

No. 728,316.

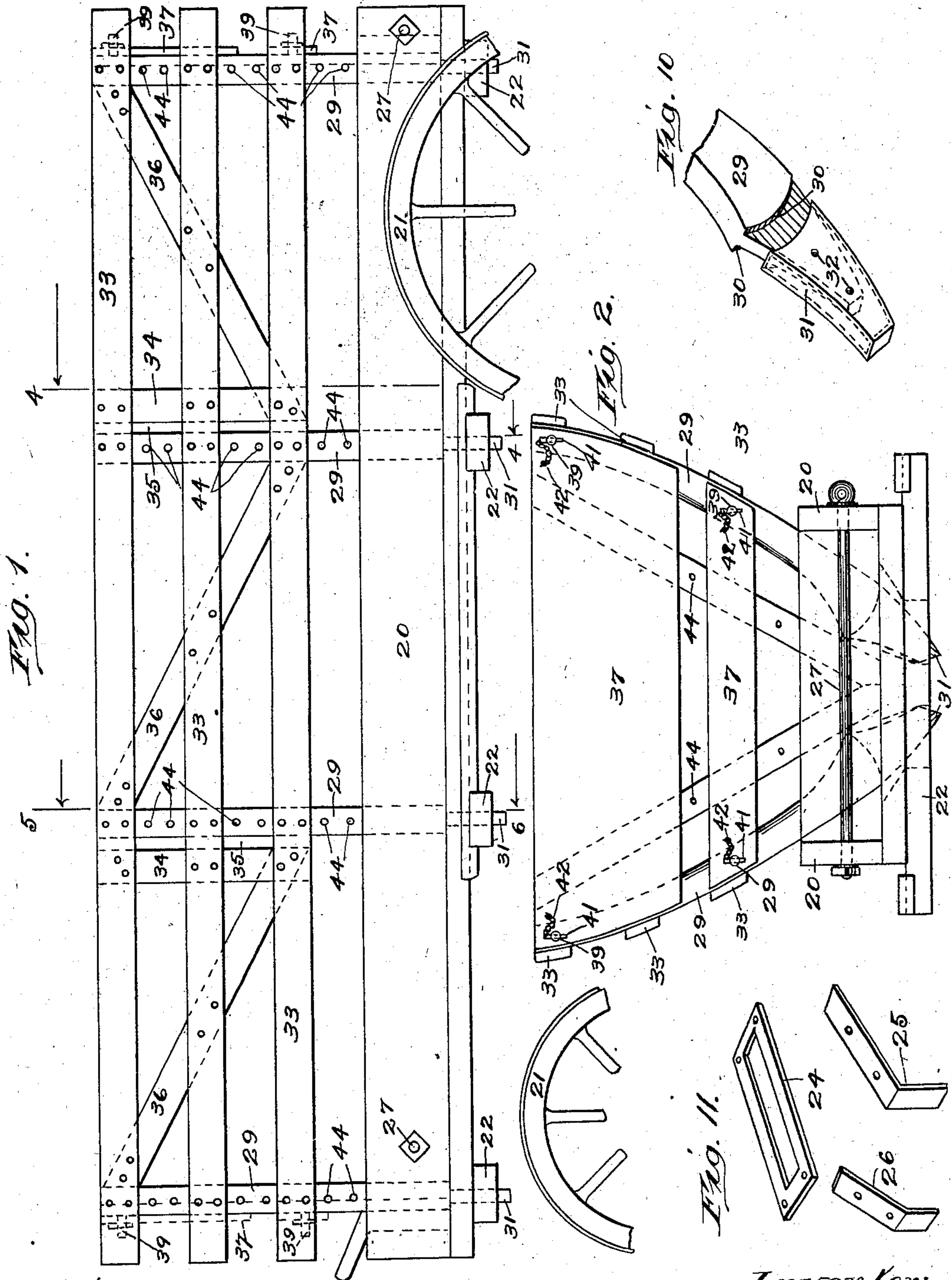
PATENTED MAY 19, 1903.

I. W. SNOW.
CONVERTIBLE RACK FOR WAGONS.

APPLICATION FILED FEB. 26, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses:

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3 SHEETS—SHEET 2.

Fig. 3.

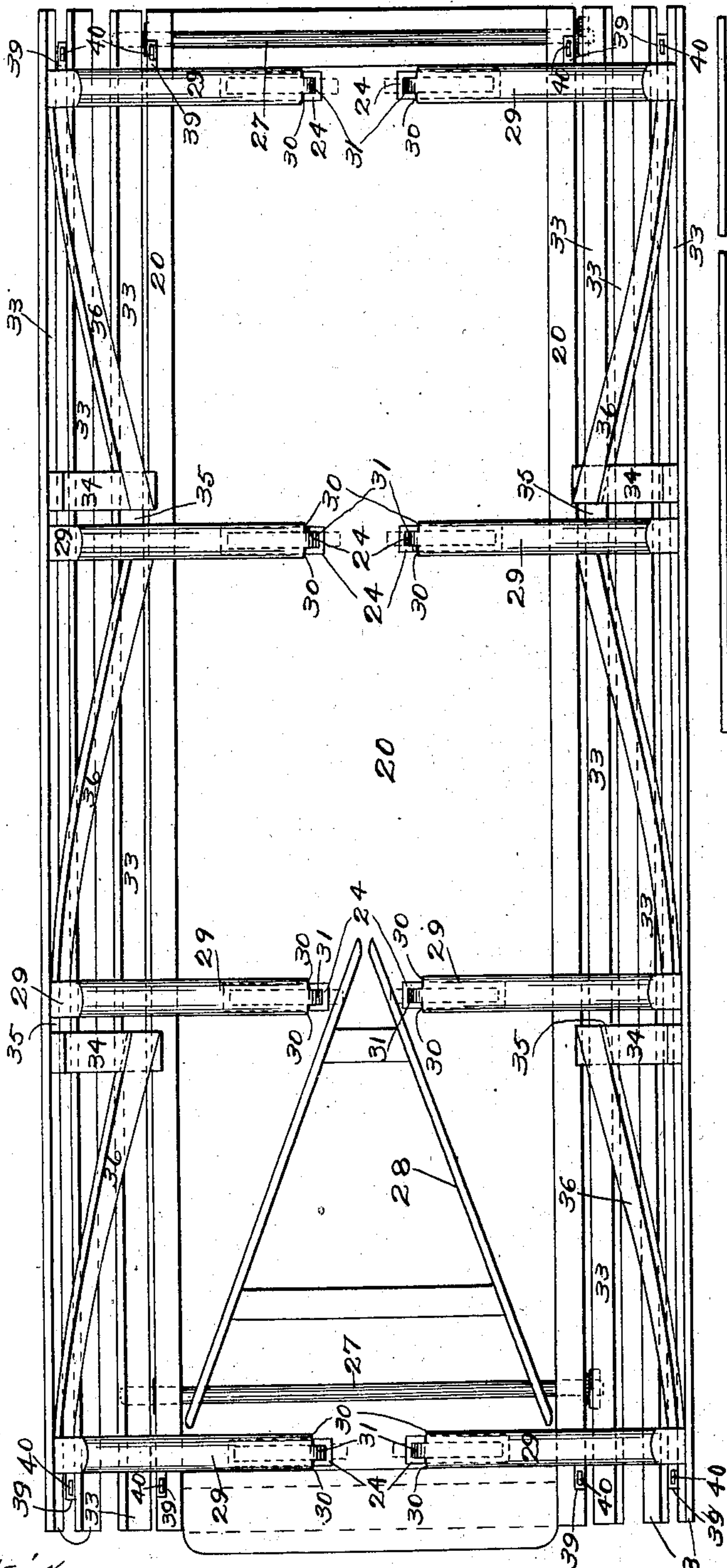


Fig. 9.

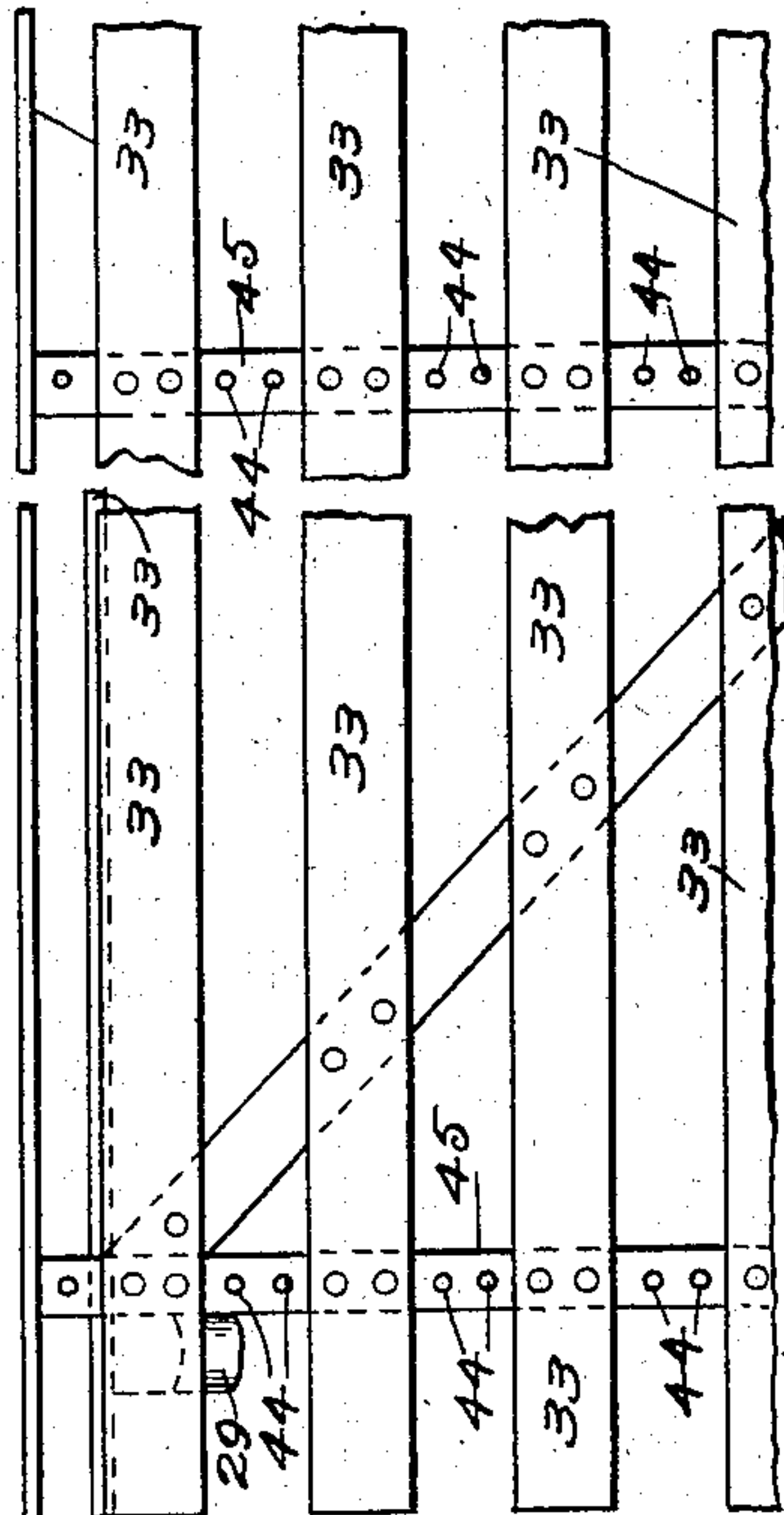
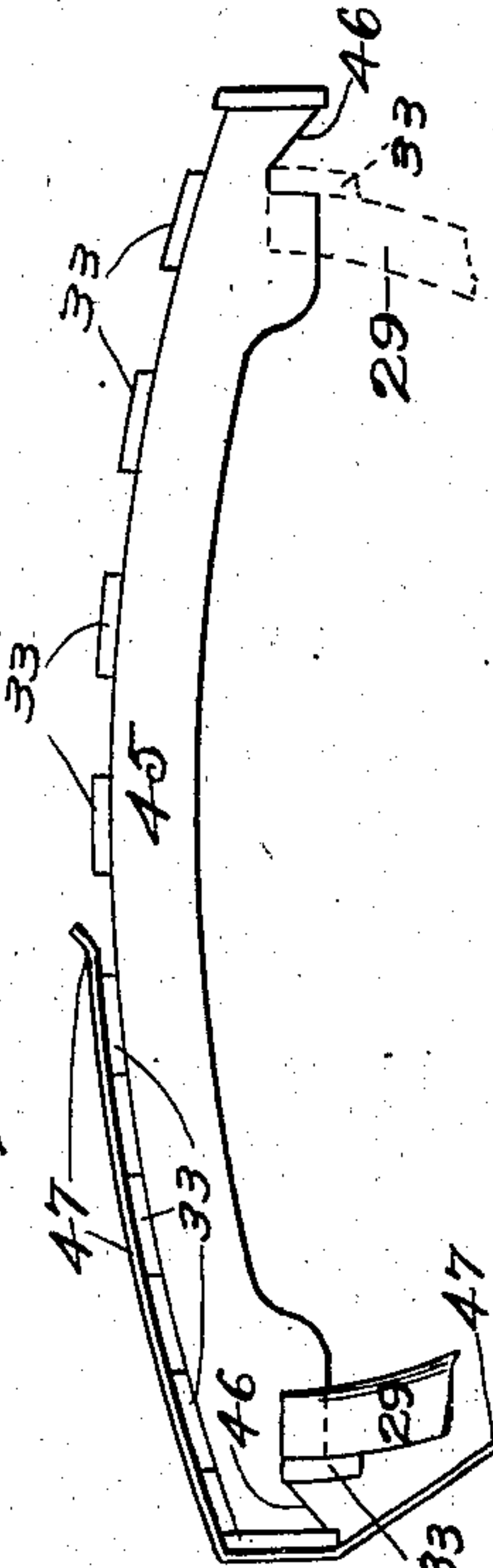


Fig. 8.



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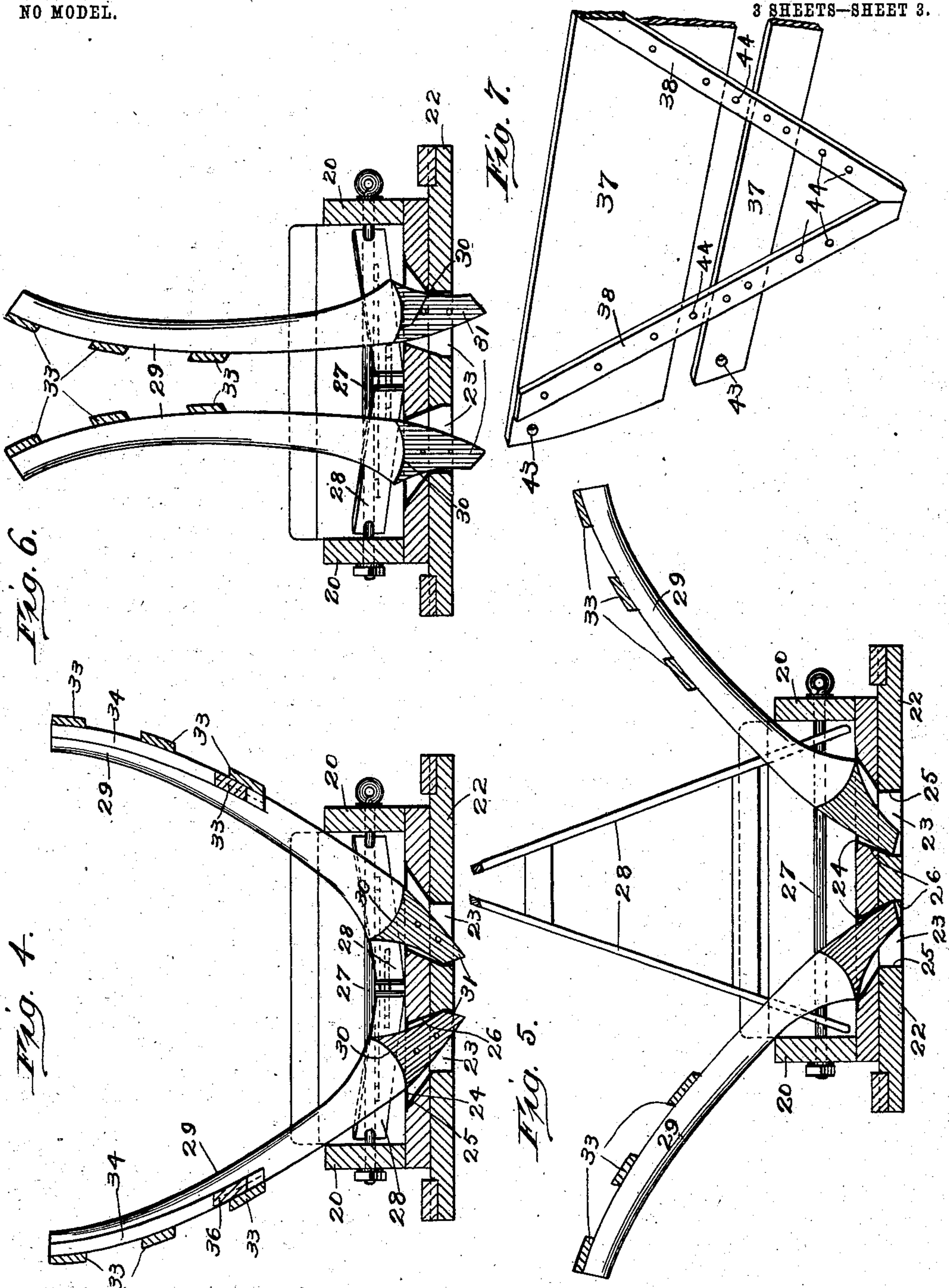
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

ISAAC W. SNOW, OF MARQUETTE, MICHIGAN.

CONVERTIBLE RACK FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 728,316, dated May 19, 1903.

Application filed February 26, 1903. Serial No. 145,119. (No model.)

To all whom it may concern:

Be it known that I, ISAAC W. SNOW, a citizen of the United States, residing at Marquette, in the county of Marquette and State of Michigan, have invented certain new and useful Improvements in Convertible Racks for Wagon-Bodies, of which the following is a specification.

This invention relates to improvements in a convertible and separable rack for wagons; and it consists in the peculiarities of the construction, novel arrangement, and combination of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention is to provide a rack which shall be simple and inexpensive in construction, strong and durable, and so made that its parts shall be separable, that they may be easily assembled and handled by one person when it is desired to change its form or to place it in its position on or remove it from the wagon-body.

Another object is to furnish a rack of the above-described character the parts of which can be readily arranged so as to provide a hay-rack or a rack of large area for hauling hay, oats, straw, shocked corn, and the like, or can be easily converted into a rack having several different compartments, in which poultry, hogs, and sheep, or different farm products—such as potatoes, turnips, corn, &c. can be separately taken to market or transported therein.

A further object is to afford means for protecting the load from rain or snow and to prevent the escape of the animals or poultry.

A still further object is to so construct the rack that it can be quickly changed from an open or ventilated one to a tightly-closed one, so that small grain can be conveyed therein, either in bulk or separate compartments.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in side elevation of a portion of a wagon, showing my improved rack

mounted on the body of the wagon, the parts of the rack being arranged to form compartments. Fig. 2 is a rear end view in elevation of the rack and wagon-body. Fig. 3 is a top plan view of the rack with the partitions and end-gates omitted and showing the head-piece turned down. Fig. 4 is a cross-sectional view taken on line 4 4 of Fig. 1 looking in the direction indicated by the arrows. Fig. 5 is a cross-sectional view taken on line 5 6 of Fig. 1 looking in the direction indicated by the arrows, but showing the parts of the rack arranged to form a hay-rack. Fig. 6 is a cross-sectional view taken on line 5 6 of Fig. 1, but showing the sides of the rack in positions to which they may be arranged when the rack is empty and also illustrating the head-piece turned down. Fig. 7 is a perspective view of a portion of one of the end-gates or partitions. Fig. 8 is an end view of the removable top used with the compartment-rack and showing a portion of the covering for said top. Fig. 9 is a fragmental plan view of the top, showing it shortened for the convenience of illustration. Fig. 10 is a perspective view of the lower portion of one of the supporting-standards of the rack, and Fig. 11 represents perspective views of the protecting plates or pieces for the sockets or openings in the wagon-body.

Like numerals of reference refer to corresponding parts throughout the different views of the drawings.

The numeral 20 represents the wagon-body, which may be of the ordinary or any preferred construction and is mounted on wheels 21 in the usual manner. The bottom of the body 20 is strengthened by means of a series of cross-pieces 22, which are secured thereto at suitable distances apart. Extending through the bottom of the body and each of the pieces 22 in pairs are openings 23 to receive the lower ends of the supporting-standards of the sides of the rack, as will be presently explained. As is clearly shown in Figs. 4 to 6, inclusive, of the drawings, each of these openings is inclined laterally and protected by means of a slotted plate 24, secured to the upper surface of the bottom of the body. The ends of each of the openings 23 are protected by means of pieces 25 and 26, suitably secured in place. Pivotaly secured on a rod

27, which extends across the front portion of the body, is a head-piece 28, which is intended to be used when the rack is employed as a hay-rack and may be then raised to an upright position, as shown in Fig. 5, or may be folded to the position shown in Figs. 3, 4, and 6 when not in use.

Each of the sides of the rack comprises a number of curved supporting-standards 29, which have their lower ends reduced to form shoulders 30 on each side thereof to rest on the socket-plates 24 or upper surface of the bottom of the body if such plates are dispensed with. The reduced portion of each of the standards 29 is preferably provided with a metallic shield 31 to protect it from wear, which shield may be secured in place by means of bolts or rivets passing through openings 32 in the shield. The standards 29 of each of the sides of the rack are connected together by means of slats 33, which are located at suitable distances apart and extend longitudinally with the wagon-body.

Located parallel with and at a slight distance from each of the standards 29 between the end standards is a cleat 34, which is secured to the inner surfaces of the slats 33—that is, their inner surfaces when the parts are arranged to form a compartment-rack. Each of these cleats extends from the upper slat to the lower one and in conjunction with the standards 29 form recesses 35 for the reception and retention of the partitions employed for dividing the rack into numerous compartments. Extending diagonally from the lower portion of each of the cleats 34 to the upper end of the outer or end standards is a brace 36, which may be bolted or otherwise secured to the slats for the purpose of strengthening the rack.

The partitions used in dividing the rack into compartments and end-gates for said compartment-rack are constructed substantially alike and consist of transverse pieces or boards 37, bolted to upwardly-extending pieces 38, which are usually arranged in V shape, as shown in Fig. 7 of the drawings. The outer ends of the boards 37 are curved to correspond with the curve or bend of the standards 29 when arranged as shown in Fig. 4 of the drawings. Each of the end standards 29 is provided with one or more projections 39, having a slot 40 to receive a pin 41, which may be attached to the boards of the end-gates by means of a chain 42 or otherwise. The slotted pins or projections 39 are passed through suitable openings 43 in the boards of the end-gates, after which the pins or keys 41 are placed in said slots in order to secure the end-gates in position.

In order that the sides of the rack may be closed or made tight, I provide each of the standards 29 on its outer surface when the rack is used with the parts in the positions as shown in Figs. 1, 3, and 4 of the drawings with a series of openings 44 to receive pins or screws used for detachably securing slats

between the fixed slats and the sides of the body. To accomplish the same purpose with the end-gates and partitions, the pieces 38 are likewise provided with openings 44 to receive pins or bolts for securing boards or pieces thereto.

In Figs. 8 and 9 of the drawings I have shown a top to be used on the rack when arranged as a compartment-rack or as shown in Figs. 1, 2, and 4 of the drawings, which consists of a number of transverse pieces 45, which are preferably arched, as shown in Fig. 8, and have near each of their ends in their lower surfaces recesses 46 to receive the upper slats 33 or upper portion of the sides of the rack. The transverse pieces 45 are connected together by means of slats 33, which extend longitudinally with the wagon-body. In order to make the top a close one, the pieces 45 may be provided with openings 44 to receive pins or screws in slats to be placed between the fixed slats on said pieces. To protect the load from exposure to the elements, I may provide the top with a cover 47, of cloth or other suitable material, which may be secured at its lower edges to the lower portion of the rack or wagon-body in any suitable manner.

From the foregoing and by reference to the drawings it will be seen and clearly understood that by placing the sides of the rack so that the curve of their standards will be outwardly and locating the lower ends of said standards in the openings of the body they will rest on the sides of the body when the partitions and end-gates, consisting of the boards 37 and pieces 38, may be inserted in the recesses 35, formed by the cleats 34 and standards, and secured in place, respectively, by means of projections 39 and pins 41, as before stated, thus forming a rack with a number of compartments. It is obvious, however, that the end-gates only may be secured in position and the partitions omitted. To form the hay-rack, it is only necessary to reverse the sides, so that the curve of their standards will be inwardly, as shown in Fig. 5 of the drawings. When the rack is empty and it is desired to make it more compact, the sides may be arranged to occupy the position shown in Fig. 6 of the drawings.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a convertible rack for wagons, the combination with the body having a series of upwardly-flaring openings in its bottom, of the interchangeable sides, each comprising a series of curved supporting-standards having their lower ends shaped to fit in the said openings and adapted to rest on the sides of the body, and a series of slats secured to the standards, substantially as described.

2. In a convertible rack for wagons, the combination with the body having a series of upwardly-flaring openings in its bottom, of the interchangeable sides, each comprising a

number of supporting-standards formed at their lower ends to fit in said openings and adapted to rest on the sides of the body, and a series of slats secured to the standards, the said standards being curved laterally, whereby a rack of large area may be formed by placing the sides so that the bends of their standards will be inwardly, and one of smaller capacity produced by placing the sides so that the bends of their standards will be outwardly, substantially as described.

3. In a convertible rack for wagons, the combination with the body having a series of upwardly-flaring openings in its bottom, of a head-piece pivotally secured near one of its ends, the sides of the rack, each comprising a number of curved supporting-standards adapted to rest on the sides of the body and having their lower ends formed to fit in said openings and a number of slats secured to the standards, substantially as described.

4. In a convertible rack for wagons, the combination with the body having a series of openings in its bottom, of the interchangeable sides, each comprising a series of laterally-curved supporting-standards to fit at their lower ends in the said openings and a number of slats secured to the standards, cleats secured to the slats parallel with and

at a slight distance from some of the standards, to form recesses, partitions to fit in said recesses, end-gates located at the ends of the body and the sides and means to secure them to the latter, substantially as described.

5. In a convertible rack for wagons, the combination with the body having a series of openings in its bottom, of the interchangeable sides, each comprising a series of laterally-curved supporting-standards to fit at their lower ends in the said openings and a number of slats secured on the standards, cleats secured to the slats parallel with and at a slight distance from some of the standards, to form recesses, partitions to fit in said recesses, end-gates located at the ends of the body and the sides, means to secure them to the latter, a cover comprising a number of transverse pieces, each having near its ends a recess to receive the upper portion of the sides of the rack, and slats connecting the transverse pieces together, substantially as described.

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Witnesses:

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