

(No Model.)

2 Sheets—Sheet 1.

W. W. HATFIELD.
ENDLESS CLOTHES LINE.

No. 442,044.

Patented Dec. 2, 1890.

FIG. 1.

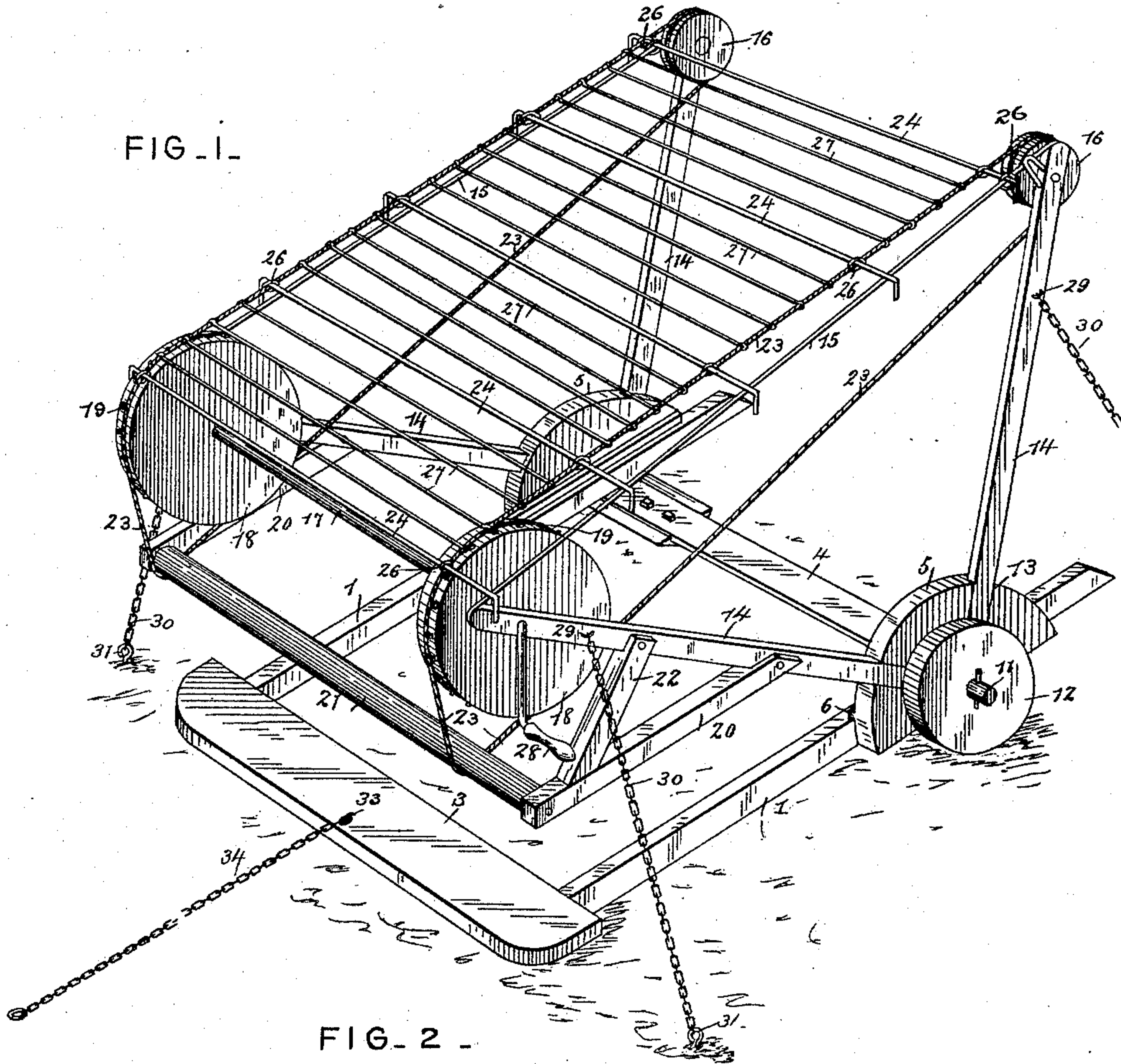
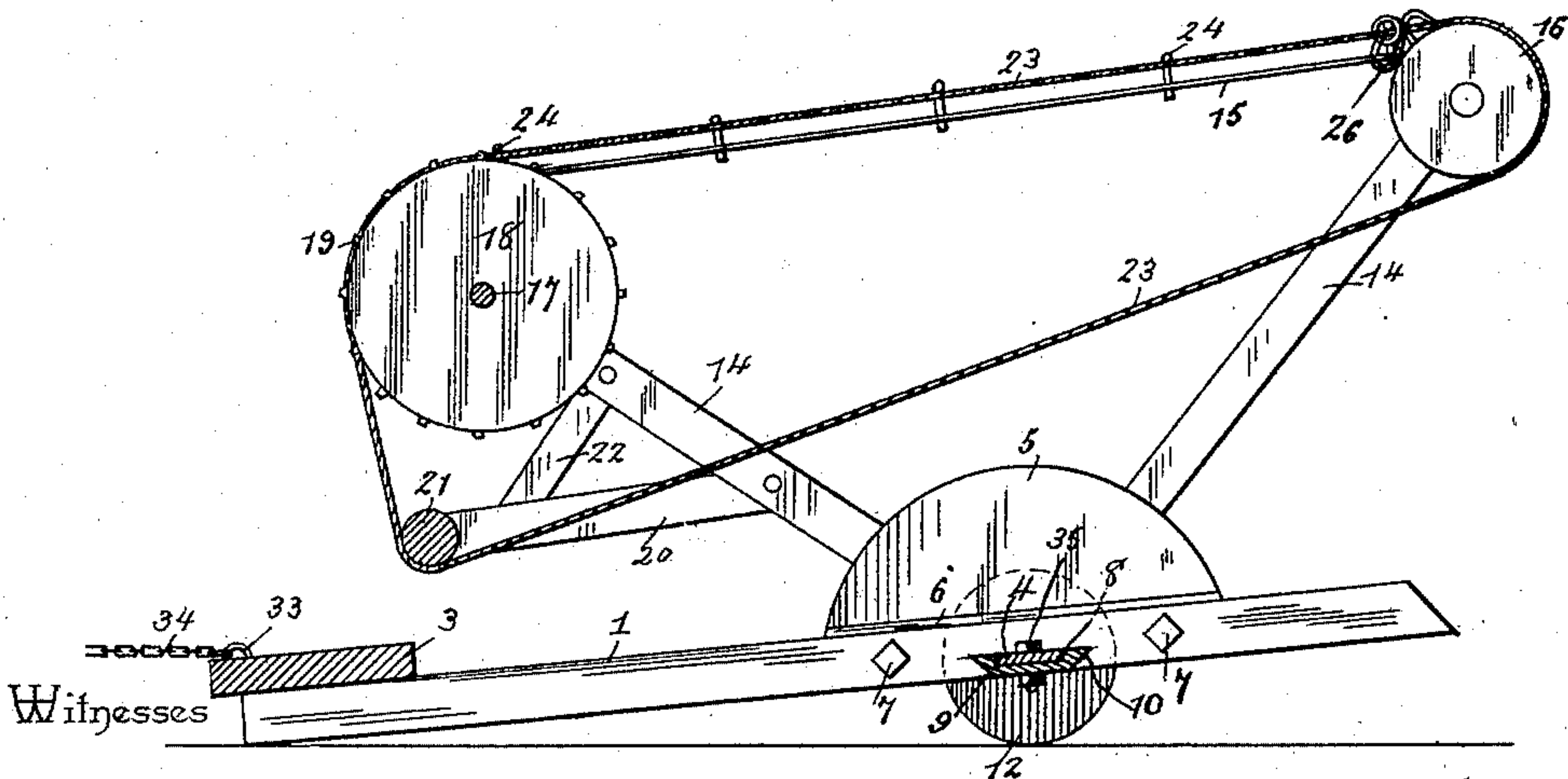


FIG. 2.



Witnesses

Inventor

Jas. K. McLathran
W. S. Duwall

By his Attorneys,

Wentworth W. Hatfield
C. A. Snow & Co.

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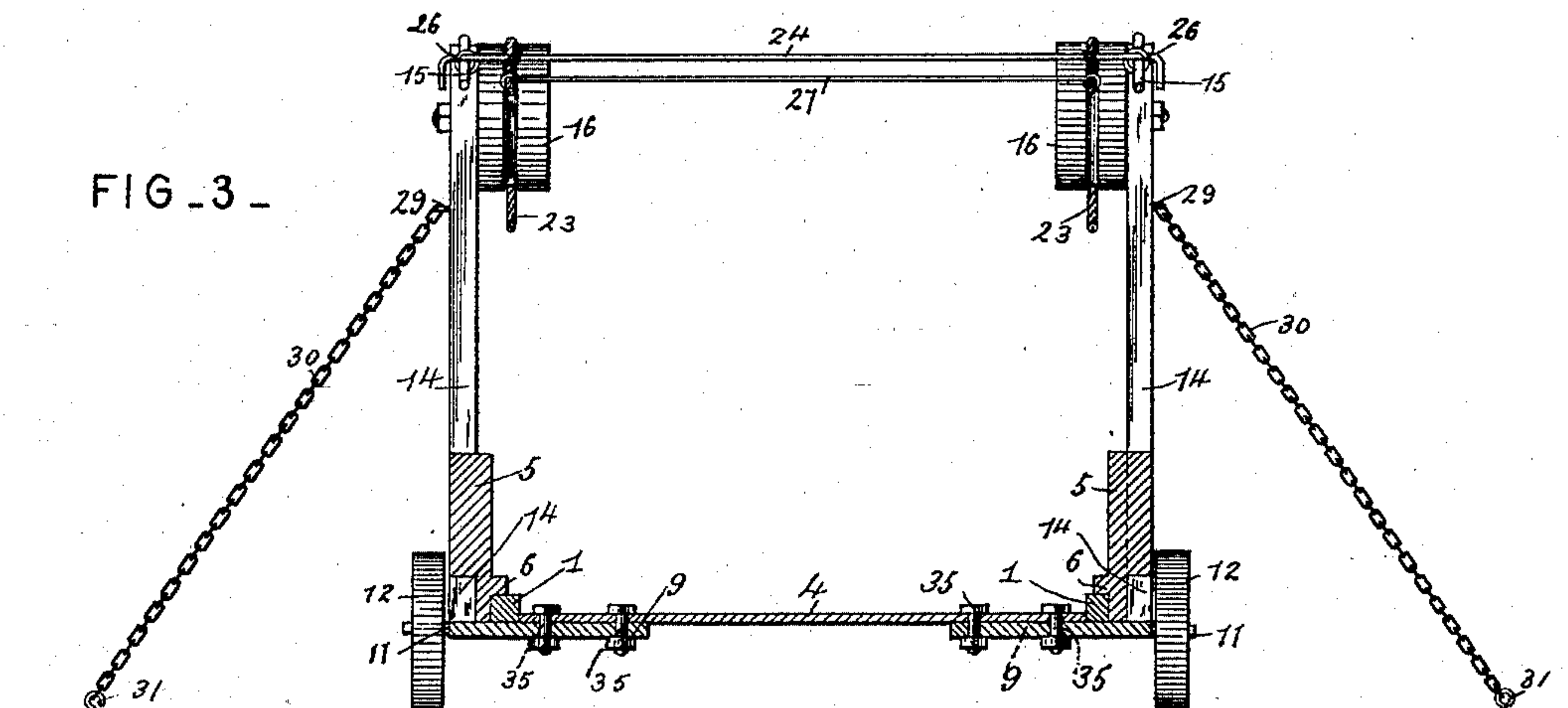


FIG. 4—

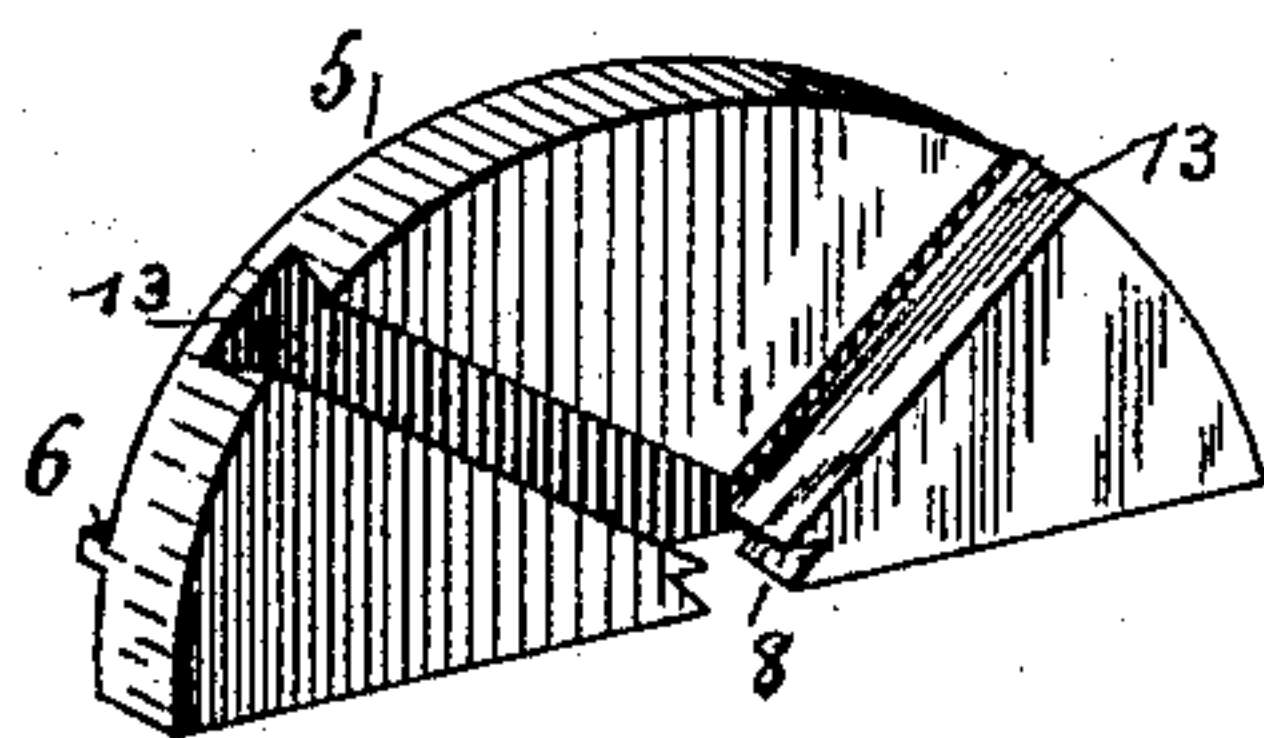


FIG. 6—

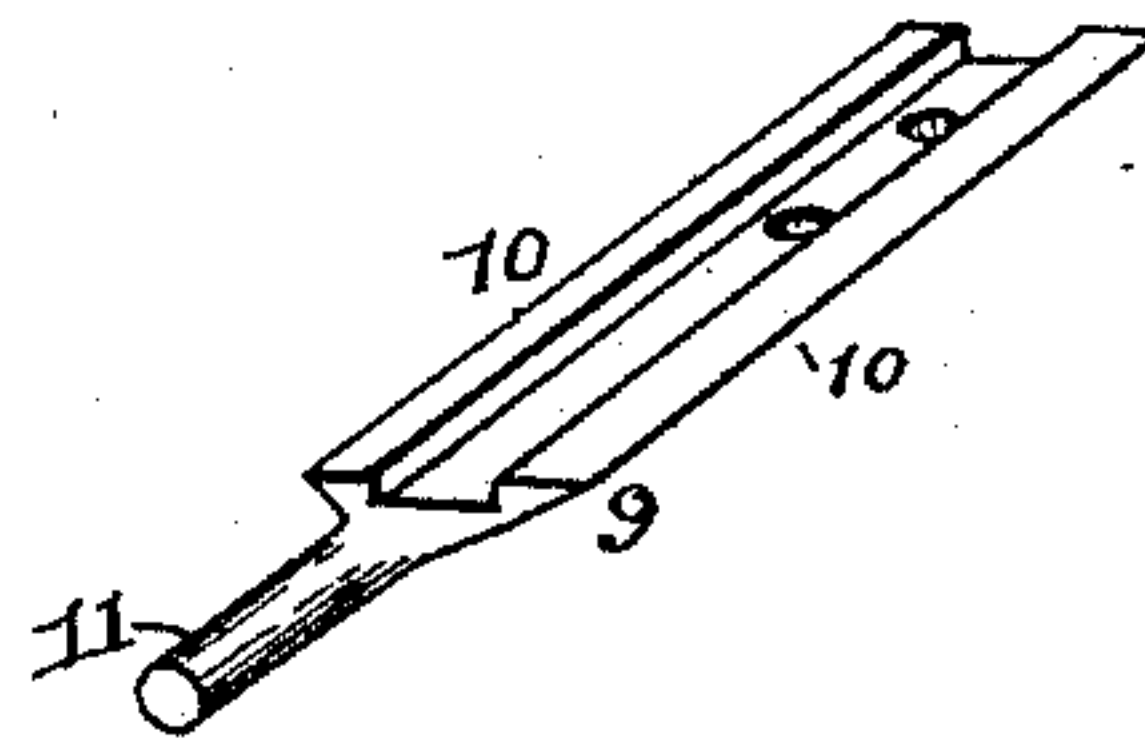
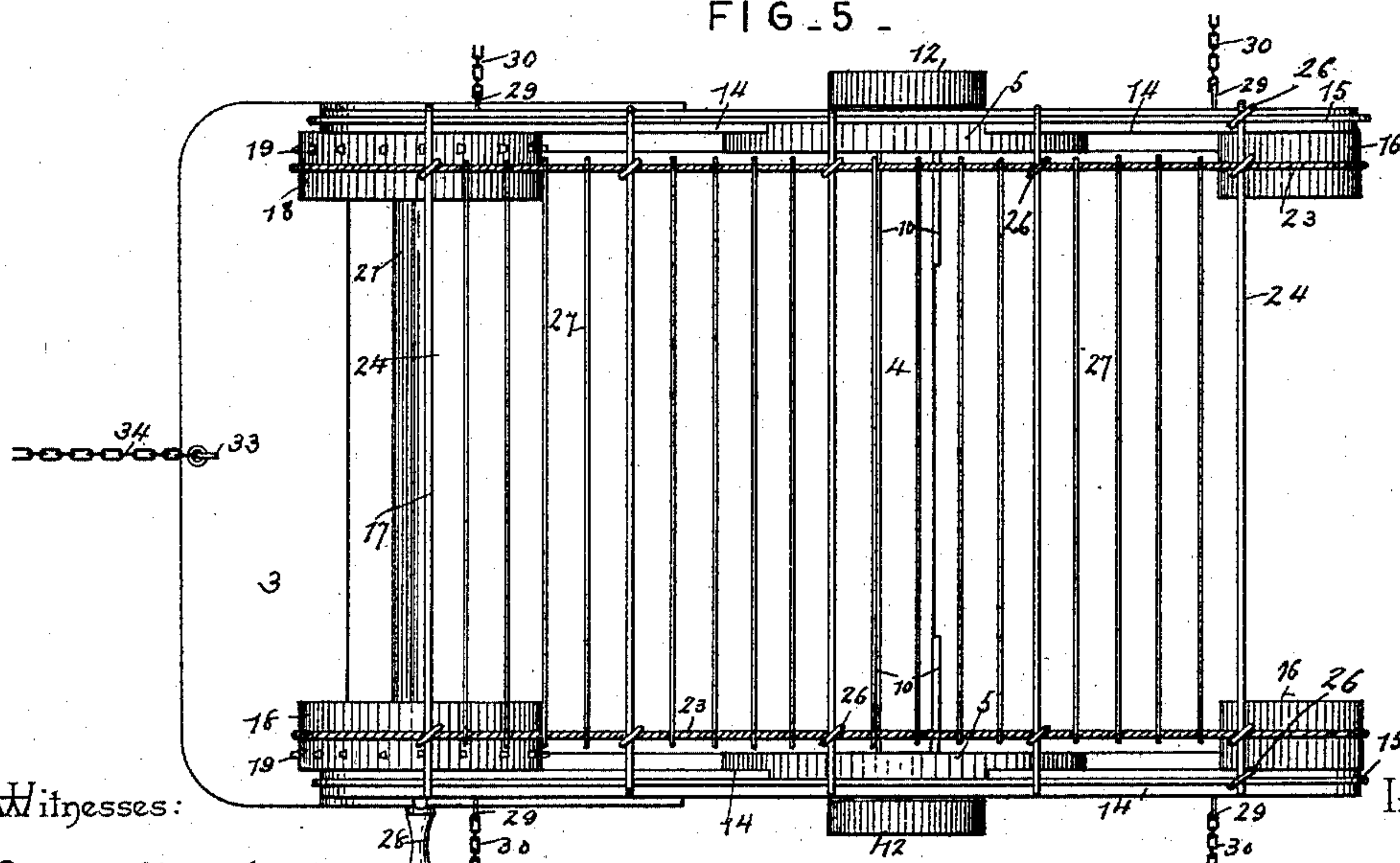


FIG. 5—



Witnesses:

Jas. H. McLaughlin
W. S. Duwall

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Inventor

UNITED STATES PATENT OFFICE.

WENTWORTH W. HATFIELD, OF FLORENCE, COLORADO.

ENDLESS CLOTHES-LINE.

SPECIFICATION forming part of Letters Patent No. 442,044, dated December 2, 1890.

Application filed April 19, 1890. Serial No. 348,613. (No model.)

To all whom it may concern:

Be it known that I, WENTWORTH W. HATFIELD, a citizen of the United States, residing at Florence, in the county of Fremont and State of Colorado, have invented a new and useful Endless Clothes-Line, of which the following is a specification.

This invention has relation to clothes-driers adapted for use indoor, on house-tops, or in the yard, and when in the latter to be so operated from the porch or under cover as to obviate the necessity of the operator stepping upon the wet ground.

The objects of the invention are to provide a drier so constructed as to adapt the same for drying large amounts of clothing in a small drying-space and to so construct the drying-frame that the same may be run out into the sun without the necessity of the person hanging up the clothes walking from one line to the other.

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

Referring to the drawings, Figure 1 is a perspective view of a drier constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section. Fig. 3 is a transverse section. Fig. 4 is a detail in perspective of one of the standard, sockets. Fig. 5 is a plan of the drier. Fig. 6 is a detail in perspective of one of the axle-castings.

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

1 represents the opposite side sills of the frame, connected at their front ends by a transverse platform 3 and at their rear ends by a transverse connecting-bar 4.

5 represents opposite castings, which are of semicircular shape and provided upon their rear sides with longitudinal ribs 6. One of these castings is mounted upon each of the sills 1, near the rear ends of the same, and is bolted thereto, as at 7, the ribs 6 resting upon the sills, as shown. The under surfaces or bottoms of the castings are provided with transverse dovetailed recesses 8, which are in line with the transverse connecting-bar 4, said bar being of rectangular shape in cross-section. In each of the recesses 8 is mounted a plate 9, upon the upper surface of which and

at its inner end is formed a pair of transverse bar-embracing ribs 10, the outer edges of which are beveled to fit the dovetailed recesses 8 in the castings. The ends of the plates are reduced to form bearings 11, and upon the same are mounted ground-wheels 12. The outer faces of the castings are provided with diverging radial recesses 13, a pair being formed in each casting, and in each of said recesses there is located a supporting-bar 14, the two front supporting-bars being disposed in an inclined manner to the front and the rear supporting-bars in a similar manner to the rear, and the two bars at each side of the frame being connected by a longitudinal brace-wire 15, also forming a track.

In the upper ends of the rear bars 14 there is journaled loose pulleys 16, the peripheries of which are gooved, and in the upper ends of the opposite or forwardly-inclined bars there is journaled a transverse shaft 17, provided near its opposite ends with large pulleys 18, circumferentially grooved and provided at one side of their grooves with sprocket-teeth 19.

A pair of horizontal forwardly-disposed arms 20 have their rear ends connected to the forwardly-inclined bars 14 and their free ends connected by a revoluble shaft or roll 21, the ends of which are journaled in the bars, said bars being braced in their horizontal position by means of a pair of opposite inclined brace-bars 22, the ends of which are made fast to the bars 20 and 14.

Encircling each of the pulleys 18 and 16 and passing under the roller-bar 21 is an endless belt 23, preferably of wire cable, which at intervals are connected by tie-wires 24, the ends of which are bent downwardly to loosely embrace the track-wires 15. The rear tie-wire is connected to the longitudinal track-wires 15 by means of rings 26, which ride upon the wires with the movements of the opposite endless belts.

Between each pair of tie-wires there is arranged a series of smaller clothes-supporting wires 27, the ends of which terminate in eyes, which loosely embrace the opposite endless cables or belts, whereby said wires are free to move thereon. The shaft 17 at one end is extended to form a crank 28, by which the shaft may be revolved and rotation in either

direction given to the pulleys 16 and 18, so as to carry the clothes-supporting wires to or from the rear of the frame.

Each of the inclined bars 14 is provided with an eye 29, and in each of the eyes there is loosely connected one end of a stay-chain 30, the opposite ends of the chain being provided with driving-pins 31, adapted to be driven into the ground, and thus anchor the frame against being blown over during high winds.

To hang out clothes the crank is revolved until the last of the tie-wires is at the front of the frame and in a position to receive clothes, and the several wires are then filled, first bringing them into position at the front of the frame, the crank being gradually revolved as the wires become filled, so as to advance those filled toward the rear of the frame. During this operation the person may stand upon the platform 3 or upon a porch, as desired. To unload the frame the crank is simply given a retrograde movement, so that the wires are successively brought to the front and are stripped. In order to avoid stepping into the yard in case of a shower, I have provided the platform 3 with an eye 33, in which is connected one end of a drawing chain or cable 34, the opposite end thereof being at the house or under cover, and by said chain or cable the machine may be moved toward the house.

Bolts 35 are passed through the plates 9 and the transverse connecting-bar, and by removing the same the plates may be withdrawn with the wheels from under the frame, so that the sills 1 will rest directly upon the ground, and in case the stay-chains are not employed will not be so liable to be blown over, as the frame-work is as a whole considerably lowered, and the sills resting upon the ground the wind is prevented from getting thereunder and raising the frame. In drying the clothes it is preferable to arrange the machine so that the clothing, or rather the spaces between the clothing, will be in line with the current or direction of the wind, so that the wind will pass through the same in currents, and thus a quick drying be effected.

Having thus described my invention, what I claim is—

1. The combination, with opposite sills and opposite standard-supporting castings provided with dovetailed grooves in their lower edges, of a connecting-bar connecting the sills, and opposite plates embracing the edges of the connecting-bar and having beveled edges fitting the recesses in the castings and terminating at their extremities in bearings and wheels mounted on the bearings, and removable bolts passing through the plates and connecting-bar, substantially as specified.

2. In a drying-frame, the combination, with opposite sills, of opposite castings mounted upon the same, bolted thereto, and having

transverse ribs overlapping the upper edges of the sills and provided with radiating recesses, oppositely-inclined supporting-bars mounted in the recesses, a crank-shaft mounted in the front supporting-bars and provided with toothed pulleys, opposite pulleys journaled loosely in the rear supporting-bars, and opposite endless belts mounted over the opposite pairs of pulleys and provided with a series of transverse clothes-supporting wires, substantially as specified.

3. In a drying-frame, the combination, with opposite sills, of opposite castings mounted thereon, having radiating oppositely-inclined recesses and opposite pairs of bars oppositely inclined and mounted in the recesses, loose pulleys mounted in the rear bars, a crank-shaft journaled in the front bars and provided with opposite toothed pulleys, endless belts connecting the opposite pairs of pulleys, tie-rods connecting the belts and extending at each side of the same and adapted to engage the teeth of the pulleys, and intermediate clothes-supporting wires connecting the belts, substantially as specified.

4. In a drier-frame, the combination of the opposite sills having inclined pairs of opposite bars, loose pulleys mounted in the rear pair of bars, a crank-shaft mounted in the front pair of bars, horizontal arms extending from the front pair of bars, a loose roll journaled therein, toothed pulleys mounted on the crank-shaft, endless cables mounted on the loose pulleys, passing under the roll and over the toothed pulleys, longitudinal braces connecting the opposite pairs of bars, tie-wires ranged at intervals and connecting the endless belts, rings connecting one of the tie-wires at its opposite ends with the braces, and a series of clothes-supporting wires loosely mounted upon and connecting the opposite endless belts, substantially as specified.

5. In a drier-frame, the combination of the frame comprising opposite diverging bars and connecting brace-wires, a shaft journaled in a pair of the bars and terminating at one end in a crank, pulleys mounted upon the shaft, a loose roll located below the shaft, loose pulleys mounted in the remaining pairs of bars, endless cables journaled on the loose pulleys, passing under the roll, tie-wires arranged at intervals and connecting the endless belts and loosely connected to the brace-wires, and a series of clothes-supporting wires loosely mounted upon and connecting the opposite endless belts, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WENTWORTH W. HATFIELD.

Witnesses:

H. L. SEAVERS,
E. H. BENSON,