(No Model.)

C. O. STROH.

COAL JIG.

No. 486,907. Patented Nov. 29, 1892.

Fig. 1.

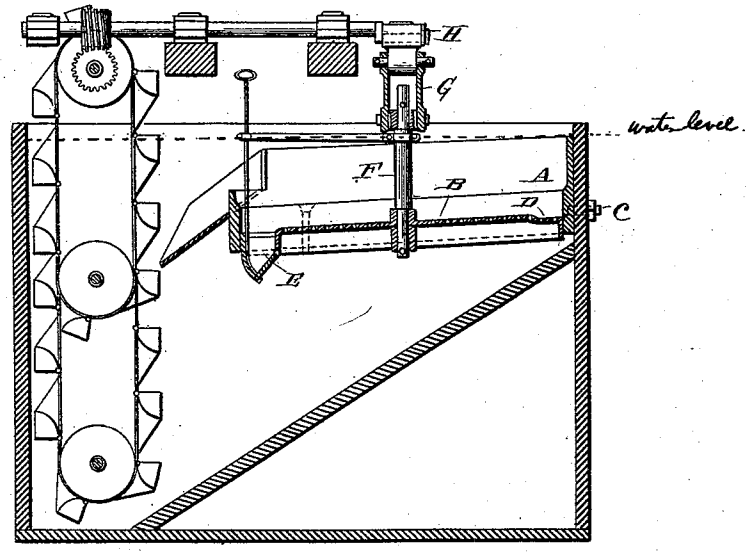
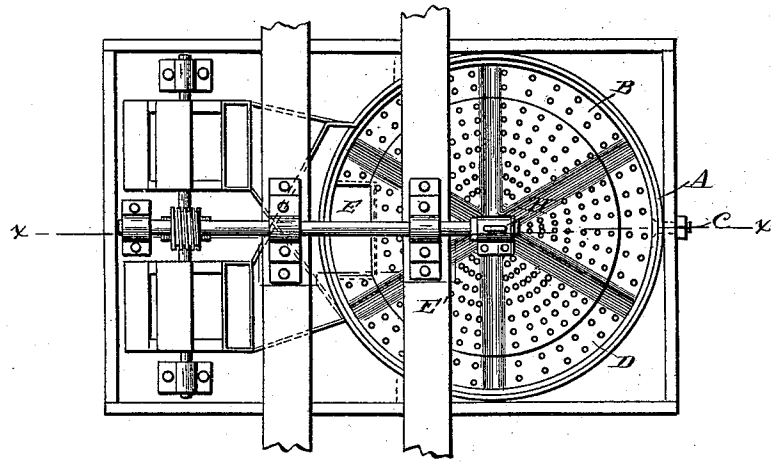
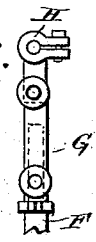


Fig. 2.



Witnesses:
Alex. Scott
Chas. L. Taylor

Fig. 3.



Inventor.
Chas. O. Stroh

UNITED STATES PATENT OFFICE.

CHARLES ORION STROH, OF FREELAND, PENNSYLVANIA.

COAL-JIG.

SPECIFICATION forming part of Letters Patent No. 486,907, dated November 29, 1892.

Application filed April 11, 1892. Serial No. 428,728. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ORION STROH, a citizen of the United States, residing at Freeland, Luzerne county, Pennsylvania, have invented a new and useful Coal-Jig for Cleaning the Coal from Slate and Dirt, of which the following is a specification.

My invention relates to improvements in machines for separating coal from the slate and dirt in which a vertically-reciprocating perforated piston slightly inclining toward slate-pocket, operates in a wall or ring fixed stationary in a tank filled with water; and the objects of my improvements are, first, to provide a machine that requires less power to operate and that will make stronger water-jets for keeping the coal livelier in a suspended motion, and thus allow the slate, &c., to sink quicker to the piston; second, to make a better separation with less expense; third, to reduce friction and provide against breakage. I attain these objects by the mechanism illustrated in the drawings, in which—

Figure 1 is a vertical section of the machine on line *x x*, Fig. 2. Fig. 2 is a top view, and Fig. 3 a side view, of the double-jointed hanger operating the piston.

Similar letters refer to similar parts throughout the several views.

The wall or ring A and piston B are separate and distinct parts, in combination forming the receptacle for holding the material to be separated. The wall or ring A is secured to the wooden tank and made stationary by bolts *c c c* at the proper place inside of tank. The piston B is suspended in an inclined position in the ring A at or near the lower edge, as shown in Fig. 1. This piston is provided with an annular depression D (channel) half an inch deep and about eight inches wide, forming a slate bottom, where it will more hastily reach the slate-pocket E to be discharged. The piston B is a trifle less in diameter than the inside of ring or wall A, so that it will work free in its vertically-reciprocating movement. At the same time the water will squirt up all around between the piston B and wall or ring A, keeping the coal loose and preventing the slate from crowding up the wall or ring A. The piston B has also grooves E′, running from center toward annular depression D, (channel.) The stem or shaft F, which holds the piston has a double-jointed hanger G at the upper end connecting the piston to the crank on horizontal shaft. This hanger is composed of two links slipped on trunnions that are cast on the crank-box H and on the block fastened to the shaft, as shown and described. This hanger will cause the crank-box to turn up if the piston should get fast and prevent its breaking.

In coal-jigs invented prior to my within-described invention the receptacle is made in one part and the entire receptacle has the vertically-reciprocating motion; but in my invention the receptacle is composed of two distinct loose and separate parts, (the wall and piston,) and in my invention the piston alone has the said motion. Hence this advantage can readily be seen. Therefore,

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the tank, the stationary box with annular wall within said tank, the inclined perforated bottom or piston operating inside of said wall and having an annular circumferential depression communicating with a slate-pocket, and means, substantially as described, for reciprocating said piston up and down.

CHAS. ORION STROH.

Witnesses:
JOSEPH ROY,
L. L. JOHNSON.