

A. ROWSE.
JIGGERS.

No. 183,216.

Patented Oct. 10, 1876.

Fig. 1

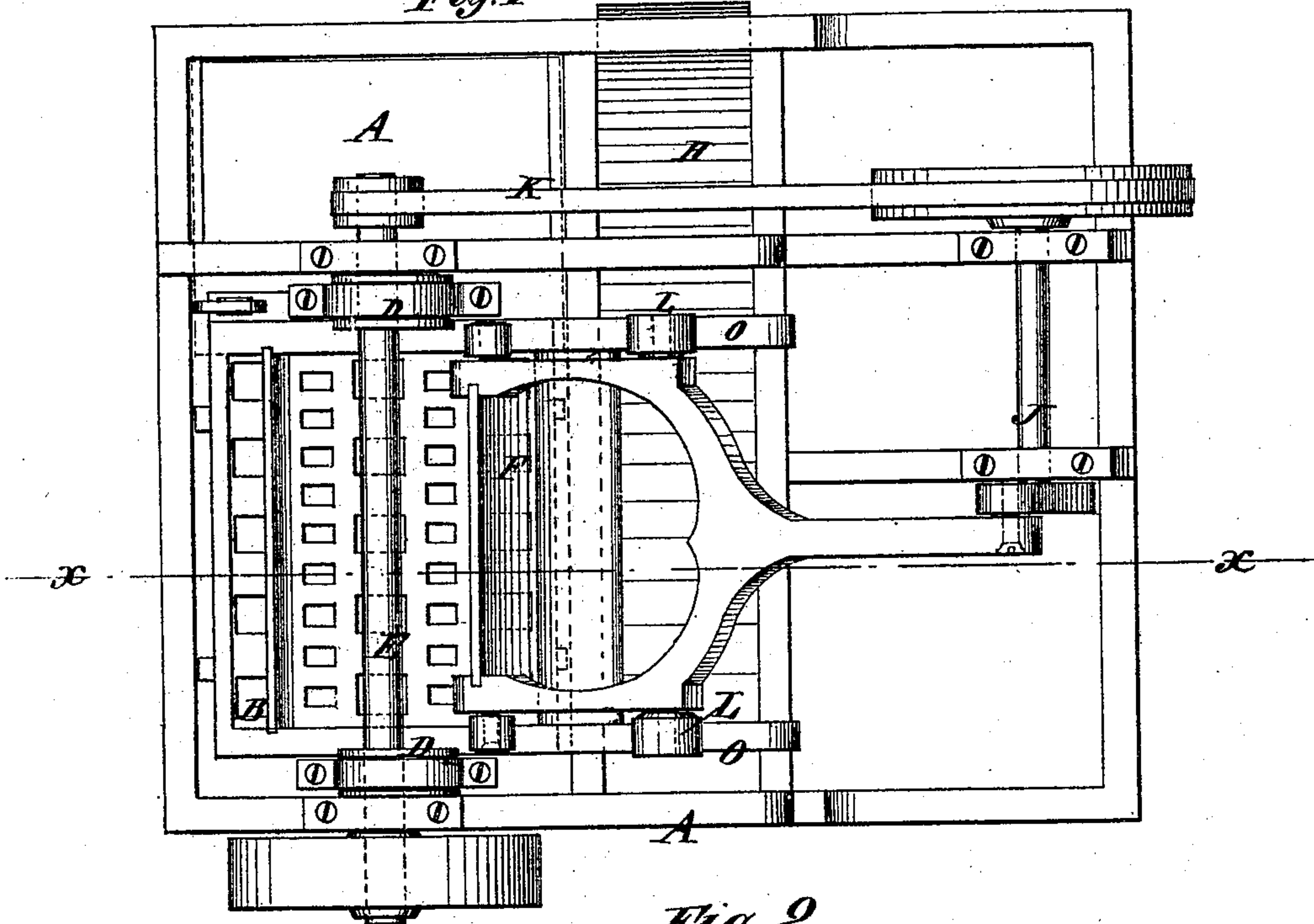
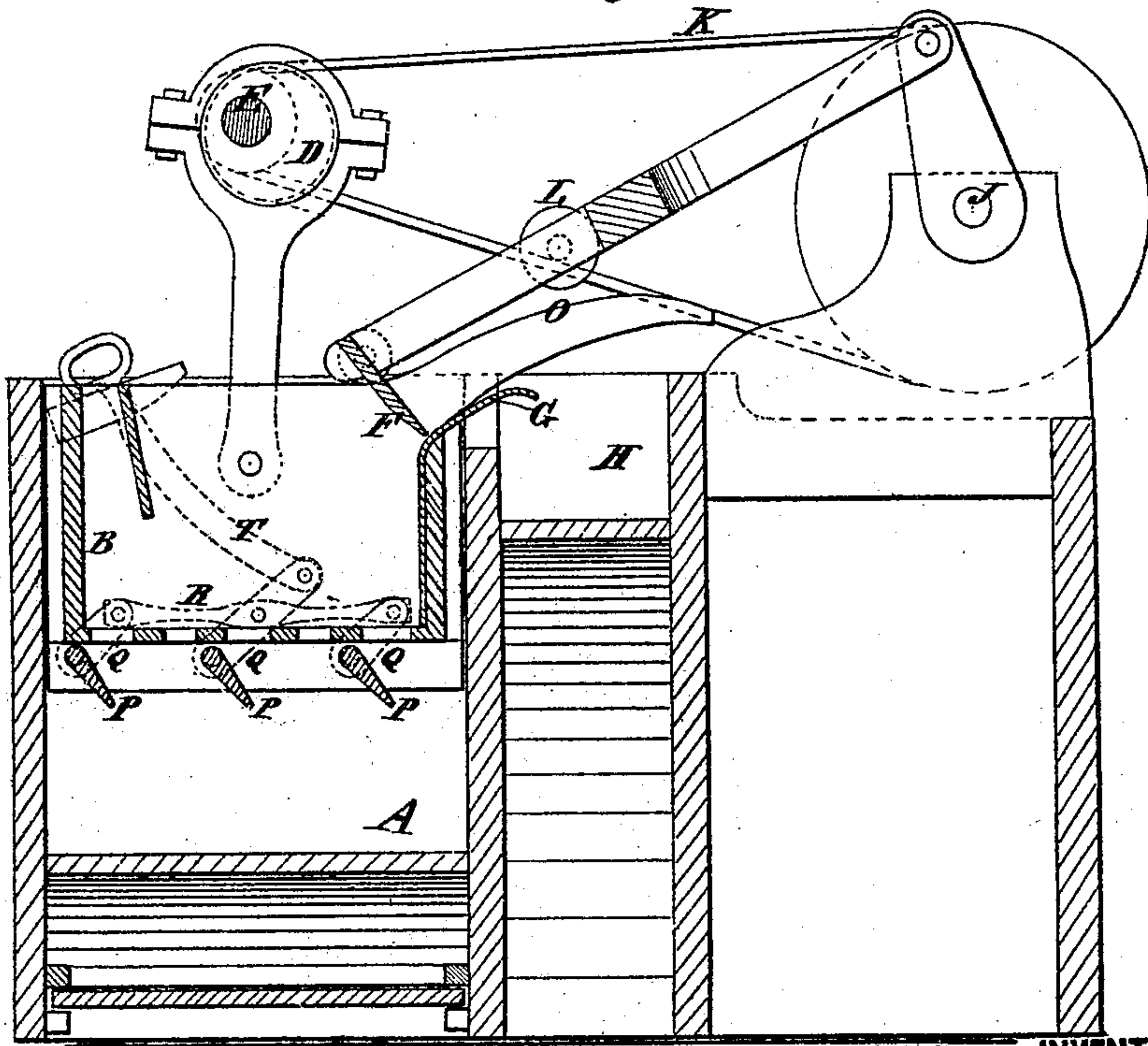


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

ANTHONY ROWSE, OF NESQUEHONING, PENNSYLVANIA.

IMPROVEMENT IN JIGGERS.

Specification forming part of Letters Patent No. **183,216**, dated October 10, 1876; application filed March 6, 1876.

To all whom it may concern:

Be it known that I, ANTHONY ROWSE, of Nesquehoning, in the county of Carbon and State of Pennsylvania, have invented a new and Improved Jigger, of which the following is a specification:

The invention consists in causing the scraper of an ore-separator to move down into the jig as the latter moves up, and the reverse, so as completely to separate the ore at a single operation.

When used for separating coal from slate, the slate, being the heaviest, passes through the bottom of the shaking-screen, while the coal is scraped off into the pit; but in separating iron ore, the ore being the heaviest, passes the screen, while the refuse matters are scraped off into the pit.

Figure 1 is a plan view of my improved separator, and Fig. 2 is a section on line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the water-tank, in the upper part of which is the sieve or screen B, which is suspended from the eccentrics D, which, being revolved by shaft E, imparts a vertical shaking motion, by which the water aids materially in separating the light matters, keeping them at or near the surface, where there is a scraper, F, to scrape them over the side G into the pit H, the scraper being worked by the crank-shaft J, which is turned by the belt K from the shaft E. The scraper's arms have rollers L running along the ways O, to carry it forward and backward over the screen. The

crank raises the scraper at the same time that it moves it back, and thus enables it to pass over the matters to be scraped off. P represents the valves to close the large openings in the bottom of the screen when finer matters are to be separated than the larger openings are adapted for. They are connected by cranks Q with a rod, R, which is worked by the hand-lever T.

I am aware that substances of different specific gravity have been agitated in a liquid to cause the lighter to work to the top, and the heavier to the bottom; but the delivery of the lighter was effected by elevating the rear and depressing the front. This automatic delivery does not, however, completely separate the substances, but always delivers more or less of the heavy substance with the light one, thus necessitating a second operation. I overcome this difficulty by making my scraper work within the jig, and itself effect the delivery, while it greatly assists at the same time the gravitation of the substances.

Having thus described all that is necessary to a full understanding of my invention, what I claim as new is—

The combination, with a jig, B, moved up and down in tank, of the scraper F, working on the inside of jig, substantially as and for the purpose described.

ANTHONY ROWSE.

Witnesses:

JONATHAN MARSDEN,
WILLIAM SIDDLE.