

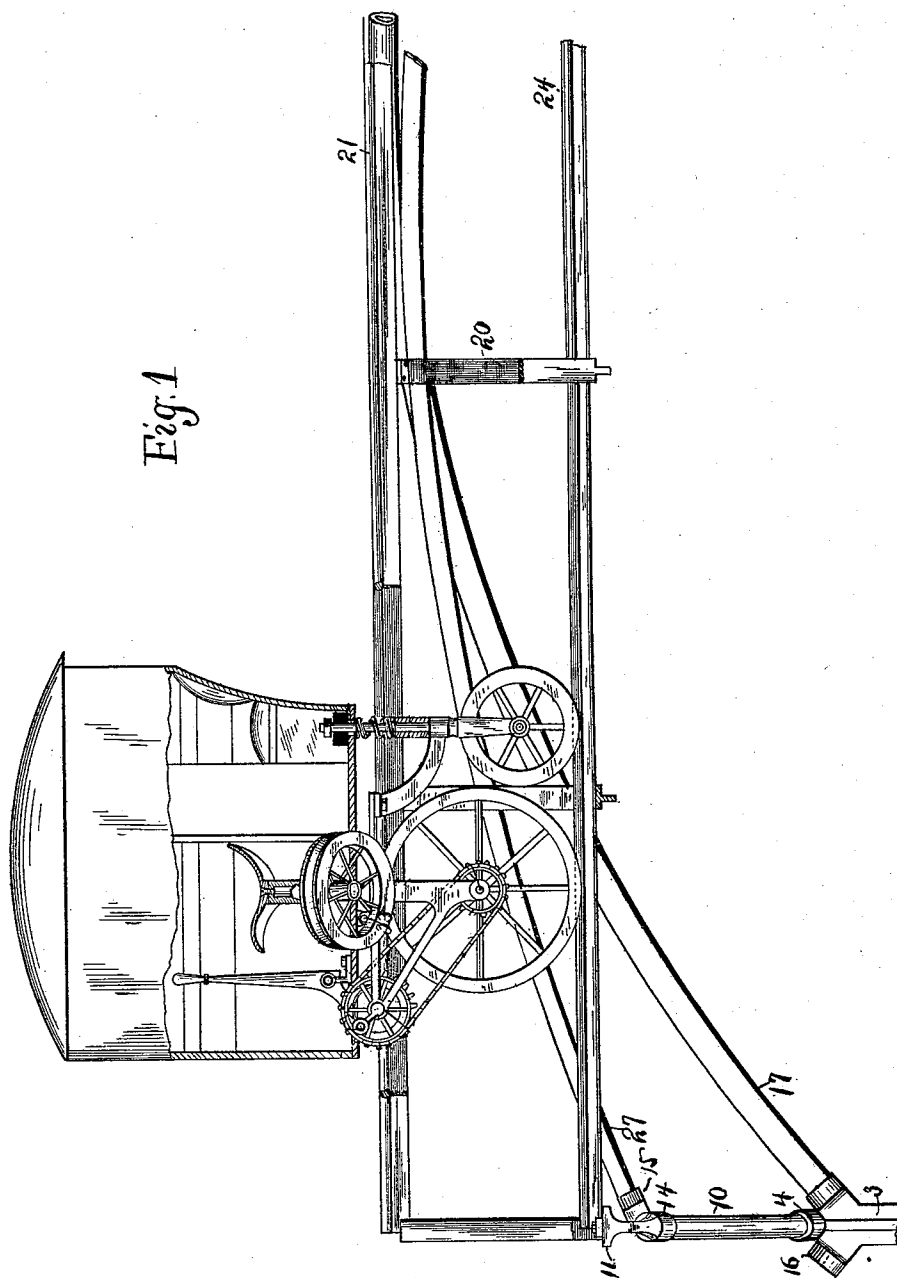
(No Model.)

3 Sheets—Sheet 1.

E. M. TURNER.
ELEVATED RAILWAY.

No. 488,156.

Patented Dec. 13, 1892.



Witnesses
A. A. Eicks
and E. Langan

Inventor
Ephraim M. Turner
By his Attorneys Higdon & Higdon

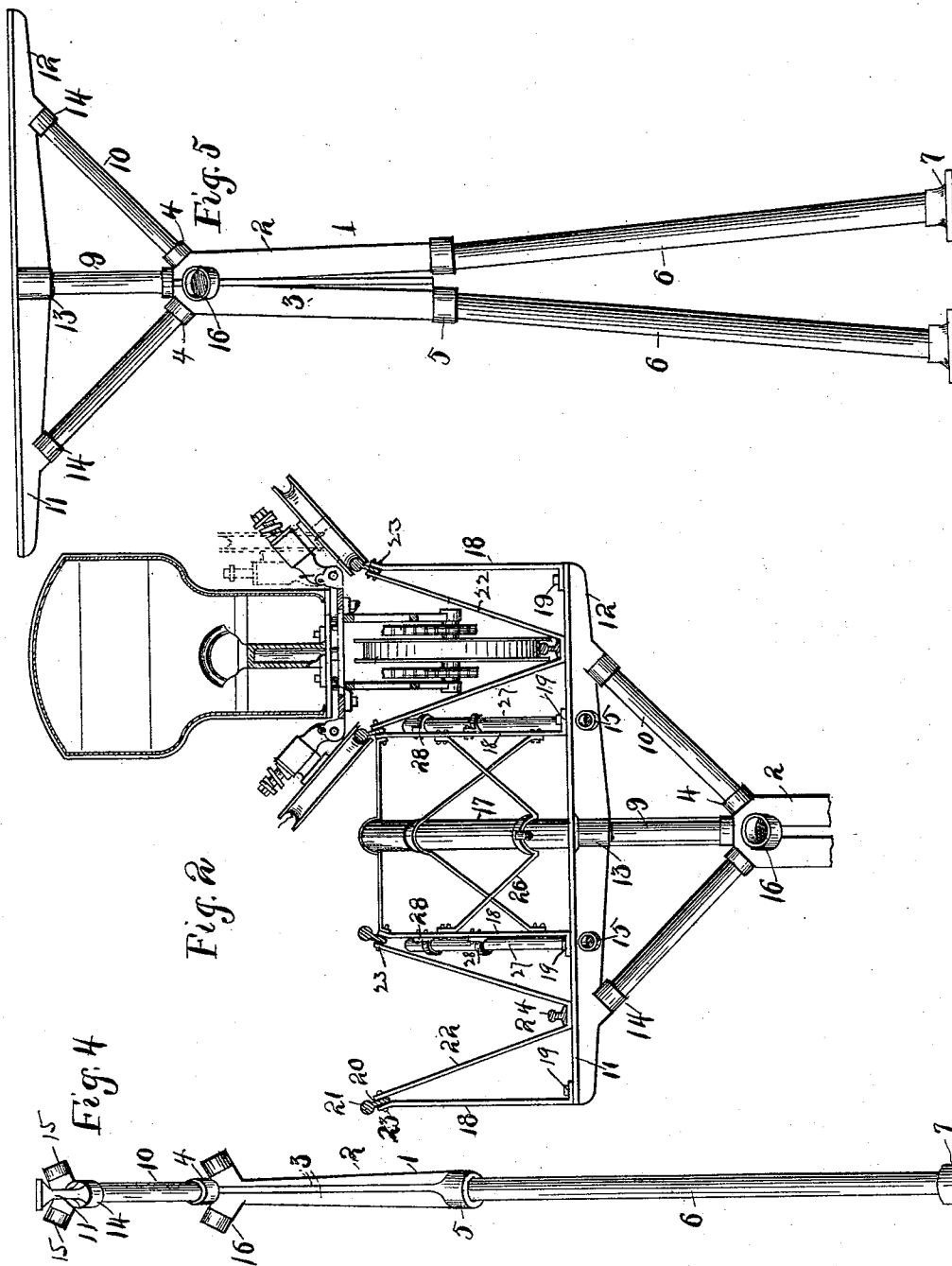
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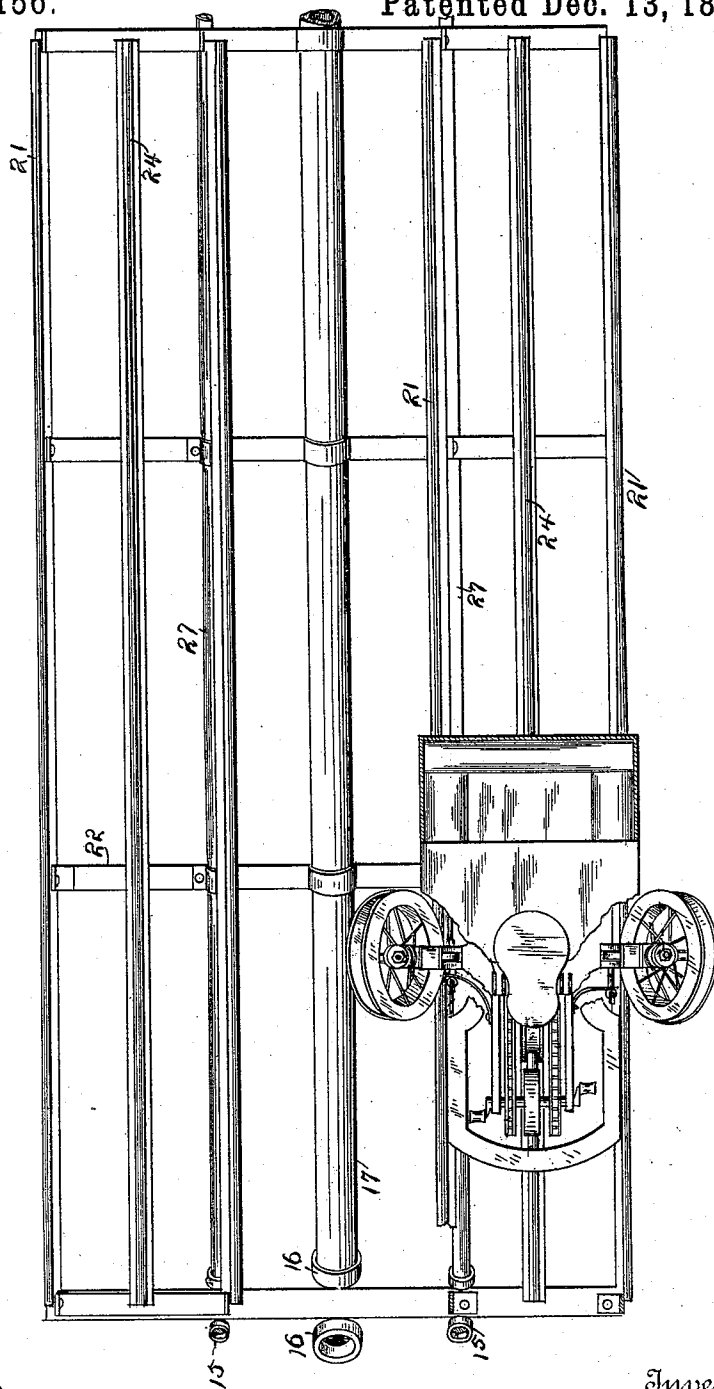
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Fig. 3



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UNITED STATES PATENT OFFICE.

EPHRAIM M. TURNER, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
R. E. MADDOX, OF FORT WORTH, TEXAS.

ELEVATED RAILWAY.

SPECIFICATION forming part of Letters Patent No. 488,156, dated December 13, 1892.

Application filed December 14, 1891. Serial No. 415,031. (No model.)

To all whom it may concern:

Be it known that I, EPHRAIM M. TURNER, of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Elevated Railways, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in elevated railways; and it consists in the novel arrangement and combination of parts, as will be more fully hereinafter described and designated in the claims.

In the drawings, Figure 1 is a side elevation of a superstructure embodying my invention and illustrating a car mounted thereon. Fig. 2 is a vertical section of the same. Fig. 3 is a top plan view of the superstructure, showing a car upon the same and partially broken away. Fig. 4 is a side elevation of one of the posts or columns. Fig. 5 is a front elevation of the same.

Referring to the drawings, 1 represents the supporting posts or columns, which are constructed as follows:

2 represents a casting having four webs 3 for strengthening the said casting. Formed upon the upper end of said casting 2 are five sockets 4 and each provided with internal screw-threads, into which are screwed supports and braces, as hereinafter more fully described. The lower end of the casting 2 is provided with two sockets 5, also provided with internal screw-threads, into which sockets two posts 6 are adapted to be screwed, the lower ends of said posts diverging and being screwed in suitable castings 7, placed upon and secured to the ground.

9 represents a short post, the lower end of which is screwed into the center socket 4, and 10 represents the braces, the lower ends of which are screwed into the sockets 4, located on either side of the center socket.

11 represents a horizontal base-plate having a depending web 12, and formed in the center of said web is a screw-threaded socket 13, which socket receives the upper end of the short post 9.

At a suitable distance from the ends of the web 12 of the base-plate are formed two screw-threaded sockets 14, which are arranged at

an angle to said web corresponding to the angle of the supports 10, into which sockets the upper ends of the braces 10 are screwed or otherwise secured. To both sides of the web 12 are formed sockets 15, which are four in number and are adapted to receive the ends of supplemental arches, as hereinafter more fully set forth.

16 represents two sockets, which are formed with the casting 2 and are oppositely located and are adapted to receive the ends of the main arch 17. The said main arch 17 extends or leads from said sockets 16 at both ends of the same to a height corresponding, preferably, to the height of the guide-rails.

The parts having been united, as above described, and the supporting posts or columns 1 suitably secured to the ground, the remaining parts are united to form a superstructure, as follows: To the upper surface of the base-plate 11 are secured four vertical supports 18, the lower ends of which are bent at an angle and secured to the said base-plate by bolts 19. The supports 18 are arranged at a suitable distance apart, which gives the desired width to the road. The upper ends of the supports 18 are slightly bent, and to said bent ends the web 20 of the guide-rails 21 are secured. 22 represents V-shaped braces, the ends of which are also united to the said web portions of the guide-rails by means of bolts 23. The median portions of said V-shaped braces 22 rest upon the upper surface of the base-plate 11, and upon said braces at said portions of the same traffic-rails 24 are adapted to be placed and secured thereon. Secured intermediate of the columns 1 and to the lower surface of the traffic-rails are any number of V-shaped supports 22 and connected to the guide-rails 21, in a manner as previously described. Intermediate of said columns 1 are secured any number of supplemental braces 25, as shown in Fig. 1, the ends of which are secured to the web of the guide-rails, and the traffic-rails 24, adapted to rest upon the median portions. 26 represents supplemental braces, which partially encircle the main arch 17 at their median portions, the ends of which extend over and are suitably attached to the supports 18.

In practice and as shown I use two supple-

mental arches 27, the ends of which are secured in the sockets 15, carried by the web portion of the base-plate 11. To the supports 18 and to the sides of the supplemental
 5 braces or supports 25, adjacent to the supplemental arch 27, are secured to each hook-irons 28, the hooked portions of which are adapted to come in contact and rest upon the said supplemental arch 27. By this construction
 10 the said arches 27 will receive a part of the weight and strain brought to bear upon the road. If found desirable, the supplemental arches 27 may be dispensed with entirely and the main arch 17 receive the entire weight of
 15 the road.

Having fully described my invention, what I claim is—

1. An elevated railway comprising a superstructure, posts or columns located and secured to the ground at a suitable distance
 20 apart, sockets formed in the upper ends of the same, base-plates secured to the said posts by means of short posts and braces, main arches, such as 17, leading from post to post
 25 and united to the same below the bed of the road, braces, such as 18, secured to the base-plates for holding and supporting suitable guide-rails, and braces leading from said supports 18 and united with the said main arches,
 30 substantially as set forth.

2. An elevated railway comprising a superstructure, posts or columns 1, consisting of castings 2, legs or supports 6, secured to the same and supporting the said castings, sockets
 35 formed in the upper ends of the said castings, posts 9 and braces 10, secured in the socket 4 and supporting suitable base-plates, sup-

ports, such as 18, secured to the said base-plates at a relative distance apart for supporting suitable guide-rails, braces, such as
 40 22, leading from the said guide-rails and resting upon the said base-plates for receiving the traffic-rails, main arches, such as 17, leading from post to post, the ends of which are secured in suitable sockets formed in the said
 45 casting 2 below the level of the superstructure, and supplemental arches, such as 27, also leading from post to post and secured to the said plates below the level of the said superstructure, and means for connecting the said
 50 braces 18 with the said supplemental arches, substantially as set forth.

3. An elevated railway comprising posts or columns upon which the superstructure is built, arches, such as 17, leading from post to
 55 post and connected to the same below the base of the track-bed, base-plates secured to and mounted upon said posts or columns, and braces or supports 18, secured to said base-plates and located on each side of the said arch
 60 for supporting suitable traffic and guide rails, substantially as set forth.

4. The herein-described elevated railway, comprising a superstructure suitably mounted upon posts or columns, supports, such as 18,
 65 and braces, such as 22, supporting four guide-rails and two traffic-rails, substantially as set forth.

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

EPHRAIM M. TURNER.

Witnesses:

ED. LONGAN,
 O. F. KELLER.