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R. J. SCHEIDT.

AUTOMATIC BRAKE FOR ROAD VEHICLES.

APPLICATION FILED AUG. 20, 1906.

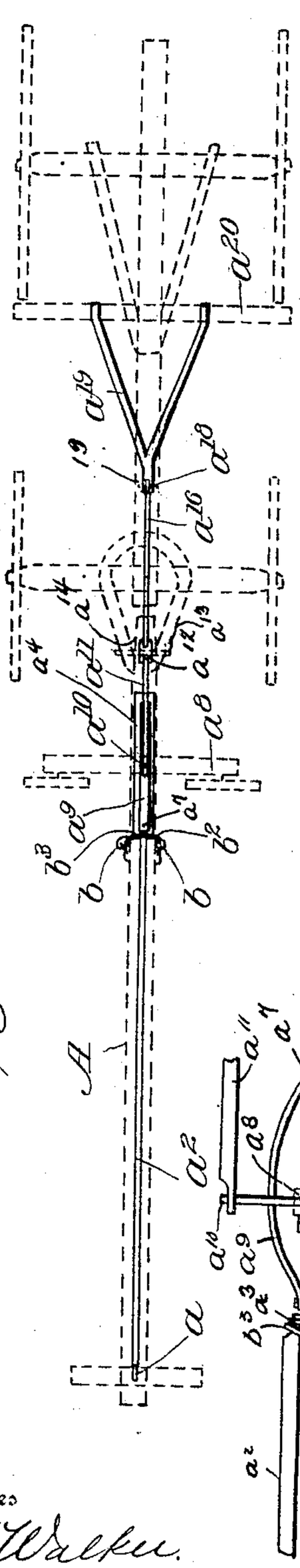

Fig. 1.

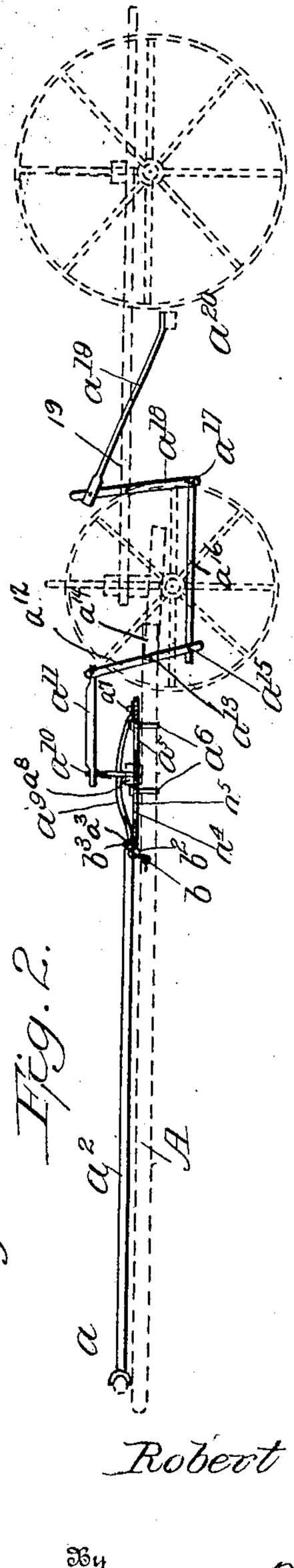

Fig. 2.

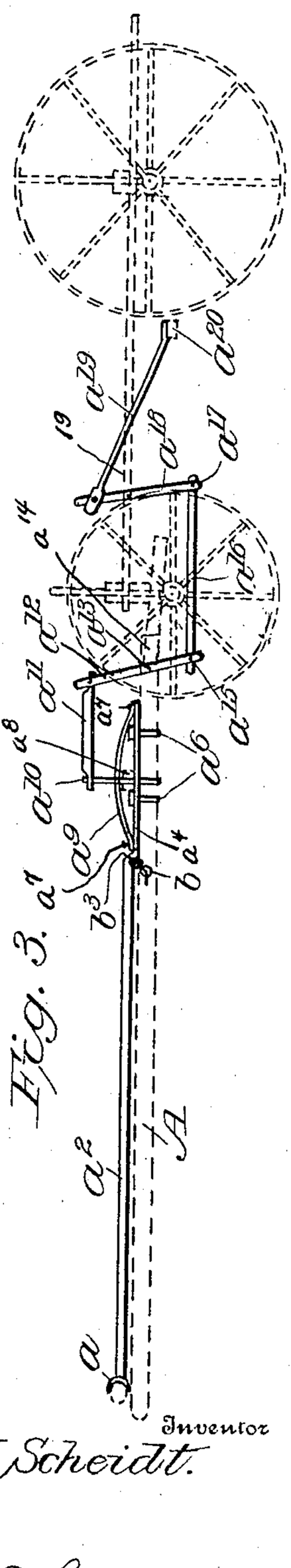

Fig. 3.

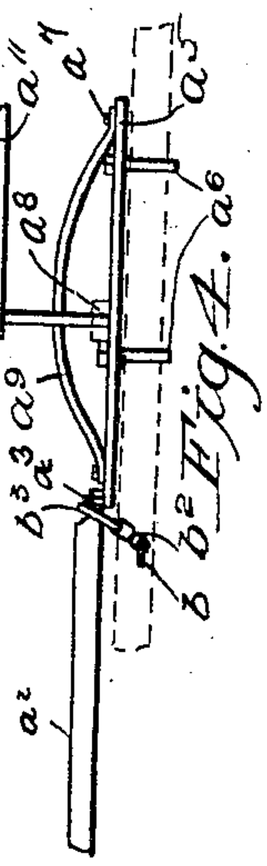

Fig. 4.

Witnesses

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AUTOMATIC BRAKE FOR ROAD-VEHICLES.

No. 882,210. Specification of Letters Patent. Patented March 17, 1908.

Application filed August 20, 1906. Serial No. 331,310.

To all whom it may concern:

Be it known that I, ROBERT J. SCHEIDT, citizen of the United States, residing at California, in the county of Moniteau and State of Missouri, have invented certain new and useful Improvements in Automatic Brakes for Road-Vehicles, of which the following is a specification, reference being had therein to the accompanying drawing.

The object of my invention is to provide a novel construction of brake for road-vehicles, adapted to be automatically thrown into operative position through the medium of the horse or horses in going down hill, or the like.

My device is at once simple of construction and inexpensive of manufacture, and thoroughly reliable and efficient in operation.

With this object in view, and others appearing as the specification proceeds, my invention comprehends the novel construction, combination, and arrangement of parts of a device characterized by my invention, as will be fully hereinafter described in the specification, summed up in the claims, and illustrated in the drawings, in which latter:

Figure 1 is a top plan view of my brake-mechanism applied to a road-vehicle; Fig. 2 is a side elevation thereof; and Fig. 3 is a side elevation of a slightly modified construction. Fig. 4 is a detail view.

Referring to the drawings, A designates the usual tongue of a road-vehicle, carrying at its forward end the customary neck-yoke *a*, which is adapted for limited backward and forward movement on the tongue. Secured to the neck-yoke *a* is a connection a^2, its other or rear end being secured, as by a bolt a^3, to a plate a^4, provided with slots a^5, a^5. Through these slots pass two bolts a^6, a^6, secured in the tongue A, thereby securing the plate against disconnection or removal from the tongue, and also at the same time limiting reciprocatory movement of the plate on the tongue. Bolted at each end, as at a^7, to the plate a^4 may be a curved bar a^9. Between the bar a^9 and the plate a^4 is positioned a double-tree a^8 secured to the bar a^9 and the plate a^4 by a bolt a^{10}; the plate a^4 and the double-tree a^8 being thus capable of movement together, but of no independent movement. Secured to the top of bolt a^{10} is a push-bar a^{11}, pivoted at its other end to a forked or bifurcated lever a^{12}, fulcrumed, as at a^{13}, to a rear tongue-rod a^{14}. The lower end of the lever a^{12} is pivoted, as at a^{15}, to a rod a^{16}, whose other end is pivoted, as at a^{17}, to a lever a^{18} fulcrumed to the reach a^{19}. The other end of the lever a^{18} is pivoted to a forked rod, whose arms or forks a^{19}, a^{19} are secured to a brake-rod a^{20}.

The operation is apparent: Upon descending a hill, the horses draw back on the vehicle, exerting a backward pull or stress on the neck-yoke *a*, which moves the connection a^2 rearward, carrying with it the slotted plate a^4 and the double-tree a^8. This backward movement of the double-tree throws the push-bar a^{11} rearward, rocking the lever a^{12} on its fulcrum. This movement of the lever pulls the rod a^{16} forward, rocking the lever a^{18}, and thus throwing the forks or arms a^{19}, a^{19} rearward. The brake-rod a^{20}, being secured to the arms a^{19}, a^{19}, is consequently moved rearward, throwing the brake-shoes firmly into contact with the wheels of the vehicle.

Should it be desired to back the vehicle on a level, I utilize a simple device to keep the automatic brake-mechanism from operating: Slidably secured to the tongue A, near the bolt a^3, are two loops of wire *b*, *b*, passing through eyes b^2 of a yoke b^3. This yoke b^3 is pulled over the bolt-head of the bolt a^3 when it is desired to back the vehicle on a level; this arrangement thus preventing the brake-mechanism from operating, as is apparent.

In Fig. 3, I have shown a slightly modified arrangement of the brake-mechanism: In the device of this figure, the connection a^2 extends rearward to a point back of the double-tree a^8, and this connection a^2 is slotted towards its rear end, bolts a^6, a^6 passing through the slots and into the tongue A, as with the slotted plate a^4 of Figs. 1 and 2. The remaining parts of the device of Fig. 3 are just the same as described in connection with Figs. 1 and 2. The only difference between the device of Fig. 3 and that of Figs. 1 and 2 is that, in the device of Fig. 3, the slotted plate a^4 of Figs. 1 and 2 is omitted, and, instead, the connection a^2, itself, is extended back the distance which would otherwise be occupied by the said slotted plate, and this connection a^2 is, itself, slotted, instead of the plate a^4. As this is an obvious modification, I need dwell no further on it; but merely mention it because it may be considered by some as preferable, in simplifying

the construction of the device of Figs. 1 and 2, by omitting the element of the slotted plate.

It will be understood, of course, that any ordinary hand-brake may be used in connection with my automatic brake, without disturbance of any part of my automatic brake, or disturbance, by any part of my automatic brake, of the hand-brake. The use of a hand-brake with my automatic brake may be found efficacious, as, when desiring to leave a team, a driver may clamp the hand-brake in position.

From the above description, it will be noted that my brake-mechanism is simple of construction, not liable to get out of order, and thoroughly efficient in operation; and that it operates automatically whenever necessary, as on going down hill.

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

In a road vehicle, a tongue, a neck-yoke slidable thereon, a plate having a sliding movement carried near the rear end of the tongue, a curved bar carried by the plate, a draft connecting means between the plate and bar, a bolt connecting the said means, plate and bar together, a push-bar connected to the upper end of said bolt, a brake mechanism, and means operably connecting the push-bar and brake mechanism.

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

ROBERT J. SCHEIDT.

Witnesses:

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