

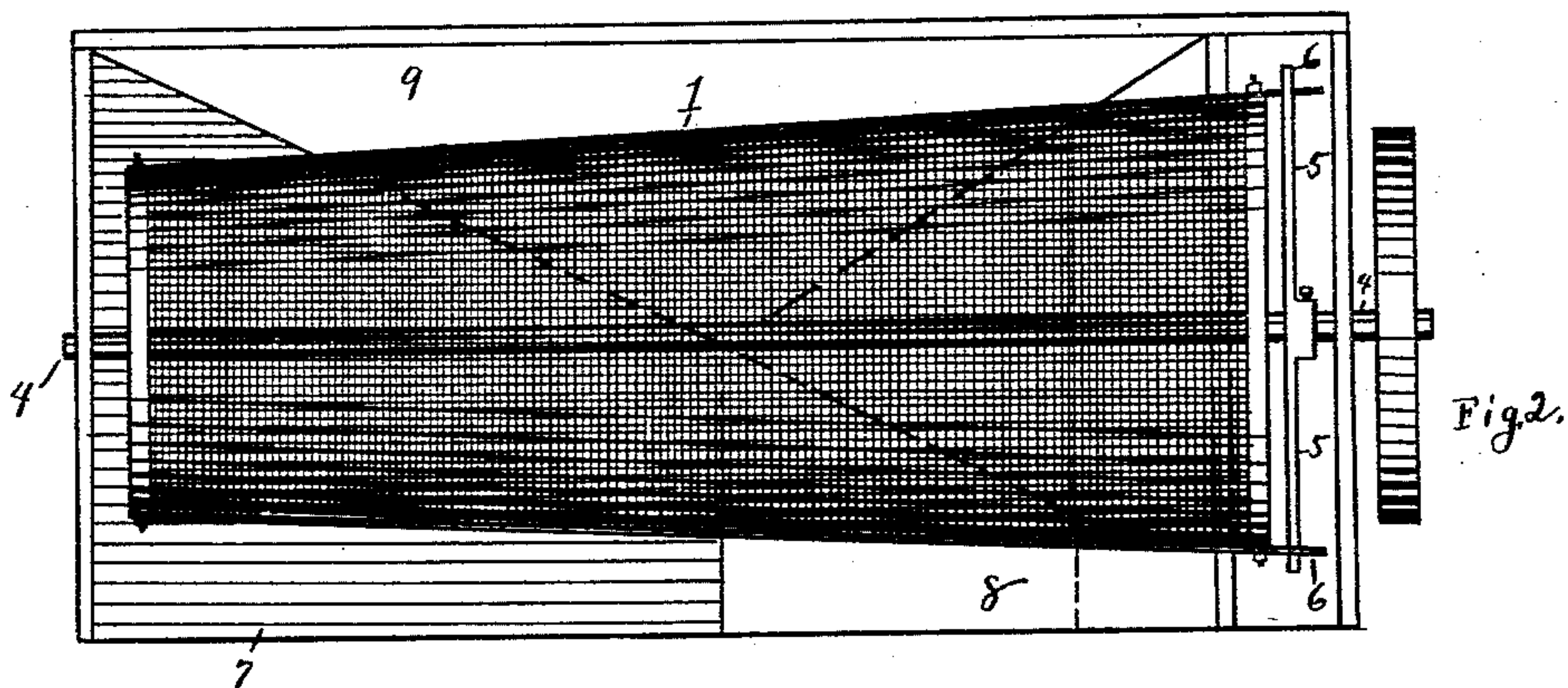
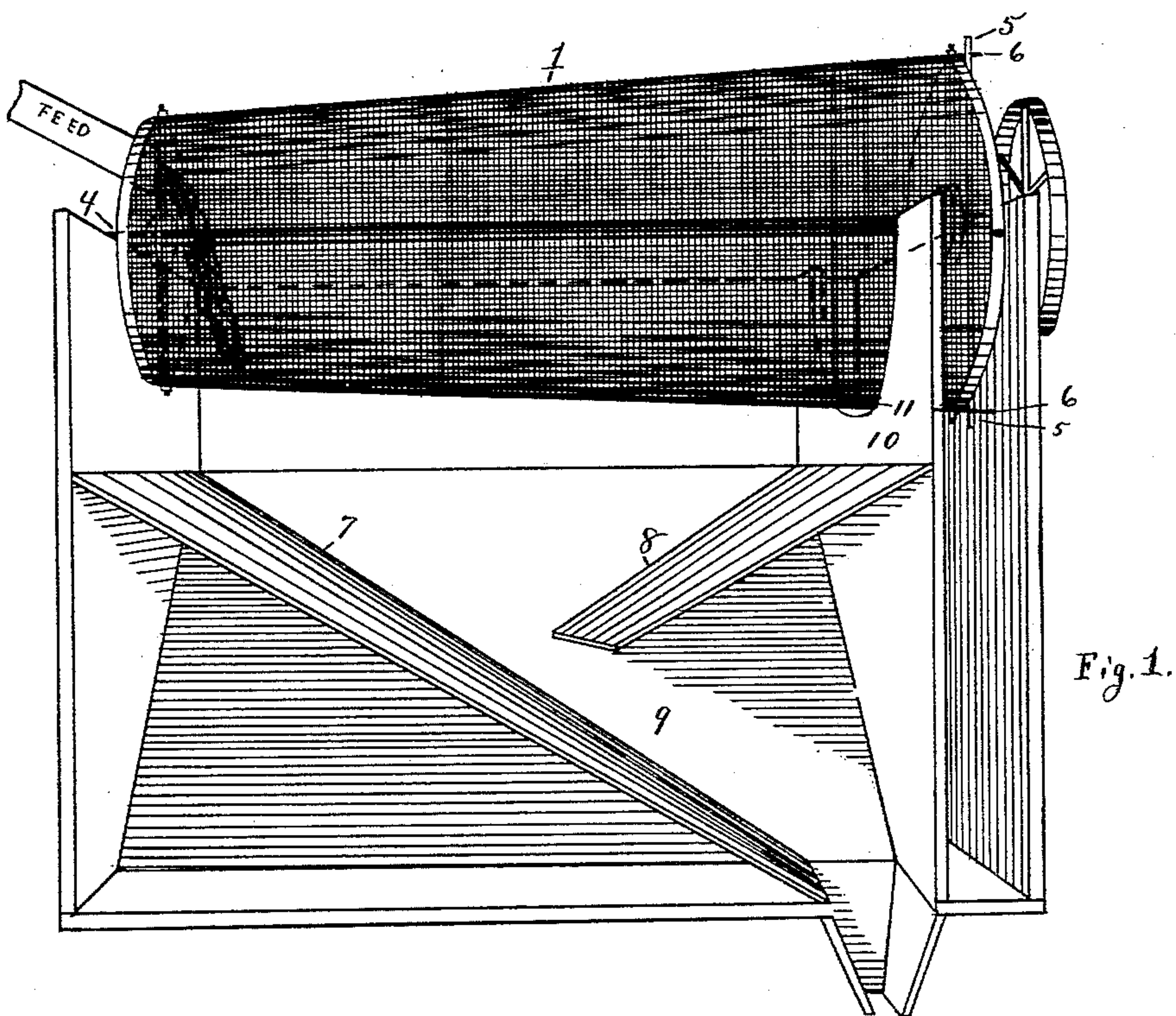
(No Model.)

2 Sheets—Sheet 1.

E. A. AUSTIN.
SCREEN FOR CLAY, ORES, &c.

No. 476,438.

Patented June 7, 1892.



Witnesses
A. E. Glascock
H. L. Davis

Inventor
Eugene A. Austin.
by Davis & Co.
Attorneys

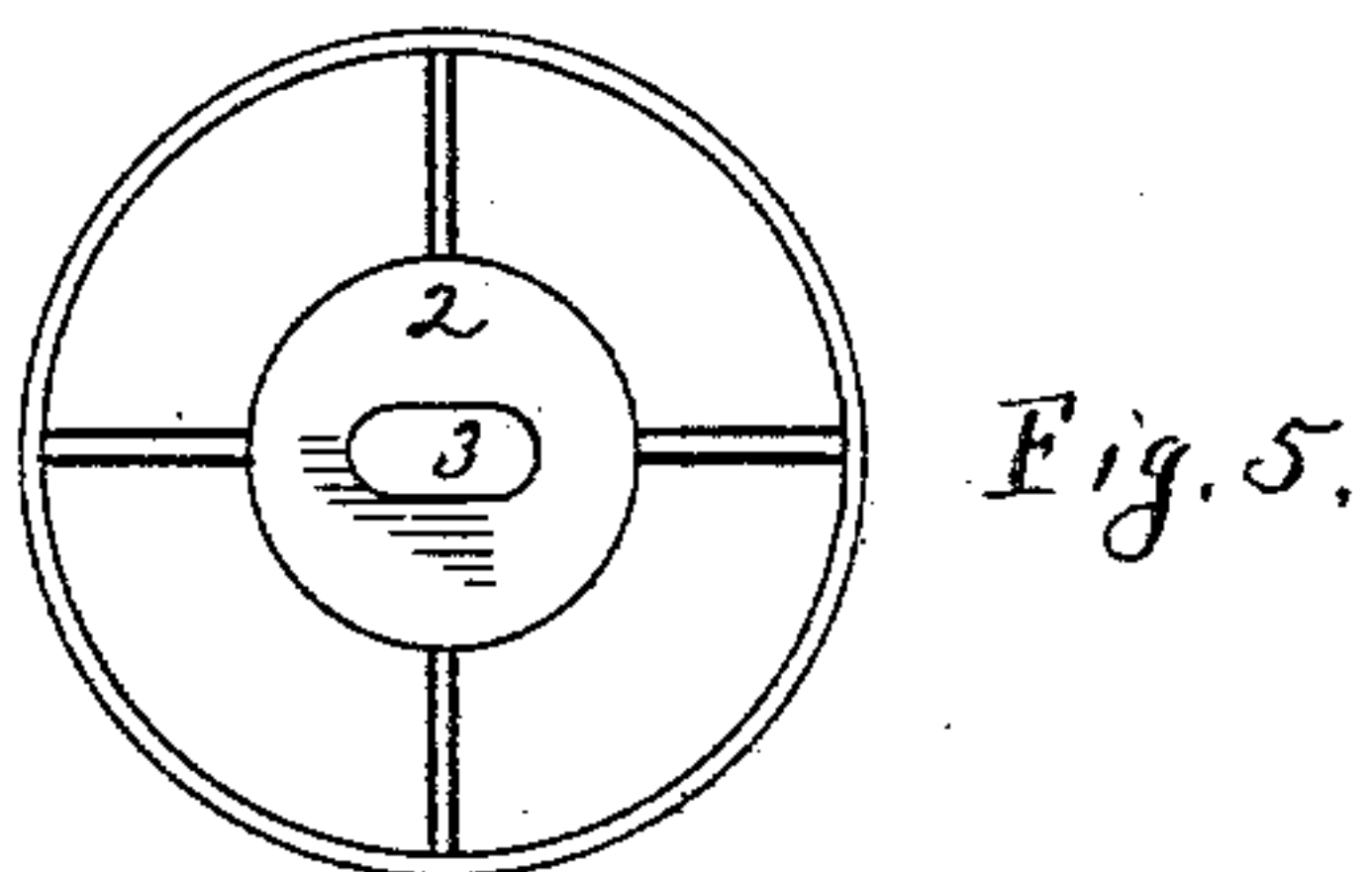
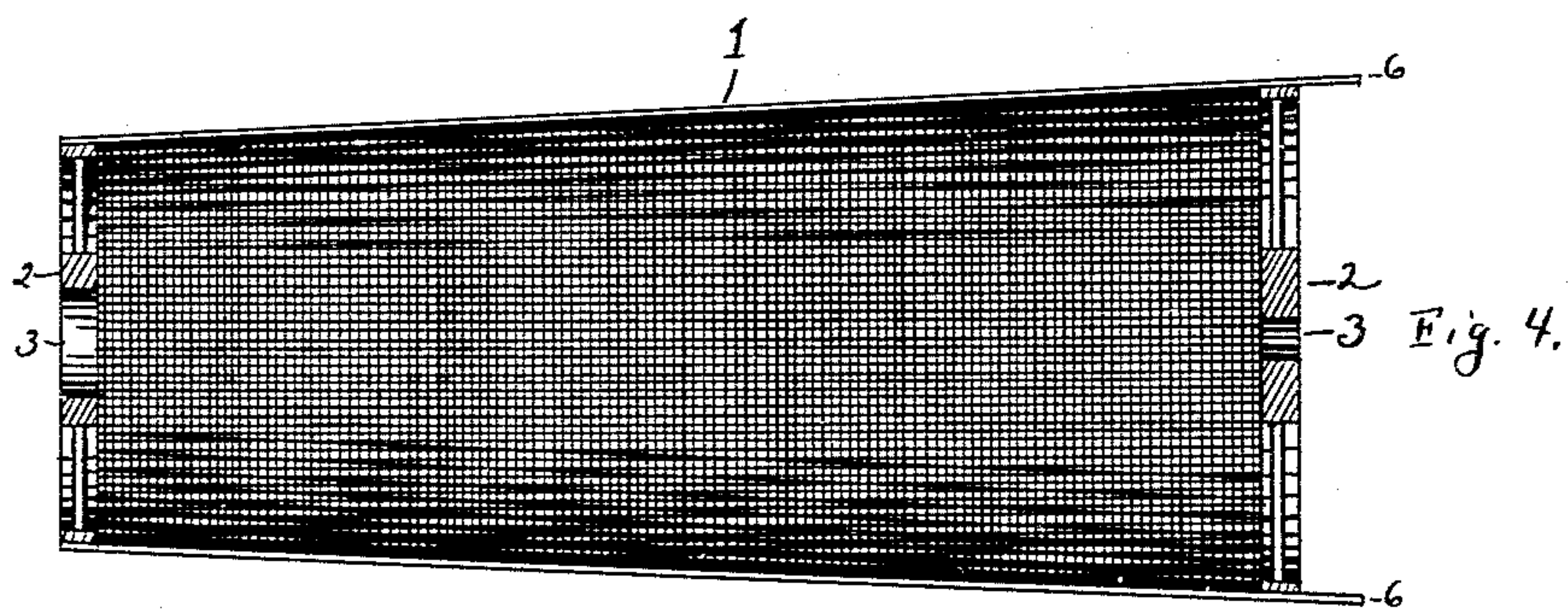
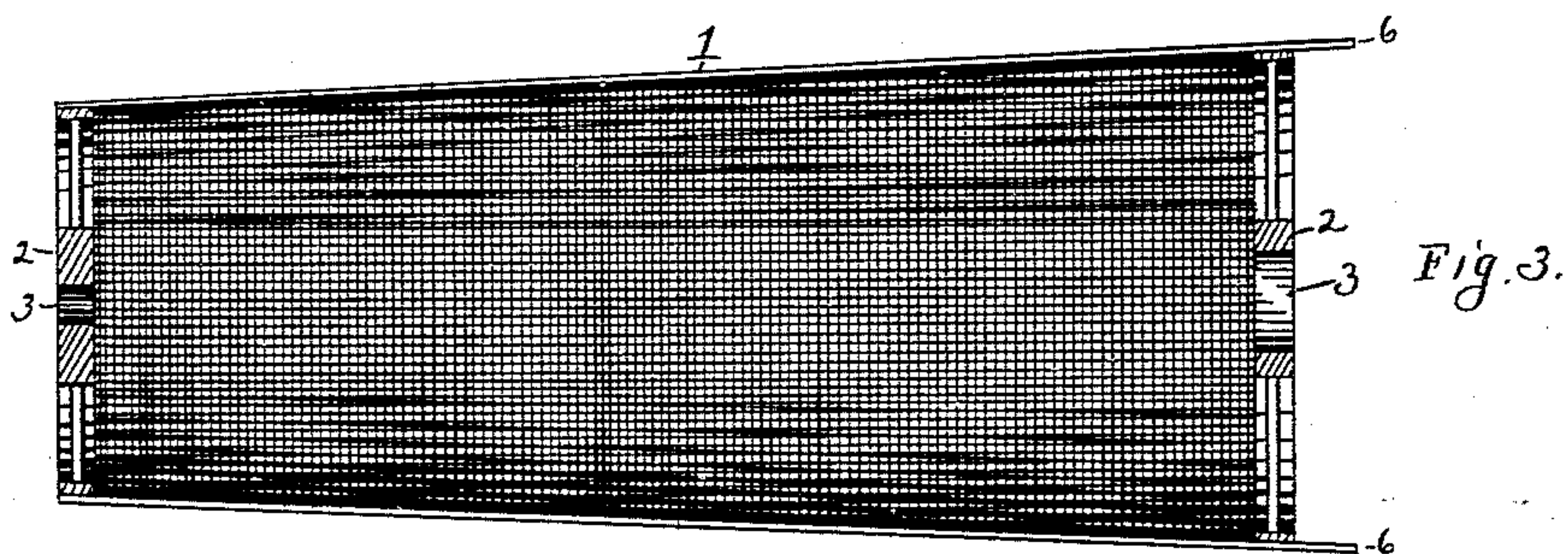
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2 Sheets—Sheet 2.

E. A. AUSTIN.
SCREEN FOR CLAY, ORES, &c.

No. 476,438.

Patented June 7, 1892.



Witnesses
A. E. Blascoch,
H. L. Davis.

Inventor
Eugene A. Austin,
by Davis & Co.
Attorneys

UNITED STATES PATENT OFFICE.

EUGENE A. AUSTIN, OF BOULDER, COLORADO.

SCREEN FOR CLAY, ORES, &c.

SPECIFICATION forming part of Letters Patent No. 476,438, dated June 7, 1892.

Application filed September 12, 1891. Serial No. 405,524. (No model.)

To all whom it may concern:

Be it known that I, EUGENE A. AUSTIN, a citizen of the United States, residing at Boulder, in the county of Boulder and State of Colorado, have invented a certain new, useful, and valuable Improvement in Screens for Clay, Ores, &c., of which the following is a full, clear, and exact description.

My invention has relation to revolving drop-screens and mixers; and it consists in the novel construction and arrangement of its parts.

In the accompanying drawings, Figure 1 is a perspective view of my invention, showing the frame and slides and attachments. Fig. 2 is a top plan view of my invention. Figs. 3 and 4 are detail longitudinal sectional views of the screen. Fig. 5 is an end view of the screen.

My invention is described as follows: It consists of the conical-shaped wire screen 1, provided with cast-iron hubs 2 2, which in turn are provided with elliptical slots 3, cut in each, so as to allow the screen to drop upon the axle when the longitudinal diameter of the slot is vertical. These hubs are so placed on the shaft 4 that the long diameters stand at right angles to each other, (see Figs. 3 and 4,) permitting four drops of the screen at each revolution. This drop jars the screen and prevents the meshes from clogging with the material passing through them. The arm 5 is secured upon the axle 4 with a proper set-screw, and its ends project far enough beyond the circular band of the screen to have a bearing upon the longitudinal bars 6 6 of the frame and causes the screen to revolve. The axle 4 rests upon the frame-work, tightly inclosed within which and under the screen is an arrangement of inclined slides 7, 8, and 9, so that the material is all conveyed to a common point, where it drops into the hopper below. As the material enters the screen through the feed-spout, the finer particles pass through the screen first and drop upon the

slide immediately below. The coarser particles travel on by the revolutions to the discharge or large end of the screen, and the nearer the approach to the discharge the larger are the particles passing through the meshes. These larger particles fall upon the slide 8, and as they fall from the lower end thereof they are thoroughly mixed with the finer particles on the slide 7, so that when the material arrives at the hopper it is uniformly mixed. As the material which is too coarse to pass through the meshes travels on the discharge, it passes a partition 10 in the frame, which has a semicircular opening 11 just a little larger than the diameter of the screen at that point, thus allowing the screen to revolve without touching it. This partition prevents any material too coarse to pass through the screen from entering upon the slides. The coarse material falls into a suitable compartment for the tailings, and is conveyed to the mill to be repulverized.

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

1. In a revolving screen, substantially as described, the hubs provided with the elongated slots and an axle passing through said slots, substantially as set forth.

2. In a revolving screen, substantially as described, the hubs provided with the elongated slots placed at right angles to each other and an axle passing through said slots, substantially as set forth.

3. A revolving screen consisting of the screen 1, loosely journaled on axle 4, and arm 5, secured on axle 4, its ends adapted to engage the rods 6 6, attached to the screen, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EUGENE A. AUSTIN.

Witnesses:

C. A. RUSSELL,
S. P. AUSTIN.