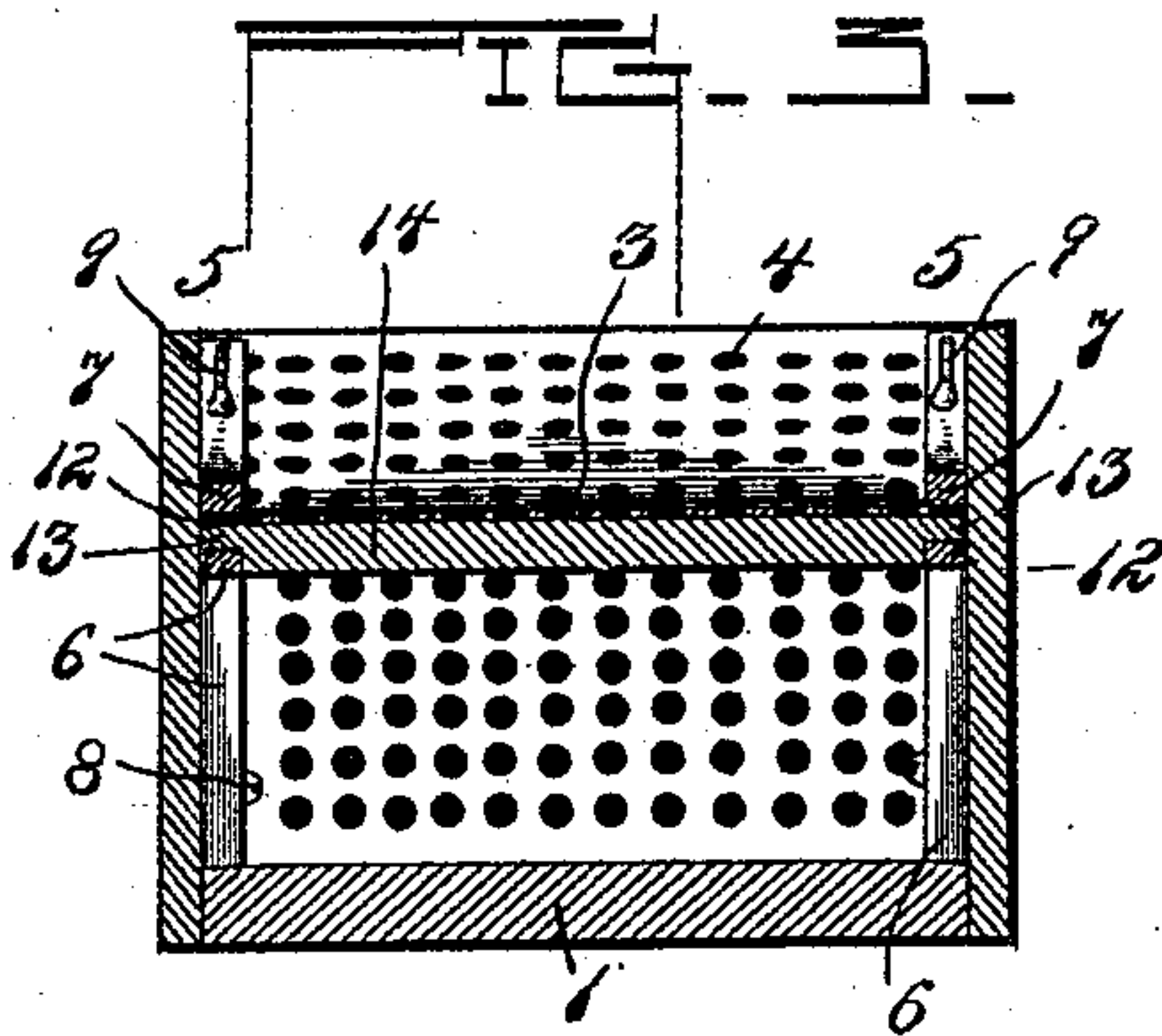
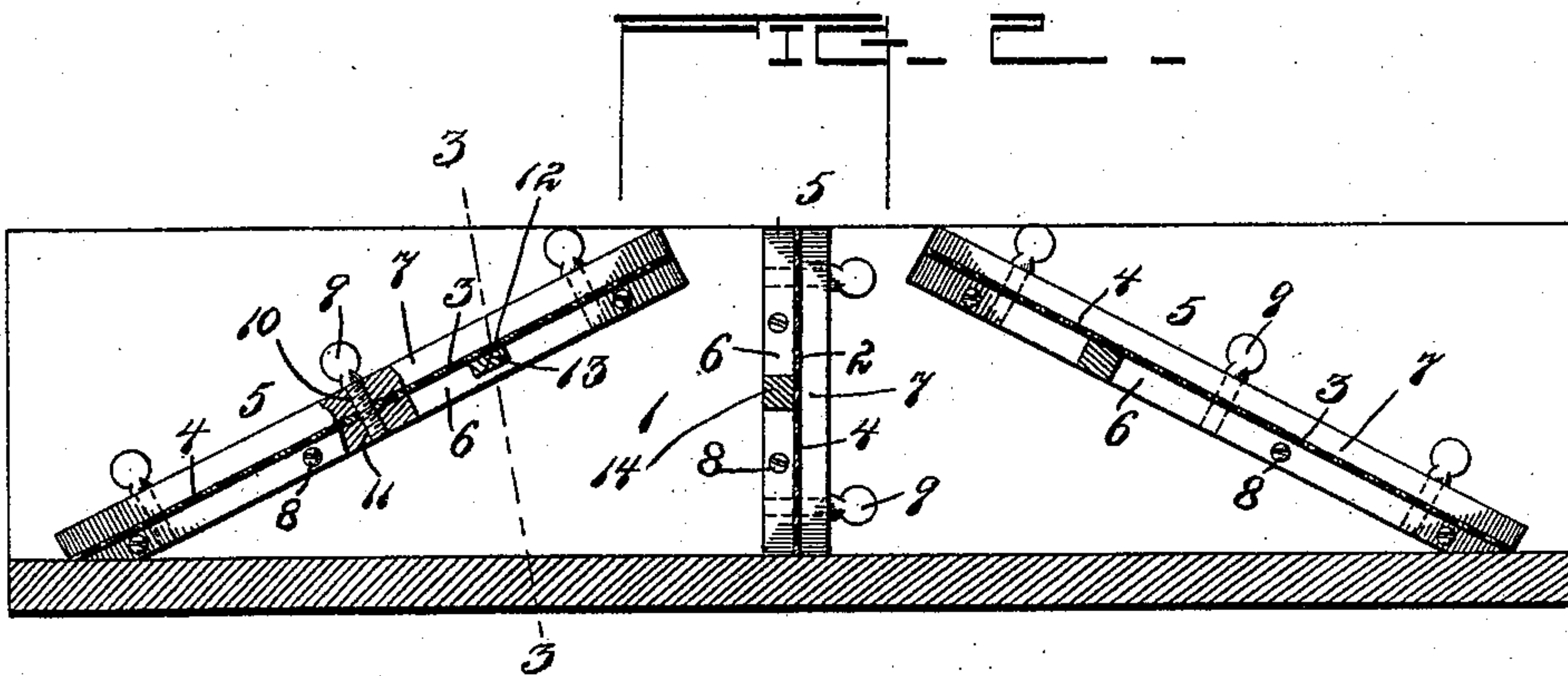
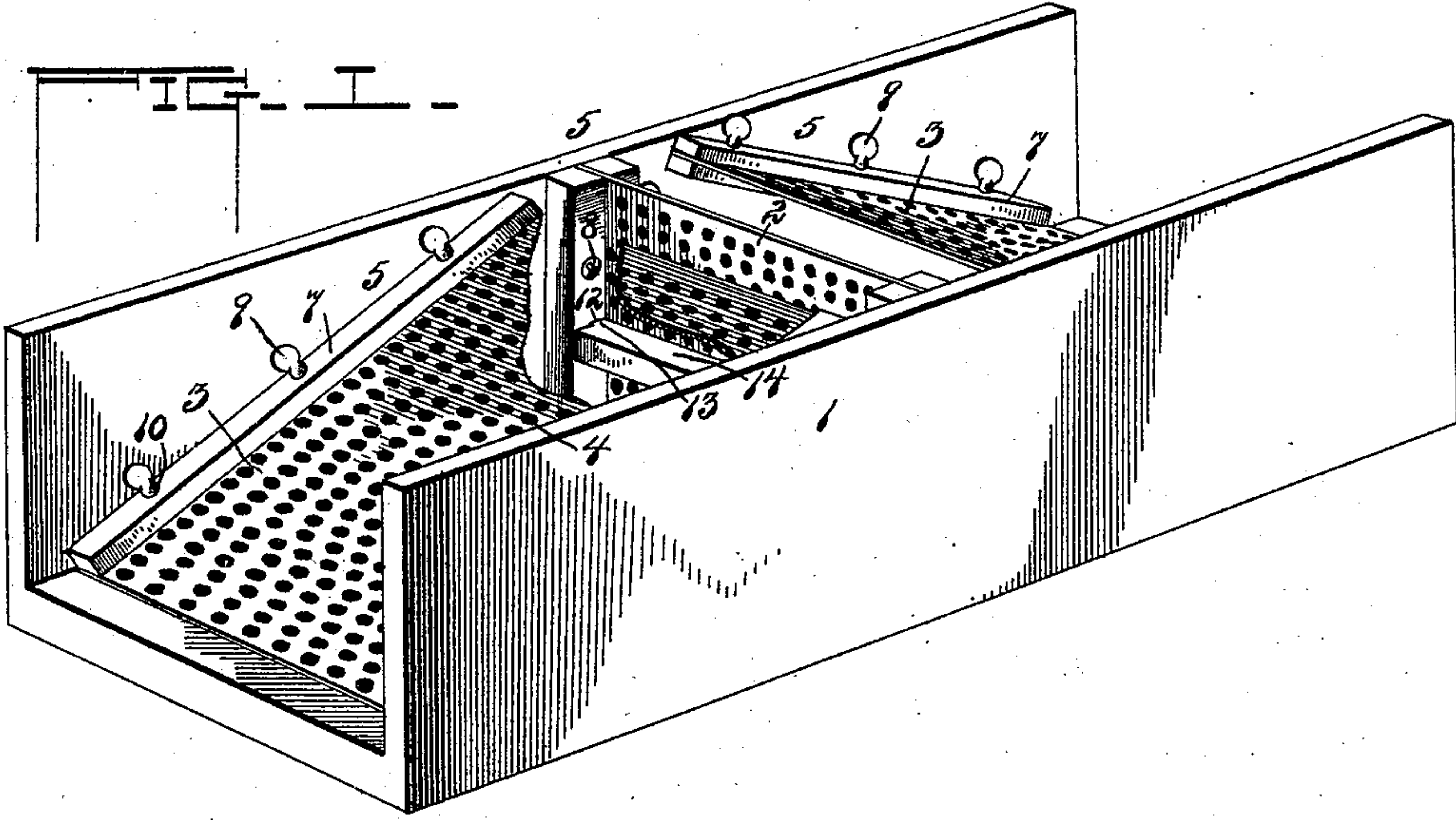


(No Model.)

J. & D. V. SNOWGOOSE.
GOLD SAVING DEVICE.

No. 574,639.

Patented Jan. 5, 1897.



Witnesses

Milton O'Connell,
S. P. McLaughlin.

By their Attorneys,

Inventors,
John Snowgoose,
Daniel V. Snowgoose.
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN SNOWGOOSE AND DANIEL V. SNOWGOOSE, OF ASHLAND, OREGON.

GOLD-SAVING DEVICE.

SPECIFICATION forming part of Letters Patent No. 574,639, dated January 5, 1897.

Application filed August 8, 1896. Serial No. 602,178. (No model.)

To all whom it may concern:

Be it known that we, JOHN SNOWGOOSE and DANIEL V. SNOWGOOSE, citizens of the United States, residing at Ashland, in the county of Jackson and State of Oregon, have invented a new and useful Gold-Saving Device, of which the following is a specification.

This invention relates to gold-saving devices or apparatus; and it has for its object to provide a new and useful amalgamating device for use in connection with a sluice to provide positive and efficient means for collecting or saving fine float or flour gold, which, ordinarily, owing to its light specific gravity, is held in suspension in the sluice-water and is therefore usually lost in sluicing and in the ordinary constructions of amalgamators.

With this and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a perspective view of a sluice-box equipped with an amalgamating or gold-saving device constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view thereof. Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 2.

Referring to the accompanying drawings, the numeral 1 designates an open sluice-box of an ordinary construction and of that type usually employed in connection with mills. In the present invention the sluice-box 1 has arranged therein a group of gold-collecting plates comprising a central vertically-disposed collecting-plate 2 and opposite obliquely-disposed collecting-plates 3, respectively arranged at opposite sides of the central vertical plate 2 and disposed reversely with respect to each other at an angle of about thirty degrees, as clearly illustrated in Fig. 2 of the drawings. The vertical and opposite obliquely-arranged collecting-plates 2 and 3 extend from the top to the bottom of the sluice-box, so as to be exposed at all times to the sluice-water irrespective of the depth thereof in the box, and said collecting-plates are preferably silver plates, amalgamated throughout their entire area to provide for the collection of the flour-gold by amalgamation. The

amalgamated collecting-plates, arranged in the relation specified, are provided throughout their entire areas with a multiplicity of round or oblong perforations or holes 4, which permit of the ready passage of the water through the sluice-box, and at the same time serve to break up the water, so as to give the fine particles of floating gold an opportunity of coming in contact with the amalgamated surfaces of the plates and also to break the slum, so that the light gold which it carries will also be allowed to settle on the amalgamated surfaces of the collecting-plates.

The opposite side edges of each of the amalgamated collecting-plates are detachably clamped between diametrically opposite pairs of clamp-bars 5, arranged at opposite inner sides of the sluice-box, and each pair of clamp-bars 5 comprises a fixed bar 6 and a movable bar 7. The fixed and movable clamp-bars 6 and 7 of each pair are superposed and parallel with each other, and the bar 6 is fastened in a fixed position to the side of the sluice-box by means of screws or other suitable fasteners 8, while the movable bar 7 is detachably clamped onto the fixed bar 6 by means of the thumb clamping-screws 9, working through openings 10 in the bar 7 and engaging threaded sockets 11, formed in the bar 6 in alinement with the openings 10. The fixed clamp-bars 6 of the diametrically opposite pairs of such clamp-bars are provided intermediate of their ends and in their clamping-faces with the mortises 12, which receive the reduced ends 13 of the transverse brace-bars 14, which are disposed at one side of the collecting-plates and serve to brace the same against any strain imposed thereon by rocks or other foreign matter which may be carried thereagainst.

By reason of forming the mortises 12 in the clamping-faces of the fixed clamp-bars 6 when the movable bars 7 are secured in place on the fixed bars 6 the transverse brace-bars will be clamped in place in the same manner as the plates themselves.

It will of course be understood that the opposite pairs of clamp-bars 5 for the central vertical collecting-plate 2 are arranged vertically at opposite inner sides of the sluice-box, while the opposite pairs of clamp-bars 5 for the plates 3 are arranged, respectively, at

opposite sides of the central plate 2 and are disposed at an oblique angle to correspond or agree with the inclination of the said plates 3, the clamp-bars for the oblique plates 3 being necessarily longer than the bars for the plate 2, so as to extend from the top to the bottom of the sluice-box. By removing the movable clamp-bars 7 of each opposite pairs of such bars the amalgamated collecting-plates can be readily removed and replaced without stopping the mill in connection with which the sluice-box may be employed, as will be readily understood by those skilled in the art.

By reason of the inclined or oblique disposition of the collecting-plates 3 at opposite sides of the central vertical plate 2 provision is made whereby the floating gold in suspension within the water is effectively collected, it being obvious that the inclined plates present a large area of contact with the water and at the same time are disposed in such a position as to collect such particles of gold as may tend to settle toward the bottom of the sluice-box. The collecting-plates are arranged in such relation within the sluice-box that the sluice-water first strikes the upper side of one of the oblique plates, then passes through the central vertical plate, and strikes the under side of the other oblique collecting-plate. The floating gold therefore has three separate opportunities of being collected, and any gold that may pass through the holes of the vertical plate without being caught will in nearly every case be collected by the last oblique plate of the group, inas-

much as such plate is disposed reversely to the first oblique plate and presents a greater obstruction to the straight flow of water and the floating gold.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

In a gold-collecting device, the combination with a sluice-box, of a group of collecting-plates arranged within the box, diametrically opposite pairs of clamp-bars for each collecting-plate, each pair of said bars comprising a fixed or stationary bar having intermediate of its ends and in its clamping-face a mortise, and a companion movable bar working against the fixed or stationary bar to clamp the side edges of the plates, screws detachably connecting the movable and fixed bars together, and transverse brace-bars arranged flat against one side of the plates and having reduced ends fitting in the mortises of the fixed or stationary clamp-bars, substantially as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOHN SNOWGOOSE.

DANIEL V. SNOWGOOSE.

Witnesses:

H. SNOWGOOSE,

G. F. BILLINGS.