

(No Model.)

2 Sheets—Sheet 1.

A. C. BURKE.  
FRUIT SIZER.

No. 482,294.

Patented Sept. 6, 1892.

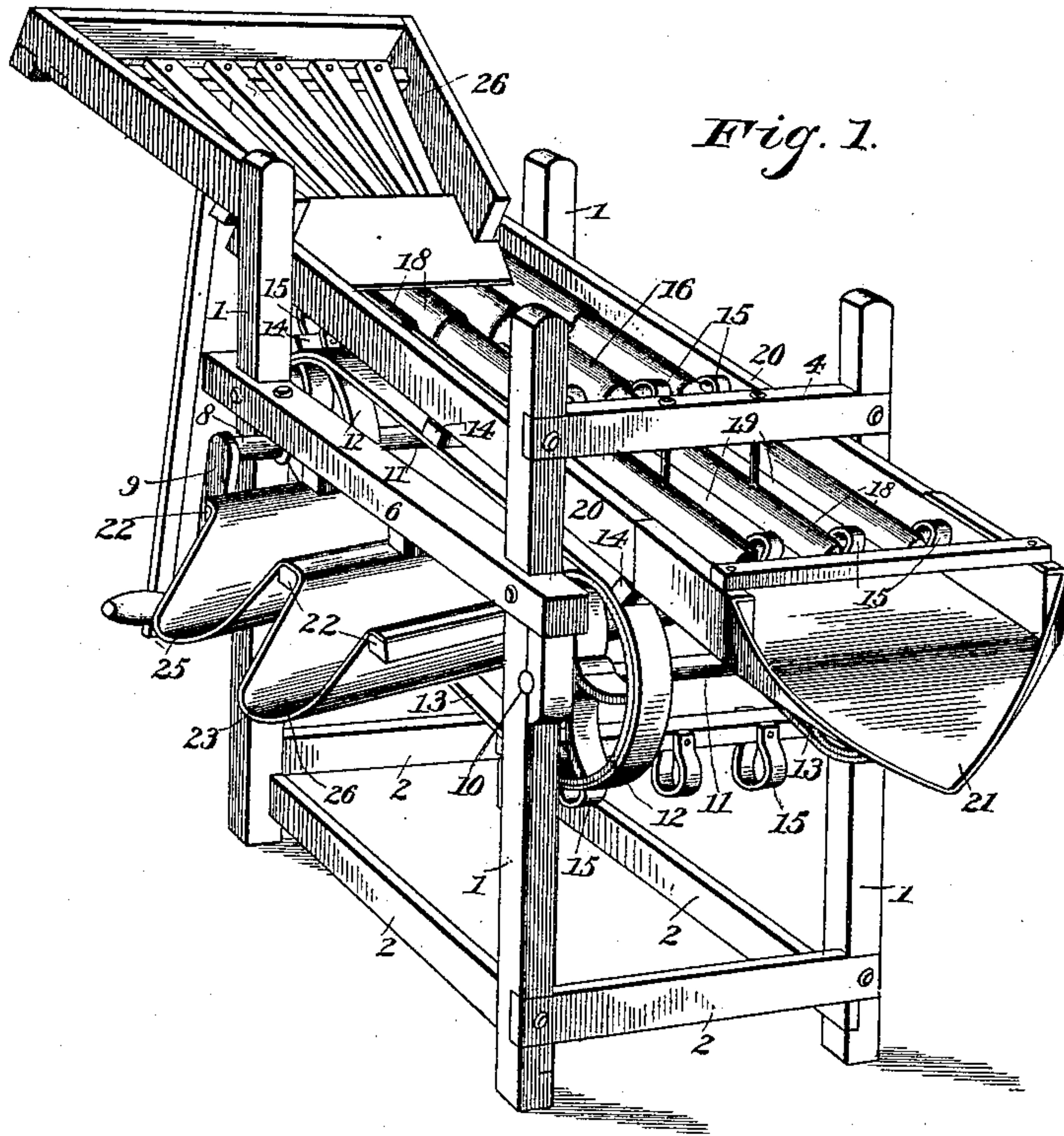
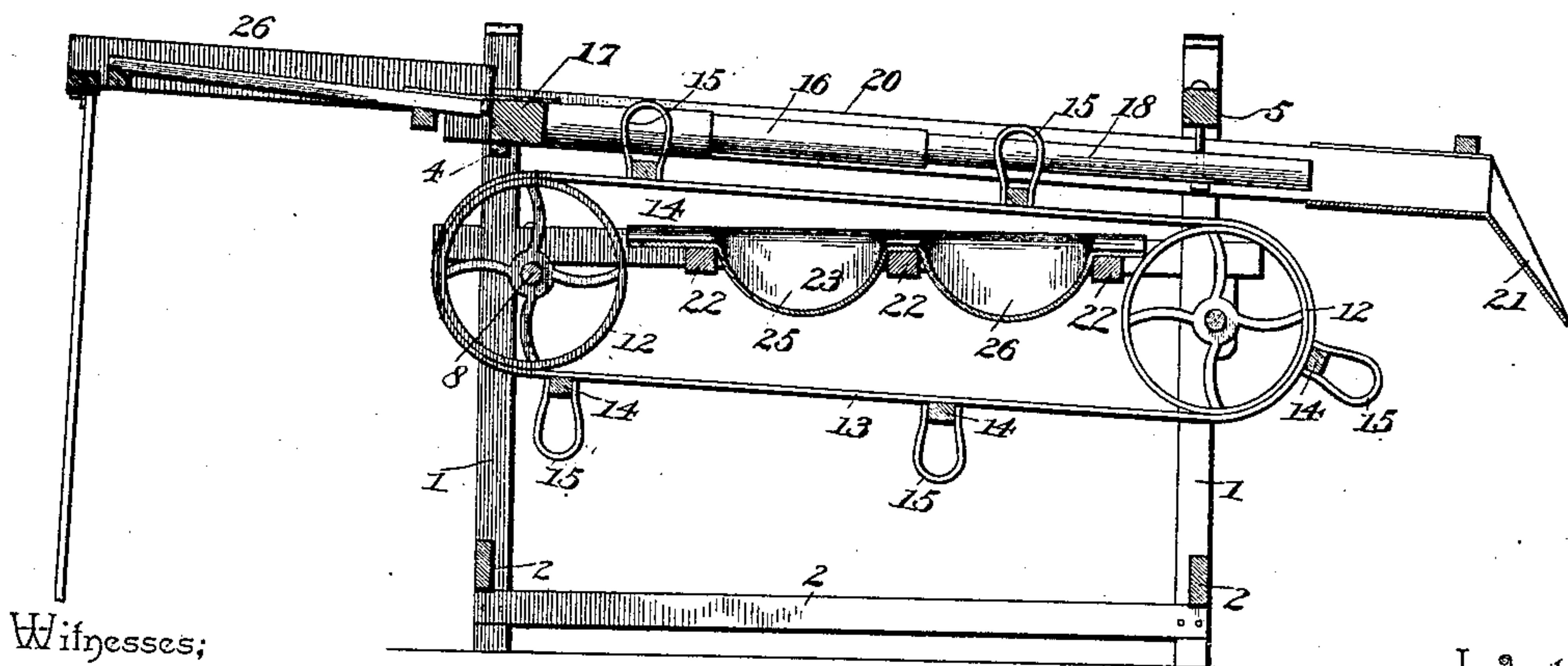


Fig. 2.



Witnesses;

*J. M. Sullivan.*  
*J. H. Diggers.*

By his Attorneys,

*C. A. Snow & Co.*

Inventor,

*Ashbel C. Burke,*

(No Model.)

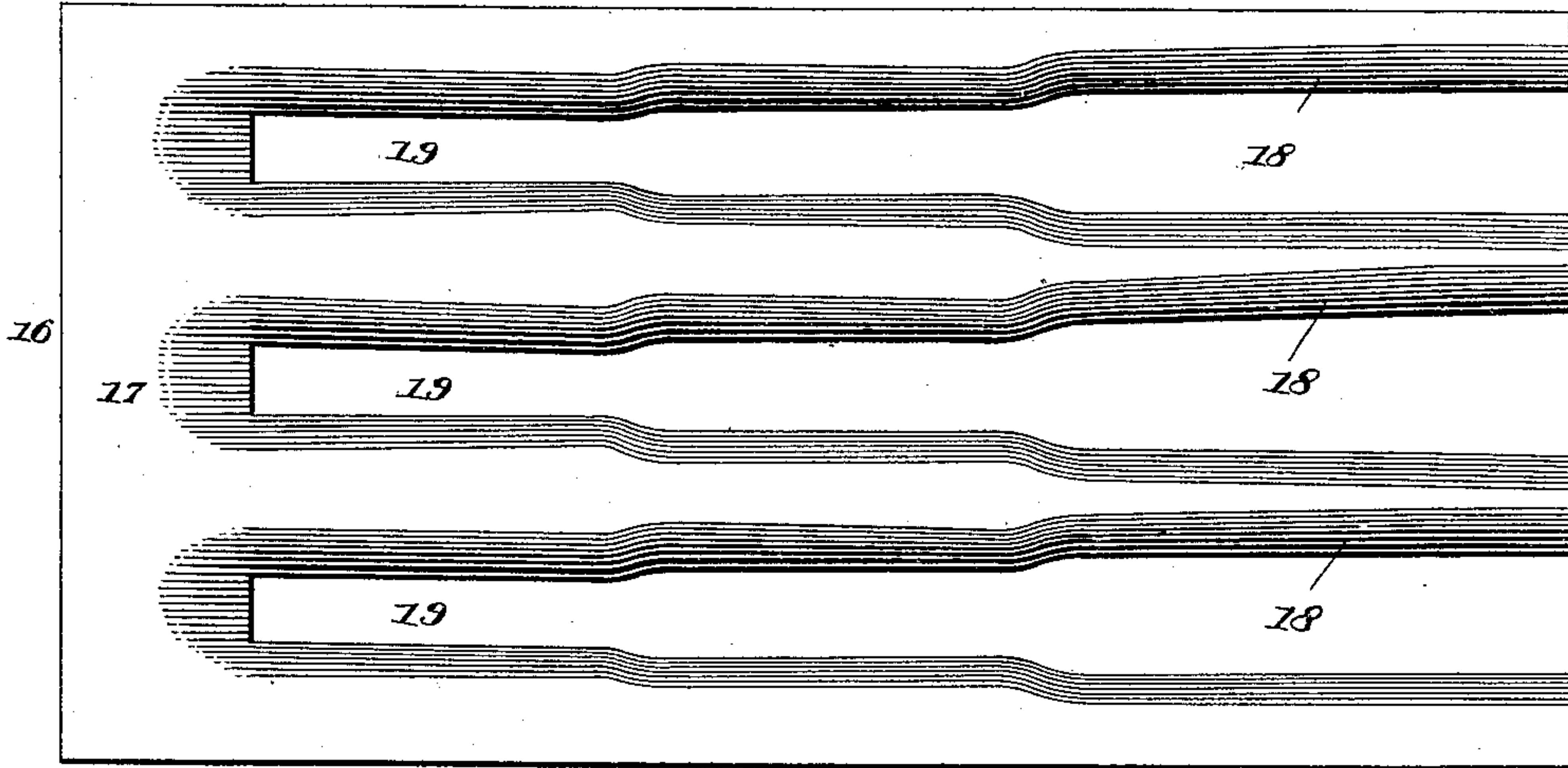
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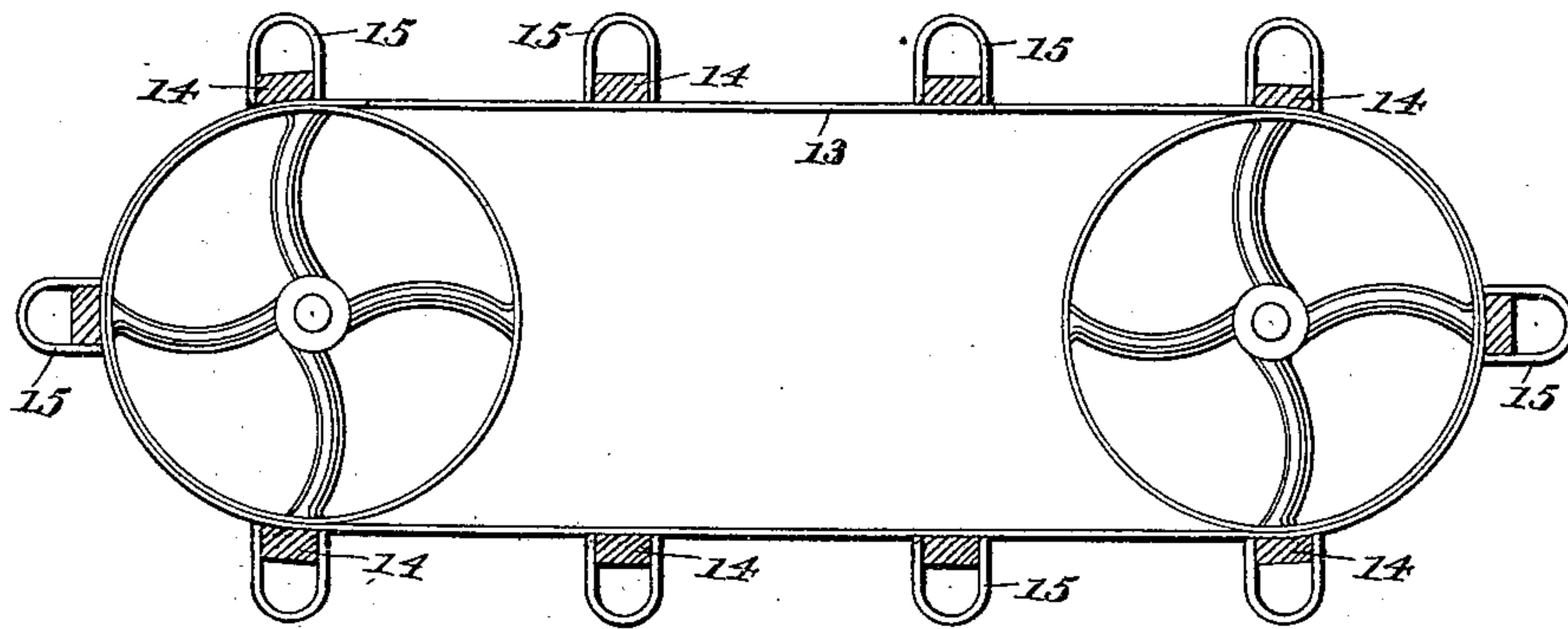
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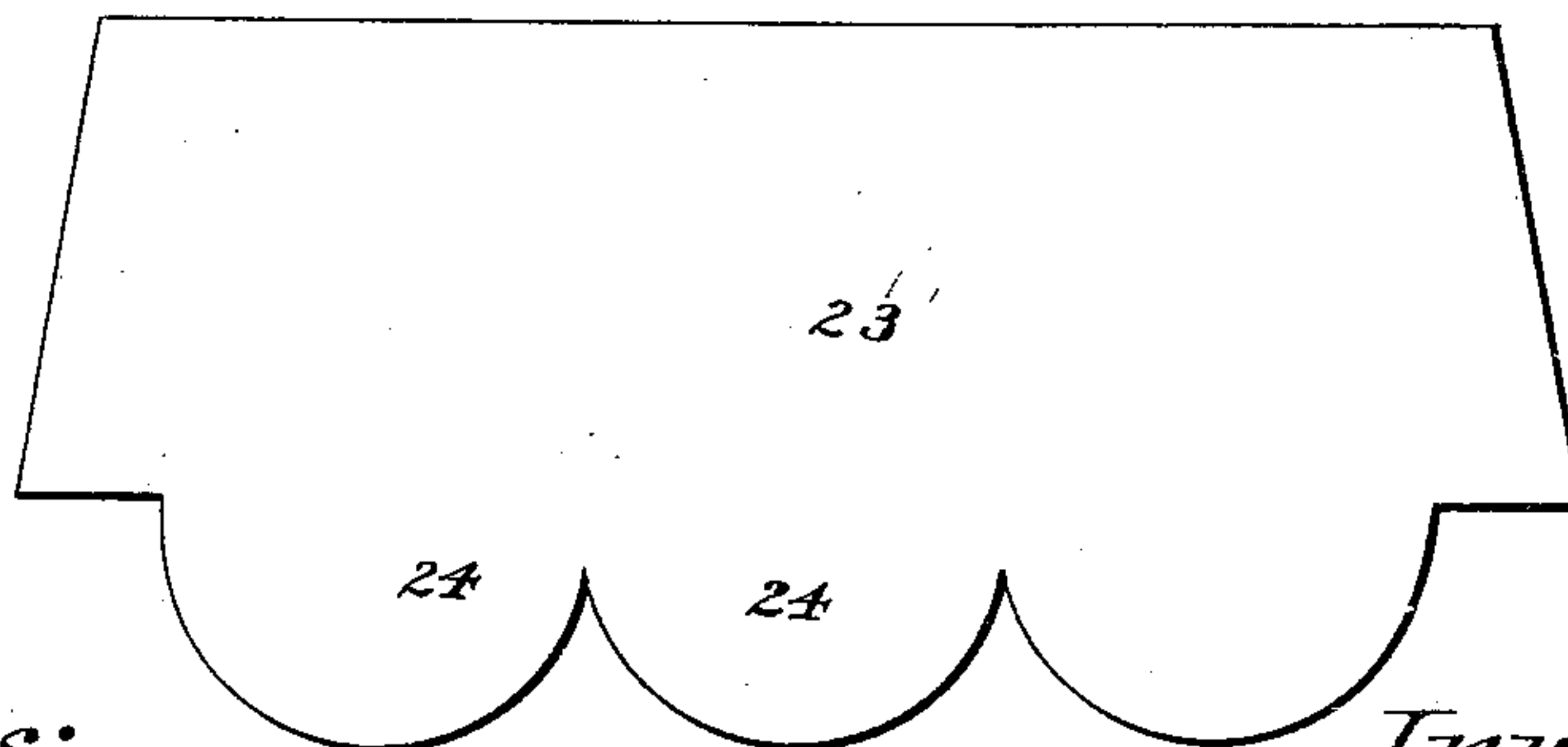
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses:

*John Dett. Jr.*  
*John H. Berleman*

Inventor:

*Ashbel C. Burke.*



# UNITED STATES PATENT OFFICE.

ASHBEL C. BURKE, OF GYPSUM, ASSIGNOR TO D. A. SCOTT, OF CATAWBA ISLAND, OHIO.

## FRUIT-SIZER.

SPECIFICATION forming part of Letters Patent No. 482,294, dated September 6, 1892.

Application filed March 19, 1891. Serial No. 385,707. (No model.)

*To all whom it may concern:*

Be it known that I, ASHBEL C. BURKE, a citizen of the United States, residing at Gypsum, in the county of Ottawa and State of Ohio, have invented a new and useful Fruit-Sizing Machine, of which the following is a specification.

My invention relates to improvements in fruit-sizing machines, the objects in view being to provide a machine of cheap and simple construction into which small fruits may be promiscuously introduced and which will automatically and without any injury whatever size or separate the same in accordance with their respective sizes.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a fruit-sizing machine constructed in accordance with my invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is a detail and plan of the sizing-table. Fig. 4 is a sectional view of the feed-belt and its pulleys. Fig. 5 is a plan view of the blank from which the canvas discharge-spouts are formed.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I employ a framework which may be any desired construction adapted for the purpose in view, and the same comprises a series of four vertical posts 1, which are connected near their bottoms by suitable tie-bars 2 and near their upper ends by front and rear cross-bars 4 and 5, respectively. The front and rear posts are connected by side bars 6, and in these near their rear ends there is journaled in suitable bearings formed on the under side of the bars 6 a transverse shaft 8, one end of which is provided with a crank-handle 9, whereby the shaft may be operated. Below the bars 6 in the front pair of posts 1 bearings 10 are formed, and in these bearings a second shaft 11 is journaled. Both the shafts 8 and 11 have mounted thereon two pulleys 12, which pulleys are connected by a pair of longitudinally-disposed belts 13. These belts are con-

nected at intervals by transverse slats or cleats 14, and each slat is provided with a series of inverted-U-shaped resilient fingers 15, preferably formed of strips of rubber bent in the U form or shape and having their ends secured to the front and rear edges of the cleats. The several series of resilient fingers are in alignment with each other, for the purpose hereinafter described.

16 designates the distributing-table, and the same consists of a rear cross-bar 17, from the front edge of which projects a series of tines 18. These tines pass under the front cross-bar 4, while the rear end of the distributing-table rests upon the rear cross-bar 5, so that, as will be seen, the table declines from the rear to front. These series of tines decrease in width from their rear ends, and inasmuch as they are spaced apart they form slots or passages. These slots or passages, designated as 19, are by the reduction of the tines smaller at their rear ends than at their centers, and smaller at their centers than at their front ends, whereby a fruit started at the upper end of the slot or track, if too large to drop through the rear portion of track, will pass to the central portion, and if still too large will pass on to the front portion, and if still too large for this portion will pass over the front ends of the tines. A pair of side bars 20 are bolted to the inner sides of the longitudinally-opposite posts 1, and these side bars project beyond the ends of the tines of the distributing-table and have secured thereto a canvas chute or mouth 21, into which the fruit may fall when too large to pass between the tines.

22 designates a series of transverse bars, which are located between the pulleys 13 and the upper and lower side of the endless feed-belts. These cleats are located below the beginning of each reduced portion of the tines. 23 designates a blank of canvas, one edge of which is provided with the three scallops 24. This blank of canvas is mounted over the series of bars 22 and between the bars sags, so as to form chutes 25, 26, and 27, the first being under the nearest portion of the tracks between the tines, the second being under the middle portion of the tracks, and the third



being under the end or front portion of said tracks.

This completes the construction of the machine, whose operation is as follows: The fruit is introduced, preferably, by means of an inclined tray 26, located at the rear end of the machine upon the upper end of the distributing-table, and passing upon the latter distributes itself over the several tracks, down which it rolls or is carried by means of the resilient fingers that extend up between the tines or through the tracks. These fingers prevent the fruit from rolling too fast or bumping from side to side and becoming injured, and to the contrary, conduct the fruit quietly without injury along the tracks until each fruit arrives opposite that portion of the tracks which is sufficiently large to permit it fall through, which it does, and being caught by its proper canvas chute arranged under the tracks is discharged by the chute into a basket or other receptacle that may be placed at the end of the chute for its reception. All fruit that is too large to pass through the tracks passes on to the end chute 21 and is deposited by the latter into a receptacle placed thereon.

From the foregoing description it will be seen that I have provided a machine of great simplicity and adapted to divide or classify the several grades of fruit, and that I accomplish this without any injury or bruising of the fruit whatever, which is principally caused by the fact that the fingers are resilient, and being slightly bent by the fruit the latter, in a manner as will be obvious, lies upon the fingers and is supported thereby, so that the bumping and tumbling from side to side of the tracks by the fruit is obviated, and the same is conducted gently down the inclined tracks, where it is caught by canvas chutes, which will not bruise it, and subsequently deposited in its proper receptacle.

Having described my invention, what I claim is—

1. In a fruit-sizer, the combination, with a

framework, a front and a rear shaft, pulleys mounted on the shafts, endless belts connecting the pulleys, a series of cleats connecting the belts, resilient fingers extending upward from the cleats in line with each other, and chutes formed of canvas and arranged under and transverse to the belt, of a superimposed distributing-table having a series of slots graduated in width and increasing in size over each successive chute, the fingers of the belt extending through the slots, and a chute at the end of the table, substantially as specified.

2. In a fruit-sizer, the combination, with the framework and a distributing-table having a series of slots, of an endless belt located under the table and having a series of fingers extending through the slots, and transverse troughs arranged under said slots, which slots increase in width from rear to front above the troughs, substantially as specified.

3. In a fruit-sizer, the combination, with the distributing-table having a series of longitudinally-disposed slots increasing in size at intervals from rear to front, side bars located at the sides of the table and having their ends extending beyond the front end of the table and connected by a canvas chute, of a front and rear shaft, one of which is provided with a crank, a pair of pulleys mounted on each shaft, endless belts passing around the pulleys, cleats connecting the belts, inverted-U-shaped resilient fingers secured to the front and rear edges of the cleats and projecting through the slots of the table, the transverse series of bars located between the upper and lower sides of the belt and at the beginning of each increase of width in the slots, and the canvas blank mounted on the bars and sagging between the same, the end of the blank between the bars being scalloped, substantially as specified.

ASHBEL C. BURKE.

In presence of—

JOHN DETLESS,

THEODORE LINDEMANN.