

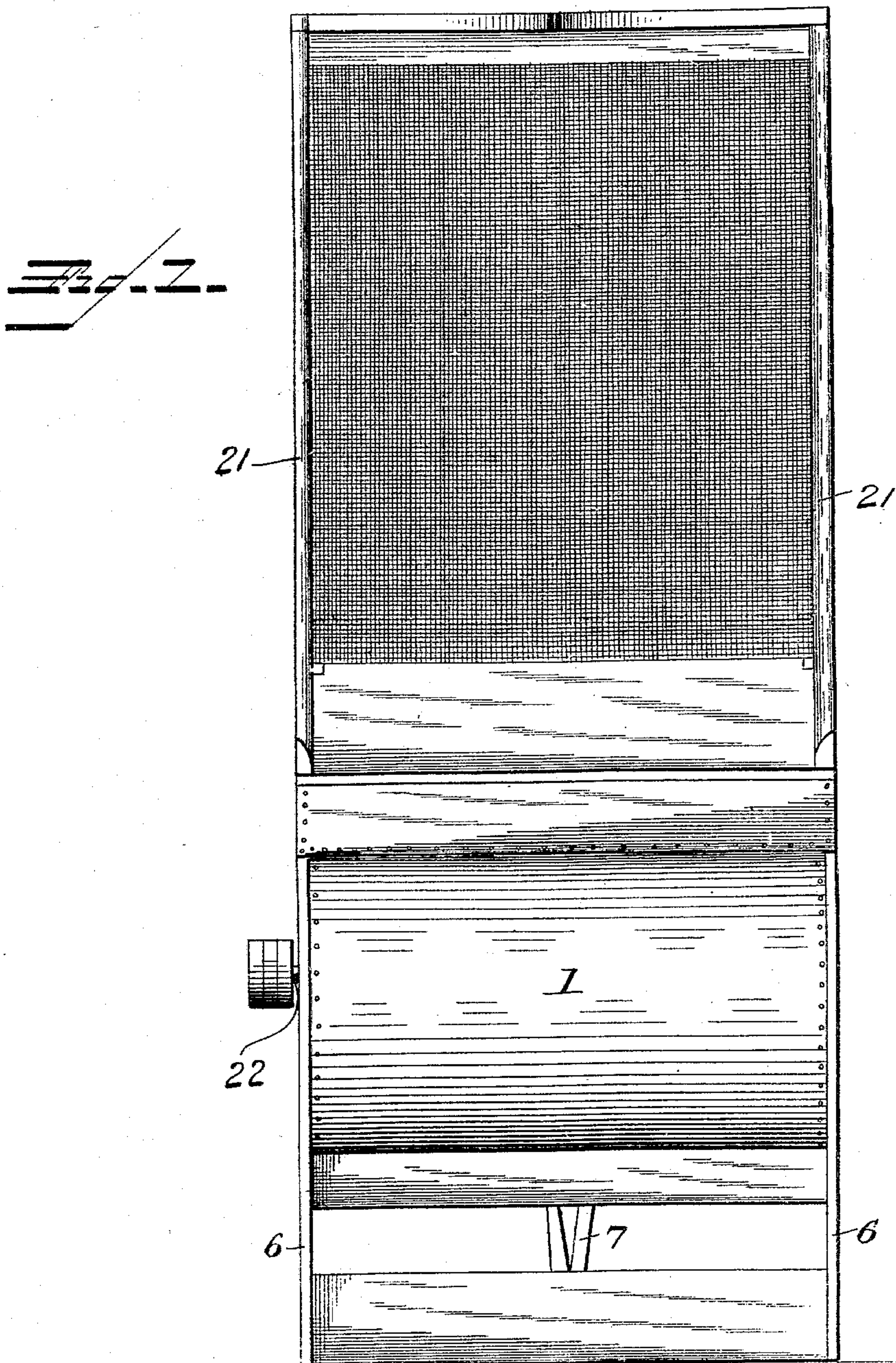
(No Model.)

3 Sheets—Sheet 1.

J. H. SHUFELT.
GOLD SEPARATING MACHINE.

No. 556,779.

Patented Mar. 24, 1896.



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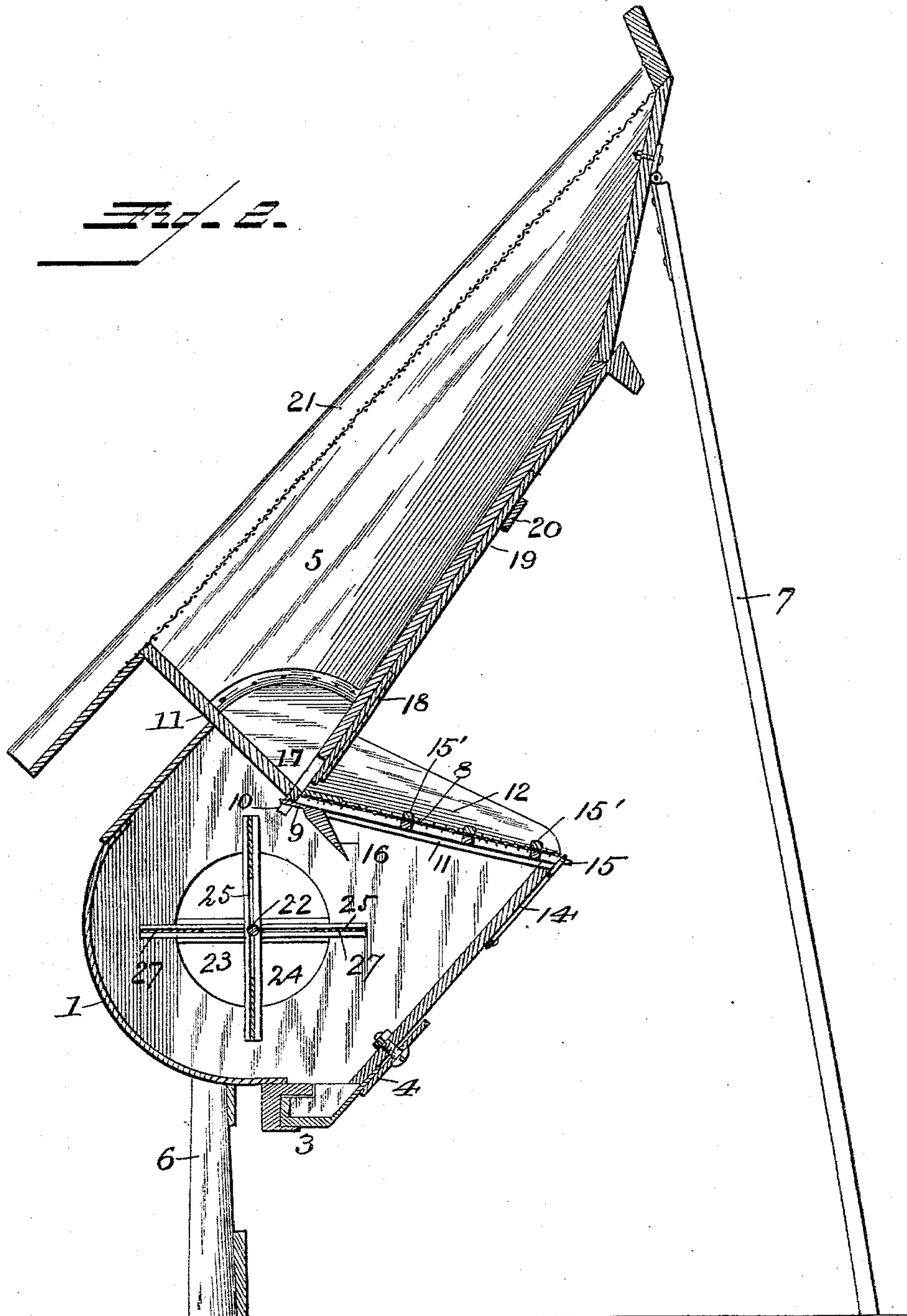
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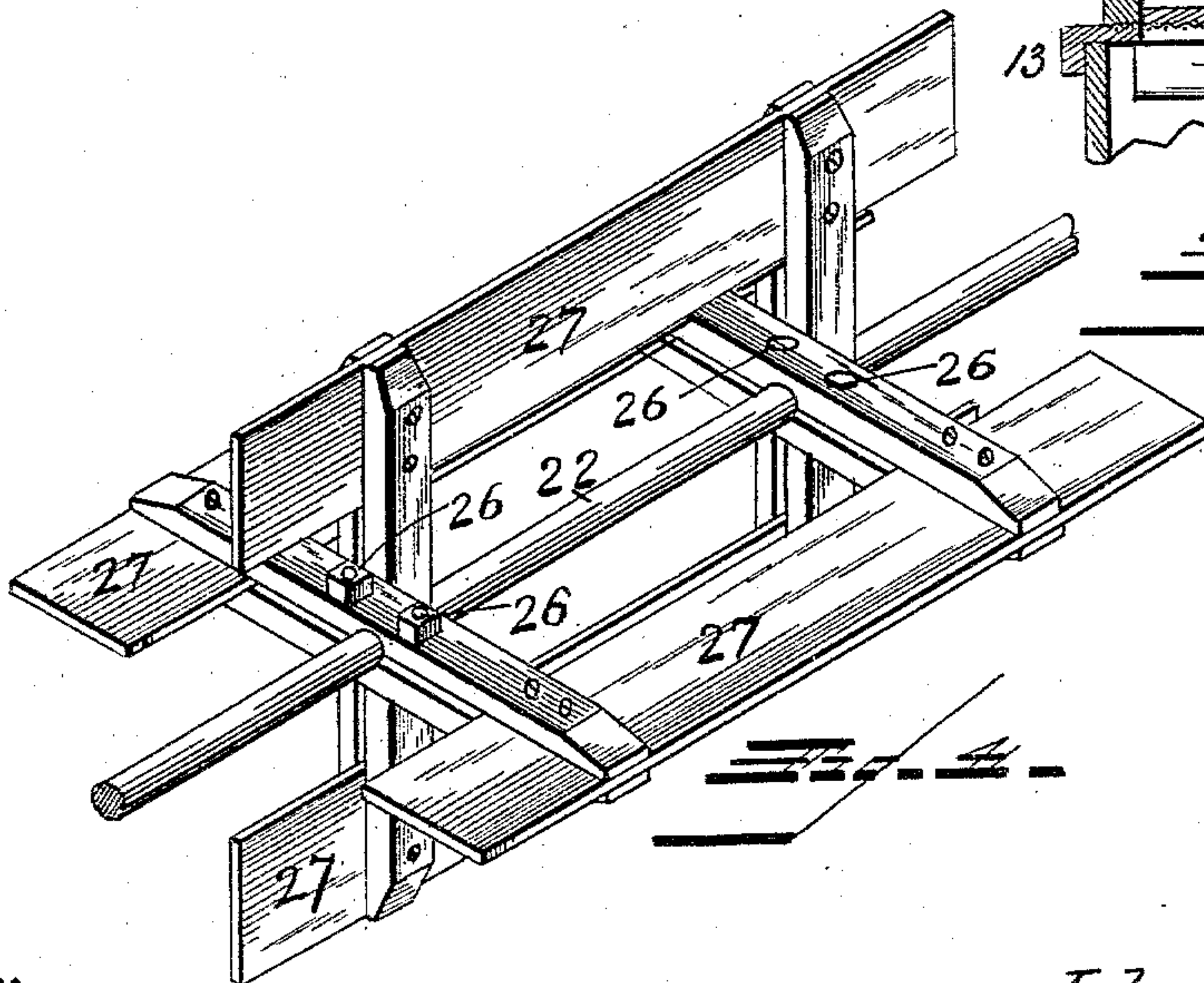
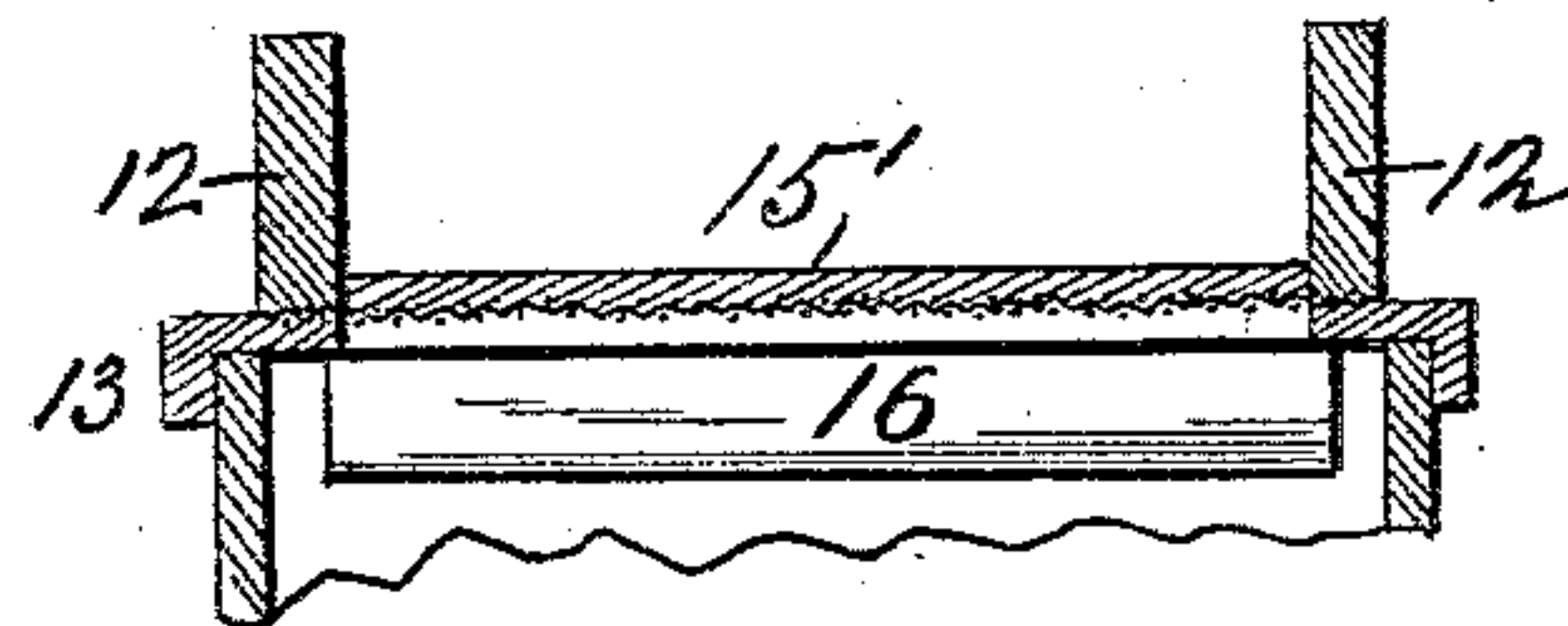
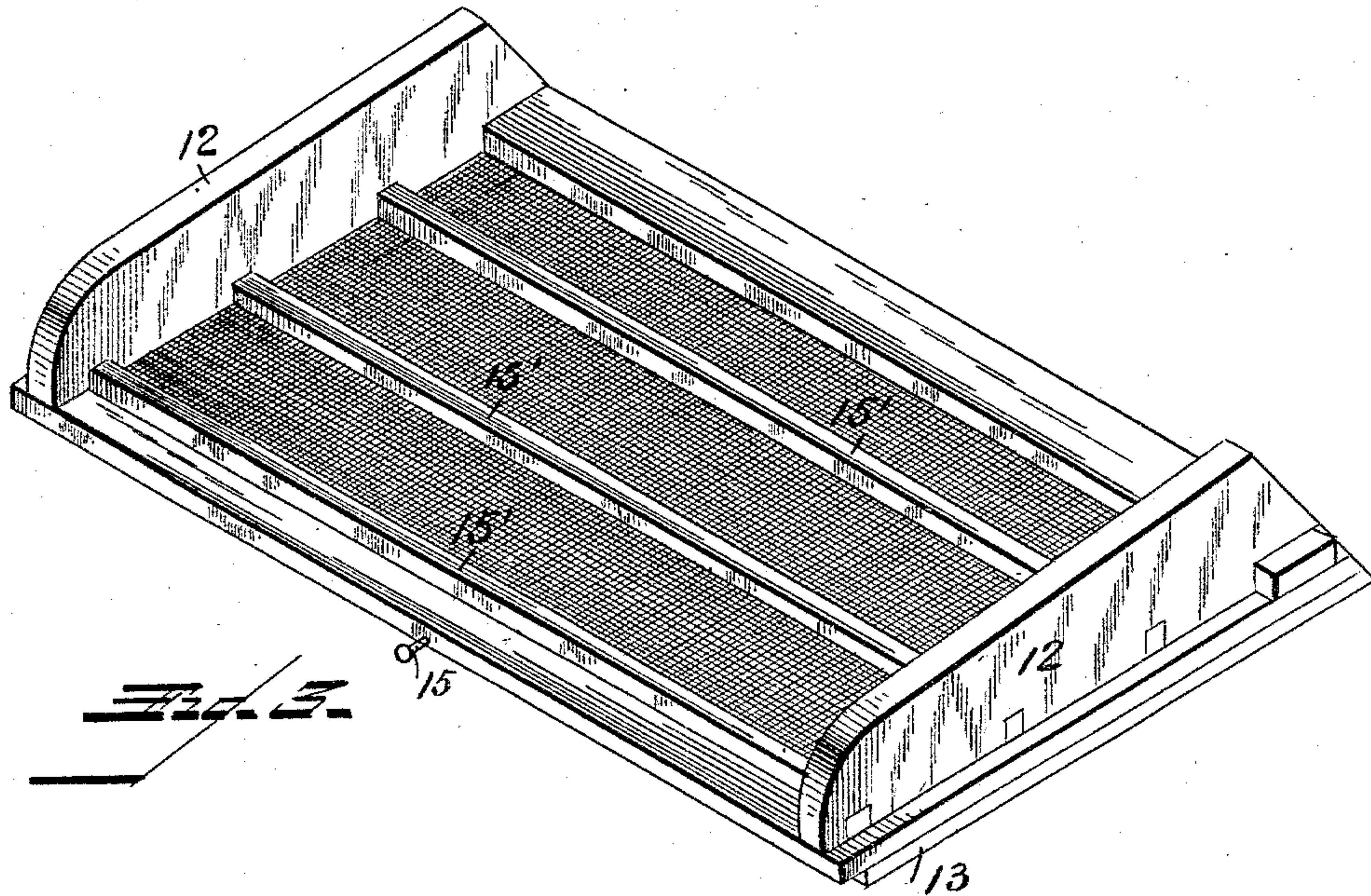
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UNITED STATES PATENT OFFICE.

JOHN HENRY SHUFELT, OF DOLORES, TERRITORY OF NEW MEXICO.

GOLD-SEPARATING MACHINE.

SPECIFICATION forming part of Letters Patent No. 556,779, dated March 24, 1896.

Application filed April 3, 1895. Serial No. 544,301. (No model.)

To all whom it may concern:

Be it known that I, JOHN HENRY SHUFELT, a citizen of the United States, residing at Dolores, in the county of Santa Fé and Territory of New Mexico, have invented certain new and useful Improvements in Gold-Separating Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to gold-separating machines, and more particularly to that class of inventions known in the art as "dry washers," in which currents of air are employed to separate the gold.

The object of my invention is to provide a machine of this character which may be easily and conveniently carried by the miner from place to place, and which will separate a maximum quantity of gold from a given amount of ore, and also to provide a machine which shall be light and strong of construction, durable in use, and comparatively inexpensive of construction.

With these objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a front view of my improved machine. Fig. 2 is a central vertical sectional view of the same. Fig. 3 is a perspective view of the apron. Fig. 4 is a similar view of the fan. Fig. 5 is a detail sectional view of the apron, showing the manner in which it is engaged with the fan-box.

In the drawings, 1 denotes the casing, composed of the fan-box 2, at the lowermost point of which is the sand-box 3, which communicates with the fan-box and is removably secured thereto by a turn-button 4, and 5 the inclined hopper arranged above the fan-box. The casing is supported in an inclined or upright position by standards 6, fixed to the fan-box, and by a post 7 hinged to the bottom of the hopper.

An apron 8 is supported on the open top of the fan-box and is provided with a rearwardly-

projecting lip 9, which fits in a recess 10 in a horizontal strip 11. The sides 12 of the apron are provided with flanges 13, which embrace the upper side edges of the fan-box and thereby form an air-tight joint. The front edge of the apron is secured to the box by a hook 14, engaging a stud 15 on the apron.

15' denotes the riffles secured to the upper face of the apron, and 16 denotes a wind-catcher preferably secured across the rear end of the apron and inclined forwardly.

The inclined bottom of the hopper is provided with a transverse opening 17, adapted to be closed by a slide 18, mounted on the bottom of the hopper between guides 19 and held therebetween by a cleat 20.

21 denotes a screen hinged to the top of the hopper.

The fan-shaft 22 is journaled in strips 23, which extend across the openings 24 in the fan-box. The fan consists of sets of arms 25, the intermediate portions of which are clamped by bolts 26 to the shaft, and between the ends are secured the blades 27. This construction admits of the blades being moved toward each other in order to make room for repairing the interior of the box without taking out the fan, and if the fan should become broken or in any way injured it may be removed by loosening the bolts and withdrawing the shaft.

The material from which the gold is to be separated is deposited on the screen over the hopper, and the finer particles sift through the screen and fall onto the hopper-bottom. The slide is opened and the material passes through the transverse opening in the bottom of the hopper onto the apron 8. The fan being rapidly rotated throws currents of air against the wind-catcher, which being arranged above the fan and slightly forward of its shaft directs the air-currents against the material upon the apron and expels from the material the foreign matter, leaving the gold on the apron between the riffles. The fine particles of the gold and sand will sift through the apron and will fall into the sand-box.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States--

A gold-separating machine comprising a casing having a fan-box, a hopper secured to said casing, legs secured to the casing and a leg hinged to the upper end of the hopper, an
5 apron supported to the upper end of the fan-box below the discharge-opening in the hopper, a removable sand-box at the lower end of the fan-box and a hinged screen across

the upper end of the hopper, substantially as described.

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

JOHN HENRY SHUFELT

Witnesses:

JOEL DAVIS,

JOHN D. DUFFIE.