

# AUTOMOBILE MAGAZINE

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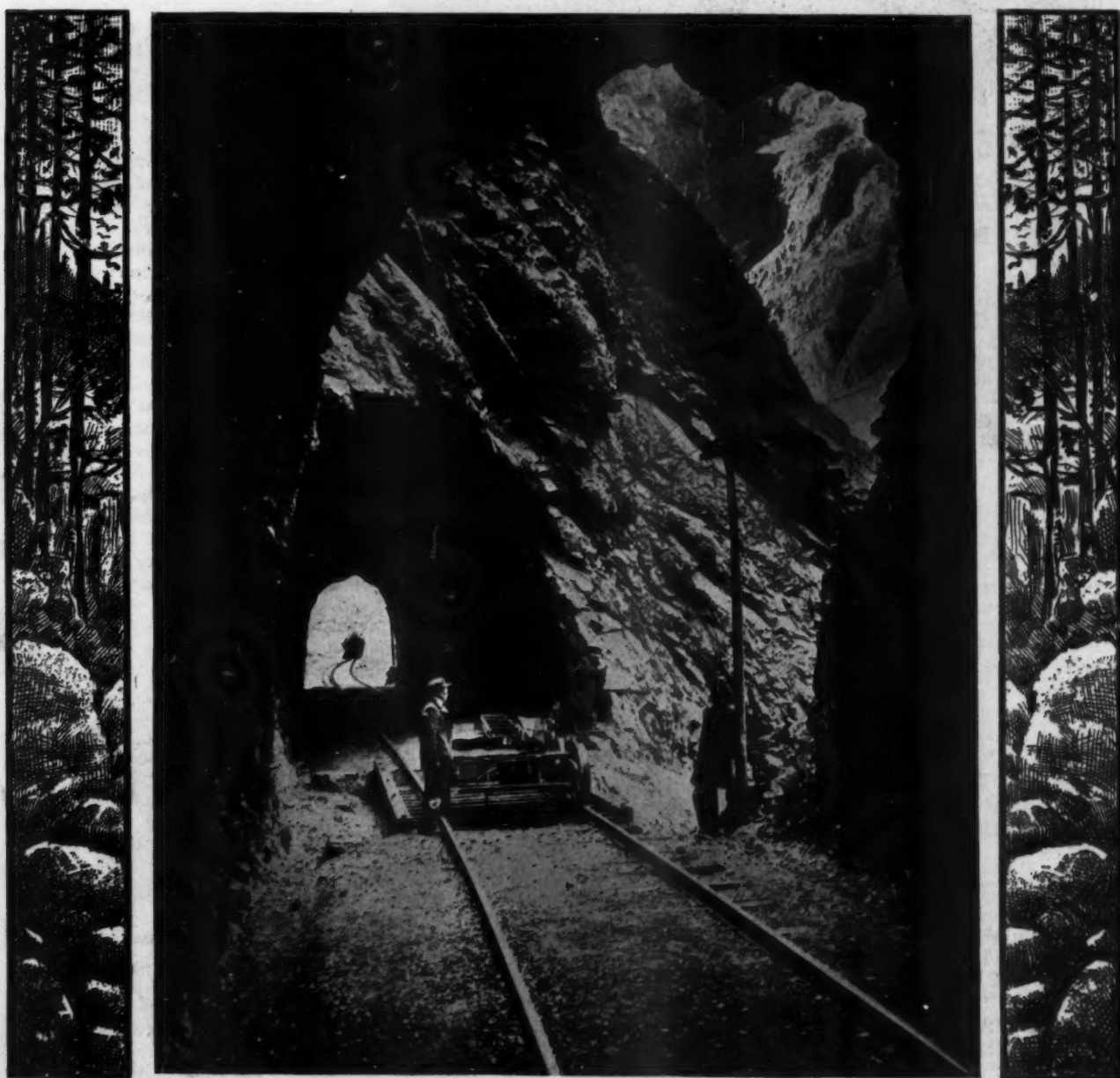
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JUNE, 1907

# AUTOMOBILE MAGAZINE

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VIEW OF A SHORT TUNNEL AND THE PORTAL OF A DISTANT ONE, SEEN FROM THE  
INTERIOR OF ANOTHER.

(Stereograph, Copyright, 1906, Underwood & Underwood, New York.)

### The Great Tunnel

There are on the Denver, North-western & Pacific Railroad as many as thirty-four tunnels in a distance of fifty miles out of Denver. The length of all

mountain rises to a height of more than 11,000 ft. above sea level, and along one shoulder of it winds the famous Simplon pass, the roadway reaching a height of 6,592 ft. The pass itself leads from



PORTAL AT BRIEG ON THE SWISS SIDE, SHOWING THE UNFINISHED ENTRANCE TO THE RIGHT OF THE PICTURE.

these tunnels would, if added together, amount to over  $3\frac{1}{2}$  miles. The illustration herewith gives a view from one of the short but similar tunnels on another road taken from the interior of the bore, and the laborious work of penetrating solid rock in order to make a pathway for the iron horse may in some measure be gained by a glance at the forbidding faces of the mountain slopes which must be attacked by the civil engineer in order that a nation's commerce may flow safely through, rather than over, these natural ramparts of stone.

A great work has but recently been accomplished in Switzerland—the successful opening of the Simplon-tunnel on the line of the Jura-Simplon railway. The Simplon mountain is one of what are called the Lepontine Alps, this range forming part of the boundary between Switzerland and Italy. The Simplon

Brieg in the valley of the Rhône, to Domo d'Ossola, a village on the river Toccia, which flows into Lake Maggiore.

One of the greatest engineering achievements of the early days of the last century was the construction of the Simplon road. It was begun in 1800 under the direction of Napoleon, chiefly for military purposes, and was completed in 1806. It was a wagon or carriage road about 25 or 30 ft. wide, and its maximum gradients were about 1 in 13, or nearly 8 per cent. The road passes over 611 bridges and through numerous galleries and tunnels cut in the rock, and in places it is built upon solid masonry which fills narrow gorges. There were about twenty houses along the road for the shelter of travelers. The road suffered severely from storms between the years 1834 and 1850.

The altitude of the Simplon tunnel is 2,313 ft., or more than 4,200 ft. lower than

that of the pass. The tunnels, for there are two of them, are separate excavations about 55 ft. apart. At present only one is completed, the other being as yet only a through heading. The mouth of the unfinished one may be seen in our illustration of the portal on the Swiss side. These separate tunnels will be connected by oblique passages for the purpose of ventilation and drainage while building and for facilities in working traffic when completed. The tunnel now in use is about 16 ft. 5 ins. wide and 18 ft. above rail level. It is lined all the way through with masonry. The cost was about £3,200,000, or about \$1,552,000,000, the Swiss and Italian governments being the principal contributors. The time taken to do the work has been 6 years and 9 months.

Numerous obstacles were encountered in the work of driving the tunnel, of which Mr. Francis Fox gives details in an admirable paper read recently before the Institution of Civil Engineers of Great Britain. Among other things he says:

"The work of excavation progressed rapidly at both ends, an advance of 18 ft. per day being frequently recorded. On the Swiss side the rock encountered chiefly was gneiss and micaceous schist. On the Italian side, after traversing about  $2\frac{3}{4}$  miles of hard Antigorio gneiss, the thermometers in the rock showed a diminishing temperature, and suddenly a cold underground river of 12,000 gallons per minute burst in. Owing to the treacherous nature of the rock at this point only heavy joists buried in quick-setting concrete were able to hold open a heading of sufficient area to give access by small hand wagons to the drills beyond. This short length entailed a delay of 6 months.

"After traversing another  $2\frac{1}{4}$  miles, hot springs with a maximum flow of 4,330 gallons per minute and a temperature of



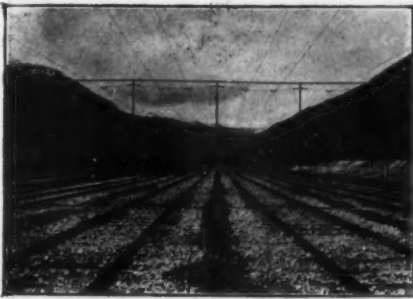
SAND BLAST CAR FOR RAIL BONDING.

about 113° Fahr. were encountered, but by taking the water of the cold spring and throwing it into the crevices of the hot, the heading was made bearable.

"During these delays to the south end, the north end had been advancing with increasing rapidity, and had reached the



central summit of the tunnel; to avoid delay, however, the heading, hitherto on the level of the floor of the tunnel, was made to rise on a gradient of 1 per 1,000. "When the advance heading reached



VIEW OF DIFFERENT LINES AT BRIEG.

the roof level of the future tunnel, working down hill was attempted, but finally work on the Swiss side was abandoned, the drills were withdrawn and the heavy iron doors which had been erected were closed March 20th, 1904. Completion was thus left to the south advance, whose drills could just be heard through the intervening 1,094 yards of rock.

"On the 24th February, 1905, at 6 a. m., the final charges on the Italian side were exploded in the roof of the gallery, blowing a hole about 8 ft. by 2 ft. into the floor of the Swiss heading above.

"The first train passed through on the 25th January, 1906, and on the 19th May the King of Italy travelled in a special train to meet the Swiss President at Brigue, who returned with him to Domo d'Ossola; the final opening to the public taking place with great festivities on the 30th May, 1906."

The tunnel is 12 2/5 miles long, being the longest in the world. The central portion is approximately level for about 1,600 ft., with 2/10 per cent. down grade toward the Swiss end and 7/10 per cent. toward the Italian end. The tunnel is ventilated by large fans, one at either end. Steam locomotives were originally used to work the traffic, but these have been replaced by electric locomotives built by Brown, Bouvier & Company, of Baden, Switzerland, to whom we are indebted for photographs of the tunnel and data concerning the electric equipment.

Referring to the electric locomotive the builders say it is of the bogie type with five axles, of which three are driven by the motors. The traction motors, as they are called, are placed between the three pairs of driving wheels, and both drive on the middle axle by means of a bar coupling them rigidly together. This axle in turn drives the other two by means of coupling rods, so that there are no gears. The motors not being on the axles, the work of dismantling them for repairs is therefore facilitated. The following are the leading dimensions:

Length between buffers, 40 ft. 6 in. Total length between axles, 31 ft. 10 in. Distance between driving axles, 16 ft. 1 in. Distance between bogies, 23 ft. Diameter of the driving wheels, 5 ft. 4 1/2 in. Diameter of the smaller wheels, 2 ft. 9 1/2 in. Weight on the driving wheels, 42 tons. Weight of the electrical portion, 28 tons. Weight of the mechanical portion of the equipment, 34 tons. Total weight, 62 tons. Normal output of the two motors together, 900 H. P. Maximum output of the two motors together, 2,300 H. P. Weight of the motor complete, 10 3/4 tons. Speeds, 42 miles per hour and 21 miles per hour. Draw bar pull at 42 miles per hour, 7,700 lbs. normal; 20,000 lbs. maximum. Draw bar pull at 21 miles per hour, 13,500 lbs. normal; 31,000 lbs. maximum.

tons a draw bar pull of 20,000 lbs. is required to obtain the specified acceleration. The traction motors are each rated at 450 H. P. and work with three-phase current at 2,700 to 3,000 volts, 16 cycles. Their momentary overload capacity is as high as 1,150 H. P. per motor at the higher speed. At the lower speed they are rated at 390 H. P., but can be overloaded continuously up to 575 H. P. The chief feature of the construction of these motors lies in the pole changing device by means of which two speeds are obtained.

Current is collected by means of the bow contacts from the two overhead lines, and connected through the lightning arresters and a line switch to the emergency switch, which is placed in the roof of the locomotive. From this the



PORTAL ON THE ITALIAN SIDE AT DOMO D'OSSOLA. ENTRANCE TO BOTH TUNNELS CLOSE TOGETHER.

The locomotives are built on liberal lines. When starting at the higher speed with a passenger train weighing 300 tons, a draw bar pull of 16,600 lbs. is required in order to obtain the specified acceleration, and when starting at the lower speed with a goods train weighing 400

circuits pass directly to two busbars and then through fuses to the reversing switch which controls the direction of working of the locomotive. Then they pass to the pole changing device which controls the speed at which the locomotive works, and finally to the motors themselves.



The third phase is brought in from the rails themselves, and, as in the other two phases, the current passes through the reversing switch and the pole changing device before reaching the motor.

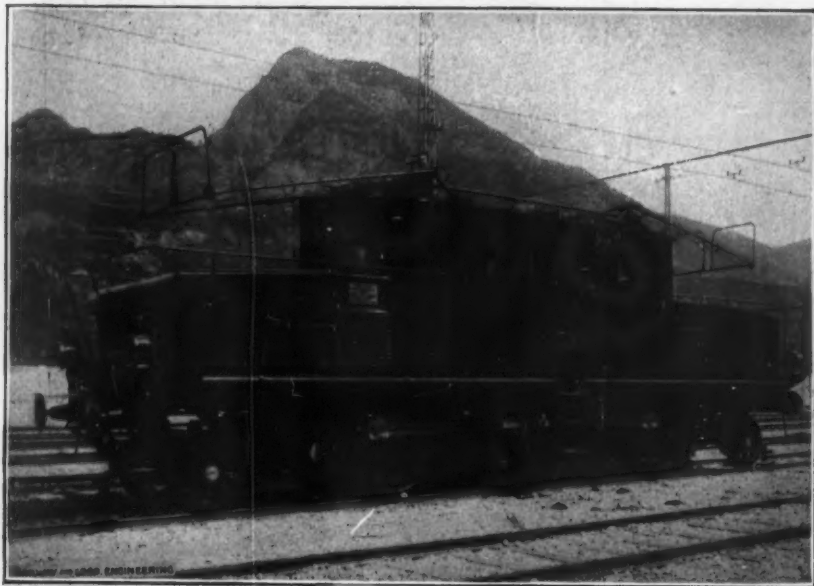
The resistances are placed at each end of the locomotive under the driver's cabin, there being one set for each motor. They are built of a network of wires, the electrical resistance of which is exceedingly high. Doors are provided on each side in several places so that they can be readily inspected.

They are artificially cooled by means of four ventilators placed in sets of two at each end of the locomotive. These are driven by small motors so connected that they start up when the main motor starts, and are automatically cut out of circuit as soon as the main motor gets up to full speed. At this moment the resistances are no longer in circuit, so that no further ventilation is necessary. These resistances are so dimensioned that they can remain permanently in circuit, allowing the locomotive to run continuously at any intermediate speed.

All the high pressure apparatus, the reversing switch, the pole changer, and the current transformer, are enclosed behind a sheet metal partition, which can only be opened when the collecting bows

from two Christensen piston type compressors driven by small electric motors. They have to supply the necessary compressed air for the Westinghouse brake, the whistle, the sanding gear and all the pneumatically controlled apparatus. Each compressor supplies  $1\frac{1}{2}$  cubic feet of air per minute at a pressure of 110 lbs. to four cylindrical reservoirs which are mounted two and two at each end of the locomotive. All the compressed air pipes are fitted with return valves so that they may be operated from either of the two controllers, so that if either of these is not in order the locomotive can be driven from the other.

It is a remarkable fact that last year saw the opening of the Simplon tunnel, its traffic worked by modern electric locomotives, with power drawn from torrents which flow from the snow capped mountain heights, the "white coal of the Alps." The tunnel unites in friendly commercial intercourse the peoples of two diverse nationalities. It is just one hundred years since the completion of the Simplon road by the great Napoleon, but the new highway does not echo to the tramp of armed men. In 1806 Napoleon was almost at the zenith of his power, with his war-loving ambition still unsatisfied, the practical embodiment of the despotic military spirit, sinister and destructive.



ELECTRIC LOCOMOTIVE USED IN THE SIMPLON TUNNEL.

are not in contact with the overhead line. There are two current collectors mounted one at each end of the locomotive roof. In the tunnel itself, where the height of the wire is 17 ft., the frame is lowered right down.

The power necessary to drive the compressors and part of the lighting is supplied by a small oil transformer fitted to the locomotive platform and connected to earth. The compressed air is supplied

The year 1906 has seen success crown the patient labor of applied science, devoted to a constructive work, as noble in its conception as it is in its achievement. The grim glory of battlefields may haply pass away, but the road from Valais to Piedmont will endure. "Peace hath her victories no less renowned than war."

Mr. R. D. Aldrich is now general sales manager of the Atwood Mfg. Co.

### A Petition in Bankruptcy

It is a sad commentary on the kind of men and methods that are to be found here and there in the automobile business, to observe the facts that are



INTERIOR OF THE TUNNEL.

brought out in petitions in bankruptcy, which, in the midst of all our prosperity, are not rare. Broken men without visible occupation and utterly unqualified for any particular calling, imagine that they see an opening in a new and growing industry. Well backed with brass and flanked with skins thicker than a rhinoceros, they are like the proverbial fools who rush in where angels fear to tread. A capital stock of \$500,000 looks good in print, and a few ciphers more do not cost much in printing. They presently secure the special agency of the coming car, whatever that may be, and there is no building anywhere big enough to accommodate their expanding business. How they manage to exist in such a hollow mockery of financial fraud and utter lack of commercial integrity is beyond our limited understanding. We are not anxious to enter into their secrets. We have heard of such things as getting a month's rent for nothing, with furniture on the instalment plan, and hanging up the groceryman, and if it is a bridal couple with health and honest intentions their poverty is no disgrace to them. But in the case of a couple of unprincipled rogues getting their heads together and scheming how to beat everybody, the high road to the penitentiary should be thrown wide open to them.

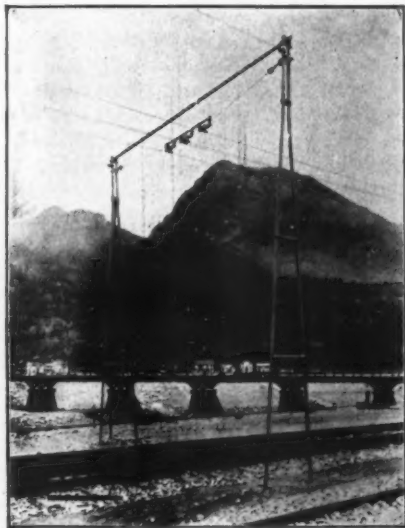
It is to be regretted that the automobile business has attracted some adventures of this kind. They nearly all come to grief. They fit Shakespeare's characteristic description of the state of man, one day it is the fresh bud of hope, tomorrow he blossoms, the third day a frost comes, and a receiver is appointed. The receiver's duties are generally of

the lightest kind, as far as receiving anything is concerned. Everything is gone. The assets are invisible. The liabilities—it would be heartless to name them. Well, they made a big show, and what is the use of kicking a man when he is down?

#### Radium and Life

A new field for speculation and research has been opened up by the results of some striking experiments recently carried out by Mr. J. B. Burke in the Cavendish Laboratory. Mr. Burke has for the past ten years been working on the subject of phosphorescence, and an assertion by Pflüger that the phosphorescence of cyanogen had the elements of life led him to test the assertion by trying to grow cyanogen in culture media. His experiments in this direction were, however, without result. It then occurred to him that Radium, being an element possessing an amount of energy, might give some indication, and a minute quantity was placed in sterilized bouillon in a test tube. In a few days cultures were obtained. These cultures, while in many respects resembling bacterial growths, did not behave like the latter in every respect; sub-cultures were not exactly a success, and the cultures, unlike bacteria, were soluble in water. That they are not crystals is shown by the polariscope and by the fact that they subdivide on reaching a certain size, a property never exhibited by crystals.

Mr. Burke hesitatingly puts forward the suggestion that the cultures may be



OVERHEAD WIRE SUSPENSION.

some primitive form of life, and he tentatively names them "radiobes." How far his results establish a connecting link between the animate and the inanimate it is impossible at present to say, and beyond claiming that his radiobes fulfil Herbert Spencer's definition of life, viz.: "the continuous adjustment of internal

to external relations," the discoverer does not commit himself. It stands to reason that further experiments, and these extending over many years, are necessary, and it is proposed to prepare such culture tubes with various radio-active substances, and carefully watch their progress. The possibility has suggested itself to the scientific mind that in the early stages

"Now, sir"—turning to the witness—"look at me. What besides sugar did you take in your coffee this morning?"

The hostler collected his forces, drew a deep breath, and, in a voice that could have been heard half a mile away, bellowed out:

"A spune! A spune, an' nothing else!"



VALLEY OF THE RHONE. LOCOMOTIVE AND CARS AT THE NORTH PORTAL.

of the earth's formation, when Radium was probably much more plentiful than it is at present, the powerful radio-activity of the earth gave rise to life, and formed the initial stage in a process which has been completed by evolution.

#### A Full Voiced Witness

"Now, sir, I hope we shall have no difficulty in getting you to speak up," said the barrister, in a very loud, commanding voice.

"I hope not, sir," shouted the witness, at the top of his lungs.

"How dare you speak to me in that way?" cried the lawyer.

"Because I can't speak no louder, sir," said the hostler.

"Have you been drinking?"

"Yes, sir."

"I should infer so from your conduct. What have you been drinking?"

"Coffee," hoarsely vociferated the knight of the stable.

"Something stronger than coffee, sir, you've been drinking! Don't look at me like that, sir!" furiously. "Look at the jury, sir! Did you have something in your coffee, sir?"

"Yes, sir."

"What was it?"

"Sugar."

"This man is no fool, my lord—he is worse!" stormed the counsel.

The Exaggerated Ego has been defined by an eminent alienist as "a disproportionate idea of importance of self, a belief that one is clothed with powers, capacity and ability far above normal or above those actually possessed." Rather a roundabout description, this, of a swelled head.—*N. Y. Med. Times.*

The people of some city suburbs who ride on automobiles are having the maps of the easiest routes to their homes engraved on their visiting cards. An old curmudgeon of one town makes the reputed route to his house lead into a swamp, which is done for the protection of his daughters.

Edward Sautz of 329 West Forty-fourth street, Manhattan; J. C. Thomas of 439 Seventh avenue, Manhattan; Mamie Sperber of 897 Oak Tree place, the Bronx, and William McDonald of 307 West Forty-first street, Manhattan, had notoriety thrust upon them one morning last month by an automobile in which they were riding bumping into a trolley car. Both cars were put out of commission and the occupants of the auto were thrown into the street. Cause, a combined reckless and inefficient chauffeur.



### Origin of Workshop Words

By W. H. SARGENT.

Wamba, the jester in "Ivanhoe," calls attention to the fact that the names of livestock are Saxon so long as they require care or represent labor, but when dressed for the table they are called by aristocratic Norman or fashionable French names. Even in our own time the same distinction may be traced. The short, strong, direct, work-a-day words are Saxon, as "anvil," "sledge," "saw," "lathe," "nail," "spade" and "plough." These are a part of the vocabulary of the working class, while the newer words, like "bicycle," "automobile" and "telephone," belong to people of leisure who have time enough to pronounce long names of Latin origin. When these words come to be used for what they represent rather than for their scientific accuracy, they are shortened to "bike," "mobile" and "phone." The many-syllabled words are usually built up out of parts of other foreign words, so as to accurately describe the distinctive features of the object. "Locomotive," for instance, coming from the Latin "locus," place, and "motum," to move; "safety valve" is from the Latin "salvus" or French "sauf" (safe) and "valvus," a leaf; "gas" is from the German "geist," to blow, and because of its airy and unsubstantial character we have our word "ghost" from the same root.

The Romans spoke of "ironing a horse" instead of shoeing, much as we now say "ironing a carriage," and as "ferrum" was the Latin for iron, we come to have "farrier" for horse-shoer. And, speaking of horse-shoer, what a volume of history, what a record of progress is locked up in the word "marshal," the commander-in-chief of the French army, since he, too, was once but a "marechal" or horse-shoer!

There are histories, as well as sermons, in stones. The ancients used small pebbles as an aid in counting and performing other arithmetical operations. These stones were called "calculi," from whence naturally comes our word "calculate." The word "scale" (weighing machine) is unique in that the word comes down to us through two distinct channels, entirely unconnected. The Anglo-Saxons weighed in an even balance, using clam shells for pans. These shells they called "scalu" and the balance, in course of time, came to be called a "scale." The Romans improved upon this primitive balance by adding a sliding poise and by graduating the steelyard into "scala"; that is, steps or divisions. Thus the word "scale" came to be applied to any graduated scale, either of measurement or of weight, and finally, for the second time, the weighing machine itself was called a "scale."

The word "templet," or more properly "template," is from the Latin "templa-

tus," vaulted, since the masons, then as now, used a wooden form or "template" for laying the arches in a vault. Gradually the name came to mean any form used in laying out or constructing work. Excentric is straight Latin, being from "ex," out of, and "centrum," centre, "off centre."

Petroleum is from "petra," rock, and "oleum," oil, and tells its own story very neatly.

Conversely "manufactured" originally meant "hand made," and has since changed about, so that it now means almost the opposite, because certainly no large part of the "manufactured" products of to-day are "hand made." We still speak of a shop as employing so many "hands," although we mean, of course, that not only the workmen's hands are utilized, but his arms and legs, his eyesight, his brain and all his faculties of mind and body. Other familiar words have completely changed in meaning. "Crafty" formerly meant having a craft or trade. "Villain" was one who lived in a village. "Rubbish" was the refuse which had been rubbed off and thrown away. "Lumber" takes us back to the time when the Lombards did a general mercantile and banking business all over Europe, a "lumber yard" or "Lombard" yard being the place where their goods were stored.

The "haft" of a knife is the part by which we have to hold it. A "tinker's dam" has not the profane meaning sometimes attached to it, since it once meant a dam of bread or putty around the work which the tinker was soldering, the same as the plumber of to-day forms a mold around cast-iron pipe when running a lead joint. A thing is, therefore, "not worth a tinker's dam" when it is of no more value than this cast-off form or mold which has been used and thrown away.

Many names are given because of the resemblance between the article and some object with which we happen to be familiar. In "dovetail," "bull's-eye" and "butterfly nut" the resemblance is so marked as to need no comment. A "spider" looks the part. A "ram" was born to push and bunt, and the Romans carved the prows of their boats and poles of their chariots to resemble the head and horns of a ram. A "snibel," or snipe bill, is a term sometimes used by blacksmiths to denote a swivel nut and hook. An "alligator wrench," so resembles the toothed and gaping mouth of the alligator that the name seems appropriately applied. This reptile, in turn, received his name from the Spaniards, who, when they first saw one, exclaimed "el lagarto!"—"the lizard." Some English sailors who were on board adopted the word, which they mispronounced "alligator," and the hideous reptile has since borne this name.

"Pig iron" used to be molded in the sand in short, fat bars a few inches apart, all attached to a main runner or "sow," from which they derived their supply until filled. In this condition they presented more than a fancied resemblance to a litter of sucking pigs attached to the mother sow. The suggestion was too evident to be overlooked, and the name "pig iron" was applied, and will doubtless always cling to iron in this form, although it is now cast rapidly by elaborately designed machinery, with no suggestion of the pig-pen.

Many people received their name from the trade or calling with which they were connected. "Jenner" was once joiner. "Webster" was one who made webs; that is, a weaver. "Currier" was once a worker in cuir, or leather. The old joke has it that the "Smiths" were all produced by the "Smith Manufacturing Co.," but older than this is the fact that the "smith" was one who smiteth, a goldsmith or silversmith being one who beats or smites the metal with the hammer.

There is a record of invention and a history of commerce locked up in the words which are derived from the names of places or of people. "Copper" derives its name from the island of Cyprus, once so rich in mines of this valuable metal. "Magnet" has its name from the deposits of iron ore in Magnesia, Asia Minor. "Tramway" recalls the name of its inventor, Outram, and "galvanism" perpetuates the memory of its discoverer, Galvani. "Maximite" is not so named because it is the maximum or greatest of all explosives, but rather because its inventor bore the name of Maxim. These studies into the origin of names should teach us the value of the correct use of words. A "smoke-stack" is a chimney or stack of brick or other masonry for conducting smoke. Any metal pipe for this purpose is properly, therefore, a smoke-pipe and not a smoke-stack. The latter is, however, in such common use, and its meaning is so evident, that it is usually accepted without criticism. We speak of a "bevel" as being any angle whatever, but properly it is any angle other than 45 or 90 degrees. A "dock" is an enclosure into which a vessel is received, and not the surrounding piling or wharfing. To speak of "falling off a dock" is equivalent to saying "falling off a hole!"

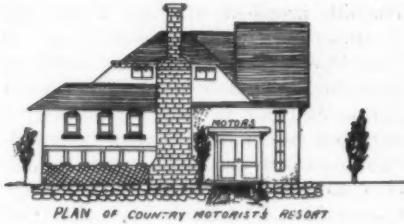
A "pair of scales" is incorrect, since only one is meant. A "pair of calipers" is a corruption of a pair of *calibres*, but is now in such common use that the original form is obsolete. We have used "rosin" for "resin," "shear" for "shore," "spile" for "pile" until both are in common use, and who shall say that one is not as correct as the other?

The word tram was used long before Outram's time. It is of German origin.



**Modern Garages in the Country**

Architects and builders are putting up some very complete and convenient garages throughout the country. Some of these garages are designed to present considerable splendor. A new era in landscape designing, and special building erection, began when the designers and contractors commenced work on modern garages. Some of these garages are fitted with all of the appliances for keeping the mechanism



of touring automobilists' machines in order. Others are equipped not only with the mechanical plant, but are provided with the necessary appliances for furnishing oil or gas to machines. Other modern country garages have installed a hotel department, specially arranged for automobile parties. While not large enough to accommodate very many guests, they can, when the occasion arises, make considerable space for an overflow. Then there are types of country garages where there are rooms installed for the weary motorist to rest awhile, have a game of cards, some soft drinks, cigars, etc. Quite a number of these institutions have been established in England and France. I have been traveling some, and have noticed a number of very well planned garages of this class in America. The Cuban tourists have adopted a few places of the kind, to correspond with the buildings and gardens of the Havana Yachting Club. There is a first class motorists' resort not far from Honolulu, Hawaii Islands.

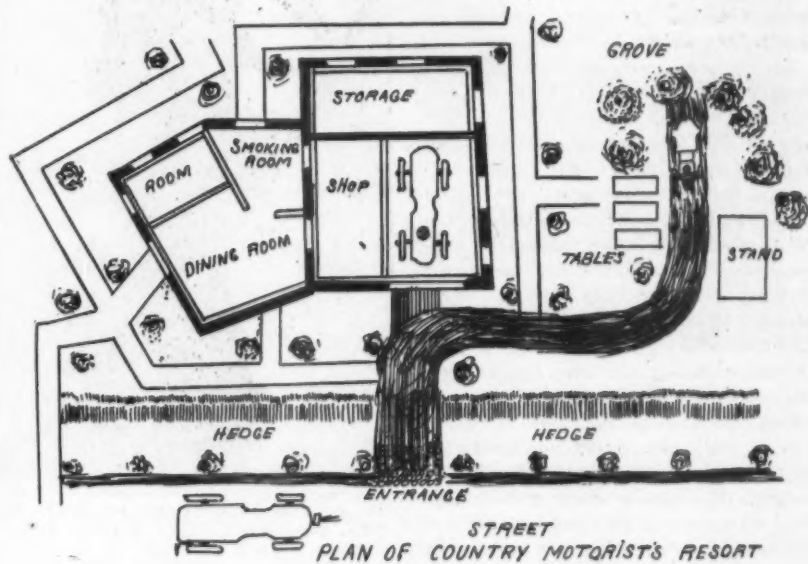
I saw a well fitted establishment of the kind in Manila of the Philippines. There are a number of such places in the United States. The annexed diagrams will give an idea of the plan of the establishment referred to. A plain of land is selected along the line of road over which touring parties pass from city to city. Sometimes the resort is installed about midway between two important points, with the calculation of providing a half-way house. If there is a grove of trees available, all the better. The grove is one of the important factors. The arrangement is as shown. A hedge is put in along the roadside, separating the dusty street from the interior of the resort. A gravel or cement road is put in, leading from the main road to the center of the place. The road is given a turn

to the right to the grove where there are tables with refreshments and a stand handling ice cream, soda, etc. There are plenty of lights provided for the grove, so that night parties may stop there. If an electrical plant can be installed, or if the electrical wires can be cut into along the road, and the current carried to some outside arc lights, the whole place can be liberally lighted. In the event of the absence of the electrical fluid, an acetylene plant can be used, and the pipes carrying the gas extended to the various required points of illumination.

Light is an important factor in the automobile resort. One owner tells me that occasionally his lights go out, due to a defective electrical connection, and that while the establishment is in semi-darkness the hurrying tourists go speeding by without a thought of the resort, but that when the place

forge and a number of duplicates of automobiles. Hence if a machine breaks down, the man in charge of this room can get out the necessary outfit to effect a repair. There are some extra tires of different sizes kept in stock, all ready to put on when needed. Sometimes the tourist stops to get a repair made to his machine, and observes the facilities offered for a little rest and amusement, and carries awhile. He spends a moderate sum of money. He needs a lunch, a cigar, and something to drink. He may want a lunch put up to carry with him. He will see that he can be furnished with these articles and he invests the necessary funds to procure them.

He notices the employes about the place and observes that one of them is in readiness to clean the machine, oil the bearings, fill the tanks or test up at any point. Therefore he arranges to



is brilliantly lighted the tourists almost always stop to take advantage of the hospitality of the place.

The proprietor of a resort like this should be an automobilist. He ought to belong to one of the neighboring clubs. He will make many friends and these friends will patronize his institution. He should be ready to get out touring parties' suppers at short notice. Therefore he has a dining room in the building on the place, as shown in the plan of the structure in the diagram. There is an apartment for the cook, with a range, where light foods can be prepared. There is a smoking room for the guests. A bath and toilet are connected to the room.

The mechanical department is in the shop and storage room. The storage room is arranged for the storage of anything that comes along. The shop is provided with a bench, vise, drills,

have some necessary repairs and cleaning done while he dines.

A tourist may be stalled for the night and is glad to go to a place which is fitted out especially for automobile people. He feels at home there. The average country hotel cannot provide him with proper shelter or protection for his machine. One man tells me that he left his car at the stable, and a horse kicked a wheel to pieces. Another states that when he went for his machine after dining at a country hotel, they asked him to wait a little while until the son of the proprietor returned with it. Another said that his machine frightened a farmer's horse and the farmer's wagon was smashed up and the farmer agreed not to go to law if the offending owner of the machine would buy him a new wagon. Another found some country gawks amusing themselves by sketching views

in the dust on the surface of the body of the car. And so on. Therefore when there is a place purposely arranged for the automobilist, in which he can feel sure that his interests are protected and that his machine will not be abused, he is very liable to take advantage of the same. "R."

### New Floating Palace

A new floating palace has commenced carrying passengers across the Atlantic, the vessel being the Adriatic, belonging to the White Star Line, and built by Harlan & Wolff, Belfast. This is the largest and most sumptuously equipped steamer afloat.

The Adriatic is 725 feet 9 inches long, 75 feet 6 inches beam and about 50 feet deep. Her gross tonnage is nearly 25,000, and her displacement about 40,000 tons. She has nine steel decks and is divided into twelve watertight compartments. Her cables are  $3\frac{3}{8}$  inches in diameter and weigh nearly ninety tons. Her anchors weigh about eight tons each.

The general arrangements of the Adriatic are similar to those of the Baltic. A special feature is her Turkish baths, which are as complete and well equipped as the best ashore. She also has an orchestra, the first ever placed upon a British passenger steamship. She has a gymnasium and a system of submarine signalling which gives warning of approach of another ship through several miles of water.

Altogether the Adriatic can carry 3,000 persons, including the crew. Her first class dining-room is panelled in the fashion of Charles II., and decorated in ivory and gold. Over the middle of the room is a dome and under it are paintings of scenes in Switzerland, Italy, the Yellowstone Park and the Rhine country. The same scheme of decoration is carried out in the second-class saloon. In all respects she is fitted throughout with the latest appliances for safety and comfort.

### Sealed Bonnet Contest

Arrangements for the "sealed bonnet" contest have been completed and will begin at the club house in New York City on June 19 and continue four days, closing on June 22. The contest, which will be among the most strenuous ever held, is open to all regularly catalogued stock cars of domestic or foreign manufacture, and the object aimed at is to afford the opportunity of demonstrating under severe touring conditions, without adjustments, repairs or replacements of any kind, excepting tires, the continuous running qualities of the modern stock touring car now offered to the public. The distance travelled will be approximately 150 miles per day for stock cars, in all classes except runabouts in Class

A, which will be required to cover 175 miles per day, or a total of 700 miles.

Class A embraces stock cars, complete, without tops, listed at \$3,000 or over. Class B includes cars listed between \$1,500 and \$3,000. Class C comprises cars listed at \$1,500 and under. In each



THE HOWER TROPHY TO BE WON BY THE RUNABOUT THAT MAKES THE BEST SCORE IN THE A. A. A. TOUR, JULY 10TH-23D.

class the cars are complete with the exception of the tops.

The daily runs will be approximately as follows for all classes except runabouts in Class A:

First Day—New York to Poughkeepsie and return.

Second Day—New York to Pawling and return.

Third Day—New York to West Haven and return.

Fourth Day—New York to Bridgeport, Danbury and return.

Runabouts in Class A will follow the same routes, with an additional twenty-five miles each day.

Each competing car shall be equipped with an odometer.

### Industrial Peace

Some time ago Congress passed an act establishing the foundation for the promotion of industrial peace. This

was done at the suggestion of President Roosevelt, who provided a fund for this purpose out of the money he received as the recipient of the Nobel Peace Prize. Four more trustees have just been added to those already appointed. The first members were the Chief Justice of the United States, the Secretary of Commerce and Labor, and the Secretary of Agriculture.

The newly appointed trustees are John Mitchell, president of the United Mine Workers of America; Marvin Hughitt, president of the Chicago and Northwestern Railway; Seth Low, of New York, and T. G. Bush, of Birmingham, Ala. The first of these represents industrial labor in the broad sense of the word and is an able man. The railroad president, who is one of the broadest-minded men in his class, is the representative of capital. The other two are public-spirited citizens of the highest reputation, who on this board represent the general public. The President is to be congratulated on his selection of representatives.

### Horses and Motors

While a horse suits our family at present much better than an automobile would suit it, I am going to be tolerant of automobiles, even though they abrade the nerves of our horse when he meets them on the road and make it unsafe for Blandina to drive him. I guess they are just a part of the *vis medicatrix naturae*; phenomena gradually developed from the disease called city life, and adapted to mitigate its severities, if not to cure it. They certainly do help people to get out of cities, and though they may seem to make it somewhat too easy for them to get back, that is not a real defect. Anything that takes city people to the country is a good thing. It is good for them, and good for the true country dwelling people, who make money off them. Moreover, anything that makes country life attractive to successful money-makers and induces them to retire from business and let some one else have a chance is very helpful indeed. In so far as automobiles serve that use it is pretty certain that they do useful service.—*Harper's Magazine*.

The lands most blessed by nature are rarely the abodes of peace, prosperity and happiness. To labor and to wait lead the way to the joys of life. It is said of Cuba, "Earth here is so kind, that just tickle her with a hoe and she laughs with a harvest." She also brings forth abundance of misery. To that island the lines of Watts are very applicable:

"Every prospect pleases,  
And only man is vile."



### Benjamin's First New Model Aerocar

C. A. Benjamin has just brought out his first new type of car since assuming his position as vice-president and general manager of the Aerocar Company. Although this concern builds both water and air cooled cars, Mr. Benjamin has stuck to his past reputation and is making this initial car an air cooler.

The car was designed by Leo Melanowski, chief engineer of the Aerocar Company, which in itself is a guarantee of its high quality and snappy appearance. It is of the touring runabout type and has that clean cut, racy appearance that appeals to those who desire a car of this class.

In many instances such cars have savored strongly of the race track and have therefore received the special attention of rural constables, even though their owners were not driving as fast as those in other machines. Mr. Melanowski has succeeded in eliminating in this car those sharp, harsh corners, substituting instead fine, pleasing lines that give harmony and beauty.

While appearance has received a great deal of care and attention, utility has not been overlooked. Like all Aerocars this new model is "Built for Service," and the designer has succeeded in imparting to it the comfort of a touring car. But for practical service, this new model will meet a demand that has been given but little consideration. It is the requirement of the suburbanite in having a car with which he can carry a trunk, or two trunks if necessary, from the station or city to his country home.

The nobby rumble seat is convenient for a third person or for the driver who takes the machine back home from the station. Underneath it is a space large enough to put a suit case, robes or wraps where they are under lock and key. Remove two bolts and the whole back can be easily set off and left at home. This arrangement affords a spacious deck for carrying purposes. It is covered with rubber and bound with brass, giving a neat durable finish.

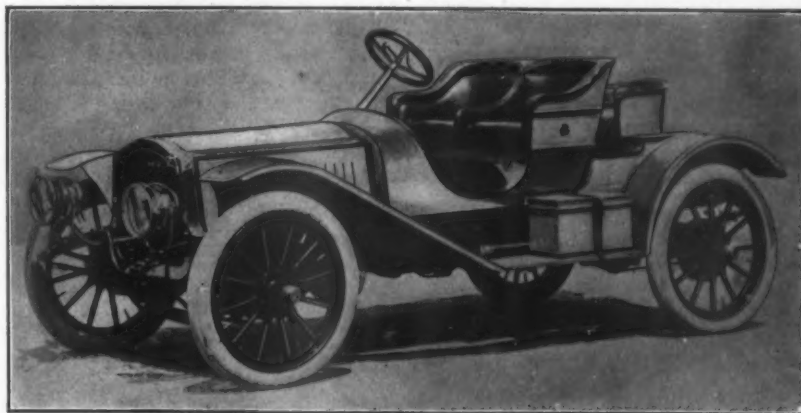
The mud guards are designed so that they are very effective in protecting the car from mud and dust. The apron guards, the inside well and the flange at the outer edge prevent the water from splashing outward where it afterwards blows on the body of the car and the passengers. This flange also strengthens the guard at this point. Strong air currents are not produced and but little dust is raised.

Briefly the chassis has a wheelbase of 105 inches with  $34 \times 3\frac{1}{2}$  inch wheels. The motor is 20 horse power, four cylinder, air-cooled. The new Aerocar multiple disc clutch is used. The transmission is of the sliding gear type with three speeds forward and reverse. A shaft drive with

bevel gear floating differential in the rear axle is used.

This multiple disc clutch is a feature that is entirely new, and that will commend itself to those who are familiar with this type. It has 34 light thin discs, alternating steel and bronze. The discs run in an oil bath and allow of the taking up of the load very gradually. The car can easily be started on the high gear if it is desired. This makes the clutch ideal with the sliding gear transmission as the drive is direct on the high gear.

The batteries are carried in a box strapped on the running board on the right side of the car. The connection between them and the coil is short so that it is easy to locate any possible ignition troubles. There is no crawling under the car to find a defective wire.



BENJAMIN'S NEW MODEL AEROCAR.

On the left running board a similar box is strapped and is used as a tool box. They are both covered with rubber and bound with brass, thus making a convenient step for entering the back of the car.

The machine is finished in a French gray with black moulding, while the gear is Italian red. The upholstery is of red leather, and instead of the old tufted style, has that snappy appearance that is more in keeping with the rest of the car. It makes the seats exceedingly comfortable.

Benjamin Disraeli, Lord Beaconsfield, who was Prime Minister of England, was the son of a Jew who became an adherent of the Episcopal Church. Lord Beaconsfield was proud of his race. On one occasion when a bovine minded Englishman taunted the premier with being a Jew, Disraeli retorted that his ancestors were priests when the forbears of the Englishman were savages clothed only in their native ferocity.

A famous performance of Lord Beaconsfield when he was Prime Minister was making Queen Victoria Empress of India. There was fierce opposition among certain politicians in Great Britain

about the move to make the Queen an Empress, but the mass of the people were gratified.

Lord Beaconsfield was fond of telling a joke even when it was against himself. "You know," he once said, "I have the honor of being one of the elder brethren of the Trinity House. Well, there is a special uniform belonging to that particular office. One day I was about to attend a levee at St. James' Palace, and my valet laid out my diplomatic uniform ready for me to put on. With implicit confidence in him I put it on and went to the levee. On appearing before the prince and making my bow his royal highness jocularly remarked: 'It won't do; you're found out.' 'In what, sir?' I inquired. 'Oh,' replied the Prince, 'you've got the wrong trousers on,' and on look-

ing down I found to my horror that I had got that diplomatic uniform coat on with the Trinity House trousers. It seemed to amuse the Prince immensely, who is now King Edward, a particularly keen observer of people and things."

In an edition of Victor Hugo's "Les Miserables," published in 1862, the word "chauffeur" is given this definition: "A band of felons who, about 1794-95, burned the soles of their victims' feet to make them confess where they kept their money." The expression seemed to be quickly taken up by fashionable Frenchmen, for in a book in the writer's library published in 1765 a fop takes up his valet as his chauffeur.

#### A Grafter

Mrs. Bill—"Do you think that skin-grafting operations by Dr. Doemall will prove a success?"

Dr. Bill—"Why, most assuredly. He's one of the most noted grafters in the profession."—Judge.

Mr. Chas. B. Shanks, of the Winton Co., is making his regular semi-annual visit to Pacific Coast agencies.



## Information Bureau

We are always pleased to publish answers sent to this department and we invite the sending of questions likely to prove of general interest. We answer by mail questions relating to the merits of various cars or automobile appliances.

### Sticking Plaster

Auto, Trenton, N. J., writes: Can you favor me with a recipe for a glue that will hold a strip of felt to tin or other bright metals? A.—Shellac dissolved in wood alcohol may do what you require.

### Cleaning the Engine

C. B., Fremont, Neb.—A good method of cleaning a gasoline motor is to admit a small jet of steam if convenient. It will clean all the worn out oil from the engine very quickly. Compressed air may be used if steam pressure is not at hand. When neither can be had kerosene may be used to advantage.

### Tinning an Article

Garage, Buffalo, N. Y., writes: I have been trying to coat an iron bowl with tin, but have not succeeded. Can you give me directions? A.—The vessel must be polished to a clean surface. Dip in hydrochloric acid in which zinc has been melted until it would dissolve no more. Then dip the article in the liquid tin, allowing it to stay there until thoroughly heated. Remove and wipe off all loose tin.

### A Question of Pulling

R. Y., Morristown, N. J., writes: Suppose there are two ropes 50 feet long, one of them attached to a post and the other to an automobile trying to start. A number of men are attached to each set of ropes, one crowd trying to keep the automobile from starting, the other pulling at the post. Which set of men will exert the greatest pull? A.—There ought to be no difference.

### Salt in Ocean Water

Wat. T., Albany, N. Y., asks: How much salt does the water of the ocean carry per gallon? A. The water of the ocean varies in the quantity of salt it carries. In the middle of the Atlantic the salt density is about 4 ounces to the gallon. In tropical seas the quantity of salt may be double what it is on the route from New York to Liverpool.

### Petroleum

J. B. S., Wilkes-Barre, Pa., writes: Gasoline or its parent rock oil is such an important article to automobilists that I

should like to learn the origin of the oil pumped from the bowels of the earth. Is there any sane theory about its origin? A.—There are numerous theories about the origin of petroleum, but the most probable one is that it is created by the natural distillation of shales and other hydrocarbons deep under the earth's crust.

### Power in Backing

D. C., Newark, N. J., writes: We have been arguing about the efficiency of our automobile backing up and I hold that an automobile could be made to work as well backing as going forward. It is well known that a locomotive pulls as much backing as she does going ahead and I do not see why an automobile should not do the same thing. What do you say? A.—We think that you are perfectly right, except that a locomotive seldom works as well in back as in forward gear.

### Black Smoke

J. P., Willimantic, Conn.—Black smoke may be caused by too rich a mixture of gasoline and air or by the use of too much oil in the cylinders. Priming the carbureter is one cause that will produce smoke, and should be avoided except perhaps at starting. Priming is caused by depressing the float and permitting the gasoline to overflow the spray-plug. In addition to the smoke nuisance, an overflow of gasoline also causes a lack of force in the explosion, a strong odor from the exhaust and an accumulation of soot on the spark plugs.

### Spark Plugs

S. V., Philadelphia, Pa.—The chief cause of breakage of the porcelain insulator on spark plugs is screwing them too tight into the cylinders while the cylinders are cold. The expansion of the metal while heated has a crushing effect on the light spark plug, with the result that the thin and brittle porcelain is readily fractured. If another plug is not at hand in case of breakage, it is the best practice to remove the plug and so avoid unnecessary compression. It is necessary to disconnect the coil and so avoid puncturing the insulation.

### Cracked Castings

Chauffeur, Philadelphia, writes: A cracked casting sometimes puts an automobile out of commission for days until a new piece can be procured from the factory. Can you give me directions for repairing cracked castings? A. Clean the surface of the fracture

with a file, then take a piece of wrought iron and clean it also by filing. Place the wrought iron in the fracture, wire the parts together and braze with spelter solder, using borax as a flux in the usual way. This makes a very strong job.

### Lubrication

S. K., Larchmont, N. Y.—It is not necessary to make any particular change of oil in warmer weather. The temperature near the gasoline engine is nearly the same all the year round. The oil cups should be placed near the motor, where the temperature is constant. The lubrication problem is one depending materially on the design of the motor car, some vehicles requiring many more cups than others. It may be added that graphite is a fine lubricant if sparingly used, and when made into a paste with grease is very useful in lubricating roller or ball bearings.

### Wants Royal Road to Engine Driving

B. F. L., Portland, Maine, writes: I have been connected with automobiles for five years, first as helper in a garage, now as chauffeur. I can run and care for any kind of automobile and now I am ambitious to become a locomotive engine driver. Could you put me on the way of obtaining a job of that kind without going through the preliminary drudgery? A.—We are not acquainted with men in the United States called "engine drivers." Men who run locomotives are known as locomotive engineers. If you are ambitious to obtain that job you will have to endure the preliminary drudgery or keep away from it. Running an automobile would be no more use as training for running a locomotive than running a sewing machine would be. People ambitious to become locomotive engineers generally get a job wiping engines or helping in the engine house. From that they graduate to firing and after wielding the scoop for five or six years get handling a switch engine. That is a sensible line of training, but it is not of a kid glove character.

### Spring in the Country

Mrs. Dosem—Now, Willy, don't git rambunkshus! Your Paw give this medicine t'old Dobbin and the yearling bull yestidy an' they never made no fuss whatever!—Puck.

The endurance contest of the New Jersey Automobile and Motor Club proved highly popular.

# EUROPEAN NOTES, NEWS AND COMMENTS

By *A. F. Sinclair*

## THE TARGA FLORIO RACE.

This race for so-called touring cars was run on April 21, and resulted in a hollow victory for the Italian industry. And no wonder. As a race course, it is unquestionably the most trying in the world so far as motor cars are concerned, and as the Italian drivers have the best chance of practice, they are best acquainted with its many peculiarities. But some of the French drivers had also pretty well lived on the course for weeks before, so that the Italian drivers had not all the knowledge on the subject there was going. Forty-six cars started in the race, the distance being about 278 miles, or three times around a course between 92 and 93 miles in length. At the end of the first round it was found that the first half dozen cars were Italian, an Isotta-Fraschini, driven by Trucco, having made the best time. The second round found the French cars in better positions, Wagner (Darracq), who was seventh in the first round, having pulled up to second place, while Lorraine-Dietrich (Duray), was fourth, the leading man being Nazzaro, on a Fiat, with Lancia, on a car of the same make, third.

The third round was keenly contested, but Nazzaro maintained, indeed increased his lead, and won from Lancia by about twelve minutes, the winner's time being 8 hrs. 17 min. 36 sec., and the average speed nearly thirty-four miles an hour. Wagner was the victim of a very bad side slip, which threw him out of the running, but Duray maintained his place on the line, Fabry, on an Itala, taking third place. Twenty-eight of the forty-six finished, which, considering that there were some three thousand turnings and scarcely a level furlong in the course, was a wonderfully good display. The best performance as a team was made by the Fiats, finishing first, second and eighth; next by the Isotta-Fraschini cars, the Italian DeDietrichs, all three of which finished in the first eleven. It would be idle to disguise the fact that the hollow Italian victory is a blow to the French racing prestige. It is true that the Italian cars numbered two to every French one, but the first three were all Italian, while the French cars only numbered three in the first ten, and four in the first fifteen. There were three British cars in the race, Daimlers, and all three finished, the first being thirteenth in the race. Of the eight German starters, only three, the whole Berz team, finished, one of them being seventeenth. It does not look any too hopeful for the Kaiserpreis remaining in Germany.

## OUR BRITISH ROADS.

The roads in the United Kingdom were

capable a few years ago of bearing favorable comparison with any national system in the world, if the trunk roads of the French military system be excluded, but it has to be admitted that, as a result of the growing use of motor cars, the road surfaces are rapidly deteriorating. There are probably more motor cars in use per square mile in this country than anywhere in the world, and in the vicinity of London the effect of the excessive traffic on the roads is the creation of a public nuisance. In the London metropolitan area there are registered well on to 30,000 private cars, and as there are millions of people living within twenty miles of Charing Cross who are without the metropolis, a few thousands of cars fail to be added. When, in addition, the cars belonging to makers and agents, being driven about for trials, with a view to sale, are added, it will be seen that on the best roads around London there must be precious little pleasure

is accompanied by a movement in favor of national control. At the present time every county has control of the roads within its own area, with the inevitable result of much variation in the quality of roads in adjoining counties, and, what is of much more importance, a considerable waste of public money in payment of unnecessary officials. Every county pays a road surveyor, whose work of supervision could well be extended without detriment to its effectiveness.

## AMERICAN COMPETITION.

It appears that some motoring paper in the United States has done us the honor of suggesting this tiny spot as a suitable market for American cars, and one of our big London dailies, which makes a special feature of its motoring news and protectionist views, went pretty nearly into hysterics over the proposal. (That statement is 'all rubbish, because, of course, no paper could go into hysterics, any more than a man's hat could



EVIDENCE OF ACTIVITY AT THE CORBIN PLANT IN HARTFORD, CONN.

for other people who use the roads. Cyclists especially are suffering, and it is alleged that in many directions near the metropolis they are being driven from the main roads altogether. The disintegrating effects of the suction from large pneumatic tires break up the binding in the road surface, and the result is a loose, stony surface with plenty of dust in dry weather and plenty of mud when it is wet. The feeling in favor of drastic alterations in the methods of road construction, and especially in the form of material used, is growing rapidly in this country, and it

go into delirium tremens or his umbrella have locomotor ataxia.) But most people in the United Kingdom have remained calm. We are used to American competition, more or less. A great part of the time, and everything considered, we appear to be holding our own fairly well. Therefore, send over your cars by the shipload by all means, and if our makers, with material and productive plant cheaper, and with a lower wages bill, as the result of a less expensive standard of living, allow American makers to manufacture and sell cars of equal value intrinsically at a lower price, then our



makers will deserve to go under. But I scarcely think they will. On the contrary, they are all so busy and have such large orders that they can afford to lay down their engines and cars in large batches, thus obtaining the greatest benefit from specialization and standardization (words blessed almost as that pious mouthful, "Mesopotamia"), and when they find themselves face to face with bedrock prices they will still be able to learn of an intended American, or French, or German invasion with the most complete indifference. By all means, let us have those cars over. We can try to sell them, and if we don't succeed at home they can always be sent out to the colonies and be there sold at a profit. In this country we are at present discussing the question of preference with British Colonies, and it looks as if a British Government which came into office pledged to absolute free trade may be compelled to concede something to public opinion. Such a measure would have a serious effect on the sale of American manufactures, motor cars or other products, in all British possessions.

#### PEKIN-PARIS.

On June 8 there will start from the Chinese capital a number of motor cars of various types, makes and sizes for Paris bound, by way of the Mongolian desert and Siberia. A tough journey, but one which a great many adventurous spirits besides the participants would have been pleased to make. There will be plenty of hard toil, many repairs, many fordings of rivers and rescues from morasses, and there will also be some danger, but there will also be lots of fun, and fresh air, and open-air exercise, surely a surfeit of good things. Twenty-nine vehicles left Marseilles during the second half of April per steamer to Shanghai, thence to Peking, and start. Compared with the trans-American journey, the little trip across Asia and Europe should be found much longer, as well as a good deal more dangerous. The Heathen Chinese in his native fastnesses is not the mild-mannered person who favors us with his assistance in the matter of laundry work and in other directions. In the western provinces of the Chinese Empire there is a distinctly hostile feeling toward the foreign devils, as they are graciously pleased to describe the Caucasian, and our adventures will probably find their greatest source of safety in their speed. To be able to outpace rumor is one of the advantages of the motor vehicle, and that means more than appears on the surface. From Peking to St. Petersburg in a straight line is about 3,700 miles, and it will be surprising if the travelers cover less than twice the distance. They will keep together till Berlin is reached, and then make a race for it. It is to be hoped

that all the twenty-nine (if they start) will survive to get to the German capital city, but, in the words of the poet, "I hae ma doots."

#### THE TOURIST TROPHY ENTRIES.

The total number of entries for the big and little tourist trophy races are forty-seven, and there were forty-nine entries for the single race last year—the deduction to be made is fairly obvious. The causes for want of popularity are various, among the most potent, without doubt, being the fact that the tourist trophy type of car is not a marketable vehicle, and as the regulations bind the entrants to supply orders received for cars identical in every respect with those taking part in the race within three months afterward, it means that the makers must make up their minds to manufacture cars which they know to be something of the nature of freaks to meet that demand. The object of the race, or races (as this year there are two, for light and heavy cars), is stated in the announcement by the promoting club as "a race for the development of ideal touring cars," but the object is very far from being realized. The essential condition of the race is that cars must be capable of covering twenty-five miles to the gallon of fuel in the case of the lighter type, and seventeen miles, I think, in the case of the heavy machines. This means that everything else is subordinated to that one factor, in itself not an extremely important one. In this country the legal limit of speed is twenty miles an hour, and cars designed to travel at double that speed, while consuming only a gallon of petrol in twenty-five miles, embody peculiarities of design which should not be found in the ideal touring car. Something more is required in a car than the mere power to develop high speed for 240 miles, a test under actual touring conditions, and until that is embodied in the competition the ideal car which the Royal Automobile Club appears to yearn for will be some time in arriving. On account of the small number of entries, the two races will be run together on May 29, instead of one on the 28th and the other on the 30th, as—in anticipation of a huge list—had originally been intended. The new arrangement is something of an advantage in these days of hustle in that it will permit of those on the mainland seeing the race—two in one—by wasting only three days on it.

#### THE GERMAN CONTESTS.

One of the most curious features of this year's racing competitions and reliability trials in Europe is the great popularity of the two great German events. For the Kaiserprizes there are ninety-two cars entered; so many, indeed, that the number of cars per maker may have to be re-

duced to prevent the first car to start having a lap completed before the last cars have got away. Either the cutting down process will have to be adopted or the time between the starts will have to be reduced. In the Herkomer Trophy competition, which includes a reliability trial, a race on the level, and a hill-climbing contest, all under trying conditions enough, the large number of 176 cars are entered. While entries for these events have been coming in, those for French and British events have also been under way, and it is a little amusing to contrast the poor support given by the makers to the French and English clubs with the whole-hearted support received by the German club from the trade in the Fatherland. The small number of entries for the Tourist Trophy race has already been referred to, and in the case of the French club it is only necessary to say that for the Grand Prix and other contests the last dates for receipt of entries has been extended in the hope of increasing the number. Of course, the German trade are rather unused to competitions, and it may be either that their club has an absolutely impartial and perfectly efficient body of officials, or that they have not been found out; probably the latter, in the matter of efficiency, if one may judge by some of the incidents of the last Taunus race.

#### Sleep and Old Age

There is no question but that the quantity of sleep required steadily diminishes from infancy to old age. This is a rather interesting exception to the general rule that, as in so many other matters, old age returns to the needs of infancy. As regards sleep, old age is more remote in its needs from infancy than is any other period of life. If elderly people obtain good sleep during the first few hours, and if they have not lost that delight in reading which we all had in youth, but which so many of us curiously lose, their case is not to be grieved over. The special value of the earlier hours of sleep, by the way, has been proved by psychological experiment. The popular phrase "beauty sleep" is well warranted. It is the early (the deepest) hours of sleep that make for health and beauty.

A village doctor whose most troublesome patient was an elderly woman practically on the free list, received a sound rating from her one day for not coming when summoned the night before.

"You can go to see your other patients at night," she said; "why can't you come when I send for you? Ain't my money as good as other people's?"

"I do not know, madam," was the reply; "I never saw any of it."—*Chicago Med. Recorder.*





**A PRACTICAL JOURNAL OF  
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**Business Activity**

It is gratifying to observe that from every part of the country comes the indications marking this as the greatest season in the automobile trade. All of the manufacturers are overrun with orders, and the new fields recently opened up in the West bid fair to keep pace with the marvellous growth of the trade in the East. As may be expected New York retains the lead in the matter of sales. There are now 125 agencies in the city for the sale of cars and the cry is still they come. Probably the best indication of the great popular hold that the motor car has taken in the minds of the best people may be gathered from the phenomenal growth of the Automobile Club of America, now numbering nearly 1,300 members. A new million-dollar club house was opened last month in West Fifty-fourth street. It is the most complete of its kind in the world and includes a garage and machine shop, in addition to the customary luxuries and conveniences of a modern clubhouse.

Apart from the amazing growth of the industry another gratifying feature is the fact that the buyer of to-day is discriminating. Not only must the car do all that is claimed for it, but the matter of upkeep shall not require the excessive outlay that marked the expense of automobile usage in the earlier years of its introduction. The best manufacturers recognize this and the result is that in the matter of quality of material and perfection in workmanship nothing in mechanism ever surpassed the motor cars of to-day. In a smaller way the con-

struction resembles the best marine engineering. This is as it should be, for it will be readily borne in mind that while the danger is not so imminent as when an engine breaks down in mid-ocean the great desideratum in automobile construction is that there is an assurance on going out in a motor car that the passengers will likely come back in the same machine. This was not always so, and hence there was a tendency in the earlier years of automobiling to give a decided preference to cars of foreign construction, as if the element of stability could not be as firmly established in motor car construction in America as elsewhere.

This feeling has vanished completely and the future of the automobile in America is assured. It has taken a few years to reach this degree of constructive perfection, but it need not be wondered at, because American ingenuity and mechanical skill have been in the front rank for many years in other fields and the mowing machine, the sewing machine, not to speak of clocks and watches and other small machinery, have held the first place in popular estimation over the civilized world for half a century.

**An Advantageous Drawback**

In view of the increased volume of exports which this country is recording from year to year, and in view of the fact that our motor cars are becoming better and more favorably known abroad, this trade is slowly but surely assuming proportions of no little importance to the manufacturers in this country. As we understand that a good deal of imported material is used in the manufacture of our motor cars, we think our readers will be interested to know of the Drawback Provision of the present U. S. Customs Tariff, which provides, briefly, as follows:

"That where imported materials on which duties have been paid are used in the manufacture of articles manufactured or produced in the United States, there shall be allowed on the exportation of such articles a drawback equal in amount to the duties paid on the material's used, less one per centum of such duties."

The government, of course, demands that certain requirements be complied with before the drawback will be paid, but these are of such a nature that they are not a burden to the manufacturers, and the benefit derivable from collecting this drawback makes it decidedly worth their while to look into the matter. One of the most important requirements is that claims for drawback shall be filed with the Custom authorities at the port of export before goods leave the country. The provision also applies to shipments to Canada and Mexico.

It has come to our attention that some of the manufacturers of motor cars have already taken advantage of this provision

and are collecting drawback on such articles as magnetos, coils, tires, castings, batteries, spark plugs, spark coils, spark caps, valve stems, contact boxes, ball bearings, etc.

**Florida Race for 1908**

Preparations are already on foot for the Florida automobile races of 1908. It is proposed to lay out a fifteen mile course on the beach and at each end construct a wide loop, so that competing cars may make the turns with only a slight decrease in speed. A company is prepared to construct the loop at the Ormond end of the course, while the Florida East Coast Automobile Association will look after the Daytona loop. The proposed course has been measured off and the improvements will begin in the early Fall.

It is also proposed to change the dates of the races from the last week in January to the first or second week in March. It is generally believed that this period is more favorable to automobile manufacturers than the earlier date. An important and much needed improvement is also on foot in regard to the road from Jacksonville that runs to Ormond and Daytona.

The committee are confident of attracting entries of many of the cars now being constructed for the Vanderbilt Cup Race. It is likely that the plan suggested last year of beginning the tournament with a long distance contest, to be followed by races gradually decreasing in distance, for which cars must qualify in the longer events, will be adopted.

**Ill-tempered Pedestrians**

A run through any part of New York City in an automobile reveals the deplorable fact that the people are not yet reconciled to the presence of the motor car in the streets. Setting aside the inevitable nuisance of ill-bred boys who are to be met everywhere, it is remarkable to observe the manifestation of stolidity and stupidity with which the average adult looks upon the insensate machine. People who will watch carefully the approach of horse drawn vehicles and pause intelligently and gauge the distance correctly, timing themselves to pass with a degree of consideration and courtesy so that the driver will not require to swerve from his track or change the speed, will act very differently on the approach of an automobile. Many people act as if they courted disaster and the marvel is that there is not more accidents to pedestrians than there are. It is needless to state that car drivers and cab drivers seem also to have a feeling of prejudice against the motor car. The drivers of the vehicles seem to feel a given satisfaction at the discomfiture of a motor driver in the event of being cor-

nered or held up or put about in any way.

What is true of New York City is true of other cities, and it is not much to the credit of some of the American people to observe this strange antagonism to the most useful invention of our time. This, however, seems to be the reception that is accorded all important improvements. James Watt, the improver or inventor of the modern steam engine, spent the larger part of his time in legal contests for what everybody knew belonged to him. The same may be said of George Stephenson, who adapted Watt's engine to the locomotive. When the flying machine comes, if it ever does come, it will have the good fortune to be above the heads of the ill-tempered crowd, but probably the other winged creatures of the air will show their claws on the approach of the new winged wonder.

We are not without hope that a few more years will see a kindlier spirit manifested toward the motor car. If it should be necessary that the present generation shall have passed away before the same courtesy is shown to an automobile as is now shown to a fish monger's cart, it will only show that humanity is the same in all ages. We resent innovations. Battle has to be done for everything that is new. In any event we believe that the motor car will not only hold its own but that many who now frown at its approach will some day be borne to their last resting places on the swift running motor when the horse drawn hearse and its plumed trappings will have passed into the limbs of other centuries.

#### Electrically-Driven Lathes

The rapid introduction of the electrically-driven lathe is one of the most prominent features of modern machine shop operation. The advantages are so obvious that they hardly need recapitulation. In addition to the speed being directly under the control of the operator, there is a marked economy of power, as it is only when the lathe is in operation that the power is used at all. The absence of intermediate shafting also eliminates an important loss of power. If we consider, also, the absence of the care of belting and shafting, and incidental repairs, it will be seen that the saving is very great.

Many of the new lathes seem to have been made with a similarity of design, the motor mounted on an overhead bracket, directly above the head stock, the variations being in the connection between the motor and the driven pulley, some being connected by a short, wide belt, fitted with a cone pulley of two steps, two sets of gears being provided, giving a total of six speed changes, with such intermediate changes as may be effected by the varying of multiple voltage systems,

the number of which depends on the number of points of the controller.

Another popular form of connection is that whereby the motor is geared directly to the spindle by intermediate gearing, avoiding the use of belting altogether. The use of rawhide gearing between the motor shaft pinion and the lathe gearing greatly lessens the noise in running.

We have observed a very compact lathe coming into use with the motor under the bed of the lathe, and close to the head cabinet. The motor has the advantage of being out of the way in the case of swinging axles or other lengthy work into position. The gearing is also almost entirely concealed, and this form of lathe ought to become popular, as it is extremely neat and free from the top-heavy appearance common to the motor-mounted lathe. It may be noted that many of the older, substantial class of lathes are being furnished with electric motors in many of the larger shops, and it looks as if the electrically-driven lathe will soon relegate the old countershaft-driven machine to comparative obscurity.

#### Automobile Statistics

M. Faroux, a distinguished French statistician, according to a report received by the Bureau of Manufactures, estimates that over half a million motor cars have been manufactured during the last nine years since the successful introduction of self-propelled road vehicles. Until last year France led all other nations in the production of the motor car. Now the United States has taken the lead and climbed into first place. In 1906 there were over 60,000 automobiles built in the States; France, 55,000; Great Britain, 28,000; Germany, 22,000; Italy, 19,000, and Belgium, 12,000. It is interesting to note that in 1901 France built 23,711 automobiles, while in the United States there were constructed 314 motor cars in the same year. At the present time there are over 21,000 automobiles owned within fifty miles of New York, and the present year gives indication that this number will be nearly doubled before the close of the season.

#### Book Reviews

**Self Propelled Vehicles.** A practical treatise on all forms of automobiles, by James E. Homans, A.M. Fifth revised edition, entirely rewritten. Published by Theo. Audel & Co., New York. 598 pages. With a portrait of Gottlieb Daimler and numerous illustrations. Price \$2.00.

Mr. Homans' book has long been looked upon as the standard work on the automobile. It combines in one volume the historical as well as the scientific

facts in regard to the construction of automobiles. The fundamental principles of construction and management are treated in a clear and lucid manner and the reader is not burdened with a mass of abstruse terms. The popular favor with which the work has been received has induced the author to revise and enlarge the work, and in the revision the author has emphasized the practical aspects of motor vehicles of all powers. The book in its present form is superior to the previous editions in the important element of intelligently meeting every form of difficulty liable to occur under service conditions. The results of a vast and varied experience are presented in an engaging form, and the work cannot fail to meet with increased popular favor. The drawings which occur on almost every page have the particular merit of being readily understood and to every one interested in the construction and especially in the management and repair of motor cars we would urge upon them the necessity of possessing a copy of this valuable book which takes its proper place as one of the leading educational text books of our time.

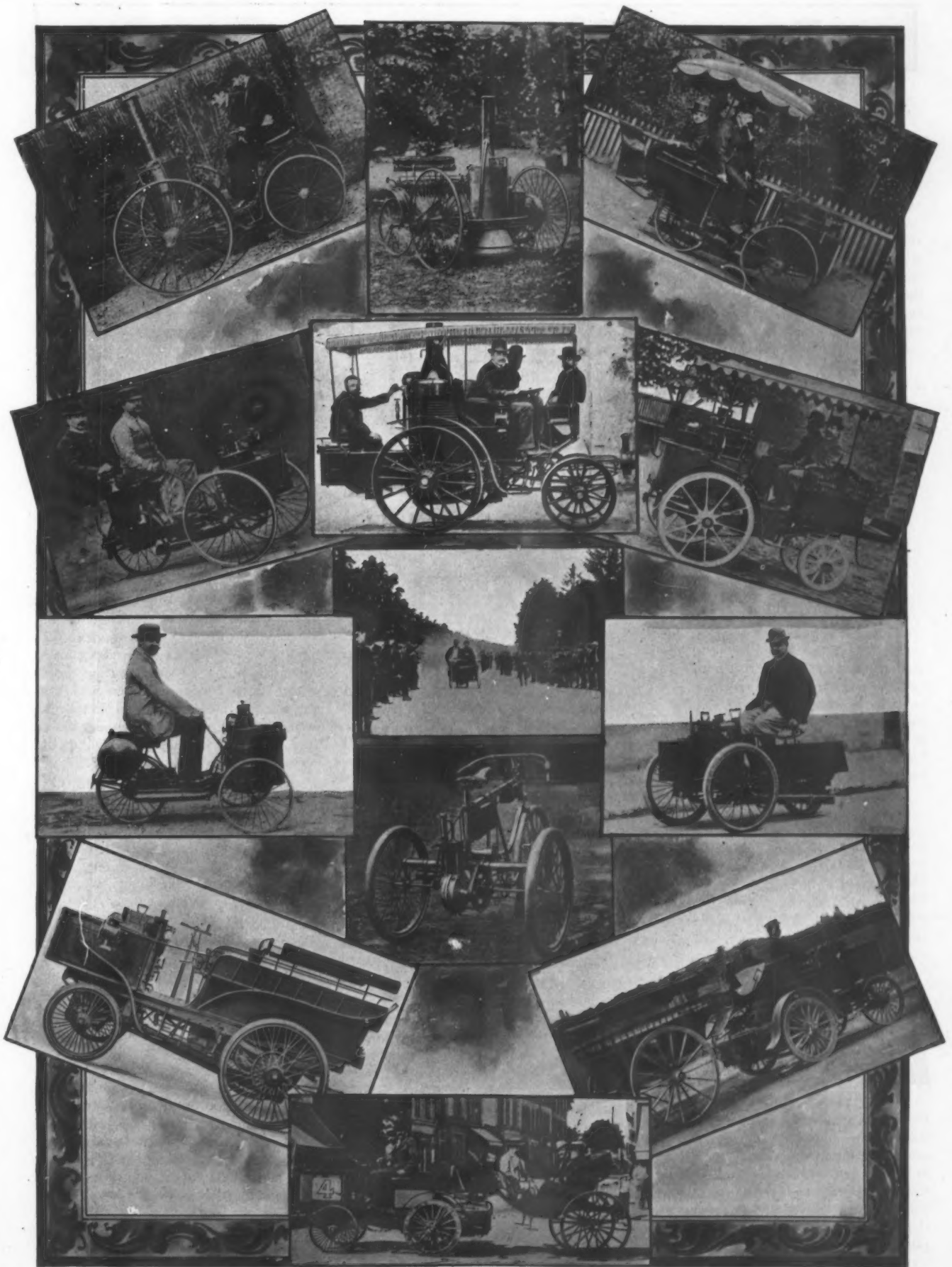
**The Complete Automobile Instructor,** by B. R. Tilson. Published by John Wiley and Sons, New York. 16mo, 213 pages, 50 illustrations, ornamental cloth, \$1.50; morocco, \$2.00.

This is one of the most important additions to automobile literature published in recent years and should command an extensive sale. The author of the work is Director of the H. J. Willard Co. Automobile School and has had excellent opportunities in meeting with young men entering the automobile business. The work takes the popular line of questions and answers, with the method of keeping the answers in a separate part of the book from the questions, so that the student is readily led in the habit of thinking out an answer before turning to the printed page. The book meets the requirements of the operator running his first car, as well as the salesman whose duty it is to master the principles of design. In the instruction of new customers the dealer will find this book a perfect cyclopedia of information. It need hardly be stated that the repairman will find the work invaluable. The illustrations and table of contents give a completeness to the work that leaves nothing to be desired in point of explicit and ready information.

Teacher—Sibyl, give me a sentence containing the word "gruesome."

Sibyl—Mamma had to let down my dresses 'cause I grew some.—*Cleveland Plain Dealer.*





GROWTH OF THE DION-BOUTON CAR.

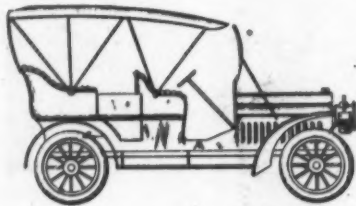
## Patent Office Department

### Attachment for Vehicles

Mr. P. A. Blair, Waterbury, Conn., has patented an attachment for vehicles. No. 851,154. The attachment comprises a rear lamp out of view from the driver's seat. There is a visual signalling means mounted upon the hood of the vehicle in view of the driver, and a light transmitting conduit leading from the lamp to the visual signalling means, whereby the extinguishment of the lamp is evidenced to the driver without leaving his seat.

### Automobile Shield

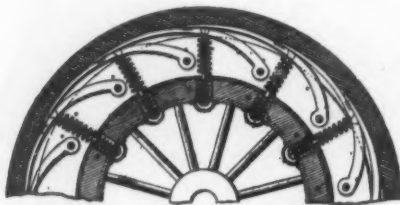
An improved automobile shield has been patented by Mr. D. J. Deyo, Vine-land, N. J. No. 851,502. The shield comprises a main frame adapted to be secured to the automobile structure, a



section of glass curved throughout its longitudinal plane and straight throughout its transverse plane, and clips carried by the main frame and adapted to be turned to overlie the edge of the glass section when the latter is in place in the frame.

### Vehicle Wheel

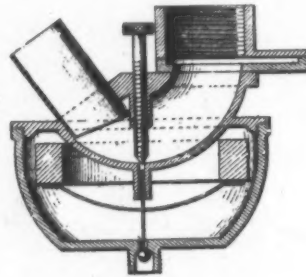
Mr. P. E. Dawson, Hancock, Md., has patented a vehicle wheel, No. 847,245. The mechanism comprises an inner rigid wheel and an outer inclosing elastic rim consisting of a tire which is grooved in-



teriorly, rigid metal plates secured to the sides of the felly of the inner wheel and projecting outwardly therefrom, a series of curved and overlapping plates between the side plates, and spring attachments connected with the curved plates and with the rim of the inner wheel whereby the plates are pressed outward and hold the elastic tire.

### Carburetor

Mr. C. Smith, Topeka, Kan., has patented a carburetor, No. 844,900. It comprises a reservoir, means for maintaining a constant level of gasoline in the reservoir, and a U-shaped conduit for air



having its lower portion arranged in the reservoir, below the constant level of gasoline, and having an aperture in the bottom for enabling the gasoline to seek its level in the conduit. There is a screw also, extending through the upper portion of the conduit, for controlling and regulating communication between the duct and the interior of the conduit.

### Vehicle Wheel

Mr. A. A. Dougherty, New York, N. Y., has patented a vehicle wheel. No. 849,374. The wheel consists of a combi-



nation of a hub, a series of resilient spokes each sucered at one end to the hub and having their other ends bent to overlap each other, the overlapped ends being flat and having inwardly projecting flanges, and also having outwardly projecting flanges, and a tire held over the overlapping ends, the flanges having slots, and the spoke flanges being arranged to abut one another thereby forming a peripheral channel adapted to holding a tire.

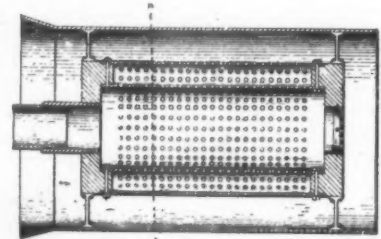
### Sprag for Vehicles

A double-acting sprag for arresting the motion of vehicles in either direction has been patented by Mr. H. B. Stillman,

Philadelphia, Pa. No. 849,512. The contrivance consists of two levers pivoted together and having their free ends pointing in opposite directions, one of the levers being adapted to be pivotably connected with the frame of the vehicle and the other lever being provided with a heel or extension beyond the pivot-point and above the other lever, and with a stop to limit its angular position with reference to the other lever.

### Muffler

Mr. W. M. Brisben, Hackensack, N. J., has patented an improved muffler for explosive engines. No. 851,490. The device consists of a combination of two



concentric cylindrical sections each perforated throughout its entire length and circumference, the outer section being exposed to the outer air heads for which the sections are secured, an inlet connection entering one of the heads and a hood open at both ends surrounding the outer section and spaced apart from it.

### Meteor Automobiles

The Meteor Automobile Works of Bettendorf, Iowa, are building two types of runabouts and a 50-horse touring car which has the double ignition system, four speeds forward and two reverse. The cars have nickel steel frames. If Mr. W. P. Bettendorf, president of the Bettendorf Axle Co., of Davenport, Iowa, has anything to do with the manufacture of the Meteor automobiles his name is a guarantee for good material worked up in first class style.

We do not know if it is because there are more American automobilists than any other nationality at large in the dangerous regions of Europe, but it seems that a very large proportion of the accidents reported have happened to Americans. The habit of getting there without counting the cost may have something to do with the case. Many Americans are imbued with the spirit of showing off, which is costly on strange roads.



## Of Personal Interest

Mr. Burt Snow has joined the forces of the Henshaw Motor Car Company, of Boston, Mass.

Mr. F. H. Thomas has been appointed manager of the Franklin Automobile Company, of Chicago, Ill.

Mr. George Lamberty has been appointed assistant manager of the New York office of the Rubay Company.

Mr. Alfred J. Cammeyer, of New York City, recently took delivery of a 40-H. P. Brasier from E. B. Gallaher.

Mr. George Delaney has succeeded George Braithwaite as superintendent of the Stevens-Duryea Automobile Company.

Mr. and Mrs. Morton Plant, of New York, recently left London for Germany, where they propose making a long automobile tour.

Mr. Richard Croker has sent over an order for a Welch limousine, to be shipped to him in Dublin, where he is now residing.

Mr. Clarence A. Gilmore has been appointed general traveling representative of the Knox Automobile Company, of Springfield, Mass.

Miss Edith D. Armstrong, of North Pearl street, Albany, N. Y., has placed an order for a new Franklin car, having sold her Model G car.

Mr. John Thorn, of Albany, N. Y., and a party of friends made a trip to Mechanicsville and Round Lake recently in a 20-H. P. Locomobile.

Mr. I. H. Manning, formerly with the Franklin car in Manhattan, has been appointed manager of the garage of Wyckoff, Church & Partridge.

Mr. Harry J. Porter, of Rochester, N. Y., has joined the forces of the J. S. Bretz Company, of New York City, with headquarters at Detroit, Mich.

Mr. Sid Black, the well-known Cincinnati agent of the Lozier Motor Company, will drive a 40-H. P. Lozier car in the Glidden Tour this year.

Mr. E. Russell Thomas, the well-known banker and sportsman, recently added a 70-H. P. Thomas runabout to his already large stable of Thomas cars.

Mr. J. R. Jamison, heretofore connected with the Pope Motor Car Company, has joined the selling force of

the selling forces of the American Locomotive Automobile Co., at 1886 Broadway, New York.

Mr. A. F. Austin has resigned as manager of the Penn Auto Supply Company, of Philadelphia, Pa., to take charge of the Providence branch of the Angier Company.

A Stearns runabout has been bought by Mr. L. S. Hall, a Yale student, from Wyckoff, Church & Partridge, for brushes on the track and road around New Haven.

Mr. John Glendinning, the English actor, has taken delivery of a Welch touring car. For the coming summer he will have the car shipped to Yorkshire, where he lives.

Mr. W. H. Howe, formerly connected with the Chicago branch of the Corbin Motor Vehicle Company, has joined the selling force of the Aerocar Company, of Detroit, Mich.



TOURING IN PORTAGE, MANITOBA, CANADA.

the Aerocar Company, of Detroit, Mich.

Mr. W. M. Botto, sales manager of the Matheson Company, of New York, is on an extensive agency trip through the Gulf of Mexico and Pacific Coast states.

Mr. A. C. Harmer, of Harmer & Quinn, of Philadelphia, Pa., left last month on an extended trip along the Atlantic Coast in his 4-cylinder Elmore.

Mr. Ferdinand Cimiotti, New York agent for the Mora car, will make a long southern tour shortly in one of the new 24-H. P. "Racytype" Mora tourabouts.

Mr. Harry Yates, general manager of the Rochester and Pittsburg Coal Company, has been elected treasurer of the Babcock Electric Carriage Co., Buffalo, N. Y.

H. L. Moody, formerly manager of the American Napier Company, has joined

Mr. C. C. Horton, of the Metropole Hotel, Chicago, Ill., started last month on an automobile tour to Dayton, Pittsburg and Louisville in his new 45-H. P. Royal Tourist.

Mr. Ralph Amerman, of Scranton, Pa., has become an enthusiastic automobilist. Mr. Amerman now owns a Franklin touring car and a Ford runabout. He has also placed an order for a Marion.

Mr. William H. Johnson, formerly with Orlando F. Weber & Co., has succeeded Percy P. Platt as manager of the Michigan avenue branch of the Excelsior Supply Company, of Chicago, Ill.

Mr. Asa Paine, president of the Florida East Coast Automobile Association, has placed his order for a Winton Model M. Mr. Paine has been a Winton devotee for several years.

Mr. Harry F. Leyman, until recently assistant sales manager of the Pope Toledo Motor Car Company, has be-

come general manager of the De Luxe Automobile Company, of Detroit, Mich.

Mr. George L. Gray, formerly western agent for the New Home Sewing Machine Company, and located in Chicago, is now connected with the Grout Brothers' Automobile Company, of Orange, Mass.

Mrs. Garret A. Hobart, widow of the late Vice-President Hobart, recently placed an order with the Daimler Manufacturing Company for a 70-H. P. American Mercedes with a Demarest touring body.

Mr. Paul C. Wolff, secretary of the Pittsburg Automobile Club, was recently elected a director in the Ameri-

Horse Company, and probably the best known breeder in the west, recently purchased a Thomas Flyer. Colonel Hughes learned to drive his car in a single afternoon.

Alexander Graham Bell, world-famous as the inventor of the telephone, is credited with the declaration, "Until the coming of the automobile the human race had made absolutely no progress in the transportation of the individual unit of society since the dawn of history."

Mr. Richard Mears has just brought to Philadelphia his new 30-H. P. Simplex touring car. Mr. Mears purchased two bodies, a limousine for winter use, and a touring body for summer use. The car is painted red, and is one of

City; contests, A. C. Webb, of Joplin; publicity, Dr. S. Ed. Smith, of Macon.

Mr. C. H. Mellen, president of the New York, New Haven & Hartford Railroad Company, has just taken delivery of a 50-H. P. Matheson car fitted with a special demi-limousine body by Burr & Company. Mr. Mellen will use his new car in traveling back and forth between his home in New Haven and his country estate in the Berkshire Hills.

At the last annual meeting of the New York Automobile Trade Association, the following officers were elected for the ensuing year: President, Mr. Percy Owen; first vice-president, Mr. Frank Eveland; second vice-president, Mr. E. C. Partridge; treasurer, Mr. Wm. P. Kennedy; secretary and general manager, Mr. E. V. Stratton.

When Col. Louis F. Hueblin, of Hartford, Conn., announced his intention of touring in Europe with his Thomas Flyer this spring, he had no less than half a dozen offers from young men to act as his chauffeur for only their expenses, so anxious were they to make the trip. He, however, decided to hold to his regular driver, Thomas Reardon.

Mr. Harry Askin, manager of the Grand Opera House, Chicago, Ill., expects to depart June 29 from that city in a Columbia 40-45-H. P. touring car for a journey over the Chicago-New York record run route. From the metropolis he will travel across Long Island and New Jersey, and thence through New England. He has planned a six weeks' outing.

At the annual meeting of the St. Louis Automobile Club, at the St. Louis Club, last month, the old officers, with the exception of the secretary and treasurer, were re-elected for the ensuing year. Samuel D. Capen was elected secretary and treasurer, vice Roy F. Britton, resigned. The officers re-elected are: Alex Euston, president, and Dr. E. M. Senseney, vice-president.

Major 'E. Gray Pendleton passed through Philadelphia in his Simplex car recently on his way from Washington to Atlantic City. He reported the roads in wretched condition between Washington and Baltimore. At times the mud was up as high as the hubs, and he found the going very difficult. With the exception of this stretch, the trip was a most enjoyable one.

Mr. E. G. Williams, chief engineer of the Long Island Motor Parkway, is



ALONG THE BAR ROAD, ST. ANDREW'S, N. B., CANADA.

can Automobile Association, to take the place made vacant by the resignation of Philip S. Flinn.

Mr. C. Wilson Foshay, of Brooklyn, N. Y., left for Europe last month with friends, who will spend several months touring through England, Holland, Germany, Switzerland, Italy and France in a 40-H. P. automobile.

Mr. Charles M. Daniels, who recently added to his swimming laurels at Pittsburg and Chicago, has joined the selling force of Wyckoff, Church & Partridge, and will devote himself to the sale and exploitation of the Stearns car.

From Chicago to Farmington, Ill., a distance of 235 miles, is just a neat day's journey. Dr. William Plumer and G. Steenburg, of Farmington, each made the trip twice last month, driving Jackson cars from Chicago to their home.

Col. C. E. Hughes, of Denver, Col., president of the Continental Coach

the handsomest cars brought into Philadelphia this season.

Baron Adrian de Turchheim, president of the De Dietrich Company in France, and who was in America two years ago as the representative of the Automobile Club of France for the Vanderbilt Cup Race, has been made a Chevalier of the Legion of Honor by the French Minister of Commerce.

Mrs. Alice M. Stanley, of New Britain, Conn., sailed on the steamship "Baltic" last month to visit friends in England. Later she will join the American Gold Cup Tour of Europe with several friends and make the entire trip with the party. Mrs. Stanley will drive her Moore car on the tour.

Mr. Harry M. Rubey, of Macon, president of the Missouri Automobile Association, has appointed chairmen of the various boards as follows: Legislative, J. A. Sedden, of St. Louis; membership, Henry C. Krug, of St. Joseph; tours, W. P. M. Stevens, of Kansas



a Yale man and has been engaged in some extensive construction work in both the United States and South America. His latest engineering feat was the building of the Washington Union Railway Terminal tunnel at the national capital. He belongs to the American Society of Civil Engineers and the American Institute of Mining Engineers.

A party of Albanians, including Mr. and Mrs. G. Y. Lansing, Miss Ward and Mr. Sutherland Ransom, went over to Chicopee Falls recently with Mr. Frederick Townsend in his 40-H. P. Thomas. The object of the trip was for Mr. Lansing to bring home his newly purchased 6-cylinder Stevens-Duryea. The roads for this season of the year were in fairly good condition, although the climb over Peru Mountain was rather a difficult one. The return was made the next day, Mr. and Mrs. Louis Greenleaf meeting the party at Springfield. The two cars made the run to Albany by way of Jacob's Ladder in five hours, which was a splendid record for this time of the year. Mr. Lansing's 6-cylinder machine is a novelty in the city, and is attracting much attention.

Mr. F. M. Hoblitt, who prides himself on being the pioneer commercial traveler in the automobile line in this country, is now on a western trip to establish agencies for the American Locomotive Automobile Company. Mr. Hoblitt will stop at Chicago, Denver and Salt Lake City, but his main objective point is California. He says that the Pacific Coast has been waiting for just such a car, combining the superiorities of French material and American workmanship, and he expects to place agencies in Frisco, Los Angeles and other places. There are several Berliet cars now on the Coast which have records of service calculated to pave the way for agencies. There is a peculiar fitness in Mr. Hoblitt having the opening of this territory, for he is the man who ordered the first big shipment of motor cars to California. That was a carload of Waverlies in 1898. Mr. Hoblitt is now a resident of Los Angeles, and fully conversant with automobile conditions on the Coast. From California, he will go to Seattle, Spokane and Minneapolis and return to New York in about two months.

Sixty-seven new members have been elected to the Automobile Club of Philadelphia since its annual meeting on March 11th last, and its membership now numbers nearly 400. Among those admitted to the organization last

month were Charles C. Beyer, James Boyd, J. E. Caldwell, Francis D. Chambers, C. Howard Clarke, Jr., James K. Clarke, Morris L. Clothier, Charles E. Coxe, William H. Folwell, Caleb F. Fox, Dr. Charles H. Frazier, Dr. R. G. Gamble, John L. Gibney, Dr. Edwin E. Graham, C. C. Harrison, Jr., Joseph A. Janney, Jr., Clarence B. Kugler, Lewis Lillie, A. Sydney Logan, J. Frank Mauran, R. W. Peterson, Garrett L. Reilley, Dr. George E. DeSchweinitz, S. A. Steltz, Alfred R. Thomas, Charles C. Townsend, Alexander Van Rensselaer, J. Roy Vetterlein, Charles N. Welsh, Charles H. Whitney, William W. Whitney and John C. Winston.

The board authorized an appropriation of \$250 toward posting roads and other kindred work which is being un-

At a meeting of the membership committee of the Automobile Club of Buffalo, the following were elected: James S. Wooley, J. J. H. Brown, A. P. C. Rodenbach, George E. Enos, Henry M. Naylor, John K. Walker, Nathaniel P. Hall, Harold Richmond, E. D. Swift, G. C. Woolverton, Clarence L. Bryant, Montgomery Hallowell, George S. Salzman, Frank P. Coward, George B. Hastings, Dr. A. J. Colton, I. A. Swinehart, Edward A. Remington, H. G. Johnson, Reynold McDonald, H. R. McNeill, A. M. Cochman, Leo Manger, Edward P. Erion, August Feine, G. P. Warner, M. J. Nowak, F. Erion, R. E. Gavin, Dr. E. L. Hewson, Albert F. Unholz, William H. Lester, George K. Fraley, M. Whissel, James C. Bender, A. A.



MOOSEHEAD LAKE, GREENVILLE, ME.

dertaken by the Routes and Sign Posts Committee, of which Powell Evans is chairman.

Mr. H. M. Coale, an engineer who has made a notable record in motor car construction, has been appointed to the important post of general sales manager for the Autocar Company, of Ardmore, Pa. Few men have so comprehensive a knowledge of the automobile business as Mr. Coale. He is a graduate of Cornell University and an accomplished engineer. For several years he has been connected with the Autocar Company in the capacity of assistant to the chief engineer, and has materially assisted in the development of these popular motor cars to their present high standard. During this time he has learned automobiles "from the ground up." He has also made a host of friends in the motorizing trade, where his executive ability as well as engineering skill has been generally recognized. Mr. Coale took charge of the general sales department immediately upon his appointment.

Lazier, Dr. James H. Carr, Dr. F. J. Carr, Edwin T. Evans, Robert W. Pomeroy, George Duchscherer, Charles E. Throop, Frank L. Thebaud, Dr. De Lancey Rochester, J. F. Schoelkopf, Ernest L. Frisbie, George N. Lippett, F. G. Dikeman, Richard L. Wood, George W. Boon, William Holmes, Charles Hoefler, John Dellinger, J. J. Gress, Hiram L. Conklin, George Keipper, Sr., Linus Kiene, W. J. Statler, J. C. Lindner, Jr., Charles L. Goldstein, E. M. Tracy, Louis Kassell, all of Buffalo; Kenneth R. Otis, Cleveland, Ohio; Herwald Atkinson, Lockport, N. Y.

The following names have been proposed for active membership in the Automobile Club of America: R. D. Garden, 58 East 55th street, New York; Albert Rathbone, 180 East 65th street, New York; John B. Martin, 212 Fifth avenue, New York; Gaston R. Rheims, 180 Fifth avenue, New York; Ernest F. Greef, 37 West 88th street, New York; Edwin G. Bruns, 201 West 55th street, New York; Robert A. Brown, 159 West 57th street, New York; John L. Cadwalader, 3 West 56th street, New

York; Heyward H. Shannon, 1 West 83d street, New York; Calvin B. Orcutt, Elizabeth, N. J.; Ralph L. Shainwald, 100 William street, New York; William A. Tilt, 5 East 67th street, New York; John A. Hanan, St. Regis Hotel, New York; J. Rich Steers, 17 Battery place, New York; Alex. W. Powell, 326 West 72d street, New York; Geo. A. Richardson, 11 Broadway, New York; A. L. Prescott, 180 West 59th street, New York; S. Frederick Taylor, 49 N. Mountain avenue, Montclair, N. J.; Paul Lacroix, 275 Central Park West, New York; Morton C. Nichols, 57 East 64th street, New York; Alfred H. Swayne, 512 Fifth avenue, New York; A. Wineburgh, 145 West 69th street, New York; Edward E. Gold, 300 Central Park West, New York; John P. Grier, 30 West 59th street, New York; Hamilton Carhartt, St. Regis Hotel, New York. Associate: E. M. House, Austin, Tex.; Harry G. Fisk, Springfield, Mass.; George O. Knapp, 157 Michigan avenue, Chicago, Ill.; A. R. Davis, Cleveland, O.; Wm. H. Buckley, 95 State street, Albany, N. Y., and J. Cheney Wells, Southbridge, Mass.

#### An Automobilist is Cupped

Mr. George Austin Morrison, Jr., of New York City, is an enthusiastic automobilist, with particular tenderness for Stearns cars. Although a busy lawyer, Mr. Morrison finds time for automobiling and also to do the work of secretary of the St. Andrew's Society, the great Scottish charitable organization, which spends nearly \$1,000 a month in helping the poor people of their own nationality. The society has made extraordinary increases of membership during the last ten years, and it is generally admitted that the lengthening roll has been largely due to Mr. Morrison's efforts. Last year was the 150th anniversary of the society, and the event was made notable by a very handsome book prepared by Mr. Morrison on the history of the St. Andrew's Society of New York.

In the beginning of May the half-yearly meeting of the society was held at Delmonico's. A mixture of business and sociality occupied the evening, the social part being the most attractive, as it usually is when Scot meets Scot for social intercourse. The bagpipers skirled, gave sad and warlike tunes, and some of the members sang auld Scots songs, Secretary Morrison rendering some of the most heart-stirring melodies.

The event of the evening, however, was when Mr. John S. Kennedy called for silence, and the attention of Secretary Morrison, so that he should present to the latter a silver loving cup as large as the old oaken bucket. Two or three gal-

lons of champagne were emptied into the cup, it was passed round and round, and joy was unconfined. The handsome present was the gift of past presidents of the society.

#### Tire Man Takes Bride

A pretty home wedding took place at the residence of Mrs. Sarah Gibson, 8 East 126th street, New York, Wednesday evening, May 22, when her daughter, Miss May Robertson Gibson, became the bride of Orrel A. Parker, president of the Pneumatic Tire Co., of Broadway and 68th street. Rev. Dr. Randall, of the Mt. Morris Baptist Church, and Rev. D. Asa Blackburn, of the Church of the Strangers, officiated. Miss Sadie Gibson, sister of the bride, was the maid of honor, while the best man was Addison W. Gilmore. The ushers were Andrew C. Imbrie and Robert A. Inch, classmates of the groom at Princeton, and Dr. Roland Hazen and A. Arnold.

Mr. Parker is a member of the committee on city streets of the A. C. A., a charter member of the Aero Club, chairman of the entertainment committee of the Ohio Society, member of the membership committee of the Graduates Club, of New York, and a prominent member of Albion Lodge, No. 26, A. F. & A. M.

Only relatives and close friends witnessed the wedding, but about five hundred attended the reception which followed. Mr. and Mrs. Parker left at once in their 45-horse power Royal Tourist for Chicago. After reaching Cleveland the party will follow the proposed route of the Glidden tour to Chicago, and then back to New York.

The car is equipped with pneumatic tires sealed on by officials of the A. C. A., and the trip is expected to demonstrate the worth of this substitute for air in automobile tires.

#### Hoodooed the Elks

Some years ago the Lodge of Locomotive Firemen at New Haven, Conn., rented for their meetings the hall of the order of Elks. Some months afterward the firemen raised enough money to buy a valve-motion model for the instruction of the members. The Chief Fireman asked the Chief Elk where they could set up the model and was told to put it in the banquet room, but to have a case put over it so that it would escape injury from the butting of the Elks. A carpenter was employed to make a case that would take up as little room as possible. The case was made, stained black, and when it was set up on legs it looked like a small coffin.

A few days after the valve model had been installed the Chief Elk called upon the Chief Fireman and demanded to

know what he had got in that casket. Said the Chief Elk: "We tried to have a little banquet after initiation last night, but the boys could not be cheered up with that thing there and the function was as solemn as a funeral service. It was voted that you remove the remains or get a new hall. We do not rent a vault."

#### Disappointment

The New Fame, dear Lady Betty, is a product of the time. The following story requires no further introduction:

There is in the village of Chalfont St. Giles a house known as Milton's cottage, a cabin to which the poet fled to escape the plague, and hundreds visit this each year.

Some days ago a big motor car halted at the wicket, and a large, florid-faced man, wrapped in a great fur coat, stepped into the cottage. He paid to the caretaker the sixpence for admission, and was shown into Milton's sitting room. There the visitor stood for a moment in a reverential attitude, and then he said:

"And this is Lipton's cottage?"

"Milton's, sir," said the caretaker.

"Milton's!" he exclaimed savagely. "I thought it was Lipton's; it is most disappointing!" And he strode out of the house forthwith.—*Truth*.

#### Too Much Feeding

It has become the fashion in London for the high-class automobilists to make the visits of noted motorists from this side the occasion of a banquet, for an Englishman dearly loves an excuse for a public feast. A special dispatch to the *New York Sun* says that some rebelling victims indict the custom as a public nuisance passing the bounds of reason.

Inquiries at several hotels and restaurants which the banquet mongers specially favor afford a basis for the calculation that no fewer than ten thousand of these feeding and speechmaking orgies are held in London annually.

Such banqueting halls as those of the Hotel Carlton, Cecil, Metropole and the Trocadero are taxed to their utmost every night during nine months of the year, each banquet hall witnessing the absorption of rich foods and wines by about fifty thousand persons.

A modest estimate places the average of public banquets at from thirty to forty nightly the year round.

#### In These Days

The Nurse—I hope you don't blame me for the baby's illness.

The Doctor—I certainly do. You should know better than to leave it alone in the care of its mother for even a moment.



## Garage Notes

The Fawkes Auto Company, St. Paul, Minn., have opened their new garage on West 6th street.

Mr. Louis Nicholaus is to erect a garage on North College street, Schenectady, N. Y.

Mr. Frank Shaw, of 260 North Broad street, Philadelphia, Pa., has taken the agency for Harburg tires.

The Southern California agent for the Franklin has taken the Los Angeles agency for the Lozier cars.

A garage and repair shop has been opened by Tilden & Company at 652 Woodward avenue, Detroit, Mich.

The E. R. Clark Automobile Company, of Springfield, Mass., will open a repair shop and garage in Brattleboro, Vt.

The Aerocar Company, at Detroit, are adding about 2,000 ft. of floor space to their present factory to be used as an assembling room.

The Capitol Hill Garage, Inc., are erecting a two-story brick and concrete building 108 by 77 ft. at 19th and Mercer streets, Seattle, Wash.

The Eastern Motor Car Company have purchased the garage and business belonging to the Allen Motor Car Company, of Portland, Me.

Mr. E. L. Brown has purchased the Swampscott Automobile Company, of Lynn, Mass. The purchase includes the building on New Ocean street.

A new garage has been opened by the Kaw Valley Auto Company at 3131 Main street, Kansas City, Mo. They are agents for the Premier and Mason cars.

Mr. F. A. Stone is now connected with the S. C. Lowe Company as garage foreman. Mr. Stone was formerly the foreman for the Motor Mart in Boston.

The Automobile Specialty Company, of Wilmington, Del., have filed articles of incorporation to manufacture automobile supplies, etc. The capital is \$10,000.

A one-story garage 30 by 119 ft. 8 in. is being erected at 29 Harvey street,

Philadelphia, Pa., for the Germantown Garage Company at a cost of \$5,000.

The Motorcar Company, makers of the Carter car, have just purchased 42,000 square feet of ground at Berwyn, Md., where a new factory is to be erected.

A stone and frame garage, 80 by 120 ft., is being erected by the Plimley Automobile Company, of Victoria, B. C. The structure will be two stories in height.

The Capital City Automobile Co. have



THE SUMMIT GARAGE, SUMMIT, N. J. refitted their garage at 904-908 Market street, Philadelphia, Pa., and are now handling the Lambert and Detroit cars.

A new garage and supply room was recently opened by Mr. W. C. Howe, of Camden, Me., in connection with his repair shop at Washington and Mechanic streets.

The Champaign Automobile Company, of Champaign, Ill., have incorporated to establish a garage. The interested parties are J. C. Richmond and Manford Savage.

Messrs. Poor & Hooper, Saco, Me., have opened their new garage on Thornton avenue, and are prepared to do general repair work and receive cars for storage.

The Goodwin Automobile Company have opened a garage at 612-616 Mulberry street, Des Moines, Ia., and have taken the agency for the Rambler and Mason cars.

In order to provide for the needs of a rapidly increasing business, the Logan Construction Company, of Chillicothe, Ohio, have increased their capital stock to \$250,000.

Mr. W. M. Cram has assumed the management of the Penn Motor Car Company, of 680 North Broad street, Philadelphia, Pa., which represents the Mitchell car.

The Vancouver Auto and Cycle Company, Ltd., of Vancouver, B. C., Canada, are erecting a three-story brick garage, to be used as a sales-room, garage and repair shop.

A contract has been let for the erection of a brick, iron and concrete building, 60 by 60 ft., to be used as a home for the Huntsville Motor Car Company, of Huntsville, Ga.

The Pastre Auto Garage, Inc., Brooklyn, N. Y., have filed articles of incorporation. The capital is \$35,000, and the directors are A. E. Pastre, S. H. Ellis and W. B. Holt.

The Northwestern Automobile Company, of St. Paul, Minn., have opened a branch house at 354 Market street, to be conducted in connection with its main place of business.

Mr. Bert Graves is building a garage in Ligonier, Ind. When completed it will be one of the most commodious and best equipped shops of its kind in that part of the state.

Manager Robbins, of the New York branch of the Aerocar Company, recently visited Washington and placed an Aerocar agency with J. B. Maxwell, 829 14th street, N. W.

The D'Arcy Scott Company, of San Francisco, Cal., have opened a large garage at 611 Valencia street, between 17th and 18th streets, and will be called the Mission Garage.

The Bradford's Sterne Auto Co., Detroit, Mich., have organized. The company will engage in the manufacture of automobiles and accessories. The capital is placed at \$10,000.

The American Auto Company, of Cleveland, O., have taken the agency for

the Aerocar, as have also A. D. Rivers & Co., of Toledo, O., and H. A. Harmon, of Portland, Me.

The Ellicott Motor Car Company, of Buffalo, N. Y., has been formed with Thomas G. Shaw and Andrew Borst as directors. The company will operate a garage in Ellicott street.

The Mitchell Motor Company, of New York, have removed their headquarters to 1876 Broadway, corner of 62d street, where larger salesrooms and garage facilities have been obtained.

The Mission Garage has been opened at 611 Valencia street, between 17th and 18th streets, San Francisco, Cal., by D'Arcy, Scott & Company. It is entirely up-to-date throughout.

Mr. J. A. Wendroth has been granted a permit to build a two-story brick garage, measuring 46 by 200 ft., at 1159-1161 South Broad street, Philadelphia, Pa. The building will cost \$15,000.

Mr. A. Krouse, formerly of 711-713 Arch street, Philadelphia, Pa., has removed to 136 North Broad street, where he has greater facilities for showing his large line of slightly used automobiles.

The W. J. Massey Automobile and Bicycle Company, of Vancouver, B. C., are erecting a brick and stone garage. The building will be 52 by 120 ft.; the lower floor will be paved with asphalt.

The Western Tool Works will open a garage and repair shop in Galesburg, Ill., where their factory is located. The garage will be on South Prairie street, and will have a floor space of 5,600 sq. ft.

A general garage and salesroom has been opened by Mr. M. L. Barrett, at 3096 North Clark street, Chicago, Ill. The structure measures 50 by 116 ft., and is modernly equipped throughout.

Pierce Great Arrow cars are being used exclusively by the Frontier Automobile Service Company at 437-441 Pearl street, Buffalo, N. Y., of which M. C. Francis, A. Taylor and J. W. Upshur are the organizers.

The Cameron Car Company, Brockton, Mass., have organized to manufacture motor vehicles. The capital is \$100,000, and the directors are Everett S. Cameron, F. Forest Cameron and Walter E. Pratt.

The garage of the Winton Motor Carriage Company, at Pittsburg, Pa., was completed last month. The new place

has a frontage of 120 ft. and runs back 120 ft. Mr. Karl Kiser is in charge of the branch.

Mr. L. M. Barnes, of New Britain, Conn., is planning for the erection of a three-story brick garage 40 by 80 ft., to be located in the rear of his property on Main street. The building will be up to date throughout.

The American Automobile Association have moved their offices to 439 Fifth avenue, corner 39th street. The membership has passed the sixteen thousand mark, making it the second largest motoring organization in the world.

A new garage has been opened by the Metropolitan Motor Car Company on East 19th street, Cleveland, Ohio. In the two floors there are over 50,000 sq. ft. of space. The front is of pressed brick, and the building is fireproof.

Messrs. Moody & Porter have purchased the business of the Santa Monica Garage, Santa Monica, Cal., from the former owners. A general garage and repair business will be conducted, and a line of cars will also be carried.

Mr. W. B. Grow is preparing to build a 20 by 20 ft. addition to his automobile garage at 3d and F streets, Marysville, Cal., and will use it as an engine room. Mr. Grow has a splendid equipment at his garage, and it is a roomy building.

A novel automobile garage is about to be built by John G. Morgan and Charles Boettcher on Cheyenne street, Denver, Col. It will be three stories high and cover several lots. Autos will be carried to the upper story by means of an elevator.

Messrs. Johnson & Kitchen are erecting a one-story garage 50 by 140 ft. on the east side of Main street, between 16th and 17th streets, Los Angeles, Cal., for Mr. L. A. de Cellis. It will have plate glass and pressed brick front and concrete floors.

Owing to the growth of the business of the Star-Summit Automobile Company, of Alliance, Ohio, enlarged quarters are imperative, and arrangements have been completed to erect a two-story garage 25 by 40 ft. south of the company's present quarters.

The Meteor Automobile Works, of Bettendorf, Iowa, are negotiating for a New York agency. The company turns out two types of runabouts and a 50-H. P. touring car model, with double ignition system, four speeds forward and two reverse and chrome nickel steel frame.

The W. F. V. Neumann Company, of Detroit, Mich., expect to occupy their new garage and salesroom at the corner of Harper street and Woodward avenue very shortly. The new building is a one story structure of concrete steel construction, with a floor space 125 by 155 ft.

The Twentieth Century Auto Touring Company, New York, have organized to manufacture, lease and sell cars, vehicles and boats, etc. The capital is \$25,000, and the incorporators are William H. Holahan, Charles Gast and Randall H. Ludlow, of 100 Broadway, New York.

The Aerocar Company, of Detroit, Mich., are building another addition to their already large factory. About 2,000 sq. ft. will be added, and used as an assembling room for the frames. The pneumatic riveters and the forges will be in this department, which is separate from the main factory.

The Foss-Hughes Motor Car Company, of Philadelphia, Pa., have taken possession of their new garage and repair shop. The new building is in the rear of the showrooms of the company, and is readily accessible. The first floor is being used for garage purposes, with cement washstands and plenty of electric lights for night work.

Mr. Edgar Spencer, of Indianapolis, Ind., has opened the new automobile garage on Center street, between 3d and 4th streets. The building, which was constructed for this purpose, is well equipped and spacious. Mr. Spencer has had considerable experience in the automobile business, and there is no doubt he will make a success of his garage. It is called the Winona Auto and Electric Company.

The Imperial Motor Car Company have just moved into their new quarters at 1094-1100 Main street, Buffalo, N. Y., where is one of the best equipped automobile salesrooms in the United States. It has a frontage of 80 ft. on Main street and a spacious showroom. All the equipment for caring for electric and gasoline automobiles is in a large workshop in the rear. The company handle the Babcock electric.

The storage and repair business heretofore conducted by Graham & Goodman at 51-55 West 93d street, Manhattan, has been purchased and will hereafter be carried on by Frederick F. Goodman, Inc. Mr. Goodman will be in charge of the entire business, and will give his personal attention to every department. He will be assisted by a thoroughly competent staff. The new company will succeed Graham & Goodman as agents for the St. Louis cars—"Rigs that Run."



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Oshkosh, Wis., is soon to have as handsome a modern automobile garage as there is in the state. The work of the excavation has already been begun. It will be erected by the Krueger Automobile Company, and will be situated on Jefferson avenue, a short distance south of Merritt street. The garage will measure 112 by 55 ft. on the ground and will consist of three stories. The materials used will be brick, stone and steel, so that it will be fireproof. The plant will cost \$20,000.

French automobile laws permit any speed, and, as a consequence, there are many well established records for quick traveling in that country.

Mr. Charles Jarrott, a well-known London automobilist, recently sent the following cablegram to London:

"Arrived Monte Carlo 7:30 P. M., English time. Thirty-five hours twenty minutes for complete journey. Beat my old record London to Monte Carlo last year, and all Monte Carlo to London records made since. Tires wore splendidly."

The specific mention of the tires in the dispatch, which was widely published, led to an investigation of the case by tire manufacturers, as the test of the long continued high speed was a very hard one. It was found that the tires used were Continentals.

**Dixon's Crucible Meeting**

OLD BOARD OF DIRECTORS AND OFFICERS RE-ELECTED.

At the annual meeting the stockholders of the Joseph Dixon Crucible Company, the old board, consisting of Edward F. C. Young, John A. Walker, Edward L. Young, William Murray, George T. Smith, Joseph D. Bedle and George E. Long, was unanimously re-elected. The board of directors re-elected the former officers, namely, E. F. C. Young, president; John A. Walker, vice-president and treasurer; George E. Long, secretary. Judge Joseph D. Bedle was also re-elected as counsel.

The stockholders present expressed themselves as thoroughly satisfied with the management of the company by its officers.

Of the total number, 7,345 shares, there were represented 6,460 shares.

**Hope for New York Streets**

New York City has the most deplorably rutty and motley streets of any large city on this continent and the Borough President is responsible for their condition. The press and the public, the latter represented by influential committees, have been protesting for many months about the impossible condition of the streets, but received no practical response till one day last month the re-

sponsible president started out on an automobile tour to examine the condition of things for himself. He apparently knew nothing of the cause for the persistent complaints until he started out on the tour of inspection. It is safe to say that no man in Manhattan who rides even on street cars is so ignorant of the condition of the streets as the man whose duty it was to keep informed.

Mr. Robert L. Winkley, the energetic publicity manager of the Pope Manufacturing Co., Hartford, Conn., is giving away a book called "An Industrial Achievement," which every person interested in motor vehicles ought to read. Send for it and blame us for your act.

**Royal Motor Car Factory**

Here is a view showing the progress on the main building of The Royal Motor Car Co. factory, which is now under construction on Gordon Park Boulevard, Cleveland. It will be seen that the Royal Tourist factory is being rushed to completion. It is expected that this factory will be in full operation some time dur-



ROYAL MOTOR CAR FACTORY.

ing the middle of this summer. This will add to the already splendid equipment of this company, and it is the intention to make it a model automobile factory.

**Auto Rides for Orphans**

The Automobile Club of St. Louis will give the inmates of the orphan asylums a ride over the city and through the parks on orphan children's day, June 12. The members of the club will donate their cars for the use of the little ones.

A lassie in a Scottish Sunday School was asked the question, "Why did the children of Israel make a golden calf?" She replied, "Because they had not enough money to make a cow."

Starting from New York at 9 P. M. on a rainy night to make a record automobile run to Philadelphia is inviting disaster. A party of four who tried that on May 26 are all laid up undergoing repairs.

Mr. William K. Vanderbilt has purchased a Thomas "Speedway Flyer."



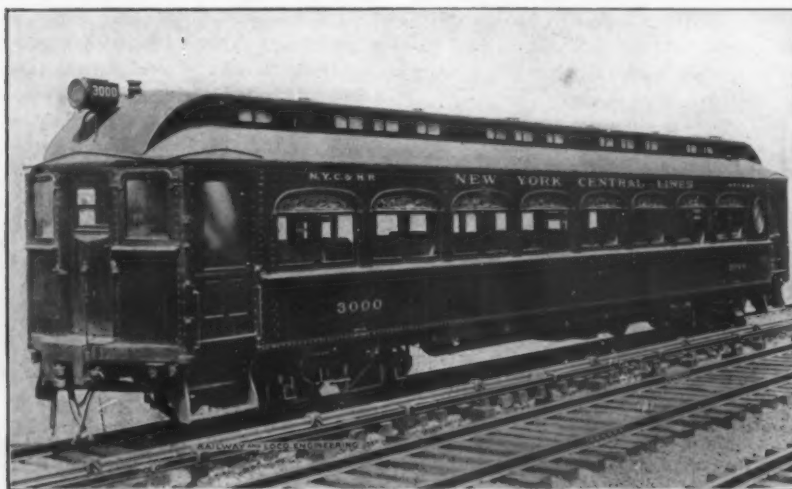
### Steel Suburban Motor Car

In addition to the regular electric locomotives used on what the New York Central call the electric zone, that company has in its rolling equipment one hundred and twenty-five steel motor passenger cars of the type shown in our illustration. The car will hold sixty-two persons. It is vestibuled and when the doors are closed the car can be operated from either end.

The cars are spoken of as all steel cars for the reason that wood is used only for holding part of the interior finish in place, and is not used in the under frame or in the structural part of the car. The wood so used is encased in metal, and material otherwise inflammable has been subjected to a fire-proofing process. All these cars are equipped with a motor on one

sills is 9 feet 8 $\frac{1}{2}$  inches. The under-frame consists of two 8 inch, 18 lb. to the foot, I-beams placed at 24 inch centres. They extend from buffer beam to buffer beam, and are the centre sills and take the buffing and pulling strains.

The motorman's controller is similar to that used in the New York Subway and is made with what is called on the road the dead-man's handle. The arrangement with this gruesome name is simply a button, like the projecting handle of a locomotive check valve, only smaller. This little handle is depressed by the motorman in grasping the main handle and has a vertical motion of about  $\frac{1}{4}$  of an inch. The little button when pressed down can rise about  $\frac{3}{8}$  of an inch without producing any effect, but in case a motorman overcome by heat or for other



MOTOR COACH FOR SUBURBAN TRAFFIC, NEW YORK CENTRAL.

truck. The company is, however, buying fifty-five similar cars without electric equipment, and these will be used as trailers.

The length of the motor car over bumpers is 60 feet. The truck centres are 38 feet 6 inches apart. The total weight of the motor car fully equipped is 53 tons. The body itself weighs 33.8 tons. The motor truck weighs 13.7 tons, while the trailer truck is 5 $\frac{1}{2}$  tons. The motor equipment consists of two motors of 200 H.P. capacity each, mounted on the motor truck. The cars are equipped with Sprague General Electric multiple control apparatus; Westinghouse air brakes; National Malleable Castings Co.'s radial draft gear. The cars are fitted with both electric and steam heat, electric light and Pintsch gas light. The car measures 48 feet 11 $\frac{1}{2}$  inches long inside the body. The height from rail to top of roof is 13 feet 9 $\frac{1}{2}$  inches. The width over side

reasons relaxed his hold on the controller handle, the button would fly up to the full extent, the electric current would be at once cut off, and brakes would be applied in the emergency. It is only necessary to let go of the controller handle in order to insure prompt automatic action of brake and the entire cessation of the electric impulse which drives the car.

#### Diagnosis

"How was it Dr. Knowit got such a big fee from Talkative?"

"Because when he was called to attend Mrs. Talkative for a slight nervous trouble he told her she had an acute attack of inflammatory verbosity."

"Well?"

"And recommended absolute quiet as the only means of averting paroxysms of cacaothes loquendi. She's scared dumb."

THINGS THAT MOTIVE  
To keep the motor motoring, use  
**DIXON'S MOTOR GRAPHITE**  
It means best speed, highest efficiency, least wear and noise. Write for free "spot" sample.  
**JOSEPH DIXON CRUCIBLE CO.**  
JERSEY CITY, N. J.

**JUST OUT**  
The Atlas No. 1 and 2

Will raise any automobile with wheels 22 inches or over.  
Height, 10 inches.  
Weight, 8 pounds.  
Height, 11 $\frac{1}{2}$  inches.  
Weight, 9 pounds.  
Can be worked at any angle or in cramped places.  
Fits truss brace, round or square axle.

Price, No. 1, \$2.50  
Price, No. 2, \$3.00

Atlas No. 2  
Patent Applied For.

**The U. S. Jack Co.**  
128 Lake Street, U. S. Jack No. 1  
CHICAGO, ILL. Patented July 10, 1906.  
Price, \$2.50.

**POCKET BATTERY AMMETER**  
0 to 30 Amperes  
In testing single cells, the cord is not necessary. Accurate.  
Price \$3.50  
Eidredge Electric Mfg. Co.  
Dept. M. SPRINGFIELD, MASS

**Automobile Tops**  
For all kinds and makes of Cars  
**The "NEVER RUB"**  
Bow and Top Protectors

Will protect the bows and cloth from rubbing and wearing

SEND FOR DESCRIPTIVE CIRCULAR  
**SPRINGFIELD AUTO TOP & UPHOLSTERING CO.**  
102-106 Dwight Street  
Springfield, Mass.

**MENDENHALL'S ROAD MAPS**

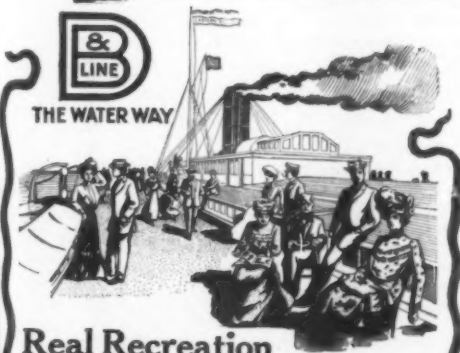
**ROAD MAPS** Specially designed and bound in pocket form for the use of Touring Automobileists.  
EASTERN—New York State, 75c.; New Jersey, 50c.; Pennsylvania, 50c.; Maryland and Delaware, 75c.  
WESTERN—Ohio, 50c.; S. W. Ohio, 50c.; No. Ohio, 50c.; Indiana, 50c.; So. Indiana, 50c.; N. W. Indiana, 50c.; Illinois, 50c. (just out); Michigan, 50c.; Iowa, 50c.; Missouri, 50c.; Wisconsin, 50c.; Kentucky, 50c.  
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**Non-Freezing Solution**  
 for your Radiators and  
**YOUNGELENE OIL**  
 for your cylinders, and zero weather will not  
 mar your pleasure. Let us give you prices.  
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**NEWARK, N. J.**

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 "STAYS RIGHT THE LONGEST"

Sta-Rite Plugs STAY RIGHT LONGER than  
 all others because they have Double Porcelains,  
 Non-Short circuiting air space, self packing  
 joints, 47 Sizes. Porcelain, \$1.50. Indestructible  
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**THE H. E. HARDY CO., 86 watts street,**  
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**PLUG**  
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**Arc-Spark Mfg. Co.**  
**125 W. 32d Street**  
**NEW YORK**  
**Standard-\$1.50-Metric**  
 Write for  
**"The Man a-Motoring"**



**Real Recreation**  
 En route between  
**Detroit and Buffalo**

The D. & B. Line steamers leave Detroit week days  
 at 5:00 p. m., Sundays at 4 p. m. (central time) and  
 from Buffalo daily at 5:30 p. m. (eastern time) reach-  
 ing their destination the next morning. Direct con-  
 nections with early morning trains. Superior service  
 and lowest rates between eastern and western states.

**Rail Tickets Available on Steamers**

All classes of tickets sold reading via Michigan  
 Central, Wabash and Grand Trunk railways between  
 Detroit and Buffalo in either direction will be accept-  
 ed for transportation on D. & B. Line Steamers.  
 Send two cent stamp for illustrated pamphlet and  
 map of Great Lakes. Address.

L. G. Lewis, G. P. A., Detroit, Mich.  
**Detroit & Buffalo Steamboat Co.**  
 Philip H. McMillan, Vice-Pres. A. A. Schantz, Gen. Mgr.

**"Rigs That Run"**

"Rigs that Run" is the line that al-  
 ways appears on advertising matter of  
 the "St. Louis" Motor Car Co., of Peoria,  
 Ill., and the little cars manufactured by  
 this concern have certainly earned the  
 title.

One of these little 7-H. P. machines  
 started from St. Louis, Mo., Sept. 16th,  
 1900, and arrived in Chicago on the after-  
 noon of the following day. A portion of

of the early cars are either unbeliev-  
 ed or cannot be comprehended, and when  
 you consider that this machine was  
 geared 3 1/2 to 1, and with engine dimen-  
 sions of 5/4 x 6, its grade climbing abili-  
 ties, as shown by the accompanying illus-  
 trations, are nothing short of miraculous.

**Wanted Car to Match Lead Pencil**

"It is surprising," states C. A. Ben-  
 jamin, vice-president and general man-



"ST. LOUIS" ON A BAD ROAD.

the roads traveled is shown on one of  
 the accompanying pictures, and it bears  
 mute witness to the conditions overcome  
 by this little pioneer driven by John L.  
 French. The majority of drivers to-  
 day, even though in charge of the latest  
 up-to-date 4 cylinders, would hesitate to  
 tackle the same roads under the same  
 conditions, but this little one lunker con-  
 quered at that time. After this first

ager of the Aerocar Company, "what a  
 large demand there is this season for  
 bright colors in the finish of automobiles.  
 Instead of the more conservative darker  
 shades, many are ordering special finishes.  
 These are as varied as tastes in general.  
 By the time that the present season's  
 output is all in use, the main thorough-  
 fares in our cities may resemble a long  
 variegated flower-bed.



"ST. LOUIS" WINNING CLIMBING TEST.

record it was entered in the first Inter-  
 national Exhibit of automobiles at Chi-  
 cago, Sept. 24th and 25th, 1900, and won  
 the first prize, a gold medal, in the four-  
 mile race for vehicles carrying 4 passen-  
 gers. This was held September 25th,  
 and on the previous day it won in addi-  
 tion the two prizes (medals) for fancy  
 driving and the grade climbing contest.  
 To the present day chauffeurs these feats

"To illustrate the extent to which this  
 desire has grown, we recently received a  
 bright purple lead pencil about three  
 inches long, with the specification that  
 the car was to be finished in that par-  
 ticular tint. I would not be surprised  
 if samples of gowns would soon be given  
 manufacturers with the request that the  
 touring car be finished to match 'milady's'  
 wardrobe."

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CAN BE RENTED AT REASONABLE RATES

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### Auto Engineers' Test

A test run of seventy-five miles to East Haddam and return ended the three-day meeting of the engineers of the mechanical branch of the Association of Licensed Automobile Manufacturers, held at Hartford, Conn., the middle of May.

The run was arranged for the purpose of testing the lubricating and cooling sys-

tems of the cars, and the frequent changes in drivers allowed each designer to ride in nearly every car but his own.

the Electric Vehicle Company; Vice-Winely, of the Pope Manufacturing Company, were on hand to cheer the cars as they started on the run.

Twenty-one cars were in line in front of the A. L. A. M. laboratory when Pacemaker Henry Souther, the association's consulting metallurgical expert, gave the signal for the start. The

utes after the start, the other car followed one minute apart. The road from Hartford to Middletown, being of hard macadam, proved an ideal stretch for getting a line on the cooling systems of the cars under a fairly high speed.

At Middletown the engineers and guests changed cars. The road from Middletown to Goodspeeds Ferry, running along the Connecticut River, proved one of the most picturesque parts of the route. At Goodspeeds Ferry the cars crossed to East Haddam, where luncheon was served. From East Haddam to Cobalt Crossing, the next control, proved the hardest piece of road of the trip. One or two hills were encountered which gave a fair demonstration of the hill climbing abilities of the various cars entered.

The South Glastonbury hill, which is about a mile in length, proved to be a miniature Schwartz's Hill, so well known to last year's Glidden tourists, except that the sharp turn where so many cars were penalized on the Glidden tour was halfway up the hill. It was very gratifying to the engineers to see the marked contrast in the manner in which the cars negotiated the hill as compared with the two former runs.

The third control was at Cobalt Crossing. From there the route was through Portland, South Glastonbury, East Hartford to Hartford. The run was noteworthy in that not once on the seventy-five-mile run was it necessary for any one of the twenty-one cars to make a single adjustment. There were only three punctures, which, considering the condition of portions of the road, was a very

tem of the cars, and the frequent changes in drivers allowed each designer to ride in nearly every car but his own.

The engineers considered the run a success in every way, and not one of the twenty-one cars which took part met with the slightest mishap. There is an old saying, "Needs must when the devil drives," and the way the average licensed engineer drove the other fellow's car with a view of finding out the weak points of his rival was a caution, and if any trouble were developed it was not apparent to the onlooker as every car arrived at each control promptly on time.

The run was through a picturesque and historical country, taking in both sides of the Connecticut River, but the pace was fast and the chances of seeing much en route were slim.

On the return trip through Glastonbury Eugene Mertens, in a Columbia testing car, which was not competing in the run, skidded into a ditch to avoid running down a woman in a carriage, whose horse bolted across the road. The car slid clear across the road, crashed into a telegraph pole and threw Mertens and his companions into a brook. Fortunately no one was seriously hurt, and Mertens is entitled to a Carnegie medal for saving a woman's life.

An interesting feature of the run was the debut of the Hewett car, which made a decidedly favorable impression.

President Cutler, former President George H. Day, President Budlong, of

President Albert A. Pope and W. L. weather man had evidently been consulted, for a more ideal day for a run of this sort could not have been found, the rain of yesterday laying the dust and making the country roads a pleasure to ride over.

From the laboratory in Capitol avenue



A. L. A. M. ENGINEERS AT EAST HADDAM, CONN.



A. L. A. M. ENGINEERS BOARDING FERRY.

the procession wound its way through the streets of Hartford and out on the boulevard, south through Weathersfield and Rocky Hill to Middletown, a distance of fifteen miles. Mr. Souther, in the pace-making car, a 35-H. P. Autocar, reached the first control twenty-six minutes and reaching the control at intervals

remarkable showing, speaking well for the improvements which have been made in tires in the past year.

The run was the third of the engineers, the first being held in 1904, and the second in 1905, both in the vicinity of New York.

The following engineers were present

# ALBRIGHT SPARK PLUGS

On the market for three years this plug has fully demonstrated its worth

Timer only makes connection for each explosion, during which time just so much current can flow through the primary coils, entirely separate from secondary wire to which plug is attached; and the easy escapement over the sharp points of the "ALBRIGHT" permits the full amount of current to pass through these points; while on the ordinary blunt-pointed plugs the resistance is so great that more than one-half of the current is wasted away.



Owing to the peculiar and original construction of the air-space above the sparking points the "ALBRIGHT" is proof against sooting or short circuiting. Even should the walls of this air-space become coated with carbon, the resistance between the points will be so much less than over the carbon deposit that the spark will always jump between the points, and the "ALBRIGHT" needs cleaning only about as often as your engine needs overhauling.

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ELECTRICAL  
IGNITION

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SOLE REPRESENTATIVE FOR THE UNITED STATES FOR  
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Only place in  
United States to  
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Supplies

*Wholesale*

on the run: E. T. Birdsall, Selden Motor Vehicle Co.; C. H. Calkins, C. E. Sparks and P. Dumont, Studebaker Automobile Co.; H. M. Coale and John G. Utz, Autocar Co.; Howard E. Coffin, E. R. Thomas, Detroit Co.; F. W. Cook, L. D. Hubbell, Pope Manufacturing Co.; George W. Dungam and R. B. Jackson, Olds Motor Works; H. G. Farrand, J. G. Jones, Knox Automobile Co.; David

accomplished engineers in the study, development and perfection of their manufactures, of which the storage battery may be said to be among the most perfect. It is to the credit of the enterprising company that there is no tendency shown on their part to make a mystery of their many inventions and improvements. The catalogue is itself an educational work of marked value, and copies may be had on

little for the sightseer or the driver of an automobile to see, consequently the car has little utility. The seeker after hard going and rough roads will have sufficient experience between Philadelphia and Washington to satisfy his sporting propensities, however.

"In overcoming these difficulties I had the pleasure of being arrested twice by county constables trying to make up the time I lost on bad stretches.

"There is a certain stretch of land on the other side of the river," concluded Mr. Fickling, "and I pity the driver who does not drive a car with a white line when he tries to drive over it."

One of the most important hill-climbing events of the year will be the contest of June 6 at Gates Mill Hill, to be held under the auspices of the Cleveland Automobile Club. The makers of the Stearns car have issued a sweeping challenge to all owners. The contest will be a hot one, as a number of prominent machines are already entered. Altogether nineteen events have been provided for.

The Autocar Company, of Ardmore, Pa., delivered a 30-horsepower touring car last month to Mr. J. A. McCrea, general superintendent of the Long Island Railroad, and a son of President



A. L. A. M. ENGINEERS AT MIDDLETOWN CONTROL.

Ferguson, George N. Pierce Co.; C. R. Greuter, Matheson Motor Car Co.; C. A. Haas, E. R. Thomas Co.; M. S. Hart and James Swan, Corbin Motor Vehicle Corporation; F. J. Haynes and John Wilkinson, H. H. Franklin Manufacturing Co.; E. R. Hewitt, Hewitt Motor Car Co.; Russell Huff, Packard Motor Car Co.; Charles Jardine and Robert Jardine, Royal Motor Car Co.; H. P. Maxim, Electric Vehicle Co.; Ed Noble, Haynes Automobile Co.; J. G. Perrin, M. Z. Viau and M. S. Young, Lozier Motor Co.; A. L. Pfitzner, Northern Motor Car Co.; A. L. Riker and E. T. Russell, Locomobile Co. of America; F. T. Sanborn, Alden Sampson 2d; F. C. Thompson, Harold L. Pope, Pope Motor Car Co., and W. H. Staring, of the Peerless Motor Car Co.

application to the company's publishing department at East Pittsburgh, Pa.

Mr. W. Irving Fickling, who has just



A. L. A. M. ENGINEERS ON TEST RUN.

returned from the Jamestown Exposition, gives a very interesting account of the road conditions which he traversed with his Stearns car.

"My better advice to tourists contemplating a journey down to the exposition in automobiles," says Mr. Fickling, "is that they will do well to abandon the machine at Washington and take the balance of the journey by boat.

"Reaching Jamestown there is very

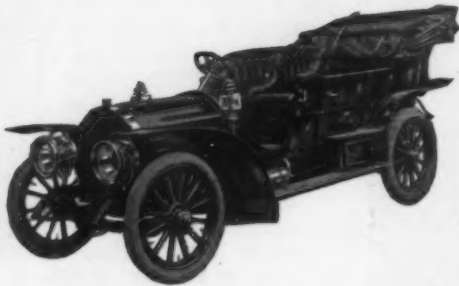
James McCrea, of the Pennsylvania Railroad.

At a recent meeting of the Montclair (N. J.) Riding, Driving and Automobile Club the following directors were elected: Oliver Wren, Andrew Morison, L. L. Chinn and Paul Wilcox, R. H. Adams, William T. Evans, V. S. Mulford and J. F. McClain, William A. Bryant, Benjamin Graham, James N. Jarvie and L. O. Ivey.

Storage Batteries for Stationary Service, Catalogue S, is the most recent publication of the Westinghouse Machine Company. It is an elegant pamphlet of 32 pages, with letterpress descriptions and accompanying illustrations of the latest forms and structures of the storage batteries manufactured by the company. The descriptions are particularly interesting and valuable to all who are interested in style of writing is free from technical phrases or abstruse calculations, and is, as all such works should be, readily understood by the merest beginner in the study of electricity. The Westinghouse Company have spent plenty of money and for many years have employed a corps of



# Matheson



Licensed under Selden Patent.

**Critical judges agree that the 1907 Matheson is equal to any car built in the World.**

The Matheson is not "thrown together." It is conscientiously and accurately built of the best materials procurable. . . .

**A CAR OF ABSOLUTE PERFECTION IN EVERY MECHANICAL DETAIL.**

RUNABOUTS, TOURING CARS, LIMOUSINES and LANDAULETS

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of New York,**

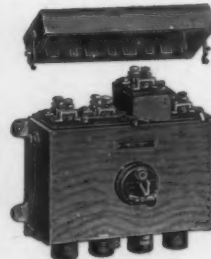
1619-21-23 Broadway. Tel. 4876 Col.

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Philadelphia, Pa.—Titman, Leeds & Co., Broad and Cherry Sts.  
Boston, Mass.—The Matheson Co. of Boston, 92 Mass. Ave.  
St. Louis, Mo.—The Southside Auto Co., 2339 So. Grand Ave.  
Richmond, Va.—Motor Transfer Co.  
San Francisco, Cal.—The Matheson Co. of California, cor. Golden Gate and Van Ness Aves.  
Rochester, N. Y.—Rochester Automobile Co., 150-170 South Ave.  
Albany, N. Y.—Albany Garage Co., 29-30 Howard St.  
Binghamton, N. Y.—H. D. Clinton Auto Co.  
Calgary, Alberta, Canada.—A. S. Urquhart.  
Watertown, N. Y.—Watertown Auto & Supply Co.  
Cleveland, Ohio—Central Auto & Supply Co.  
Newark, N. J.—Matheson Co. of N. J., J. B. Ryall, 9 Clinton St.  
Jersey City, N. J.—Hudson County Auto Co.  
Long Branch, N. J.—Long Branch Auto Co.  
Baltimore, Md.—The Matheson Co. of Maryland (B. E. Wood Lumber Co.).

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MANUFACTURERS OF



**Coils  
Timing  
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Our Coil is the most rapid, economical in battery consumption, most durable and reliable made in the world. Used exclusively by several of the largest and best automobile manufacturers in the country.

The Franklin Car, which recently won the Economy Test, was equipped with our entire Ignition Outfit — Coils, Timing Devices, Switches and Plugs

All we ask is an unprejudiced test to prove to you that our goods are what we claim  
**Automobile owners who have ignition troubles would do well to test this Coil**

Write for prices and description of our 1907 Ignition Products

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PETTINGELL & ANDREWS, Pearl and Atlantic Ave., Boston.  
New England Distributors

## New Jersey Notes and News.

Merritt & Company, of Newark, N. J., are erecting a large cement block garage.

Mr. George H. Krause, of Passaic, has received his 35-H. P. Matheson car from the Matheson Company, of Newark, N. J.

Mr. Harry Lowy, a prominent real estate dealer in Newark, made a trip to Atlantic City in his "National" auto last month.

Mr. Peter Murray, of Newark, accompanied by a party of friends, recently took a trip through Union County in his automobile.

Mr. Frederick E. Kip, of Crestmont Road, Montclair, has received a new Mitchell runabout and a new Stevens-Duryea touring car.

Judge J. B. Dill and family, of East Orange, were on a tour of Essex, Sussex, Morris and Warren counties in their Corbin touring car recently.

Mr. Solomon M. Schatzkin, of Ruthersford, has received a Locomobile touring car, in which he will shortly leave for a trip to the Jamestown Exposition.

Mr. Thomas P. Gould has become associated with the Essex Automobile Company, of Newark. Mr. Gould was formerly the local agent for the Reo car.

Mr. H. J. Koehler, of Newark, N. J., is spending considerable time at his New York garage, where he reports the inquiry for Buick demonstrations on the increase.

C. E. Beach, Newark agent for the Rambler, made a trip to Philadelphia recently, taking a party, consisting of Mr. Adams, Mr. Goulding and Mr. Morris and wife.

Mr. and Mrs. Herbert Atha, of Newark, will spend the summer at Shelter Island. They will take their limousine car with them, and expect to do a great deal of touring.

The Jeffery-Dewitt Company, Newark, N. J., have organized to deal in automobiles and vehicles. The incorporators are Joseph A. Jeffery, Benjamin A. Jeffery and Mortimer C. Dewitt.

The new addition in the rear of the F. E. Boland Motor Company, of Newark, agents for the National and the Elmon agency, are now completed and are proving invaluable to these two concerns.

Mr. Bernard M. Shanley, Jr., who is in Europe with his wife, has purchased a 50-H. P. Daimler runabout in which he proposes to make a tour of England, Ireland and Germany. Mr. Shanley will be accompanied on the journey by his

a beginner. Other women drivers are Phoebe H. Hart, of 786 Highland avenue, Newark, and Nannie R. Outerbridge, of Sussex avenue, Morristown.

Snyder & Co., of East Orange, are building a new garage, 40 by 42 ft., of cement block at the corner of Harrison street and the D., L. & W. Railroad, in that town. There will be several novel features connected with this firm's new place of business that will make it one of the most up-to-date garages in the State.

An Auburn two-cylinder car of 24-H. P. took George Eades and party of four to Greenwood Lake recently, going by way of Pompton and returning via Newfoundland, Paterson, etc. The car was driven by J. J. Meyers, of Orange, the local agent for the Auburn, who is making such a success in these parts with this new car.

The Essex Automobile Company, of Newark, have taken the State agency for the Logan commercial trucks and pleasure vehicles and a carload of these machines have been shipped to that city. The commercial line consists of a three-ton truck and a light delivery

wagon; also a runabout, which is capable of making fifty miles an hour on the road.

J. W. Mason, the Maxwell agent at Newark, recently reported the following deliveries:

Maxwell runabout to W. H. Illingworth, manager of the Crucible Steel plant in Harrison.

Maxwell touring car to Mr. F. J. Bimler, of North 7th street, Newark.

Dr. James R. English, of Irvington, received his new runabout.

Another runabout was delivered to George Zeller, of Newark.

The executive committee of the Automobile Club of America is drawing attention to the fact that cars can be kept in that storage in the fine garage during the summer.



VICTORIA A. WISS & BRO.'S NEW GARAGE, 12 AND 14 PINE STREET, MORRISTOWN, N. J. LARGEST IN NEW JERSEY, MEASURING 50 BY 180 FEET.

wife. The car will be brought to Newark in the fall.

The Bell Electric Motor Company, Jersey City, N. J., have filed articles of incorporation to manufacture motors, electric machinery, etc. The capital is \$150,000, and the incorporators are Alonzo C. Bell, T. R. Bell and A. L. Bell, all of New York.

A driver's license has been issued to Emma W. Fingar, of 81 Alpine street, Newark, who will drive a 20-H. P. machine. Elizabeth J. Hitch, of 140 Irving avenue, South Orange, has taken out a license for a 9-H. P. car. In her application she says she has driven a car 2,000 miles in the past two years. Grace G. Conley, another woman driver who has received a license, resides at 423 Mt. Prospect avenue, Newark. She is only

# AUTOMOBILE BARGAINS

We are the largest dealers in new and second-hand Automobiles in the world. Every make. Prices from \$150 to \$7,000.

Complete list on request.

## TIMES SQUARE AUTOMOBILE CO.

New Main Entrance, 1599-1601 Broadway, Connecting with 215-217 West 48th Street  
NEW YORK CITY

### The Springfield Motometer

#### IS THE EASIEST

of all instruments to Read from the *Seat* because the Pointer takes its place on the dial and remains perfectly steady.

It instantly shows the slightest increase or decrease of speed, but neither swings nor dances around the point it is indicating, for the reason that it is directly connected to

#### A GOVERNOR THAT GOVERNS

It must move exactly as the governor moves.

It is accurate and reliable because correctly constructed.

Every motion is balanced.

All working parts are of steel with hardened self-lubricating bearings.

A fine piece of mechanism which meets the approval of the mechanical experts.

It is covered by a business-like guarantee.

**The Price is Right—Fair To Us, Fair To You**

You can put in more money, but you can't buy better service.

For any sized wheel and fittings for any car.

50 Mile Instrument, combining Trip and Season Odometer, \$45.00.

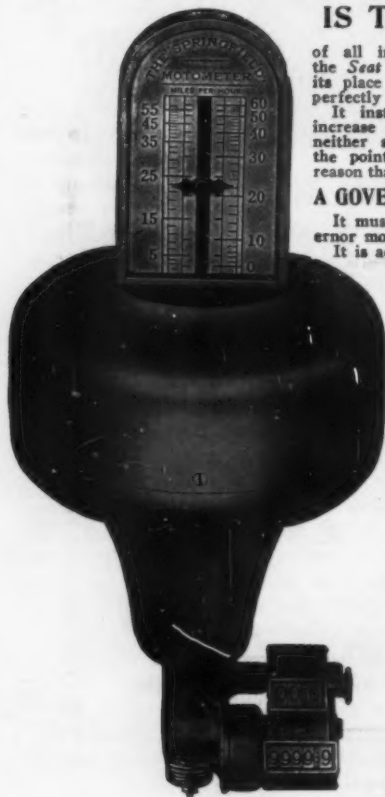
60 Mile Instrument, combining Trip and Season Odometer, \$50.00.

Either size, without Odometer \$10.00 less.

**WE CAN NOW MAKE IMMEDIATE DELIVERIES**

The R. H. Smith Manufacturing Company

Patentees and Manufacturers  
SPRINGFIELD, MASS.  
Est. 1865. Inc. 1883



### The "Day and Night Jones"

Is a combination of the Jones Auto Clock and the Jones Speedometer-Odometer with trip and distance register, mounted together and in conjunction with small electric light.

It places at the instant command of the motorist *Day or Night, Time and Speed; Total and Trip Mileage.*

Its use to those touring by night and following the directions of a route book is, of course, inestimable.

WRITE DEPT. 3 FOR BULLETIN 4

**Jones Speedometer Co.,** 2228 Broadway  
New York



### New Jersey Automobile Club Election

The annual meeting of the New Jersey Automobile and Motor Club for the election of officers for the year was held in the clubrooms on May 6.



Flashlight Photograph taken in New Jersey Automobile Club. In the group are the officers elected recently: Angus Sinclair, President; L. T. Wiss, Vice-president; H. A. Bonnell, Secretary; J. H. Wood, W. C. Shanley, J. R. Denmar, W. C. Crosby, James R. English, and W. F. Kimber.

There was a second ticket in the field, and considerable excitement prevailed during the evening, but the regular ticket received sufficient votes to carry the election.

At the meeting on the evening of Wednesday, May 9, mentioned in the above statement, a flashlight photograph was taken of the newly elected trustees who were present. In the picture are Angus Sinclair, president; L. T. Wiss, vice-president; H. A. Bonnell, secretary; J. H. Wood, W. C. Shanley, J. R. Denmar, W. C. Crosby, James R. English, and W. F. Kimber.

The New Jersey Automobile and Motor Club is the second largest automobile club in the country and its membership has passed the eight hundred mark. It was incorporated in 1894, and therefore ranks among the oldest clubs of its kind in the country as well.

The objects of the club are to bring the motorists of this part of the state together for mutual acquaintances and for furthering all projects, legislative and otherwise, that will benefit the automobile owners of New Jersey. The organization has accomplished a great deal in the past in the interest of automobiling and its growing strength in numbers will give it a still greater power. Its officers are all men of prominence who have the interests of the club at heart and its outlook for the future is bright.

The following members were elected at the meeting of the officers and

trustees of the New Jersey Automobile and Motor Club Wednesday night:

Active—Adrian R. Allan, 49 Wall street; Samuel George Bailey, 697 High street; William Bardsley, 31 Kearney avenue; Carl George de Laval, 136 Highland

Broad street; J. S. H. Clark, Essex Club, Newark; E. A. Campbell, 44 Park place; Joseph F. Emanuel, 1111 Broad street; Charles E. Hetzel, 57 Main street; H. Percy Jones, 361 Mt. Prospect avenue; J. P. McFadden, 11 Pennington street; Charles Nobs, Jr., 24 Boudinot street; Edward A. Pruden, 46 Spruce street; Clarence E. Perry, Madison; William A. Smith, 763 Broad street; Irving Smith, 119 Glenwood avenue, East Orange; G. Randall Swain, 994 Broad street.

Several enthusiastic autoists were on the way to Newark by the Plank Road route one day recently in a 40-H. P. National touring car when a mudhole or ditch was encountered, which caused the car to throw out the clutch, thus disconnecting the engine and the car came to a sudden stop. An experienced automobilist, who was with the party, got out to crank the engine and found, to his surprise, that the engine was still running; the entire absence of vibration and noise demonstrating what mechanical efforts are being made to secure a perfectly noiseless engine and the success that is being had.

### South Jersey Motor Trouble

TRENTON, May 18.—Local automobile owners are seeking a new route to Doylestown and Bethlehem, Pa., because of the novel plan adopted by the Newtown borough council to prevent auto



NEW JERSEY AUTOMOBILE & MOTOR CLUB FINDERS AT BOONTON RESERVOIR.

street; A. B. Le Massena, 389 Summer avenue; J. M. Van Orden, 314-322 Market street; George C. Smith, 89 7th avenue, New York City; George Shepherd, Flemington; Guy R. Bell, Flemington; George A. Squire, 106 South street, Morristown; Sidney A. Twinch, 589 Broad street.

Associate—Colonel Frederick G. Agens, 731 High street; Albert E. Doremus, 127

speeding through that town Sundays. The scheme is so effective that it is for the enthusiasts to decide whether they are to cut the town out of their itinerary, bring their machines to an absolute standstill and so run the chance of being arrested, or take the risk of a broken neck and machine.

State street in Newtown forms a part of the direct route to towns in the up-



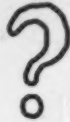
# Will You Take A Motor Ride With Me?

A Prize of

**\$50**

FOR THE BEST  
ANSWER TO  
THIS QUESTION

WHAT IS THE  
BEST MOTOR  
FOR A TRIP  
LIKE THIS



THE publishers of AUTO-  
MOBILE MAGAZINE offer  
the following prizes for  
the best answers to the above  
question.

The competition is opened  
freely to all who may desire to  
compete without charge or con-  
sideration of any kind, and that  
prospective contestants need not  
be subscribers to the publication  
in order to be entitled to com-  
pete for the prizes offered.

First Prize \$50.00  
Second " 25.00  
Ten next prizes of  
\$1.00 each

Everyone is invited to enter this  
contest. Simply write a letter  
naming the car you would select  
and stating why it is best.  
Letters must not contain more  
than 500 words. Contest will  
close August 15, 1907, and prizes  
will be awarded in the month  
following. Address,

Contest Editor,  
Automobile Magazine,  
136 Liberty St., New York City



THIS is a genuine invitation. It is actually extend-  
ed to every person in the United States who  
may read these lines.

During the next two years I expect to take  
a series of motor tours which will eventually  
cover every section of the United States. The  
trips will be partly for pleasure but mostly for  
business. I have organized the National Association of Maga-  
zine Agents, the members of which are found in nearly every  
section of our country. So the chief object of my trip will  
be to call upon these widely scattered members and thus  
strengthen our association by some personal work.

I am going to earn the car in which I will take the tours  
by obtaining five thousand new subscribers to the "Automobile  
Magazine." Of course I expect that my fellow mem-  
bers of the association will help considerably, but I also invite  
everyone who reads this to join me in the enterprise. The  
publishers of the magazine have made their offer to me most  
liberal, so that I can offer everyone who gets even a few sub-  
scriptions for me a very liberal rate of commission. In addi-  
tion to the commission

**I WILL GIVE A CASH PRIZE TO EVERYONE  
WHO OBTAINS TEN SUBSCRIPTIONS.**

There isn't one person who reads this who could not ob-  
tain at least ten subscriptions EASILY. The "Automobile  
Magazine" is the only really popular magazine of motoring at  
a popular price. There are other good magazines on motor-  
ing, but they are either too technical to be popular or else too  
high priced. Nowadays the interest in motoring is by no  
means confined to the owners of automobiles. In every com-  
munity there are hundreds who will be glad to find a magazine  
which tells all about motor cars and motoring in plain, inter-  
esting, but non-technical language.

Of course I shall be glad to hear from everyone who is at  
all interested in my plan. Anyone who can spare a little time  
to look up the motor enthusiasts of his neighborhood can make  
a neat sum in commissions and prizes. I will furnish every-  
thing needed to conduct the work. Simply write me—a postal  
will do—and I will send you some sample copies, order blanks,  
etc.

When I take my trips I shall so arrange my itinerary that  
I may make a call upon everyone who aids me in this subscrip-  
tion campaign. So that is why I ask you to take a motor ride  
with me. Will you? If so, write to-day.

HERBERT HUNGERFORD,  
828 Tribune Building, New York City.

per part of Bucks County, Pa., and is a favorite Sunday run. Because of the distance of the town from starting points the cars reach there just about the time when people are on their way to church. In some places that might not mean much, but there the population is descended almost entirely from good old Quaker stock, to whom meeting-going on First Day is as much a part of life's routine as spring house cleaning or Monday washing.

In untold instances people on their way to church, while dressed in their Sunday best, have either been knocked down by reckless driving of autos, or have been injured. The machines run so fast that neither the names of the occupants nor the license numbers have been secured.

That condition has been in existence for so long that people are quite up in arms. A solution has been repeatedly sought, but in vain, until the last meeting of the Borough Council, when town improvements were discussed. Members brought up the depression of a crosswalk in front of the Old Brick Tavern. It was suggested that the walk be raised a few inches to furnish protection against thin-soled shoes. Then the idea came that if it were raised higher it would both give protection against moisture and furnish a barrier against speeding automobiles.

The plan which is to be carried into effect is to raise the walk high enough to give tourists an option of cutting the town out of their itineraries altogether, slow down at that point and be arrested for speed violations or run the chance of broken necks and machines. If the town is eliminated from the routes, the distance to the upper part of the county will be increased greatly for people living all through South Jersey and one of the prettiest runs in that section will be lost. Newtown must not be confused with Newton in Sussex County.

#### Human Claws

The growth of the average finger nail is computed to be 1-32 inch a week, or a little more than 1½ inches a year. Imagine the care taken by the aristocratic Chinese in cultivating their finger nails, which often grow to be six or eight inches long. Just think of letting your finger nails grow for eight years without cutting them! The finger nails are said to grow faster in the summer than in the winter. The nail on the middle finger grows faster than any of the other nails, and that on the thumb grows slowest. It is also said that the nails on the right hand grow faster than those on the left hand. According to the rate of growth stated, the average time taken for each finger nail to grow its full length is about four and a half months,

and at this rate a man 70 years old would have renewed his nails 186 times. Taking the length of each nail as ½-inch, he would have grown 7 feet 9 inches of nail on each finger, and on all his fingers and thumbs an aggregate length of 77½ feet.

#### The New Thomas Motor Cab

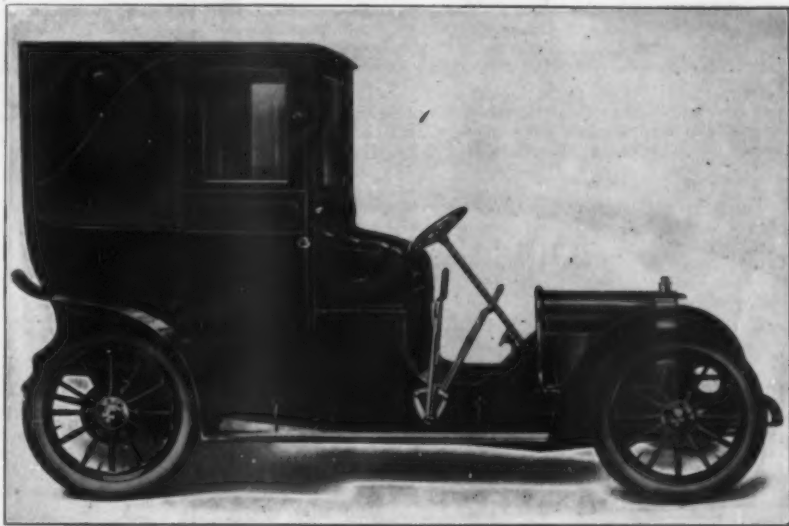
In announcing its plans for the manufacture of motor cabs and town cars on a large scale the E. R. Thomas Motor Company of Buffalo has taken the first steps in this country to bring to the front a division of the automobile manufacturing industry which has already proven a success in Europe.

The Thomas motor cabs and town cars have a four cylinder, water cooled motor, three speeds forward and reverse selective transmission and a shaft drive. The

#### Billy's Thermometer

The walls of the railroad repair shops were disfigured with brewery calendars extolling the virtues of buck beer, and Billy's thermometer relieved the degrading tedium of the tawdry posters that affronted the gazer's eye and gave a kind of scientific relief to the sodden surroundings.

When the midday whistle blew a wild stampede was made for Clark's parlors, and thin soup, hot as molten lead, and "schooners" of beer, big as Etruscan vases and cold as ice, were dished out to the hungry and thirsty mechanics. To mankind generally wine is a mocker, but in Billy's case Clark's best beer had the effect of bringing out the intellectual side of his character. Under its influence his tongue became finely eloquent and strangely mercurial, and whether it was



THE NEW THOMAS MOTOR CAB, MADE BY THE E. R. THOMAS MOTOR COMPANY, OF BUFFALO, N. Y.

weight of the cars is slightly over 1,500 pounds and the wheels and tires are larger than have been used on cars of this weight or for this purpose before.

The designs for these cars were worked out by Monsieur Gustav Chedru, head of the foreign designing department of the company, who has made a careful study of the business in France and who designed a car which embraces the qualities used in the product of the makers of that country with the different needs of this.

As soon as the plans were completed, months ago, it was found that a separate plant and special machinery would be necessary for the making of this class of cars. Deliveries of these cars will be made early in the fall.

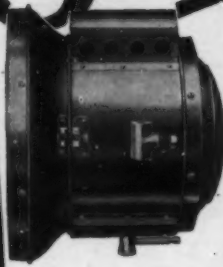
The hum of gears of an automobile is irritating. A device intended to deaden the noise is among recent inventions.

cool beer, or hot soup, or tobacco smoke, or pig's feet, or stuffed cheese, their united forces never made Billy too full for utterance. On the contrary, Billy became a fountain of gratuitous garrulousness. The burning questions of the hour passed in rapid review and became transfigured in Billy's mind like pieces of colored glass in a kaleidoscope. Sometimes his eloquent harangues were accompanied with demonstrations. He was great on phrenology. He took the sizes of men's heads, and occasionally lit the lamp of hope in the black brow of wasted energy. Billy had a medicine chest and microscopes and Jamaica ginger and court plaster. His thermometer was securely nailed to the wall, and in hot weather it became a center of interest outrivaling the blackboard where official notices were posted and where shop rules were placarded that nobody ever read.

Billy had just returned from his midday refreshment full of Clark's com-



# SOLAR LAMPS



## Are Made by

**EXPERT LAMP MAKERS**—not ordinary mechanics or tinsmiths.

We employed every expert lamp maker to be found in the west at our Kenosha factory and still could not supply the demand.

It was in order to get additional expert lamp makers that we opened our large factory in New York City. This factory extends from Thirty-Sixth street to Thirty-Seventh street and is two hundred feet deep. Though the expense of operating a factory in New York City is very

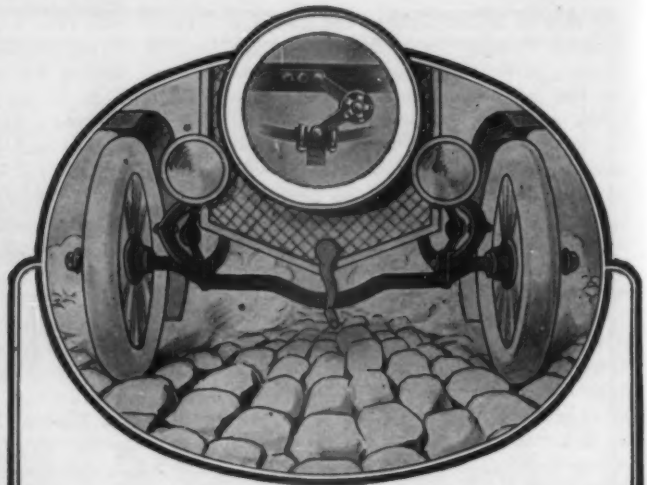
great we had to open it there because lamp makers of the high quality we wished to employ would not leave New York City.

Solar Lamps and Generators are made from fewer pieces than any other make on the market. Our large twenty ton presses draw the heavy brass into the proper forms and these pieces are riveted or screwed together.

Every feature of the Solar Lamp and Generator is the very best as proven by our twelve years of doing but one thing—the manufacture of Acetylene Lamps and Generators for Bicycles, Automobiles and Motor Boats.

**BADGER BRASS Mfg. Co.**  
KENOSHA, WIS.

Eastern Branch 11th Ave., 36th & 37th Sts., New York City.



## Cobblestones with Comfort

No broken springs if your car is equipped with Truffault-Hartford Shock Absorbers.

95 per cent. of the springs break on the recoil—our shock absorbers bear the force of the recoil as well as gradually check the force of the downward plunge. They positively eradicate the jolt and jar of rough roads, making country riding thoroughly enjoyable.

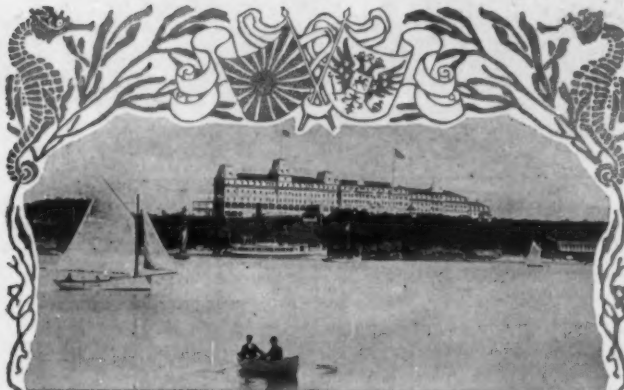
Recognized and adopted by all leading owners and drivers of racing cars; also by the following prominent manufacturers:

**Pierce Great Arrow, Locomobile, Matheson, Studebaker, Stevens-Duryea, Aerocar, Napier, Frontenac, Lane, Conover, Harmon, Peugeot, Gobron-Brillie, Rossel, Brasier and Sultan**

**HARTFORD SUSPENSION CO.**

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Cars equipped in a few hours at our garage, 212-214 West 88th Street, New York City



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New Castle, N. H. Frank C. Hall, Mgr.

For eighteen years America's leading and most luxurious summer hotel, 475 sunny, outside rooms, private baths, all modern conveniences.

Several hundred acres of virgin forest, seashore front and landscape gardens. Excellent clubhouse, golf links, tennis court, canoeing, fishing, sailing, and the largest salt water bathing pool in the world. Selected by the Government for the

### Russo-Japanese Peace Conference

and embodying every comfort, convenience and attraction that money and thought can supply.

Daily programme by Carl Baer's concert orchestra of well-known musicians. Garage and good roads for automobiles. For a vacation of health, rest, and relaxation, pure air, and good water, the Wentworth offers exceptional inducements.

For further particulars address Frank C. Hall, Mgr., 16 State St., Boston. New York office, 74 Broadway.



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**FOR** all the luxuries and accommodations of a high-class hotel, with an unexcelled cuisine and polite service, dinner at all hours of the day for Automobile Parties and Tourists, go to

**CRAWFORD INN,** Pompton Lakes, New Jersey

On direct route to TUXEDO, SUFFERNS and GREENWOOD LAKES

"House Open All Year 'Round."

pounds, and his philosophical mind was running on pure science. Would we care to see a demonstration? Certainly. Billy procured a piece of scrap iron and heated it in the firebox of a locomotive and laid it in one of the brazen bars that encircled the ball of the thermometer like the demarcation lines of the zones that mark a miniature terrestrial globe. The day was excessively hot and the great city was like a vast furnace. The mercurial column was already up in the nineties, but when Billy placed the piece of hot iron in the region of the torrid zone the mercury climbed to insufferable heights.

We ensconced ourselves in the engine cab and kept quiet and waited results. A big blacksmith's helper came along. His face was as red as a boiled lobster and great spherical liquid globules shone on his dark brow like beads of amber. He looked at Billy's thermometer and his jaw fell. He ran into the blacksmith's shop and returned with two companions. The three wise men laid their heads together, and one of them, finding speech, exclaimed: "Hully gee!" He was a poor man, with a big wife and small family, and he could ill afford to lose any time; but the limit of physical endurance had been reached, and he was going home, and home he went. Others clustered around, and the panic spread from shop to shop and ran from gallery to gallery. Billy's thermometer was correct. Everybody knew that. It was not an erratic instrument that ran up to high altitudes and then left itself sticking

in detached segregations of mercurial molecules when a chill came. It was something to swear by. Another and another sweltering mechanic laid off his overalls and went home by way of Clark's parlors. Presently there was an uproar in the tinsmith's shop. It was always hot there. It was near the roof, and what with the blazing furnaces inside and the blazing sun outside, Billy's thermometer would have shown to better advantage up there; but the reports had reached the distant gallery, and an asthmatic coppersmith, afflicted with what he called stomach trouble, which was nothing more nor less than chronic alcoholic gastritis, superinduced by thirty years' visitations to Clark's parlors, had suddenly been overcome by the reports circulated in regard to the manifestations of Billy's thermometer.

Two strong men brought the aged sufferer downstairs. He tottered feebly towards the superheated instrument and sank into a state of coma. The alarm became general. A sympathetic enthusiast

rang up the nearest hospital. In an incredibly short space of time an ambulance came clanging into the shop yard and a young doctor fresh from Bellevue was in our midst. He felt the trembling pulse of the collapsed coppersmith and called for ice. It came in barrowfuls. Where was Billy and his medicine chest? Billy had the finer sense that stands back in the presence of his superiors. The young physician was doing the doctoring, and Billy looked gravely on. Billy was not altogether idle. When the clamor was at its height, and the panic-stricken crowd clustered around the wan-faced coppersmith, Billy slipped pieces of ice into the antarctic circles that guarded the polar extremities of the mercurial bulb, and the column shrank like a big schooner of beer in Clark's parlors when a thirsty blacksmith has a long pull at it.

When the coppersmith was carried away in the ambulance with the young doctor a comical dog of a brass finisher looked at the thermometer and declared loudly that he was going home to take in his geraniums, in case they would become



ALONG A COUNTRY ROAD.

frostbitten. A perceptible chill ran over the crowd, and we expected to hear the teeth of some of them rattling like dice on the deal tables in Clark's parlors on a pay night. They looked at Billy's thermometer and they looked at each other. The marks of fire or frost had been carefully removed by the clever hand of Billy, but the mercurial column lingered long enough in the wintry regions to cool off the crowd.

A fine sense of humor is not given to every one, and this high faculty is especially far removed from a shop superintendent. He had met a scattered delegation hastening to Clark's parlors. He looked at his watch, and it was twenty minutes past one and the men idling. His remarks are unprintable. He approached Billy's thermometer just as the marvelous change of climate showed its effects on the bewildered beholders. He ordered the immediate destruction of the instrument. His word was law. A blow from a sledgehammer wielded by a friend of the overheated coppersmith and delivered

in the region of eternal winter broke up Billy's thermometer, and the bliss of ignorance fell upon the mystified mechanics like a benediction.

It has become common for the young woman of the period to plead with the magistrate for mercy on her chauffeur who exceeded the legal speed in efforts to prevent her from being late for a dinner engagement. There is only one thing for the devotee of fashion who lingers too, too long in her dressing room and then expects to get there on time by reckless speeding. She ought to engage an ambulance. The drivers of these vehicles are not restrained by speed ordinances and might be open to the inducement of carrying an undamaged fare.

As an indication of the increase in business during the first three months of 1907, the figures of the Secretary of State at Albany, where all cars are registered, are worth noting. It shows that notwithstanding the bad weather in New York there was an increase in the registrations, the total amount of money received for licenses amounting to \$25,408, a gain of \$3,444 over the same period of 1906. In the number of cars the increase is something like thirty-eight per cent.

There is a curious phase of hero worship growing up in America. Many adle-headed people who run automobiles will pay new rate prices

for automobiles that have been run by people of high social standing. Dealers cultivate this line of snobbery, and not a few of them show cars reputed to have been run by prominent people.

Detroit, the nativity of so many motor cars, good, bad and indifferent, is a beautiful city full of refined and intelligent people, but there is some sort of defect in their mental culture. The controller who has supervision of the mental pabulum fed to the people through free libraries has designated Mark Twain's Double-Barrelled Detective Stories as literary junk.

A recent act reads: "It shall be lawful for any person to dig clams or to catch fish on the Lord's day."

A new abbreviation comes from the Babcock Electric Company, Buffalo. It is f. i. b.—free in barn.



# Book Department

Cash must accompany order. No books sent C. O. D. Give name of book and author, and we can furnish any book published. All books sent by mail free for price named. If not satisfactory return and we will refund the money.

## AUTOMOBILE MAGAZINE

136 Liberty Street, New York

**A B C of ELECTRICITY.** Wm. H. Meadowcroft. The best known elementary treatise on this interesting subject. Written in language that is easily understood. Fully illustrated.....50c.

**AUTOMOBILE POCKETBOOK.** E. W. Roberts. There are many books that give information and instruction concerning automobiles, but the pocketbook prepared by Mr. Roberts is the gem of purest ray serene. It ought to be the bosom friend of every automobilist. It not only describes in clear language the construction of automobiles and their accessories, but tells how many difficulties to be met with in operating can be overcome .....\$1.50

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**ELECTRICIAN'S HANDY BOOK.** T. O'Conner Sloane. A comprehensive work on practical electric engineering that can be readily understood by the non-technical man and at the same time the educated engineer will receive great benefit from it. Pocketbook style. Leather bound .....\$3.50

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**Electric Hoist**

The type of hoist shown in our illustration is a new design. It has a maximum lifting capacity of one-half ton at a lifting speed of 15 ft. per minute. The motor frame supports the load and the entire hoist mechanism, and is made of cast steel with an ample factor of safety. The motor itself is entirely enclosed, and it is lubricated by grease fed by compression grease cups.

Grease lubrication has the advantage of being clean and not causing any drip on the floor. There is no danger of it getting on the armature or commutator, and the grease cups being prominent, so to speak, invite attention.

Two gear reductions are interposed between the motor and the pocket wheels, cast iron spur gears with cut teeth being used, the pinions being made of machine steel. The gearing is enclosed in a cast iron box open in the centre. The pocket wheel is made of cast iron, but, of course, is not in tension, and the chain and hook are made of tested stock, the chain being tested after forging. An automatic high limit switch of the lever type is attached to the hoist.

This type, which the makers, the Sprague Electric Company, of New York, call the S-7 hoist, is compact, the distance from the inside of hook at top of lift to centre of suspension bolt being 25½ ins., and from inside of hook to bottom of I-beam runway, when supplied with plain (Style A) carriage, is 28¾ ins. These hoists are supplied with single speed controllers and plain, trolley carriages.

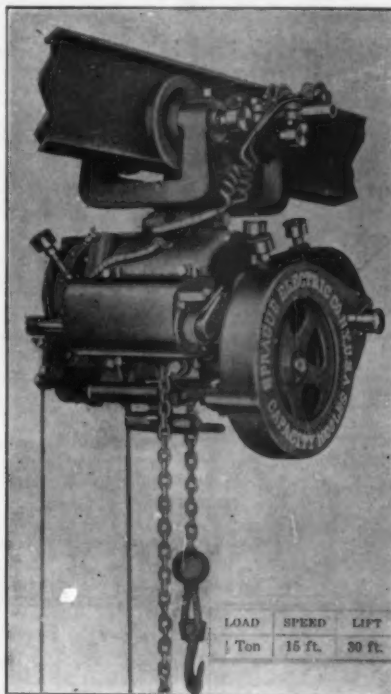
Mr. Crawford Fairbanks, of Terre Haute, Ind., has purchased a Thomas Flyer, and has been using the same for round trips to Terre Haute and back. Mr. Fairbanks has reduced the time from Indianapolis to Terre Haute to 2 hours and 10 minutes. Mr. Fairbanks is an enthusiastic automobilist. His private garage at Terre Haute now houses three Peerless machines, one Thomas, one imported English Napier runabout, several electrics and four Autocar runabouts, which are used by Mr. Fairbanks and his family.

King Alfonso of Spain has added to his automobile stable a new open-faced car of low horsepower for the use of his queen and his recently arrived heir to the throne when they are able to ride out in the air and sunshine. The new vehicle is a 22-H. P. Berliet victoria, similar to the one that won the first prize for open cars at the Monte Carlo meeting last year. In it the young prince and his mother, as they ride out, will be accessible to the view and salutations of the enthusiastic Spanish public.

**Suburban Steam Motor Car**

Not long ago the Canadian Pacific Railway got out a design of a steam suburban motor car. It has a first-class compartment seating forty passengers and a smoking compartment which will comfortably hold sixteen. There is a baggage and express compartment in the forward end, and the boiler and engines are located in the front, immediately over the driving truck.

The fuel is crude oil, carried in a steel tank under the car. The engines are sufficiently powerful not only to propel the car itself, but a trailer can be used when required. The car was built under the supervision of Mr. H. H. Vaughan, assistant to the vice-president of the road. A number of similar cars will be constructed at the Angus shops



ELECTRIC HOIST.

of the company for use in the suburban service between various points in the different localities along the line of the railway.

The St. Louis Car Co. has just delivered to the gypsy king of Kansas one of the most unique motor vehicles in the world. It is a combination of the old gypsy wagon and the modern motor car, and will be used by the king and his family on their continuous camping-out party.

**A Pet Name**

Miss Meadowsweet—Excuse my ignorance, but ought I to call you Mr. Squills or Dr. Squills?

The Doctor (irascibly)—Oh, call

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me anything you like. Some of my friends call me an old idiot.

Miss Meadowsweet—Ah! but those are only people who know you intimately.—*Stray Stories.*

A funny incident happened in a village at a recent bazaar. The vicar had invited all the people of the parish to contribute something for a mammoth "lucky bag," and a most varied collection of goods was gathered. On the second evening of the fete a respectable citizen, imbued with the spirit of doing good in the church, paid the entrance fee, and drew a prize from the bag. A crowd collected about him, all anxious to see what he had drawn, and his surprise may be imagined when he got a note with the following inscription: "Good for one grave, dug at any time during the ensuing year.—John Clay." The gravedigger had put in his gift with the rest.

Should a grease pipe require cleaning out, the best way is to push a stiff wire down the pipe. After making a path through it, lay the pipe in gasoline till all the grease is dissolved. Warming it over a flame effects the same purpose.

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Phoenix, Southwestern Automobile Company.

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Los Angeles Auto Machine & Garage Co., 631 San Pedro St.  
Los Angeles, Burke Bros., 485 S. Spring St.  
Moore, Geo. P. Co., Inc.  
Oakland, Bennet's Auto Garage.  
Riverside, Alex. Nelson, Eighth St.  
Sacramento, Jos. J. Schmeer, 1009 No. J St.  
San Francisco, Boesch Lamp Co., 1569 Grove St.  
San Pedro, Marine Supply Co.  
Upland, Euclid Garage.

### COLORADO.

Colorado Springs, Colorado Springs Garage Co.  
Denver, Automobile & Repair Co., 1640 B'way.  
Denver, O. Burke, 918 Larimer St.  
Pueblo, Pueblo Automobile Co.

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Bridgeport, Bridgeport Automobile Co.  
Greenwich, Allen Asten & Co.  
Hartford, Brown, Thompson & Co., Main St.  
Hartford, The Miner Garage Co., Cor. High and Allyn Streets.  
Jewett City, Jewett City Auto Sta.  
Meriden, Meriden Automobile Station. Selling, Storing and Sundries, Automobile Repairing, 41 West Main Street. Telephone, 359.  
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New Haven, D. H. Buell & Co., 516 State St.  
New London, W. H. Starr, 88 Greene St.  
Norwich, Smith & Swan, 276 Main St.  
Waterbury, H. M. Tyrrell, Jefferson St.

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Wilmington, T. C. Bradford, 311 Market St.  
Wilmington, Delaware Auto. Storage and Repair Co.

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Washington, J. B. Maxwell, 829 14th St., N. W.

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Miami, Mr. Elnig.

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Atlanta, Augusta Garage Co., 51 Broad St.  
Bainbridge, Charles A. Caldwell.  
Macon, Automobile & Machinery Co.  
Savannah, G. W. Thomas, 114 Jefferson St.

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Chicago, The Automobile Parts & Equipment Co., Michigan Ave. and 13th St.  
Chicago, The Franco-American Auto & Supply Co., 1404 Michigan Ave., C. C. Boynton, Mgr.  
Chicago, Owen H. Fay Livery Co., 243 Michigan Ave.  
Chicago, White & Wildman, 1551 Michigan Ave.  
Chicago, A. C. Banker Auto Co., 35th St. and Grand Blvd.  
Chicago, The Haynes Automobile Co., 241 Wash Ave.

Chicago, The Excelsior Automobile Supply Co. and Continental Caoutchouc Co., 1436 and 1438 Michigan Ave.  
Chicago, Stoddard-Dayton Automobile Co., Grand Boulevard and 40th St.  
Joliet, The Joliet Automobile Co.  
Monmouth, Wm. Bartlett.  
Egin, Frank B. Wood, River St.

### INDIANA.

Flatrock, Flatrock Automobile Co.  
Indianapolis, Auto Storage & Repair Co., 23 E. Ohio St.  
Indianapolis, Central Garage, 330 E. Market St.  
Lafayette, The Tippecanoe Automobile Co., 928 Main St.  
Muncie, Muncie Auto Garage & Repair Co., 209 E. Adams St.

### IOWA.

Burlington, Ralph Rogers & Co., 316 N. Main St.  
Coin, E. L. Benedict & Sons.  
Cedar Rapids, Cedar Rapids Supply Co., 307 3d Ave.  
Des Moines, Mason Automobile Co., E. 5th and Market Sts.  
Manchester, Manchester Auto. Co.  
Muscatine, Fred. Bowman.  
Ottawa, J. Kerfoot.  
Sioux City, The William Warnock Co.  
Waterloo, Wm. Galloway.

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Topeka, Kenwood Garage, 111 E. 7th St.

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Louisville, R. L. Davis, 1003 W. Chestnut St.  
Louisville, Longest Bros.

### LOUISIANA.

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### MAINE.

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Lewiston, H. J. Willard Co., 48 Ash St.  
Portland, Dowling's Garage, 22 Forest Ave.  
Telephones N. E. 1630, Auto. 1656.  
Portland, Maine Motor Carriage Co., Free & South Sts. Telephones N. E. 290, Auto. 2861.  
Rockland, The Rockland Garage and Auto Co., Main and Winter Sts.  
Waterville, The Waterville Motor Co., 245-247 Main St.

### MARYLAND.

Baltimore, Auto Storage & Repair Co., 1118 Cathedral St.  
Baltimore, Balto. Motor Car Co., 327 N. Calvert St.  
Baltimore, A. S. Brown, Mt. Royal Ave.  
Baltimore, Chas. I. Wiegand, 840 No. Fulton Av.  
Cumberland, The W. W. Garage & Machine Co., No. Center St.

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Boston, Adams-Dutton Motor Car Co.  
Boston, The Boston Mechanical Co., Motor Mart.  
Boston, Boston Tire and Rubber Co., 184 Friend St.  
Boston, F. L. Bradley, 624 Columbus Ave., Dorchester.  
Boston, E. S. Breed, Buffum.  
Boston, Park Square Auto Station, 43 Columbus Ave.  
Brockton, Geo. J. Donahue, 389 Warren Ave., Telephone 92. Charging and accessories.  
Fall River, John Williams, 464 Pleasant St.  
Gloucester, W. Hodgkins, 9 Western Ave.  
Lynn, Y. C. Der Bar, Broad St.  
Newton Centre, J. W. Crowell, Commonwealth Ave. Tel. 442 Newton West.  
Northfield, N. W. Keet.  
Pittsfield, Berkshire Automobile Co.

Pittsfield, Central Automobile Station Co., Renne Ave. & Pearl St. Telephone 161-11.  
Stockbridge, H. B. Parsons.  
Taunton, Brownell & Burt.  
Waltham, Watch City Auto Co., Music Hall Ave.  
Worcester, Worcester Auto Co., 30 Exchange St.

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Bay City, Mobile Motor and Machine Co.  
Coldwater, V. L. Pendleton & Co.  
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Detroit, Detroit Automobile Top Co., 265 Jefferson Ave.  
Detroit, The Free Bock Auto Co.  
Detroit, Wayne Auto & Supply Co.  
Flint, Samuel Wey, No. Saginaw St.  
Grand Rapids, Lubeck Automobile Co.  
Lansing, John Bohnet, 117 Lenawee St. E.  
Saginaw, Morris Auto Co., Tilden St. and Genesee Ave.

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Atlantic City, Atlantic Automobile Co.  
Atlantic City, Columbia Automobile Station.  
Bloomfield, Albert Loppacker, Glenwood Ave. and Henry St.  
Camden, Reeves Auto Station, 7th and Market Sts.  
East Orange, Hollywood Motor Car Co., Opposite Grove St. Sta.  
Elizabeth, Elizabeth Auto Co., 14 Westfield Ave.  
Englewood, J. W. Van Wart, Palisade Ave.  
Freehold, Hotel American.  
Hackensack, Hackensack Auto Co.  
Jersey City, Crescent Cycle & Automobile Co., 265 Hudson Blvd.  
Jersey City, S. W. J. Kells Mfg. Co., 130 Highland Ave.  
Long Branch, W. H. Parker & Co., 148 B'way.  
Montclair, Montclair Auto Station Co., Valley Road.  
Newark, Newark Garage & Repair Co., Clinton Ave. and Somerset St.  
Newark, F. E. Boland Motor Co., 239 Halsey St.  
Newark, Coburn & Beldon, 577 Central Ave.  
Newark, Astor Garage, 56 Sherman Ave.  
Newark, Riverside Garage, 129 Riverside Ave.  
Newark, Motor Vehicle Co., 518 Broad St.  
Newark, New Jersey Auto Car Co., 226 Halsey St.  
Newark, Austin Auto Co., 484 Broad St.  
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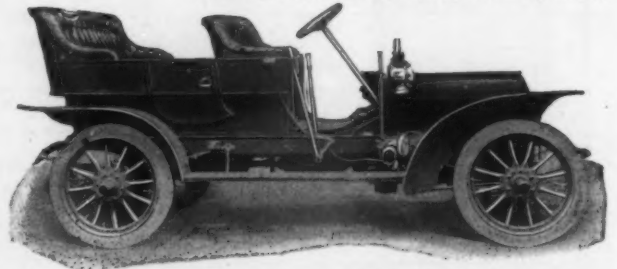
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Amsterdam, J. L. Peck.  
Ballston Springs, Tracy, Nicholl Auto Garage.  
Bath, Frank Klickler.  
Buffalo, Auto-Car Garage, 77 Edward St., Near Delaware Ave.  
Buffalo, Kelsey Co., 42 Niagara St.  
Buffalo, Motor Vehicle Garage Co., 1133-1137 Main St.  
Buffalo, C. R. Baine, 1525 Seneca St.  
Elmira, H. C. Goarser, 122 R. R. Ave.  
Ithaca, Fairbanks, Grant Mfg. Co., 109 Albany St.  
Middletown, C. L. Swezy, 28 James St.  
New Rochelle, Desalbro Motor Car Co.  
New York City, American Automobile Storage Co., 36-38-40 W. 60th St.  
New York City, Cryder & Co., Storage and Repairs, 63d St. & Park Ave.  
New York City, American Locomotive Auto Co., B'way and 57th St.  
New York City, Archer & Co., 231-233-235 W. 40th St.  
New York City, The Autocar, 2181 B'way.  
New York City, The Auto Mart, 501 7th Ave.  
New York City, Bouton Motor Co., 110 W. 41st St.  
New York City, Sidney B. Bowman Auto Co., 52 W. 43d St.  
New York City, B'way Automobile Exchange, 515 7th Ave.  
New York City, Columbus Auto Exchange & Stor. Co., 313 W. 52d St.  
New York City, Hol Tan Co., B'way & 56th St.  
New York City, Harry S. Hout, 731 7th Ave.  
New York City, Locomobile Co. of America, B'way and 76th St.  
New York City, Majestic Automobile Co., 1709 B'way.  
New York City, Mt. Morris Auto Garage, 27 W. 124th St.  
New York City, Panhard & Levassor Auto Co., B'way and 62nd St.  
New York City, Tuxedo Garage Co., 33-39 E. 58th St.  
New York City, Victor Auto Storage Co., 147 W. 35th St.  
New York City, White Sewing Machine Co., 42 W. 62nd St.  
New York City, Winton Motor Carriage Co., 1706 B'way.  
Poughkeepsie, John Van Benschoten, Catherine St.

Rochester, Fred A. Mabbett, 189 Main St., West.  
Saratoga Springs, Hodges Auto Garage.  
Saratoga Springs, Ketchum's Auto Garage.  
Syracuse, The Amos Pierce Auto Co., 109-113 So. State St.  
Utica, Utica Motor Car Co., Harry P. Mundy.

### NORTH CAROLINA.

Charlotte, L. Barringer, 10 N. Church St.

### OHIO.

Akron, Union Automobile Garage Co., South College St.  
Akron, Akron Auto Garage Co., 9 W. Buchtel Ave.  
Cleveland, Geo. A. Crane & Co., 40 Clara St.  
Cleveland, H. S. Moore, 160 Crawford Rd.  
Cincinnati, Gunther Bros. Co., 1633 Madison B'v'd.  
Cincinnati, Queen City Auto Co., 810 Race St.  
Columbus, Capitol City Auto Co., 691 High St.  
Dayton, Chas. E. Drury, Miami Motor Co.  
Dayton, Kiser & Co., 29 E. and St.  
Toledo, Toledo Motor Carriage Co., 1012 Madison St.  
Youngstown, A. E. Brown, 134 E. Federal St.

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Allentown, O. J. Dietrich, N. 10th St.  
Allegheny, Allegheny Auto Co., 711 Jackson St.  
Ambler, D. E. Johnson.  
Dalton, Kellogg, Mosier & Co.  
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Easton, E. F. Crane, Holland Garage, 200 South 3rd St.  
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McKeesport, Sam'l Leck, 9th Ave. and Mulberry.  
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Philadelphia, Bellevue Stratford Garage.

Philadelphia, 51st St. Auto Station, 51st St. and Beaumont Ave.  
Philadelphia, D. L. Mulford, 1801 N. 21st St.  
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Pittsburg, East Liberty Auto Co., 5969 Centre Ave.  
Pittsburg, H. S. Townsley, 323 Homeward Ave.  
Pittsburg, Hiland Garage, Beatty and Baum Sts.  
Pittsburg, Standard Automobile Co., 5917 Baum St.  
Pottstown, D. G. Good.  
Reading, E. S. Youse.  
Stroudsburg, G. H. Schroeder.  
Wilkes-Barre, Wilkes-Barre Auto Co., 23 N. Franklin St.  
Wilkes-Barre, Auto Machine & Repair Co., 35 N. Washington St.  
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Newport, N. Y. Auto Repository, Ocean House Stables.  
Newport, J. D. Dickson, 113 Bellevue Ave.  
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Nashville, Anderson Auto Co., 314 4th Ave. N.  
Nashville, B. T. Bell, 166 3d Ave. N.

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Ogden, Ogden Automobile Co., Twenty-fourth St.

### VERMONT.

Rutland, Clark & Mathews, 161 West St.  
White River Junction, Excelsior Carriage Co.

### WISCONSIN.

Milwaukee, C. G. Norton & Co., 459 B'way.  
Milwaukee, Hein & Casper, 501 B'way.  
Milwaukee, Welch-Estberg Co., Seventh and Grand Ave.

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Montreal, Dominion Motor Car Co.  
Quebec, Quebec Auto and Launch Co.  
Winnipeg, McCulloch & Boswell, 189 Lombard St.  
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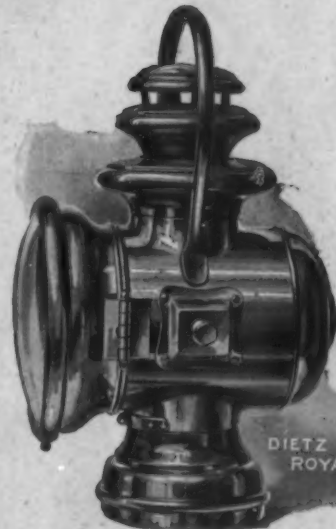
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