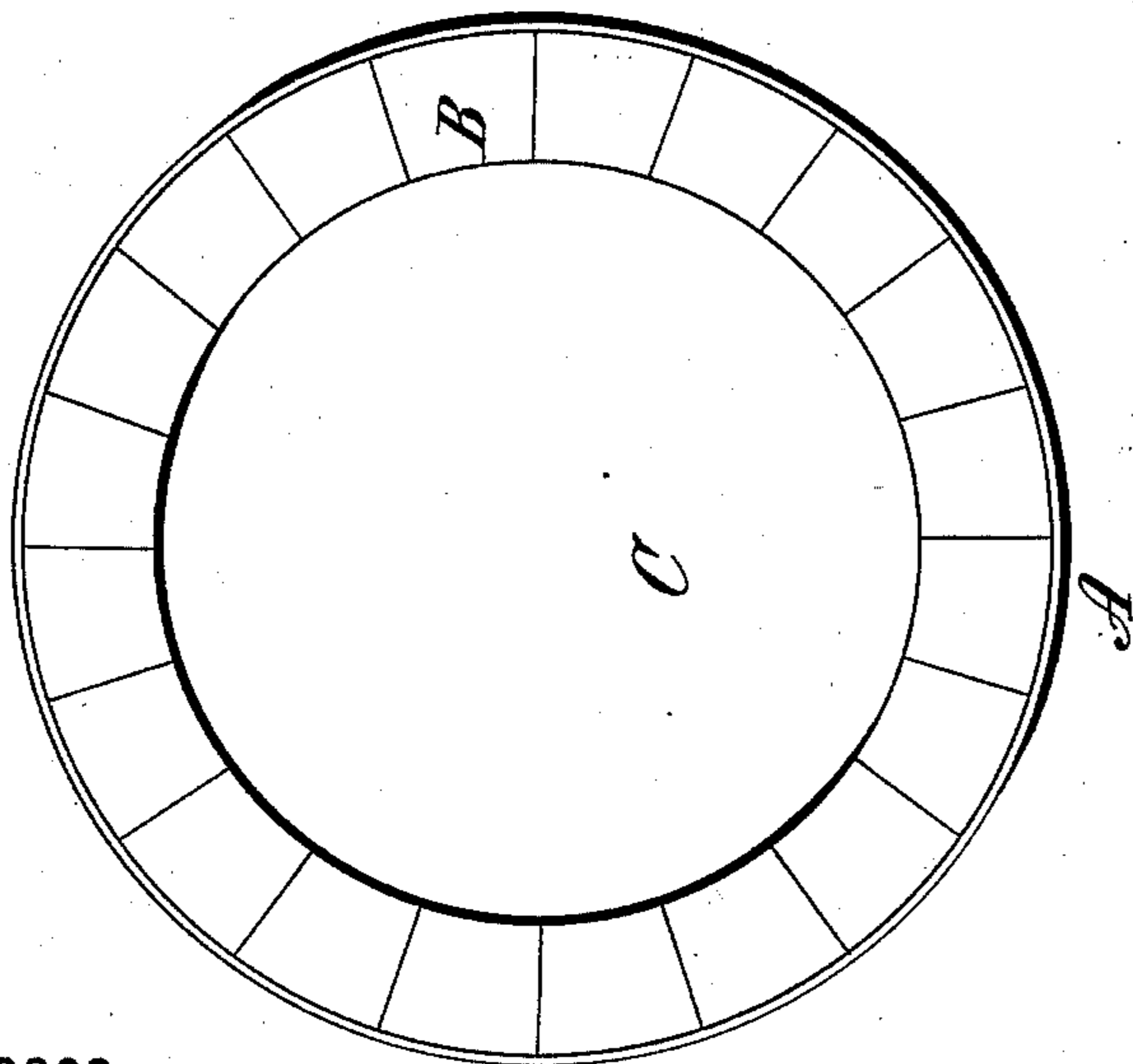
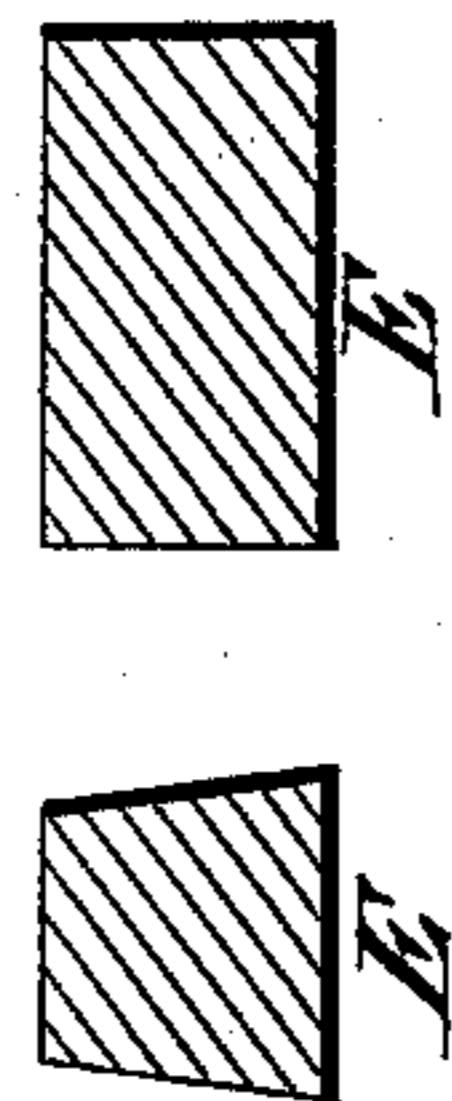
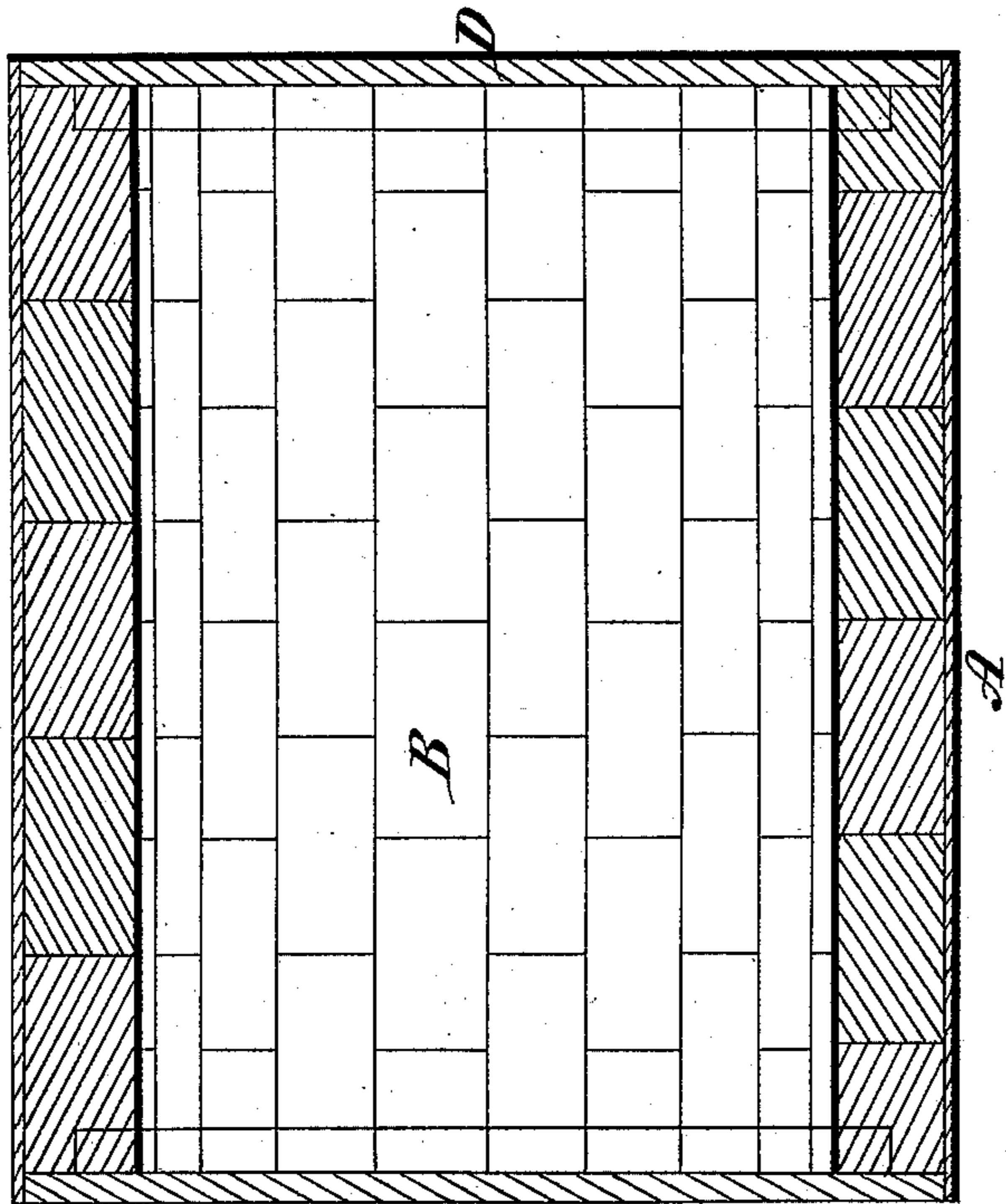


J. BRODIE.  
Ore Amalgamator.

No. 43,462.

Patented July 5, 1864.



Witnesses:

*J. D. Stevenson*  
*George Morgan*

Inventor:

*James Brodie*

# UNITED STATES PATENT OFFICE.

JAMES BRODIE, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVEMENT IN AMALGAMATING-BARRELS.

Specification forming part of Letters Patent No. **43,462**, dated July 5, 1864.

*To all whom it may concern:*

Be it known that I, JAMES BRODIE, of the city and county of San Francisco, State of California, have invented a new and useful improvement in the manufacturing of barrels used in the amalgamation of pulverized gold and silver-ores, known as "Brodie's Improved Amalgamating-Barrel;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the drawings hereunto attached, and to the letters of reference marked thereon, which I desire to have made a part of this specification.

The nature of my improvement consists of a shell-barrel, made of metal or wood.

Letter A represents the shell.

Letter B represents the blocks of wood which form the lining to the shell A, whereby the ends of the grain thereof are presented to the action of the ores being amalgamated in-

side the barrel, by which means the barrel made by my process can be used four times as long as the ordinary common barrel now in common use for such purposes.

Letter C represents the inside of the barrel, with its block lining.

The drawing D exhibits a sectional drawing of the barrel.

E E represent the blocks before inserted in the barrel.

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

The introduction of blocks of wood as a lining into the barrel, the ends or grain of which blocks are presented to the action of the ores being amalgamated therein.

JAMES BRODIE.

Witnesses:

J. D. STEVENSON,  
GEORGE MORGAN.