

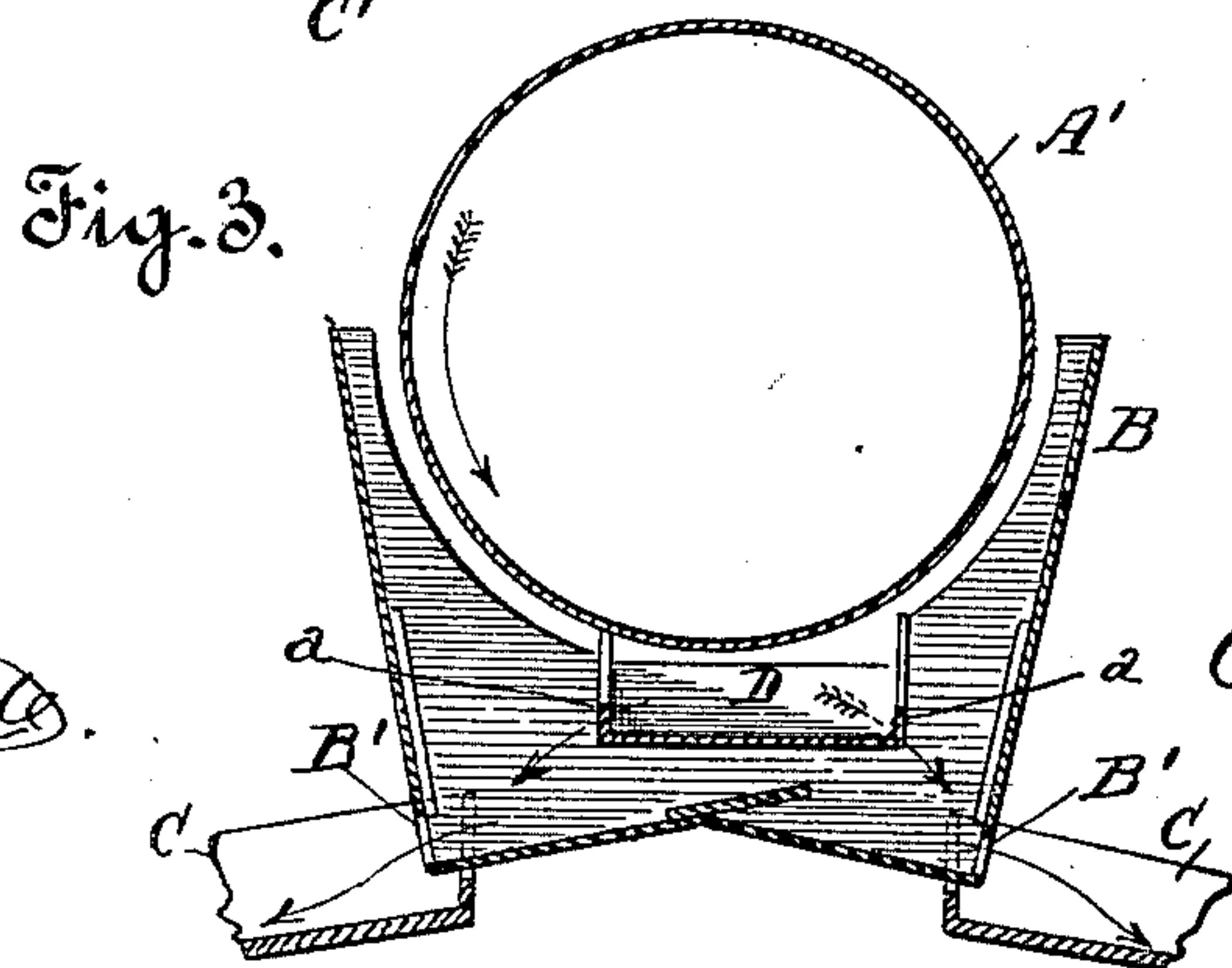
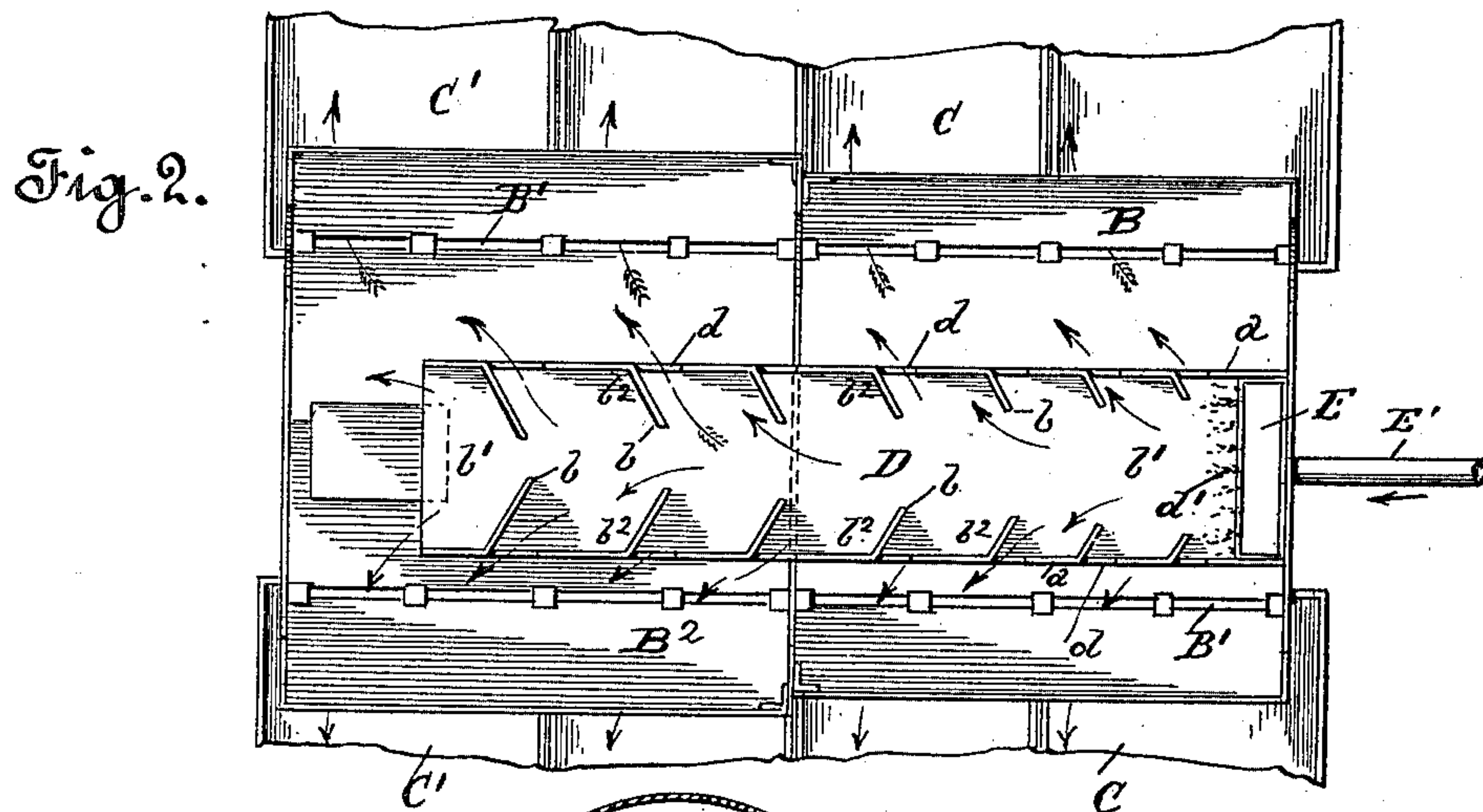
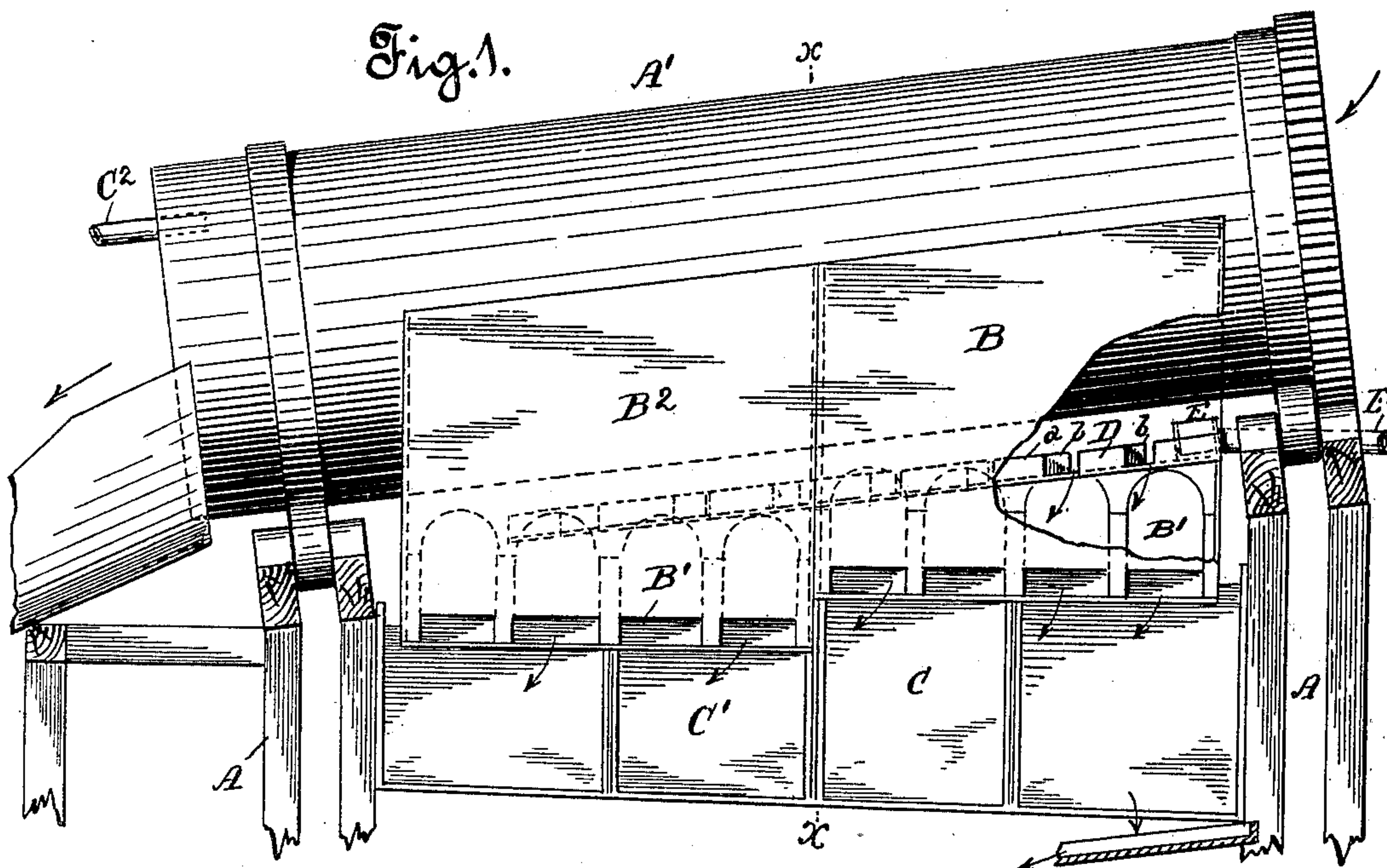
No. 697,748.

Patented Apr. 15, 1902.

R. H. POSTLETHWAITE.
DISTRIBUTER FOR GOLD SEPARATORS.

(Application filed May 28, 1901.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

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DISTRIBUTER FOR GOLD-SEPARATORS.

SPECIFICATION forming part of Letters Patent No. 697,748, dated April 15, 1902.

Application filed May 28, 1901. Serial No. 62,180. (No model.)

To all whom it may concern:

Be it known that I, ROBERT H. POSTLETHWAITE, a citizen of Great Britain, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Distributers for Gold-Separators; and I do hereby declare the following to be a full, clear, and exact description of the same.

10 The present invention is designed for use more especially in connection with the rotary separator or grizzly employed for the separation of the dredged material of a gold-dredging apparatus; and the object of the inven-
15 tion is to evenly distribute the separated material between the collecting-tables of the apparatus, so as to relieve the upper tables or those nearest the head end of the grizzly or separator from receiving an excess of material thereon. Where the greater portion of
20 the dredged material is delivered to the upper tables, they become overworked, and as a consequence considerable of the precious metal contained in the material fed thereon
25 is carried off by the current of water flowing thereover and is lost. The present invention is devised to provide against such loss by distributing the material proportionately to the upper and lower collecting-tables, thus
30 overcoming undue crowding to either of the tables and distributing the work evenly.

To comprehend the invention, reference should be had to the accompanying sheet of drawings, wherein—

35 Figure 1 is a side view of the separator, distributing-box, collecting-tables, and improved distributor, parts being broken away. Fig. 2 is a top plan view of the mechanism illustrated in Fig. 1, the separator being re-
40 moved; and Fig. 3 is a vertical sectional end view in elevation taken on line $x x$, Fig. 1.

In the drawings the letter A is used to indicate the dredge-boat, float, or platform which supports the mechanism of the gold-
45 saving apparatus, and A' the rotary grizzly or separator into which the dredged material to be worked is fed. This grizzly is composed, preferably, of meshed or reticulated material, being open at each end and ar-
50 ranged at an inclination. The material to be separated is fed into the upper or head end of the grizzly, and during the rotation

of the said grizzly the finer and valuable particles of the material escape through the openings of the grizzly, while the coarser or worth-
55 less portions escape from the lower open end of the grizzly. The grizzly is mounted to work within the distributing-box B, which box is provided with a series of gate-controlled outlet-openings B'. Below the dis-
60 tributing-box, and preferably at each side thereof, the collecting-tables C C' are arranged. These tables receive the material discharged from the distributing-box and
65 separate therefrom the precious particles contained therein during the flow of the material thereover.

In order to aid in the disintegration of the material delivered into the grizzly, there is provided a water-pipe C², which leads into the
70 grizzly at its lower end. This pipe is connected to a suitable water-supply and by means of same water is delivered to the interior of the grizzly for washing the material therein.

By preference the distributing-box is a step one. Hence the section B² is in a lower plane than that of the upper one.

There is interposed between the grizzly and bottom of the distributing-box the distributor
80 D, which extends approximately the entire length of the grizzly. By preference this distributor is made in the form of a trough, the sides a of which extend upward a height sufficient to catch and retain the splash from
85 the grizzly. The bottom of the distributor is provided with a series of deflecting riffles, ribs, or guides b , which extend from the side edges toward the center thereof. Each riffle,
90 rib, or guide increases in length from the feed end of the grizzly toward its discharge end. Consequently the central passage-way b' is gradually reduced in width toward the discharge or tail end. Said ribs, riffles, or
95 guides are arranged in pairs, each pair being at an inclination toward the head end of the distributor. These ribs, riffles, or guides form distinct channels or ways b^2 , which lead the material traveling therein to discharge-open-
100 ings d , formed in the sides a . In case the distributor is formed without sides then the material is conveyed by the ribs, riffles, or guides to the side edges of the distributor. The material thus delivered to the side edges

or outlet-openings d falls into the distributing-box B and escapes therefrom onto the separating-tables. The material discharged from the grizzly is delivered to the distributor D and gradually travels thereover at a downward inclination toward the discharge end of the grizzly. As the material moves over the distributor, which is arranged at an inclination, the same is gradually diverted by the riffles, ribs, or guides b into the various channels or ways b^2 , and thus the stream of material "subdivided," so to speak, into a series of streams, each of which discharges at such points as to be opposite the various outlets B' of the distributing-box. In this manner the material is proportionately distributed between the various collecting-tables and an undue amount of the valuable material prevented from settling upon the forward or any given table. By such distribution of the material loss of valuable particles by overcrowding of mainly the forward tables is obviated.

For the purpose of spreading the material upon the distributor D and cause same to work thereover, as well as to maintain the same lubricated, there is attached to the upper end thereof, preferably, a water-reservoir E, with which connects a water-supply pipe E'. In the front wall of said reservoir near its bottom are formed a series of outlet-openings d' , through which the water escapes onto the distributor D.

Inasmuch as the material is delivered from the grizzly during the rotation thereof its discharge will be slightly to one side of the center. For this reason the distributor is located to one side of the center of the grizzly, although centered to its discharge.

Having thus described the invention, what is claimed as new, and desired to be protected in by Letters Patent, is—

1. The combination with the separator, of the distributing-box, a series of controlled outlets therein, the collecting-tables arranged below at the sides thereof, a distributor interposed between the separator and distributing-box having discharges at its respective sides, and means adjacent said respective sides on the face of the distributor for guiding the material delivered thereto to the outlets of the distributing-box for the respective collecting-tables.

2. The combination with a separator, of the distributing-box, the collecting-tables arranged below and at the sides thereof, the

distributor interposed between the distributing-box and the separator, a series of oppositely-arranged inclined ribs, riffles or guides on the face of said distributor and by means of which the material fed thereon is directed from the respective sides thereof toward the outlets of the distributing-box for the respective collecting-tables, and means whereby water is supplied to the distributor during the working of the separator.

3. The combination with a separator, of a distributing-box having a series of outlets, collecting-tables arranged at the side of the distributing-box, an auxiliary distributor interposed between the separator and distributing-box having discharge-openings at its side, and means on the face of the auxiliary distributor adjacent to the side having the discharge-openings for guiding the material delivered thereto toward the outlets of the distributing-box for the collecting-tables; substantially as described.

4. The combination with a separator, of a distributing-box, collecting-tables arranged at the sides thereof, an auxiliary distributor interposed between the distributing-box and the separator, a series of oppositely-arranged inclined ribs, riffles or guides on the face of said auxiliary distributor by means of which the material fed thereto is directed from the respective sides thereof toward the outlets of the distributing-box for the collecting-tables; substantially as described.

5. In an apparatus of the character described, a rotary grizzly arranged to discharge from its lower portion, a distributing-box supported beneath the grizzly, collecting-tables at the side of the distributing-box arranged to receive the discharge therefrom, and an auxiliary distributor intermediate of the grizzly and the distributing-box, the longitudinal center of the auxiliary distributor occupying a plane at one side of the plane of the longitudinal center of the grizzly, substantially as described, to enable said auxiliary distributor to catch the discharge from the grizzly thrown by centrifugal force toward said side, and deliver the same to the distributing-box for the collecting-tables.

In witness whereof I have hereunto set my hand.

ROBERT H. POSTLETHWAITE.

Witnesses:

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