(No Model.)

O. H. BAGLEY.

GOLD SAVING APPARATUS.

No. 419,908. Patented Jan. 21, 1890.

Fig. 1.

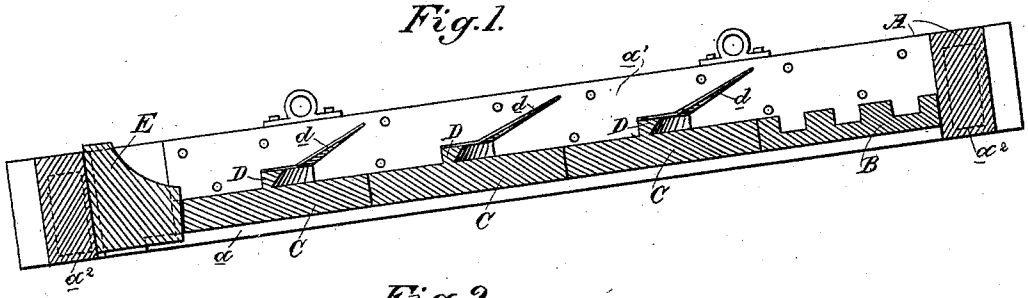


Fig. 2.

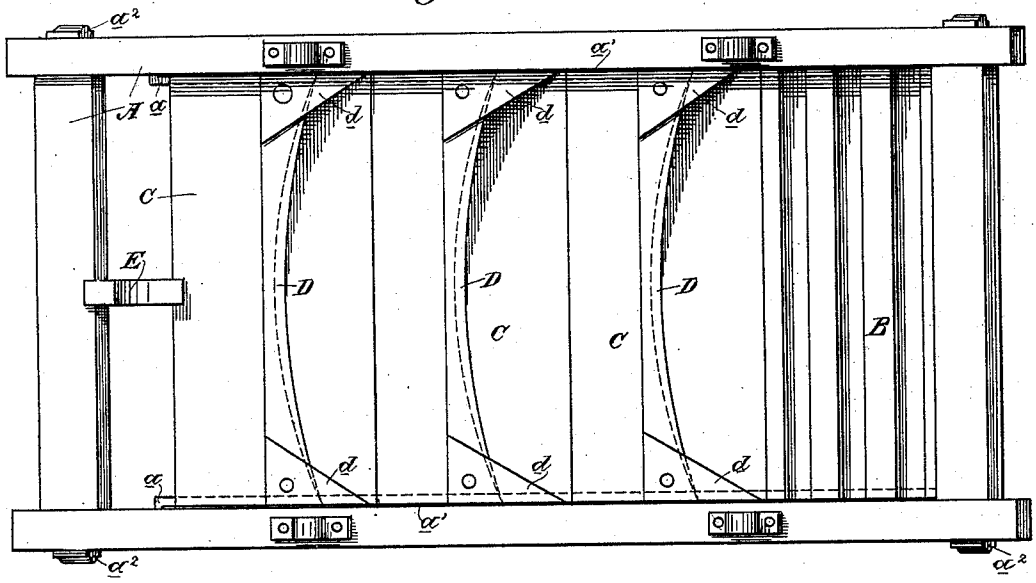


Fig. 3.

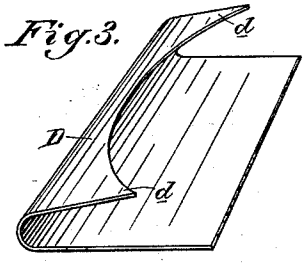
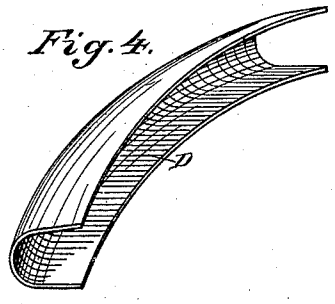


Fig. 4.



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UNITED STATES PATENT OFFICE.

OLIN H. BAGLEY, OF KNAPPA, OREGON.

GOLD-SAVING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 419,908, dated January 21, 1890.

Application filed June 19, 1889. Serial No. 314,862. (No model.)

To all whom it may concern:

Be it known that I, OLIN H. BAGLEY, of Knappa, Clatsop county, State of Oregon, have invented an Improvement in Gold-Saving Apparatus; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of apparatus or machines especially adapted for saving fine gold from black sand; and my invention consists in the hereinafter-described novel construction of separating-table and the peculiar riffles thereon.

The object of my invention is to provide a simple and effective machine for saving gold from black sand.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a vertical longitudinal section of my apparatus. Fig. 2 is a plan. Figs. 3 and 4 are modified forms of riffles.

The frame A of the table is made up of side and end pieces properly joined. The bottom or working surface of the table is made of a plate B at the head, the surface of which is grooved, as shown, and successive plates C, each of which carries or has formed with it a riffle D. All these plates are secured in grooves *a* of the side pieces of frame A, rubber strips *a'* being placed in the grooves to form tight joints, the whole series of plates being held in place by a single key E, driven in between the lowermost plate and the end bar of the frame A.

The riffles D, carried by plates C, have inwardly-beveled recessed or concaved faces, and each end is provided or formed with extension flanges or wings *d*, which project toward the head of the table and upwardly along the sides of the frame.

To better understand the invention as far as described, I will at this point set forth its operation. The whole table is intended to be suspended at an inclination from or mounted upon hangers or standards and mechanism connected with it, so as to impart to it a side shake and a bump, buffers a^2 being provided on its sides. This hanging and motion I have not deemed it necessary herein to show, as many machines of this and kindred classes are so arranged and operated, and for the sake of clearness I have omitted these devices, as they form no part of my present invention. The gold-bearing sand and sufficient water are fed upon the head of the table, and, passing first over the grooved plate B, the current is broken and sufficiently retarded thereby to prevent the stuff from rushing too fast over the first riffle of the series. Then meeting said riffle, a separation of the gold from the sand takes place, the gold being caught by the beveled or recessed face of the riffle, and, spreading out to each end thereof, leaves the sand and water about the center of the riffle, over which it flows and repeats the action on the next riffle. At the ends of each riffle the flanges or wings *d* prevent the water from splashing sand or gold over the ends and keep the sand and water nearer the center.

The recessed faces of the riffles may be curved in the direction of the length of the riffle, or they may be straight. The riffles may be formed, as shown in Fig. 3, of a single metal plate bent upwardly at one end and curved out to form the recessed face and the end flanges integral, or they may be formed, as shown in Fig. 4, of a single metal strip curved and of a semi-cylindrical shape, but in every case presenting the recessed face to the downward flow of the sand and water.

The riffles are cleaned or partially cleaned with a flat shovel and brush; but when a general cleaning is desired one side of frame A is detached, so that all the plates, being released, may be taken out and cleaned.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a gold-saving apparatus, a riffle for the table having a recessed face formed by turning the material at one side of the riffle back upon itself, said riffle having projecting end flanges or wings, substantially as described.

2. In a gold-saving apparatus, a riffle for the table-surface having the material thereof at one side turned back upon itself to form a recessed face curved in the direction of its length and opposing the flow of material on the table, substantially as described.

3. In a gold-saving apparatus, a riffle for

the table-surface having the material at one side turned back upon itself to form a recessed face that is opposed to the flow of material on the table, said riffle being curved lengthwise and provided with forwardly-projecting flanges or wings at its ends, substantially as described.

4. In a gold-saving apparatus, the combination of the frame A, the grooved plate B at the head of the frame, and the plates C, forming the bottom thereof, and the recessed curved-faced riffles D on said plates C, having at each end the projecting flanges or wings *d*, substantially as described.

In witness whereof I have hereunto set my hand.

OLIN H. BAGLEY.

Witnesses:
W. L. ROBB,
G. C. FULTON.