

(No Model.)

T. GRIMMITT.
WAGON RUNNING GEAR.

No. 545,491.

Patented Sept. 3, 1895.

Fig. 1.

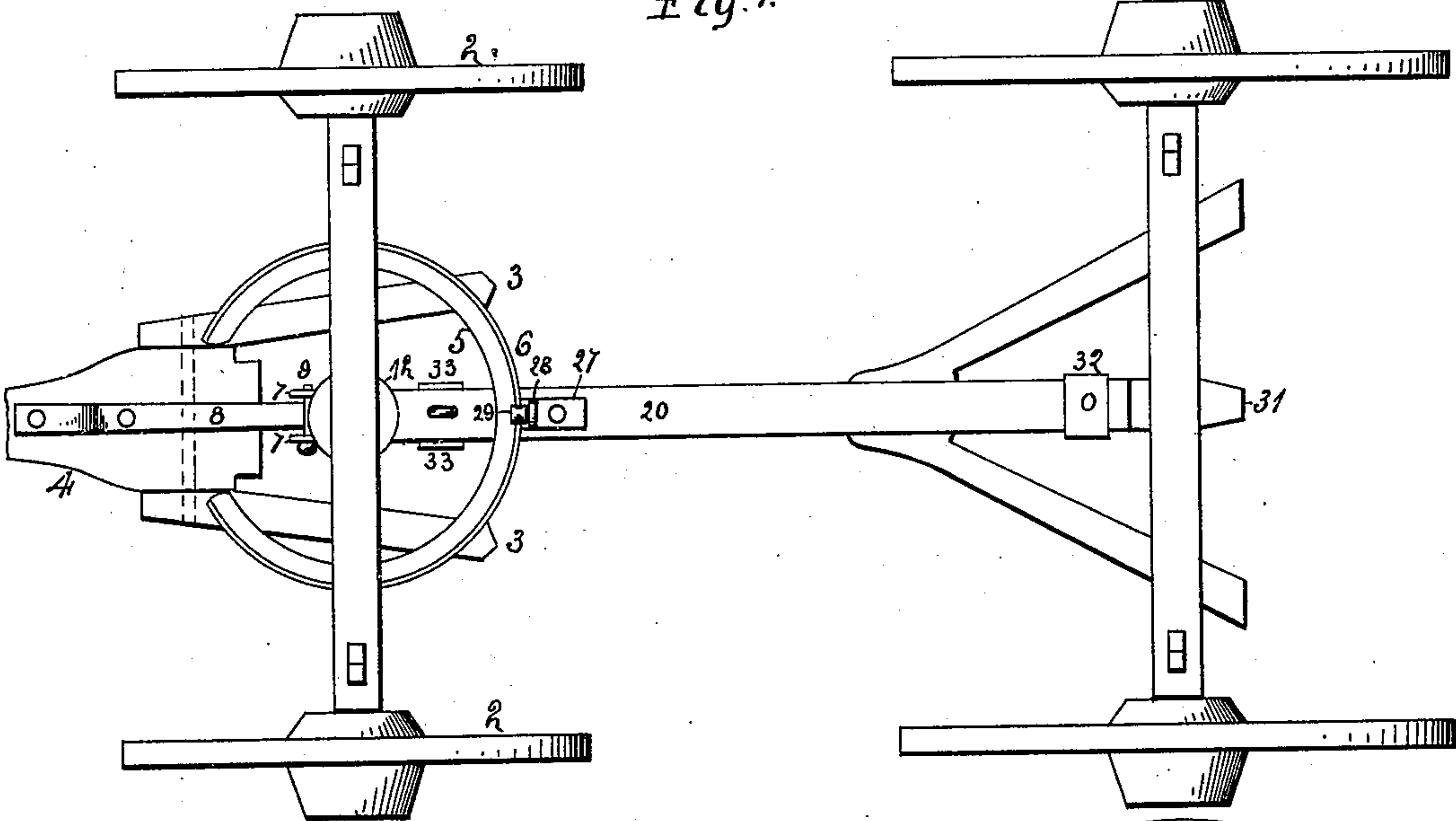


Fig. 2.

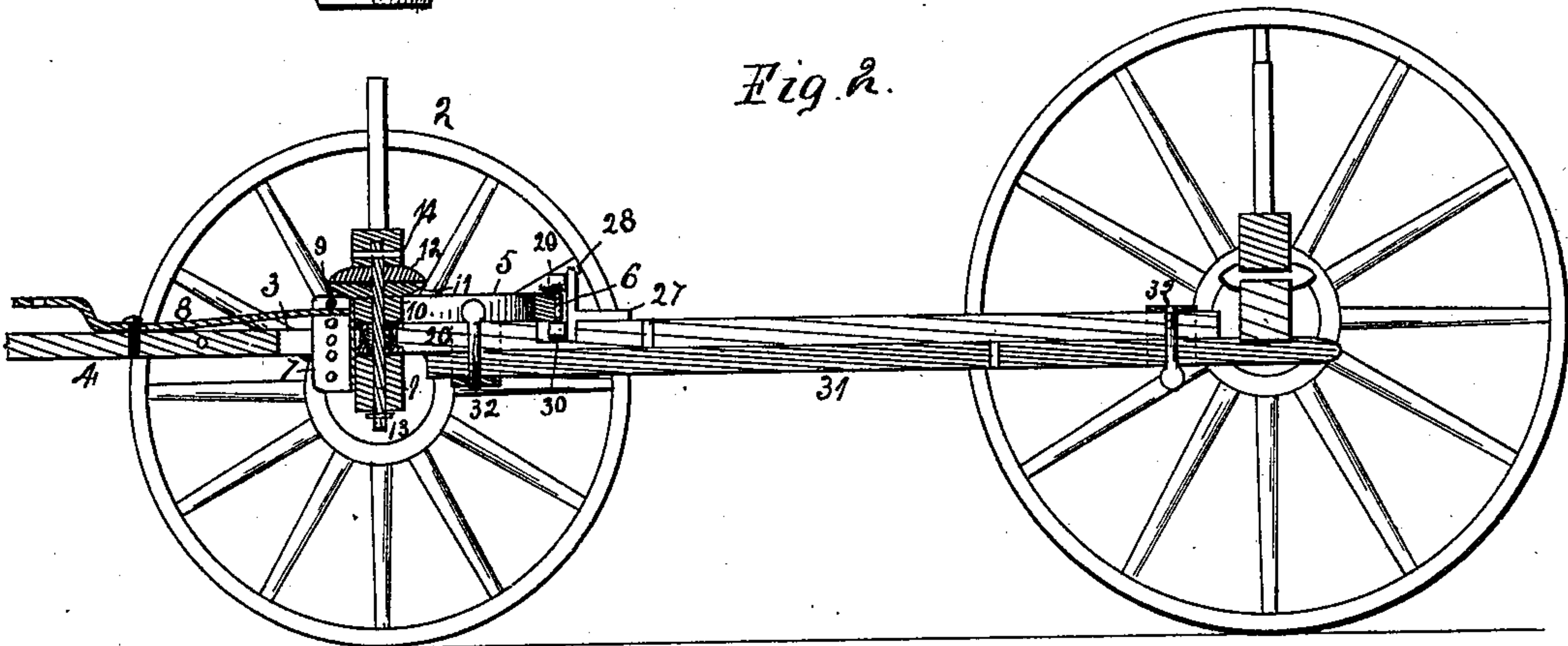


Fig. 3.

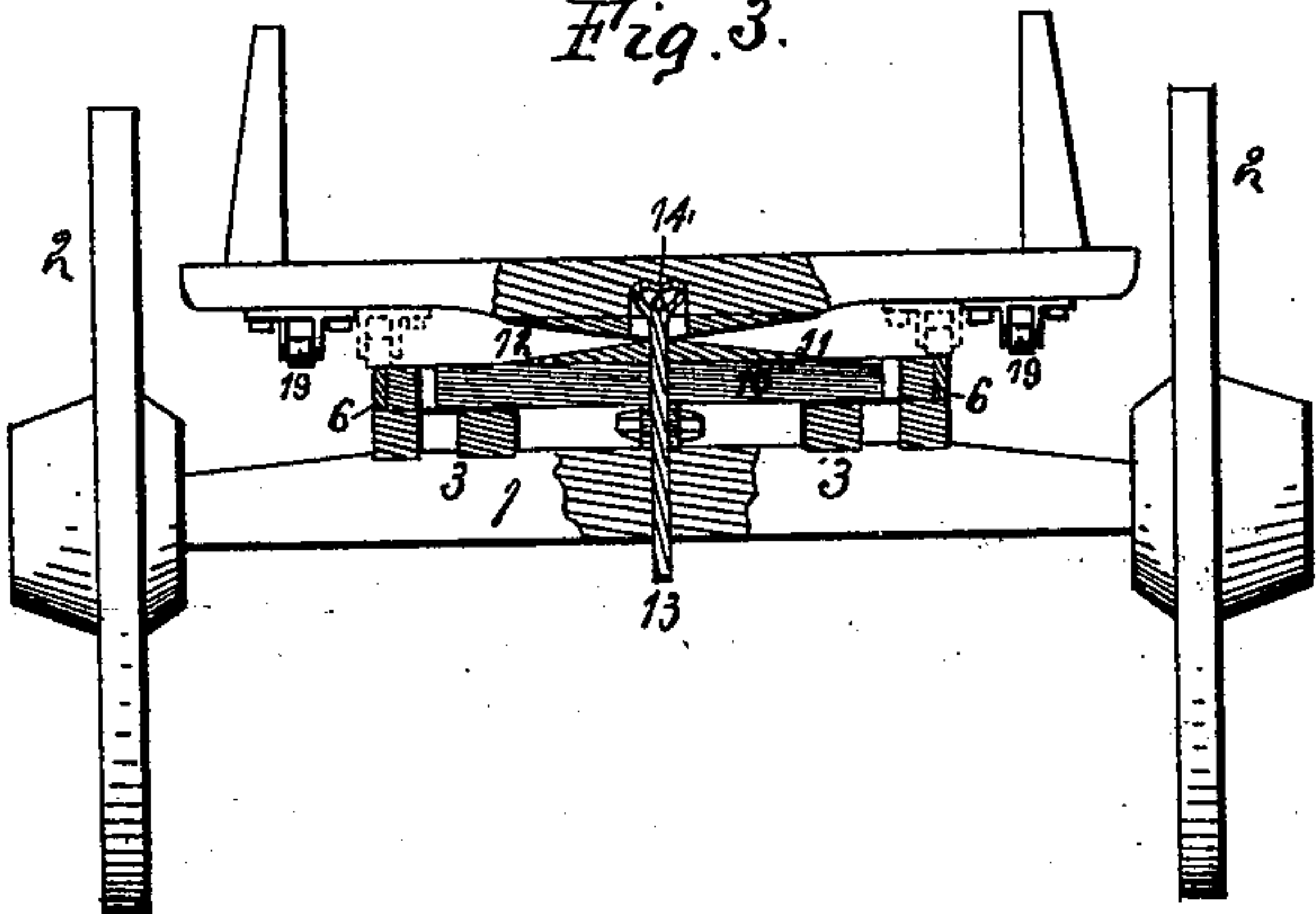


Fig. 4.

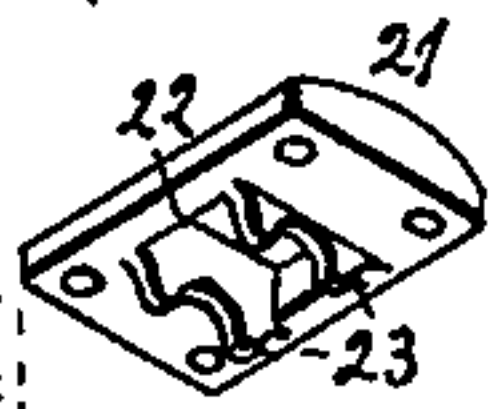


Fig. 5.

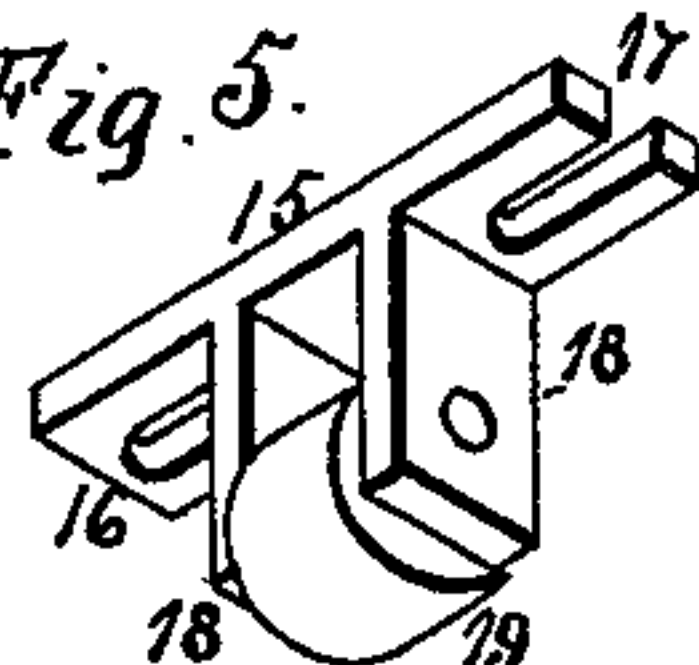
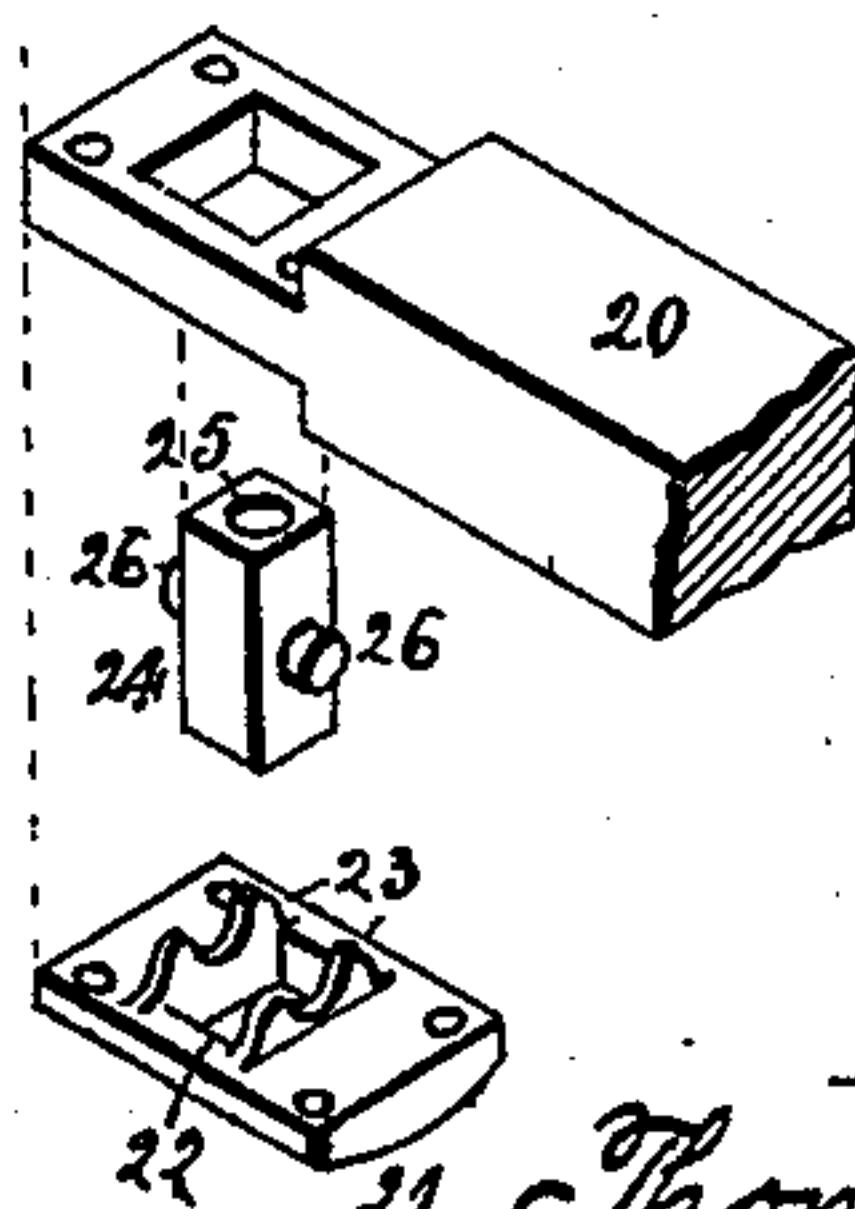


Fig. 6.



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UNITED STATES PATENT OFFICE.

THOMAS GRIMMITT, OF ROCKFORD, ILLINOIS.

WAGON RUNNING-GEAR.

SPECIFICATION forming part of Letters Patent No. 545,491, dated September 3, 1895.

Application filed May 7, 1894. Serial No. 510,418 (No model.)

To all whom it may concern:

Be it known that I, THOMAS GRIMMITT, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Wagon Running-Gear, of which the following is a specification.

The object of this invention is to construct a running-gear for wagons, in which the front bolster has a limited pivotal movement at its center, in order that the ends of the axle may have a vertical movement without disturbing the horizontal position of the bolster, which will support the front end of the wagon-box on the same horizontal level with the rear portion, preventing the twisting of the wagon-box.

The further object is to hold the tongue supported in a yielding manner and made vertically adjustable.

The further object is to form a pivotal connection between the front bolster and axle in a vertical direction and a roller connection between the bolster and circle.

In the accompanying drawings, Figure 1 is a plan view of my improved running-gear. Fig. 2 is a lengthwise central section. Fig. 3 is a transverse vertical section through the front axle. Fig. 4 shows the various parts making up the front end of the reach. Fig. 5 is an isometrical representation of the roller 19 and its bracket-support. Fig. 6 is an isometrical representation of the king-bolt.

The front axle 1 is fitted to receive wheels 2, and to its upper face are secured hounds 3, between which is located a tongue 4 and having a pivotal connection therewith. A circle 5 is supported by the axle and hounds 3, having its periphery bordered by a metallic band 6.

To the front face of the axle are secured vertically-perforated plates 7, between which is located the free end of a spring-bar 8, secured to the tongue, and a pin 9, extending through the perforation of the plates above the free end of the spring, forms a connection between the spring and axle and serves to hold the tongue supported in a yielding manner, and can be held supported at different heights by placing the pin in the different holes in the plates 7.

To the upper face of the hounds, over the axle, is secured a sand-bar 10, and to its up-

per face, at its center, is secured a plate 11, being higher at its center and provided with a perforation coinciding with a vertical hole through the sand-bar and axle.

To the under face of the front bolster, at its center, is secured a plate 12, similar to the plate 11, secured to the axle, but in a reverse position, and has a vertical hole through its center coinciding with the hole in the plate 11. A king-bolt 13 has an enlarged upper end, being seated in a recess found in the under face of the front bolster, and through which passes a horizontal pin 14, serving to hold the bolt in connection with the bolster, the opening in the head portion of the king-bolt being of irregular shape, as shown at Fig. 6. This bolt is passed through the front axle, forming a connection between the bolster and axle.

To the under face of the front bolster are secured brackets (shown at Fig. 5) consisting of a base-plate 15, provided with an elongated opening 16 at one end and its other end provided with a lengthwise slot 17, and from the center portion of the base depend perforated ears 18, between which is located a roller 19. A bracket of the above construction is secured to each side of the bolster, so that the rollers 19 will overlies the metallic band 6 of the circle.

The front section of the reach 20 has a connection with the front axle by the king-bolt 13 passing through it, the connection of the forward end of the front section of the reach being shown in detail at Fig. 4. The forward end of the reach is reduced in size, and upon its upper and lower faces are secured metallic plates 21, each provided with a central opening 22, and from their inner faces extend semicircular bearings 23. A bushing 24 has a vertical opening 25, through which the king-bolt passes, and from its rear and front faces extend trunnions 26, which are held between the semicircular bushings 23 of the plates 21. With this bushing 24 in place in the end of the reach it is placed between the sand-bar and front axle, and the king-bolt, passing through the parts, forms a connection between the front axle and reach. The outer faces of the plates 21 are slightly oval in order that the axle may have a rocking movement in its connection with the reach.

To the upper face of the front section of the

reach is secured a bracket 27, having an up-
right portion 28, supporting rollers 29 and 30,
the former located above the circle and the
latter below it and in contact with the metal-
lic edge strip 6, forming an antifriction con-
nection between the axle and reach.

The rear portion of the running-gear is of
the usual construction, the rear section 31 of
the reach having an adjustable connection
with the forward section by the plates 32, se-
cured to each section, having sides 33 em-
bracing the other section, and a series of holes
in each section, through which screws are
passed, entering a screw-threaded opening in
the base of the plates.

The forward bolster, having what may be
termed a "universal connection" with the for-
ward axle, permits the axle turning about in
a horizontal plane and its ends a vertical rock-
ing movement without changing the position
of the bolster, and as the forward end of the
wagon-box is supported by the front bolster
it will be held in the same plane as its rear
portion.

Should the running-gear be employed to
support a hay-rack, for instance, it will be
necessary that the forward bolster be locked
or held in contact with the axle so far as the
vertical rocking movement of the axle is con-
cerned. This is accomplished by loosening the
brackets supporting the rollers 19, and turn-
ing them around so that the rollers will over-
lie the metallic edge of the circle and will

turn in contact therewith, as shown in dotted
lines, Fig. 3.

I claim as my invention—

1. In a wagon running gear, the combina-
tion of a front axle, a bolster having a piv-
otal connection with the axle through the me-
dium of a king bolt, the king bolt having an
opening extending transversely through its
upper end and terminating in two branches,
and a pin extending through the opening and
through the bolster.

2. In a wagon running gear, the combina-
tion of a front axle and a reach having a con-
nection therewith, the connection consisting
of a bushing through which the king bolt
passes and plates secured to the end of the
reach supporting the bushing in a pivotal
manner.

3. In a wagon running gear, the combina-
tion of a front axle, plates secured to the
front face thereof, each provided with a ver-
tical series of perforations, a tongue having
a pivotal connection with the axle, a bar
spring secured to the tongue having one end
passing between the plates, its other end
curved upward having a vertical opening
through which a bolt passes holding the
eveners to the tongue, and a pin located in the
perforations over the end of the bar spring.

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