## Scientific American

## THE ACCIDENT TO THE STANLEY STEAM RACER.

The accident which happened to the Stanley steam racing car on January 25 at Ormond Beach, Fla., while its driver, Marriott, was endeavoring to beat last year's record of a mile in 281/2 seconds, is described graphically by Mr. George H. Curtiss, the motor-bicycle builder, in the appended letter:



The Boiler of the Racer Arter the Accident.

"We were obliged to crate up our 8-cylinder, owing to the buckling of the frame, and were out with one of our double cylinders with a tandem attachment, with which we were to try the mile (two on) immediately after Marriott. Mr. Waters (who was to ride the rear seat in our tandem trial) and myself were just back of the starting line as the "Bug" came to the tape which began the mile. As is commonly known, these steamers come to the start with a very high pressure of steam, saving it until the line is reached, then opening wide the throttle and fairly shooting over the line. This sudden spurt, together with the flat boarded surface of the bottom of the car and the fact that all the weight of the car is well back, taken in conjunction with a slight depression in the

beach, formed, in my opinion, the true cause of the accident. The slight depression in the course gave the car (which was provided with light springs) a toss-up. The sudden application of power assisted in raising the fore part of the car, which, as I mentioned, is very light. The floor then acted as an aeroplane—the car glided, with the rear wheels only on the beach. It then swerved sidewise, and when the front wheels again came in contact with the ground, it was headed toward the sea, and the wheels of course went down and the car rolled over and over, breaking to fragments. The boiler kept on going, and rolled several hundred feet farther than the balance of the car, the escaping steam giving the appearance of a meteor rushing through the surf.

"I have heard Marriott speak of this tendency of the car to glide, and as we actually saw the car rise. there is no doubt about this point. I have often noticed in starting a powerful motor cycle, with throttle open, the front wheel is raised clear of the ground. If any further attempts at speed are made with four-wheele.s. the weight should be farther forward, the power applied more gradually, and no body should be used. None of these troubles showed in our 40horse-power motor cycle. Not having springs, it stayed on the beach in good shape, and handled as easily at 120 miles an hour as at sixty or seventy miles."

## THE FASTEST AND MOST POWERFUL AMERICAN MOTOR BICYCLE.

What is unquestionably the most powerful, as well as the fastest, motor bicycle ever built in this country made its appearance at the races at Ormond Beach recently; but, owing to the breaking of a universal joint and subsequent buckling of the frame, this machine made no official record. It was built by Mr. G. H. Curtiss, a well-known motor-bicycle maker, with the idea of breaking all records. The machine was fitted with an 8-cylinder air-cooled V-motor of 36-40 horse-power. The motor was placed with the crankshaft running lengthwise of the bicycle and connected to the driving shaft through a double universal joint. A large bevel gear on this shaft meshed with a similar one on the rear wheel of the bicycle. The total weight of the complete machine was but 275 pounds, or 6.8 pounds per horse-power. In an unofficial mile test, timed by stop watches from the start by several persons who watched through field glasses a flag waved at the finish, Mr. Curtiss is said to have covered this distance in 262-5 seconds, which would be at the rate of 136.3 miles an hour—a faster speed than has ever been made before by a man on any type of vehicle. Unfortunately, before this new mile record could be corroborated by an official test, the universal joint broke while the machine was going 90 miles an hour. Fortunately, it was brought to a stop without injury to its daring rider from the rapidly-revolving driving shaft, which was thrashing about in a dangerous manner. Later on, the frame buckled, throwing the gears out of line, and the official test had to be abandoned. With his 2-cylinder machine, Curtiss rode a mile in 46 2-5 seconds in a race with Wray on a 2-cylinder 14horse-power Pugeot motor bicycle, only to be beaten 2 seconds by the latter in a subsequent race, wherein a speed of about 80% miles an hour was obtained. With one of his single-cylinder machines Curtiss made a mile in 1 minute 5 3-5 seconds on January 21.

## India for Automobiles.

India is rapidly taking a leading place in the exploitation of the automobile industry in foreign fields. Reliability trials were held at Mysore, in southern India, during the Christmas holidays. These were followed by a general motor car exhibition at Calcutta from January 21 to 30, at which all the leading European manufacturers were represented.

One cause of the popularity of the motor car in India is the number and extent of good roads, some

of them hundreds of miles in length. A perfect highway runs from Bombay to Delhi, 900 miles, over which the trials were made in 1904.

From Peshawar, farther north at the frontier of Afghanistan, a fine road extends all the way to Calcutta, a distance of 1,500 miles. These and similar roads are known as the grand trunks, and were ouilt



A 40 H. P. Racing Motor Bicycle Fitted With an 8-Cylinder V Motor.

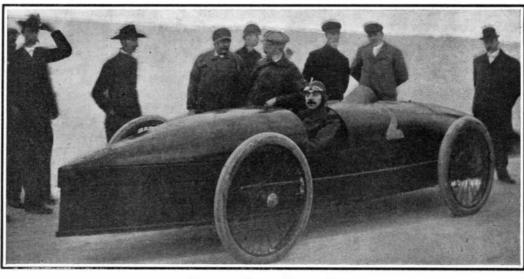
and maintained as military highways before the advent of the railways. These highways of travel are kept in perfect repair. Others equally as good are spread throughout the country, and in some of the states ruled by native princes particular care is given to the roads. One enterprising prince, the Maharajah of Gwalior, has caused a motorists' road guide of his state to be published, with maps, lists of rest houses, and other information.

The high-class and high-priced cars which in any country must be considered as luxuries, have found their best customers among the native rulers, whose example has been followed by the rich Parsee merchants and financiers of Bombay, and in a modest de-

gree by some of the officials of the Indian government. Gradually the use of motors has spread until they have ceased to be looked upon as luxuries, and are now regarded as necessities by a growing number of persons who are able to invest from \$1,000 up to \$5,000 in a motor vehicle. At first it was found necessary to employ English chauffeurs, and this is still done by the owners of the finest cars, but it is now possible to obtain competent native drivers at very moderate wages.

The Indian Prince, Maharajah Gaekwar, who recently visited this country, is the possessor of sixteen automobiles, motoring being his favorite pastime. He owned one of the first fifty automobiles manufactured.

The total length of railways now working in Mexico. is 13,507 miles, and most railways report increases in their traffic returns. With the ex ception of the opening of the Matamoras branch of the National Railway of Mexico there was but little railroad construction of importance in 1905, but during the last year-1906-there was considerable activity, notably the extension of the Southern Pacific system from Guaymas in Sonora south along the Pacific coast to Mazatlan and Tepic, and eventually to Guadalajara. This, together, with the extension of the Mexican Central to Colima and Manzanillo will give better access than hitherto to the Pacific coast.



The Racer Before the Accident.



Photographs by Leseere.

Part of the Body of Racer After the Accident.

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