S. T. DORLAND.

Improvement in Ore-Washers.

No. 132,642. Patented Oct. 29, 1872.

Fig. 1.

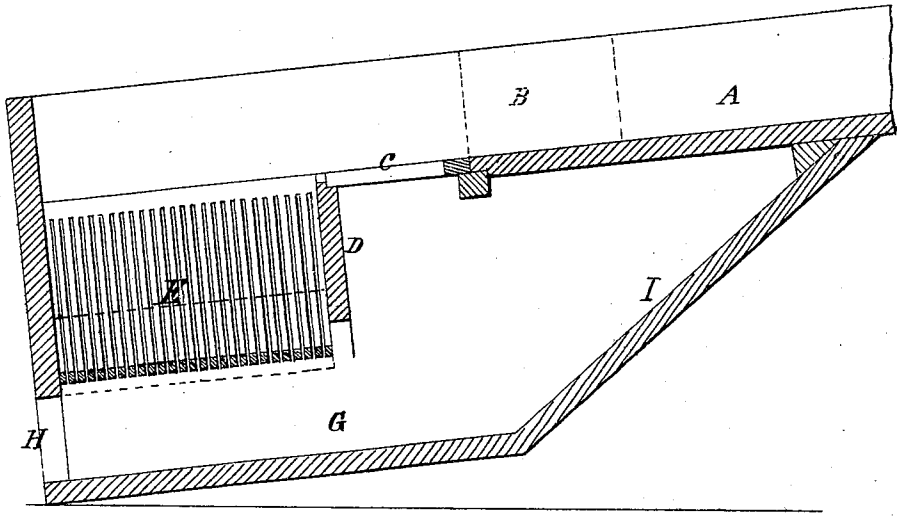


Fig. 2.

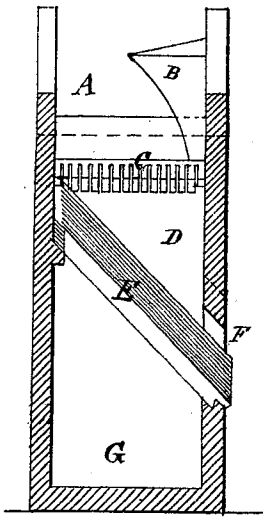
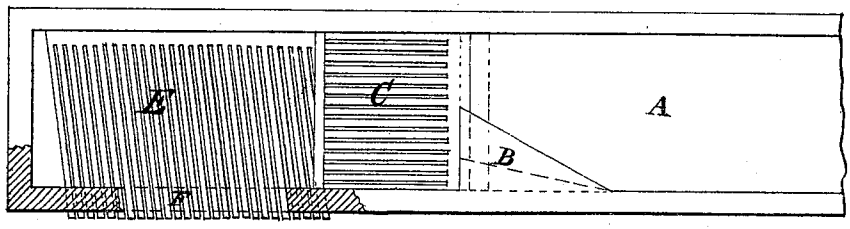


Fig. 3.



WITNESSES:

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Ella J. Dorland

INVENTOR:

Samuel T. Dorland

A.M. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

SAMUEL T. DORLAND, OF BEEKMAN, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO LEVI P. TREADWELL, OF DANBURY, CONNECTICUT.

IMPROVEMENT IN ORE-WASHERS.

Specification forming part of Letters Patent No. **132,642**, dated October 29, 1872.

To all whom it may concern:

Be it known that I, SAMUEL T. DORLAND, of Beekman, county of Dutchess, and State of New York, have invented a Machine for Screening Ore, of which the following is a specification:

My invention consists in an inclined screen placed at an angle to the curb of the sluice-bed and beneath the plane thereof, and in a curved block or similar device for directing the current of ore, water, &c., to and upon the highest part of the screen. To a trough or other device for conducting a current of water accompanied with ore I apply a combination of grates or screens, one of which is at such an angle as to separate the ore from the water, fine dirt, or other waste matter, and at the same time and by the same operation to discharge it in a convenient manner and fit for use.

Figure 1 is a longitudinal section; Fig. 2 is a cross-section; and Fig. 3 is a plan.

A is a trough, through which flows a current of water containing the ore. It is inclined so as to carry all the ore that may be in it and at the same time clear itself. B is a curved block of wood, fastened to the side of the trough and designed to throw the current upon the top end of the screen E. C is a screen in the bottom of the trough A, designed to allow the escape of a portion of the water and regulate the supply on the screen E. E is the screen that receives the ore. It is placed at such an angle as to discharge the ore at the opening F, and at the same time to allow the water, dirt, or other waste matter to escape through it; or the screen E may be placed so as to receive the ore and water directly from the sluice, allowing the debris to fall through into the box C and pass off at the outlet H, while the ore will fall down the inclined screen and be delivered at an outlet made in the side I. In this arrangement of the inclined screen and sluice the supplemental screen C can be omitted. I G is a receiver that takes the water and waste matter from the screens C and E and conducts them away at the opening H. The space between C and E is closed by the end D.

I claim as my invention—

1. The inclined screen E placed beneath the plane of and at an angle to the curb of the sluice, as and for the purpose specified.

2. The curved block B in combination with the sluice and the inclined screen E, substantially as specified.

3. The combination of curved block B, screens E and C, as and for the purpose set forth.

SAMUEL T. DORLAND.

Witnesses:

I. S. LYON,

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