accurate, can ever hope to secure a parallax. It is time now to put in the term "next to nothing" again for all things terrestrial. That is, the thickness of a spider thread would obscure the entire orbit of the earth in its mighty sweep around the sun, as seen from the distant stars. And all agree that a spider line is next to nothing, so the astronomer Tycho rejected the true order of Nature simply because of its mind-crushing magnitude and splendor. He had not the fortitude to admit the infinitesimal dimensions of the earth and man. All kinds of estimates have been made as to the probable radius of that part of the universe visible in the greatest telescope. Opinions vary between the limits of 4,000 to 15,000 light years. That is, with a radius of 15,000, the diameter would be so immense that light would require 30,000 years to traverse it. The opinion of the writer is for the 30,000 yet no positive proof is possible. This opinion is based on photometric grounds. The word millions has for long been used in telling the number of the stars. But billions now appears to be more appropriate. Each one is a hot sun, and each may be attended in many cases by inhabited worlds.

The Best Cat Story Yet.

BY DR. JOHN NICOL.

Without attempting to decide as between heredity, imitation, or reasoning, or what part each or all or any of them played in enabling the cat to perform the feat of which I am about to tell; merely premising that I can vouch for its truth, as can many others who had frequently seen it done.

The cat belonged to my brother-in-law, the owner of Hazeldell farm, near Ulster, Pa., and that it might go out and in at its own sweet will, the usual cat-hole was cut in the door between the kitchen and the wood-shed. Besides the cat referred to, which may be called the house cat, there were several others who remained mostly in one or other of the barns and were not encouraged to enter the house, although shortly before the time of which I am about to speak they began to come in more than the mistress cared for.

To prevent this, a swing door was placed on the outside over the cat-hole. It was simply a piece of board a little larger than the hole, and fastened by leather hinges at the top, so that by pushing her head against it from the inside the cat could get out, but could not by such pushing get in again.

For a time the cat did not appear to understand the new arrangement, but "meoued" persistently each time she wanted to go out, till some one taking her in his hands and pushing her head against the door showed her what to do, and *she did it herself ever afterward.*

This went on for some time, always getting out herself, but always calling loudly whenever she wanted to get in, till the letting of her in began to be considered a trouble, and she was often allowed to call in vain. Just how long this continued I do not know, but it did cease, and the cessation of one trouble threatened to bring about another. The cat was found in the house when those whose duty it was to put her out and not let her in again asserted that they had been true to their trust. This was "by some believed and some misdoubted," and, like other trifles, was likely to bring trouble in the household, when those that blamed the cat were found to be more correct than the cat blamers generally are; *the cat had discovered a method of opening the door for herself.*

The accused member of the family, strong in the justice of her cause, determined to watch, and this is what she saw: The cat, on coming to the door, lay down on her back, and with both her front paws raised the hinged board considerably above the level, and then, with what I cannot find a better expression for than a wriggle, rapidly turned on her belly and drew her body inside.

I may add that this was seen not once but perhaps hundreds of times, as it got to be one of the show things at the farm, the cat not being in the least shy, but always ready to perform the feat in the presence of visitors.

While heredity can have had nothing to do with this operation, I may take the opportunity of recording another in which heredity alone was the active agent. It is well known that Manx cats have no tails, only slight stumps, and that the offspring of such in other parts of the world, in the first generation at least, are in the same abnormal condition. While living in Scotland some thirty years ago we had a Manx kitten given to us, which, although born there, was tailless. The door of our breakfast room was spring-shutting, something like most of the screen doors in this country, but opening only toward the inside. Before the kitten was full grown he had learned to let himself in by pushing from the outside, but never learned, although we often tried to teach him, to pull it open from the inside. It was not, however, the opening of the door from the outside to which I wish to call attention—any cat could have easily learned to do that; but the fact that invariably, after he had so pushed it and got his body partially in, he made a rapid turn or whirl to prevent the tail that was not there (but heredity impressed on him the fact that it ought to have been) from being caught between the closing door and its frame. This he did dozens of times every day so long as we had him, and was always willing to show off before our visitors, as he never seemed to recognize the fact that he had not a tail like his neighbors.

Correspondence.

The New Process of Resuscitation Proves to Be Old.

To the Editor of the SCIENTIFIC AMERICAN:

I notice in the SCIENTIFIC AMERICAN for October 7, 1905, an article entitled "A Novel Process of Reanimation."

It might be interesting to you to know that there is in the Proceedings of the American Association for the Advancement of Science a record of an address by Dr. Alexander Graham Bell, presenting over twenty years ago an idea substantially the same as that of Dr. Gradenwitz. I beg to quote an abstract taken from the thirty-first meeting of the above-named society, held at Montreal, Canada, August 1, 1882:

"I propose to surround the waist of the unconscious patient by a rigid jacket or drum somewhat larger in diameter than his body. The apparatus can be rendered practically airtight by a rubber band around the thorax, and another around the loins. Upon exhausting the air inside the drum, a partial vacuum is produced around the abdomen. Under such circumstances, the pressure of the atmosphere forces air through the mouth and nose into the thorax, causing the depression of the diaphragm and consequent expansion of the abdomen. The alternate rarefaction and condensation of the air confined around the abdomen thus cause alternate inspiration and expiration."

CHARLES R. COX.

Volta Bureau, Washington, D. C., October 15, 1905.

Old Things Forgotten in These Progressive Days.

To the Editor of the SCIENTIFIC AMERICAN:

It is surprising to an oldish man how many things of daily use the present generation seems to have forgotten.

Here are some instances.

1. To tell the points of the compass by a watch.—Point the hour-hand at the sun. Then south is halfway between the hour-hand and the figure twelve of the dial.

2. To measure an angle by a watch.—Lay two straight-edged pieces of paper on the angle, crossing at the apex. Holding them by where they overlap, lay them on the face of the watch with the apex at the center. Read the angle by the minutes of the dial, each minute being six degrees of arc. It is easy to measure within two or three degrees in this way.

3. To start a tight screw.—Press the screwdriver firmly in place with one hand, but do not turn it. Then take hold of it sideways with flat-jawed pliers as close to the head of the screw as possible, and turn it with them. A hand vise is better than pliers. Leave just enough of the tip of the screwdriver outside the vise to fill the slot of the screw, but no more. This reduces the danger of breaking or bending a badly-tempered screwdriver to a minimum.

4. To put a pin through starched linen, rub the pin with paraffine. To push a collar button through a starched buttonhole, rub paraffine on the back of the buttonhole.

JACOB BROMFIELD.

Boston, September 23, 1905.

The Reasoning Power of Animals.

To the Editor of the SCIENTIFIC AMERICAN:

I read your valuable paper weekly with much interest and profit. The several articles that have appeared recently therein on the subject, "Do Animals Reason?" have deeply interested me; and the facts stated so strongly appeal to my love for justice for animals that many abuse and underrate, as well as my love for them, that I desire to repeat a single instance, one of many, showing the rapid reasoning and quick action by one, and the intelligent confidence displayed by another animal in my presence—a dog and a horse.

I was the possessor of a bright, active Irish setter dog, "Laddie," who accompanied me on my many drives through the country. My dog and horse were inseparable friends, and when we were out driving "Laddie" assumed to take charge of both the horse and myself; several times helping us out of what might have resulted in serious difficulties, at one time catching and holding the horse, when frightened and running away, until I could reach her. But the instance I desire to relate occurred two years ago last spring. I was driving through a rough and hilly section of the country, where the road was frequently crossed by brooks, which at that season of the year, at times, assumed large proportions, flooding both roads and bridges. I approached one of these streams, over which was a bridge about twelve feet long and somewhat raised above the road on the farther side from me. The water was up to the bridge, and beyond the bridge was a pond of water some five or six rods in width, dark and muddy and several feet deep in places. A little way from the point of crossing were some large rocks standing close together, over which the dog could cross without taking to the water, and he started to cross in that manner. When I drove onto the bridge, my horse stopped and refused to take to the water, which stood level with the bridge; my dog stood on one of the large rocks watching my progress, and when the horse stopped and refused to go on, the dog with human intelligence and reasoning instantly leaped from the rock onto the bridge, ran up in front of the horse, looked into her face, gave a sharp bark of encouragement, and then turned and deliberately walked off from the bridge into the water, all of the time looking over his shoulder at the horse, saying, "Come on," as plainly as his intelligent face could express those words. Then without any urging on my part the horse at once followed the dog into the water and across the flooded strip of road to the dry land, at times up to her belly in the flood, the dog swimming over the center of the road just in front of her.

The intelligence displayed by both animals struck me very forcibly at the time. The dog saw the difficulty, and with the quickness of human reasoning he saw the way to overcome it, and he acted on the instant. The horse had unlimited confidence in the dog, gained from their former experiences together, and she was ready to follow where he would lead without any hesitancy. Returning some hours later over the same road, the dog, always in advance, stopped a moment, just long enough to see if the horse would make the passage of the water all right, and when he saw that she raised no objection to crossing, he took to the rocks and crossed without wetting his feet.

I have often thought of this incident; the quick, active reasoning of the dog, the quick action taken by him, and the understanding of the dog's purpose and confidence in him displayed by the horse.

D. R. P. PARKER.

Hermon, N. Y., October 10, 1905.

THE SECOND ANNUAL AUTOMOBILE RACE FOR THE VANDERBILT CUP.

As stated in our last issue, the second annual race for the Vanderbilt cup resulted in the triumph of two French, one American, and one Italian car. It was the first time an American machine ever was placed in an international race, and for this due credit should be given to the designer and driver of the 120-horse-power Locomobile which finished third. One of our illustrations shows this car as it crossed the line at the finish, while for descriptions of the machine and the changes recently made upon it, we refer our readers to the issues of May 27 and October 7. The day before the race this machine developed a cracked cylinder, which necessitated the replacement of one of the pairs of cylinders. Mechanics worked until 5 A. M. October 14 putting on the new cylinders and a new crank case, as this also was broken. In view of the fact that the machine had never been run with these new parts until it went to the starting line, its performance was remarkable. Its fastest time, 27:40, was made on the fifth round, and corresponds to a speed of 61.38 miles per hour. The average speed for the whole race was 56.90 miles per hour. No tire trouble was experienced, though several stops were made for gasoline, water, and oil, and to wash oil out of the clutch with gasoline.

What was undoubtedly the most consistent performance was that made by Heath, who drove the same 90-horse-power Panhard car with which he won the race last year. The only change in this machine is the substitution of a honeycomb radiator for the framed radiating coils employed a year ago. The engine is a 170 x 170 millimeter (6.692 x 6.692 inch) four-cylinder, vertical motor with steel cylinders and corrugated copper water jackets. It is fitted with a Krebs automatic carbureter and Eiseman high-tension magneto ignition. A four-speed transmission is used. This car also had no tire trouble, and its flat-tread Michelin tires appeared to be in first-class condition at the end of the race. Heath steadily rose from fourteenth position at the start to second place at the end of the fourth round, which position he held to the end. His average speed for the entire distance was 60.72 miles an hour.

The winner of the race, Hemery, drove an 80-horse-power Darracq racer of light construction and mounted on wire wheels. A companion car driven by Wagner burst a tire in front of the grand stand at the end of its second round and gave out during the fourth round from the loss of the gear box cover and the seizing of bearings in the transmission. Hemery, however, had better luck. He succeeded in covering all but the fourth round in less than 28:35. His fastest time—68.42 miles an hour—was made on the fifth round, which was covered in 24:49. At this point in the race he was sixth. The next round saw him jump to third place, which he held until the eighth round, in which he passed Heath and wrested first place from Lancia. His total time for the 282 miles was 4 hours,

36 minutes, and 8 seconds, which means an average speed of 61.49 miles an hour. One of our illustrations gives a good idea of Hemery and his racer as they appeared in the race, while the other picture of the engine shows what a neat appearance this has. The mechanically-operated inlet and exhaust valves are all in the heads of the cylinders, and the inlet and exhaust pipes are all on one side, the carbureter being placed in the vicinity of the muffler. The igniters are shown in the side of the cylinders, and the magneto is visible at the bottom of the picture. The Darracq cars were among the few which were run without a bonnet over the engine, and the rapid movement of the eight valve-operating levers when the car was standing with engine running at the starting line, was a feature that caught the eye. The engines have a 170 mm. bore by a 140 mm. stroke. Their performance here was in accordance with what was expected of them from what they have done abroad. These racers have no differential, which makes necessary a skillful driver to guide them properly on the turns.

The fourth car to start was, curiously enough, the one to obtain fourth place at the finish. This was the 110-horse-power four-cylinder Fiat, which, driven superbly by Lancia, took first place at the end of the first round and held it for seven rounds, gaining a whole lap on its nearest competitor. Tire trouble in the eighth round, followed by a collision with Christie just as he was again starting out, put Lancia so far behind that it was impossible for him to make up more than enough to give him fourth place at the finish. He frequently thundered by the grand stand at 80 to 85 miles an hour. His fastest lap, the fourth, was made in 23 minutes and 18 seconds at a speed of 72.88 miles an hour. This was the fastest time made by anyone in the race. During his first seven rounds Lancia's range of speed variation did not exceed 44 seconds, which is remarkable, indeed, for a course of the length and with the number of turns that the present one has. Lancia displayed great skill in taking the turns, which he did at a high rate of speed. Had it not been for his collision with Christie, which was due to his own foolhardiness, he would have undoubtedly won the race. His total elapsed time was 5 hours and 31 seconds, which is equivalent to an average speed of 56.50 miles an hour.

TABLE ARRANGED IN ORDER OF THE FINISH, SHOWING ELAPSED TIMES AND TIMES FOR EACH ROUND OF ALL THE CARS. LENGTH OF COURSE, 28.3 MILES. TOTAL DISTANCE, 283 MILES.

Finish.	Car.	Driver.	1st Round.	2nd Round.	3rd Round.	4th Round.	5th Round.	6th Round.	7th Round.	8th Round.	9th Round.	10th Round.
1.—No. 18.—	80 Darracq	Hemery	28.23	51:24 26:01	1:20:20 25:5	1:5 :38 38:18	2:23:27 24 49	2:48:55 25:28	3:14:20 25:25	3:39:59 25:39	4:08:33 28:34	4:36:08 27:35
2.—No. 14.—	90 Panhard	Heath	28:02	55:03 27:01	1:21:56 26:53	1:48:51 26:55	2:15:21 26:30	2:41:54 26:33	3:10:59 29:05	3:44 31 3 :32	4:11:41 27:10	4:39:40 27:59
3.—No. 7.—	120 Locomobile.	Tracy	28:14	56:51 28:37	1:25:27 28:36	1:57:38 32 11	2:25:18 27:40	2:58:11 32:53	3:26:04 27:53	3:56:56 30:52	4:28:53 31:57	4:58:26 29:33
4.—No. 4.—	110 Fiat	Lancia	23:49	47:20 23:31	1:10:45 23:25	1:34:03 23:18	2:02:05 28:02	2:25:50 23 45	2:49:52 24:02	4:01:09 1:11:17	4:2 :0) 23:51	5:0 :31 35:31
5.—No. 10.—	90 Renault	Szisz	24:55	49:24 24:29	1:14:45 25:21	1:53:27 38:42	2:22 45 29 18	2:56:09 33:24	3:24:46 28:37	3:53:41 28:55	4:34:07 40:26	Runn'g
6.—No. 8.—	110 Fiat	Nazzari	25:28	1:18:42 53:14	1:4 :17 25:35	2:0 :52 24.35	2:37:56 29:04	3:04:03 26:07	3:28:40 24:37	3:53:20 24:40	Run ing at end	t end of race.
7.—No. 20.—	90 Fiat	Sartori	27:41	55:11 27:30	1:22:20 27:09	1:19:53 27:33	2:21:06 31:13	3:02:38 41:32	3:56:27 53:49	4:34: 0 37:43	Broke c shaft.	r a n k -
8.—No. 9.—	120 Mercedes	Warden	27:41	55:07 27:.6	1:22:30 27:23	1:49:45 27.15	2:25:46 36:01	3:05:19 39:33	4:11:18 1:05:59	4:51:23 40:5	Running of race.	at end
9.—No. 2.—	130 De Dietrich	Duray	26:26	56:17 29:51	1:21:57 25:40	2:07:43 45:46	2:33:12 25:29	2:59:27 26:15	3:35:55 36:28	Running	at end of	race.
10.—No. 16.—	90 Fiat	Chevrolet	28:42	56:57 28:15	1:28:32 31:35	2:07:25 38:53	2:38:41 31:16	3:09:25 30:44	Broke a	xle. Ran	into pole.	
11.—No. 5.—	120 Mercedes	Keene	27:21	54:24 27:03	1:23:05 28:41	1:54:10 31:05	2:20:33 26:23	Ran into	telegrap	h pole an	d broke	f r o n t wheel.
12.—No. 3.—	60 Pope-Toledo	Dingley	29:44	1: 0:55 31:11	3:42:33 2:41:38	4:21:35 39:02	4:57:20 35:45	Running	at end of	race.		
13.—No. 19.—	40 White	White	51:31	1:36:23 44:52	2:18:54 42:31	3:09:14 50:20	Abandon	ed race a	t Lakevil	le. Tire	trouble.	
14.—No. 15.—	90 Pope-Toledo	Lytle	29:15	2:00:17 1:31:02	2:35 49 35:32	3:15 52 40:03	Ran over	dog, bent	steering	gear, and	broke ch	ain.
15.—No. 6.—	80 Darracq	Wagner	24:56	49:49 24:53	1:30:38 40:49	Tire burs	t at end	of first	round.	Bearing	seized.	
16.—No. 1.—	120 Mercedes	Jenatzy	24:52	49:25 24:33	1:2 :06 32:41	Cracked	a cylinde	r.				
17.—No. 11.—	60 Christie	Christie	58:08 30:08	1:28:20 30:12	2:44:30 1:16:10	Wheels	broken	in collisi	on with	Lancia.		
18.—No. 12.—	120 Fiat	Cedrino	25:36	53:54 28:18	Broke	oil pipe	to engi	ne.				
19.—No. X.—	120 Mercedes	Campbell	28:21	Lost	gasoline	tank.						

The fourth car to start was, curiously enough, the one to obtain fourth place at the finish. This was the 110-horse-power four-cylinder Fiat, which, driven superbly by Lancia, took first place at the end of the first round and held it for seven rounds, gaining a whole lap on its nearest competitor. Tire trouble in the eighth round, followed by a collision with Christie just as he was again starting out, put Lancia so far behind that it was impossible for him to make up more than enough to give him fourth place at the finish. He frequently thundered by the grand stand round when the race was called off. It had a great deal of tire trouble, and passed the grand stand with one of its rear wheels running on the rim after Hemery and Heath had finished. Despite the fact that one pair of cylinders had cracked and were replaced shortly before the race, this car made the best performance of any of the German team. Its fastest round, the fourth, was made in 27:15—a speed of 62.31 miles per hour; while Keene's fastest, the fifth, was done in 26:23 (64.36 miles an hour). Jenatzy covered his second round in 24:33, which equals a speed of 64.36 miles per hour.

Next to Hemery and Heath, the other member of the French team who made the best showing was Szisz on a 90-horse-power Renault racer. This car made its fastest time on the second round, which was run in 24:29 (69.26 miles an hour) and at the conclusion of which Szisz passed Keene directly in front of the grand stand, and thus crept up from third to second place. This position he subsequently lost, but he held fifth place at the end of his ninth round, and would in all probability have finished fifth had he been allowed to do so. His engine missed fire and overheated during the last few rounds, and the horseshoe-shaped dashboard radiator was steaming badly. Nevertheless, Szisz kept his car in the race, although obliged to stop occasionally for water. As can be seen from our illustration of it at the starting line, the Renault was one of the most picturesque of the racers, with its rounding, bug-shaped body, hung very low, and painted red. It made a much better showing than in last year's race, in which it broke its universally-jointed drive shaft in the second round.

The De Dietrich racer—No. 2, driven by Duray—had the second largest engine of any in the race. It is rated at 130 horse-power, and its four cylinders are 190 millimeters (7.480 inches) bore by 150 millimeters (5.905 inches) stroke. This machine, however, did not show very great speed. Its fastest lap was made in 25:29—at the rate of 66.63 miles per hour. It was still running at the end of the race, being then on its eighth lap.

Considering the performance of the Italian and German teams, that made by the American team was not so bad as, at first sight, it might appear. With Tracy on his Locomobile third, and Dingley still running and on his sixth round, although with a cracked cylinder, the American team was but little behind the Italian, and had made a better showing than the German. One cylinder of the 60-horse-power Pope-Toledo cracked when the car had nearly completed its third round. After over two hours spent in trying to repair it, Dingley finally cut out the cylinder and ran on three for the balance of the race. The six-cylinder Pope-Toledo, driven by Lytle, ran over a large dog in the second round. As a result, one of the chains broke a short time afterward and the steering gear was damaged, the machine finally running into a fence at Lakeville during the eighth round.

The Christie direct-drive racer was the only car which did not start on time. No explanation was given, and when it appeared 28 minutes late and made a flying start, everyone wondered what had been the cause of delay. The machine made two rounds in 30:08 and 30:12 respectively, but it seemed to be missing fire and not working properly. The third round consumed 1¼ hours, and on the fourth, after discovering that his gasoline valve had not been turned on sufficiently, Mr. Christie was just beginning to get back to his accustomed speed when he came upon Lancia as he was pulling out from a tire station, and, turning into the ditch to avoid him, banged his rear wheel hub against Lancia's rear wheel tire. His car scraped by Lancia's and swung around in the road in front of

The Start of the 90 H. P. French Renault Racer. This Car Was Running Fifth at the Finish.

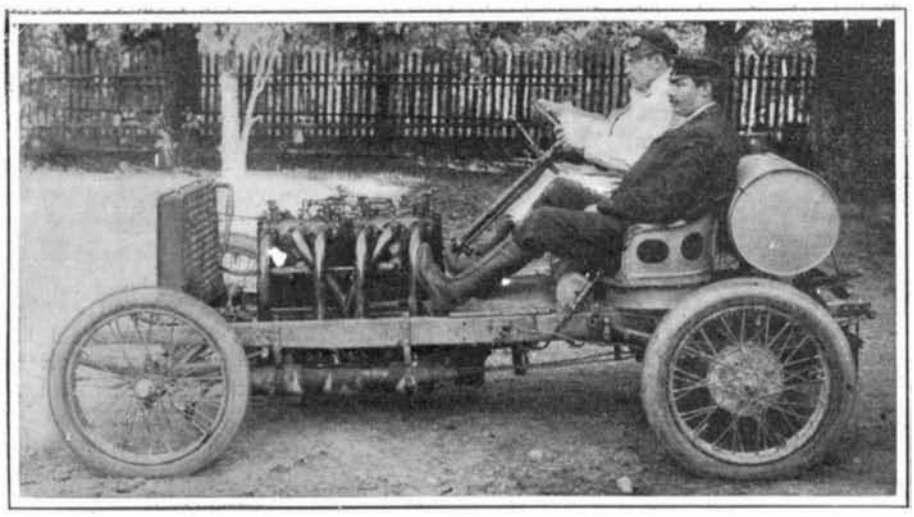
Lancia on His 110 H. P. Italian Fiat Making One of the Turns at a High Speed.

TWO OF THE LEADING CARS IN THE VANDERBILT CUP RACE.

the latter, pointing toward him. The outer rear wheel collapsed as the car swung round, but the machine did not upset. Lancia went by without colliding a second time, but was obliged to stop and make repairs. This unfortunate accident lost Lancia the race, and deprived Christie of any further chance of showing what his car could do. The night before the race he was speeding the engine with the wheels jacked up, when a connecting rod broke at the wrist pin, punched a hole through the crank case, and cracked the cylinder thirds of the way around on his fifth lap. The machine was then running as shown in our photograph, with one of the front tires missing. This tire came off at the Guinea Woods turn, and the car narrowly escaped hitting a telegraph pole as a consequence.

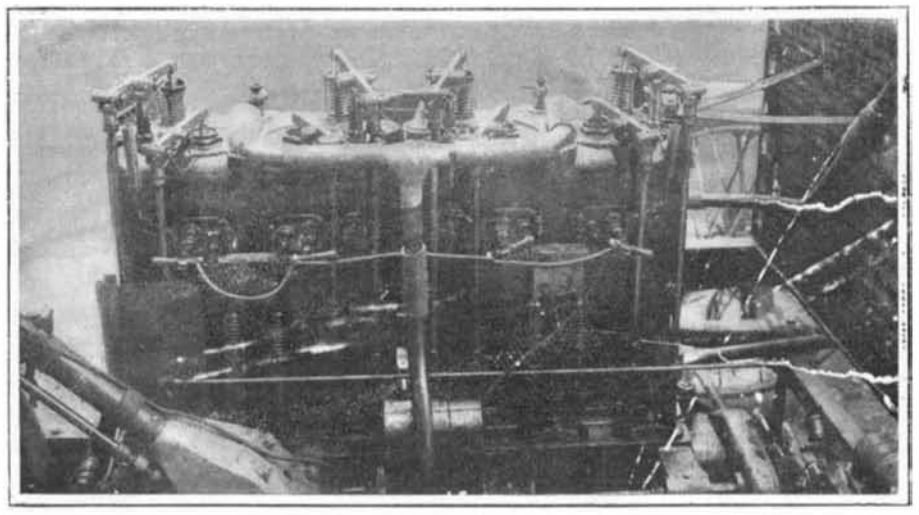
A comparison of the racers from the standpoint of cylinder capacity is interesting, as it shows in a measure how much one motor may exceed another in efficiency. The largest engine in the race was that on the Locomobile. The total volume swept by the pistons of this engine is 1,194.56 cubic inches. Next in order comes the De Dietrich engine, with 1038.37 cubic inches, while that of the six-cylinder Pope-Toledo is third with 1,017.86 cubic inches. The engine of the Fiat car, which developed the highest speed of any in the race, ranks fourth, as its 180-millimeter bore by 160-millimeter stroke gives it only 994.08 cubic inches. The superior speed obtained with this comparatively small engine shows that the arrangement of valves in the cylinder head (which was described in SUPPLEMENT No. 1545) must be very efficient, while the perfect carburetion obtained with the Fiat carbureter is attested to by the blue flame and extremely heavy explosions emitted from the exhaust pipes. The Mercedes engines ranked fifth with 984.44 cubic inches cylinder capacity, and the Panhard sixth with 966.52. The winning Darracq car had only 775.84 cubic inches. The valves of this engine also are located in the cylinder head, as can be seen in the illustration below.

An order for 1,500 steel passenger cars is to be placed by the Pennsylvania Railroad Company. It is intended to use the steel cars on the Pennsylvania fast trains. Their use will reduce to the minimum the possibilities of fatalities in wrecks as well as eliminate the liability of telescoping. The cost of the proposed order is estimated at $1,500,000. The new cars will have steel floors, sides, and roofs. There will be nothing about them that can be easily broken or catch fire in the event of a wreck. They will weigh little more than the present wooden coaches. Steel cars are now being tested on the Long Island Railroad.



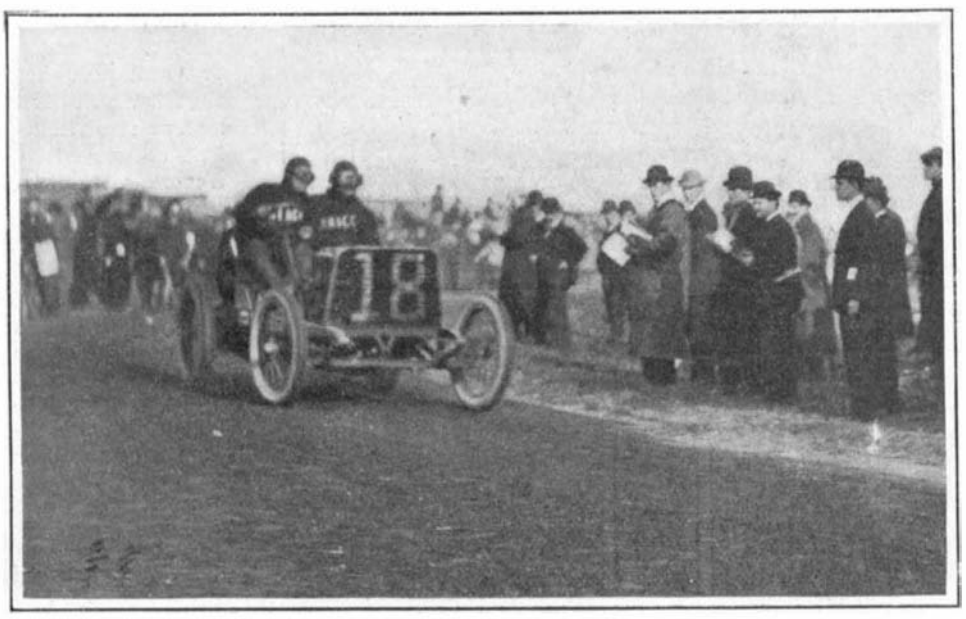
Hemery, the Winner, on his Darracq Racer. Average Speed, 61.49 Miles an Hour.

The view shows the exhaust and inlet pipes of the engine, and muffler below. Note the wire wheels, short wheel base, and light appearance of the car.

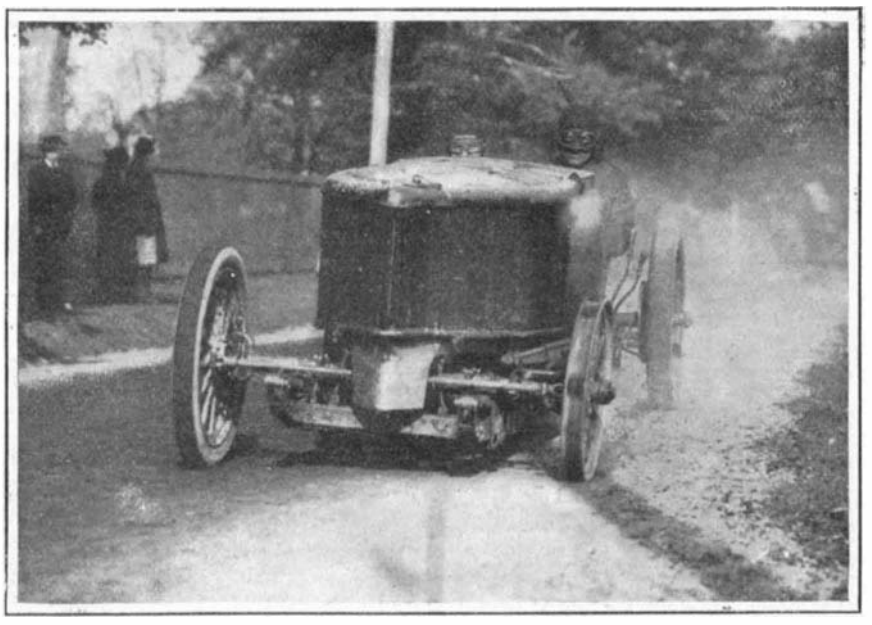


The 80-H. P. 4-Cylinder, 6.692x5.511-Inch Engine of Hemery's Car.

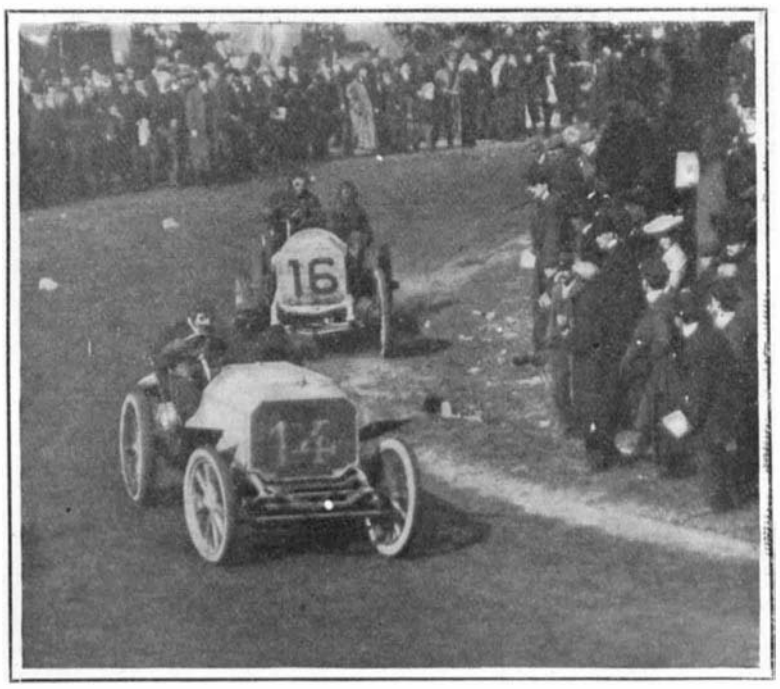
Note the valves in cylinder heads, and make-and-break igniters in cylinder walls. The engine was one of the smallest in the race.



The Winning Darracq Making the Turn at New Hyde Park.

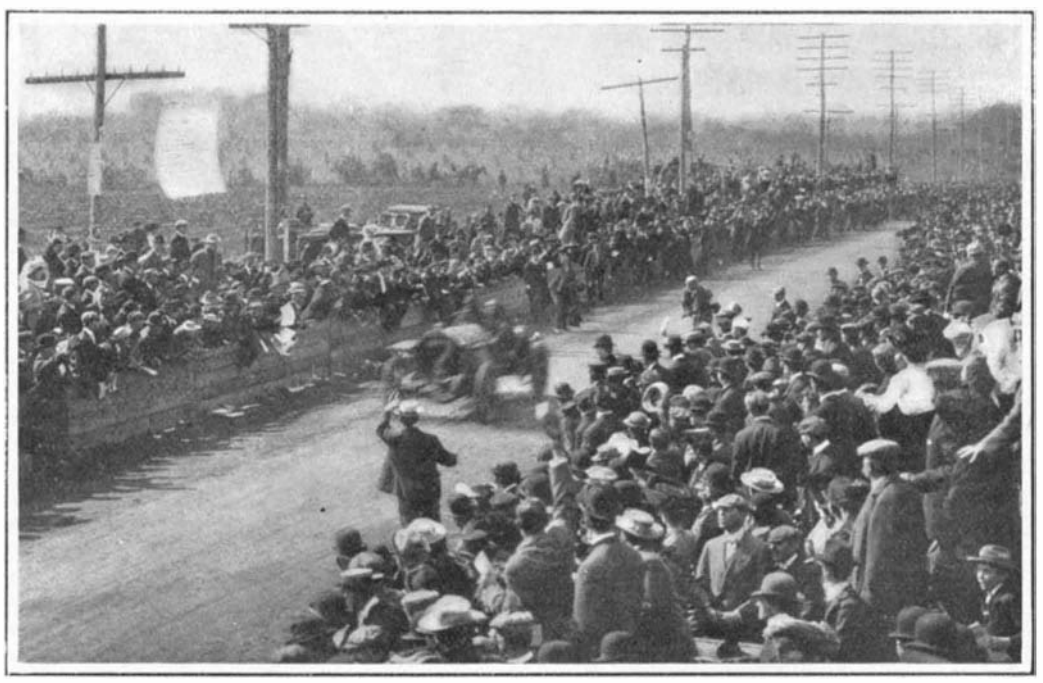


White Steam Racer Running Without a Tire.



Heath (Panhard) Closely Pressed by Chevrolet (Fiat) at a Turn.

No. 14 finished second at an average speed of 60.72 miles an hour.



The Locomobile Finishing Third. Average Speed, 56.90 Miles an Hour.

This is the first American car to win a place in an international race.

SOME INCIDENTS AND CARS IN THE SECOND VANDERBILT CUP RACE.