

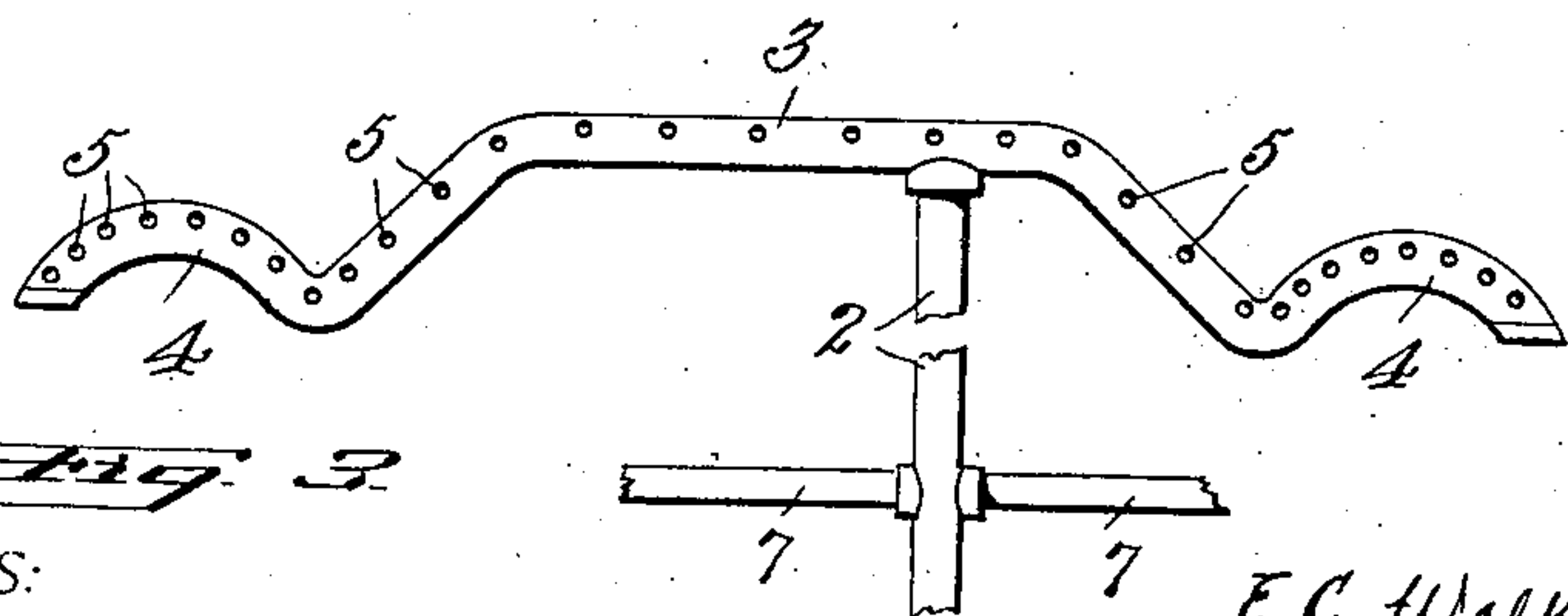
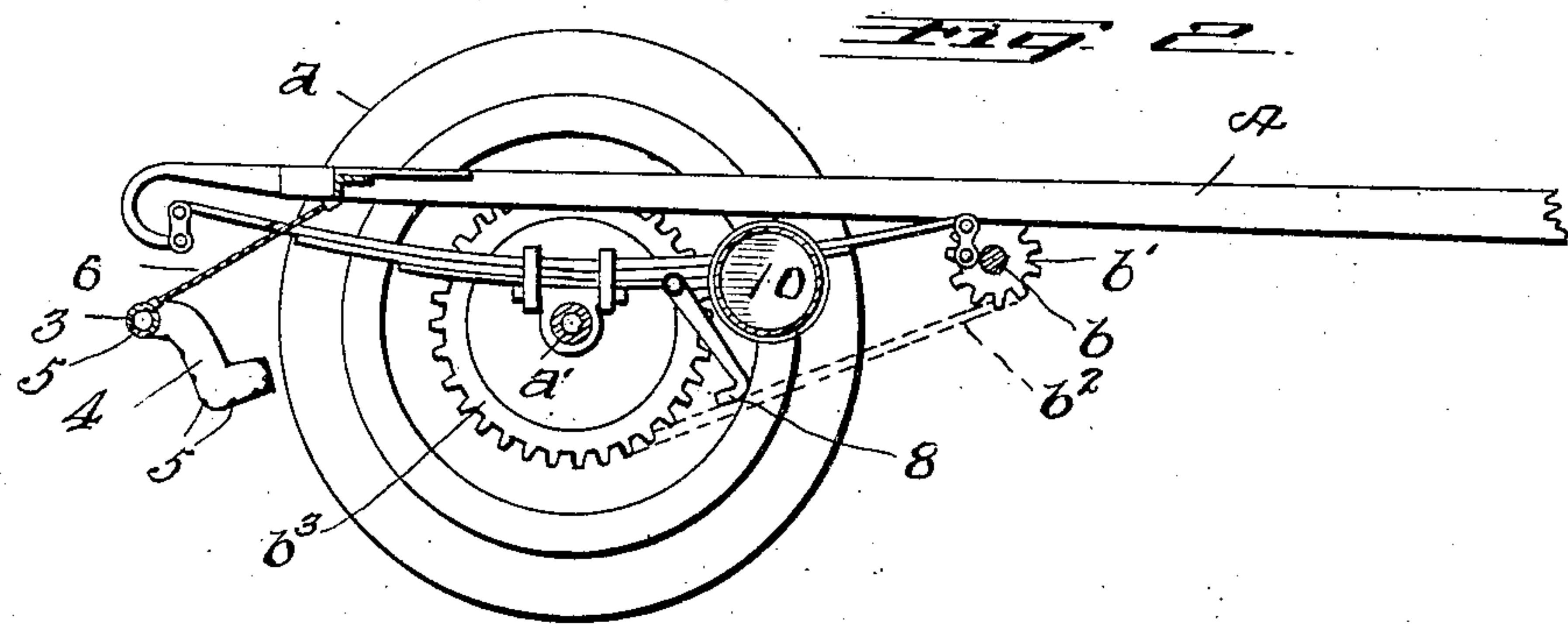
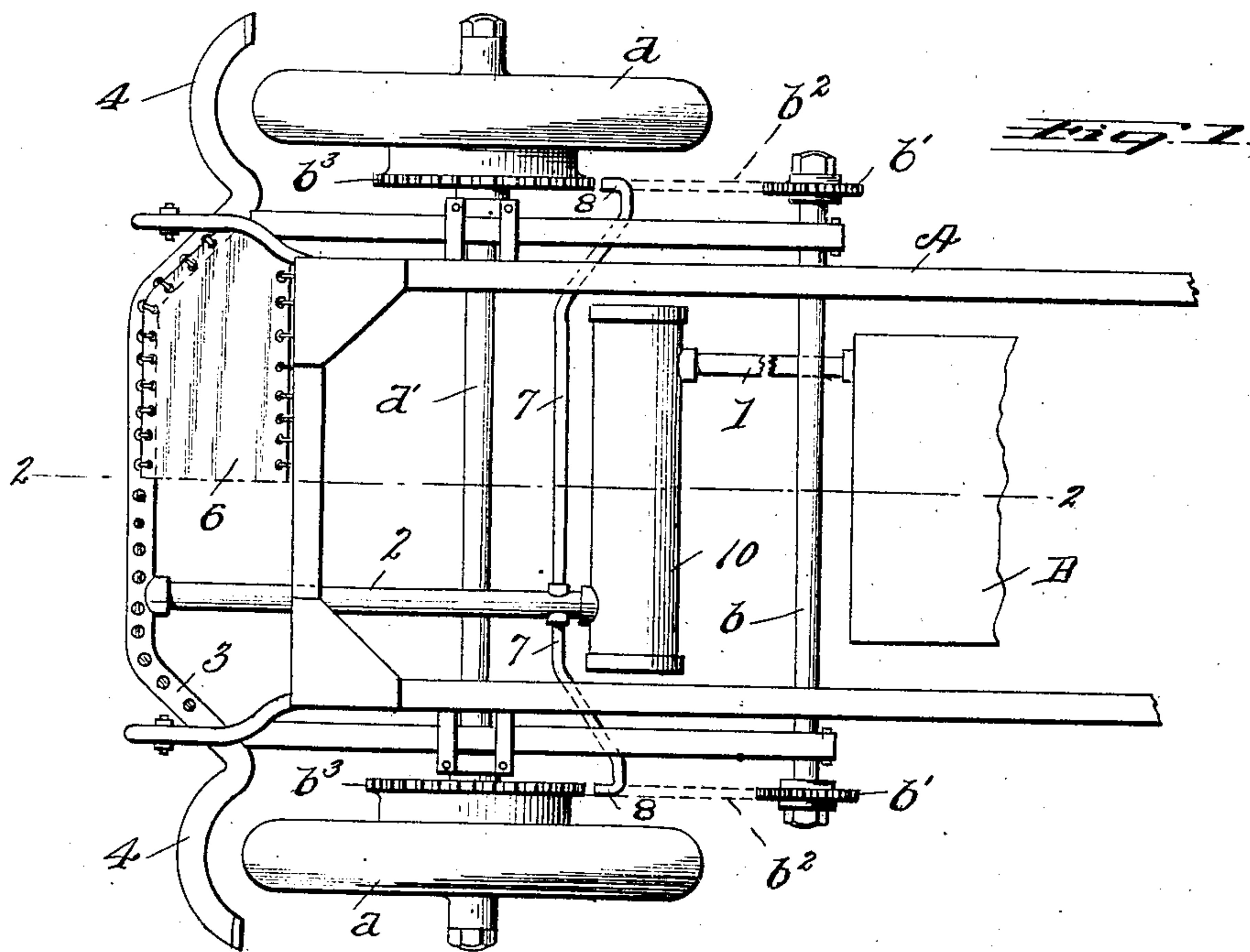
No. 835,146.

PATENTED NOV. 6, 1906.

E. C. WALKER & E. C. JACOBSON.

DUST DEFLECTOR.

APPLICATION FILED SEPT. 20, 1905.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## DUST-DEFLECTOR.

No. 835,146.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed September 20, 1905. Serial No. 279,371.

*To all whom it may concern:*

Be it known that we, EARL C. WALKER, residing at New Albany, in the county of Floyd and State of Indiana, and ERA C. JACOBSON, residing at Louisville, in the county of Jefferson and State of Kentucky, citizens of the United States, have invented certain new and useful Improvements in Dust-Deflectors, of which the following is a specification.

This invention has for its purpose the provision of a simple, practical, and durable means adapted to be applied to moving vehicles, and particularly to automobiles, which will direct a stream of fluid under pressure into the path of the rising dust created in the movement of the vehicle, which fluid will act by its pressure on the dust to deflect the latter and overcome its tendency to rise and settle on the vehicle and on the occupants thereof. In its preferred adaptation and as applied to automobiles driven by steam or gasoline engines the exhaust steam or gases are utilized to accomplish the end referred to.

In connection with a dust-deflector of the above type means are provided for directing a jet of fluid against the moving parts of the driving mechanism and gearing of the vehicle to prevent the dust from settling thereupon and impairing the same.

To this end the invention consists in certain novel combinations of elements and in certain peculiarities in the construction and arrangement of parts, substantially as hereinafter described, and particularly pointed out in the subjoined claims.

In the accompanying drawings we have illustrated the aforesaid preferred embodiment of our invention.

In said drawings, Figure 1 is a plan view of a portion of a motor-vehicle provided with our improvements. Fig. 2 is a section thereof on the line 2 2 of Fig. 1; and Fig. 3 is an inverted plan view of the fluid-discharge pipes, showing a slightly-modified arrangement in that they are not connected with the muffler shown in Figs. 1 and 2.

The same characters of reference designate the same parts in the several views.

A designates a portion of the body of a motor-vehicle of any suitable construction. *a* designates the rear wheels of said vehicle, and *a'* the axle thereof. The driving mechanism of said vehicle comprises an engine, (in-

dicated at B,) which is adapted to exhaust a gaseous or other fluid under pressure. Said engine is suitably connected with the wheels *a* or axle *a'*, for example, by a means comprising a shaft *b*, driven by said engine and provided with gears *b'*, connected by chains *b<sup>2</sup>* with gears *b<sup>3</sup>*, mounted on the shaft *a'*.

1 designates the exhaust pipe or outlet, leading from the exhaust-port of the engine or engines. Suitably connected therewith is a pipe 2, having outlets arranged at the place or places where it is desired to discharge said exhaust fluid for the purpose of deflecting the rising dust and preventing it from settling or accumulating on the passengers or on the vehicle or its driving mechanism. The arrangement shown in the drawings is greatly preferred and comprises a discharge-tube 3, which extends across the rear end of the vehicle and has downwardly-extending ends 4, located rearward of the rear wheels *a* and bent longitudinally to conform to the curvature of the faces of the rubber tires of said wheels. This tube is formed throughout its length with a series of discharge-apertures 5, which are directed rearward and downward, whereby the dust rising from the ground behind the vehicle will be deflected by the exhaust fluid issuing from said apertures and will thereby be prevented from settling on the car or the passengers. Said tube 3 is located, preferably, below and slightly rearward of the frame of the car, and between the rear end of said frame and said tube there is placed a deflecting-plate 6, comprising a sheet of thin metal, cloth, rubber, or other material, which extends in a rearwardly and downwardly inclined plane from the rear end of said frame to said tube 3. By this means the air-currents created beneath the car in the movement thereof and the dust stirred up by the front wheels and entrained in said currents will strike said plate 6 and be deflected downward thereby and caused to flow rearward, where they meet and are further deflected by the currents issuing from the discharge-apertures 5 of the pipe 3.

Suitably connected with the exhaust port or outlet from the engine are other pipes leading the exhaust fluid to and discharging it against portions of the vehicle or its driving mechanism which it is desired to keep free from dust. As exemplificatory of this portion of the apparatus we have shown a



pipe 7, which extends across the car from the pipe 2 and has discharge-apertures 8 arranged to direct the exhaust fluid against the driving-chains  $b^2$ , which in the form of car illustrated are arranged at opposite sides of said car. It will be understood that the exhaust fluids may be discharged in proximity to any portion of the vehicle or its driving mechanism which it is desired to keep free of dust or grit, and it will also be understood that said tubes may be connected with any suitable portion of the exhaust system without departing from the spirit of the invention.

It will be apparent that the means described for utilizing the exhaust fluids to deflect the dust will also serve as a muffler and that the pipe 2 may be connected directly with exhaust-port of the engine; but it may be preferred to use a muffler such as is indicated at 10, and in such event the discharge-pipe 2 is preferably connected with said muffler, as shown in Fig. 1.

The construction, operation, and advantages of the invention will be apparent from the foregoing, and it will be understood that the construction illustrated is merely exemplary as applied to one type of vehicle. The invention is not restricted to said detail form shown, it being readily understood that the tube 1 may be modified in shape or design according to the particular construction and design of the car on which it is to be used, and the discharge-apertures 5 in tube 3 may be made of any size, shape, or number, so that the issuing exhaust will accomplish the work desired. Moreover, it is evident that different cars and their peculiar construction will require different forms of our invention and different arrangements of its parts both in relation to one another and in relation to the car itself, and said parts therefore may be of different construction and arrangement to best accord with the particular construction of the car to which they are to be applied and the ends to be accomplished.

Having thus described the invention, what we believe to be new, and desire to secure by Letters Patent, is—

1. In a motor-vehicle, a dust-deflecting means, comprising means for discharging a dust-deflecting fluid in the path of the dust raised by said vehicle, said means having a discharge-aperture in proximity to a moving part of the driving mechanism and directed toward the same.

2. In a motor-vehicle, a dust-deflecting means, comprising a conducting means for a dust-deflecting fluid, having discharge-apertures in proximity to the rear wheels of the vehicle and adapted to deflect the dust raised by said wheels, and also having a discharge-aperture in proximity to a moving part of the driving mechanism and directed toward the same.

3. In a motor-vehicle, a dust-deflecting means, comprising a conducting means having connection with the exhaust-port of the engine of said vehicle and provided with discharge-apertures in proximity to the rear wheels of the vehicle and adapted to deflect the dust raised by the same and also having a discharge-aperture in proximity to a moving part of the driving mechanism and directed toward the same.

4. In a motor-vehicle, a dust-deflecting means, comprising a conducting means for a dust-deflecting fluid, said conducting means having a pipe adapted to extend across the rear of the vehicle and provided with a series of discharge-apertures in proximity to the rear wheels of said vehicle and also between said wheels, and a discharge-pipe having a discharge-aperture in proximity to and directed toward a moving part of the driving mechanism of the vehicle.

5. In a motor-vehicle, a dust-deflecting means, comprising a conducting means for a dust-deflecting fluid, said conducting means having connection with the exhaust-port of the engine of said vehicle and comprising a pipe extending across the rear of the vehicle and provided with a series of discharge-apertures arranged in proximity to the rear wheels of the vehicle and also between said wheels, and a discharge-pipe having a discharge-aperture in proximity to and directed toward a moving part of the driving mechanism of the vehicle.

6. In a motor-vehicle, a dust-deflecting means, comprising a muffler having connection with the exhaust-port of the engine of said vehicle, a pipe having connection with said muffler and provided with discharge-apertures arranged to direct the exhaust fluid in the path of the dust raised by said vehicle and to deflect said dust, and a discharge-pipe having a discharge-aperture in proximity to and directed toward a moving part of the driving mechanism of the vehicle.

7. In a motor-vehicle, a dust-deflecting means, comprising a muffler having connection with the exhaust-port of the engine of said vehicle, and a pipe having connection with said muffler and extending across the vehicle-body and in proximity to the rear wheels thereof and provided along its length with discharge-apertures arranged to direct the exhaust fluid in the path of the dust raised by the vehicle and to deflect said dust, and a discharge-pipe having a discharge-aperture in proximity to a moving part of the driving mechanism of the vehicle.

8. In a motor-vehicle, a dust-deflecting means, comprising a conducting means for a dust-deflecting fluid having a discharge-aperture in proximity to and directed toward a moving part of the driving mechanism of the vehicle.

9. A motor-vehicle embodying a dust-de-



flecting fluid-supply, a discharge-pipe for  
said fluid extending transversely across the  
body of the vehicle and having discharge-  
apertures in proximity to and also between  
5 the rear wheels of the vehicle and a rear-  
wardly and downwardly inclined deflecting-  
plate arranged in advance of said discharge-  
pipe and having along a part of its body por-  
tion a contacting relation therewith, and

closing the space between the pipe and the 10  
vehicle-body.

In testimony whereof we affix our signa-  
tures in presence of two witnesses.

EARL C. WALKER.

ERA C. JACOBSON.

Witnesses:

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HARRY F. HOPKINS.