

J. W. SMITH.

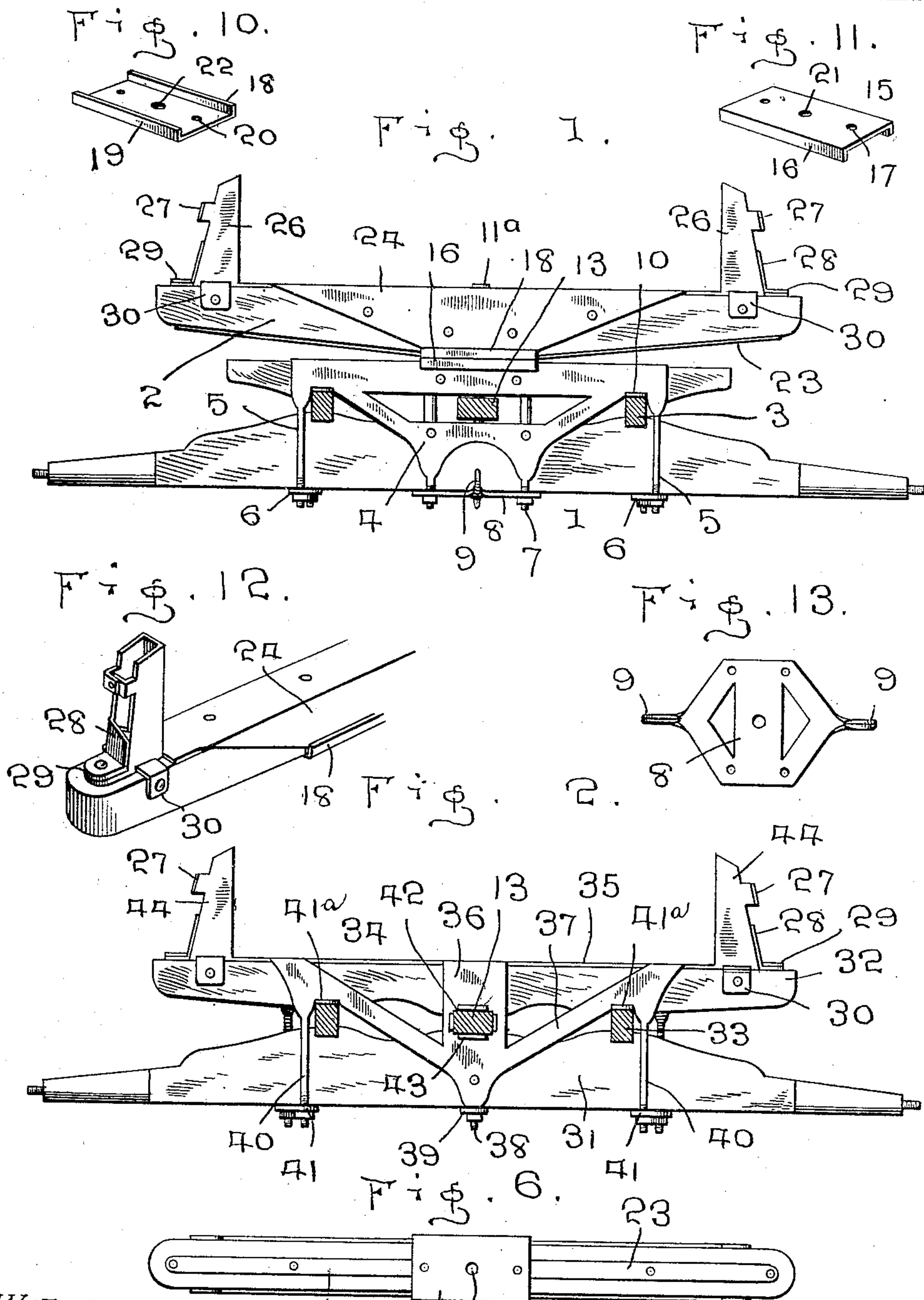
WAGON.

APPLICATION FILED MAR. 16, 1909.

935,277.

Patented Sept. 28, 1909.

3 SHEETS—SHEET 1.



WITNESSES:

Thomas W. Riley
M. A. Newcomb

INVENTOR
John W. Smith

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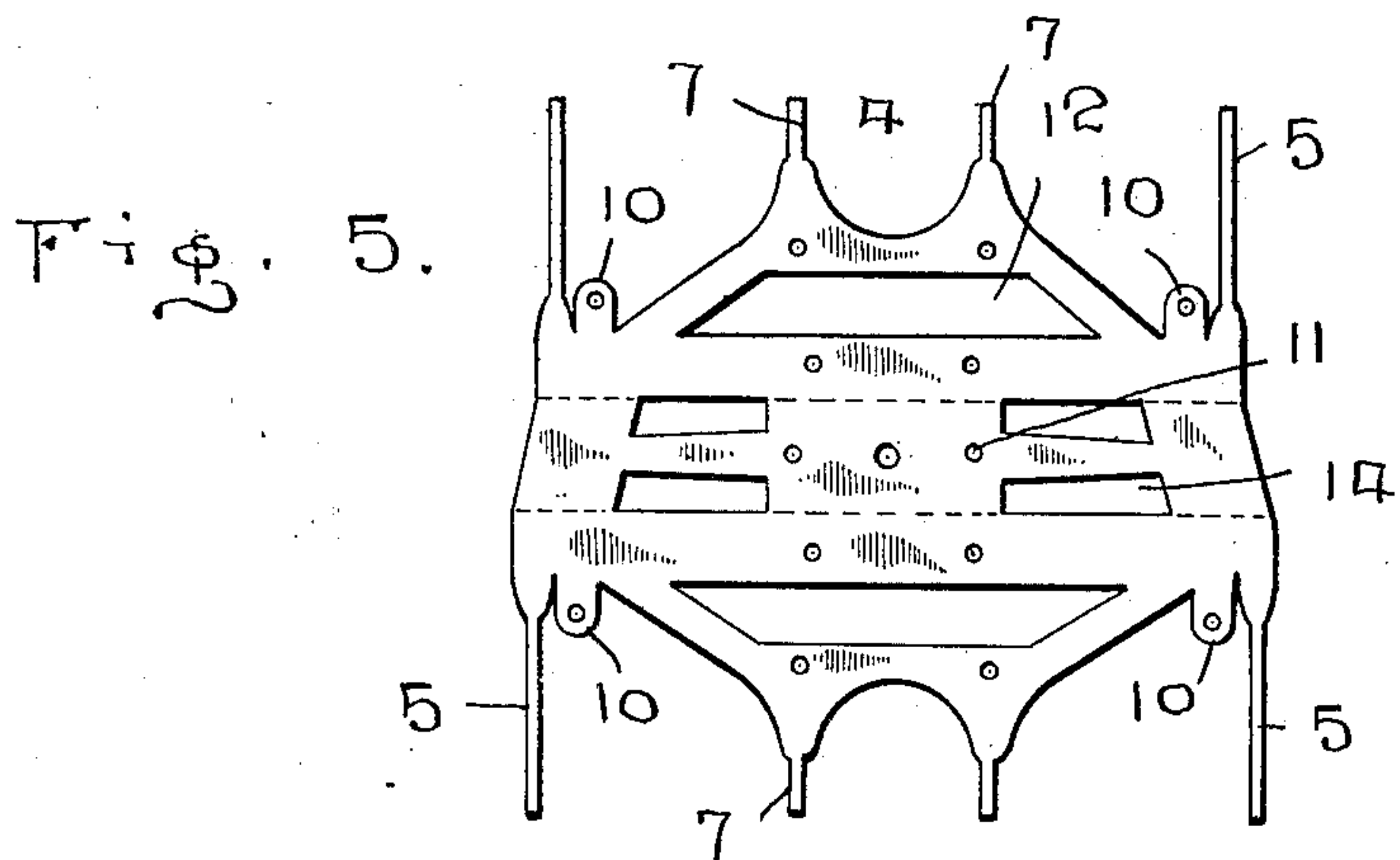
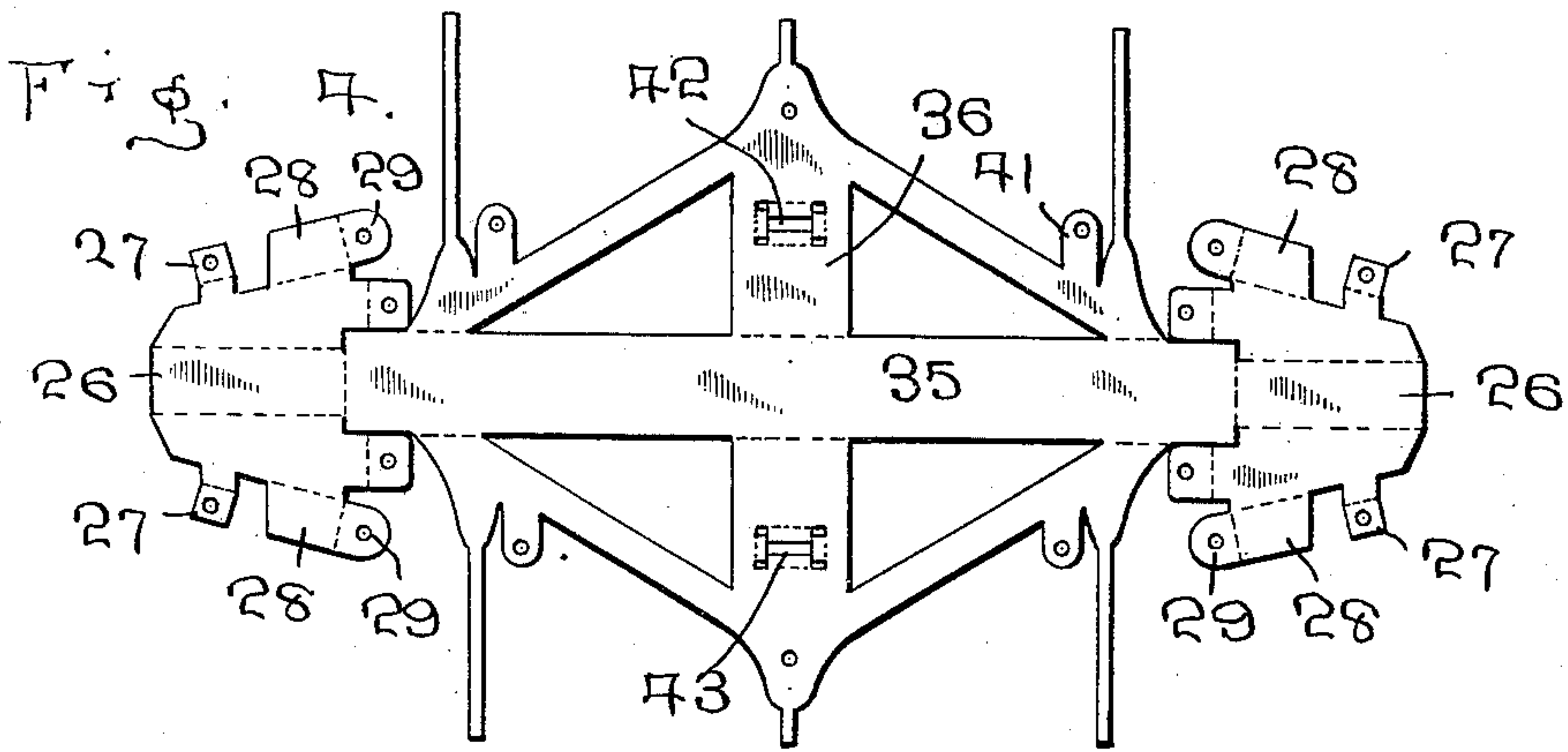
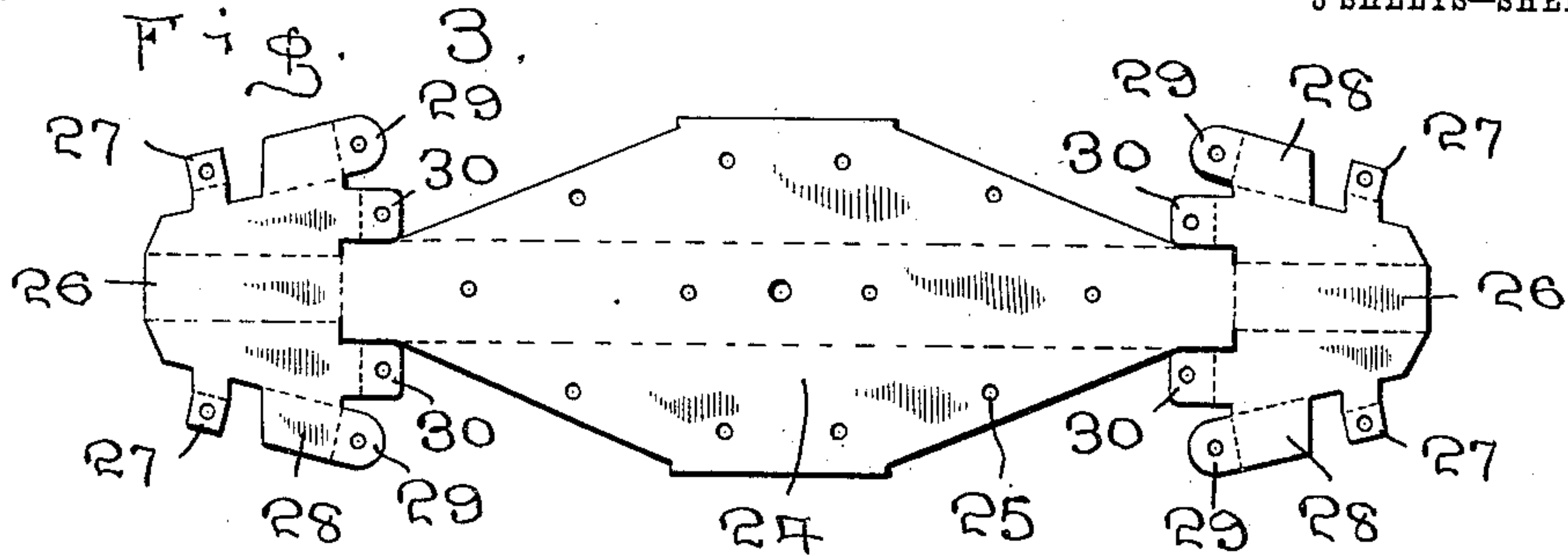
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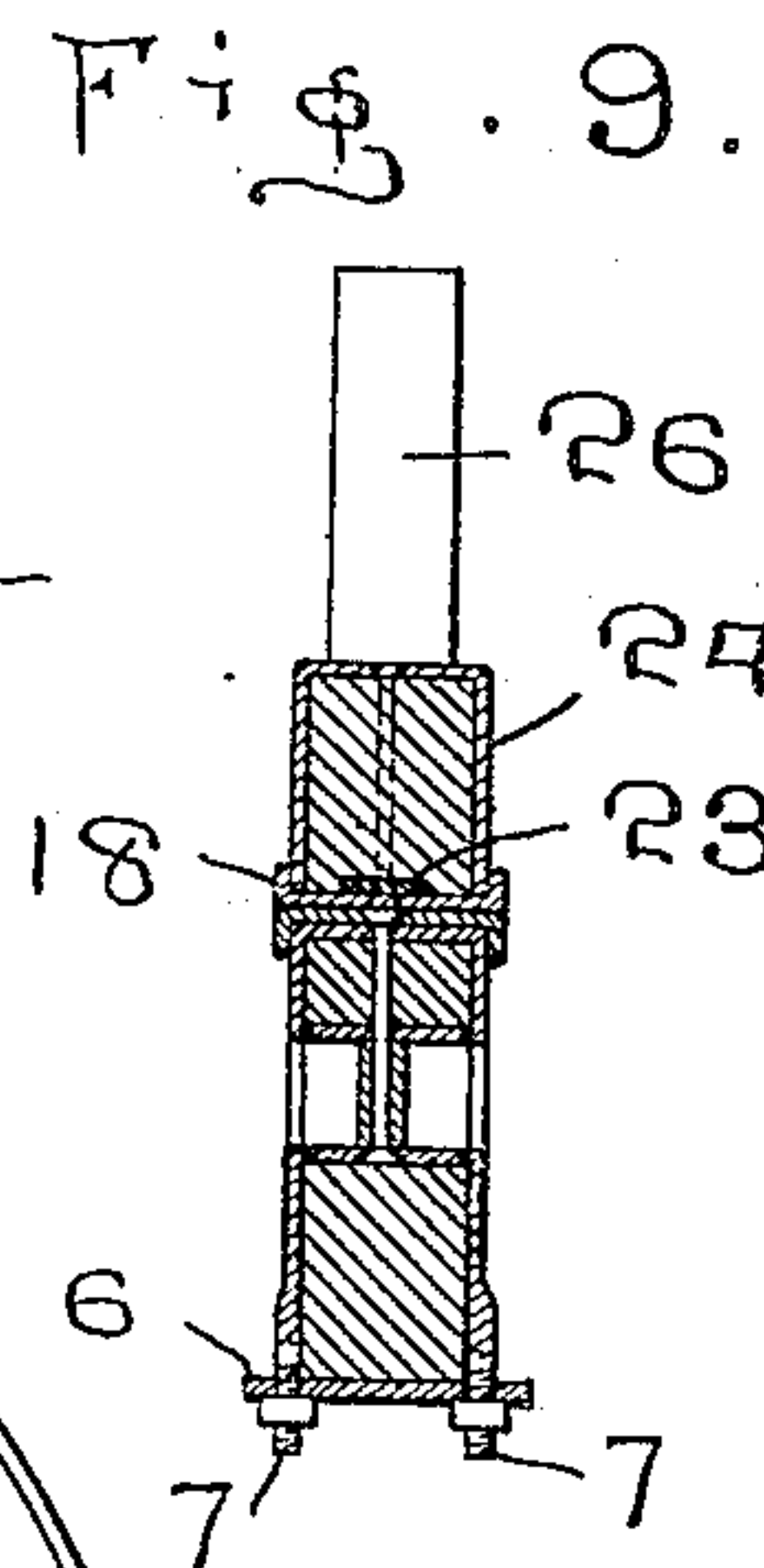
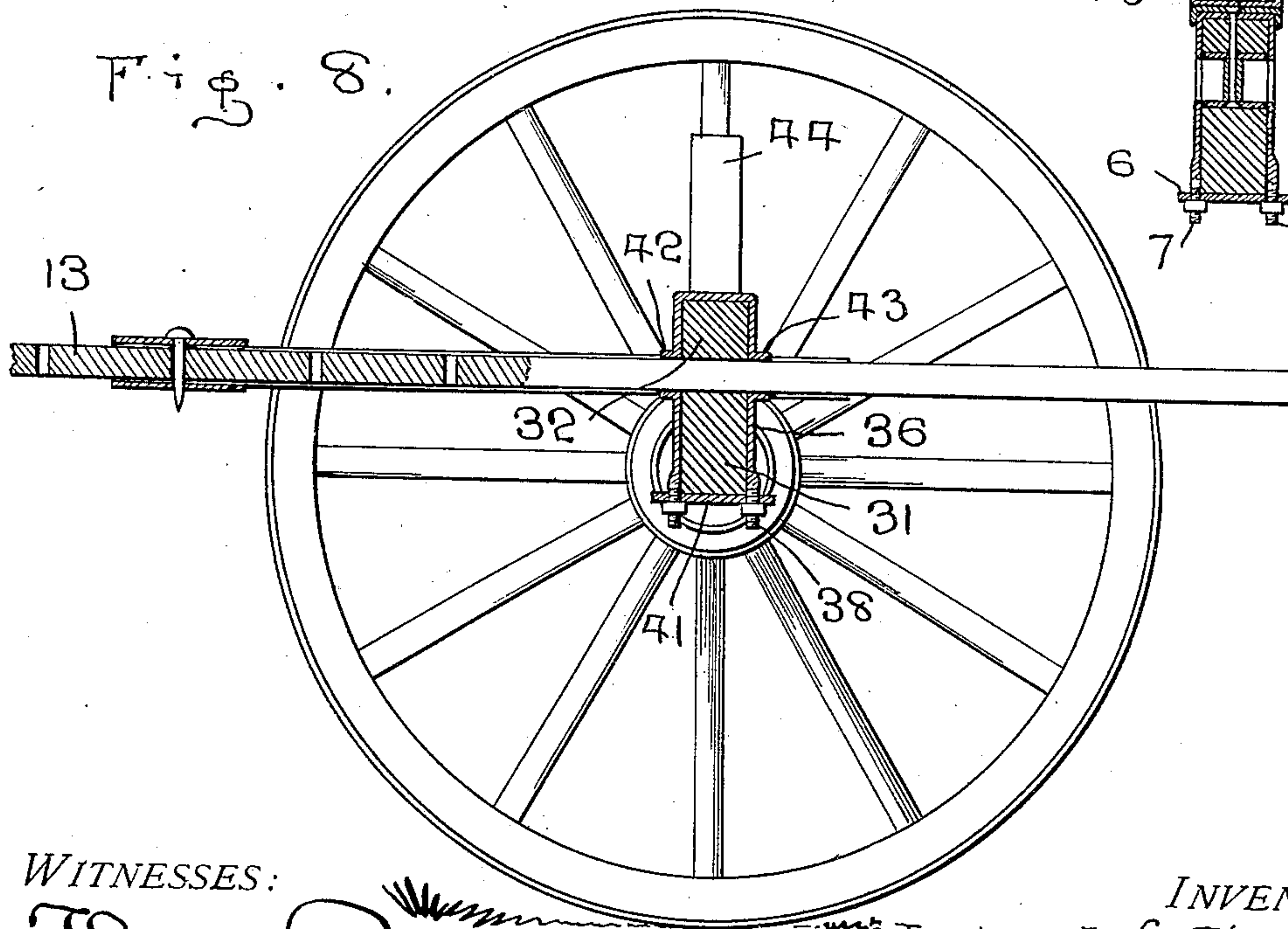
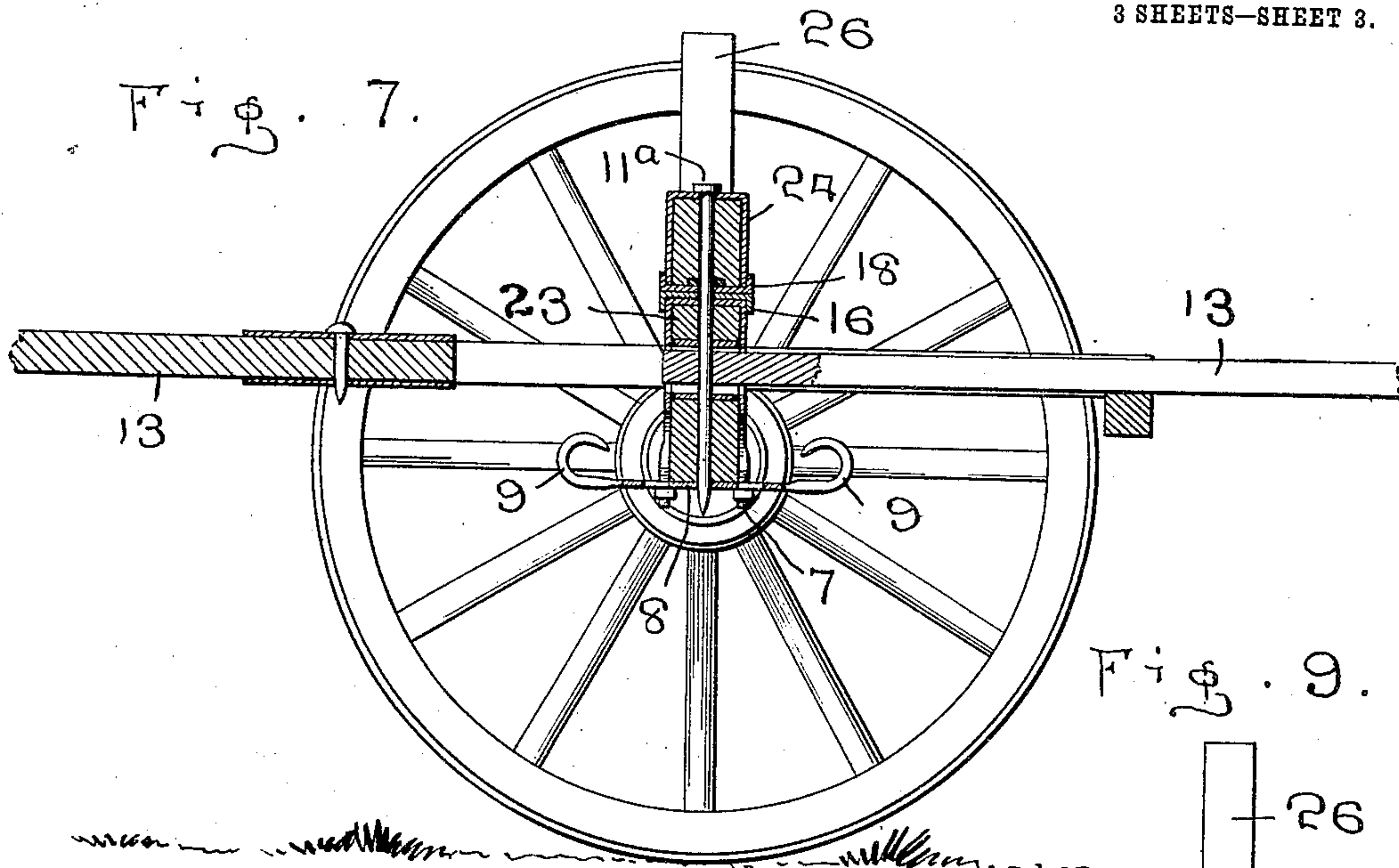
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UNITED STATES PATENT OFFICE.

JOHN W. SMITH, OF KERNVILLE, CALIFORNIA.

WAGON.

935,277.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed March 16, 1909. Serial No. 483,750.

To all whom it may concern:

Be it known that I, JOHN W. SMITH, a citizen of the United States, residing at Kernville, in the county of Kern and State of California, have invented certain new and useful Improvements in Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in wagons and more particularly to strengthening or "ironing" the bolsters, axles and hounds or the running gear.

Said invention has for its object to render the parts strong and durable and yet possessed of the usual lightness without materially increasing the expense of manufacture.

A further object of the invention is to provide for bracing the points where the greatest wear is experienced and to prevent splitting, particularly of the bolster and other wooden members.

The invention also provides for rendering the parts less cumbersome and yet possessed of equal durability and wearing qualities of the usual construction of wagon without the aforesaid disadvantages.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a view in elevation of the front axle, hounds and bolster of a wagon. Fig. 2 is a like view of the rear axle and bolster of a wagon, the hounds in each of these views, however, being shown in section. Figs. 3, 4 and 5 represent the blanks for the front bolster and front axle and the rear bolster and rear axle, respectively. Fig. 6 is an underside view of the forward bolster. Figs. 7 and 8 are vertical sectional views produced through the forward and rear ends of the wagon-running gear embracing my invention. Fig. 9 is a detail vertical sectional view produced centrally through the front hounds, axle and bolster. Figs. 10 and 11 are detail perspective views of the wearing plates between the front bolster and its hounds. Fig. 12 is a fragmentary perspective view disclosing more fully one of the metallic stakes of a bolster. Fig. 13 is an underside view of a plate or connecting member for the clip or

truss member of the forward axle and its hounds.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the forward axle, 2 its bolster and 3 the hounds.

The axle member 2 and the transverse bar of said hounds are "ironed" and have applied thereto what I preferably term a combined truss and clip member 4, which is formed preferably of a single piece of sheet steel or sheet iron and conformed in outline to and adapted to embrace said axle member and transverse bar of the hounds, as clearly seen in Fig. 1. Said clip or truss member 4 has depending from its end portions and formed integral therewith, bolt-like extensions 5, the lower ends of which pass through transverse plates 6 applied to the under side of the axle, said extensions being held in place to said plates by suitable nuts. Said member 4 has also intermediate of said extensions 5, additional short bolt-like extensions 7, also passed through a plate 8, which is applied to the under side of the axle, centrally thereof and secured thereto by suitable nuts, the forward and rear edges of the plate being preferably provided with hooked terminals 9, which may be utilized for any convenient purpose.

The clip or truss member 4 is further provided with lateral ear extensions 10 adapted to rest upon and be suitably secured to the horizontal members of the hounds and through said member 4 are formed openings or apertures 11 for receiving additional means of fastening for said member and also the pivotal or king bolt 11^a between the bolster and the axle. The member 4 is also adapted by the formation therein of opposite openings 12, for the reception of the usual reach 13, through which passes the pivotal or king bolt 11^a and said member 4 may be formed with still further openings 14, as seen in Fig. 5, to render it lighter or skeleton-like in structure.

Superposed upon the clip or truss member 4, centrally thereof, is a lateral flange plate 15 with its flanges 16 embracing said member 4 and secured thereto by suitable fastening means passed through openings 17 in said plate 15. A correspondingly constructed plate 18, having like flanges and fastening receiving openings 19 and 20, respec-

tively, is applied to the under side of the bolster 2, and facing or resting upon the plate 15, said plates compensating for wear at that point, and, therefore, designated wearing plates, as will be readily appreciated. The plates 15 and 18 are also provided about centrally thereof, with additional openings 21 and 22, respectively, for the passage there-through of the pivotal or king-bolt between the bolster and axle. The under side of the bolster member 2 has applied thereto, a reinforcing metal strip 23 for strengthening the same, as will be readily understood, said strengthening strip being interposed between the wearing plate 18 and the bolster.

A reinforcing plate or bracing member 24 is applied to the bolster 2, the same embracing the upper surface thereof and the lateral portions of said bolster thus being adapted to partially inclose said bolster and form an upper wearing or reinforcing surface therefor and is suitably secured both to the upper and lateral surfaces of said bolster by fastenings passed through apertures 25 formed throughout the surface of said plate, as seen in Fig. 3. Said plate or bolster-reinforcing member has formed integral therewith the up-standing hollow stake members 26, which may serve also for the reception of the stake extensions (not shown), when building up the load to be carried by the vehicle or wagon. Said hollow stake members have preferably perpendicular inner surfaces as well as like lateral surfaces, while their outer edges may be inclined inwardly and upwardly, said edges having formed therewith connected-together securing straps 27, outstanding somewhat from said edges for the effective retention of the core or supplemental stake, which may be placed therein as above intimated. Said hollow stake members have also formed upon the same edges at their bases similar overlapping extensions 28, which are held thus overlapped and bent horizontally at their lower ends, as at 29, said bent portions also lapping one upon the other and receiving fastenings for securing the same to the bolster at that point. The lateral portions of said stake members are also provided at their lower edges with angular pendent portions 30 adapted to rest upon the upper surface of the bolster and to fit down upon the sides thereof and receive fastenings for securing the same in effective position, as seen in Fig. 1.

Applied to the rear axle 31 and its bolster 32 and hounds 33, is a reinforcing combined truss and clip member 34 preferably formed in a single piece of like metal or material, as the forward axle corresponding member, the same being formed with a longitudinal central member 35 intersected by right-angled pendent portions 36 and oblique or diagonal arm-like members 37 uniting the lower ends of the members 36 and the member 35 at its

outer ends, thus having a skeleton structural outline for promoting lightness and yet retaining the requisite strength and durability.

At the points of convergence or union between the members 36 and 37, are formed pendent screw-threaded bolt-forming extensions 38, which are passed through and secured by suitable nuts, to a transverse plate 39 applied to the under side of the axle, as seen in Fig. 2.

The oblique or diagonal members 37 have depending therefrom, near their upper ends, pendent screw-threaded bolt forming extensions 40, which also pass through, and are secured by suitable nuts, to transverse plates 41 applied to the under side of the axle.

The clip or truss member 34 is provided with perforated extensions or ears 41^a, extending at right angles therefrom and resting upon and secured by suitable fastenings to bars of the hounds 33 for the effective retention of the same in place. The pendent members 36 of the clip or truss 34, are provided with openings 42 receiving the reach 13, said members 36 having extending therefrom, the punched-up portions 43, resulting from forming said openings and resting above and below the reach 13, as seen in Figs. 2 and 8, for providing an extended bearing surface at these points for the reach. The horizontal portions 35 of said truss or clip member 34, have also formed integral therewith, the hollow stakes 44 in structural particulars, the same as the corresponding members above referred to in connection with the forward bolster clip or truss member and the details of which are therefore designated by like reference characters.

It is thought that the advantages of this invention will be fully appreciated from what has been above-stated and it is therefore believed that the same need not be further elaborated.

I claim:

1. A device of the character described including a combined clip and truss adapted to embrace the hounds and axle of a vehicle and having bolt-like extensions, also ear extensions secured to said hounds, coupling plates applied to the under side of said axle and receiving said bolt-like extensions and means for securing said bolt-like extensions to said coupling plates.

2. A device of the character described, embracing a bolster embracing member having stake-like forming members, an axle and hounds receiving member having bolt like extensions, means for securing said bolt-like extensions to said axle and wearing plates interposed between said bolster embracing members and hounds and axle-receiving member and means for effecting connection between said bolster, hounds and axle.

3. A device of the character described, comprising an axle and bolster-receiving

member having pendent portions about centrally of its length and lateral diagonal arm-like portions uniting with said pendent portions and with the connected longitudinal member near its end portions, said diagonal or arm-like members having bolt-like extensions, plate-like members secured to the under side of said axle and means for securing said bolt-like extensions to said plates.

4. A device of the character described, including a central, longitudinal portion, lateral pendent portions secured about centrally of said longitudinal portion and having opposed openings flanked by outstanding upper and lower projections, said openings

receiving a reach, said longitudinal and pendent portions being connected together by diagonal arm portions, said diagonal portions having bolt-like extensions, plates applied to the under side of the axle and receiving said bolt-like extensions and means for securing said bolt-like extensions to said plates.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN W. SMITH.

Witnesses:

CHAS. E. ANDRESS,
L. G. STEVENS.