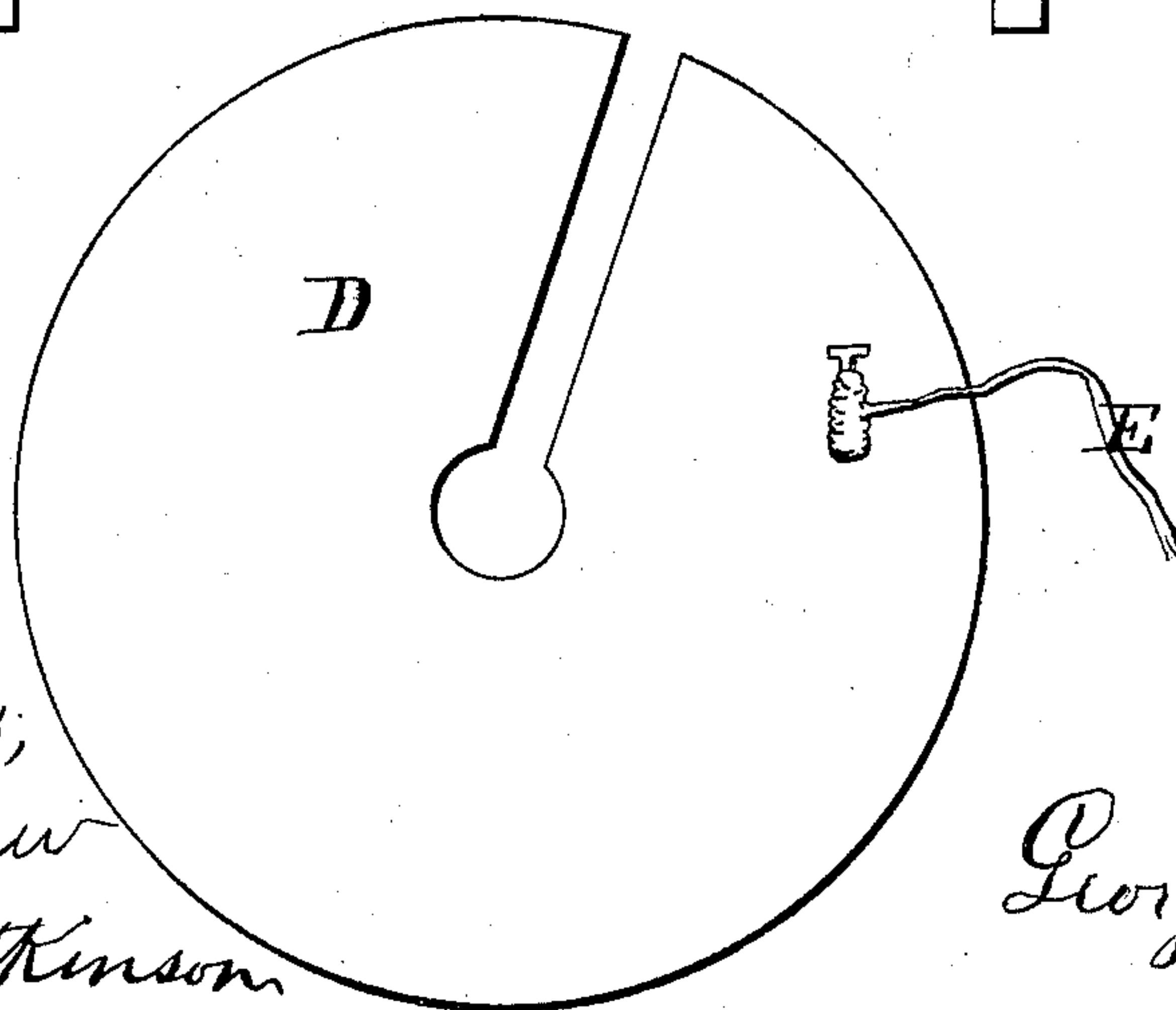
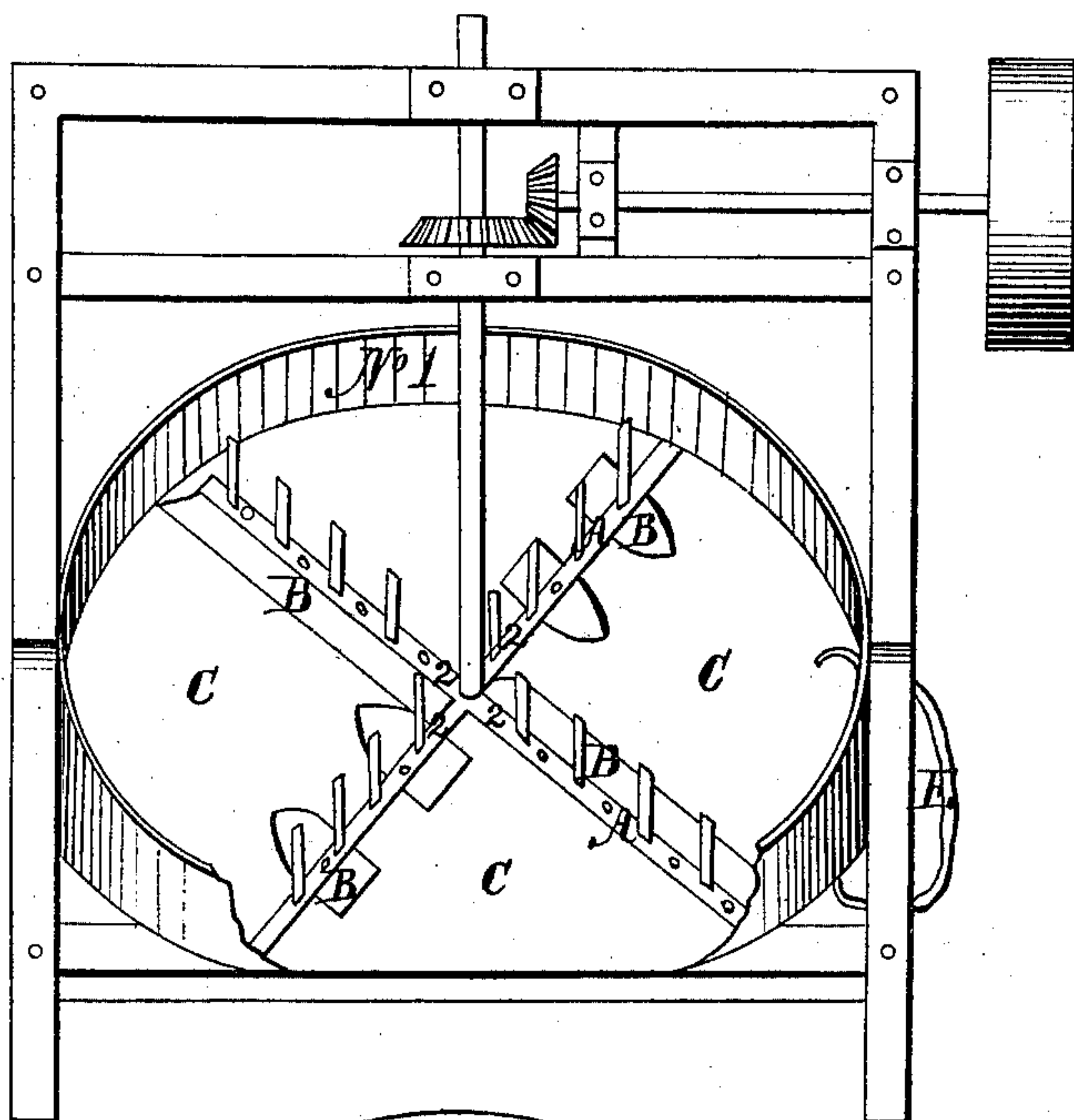
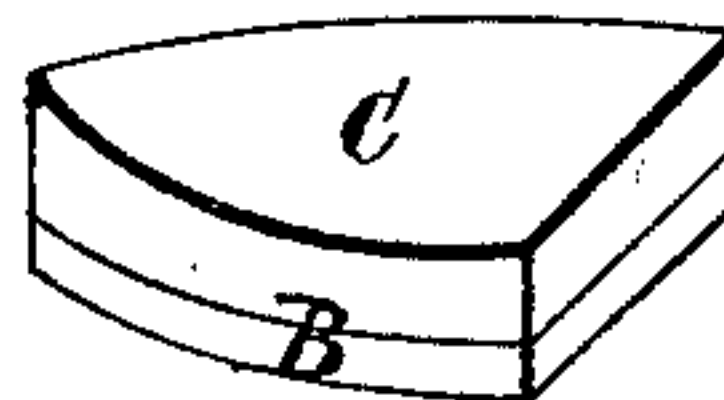
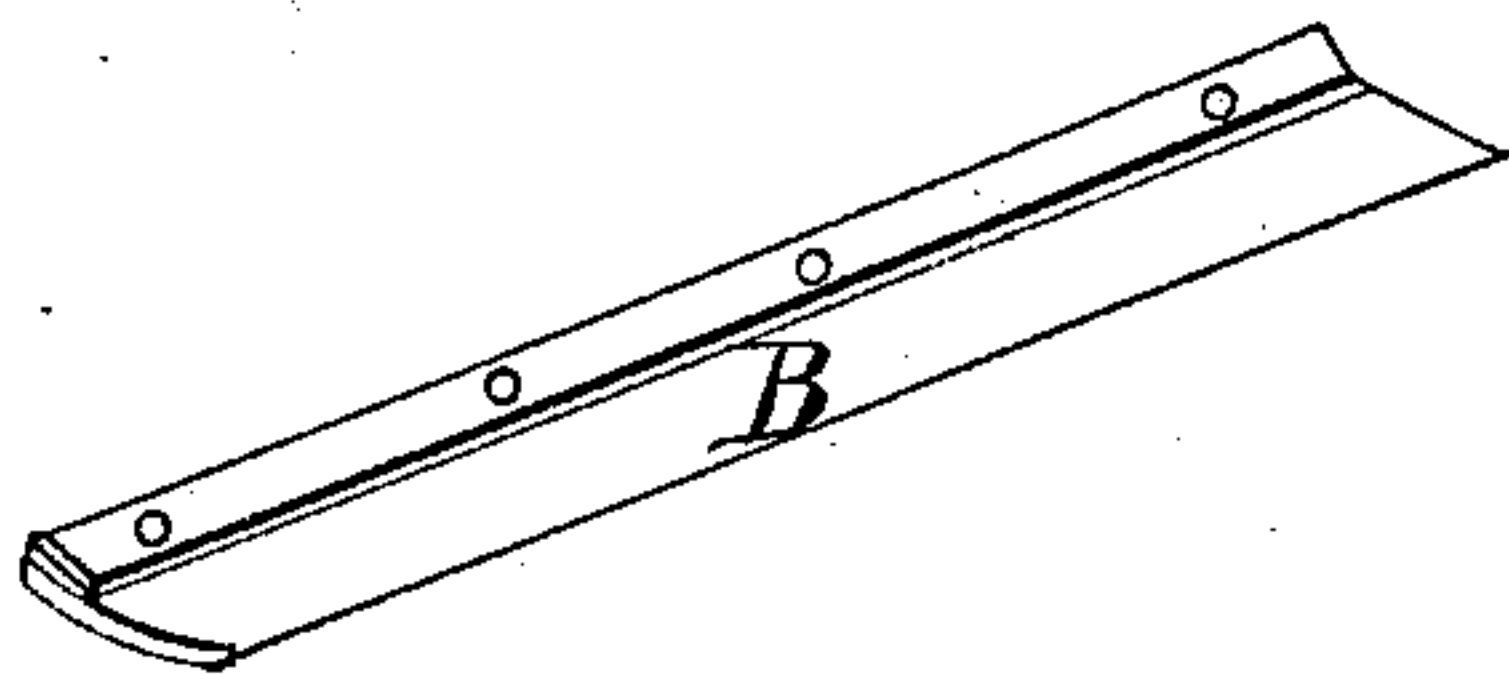


*G. Stevens,  
Amalgamator.*

*No. 91,878.*

*Patented June 29. 1869.*



*Witnesses,  
C. S. Drew  
Joseph H. Wilkinson*

*Inventor,  
George Stevens*

# United States Patent Office.

GEORGE STEVENS, OF SAN FRANCISCO, CALIFORNIA.

*Letters Patent No. 91,878, dated June 29, 1869.*

## IMPROVED AMALGAMATOR.

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, GEORGE STEVENS, of the city and county of San Francisco, California, have invented a new and useful Settler or Precipitator and Amalgamator of Mercury and Metals by galvanic action.

The following description, taken together with the drawings, with the figures and letters attached, will enable any one skilled in the art to make and use the same.

The purposes of my invention are to make a settler or amalgamator, in such a manner as to have rubber attachments, or any pliable material, to rub the galvanized-copper plate, ores, and mercury, so as to produce a precipitation of mercury and amalgams, and also to create an electrical action as the rubber passes over and comes in contact with the mercury and the plates upon the bottom of the settlers.

I also make a float, or cover, the under side of which is zinc, the zinc resting upon the surface of the pulp, and to which zinc is attached an electric conducting-wire, the opposite end of which is attached to the copper lining of the settler-bottom, thus causing a constant current of electricity to pass through the pulp and precipitating the contents.

I form arms and mullers, of wood or iron, to act as

stirrers, and also to receive India rubber, leather, or other pliable substance as shoes, or frictional strips, to produce the desired effect.

Figure 1 is the tub or settler.

Figure 2 is the muller.

A is the muller, or stirrer.

B is the rubber, or shoes.

C are the copper plates.

D is the zinc plate.

E is the electric conducting-wire.

I claim—

1. The use of rubber, leather, or other pliable material, as shoes, or rubbers, or strips, running on copper, for the purposes of amalgamating with mercury, and for precipitating and gathering the same and metals.

2. The use of a tub, or other vessel, arranged so as to make a galvanic battery, by the introduction of copper and zinc plates, with frictional mullers acting upon the copper plates, and by the pulp, containing the mercury and ores, acting as the exciting-liquid, for purposes specified.

GEORGE STEVENS.

Witnesses:

JOSEPH H. ATKINSON,

C. S. DREW.