No. 844,011. PATENTED FEB. 12, 1907.

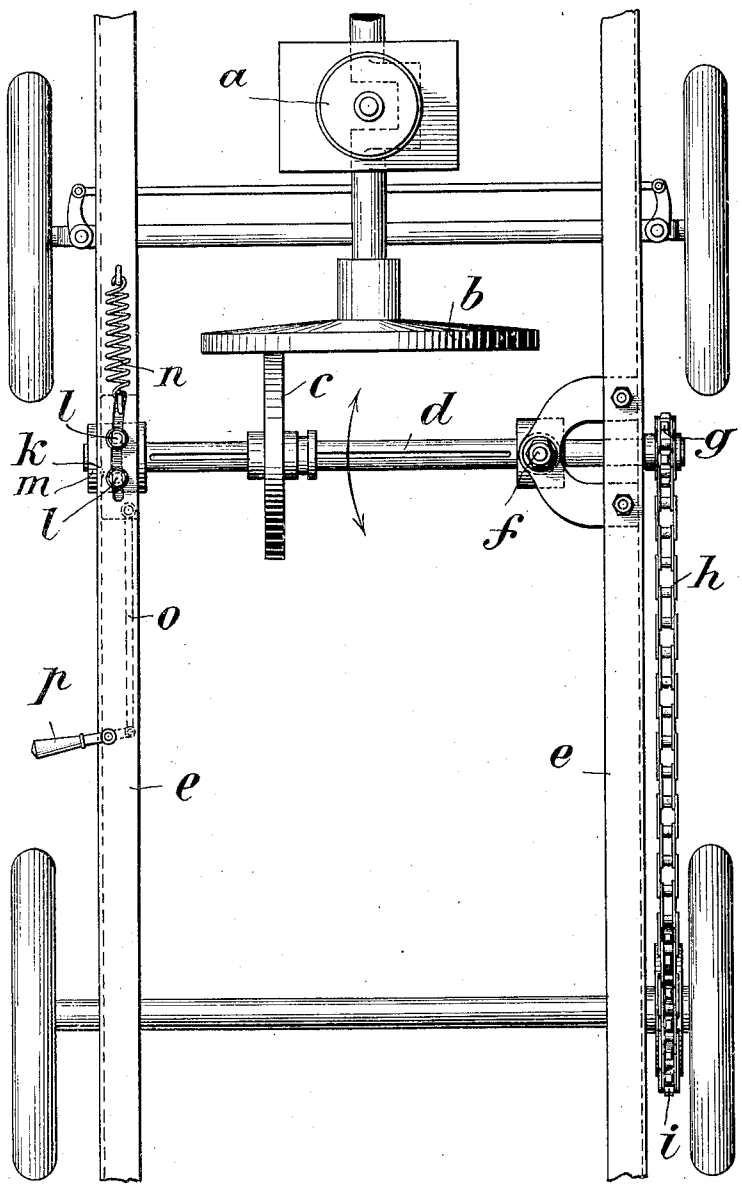
M. FISCHER.

MOTOR VEHICLE.

APPLICATION FILED NOV. 3, 1905.

2 SHEETS—SHEET 1.

*Fig. 1*




*Witnesses:*

H. L. Amer.

B. Sommers

*Inventor:*

Martin Fischer.

by Henry Orth Jr atty.

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2 SHEETS—SHEET 2.

Fig. 2

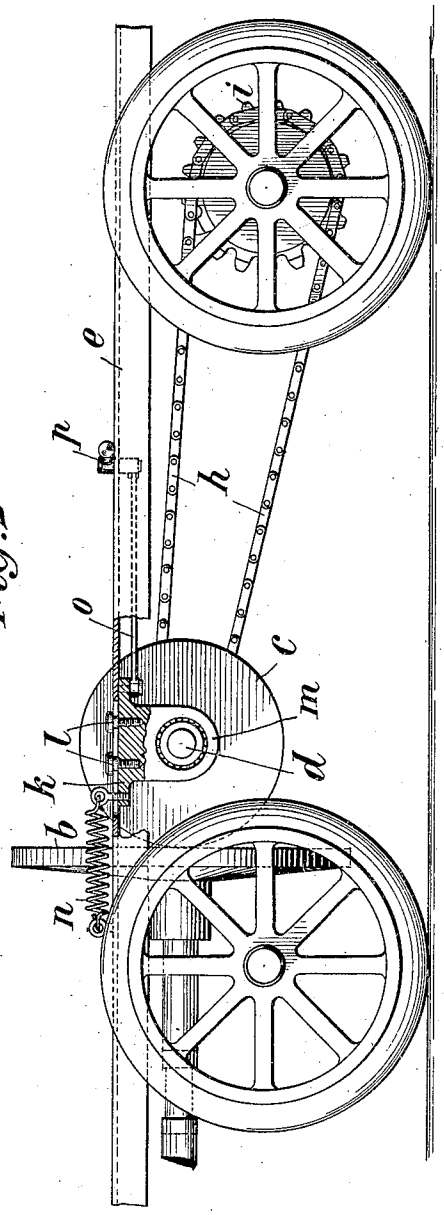
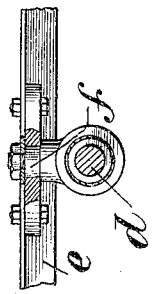



Fig. 3




Witnesses:

H. L. Amer.

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# UNITED STATES PATENT OFFICE.

MARTIN FISCHER, OF ZURICH, SWITZERLAND, ASSIGNOR TO THE FIRM OF MARTIN FISCHER & CO., OF ZURICH, SWITZERLAND.

## MOTOR-VEHICLE.

No. 844,011. Specification of Letters Patent. Patented Feb. 12, 1907.

Application filed November 3, 1905. Serial No. 285,760.

*To all whom it may concern:*

Be it known that I, MARTIN FISCHER, a citizen of the Republic of Switzerland, residing at Zurich, in Switzerland, have invented new and useful Improvements in Motor-Vehicles Having Friction-Disk Driving-Gear, of which the following is a specification.

This invention relates to a motor-vehicle having friction-disk driving-gear, in which the pressure of the friction-wheel against the friction-disk is increased according to the increasing traveling resistance. For this purpose the shaft of the friction-wheel is pivoted—*i. e.*, is formed as a lever upon which the driving-chain so acts that in proportion to the increasing traveling resistance the friction-wheel shaft is caused to turn about its point of rotation, and so press the friction-wheel against the friction-disk.

An example of a constructional form of motor-vehicle according to this invention is shown in the accompanying drawings, which, however, only illustrates the parts necessary to the explanation of this invention.

Figure 1 is a plan view of the vehicle. Fig. 2 is a side view. Fig. 3 shows a detail.

The drawings show a vehicle in which the motor *a* is built in at the front. Upon the shaft of the motor is mounted a friction-disk against which a friction-wheel *c* is pressed. This wheel is mounted upon a shaft *d*, which by being journaled to the vehicle-frame *e* at *f* forms a double-armed lever upon one arm of which the wheel *c* is mounted and upon the other arm of which is secured a chain-wheel *g* in connection through a driving-chain *h* with a chain-wheel *i*, fixed on the rear vehicle-axle.

*k* is a plate arranged to slide upon the vehicle-frame guided by pins *l*, and which carries a bearing *m*, arranged beneath the frame for the adjacent end portion of the shaft *d*. To one end of the plate *k* is attached a draw-spring *n* and to the other end a link *o*, which is connected to one arm of an adjusting-lever *p*, pivoted on the vehicle-frame.

Through the intervention of the friction-disk *b* the motor *a* drives the friction-wheel *c*, the shaft *d*, the chain-wheel *g*, the driving-chain *h*, and the chain-wheel *i* on the rear axle of the vehicle. If now an increase of the traveling resistance arises, the pull of the chain *h* upon the chain-wheel *g* and upon the lever formed by the shaft *d* is augmented, so that the friction-wheel *c* is pressed against the friction-disk *b* with a greater pressure corresponding to the increased traveling resistance. By movement of the adjusting-lever *p* in the direction of the arrow the plate *k* will be drawn back against the action of the spring *n* and the lever formed by the shaft *d* so moved about its pivot *f* that the friction-wheel *c* will be drawn out of contact with the friction-disk *b* for the purpose of stopping the vehicle. The spring *n* after releasing the adjusting-lever *p* effects a return movement of the parts into the operative position.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a motor-vehicle a driven friction-disk in combination with a shaft and friction-wheel slidable thereon, contacting with and driven by the disk, means to pivotally mount the shaft near one end and means to slidably mount the other end of the shaft, a driving-pinion on the shaft, and a road-wheel chain connected to the pinion, said shaft free to move on its pivot by reason of the tractive force of the road-wheel, whereby the pressure of the friction-wheel against the disk will increase with said tractive force.

2. In a motor-vehicle a driven friction-disk in combination with a shaft and a friction-wheel slidably mounted thereon contacting with and driven by the friction-disk, a pivoted bearing near one end of the shaft and a slidable bearing near the other end of the shaft, a spring to urge this bearing toward the plane of the friction-disk, an actuating-lever connected to this bearing to move it against the stress of its spring away from the disk, a driving-pinion on the shaft and a road-wheel chain connected to the pinion whereby the increased tractive force of the road-wheel will swing the shaft toward the friction-wheel aided by the direct pull of the spring.

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

MARTIN FISCHER.

Witnesses:
PAUL VORHUETT,
A. LIEBERKNECHT.