

(No Model.)

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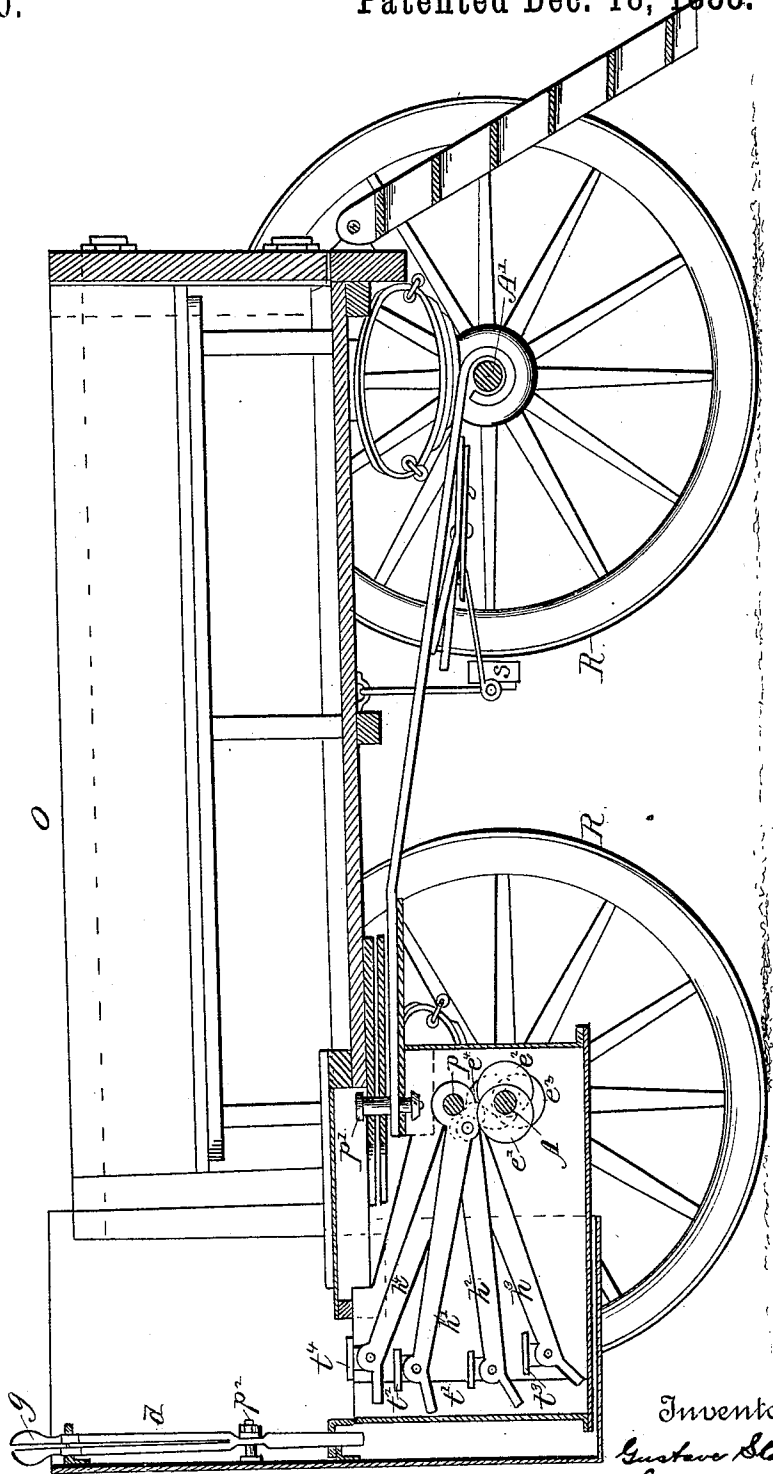
G. STAEBER.

VELOCIPÈDE.

No. 394,890.

Patented Dec. 18, 1888.

Fig. 1



Witnesses,

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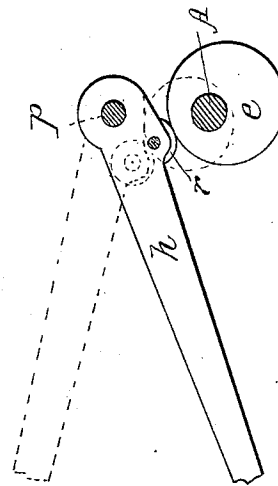
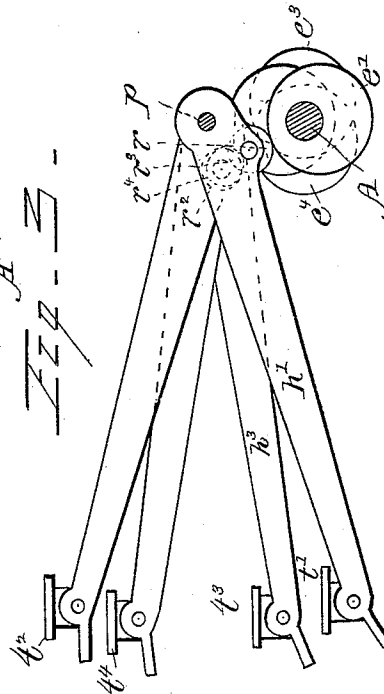
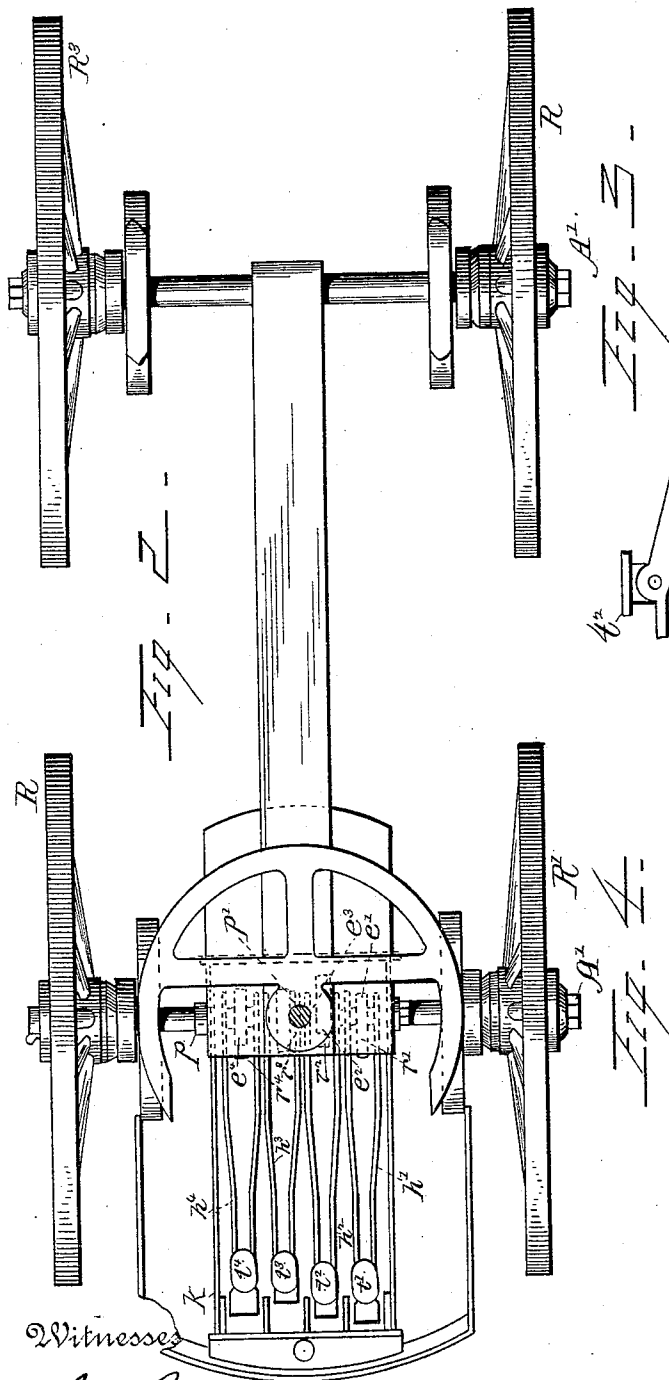
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Witnesses

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UNITED STATES PATENT OFFICE.

GUSTAV STAEBER, OF MÜGELN, NEAR OSCHATZ, SAXONY, GERMANY.

VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 394,890, dated December 18, 1888.

Application filed May 29, 1888. Serial No. 275,517. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV STAEBER, potter, a citizen of Germany, residing at Mügeln, near Oschatz, in the Kingdom of Saxony, Germany, have invented certain new and useful Improvements in Four-Cycle Velocipedes; 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.

This invention has for its object to adapt a four-cycle velocipede to be propelled by a greater number of riders than heretofore, and thereby increase its carrying capacity.

To this end my invention consists in the construction and combination of parts hereinafter particularly set forth and claimed.

In the accompanying drawings, Figure 1 represents a longitudinal vertical section of a four-cycle velocipede embodying my invention; Fig. 2, a plan of the lower part of said four-cycle velocipede; Fig. 3, a detail side elevation of the treadles and eccentrics, and Fig. 4 a detail side elevation of a single treadle and eccentric at the dead-point.

A designates the front axle, having one of the front wheels fast on it and the other loose. The former wheel is designated by R, the latter wheel by R'. A series of eccentrics, $e^1 e^2 e^3 e^4$, have their points of greatest distance from the center distributed at regular intervals, no two being presented in the same direction at the same time. Thus as the axle rotates there is a rapid succession of eccentrics, each temporarily in position to aid in continuing this rotation.

A transverse rod, p , serves as a fulcrum for a series of treadle-levers, $h^1 h^2 h^3 h^4$, corresponding in number to said eccentrics. The long arm of each lever is provided with one of the treadles $t^1 t^2 t^3 t^4$, the short arm being provided with one of a series of anti-friction rollers, $r^1 r^2 r^3 r^4$, and each roller being arranged to act against the cam-face of one of said eccentrics when its treadle is depressed. The direction of the rotation thus communicated to the axle will depend on the position of the roller thus actuated with regard to the line passing through the points on the eccen-

tric of greatest and of least distance from the center of the axle. When the roller bears on either of these dead-points, it will easily stop the four-cycle in the absence of any greater treadle-pressure applied to move it.

The propelling-levers $h^1 h^2 h^3 h^4$ are inclosed in a case, k , turning with the upper part, O, of the vehicle around a king-bolt, p' . A hand lever, d , is used for this purpose. It is pivoted on a bolt, p^2 , and preferably provided with a split handle, g . The rear wheels, R² R³, are loose on the rear axle, A'. A brake, s , bears against the periphery of one of these wheels, and is operated by the occupants of the vehicle. By operating the treadles the rollers are caused successively to act on the eccentrics and turn the axle A and wheel R, moving the vehicle steadily and rapidly in the direction chosen. When it is to be stopped, all pressure is withdrawn from the treadles except one which is made to catch its eccentric on the dead-point; or the brake may be applied for the same purpose, operating more gradually. A single pair of treadles will suffice for propulsion; but there may be as many persons engaged in this work as there are pairs of treadles, so that great power and speed are secured when these last are numerous.

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

In a four-wheeled vehicle propelled by treadles arranged to be operated by the occupants of said vehicle, the combination of a series of treadle-levers and a corresponding series of eccentrics arranged, as stated, with the axle on which said eccentrics are fast, the wheel R, fast on said axle, and the other transporting-wheels of the vehicle, said treadle-levers being pivoted to bear against the peripheries of said eccentrics, substantially as set forth.

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

GUSTAV STAEBER.

Witnesses:

CARL F. REICHETT,

PAUL DRUCKMÜLLER.