



No. 735,394.

PATENTED AUG. 4, 1903.

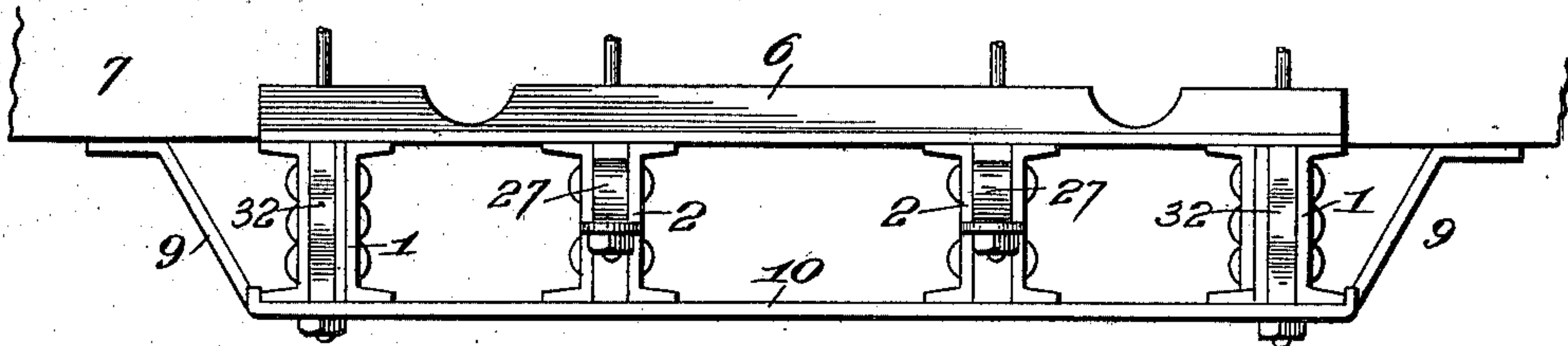
J. G. LAWLER.  
PLATFORM FRAME FOR RAILWAY CARS.

APPLICATION FILED MAR. 31, 1902.

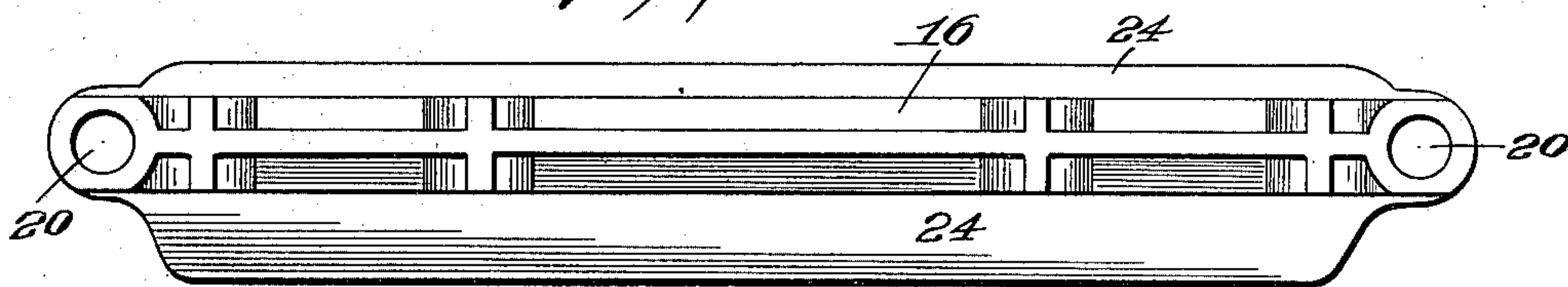
NO MODEL.

3 SHEETS—SHEET 2.

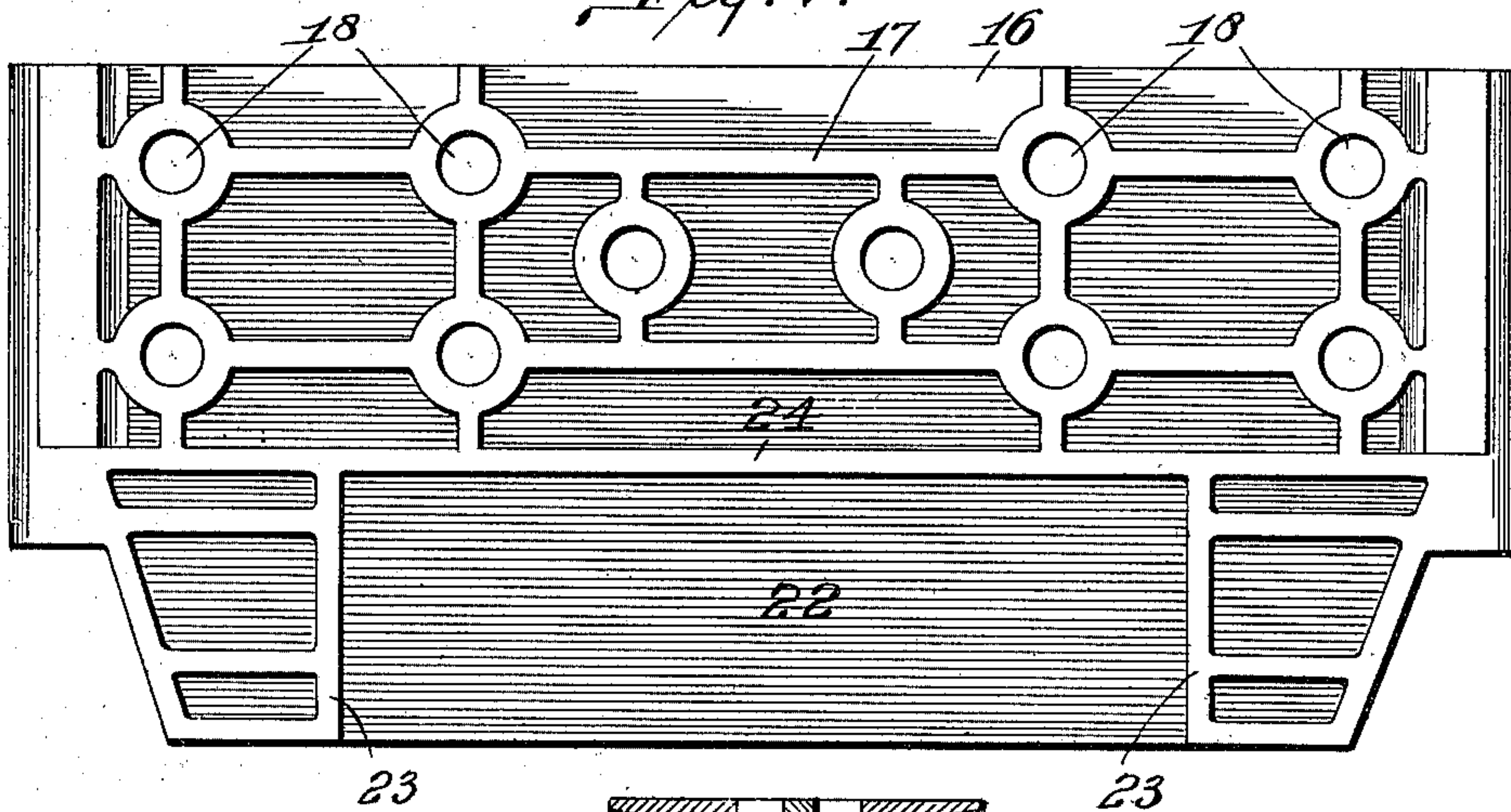
*Fig. III.*



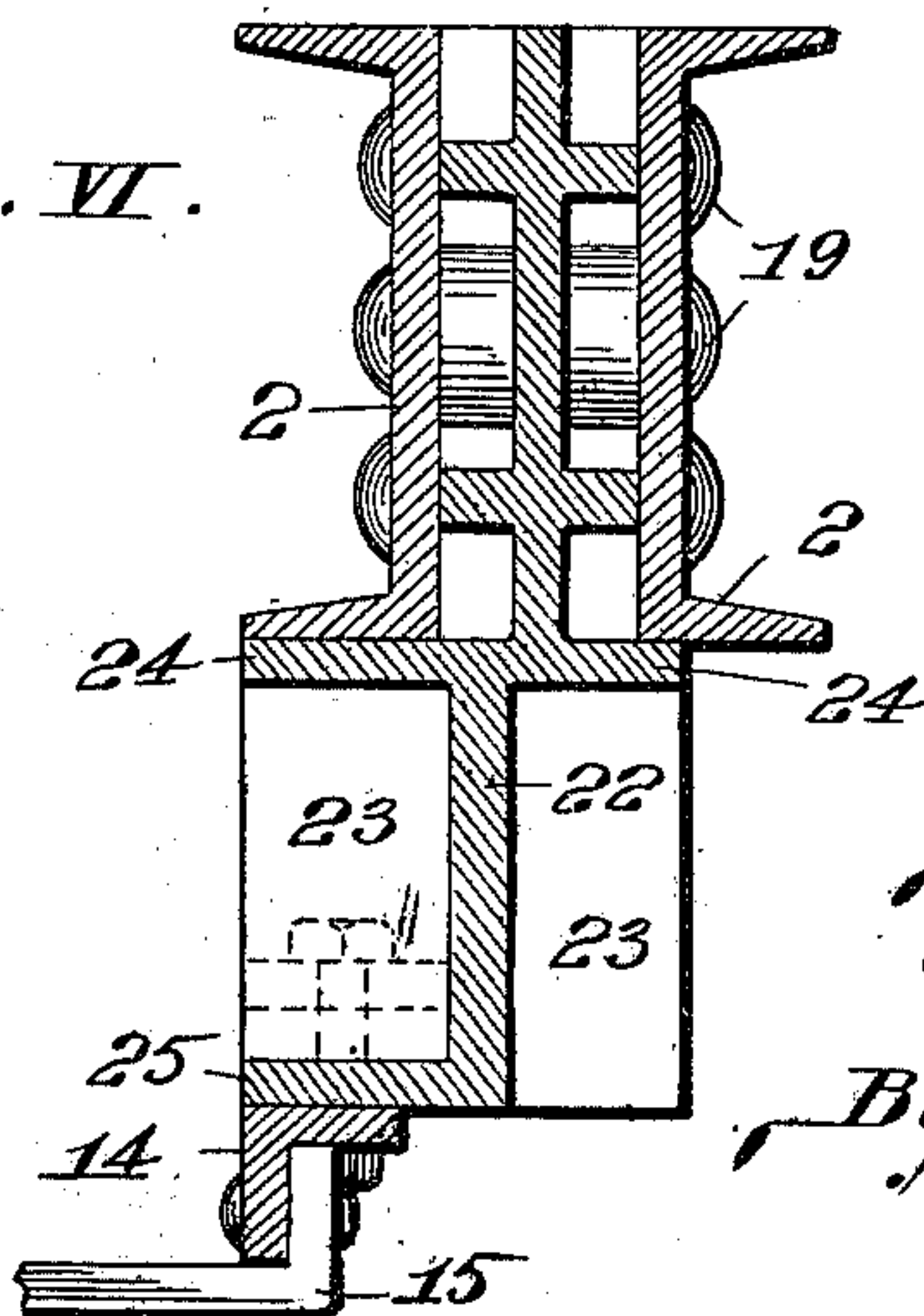
*Fig. IV.*



*Fig. V.*



*Fig. VI.*



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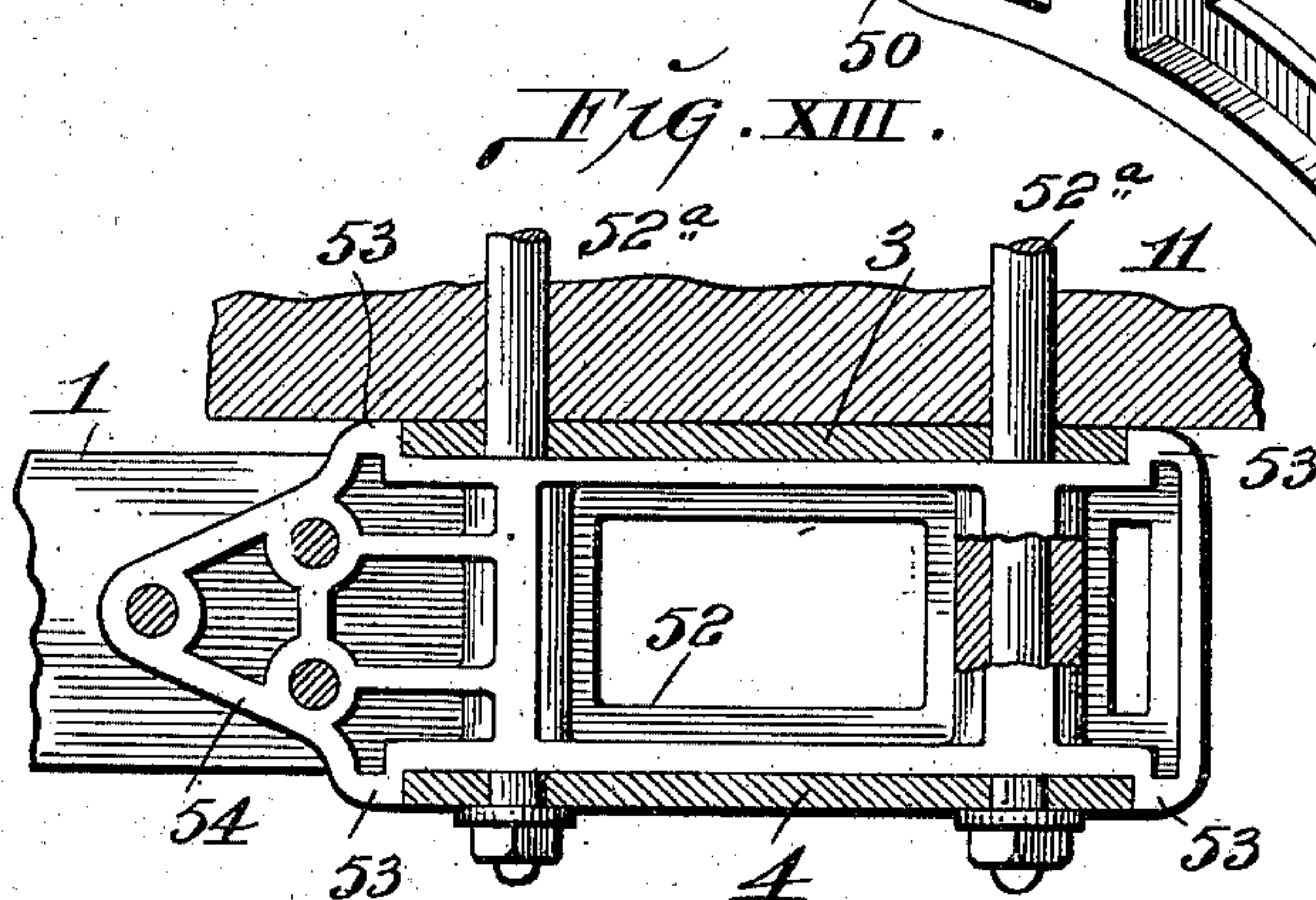
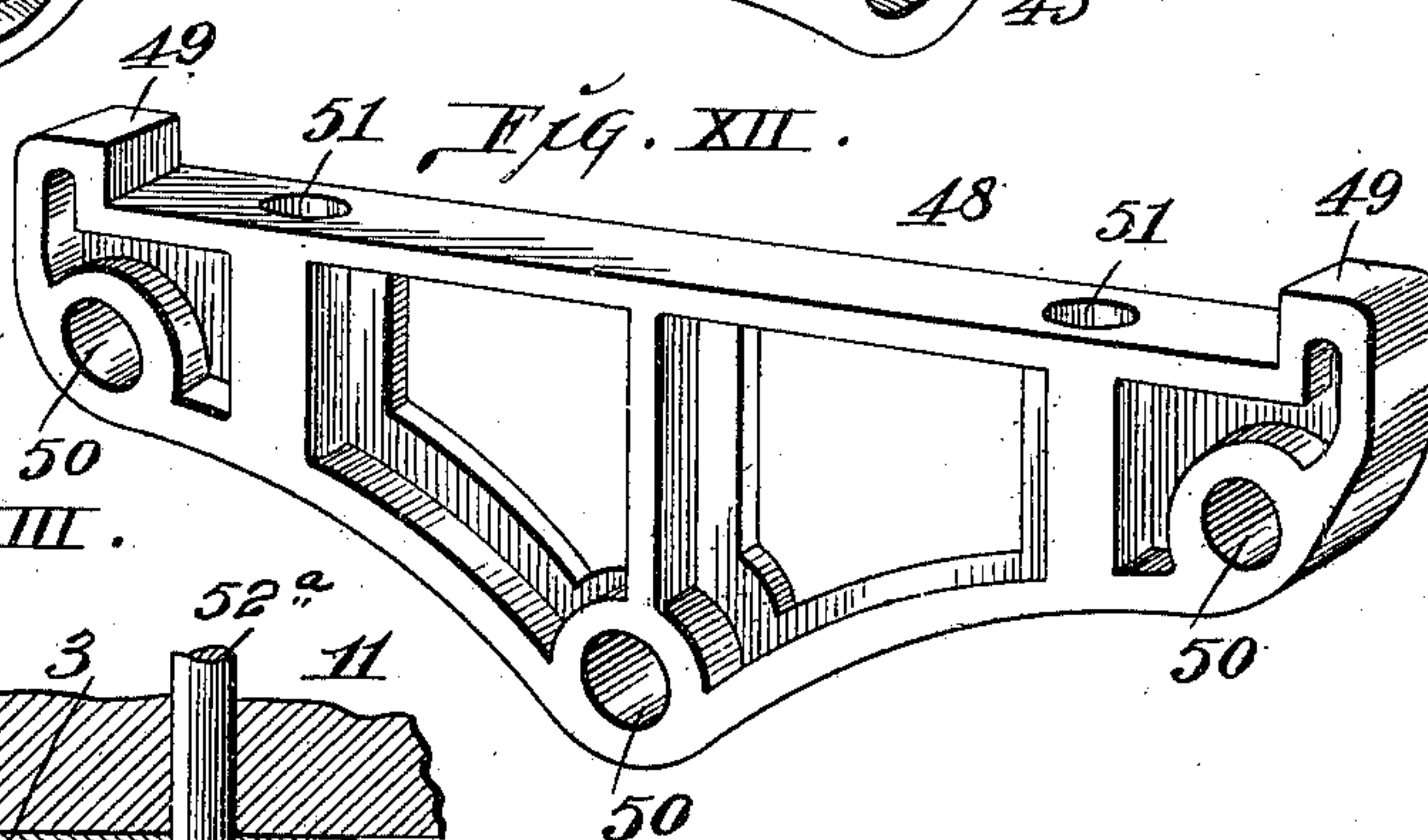
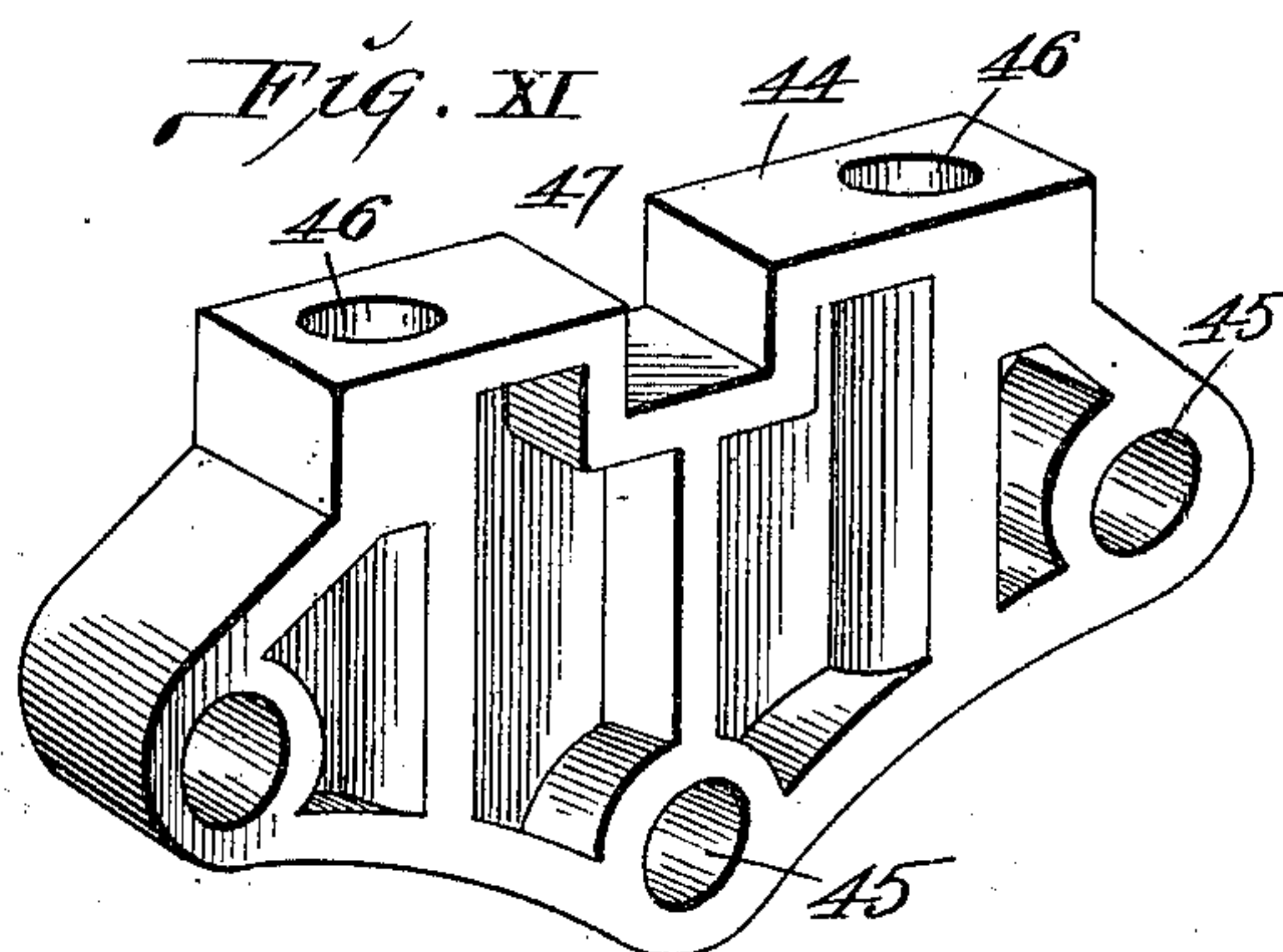
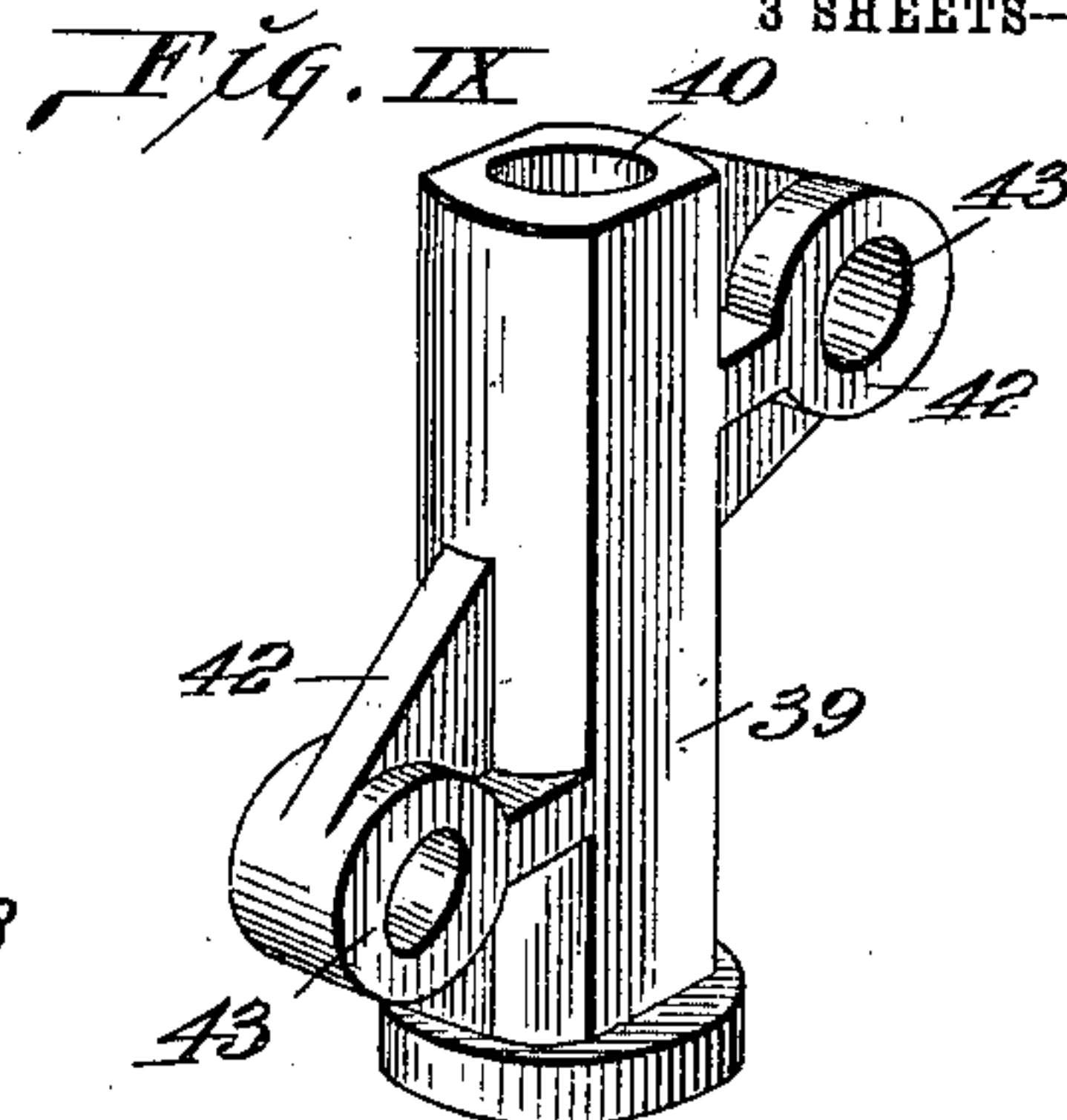
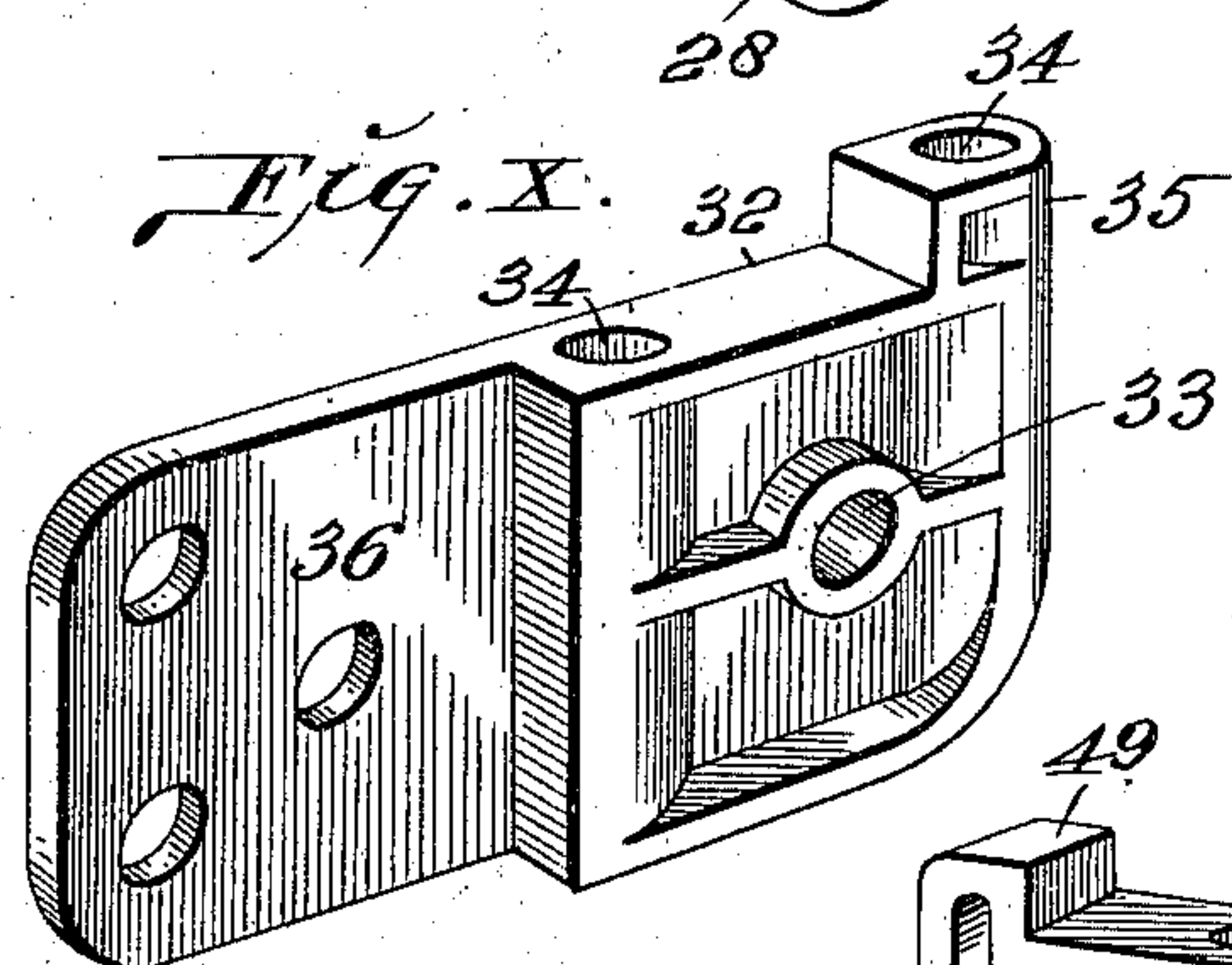
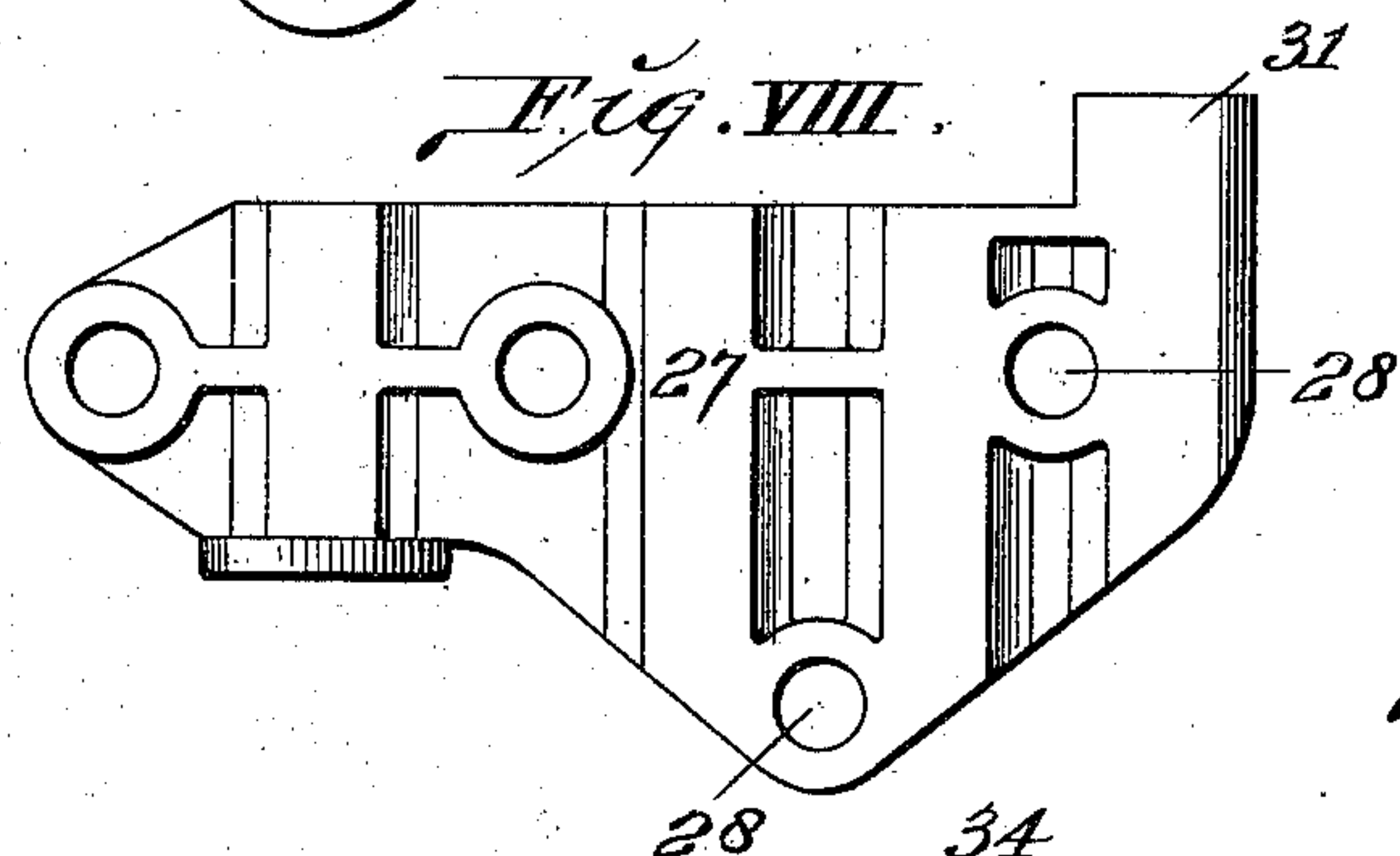
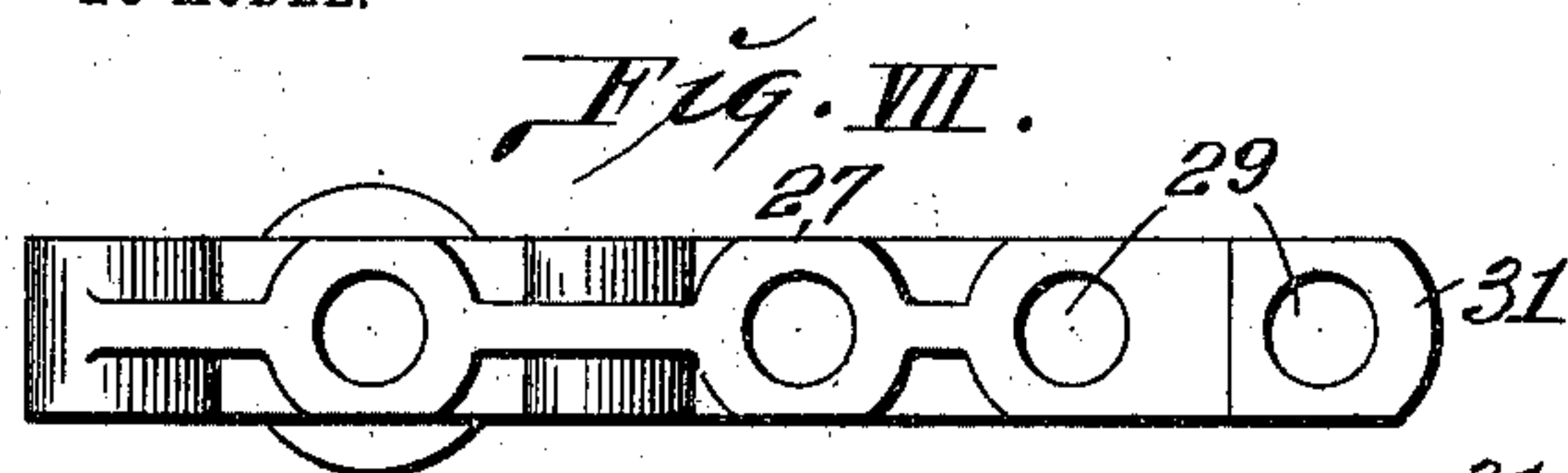
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3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

JAMES G. LAWLER, OF ST. CHARLES, MISSOURI.

## PLATFORM-FRAME FOR RAILWAY-CARS.

**SPECIFICATION** forming part of Letters Patent No. 735,394, dated August 4, 1903.

Application filed March 31, 1902. Serial No. 100,660. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES G. LAWLER, a citizen of the United States, residing in St. Charles, in the county of St. Charles and State of Missouri, have invented certain new and useful Improvements in Platform-Frames for Railway-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a frame of metal construction for supporting the platforms of railway-cars, and has for its object the provision of means whereby the platform-timbers may be mounted and held upon the frame without the requirement of perforating the beams of the framework to their detriment, as has heretofore been the custom. In my construction I make use of a series of fillers located between the metal beams and secured therein by transverse bolts or rivets, the fillers being provided with vertical bolt-holes adapted to receive the bolts that secure the platform-frame to the car-sills and the platform-timbers and other parts of the platform-frame to the aforesaid frame.

The invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a top or plan view of my platform-frame. Fig. II is a longitudinal section taken on line II II, Fig. I. Fig. III is an end view of the frame. Fig. IV is a detail top view of one of the draw-bar-spring pockets and center-beam filler. Fig. V is a detail side view of the filler shown in Fig. IV. Fig. VI is an enlarged cross-section taken on line VI VI, Fig. I. Fig. VII is a detail top view of one of the center platform-beam fillers and buffer-timber anchor. Fig. VIII is a detail side view of the filler shown in Fig. VII. Fig. IX is a detail perspective view of one of the platform-beam fillers. Fig. X is a detail perspective view of one of the side platform-beam fillers and buffer-beam anchors, also serving as a safety-coupling chain-anchor furring. Fig. XI is a detail perspective view of one of the platform-beam fillers and end-sill anchors. Fig. XII is a detail perspective view of one of the center platform-beam

fillers and body-bolster anchors. Fig. XIII is a section taken on line XIII XIII, Fig. I, showing one of the platform side-beam fillers and body-bolster anchors in elevation.

1 designates the short beams of the platform-frame, and 2 the center beams, all of which are of channel form, with the flanges of each beam outturned. The center and outside platform-beams are attached to the car-body bolster, which is composed of an upper plate 3 and lower plate 4, by the fillers shown in detail by Figs. XII and XIII, respectively.

5 designates the buffer-timber, mounted upon the forward ends of the side and center beams and backed by an angle-iron 6.

7 is the end sill, composed of two timbers having positioned between them an end-sill plate 8 for service as a strengthener for the end sill.

9 is a tie-plate positioned beneath the beams 1 and 2 and having its ends extending upwardly (see Fig. III) to the under side of the end sill 7.

10 is a tie-plate that connects the beams 1 and 2 at their forward ends.

11 designates the platform-timbers, having mounted thereon the platform-flooring 12.

13 is a draw-bar-spring pocket having angle bottom pieces 14 and cross-bars 15, that are supported beneath the center beams 2 in the manner hereinafter stated.

The various fillers used in my frame construction are positioned between the side beams and center beams of the frame, and I designate them by terms corresponding to their relation to the members hereinbefore mentioned. 16 designates the draw-bar-spring pocket and center-beam filler, positioned between the center beams 2 approximately midway of the distance between their outer ends and the body-bolster, each spring-pocket having at its sides strengthening-ribs 17 and containing a series of horizontal bolt-holes 18, through which rivets or bolts 19 are inserted, the ends of the rivets or bolts seated in the center beams, as seen in Fig. VI, to firmly secure the fillers between the mating center beams. At each end of the filler 16 are vertical bolt-holes 20, that are adapted to re-



ceive vertical bolts 21, that pass through the platform car-sills 11 and the bolt-holes 20 to secure said beams and spring-pocket to the car-sills, as seen in Fig. II. The draw-bar-spring pocket and center platform-filler 16 extend downwardly beyond the lower edges of the center beams 2, and their lower extremities are formed with vertical webs 22, sideribs 23, and have ledges 24, that fit against the under edges of the center beams. In the lower end of each filler 16 is a horizontal bracket 25, to which the angle bottom pieces 14, that support draw-bar-spring followers, are attached, they being stiffened by the cross-bar 15.

26 designates cross-shaped struts positioned between the center beams 2 at the location of the draw-bar-spring pocket and center platform-beam fillers and which serve to bind said beams together at the location mentioned.

27 designates buffer-timber fillers, located between the center mating beams 2 at the location of the buffer-timber 5. Each of these fillers 27 is provided with horizontal bolt-holes 28, that receive horizontal bolts or rivets passed therethrough and seated on the webs of the mating center beams to hold said fillers in place. In the fillers 27 are a series of vertical bolt-holes 29, that are adapted to receive the vertical bolts 30, (see Fig. II,) by which the buffer-timbers 5 and the platform-timbers 11<sup>a</sup> are secured to the center beams 2, the bolts extending through the tie-plate 10, located beneath the outer ends of the center beams. Each buffer-timber filler is provided with a vertical anchor-gib 31, that furnishes a shoulder against which the rear face of the buffer-timber angle-iron 6 rests to transmit shock from said buffer-timber to center beams.

32 designates side platform-beam filler and buffer-beam anchor positioned between the mating side platform-beams 1, each filler being provided with a horizontal bolt-hole 33, adapted to receive horizontal bolts or rivets, by which they are secured to the side platform-beams. The fillers 32 are also provided with vertical bolt-holes 34, that receive bolts 30, passed through the buffer-timbers 5. At the rear end of each filler 32 is an anchor-gib 35, similar to that 31 on the fillers 27 and adapted for like service. Each filler 32 has a perforated arm 36, that mates with safety-coupling chain-anchor plates 37, (see Figs. I and II,) having holes 38, adapted to receive the usual check-chains.

39 designates platform-beam fillers, each comprising a central body having a vertical bolt-hole 40, adapted to receive bolts 41, seated in the car-sills 11 or platform-timbers 11<sup>a</sup> and provided with side arms 42, containing horizontal bolt-holes 43, that receive horizontal bolts or rivets seated in webs of the platform-beams 1 and 2.

44 designates an end-sill filler and anchor

having horizontal bolt-holes 45 adapted to receive horizontal bolts or rivets seated in the webs of the platform-beams 1 and 2 at the location of the end sill and also containing vertical bolt-holes 46, that receive vertical bolts passed through the end sill 7 and the tie-plate 9, located beneath the platform-beams 1 and 2. The fillers 44 are provided with central anchor-sockets 47, adapted to receive and hold an end-sill plate 8, which has its lower edge seated therein to anchor the end sill from lateral movement.

48 designates center platform-beam fillers and body-bolster anchors positioned between the mating center platform-beams 2 at the location of the body-bolster of the car, provided at its ends with anchor-gibs 49, that embrace the edges of the top bolster-plate 3 and serve to retain said plate from lateral movement. These bolster-fillers are held to the center platform-beams by horizontal bolts or rivets, that pass through the horizontal bolt-holes 50 therein and are seated in the webs of said center platform-beams. These fillers are also provided with vertical bolt-holes 51, that receive the bolts 52<sup>a</sup> by which the bolster-plates 3 and 4 are held to the center platform-beams and car-sills.

52 designates outer bolster-fillers positioned between the mating side platform-beams 1 and having anchor-gibs 53 at their upper and lower edges that embrace the bolster-plates 3 and 4 and perform the same service as the anchor-gibs 49 of the center platform-beam filler and bolster-filler and anchor 48. The outer bolster-fillers 52 are connected to the side platform-beams 1 by bolts or rivets seated in forward arms 54 of said fillers and the side platform-beams 1. These fillers are also provided with vertical bolt-holes that receive the bolts 52<sup>a</sup>, passed therethrough from the car-sills 11.

I claim as my invention—

1. The combination of a platform-frame of metal channel-beams having their flanges turned outwardly and arranged in pairs, fillers having horizontal and vertical ribs upon their sides and situated between the facing unflanged sides of the pairs of channel-beams, said fillers being provided with vertical bolt-holes to receive sill-bolts, and bolt-holes extending horizontally through the fillers and the ribs thereon at the junctions of the horizontal and vertical ribs, substantially as set forth.

2. The combination in a platform-frame, of beams, sills, platform-timbers and transversely-positioned appurtenances; and fillers secured between said beams containing vertical bolt-holes to receive bolts by which said sills, timbers and beams are secured together; said fillers having anchor-gibs whereby said appurtenances are held from lateral movement on said beams, substantially as described.



3. In a platform-frame, the combination  
with metal channel-beams and ribbed fillers  
secured between said beams of means in said  
fillers to secure the beams to the car-sills and  
5 platform-timbers.

provided with horizontal bolt-holes extend-  
ing in line with the ribs thereof.

In testimony whereof I have hereunto set  
my hand.

JAMES G. LAWLER.

In presence of—

E. S. KNIGHT,  
M. P. SMITH.

4. In a platform-frame, the combination of  
metal channel-beams and ribbed fillers se-  
cured between said beams, said fillers being