

AWARD OF THE GLIDDEN TROPHY FOR TOURING CARS.

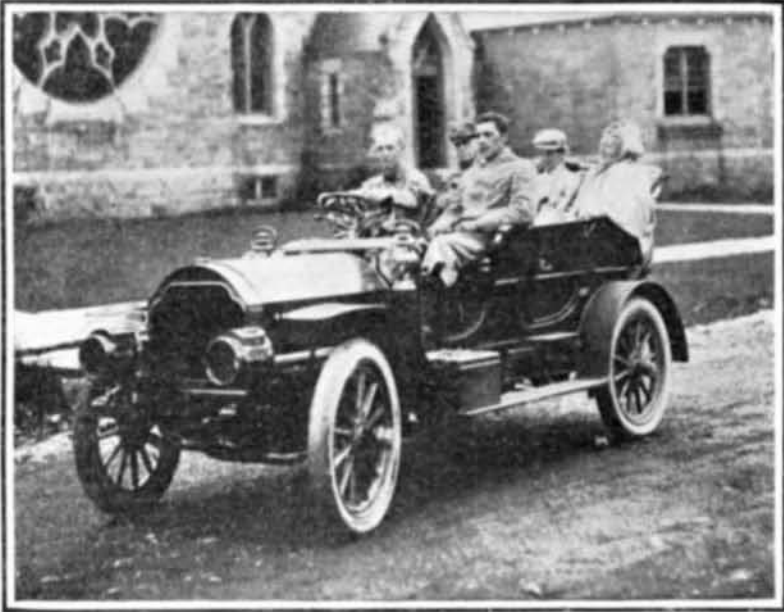
Of the thirty-two machines that started from New York in the Glidden touring contest to the White Mountains and back on July 11, twenty-eight returned to the starting point on July 22. But two of the four machines that were missing at the finish dropped out because of breakdowns. One of these breakdowns resulted from an accident occurring the first day of the tour. The driver of a White steamer, Mrs. J. H. Cuneo, was obliged to run her machine off a 6-foot-high bridge in order to avoid a collision with another car, the result being that although the steamer (which fell on its side) was damaged somewhat, its plucky driver was able to run it and make a fairly good score until the last day of the tour, when the machine gave out completely with a broken water pump and driving shaft. The only other car which failed to finish on account of mechanical troubles was Mr. S. E. Hutchinson's 50-horse-power Panhard, which broke its crank shaft. One of the most remarkable accidents during

hose. None of these repairs, with the exception of the broken connecting rods, necessitated very lengthy delays, and in almost every instance the car was soon going again.

The steepest hills were experienced at the Crawford Notch, N. H., and in the run from Springfield to Lenox, Mass., in the course of which the famous Morey Hill, which has an elevation of 146 feet and grades of nearly twenty-five per cent, was ascended. Despite the steepness of this hill and the poor character of the road, all the cars ascended it with practically no difficulty. Most of the larger cars were obliged to climb it on their low gear, while the lighter touring cars, fitted with two-speed planetary transmissions, were able to rush the hill the first part of the way and go considerably further than the others before dropping to their low gear. Had the test been carried out along scientific lines, this hill would have been a fine one on which to demonstrate the horse-power actually developed by the various machines. The fact that all climbed it with little or no difficulty, however, shows that the

a tread of 56 inches, and 32 x 3½-inch solid tires. Its maximum speed is 18 miles an hour, and its carrying capacity is 2,500 pounds. Besides the driver and his assistant, this wagon hauled daily from 1,200 to 1,500 pounds. The total distance it covered in the course of the tour (which distance included several side trips in the vicinity of Mt. Washington) was 1,001¼ miles, which was covered in 63 hours and 25 minutes, at an average speed of 14½ miles per hour; 107¼ gallons of gasoline and 4½ gallons of cylinder oil were used, and the only replacements were two chain links and one exhaust valve. With gasoline at 20 cents a gallon and oil at 50 cents this figures out the total expense at \$27.58, or an average cost of 2¾ cents per mile. This is certainly a very favorable showing for a light-weight gasoline truck.

The Packard truck was fitted with a 15-horse-power twin-cylinder vertical engine having 4-1-16 x 5-inch cylinders. A three-speed sliding gear transmission and a double chain drive from countershaft to rear wheels are employed. During the course of the run



The Trophy Winner.—A Pierce "Arrow" Touring Car.

This car has a 104-inch wheel base. It is provided with a bevel-gear drive and 28-32-horse-power, four-cylinder motor.



Knox 16-Horse-Power Truck Climbing a Grade of 23 Per Cent on Morey Hill.

This truck has a carrying capacity of 1¼ tons. It is propelled by an air-cooled motor, and has a two-speed planetary transmission.

the tour happened at North Conway, N. H. Mr. C. J. Edwards was driving his large four-cylinder Cadillac machine at a rapid rate of speed when, after rounding a curve, he came suddenly upon a covered bridge. The car slewed so that the hub of the front wheel struck an inclined beam at the entrance to the bridge, and, as it traveled up the beam, raised the car and turned it upside down. Although found under the machine, none of the occupants was seriously injured. The steering gear was damaged somewhat, but this was repaired and the day's journey completed.

As the tour was originated by Mr. Glidden for the purpose of bringing out the reliability and comfort of the modern touring car it was unfortunate that many of the entrants could not refrain from bursts of speed in an endeavor to reach the end of their daily destination first. The accident just cited was the result of speeding over a highway which was unfamiliar to the motorist, and that it did not have serious consequences can be laid only to luck.

Had the motorists all run with the precaution that was shown by Mr. Percy E. Pierce in driving his 28-32-horse-power touring car, there would not have been as many breakdowns on the road as there were and the competition for the trophy would doubtless have been much keener. As it was, however, the breakdowns were few in number and of slight consequence, and even the tire troubles were found to be much reduced over what have been usually experienced on runs of this character. Some of the troubles experienced by the various cars consisted of broken connecting rods, fouled spark plugs, broken-down spark coils, a broken rear spring (on the Packard truck), a chain jumping off the sprocket, and the giving out of a high-pressure



The 15-Horse-Power Packard Truck, Which Climbed Mount Washington in About 2 Hours Running Time.

This is a 1¼-ton truck. Weight, 2,800 pounds. Motive power, two-cylinder vertical engine and three-speed sliding-gear transmission.

THE WINNING TOURING CAR AND THE MOTOR TRUCKS IN THE GLIDDEN TROPHY TOUR.

American machine of to-day has ample power for touring the most mountainous districts.

A very interesting feature of the Glidden tour, and one which should serve as a thorough demonstration of both the air-cooled and water-cooled type of commercial vehicle, was the performance of two trucks entered by the Knox Automobile Company and the Packard Motor Car Company. These vehicles were started every morning at an early hour, and they generally reached their destination late in the afternoon. They carried a considerable amount of baggage belonging to the tourists, and so reliable were they that after the first two days the contestants preferred to use them to the express companies. A picture of the Knox truck ascending Morey Hill is shown herewith, as well as a photograph of the Packard truck on top of Mt. Washington—a climb which is as noteworthy to-day for a commercial vehicle as was the ascent of Pike's Peak by a steam runabout some years ago.

The Knox truck is fitted with a standard double opposed cylinder 5 x 7 Knox horizontal air-cooled motor of 16 horse-power. It has a wheel base of 95 inches,

this machine covered 865 miles on a total consumption of about 79 gallons of gasoline, which is equivalent to 10.95 miles per gallon; 55 quarts of cylinder oil were used, which equals 145 miles per quart. The load the first day was only about 2,000 pounds, but afterward the truck carried around 3,200. No great trouble was experienced in driving this heavy vehicle through the country, although it skidded some on mountain roads after a heavy rain. In climbing Mt. Washington chains were used on the rear wheels. These broke two separate times and the ends flew up and caught in the driving chain, thus breaking it. With-

in three miles of the summit the truck ran into a heavy sleet storm which put out the oil lamps and left the motorists only one acetylene headlight to see by. Despite climbing the mountain under such bad conditions the truck reached the summit in 4¼ hours. The start was made at 6 P. M. and the halfway house was reached about 7. After leaving that point it was overtaken by rain, which made traction very uncertain. A bad stretch of sandy road was then encountered and here the chains were put on. These served their purpose well until they broke with the result mentioned.

The Glidden trophy (which consists of a large globe supported on a suitable pedestal and surmounted by an automobile) was awarded to the Pierce touring car shown herewith. This car is a typical American touring car, having a bevel gear drive and a 4¼ x 4¾ four-cylinder motor. Including a 1,580-pound load, it weighed 4,280 pounds. It climbed Mt. Washington twice and completed the tour besides, without at any time experiencing any mechanical or tire trouble whatever.