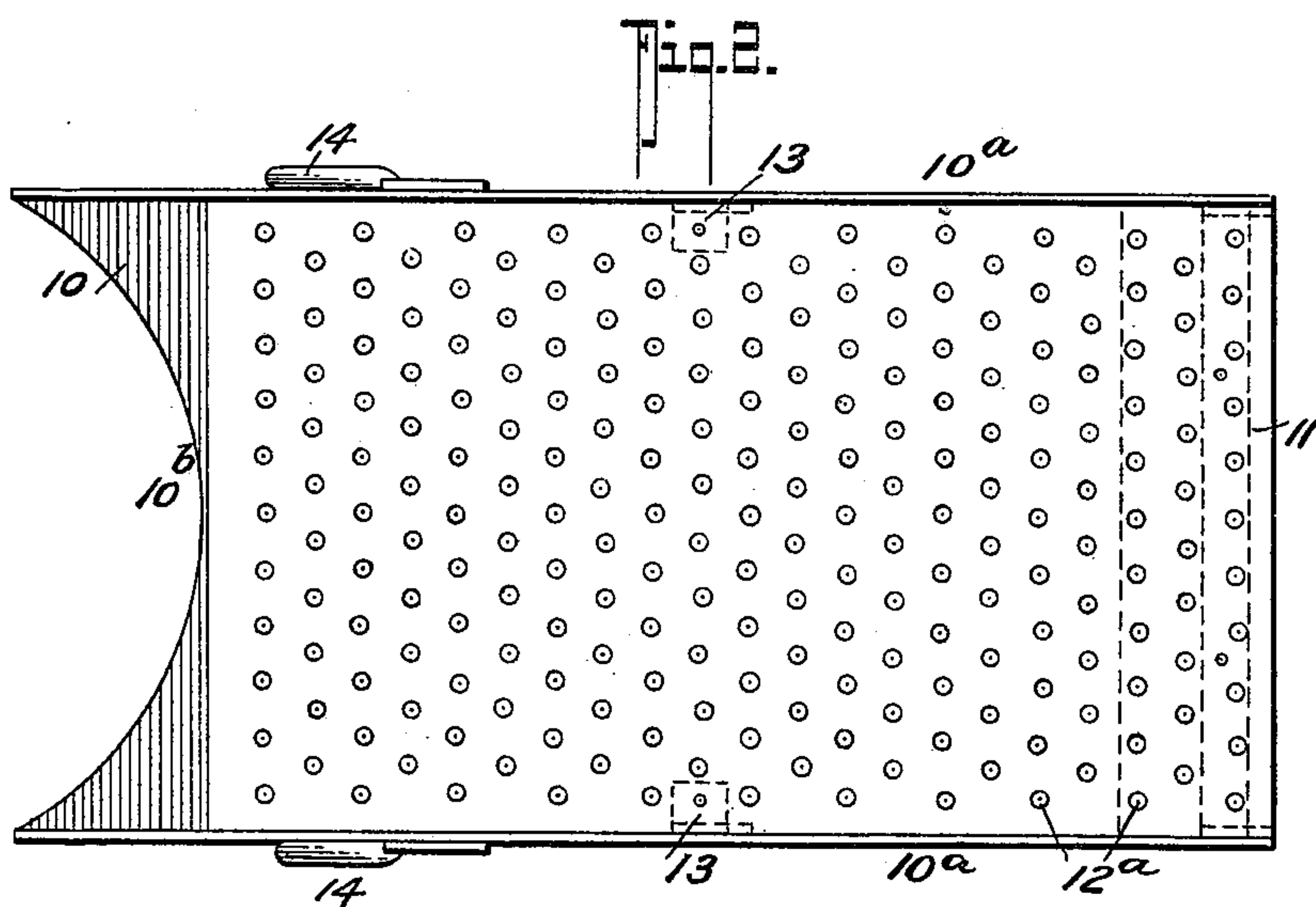
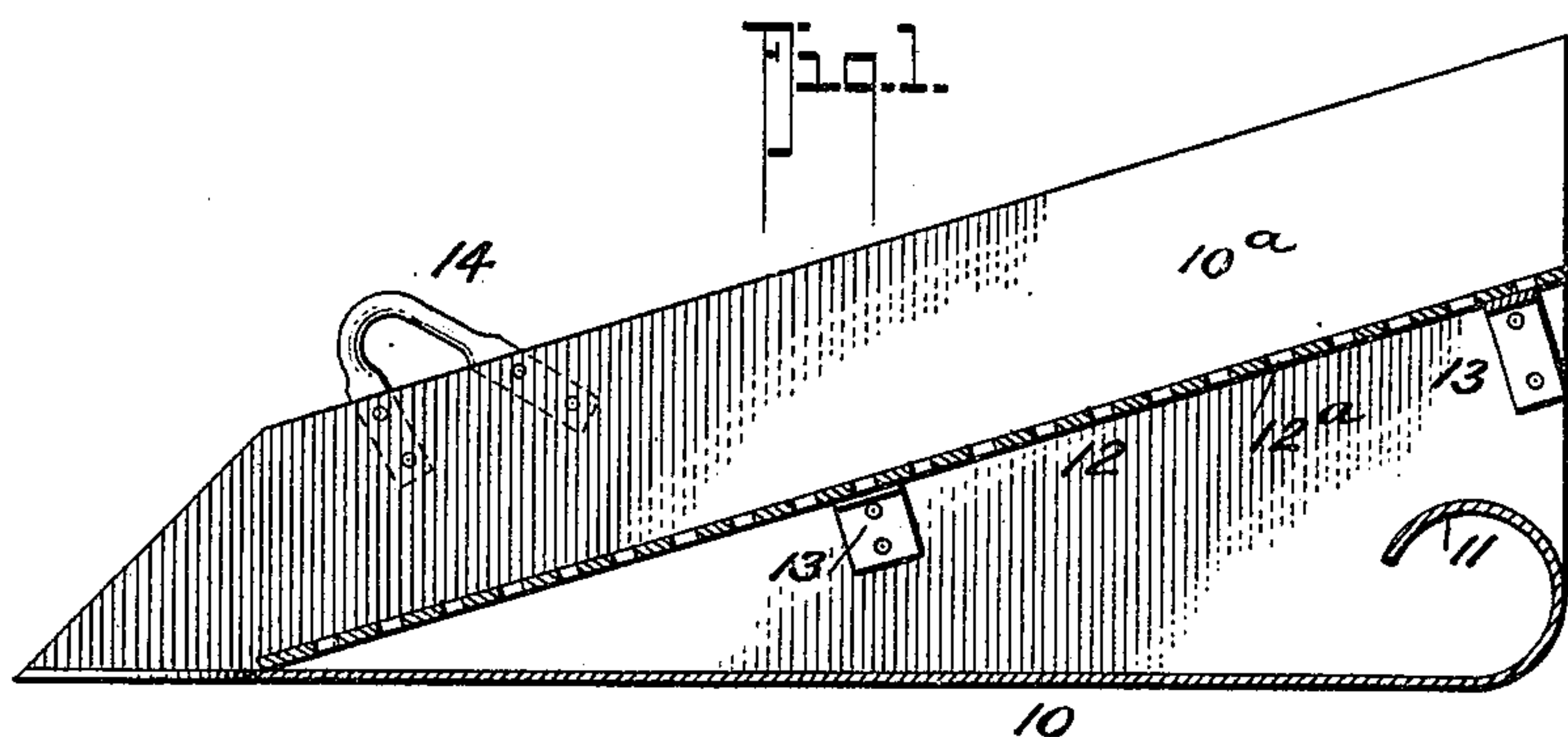


No. 645,864.

Patented Mar. 20, 1900.

A. M. LYON.  
GOLD SAVING DEVICE.  
(Application filed Sept. 5, 1899.)

(No Model.)



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

ALEXANDER MATHEW LYON, OF NEW WESTMINSTER, CANADA.

## GOLD-SAVING DEVICE.

SPECIFICATION forming part of Letters Patent No. 645,864, dated March 20, 1900.

Application filed September 5, 1899. Serial No. 729,510. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER MATHEW LYON, a citizen of Great Britain, residing at New Westminster, in the Province of British Columbia, Canada, have invented a new and useful Gold-Saving Device, of which the following is a specification.

This invention relates to an improved and novel means of separating gold and other precious metals from the auriferous gravels of river-beds and streams; and its object is to provide a device that will plow or scoop up gravel and sand in the bed of a stream and cause the coarse material to pass over a grid or grizzly incased within the vertical walls of the scoop and allow the finer material containing the gold to pass through the grid to the floor of the scoop, the rear end of which is bent upward into a curved loop, which forms a trap for the said precious metals, but allows the light materials to pass over with the water.

This object is attained by the device illustrated in the accompanying drawings, of which—

Figure 1 is a sectional view taken longitudinally through the center, and Fig. 2 is a plan of the same.

Numerals designate the different parts in the foregoing views, in which 10 indicates a box or sluice open at both ends and having vertical sides 10<sup>a</sup>, which are sloped upward rearward, so that the rear end of the box is considerably deeper than the forward end.

The forward part of the bottom is on a horizontal plane, but at the rear end it is bent upward into a curve 11, which passes clear across and is made integral with the sides to give it rigidity, besides assisting in stiffening the sides.

The forward end of the floor of the box is made in crescent form, as 10<sup>b</sup>, so that the opposite corners are projected beyond the center. This forms digging-corners on the scoop, which better assist in agitating the sand and gravel.

Arranged on a plane parallel with the top of the sides 10<sup>a</sup> and at the depth of the front end of such sides is a grid or grizzly 12, the front end of which is supported on the floor of the scoop and the rear end is supported by brackets 13, fixed to the opposite side walls 10<sup>a</sup>. This grid or grizzly is designed to take up the space between the walls of the scoop, and the apertures 12<sup>a</sup> therein are made the proper size according to the kind of gravel being handled, so that nothing but the fine stuff will pass through, or where it is found more practical ordinary grizzly-bars may be substituted for the plate 12.

In the operation of this device a cable is attached to the loops 14, and by this means the scoop is dragged upstream along the bottom. The points on either side of the crescent will plow the gravel, which will be carried down by the stream and received over the grid 12, whence the heavy stuff will pass over back into the path of the scoop, but the fine stuff containing the values will pass to the floor of the scoop and the gold and other precious metals will be trapped by the curve 11.

Having now described my invention, what I claim as new, and desire to be protected in by Letters Patent, is—

A gold-saving dredging and sluicing device, consisting of a box open at both ends, having vertical sides sloping upwardly and rearwardly, a trap 11 extending across the rear part of the bottom, and the front part of the bottom being of crescent form; in combination with a grid or grizzly placed within the walls of the box with its front end resting on the bottom of the same and rigidly supported on a plane parallel with the top edges of the sides, as specified.

ALEXANDER MATHEW LYON.

Witnesses:

ROWLAND BRITTAIN,  
W. G. TRETHEWEY.