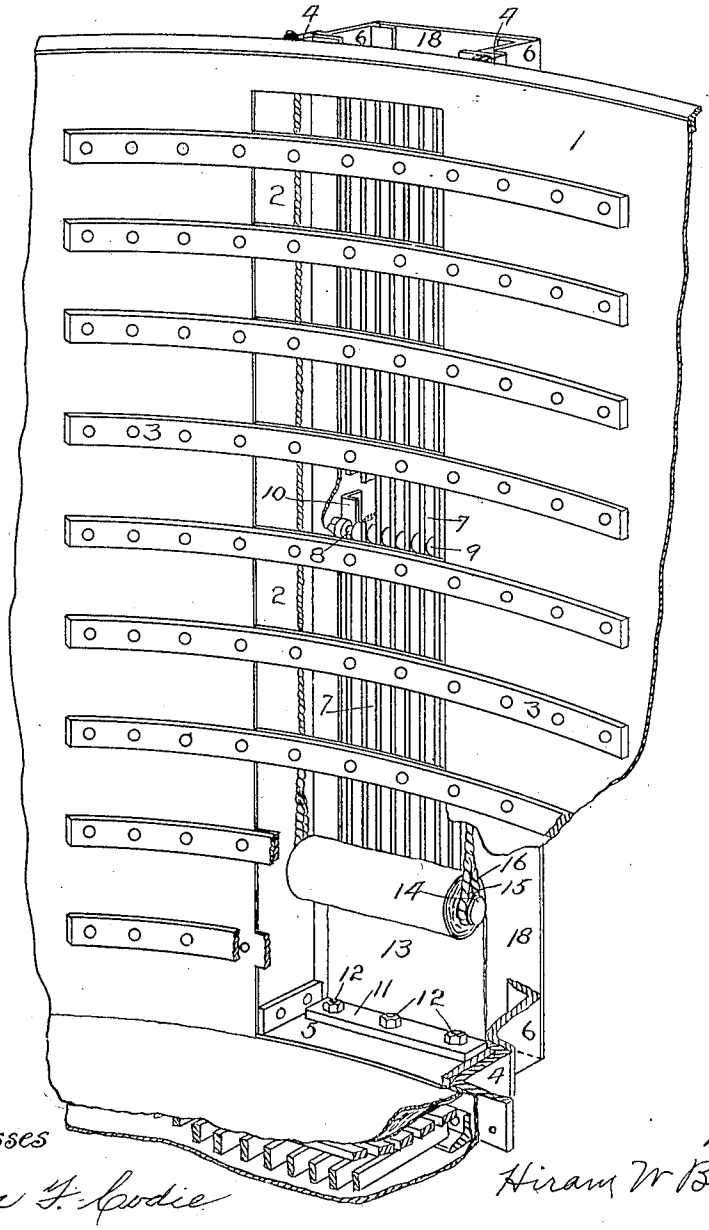
No. 887,451. PATENTED MAY 12, 1908.

H. W. BLAISDELL.

OVERFLOW GATE.

APPLICATION FILED DEC. 6, 1906.



Witnesses

John F. Lodie

Harry A. Brooks

Inventor

Hiram W. Blaisdell

By

Mignon Ford

Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HIRAM WHEELER BLAISDELL, OF LOS ANGELES, CALIFORNIA.

OVERFLOW-GATE.

No. 887,451. Specification of Letters Patent. Patented May 12, 1908.

Application filed December 6, 1906. Serial No. 346,568.

To all whom it may concern:

Be it known that I, HIRAM W. BLAISDELL, a citizen of the United States of America, residing at Los Angeles, county of Los Angeles, State of California, have invented a certain new and useful Overflow-Gate; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hydro-metallurgical apparatus and more particularly to slime gates used on collecting vats.

It is designed to provide an apparatus of this character that shall not obstruct the interior of the vat and yet, at the same time shall be accessible for repairs or other purposes.

In the perspective drawing accompanying, and forming part of, this specification, reference numeral 1 designates the side wall of a collecting tank such as are commonly used in hydro-metallurgical processes, having openings 2 cut therein, the portions of wall between said openings being reinforced by strips 3 riveted thereto, said strips being preferably equal in section to the portion of tank cut away to form the apertures 2.

At each side of openings 2 Z-bars 4 have riveted to them the flanges of Z-bars 6, the latter being disposed, however, so as to lift a portion of the said outer flange of Z-bar 4 projecting beyond the web of Z-bar 6 as shown at the upper part of the drawing.

A grid formed of vertical bars 7 held together by bolts 8, spaced apart by collars 9 on said bolts 8, occupies the space between the rear flanges of Z-bars 4, being held against said flanges by brackets 10, only one of which is shown, which engage outer collars on bolts 8.

A clamp plate 11 held down by bolts 12, holds the lower end of curtain 13 to the casting 5. The upper end of said curtain is rolled upon a roller 14, the ends of which have grooves 15, around which loops 16 of the ropes 17, pass for the purpose of lifting the curtain.

A plate 18 may be provided to close the back of the space behind the grid, it being understood that the lower part of said space is uninclosed or may communicate with a suitable launder or conduit for conveying the slimes or liquid to any desired place.

The mode of operation of this device is as follows: The curtain 13 having been lowered to the bottom of the vat, sand containing slimes is distributed in the vat by any suitable mechanism. The heavier particles settle on the bottom of the vat and the water having the slimes suspended therein flows over the top of the curtain 13 between the bars 9 of the grid and down through the space between Z-bars 6 to a conduit provided to carry it to any desired place. As the sand rises in the tank, by means of ropes 17 curtain 13 is raised, thereby preventing the sand from escaping with the slimes.

I claim:

1. An overflow gate comprising a chamber formed on the outer side of the wall of a vat, openings from said vat to said chamber, a grid dividing said chamber and means to close the openings in said grid.

2. An overflow gate comprising a chamber formed on the outer side of the wall of a vat, openings from said vat into said chamber, devices in the sides of said chamber for removably holding a grid, a grid held therein, a curtain to close the openings in said grid and means to operate said curtain.

3. An overflow gate comprising a chamber formed on the outer side of the wall of a vat, openings from said vat to said chamber, a grid dividing said chamber and a curtain to close the apertures in said grid.

4. An overflow gate comprising a chamber formed on the outer side of the wall of a vat, openings from said vat to said chamber, a grid dividing said chamber, means to close the openings in said grid, and an opening in the lower part of said chamber on the side of the grid remote from the tank.

5. An overflow gate comprising a chamber formed on the outer side of the wall of a vat, openings from said vat into said chamber, a grid dividing said chamber, a curtain against said grid and attached at the bottom to the floor of said chamber, a roller attached to the top of the curtain and ropes to lift said roller.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses at Los Angeles, county of Los Angeles, California, this 16th day of November, A. D. 1906.

HIRAM WHEELER BLAISDELL.

Witnesses:

E. C. HASTY,

O. O. MCREYNOLDS.