

(No Model.)

I. R. McKINNEY.

APPARATUS FOR SEPARATING FINE GOLD FROM SAND, &c.

No. 321,623.

Patented July 7, 1885.

Fig. 1.

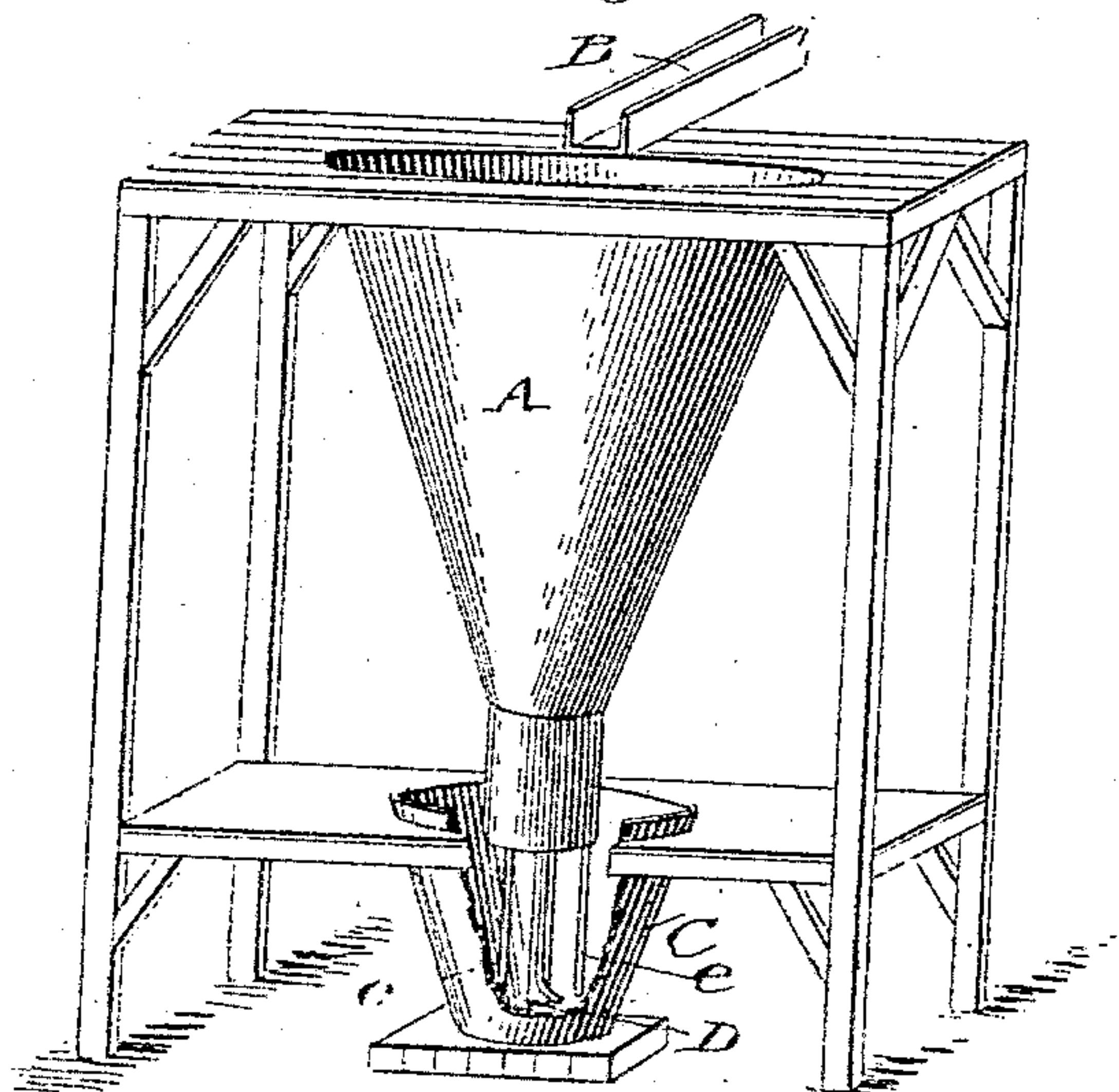


Fig. 2.

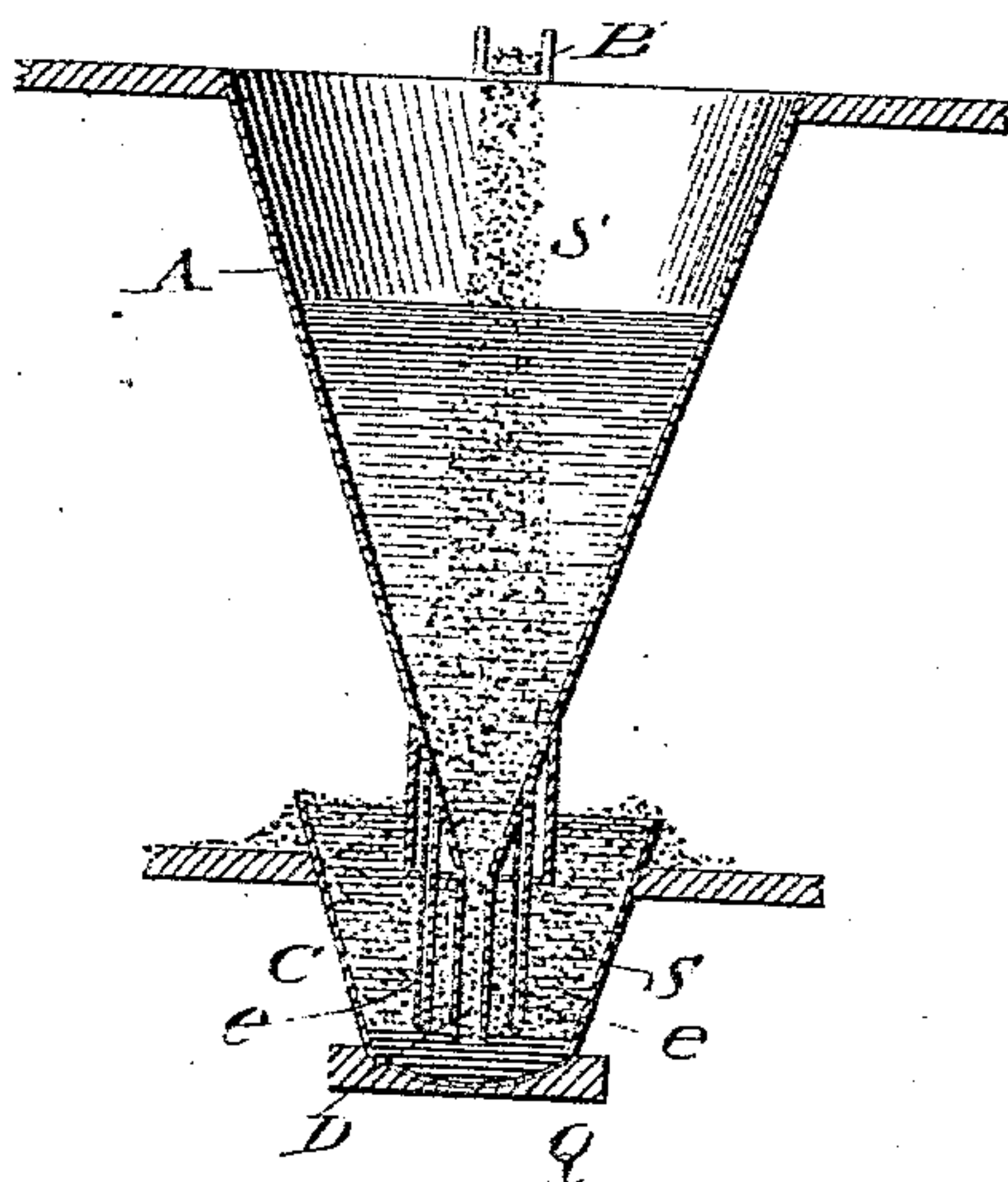


Fig. 3.

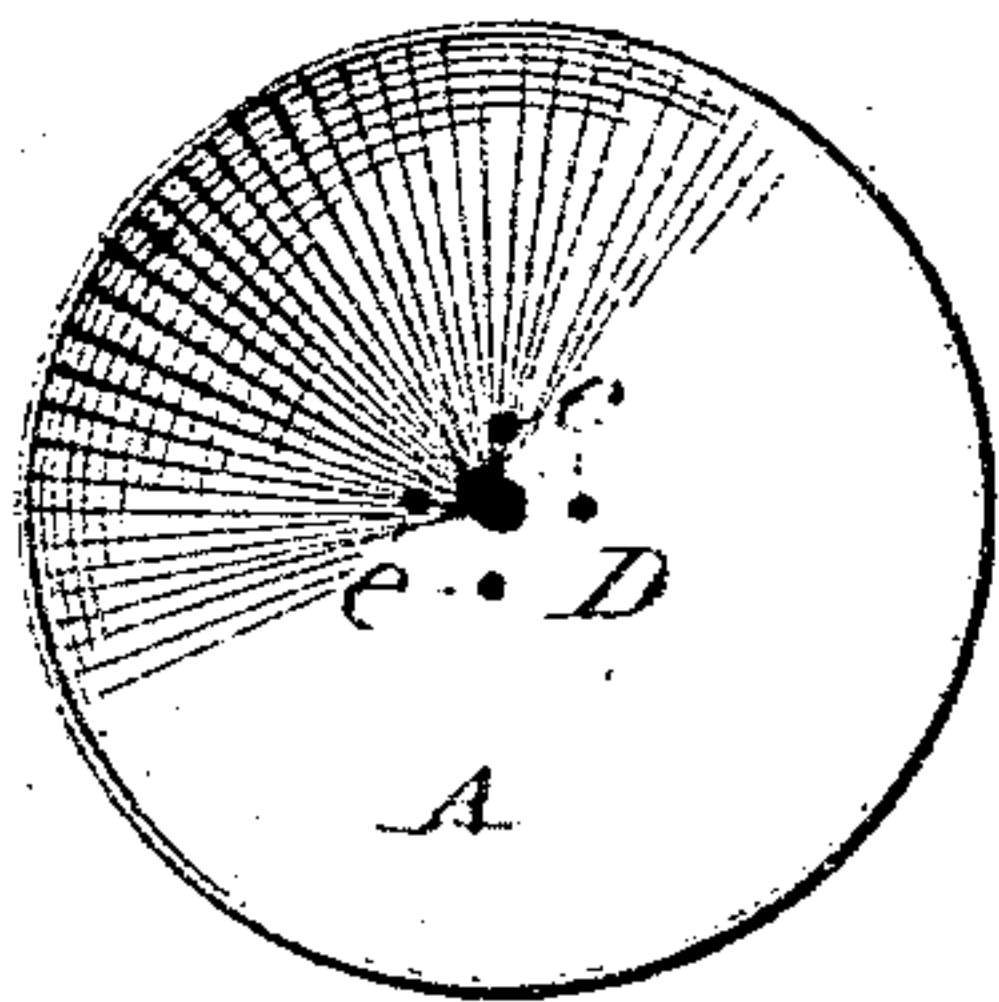
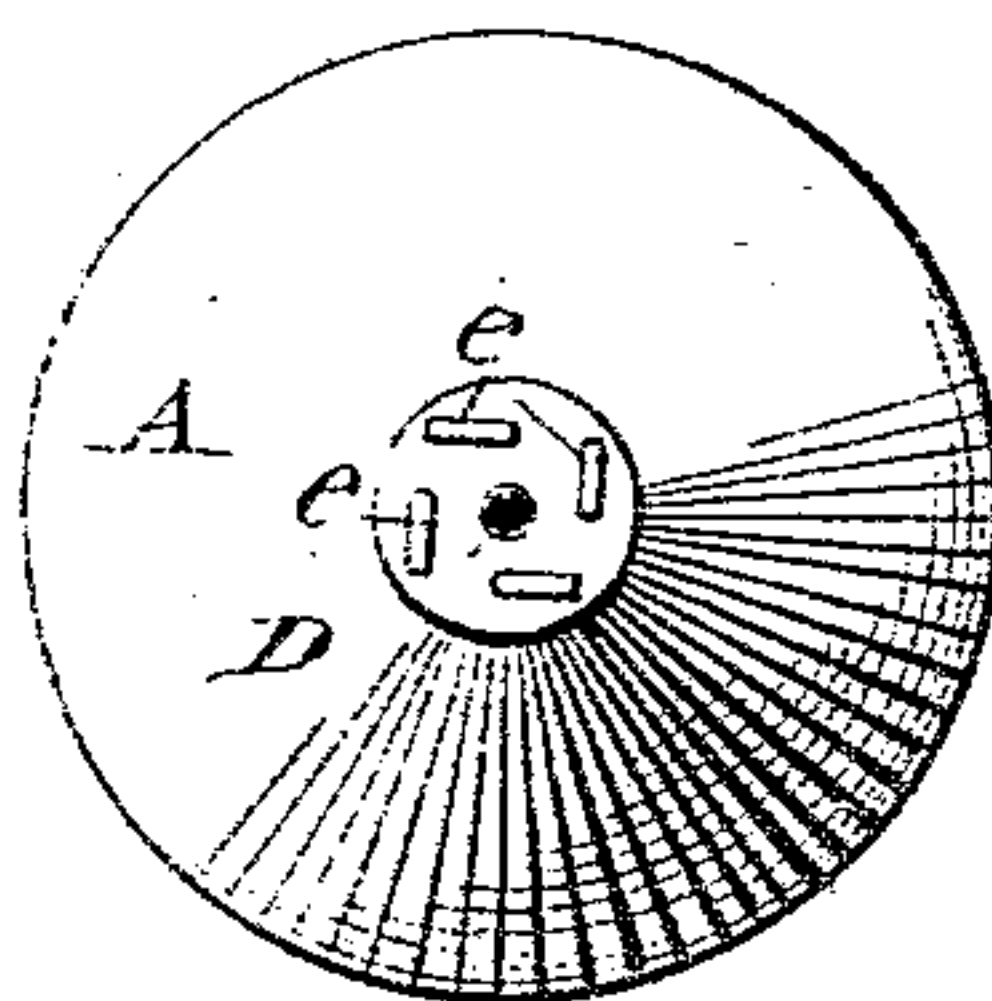


Fig. 4.



Witnesses:

J. M. Bacon  
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# UNITED STATES PATENT OFFICE.

ISAAC R. McKINNEY, OF EAST PORTLAND, OREGON.

## APPARATUS FOR SEPARATING FINE GOLD FROM SAND, &c.

SPECIFICATION forming part of Letters Patent No. 321,623, dated July 7, 1885.

Application filed May 19, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC R. McKINNEY, a citizen of the United States, residing at East Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Apparatus for Separating Fine Gold from Sand and Gravel, of which the following is a description.

My invention consists of mechanism illustrated in the accompanying drawings.

In Figure 1 B is a sluice-box, through which the water and sand or gravel containing fine gold is conveyed into the reservoir A. From the bottom are five tubes, hollow, the center tube being one and one-half inch in diameter and extending to within one-fourth of an inch of the bottom of the cup C, the remaining four tubes being one-half inch in diameter and extending to the bottom of the cup, with the ends bent at right angles. The cup C may be about eight inches in height, ten inches across at top, and six inches across at bottom. The reservoir A may be about two feet in height, or of sufficient height to give force to the sand as it passes through the tubes, as hereinafter explained. In the bottom of the cup C is placed a quantity of quicksilver—

say, about one inch—so as to be above the ends of the tubes. The sand and water are now admitted into the reservoir and pass down through the tubes into the quicksilver and then up through the quicksilver, the latter being kept in its place by its superior weight, filling the cup C and overflowing from its open top, as shown in Fig. 2. The small tubes are set at angles, as shown in Fig. 4, which represents the bottom of the cup, so as to send a stream with force in corner or outer side of the cup and prevent sand from settling there. The reservoir A must be kept sufficiently full of water at all times to give this required force. The quicksilver adhering to the fine gold detains it in the bottom of the cup, from whence it may be taken and separated in the usual way.

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

The reservoir A, provided with tubes D and e, as described, in combination with the vessel C, substantially as herein set forth.

ISAAC R. McKINNEY.

Witnesses:

D. D. NEER,  
BROOK WHITE.