

No. 675,610.

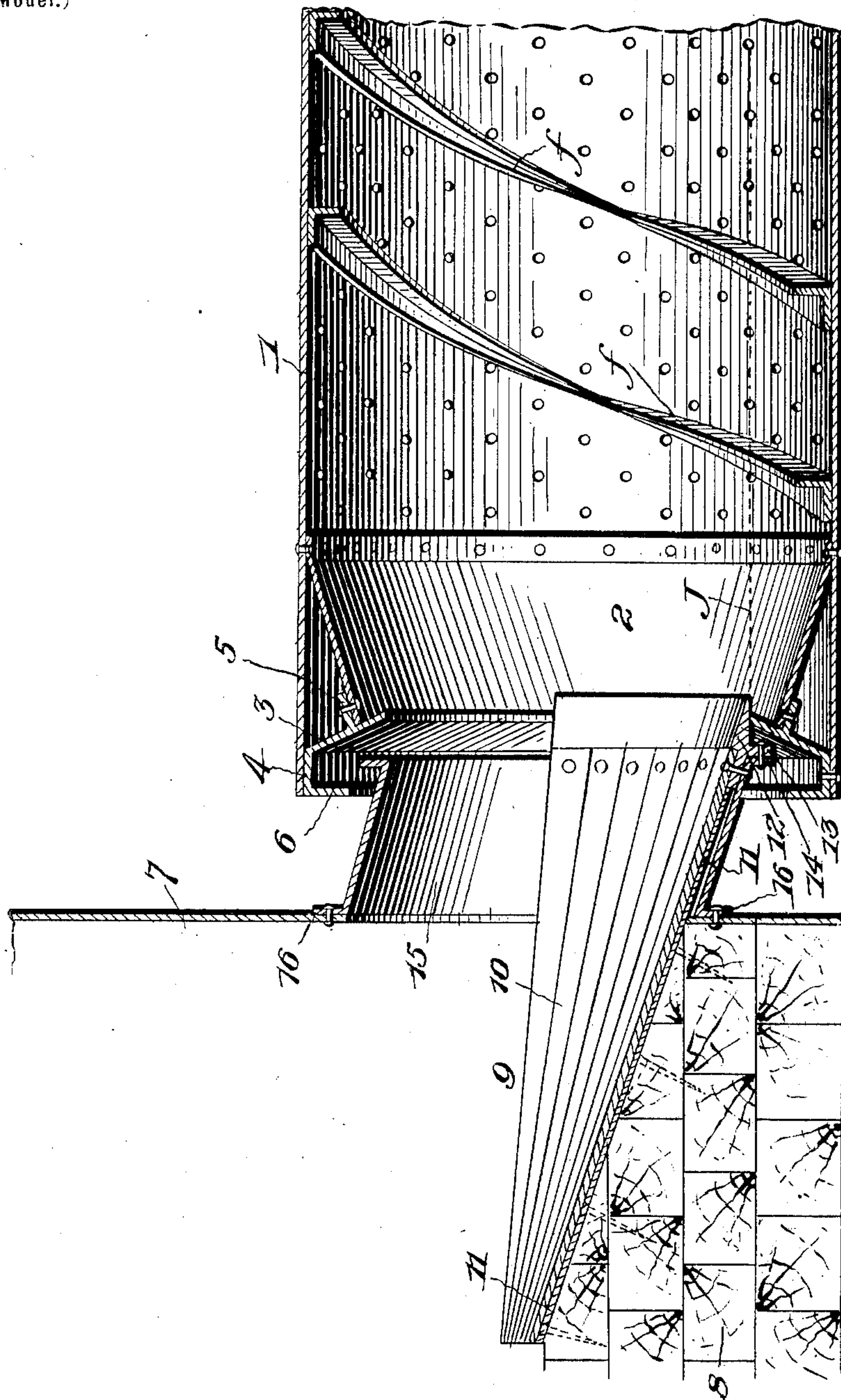
Patented June 4, 1901.

W. S. RUSSELL.

GRIZZLY OR SCREEN FOR WASHING PLACER GRAVEL, PHOSPHATE, OR ANY
ANALOGOUS MATERIAL.

(Application filed Jan. 3, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

WILLIAM S. RUSSELL, OF TOLEDO, OHIO.

GRIZZLY OR SCREEN FOR WASHING PLACER-GRAVEL, PHOSPHATE, OR ANY ANALOGOUS MATERIAL.

SPECIFICATION forming part of Letters Patent No. 675,610, dated June 4, 1901.

Application filed January 3, 1901. Serial No. 41,994. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. RUSSELL, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Grizzlies or Screens for Washing Placer-Gravel, Phosphate-Rock, or any Analogous Material; and I do 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.

The invention relates to grizzlies or screens used for washing placer-gravel, phosphate-rock, or any analogous material.

The prime object of the invention is to prevent the overflow of sand, gravel, water, &c., out of the receiving end of the grizzly by simple, durable, and comparatively inexpensive means.

With this and other minor objects in view the invention consists in certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawing I have shown my invention in a longitudinal sectional view.

In the drawing, 1 denotes the shell of a perforated grizzly or screen of the rotary type. 2 denotes a tapering hollow cylindrical stopper-shell secured within the grizzly at its receiving end, with its larger end facing the discharge end of the grizzly-shell and the smaller end facing the receiving end of the grizzly-shell.

3 denotes a stopper-ring, which is provided with a horizontally-disposed flange 4, which is riveted to the receiving end of the grizzly shell or screen in advance of the stopper-shell and is provided with an annular flange 5, to which the stopper-shell is riveted, and with a vertical strengthening-flange 6.

7 denotes the feed-hopper, 8 its supporting-bed, and 9 the dump-sheet. The dump-sheet is inclined and leads from the hopper into and discharges upon the stopper-shell and consists of a segmentally-arranged series of metallic strips or slats 10, riveted or otherwise secured to the sheet 11, said sheet and slats being nailed or otherwise secured to the sup-

porting-bed 8. To the rear end of the dump-sheet is riveted a semicircular casting 12, which has a vertically-disposed flange 13, which is riveted to an annular flange 14 at one end of a hollow neck 15, while the annular flange 16 at the other end of said neck is bolted to the supporting-bed or hopper.

In operation the material—viz., sand, gravel, water, or whatever it may be—is dumped into the hopper, falls upon the dumping-sheet, slides into the grizzly-shell, and is carried along by the spirals *f f* when the grizzly is set horizontally or is carried by gravity when the grizzly-shell is set on an incline. The perforations in the grizzly-shell permit the sand and fine gravel to fall there-through, while the coarse gravel is carried along and discharged into a chute or other suitable conveyance, as may be desired.

As the sand, gravel, water, &c., in the grizzly-shell never reach a point higher than the dotted line marked J, it will be seen that it will be impossible for the material to back up and discharge out of the inlet end of the grizzly-shell. The means which are employed to accomplish this result are exceedingly simple, durable, and inexpensive.

From the foregoing description, taken in connection with the accompanying drawing, the construction and mode of operation of my improved grizzly will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

The combination, with a grizzly-shell, of a hollow tapering cylindrical stopper-shell located within the receiving end of the grizzly-shell and having its larger end throughout its entire circumference engaging the inner wall of the grizzly-shell and projecting toward the discharge end of the grizzly-shell while its smaller end is of less diameter than the grizzly-shell and projects toward the receiving end of the grizzly-shell, and a tapering

stopper-ring located within the receiving end
of the grizzly-shell in advance of the stopper-
shell and connected thereto and having its
larger end projecting toward the receiving
5 end of the grizzly-shell and secured to and
engaging the interior wall thereof, substan-
tially as set forth.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

WILLIAM S. RUSSELL.

Witnesses:

LOUIS BARTLETT,
R. L. CONE.