(No Model.) 2 Sheets—Sheet 1.

P. PLANT.

Amalgamator.

No. 238,050. Patented Feb. 22, 1881.

Fig 4.

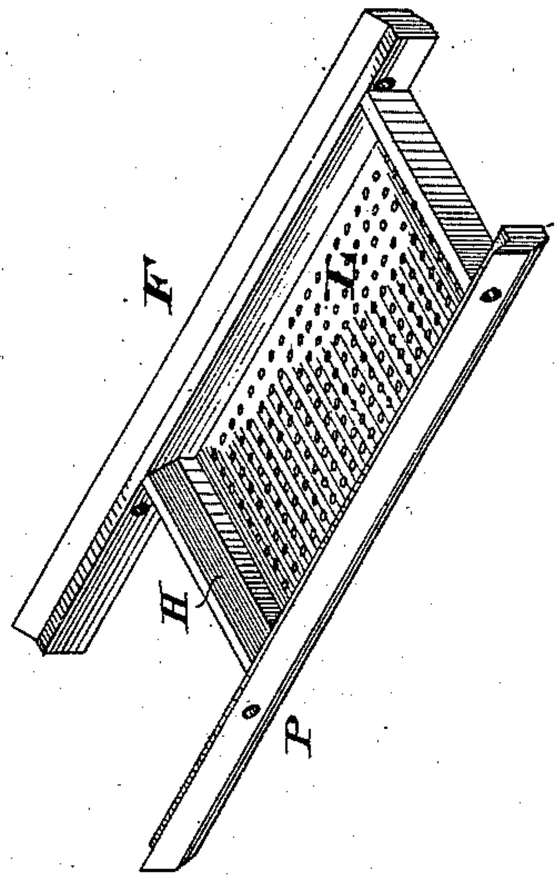


Fig 5

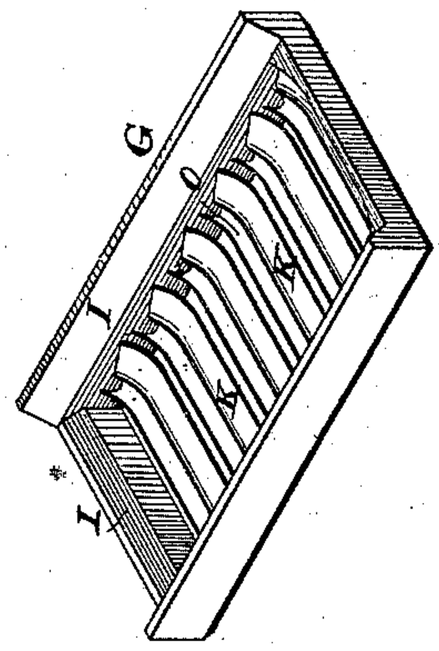
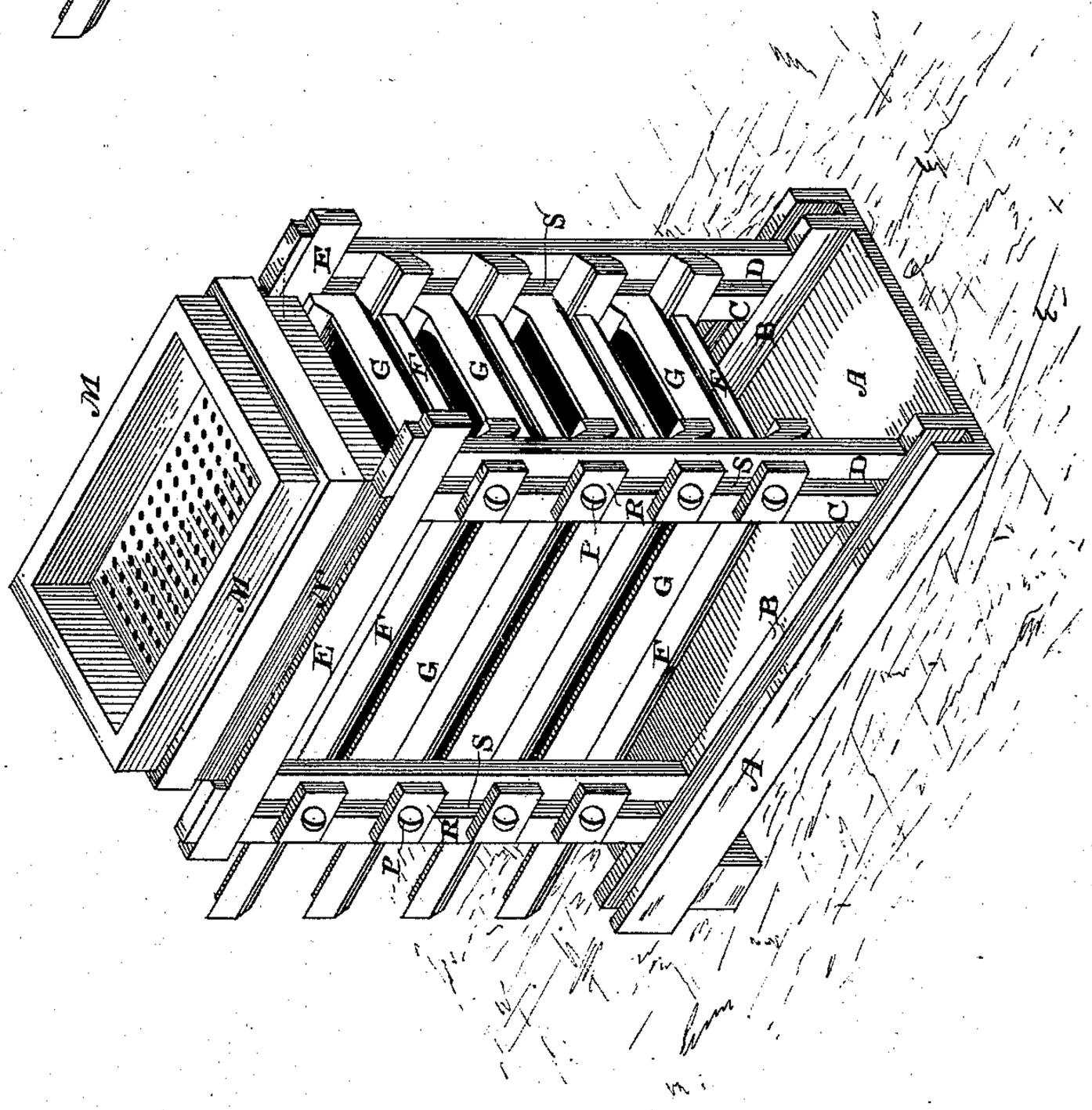


Fig. 1.



WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

P. PLANT.

Amalgamator.

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Fig. 3.

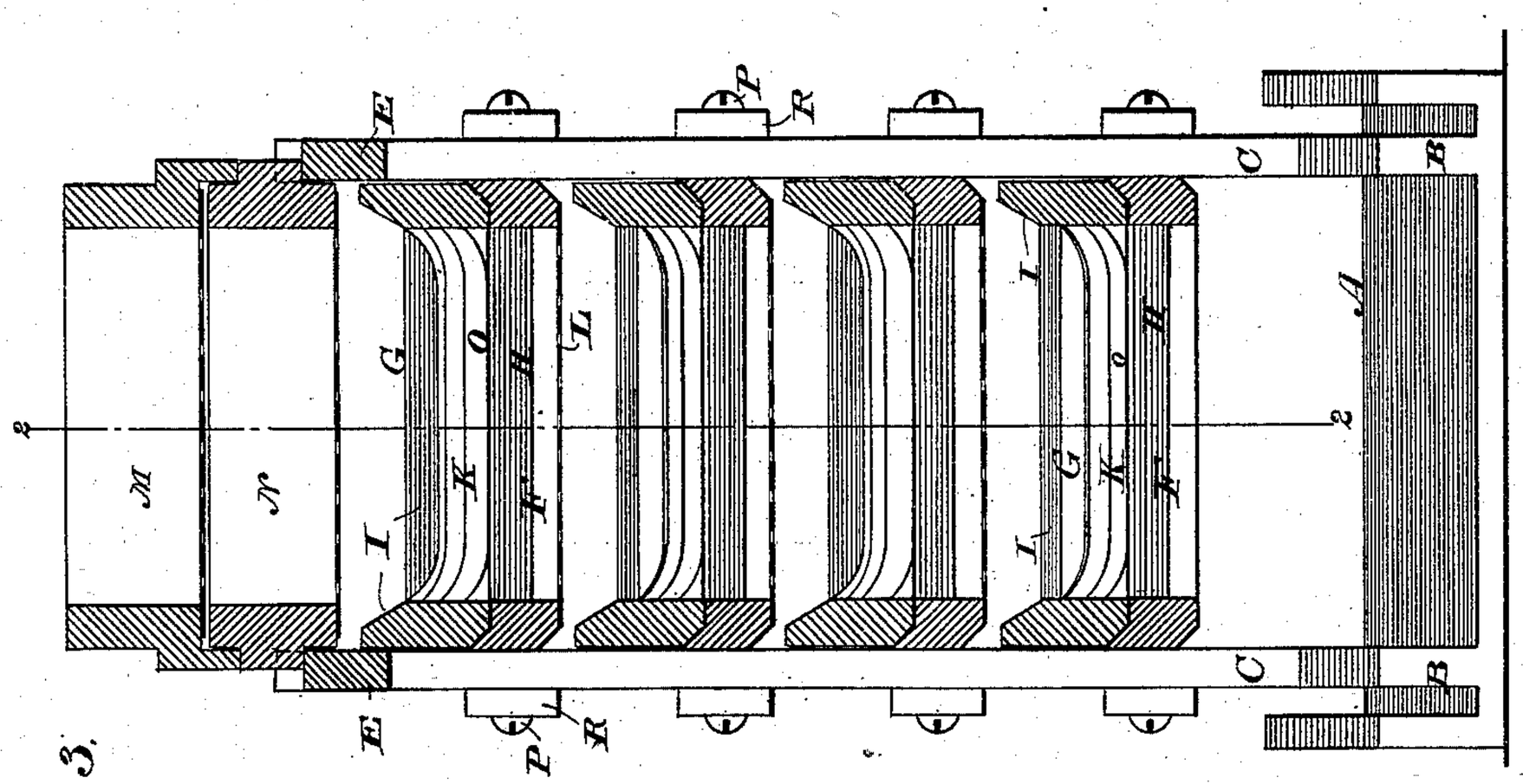
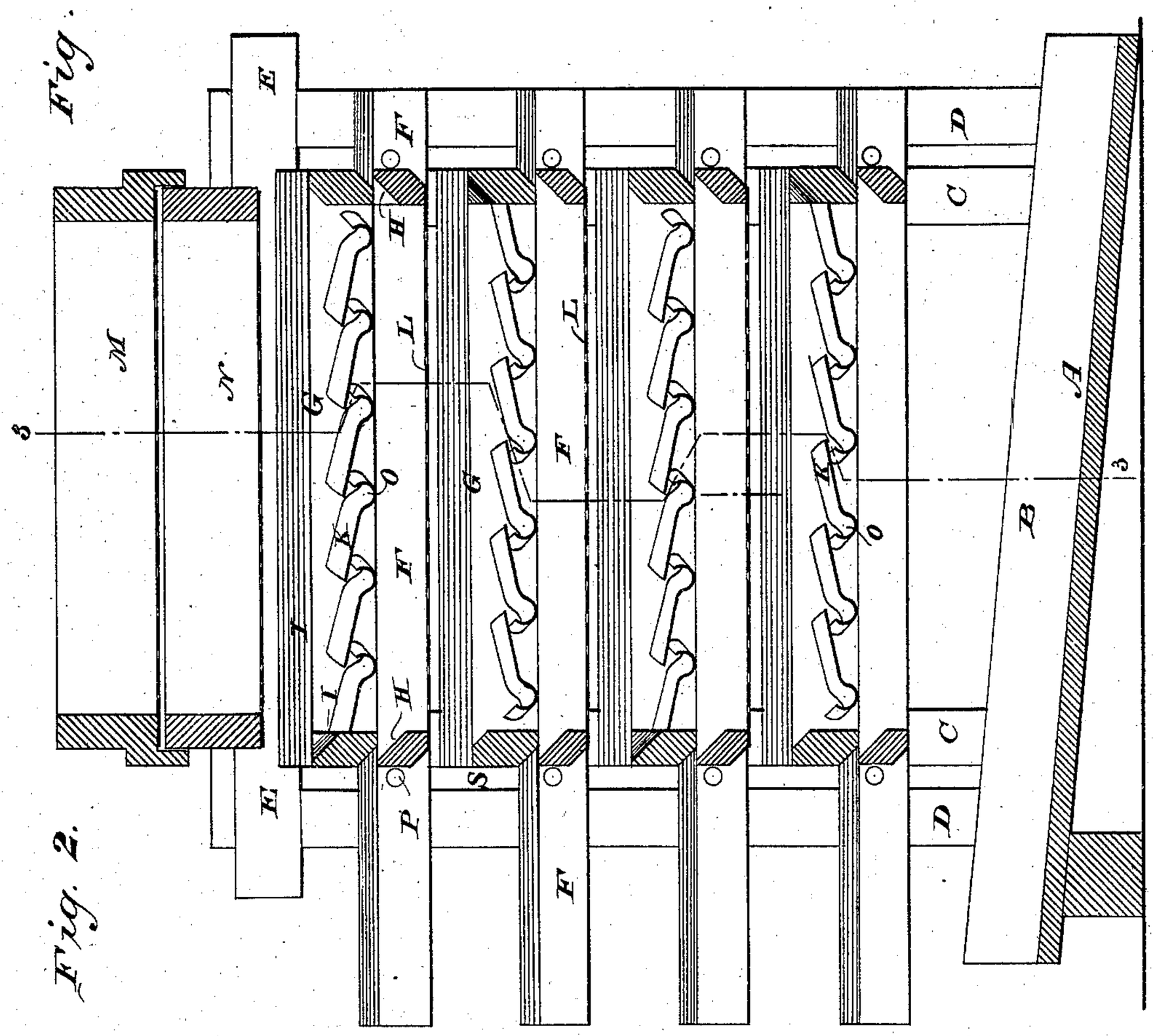


Fig. 2.



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UNITED STATES PATENT OFFICE.

PASCHAL PLANT, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF FOUR-FIFTHS TO W. W. STOW, LUTHER C. COX, JOHN HARFORD, AND S. W. SANDERSON.

AMALGAMATOR.

SPECIFICATION forming part of Letters Patent No. 238,050, dated February 22, 1881.

Application filed September 18, 1880. (No model.)

To all whom it may concern:

Be it known that I, PASCHAL PLANT, of San Francisco, in the State of California, have invented certain new and useful Improvements in Amalgamators, or Machinery for Collecting Gold, of which the following is a specification.

My object is to secure a thorough separation of gold, in a fine or even in a comparatively coarse state, from pulverized earthy matter by means of my simple and compact apparatus, which is mounted in a suitable frame over an inclined sluiceway, and is composed of a series of peculiarly-constructed riffles, one above another, between which are proper sieves or distributers.

In the accompanying drawings, Figure 1 is a perspective view of my complete apparatus in working condition. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a transverse vertical section. Fig. 4 is a perspective view of one of the sieves or perforated distributers detached, and Fig. 5 is a perspective view of one of the riffle-frames detached.

A indicates a short sluiceway, within which the frame B C D E is mounted. Within this frame are fixed, so that they may be adjusted upordown, several riffle-supports or guideways, F, which sustain the sliding riffle-frames G. The guideways are beveled at H, and the riffle-frames are correspondingly beveled at I, in order to direct all of the falling ore and water inward. Each riffle-frame is provided with a series of independent plates, K, which slightly overlap each other. Each series of these riffle-plates inclines in a direction opposite to the inclination of the adjacent series, and between the riffles are the sieves L, as shown in the drawings. It is desirable to have the sieves or distributers punched from the upper surface, so that the perforations will be in some measure funnel-shaped, which will cause the water to drop directly from the under side of the perforations.

M N represent two removable hoppers with perforated or sieve bottoms, which rest over the top of the machine and receive the earthy matter bearing gold and the water, which pass down upon the first series of riffle-plates, thence through the next sieve, and so on until the water and earthy matter are delivered into the sluice below. Each riffle-plate, it will be observed, is provided with a groove or trough, O, which will collect any waste mercury, and will also assist in the collection of the gold. These plates may be made of copper coated with silver, and when in use they are to be charged with quicksilver for amalgamating purposes. The earthy matter will pass between the riffle-plates over these lower edges, while the gold is collected on the plates.

The riffle-supports or guideways may be held in place adjustably by means of the screws P passing through the clamp-blocks R, and through the open space S between the upright frame-pieces C D.

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

1. The combination of the series of riffles, one above the other, composed of the beveled frames and grooved plates, as specified, with the guideways or riffle-supports beveled, as described, and the distributing-sieves, whereby the earthy matter bearing gold may be fed from the hopper at the top and pass down through the distributers and riffles, and have its precious metal collected, and be then finally delivered into the sluiceway, substantially as specified.

2. The combination of the series of riffles, one above the other, composed of the beveled frames and grooved plates, as specified, the guideways or riffle-supports, and the distributing-sieves, with the adjusting-screws P and clamping-blocks R, substantially as described.

PASCHAL PLANT.

Witnesses:

LUTHER C. COX,

JENNINGS S. COX,

CHARLES M. LEARY.