G. DAIMLER.

## POWER DRIVEN VEHICLE.

No. 347,160.
Patented Aug. 10, 1886.

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# United States Patent Office. 

GOTTLIEB DAIMLER, OF CANNSTADT, WÜRTEMBERG, GERMANY.

## POWER-DRIVEN VEHICLE.

## SPECTPICATION \{orming part of Letters Patent No. 347,160, dated August 10, 1886.

Application filed April 19, 1885. Sorial No. 199,442. (No model.) Patented in England September 11, 1885, No. 10,786; in Belgium October 15, 1885, No. 70, 293 ; in Itaiy December, 17, 1885, No. 18,955; in France December 21, 1885, No. 171,261; in Austria-Hungary February 18, 1886, No. 32,523 and No. 2,203 , and in Spain March 26, 1886, No. 8,264.

To all whom it may concern:
Be it known that I, Gottlieb Datmler, a citizen of Würtemberg, residing at Cannstadt, in the Kingdom of Würtemberg, and Empire
5 of Germany, bave invented a new and useful
Improvement in Vehicles Driven by a Gas or Petroleum Motor Engine, whereby they are rendered applicable as sledges, (for which ap. plication for patent has been made in England
optember 11, 1885, No. 10,786; in Begium October 15, 1885, No. 70,293; in Italy December 17, 1885, No. 18,955; in France dated December 21, 1885, No. 171,261; in AustriaHungary February 18, 1886, No. 32,523 and Ne.
${ }^{1} 5$ 2,203, and in Spain dated March 26, 1886, No. 8,264, ) of which the following is a specification.

My invention has for its object to render a vehicle-such as a bicycle or tricycle propelled by a gas or petroleum motor engine2o applicable as a sledge when required to run on ice or snow. For this purpose I combine with such vehicles devices as I will describe with reference to the accompanying drawings, in which $I$ have shown my invention ap-
25 plied to the construction of bicycle described in my application for Letters Patent, No. 17,962.

Figure 1 shows a side elevation of the bicycle. Fig. 2 shows a cross - section. Fig. 3
30 shows a plan. Figs. 4 and 5 show enlarged cross-sections, respectively, on lines $\mathrm{X} X$ and Y Y, Fig. 1.
The wheel A, which is driven by the motor $B$, is provided with spikes $C C$, formed as
looped pieces of metal that pass round the in ner face of the wheel's felly, and are secured by a screw-bolt, D , passing through the felly. Thus in rotating with the wheel the spikes C penetrate into the ice or hard snow, and prevent the wheel from slipping. The front or steering wheel E , is provided with a sledge iron or skid, F , having two loops, $\mathrm{G} \mathrm{G}^{\prime}$, that embrace the felly of the wheel, and are secured by a screw-bolt, $\mathrm{H} \mathrm{H}^{\prime}$, passing through eyes in the loops on the inner side of the felly.

On removing the skid $F$ and spikes $C$ the vehicle can be used as an ordinary bicycle.

Having thus described the nature of myinvention, and the best means I know for carrying the same into practical effect, I claim-

The combination, with a vehicle driven by a gas or petroleum motor engine, of spikes C, attached to the wheel or wheels driven by the notor, and of a skid or skids, F, attached to the front or steering wheel or wheels, the attachment of said spikes and skid being effected by loops and screw-bolts, so as to be readily attachable and removable.

In testimony whereof I have signed my name 60 to this specification in the presence of two subscribing witnesses, this 2d day of April, A. D. 1886 .

GOTTLIEB DATMLER.
Witnesses:
Friedrioh Kübler,
Wilh. Maybach.

