

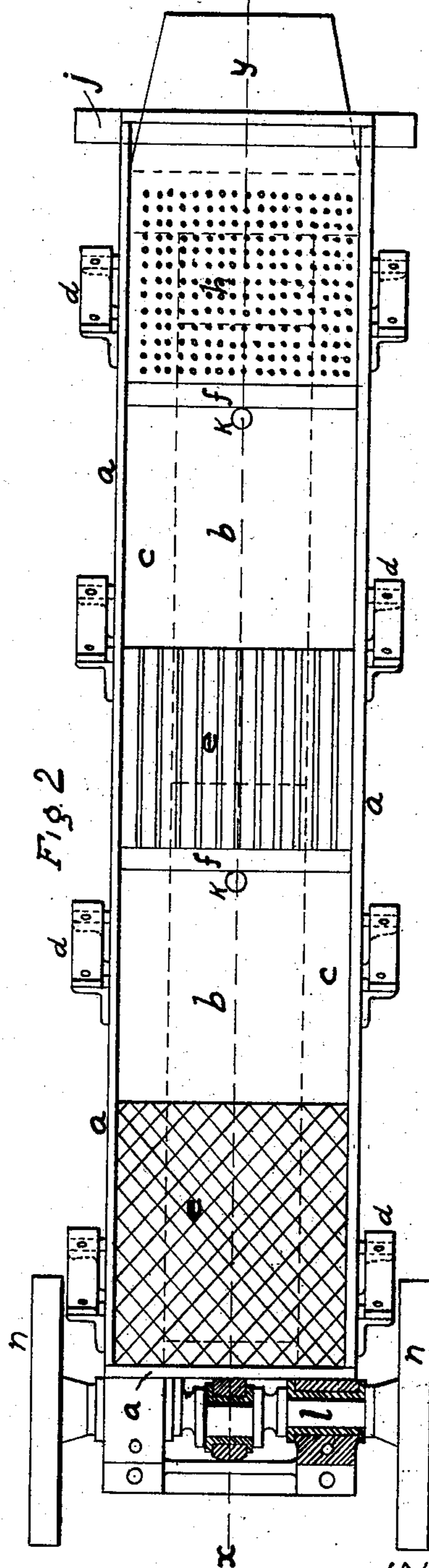
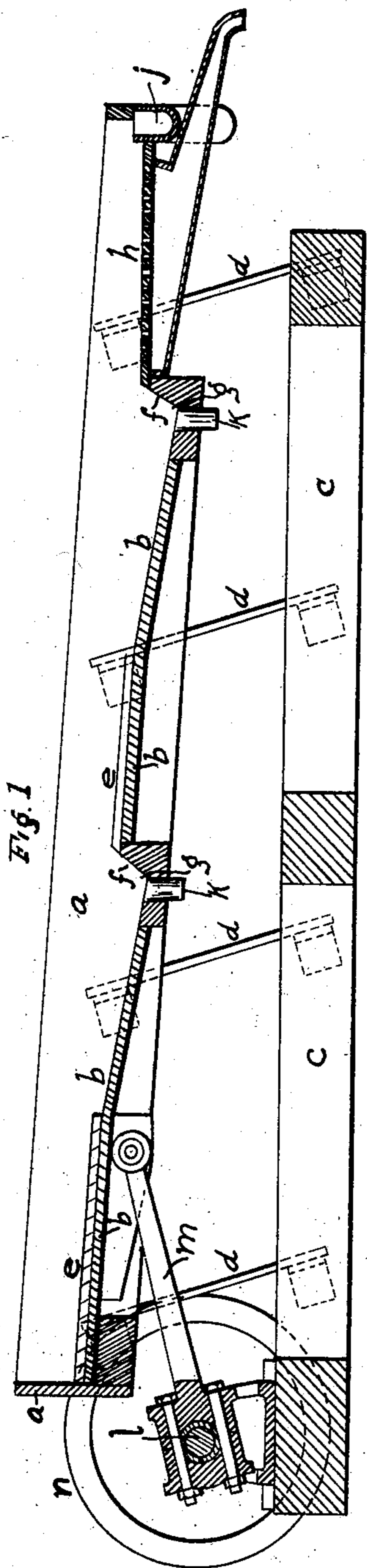
No. 747,692.

PATENTED DEC. 22, 1903.

F. FRANÇOIS.  
MOVABLE SLUICE BOX.

APPLICATION FILED MAR. 11, 1903.

NO MODEL.



WITNESSES:

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## UNITED STATES PATENT OFFICE.

FELIX FRANÇOIS, OF ST. ETIENNE, FRANCE.

## MOVABLE SLUICE-BOX.

SPECIFICATION forming part of Letters Patent No. 747,692, dated December 22, 1903.

Application filed March 11, 1903. Serial No. 147,291. (No model.)

*To all whom it may concern:*

Be it known that I, FELIX FRANÇOIS, a citizen of the Republic of France, residing at St. Etienne, France, have invented Improvements in Movable Sluice-Boxes, of which the following is a specification.

This invention relates to an improved sluice-box or ore-separator, and has for its object to provide one in which the auriferous earth may have the precious metal efficiently separated from it and classified.

In the accompanying drawings, Figure 1 is a sectional side elevation on line *x y*, Fig. 2; and Fig. 2 is a plan view.

The cradle *a* of my apparatus is composed of the usual side and end walls and of a number of bottom sections *b*. Each of these sections has a portion of its surface nearly horizontal, with a forward inclined plane portion ending abruptly in a nearly-upright portion *f*, thus forming a trough *g*. An opening is made in the bottom of this trough and closed with a plug *k*. A base-frame *c* is provided for the cradle, and from the sides of the base elastic blades of wood or metal support the cradle. These elastic blades are preferably inclined, as shown in Fig. 1. A crank or eccentric shaft *l* and rod *m* with the driving and fly wheels *n* serve to give the cradle a reciprocating motion, at the same time elevating and lowering it to some extent at each reciprocation.

At the discharge end of the cradle I place a filter *h* for the passage of the finer heavy particles and water and an overflow-pipe *j* of considerable area to allow light material to pass therethrough.

The horizontal sections may be provided with grids, bars, or the like *e* to assist in breaking up the auriferous earth, and amalgamating plates, mats, or the like may be disposed throughout the bottom of the cradle, as common in the art, or mercury may be placed in the troughs.

In operation the plugs *k* are inserted, the earth to be washed supplied at one end, and water supplied in the ordinary manner. Motion is also imparted to the cradle and the heavier metals caught in the troughs, while the light particles (those that float) and small pebbles will on account of the peculiar motion be thrown up onto the next horizontal section until they at last reach the sieve *h*, through which they will pass if small enough, to be collected and again put through the cradle. The lighter particles are lifted into and flow out the overflow *j*.

By removing the plugs *k* and stopping the machine the materials in each trough may be dumped into the chamber *c* of the base, the plugs again inserted, and the operation again begun.

I claim as my invention—

1. An ore-separator, comprising a rectangular cradle having sections of its bottom carrying bars for breaking up the earth, intermediate rectangular slanting sections leading from one section and connected abruptly with the next, and means for oscillating said cradle and elevating it in a horizontal plane, during oscillation, substantially as described.

2. An ore-separator, comprising a rectangular cradle having sections of its bottom carrying bars for breaking up the earth, intermediate rectangular slanting sections leading from one section and connected abruptly with the next and means for oscillating said cradle and elevating it in a horizontal plane during oscillation, in combination with a sieve *h* at the discharge end of the cradle, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FELIX FRANÇOIS.

Witnesses:

PIERRE GARARD,  
FRANÇOIS TARET.