CADILLAC AUTOMOBILE COMPANY

DETROIT, MICHIGAN, U. S. A.

Cable Address, CADAUTO, DETROIT.

1902

WILLIAM E. METZGER,
SALES MANAGER.

SALESROOM,
265 JEFFERSON AVENUE.

C. A. BLACK, PRESIDENT.
A. E. F. WHITE, VICE-PRESIDENT.
LEM W. BOWEN, SECRETARY.
WILLIAM H. MURPHY, TREASURER.

THE AUTOMOBILE THAT SOLVES THE PROBLEM.

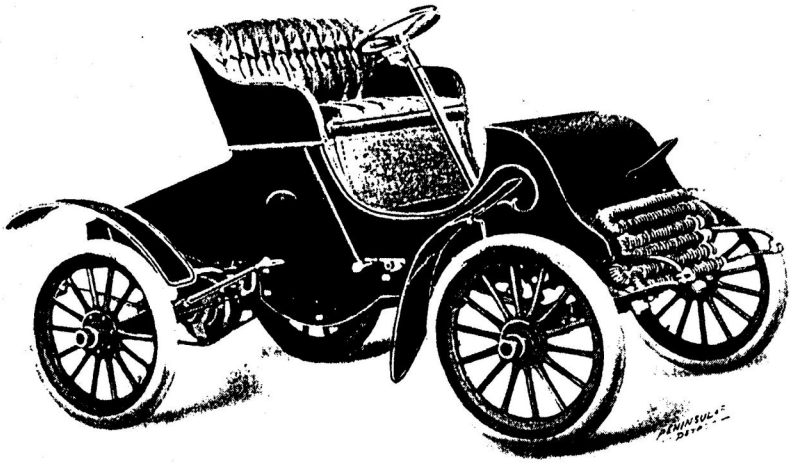
UNTIL the **Cadillac** was made, all automobile construction was more or less experimental—and no one had made an entirely satisfactory motor vehicle. This machine is made on a new system developed from the experience of all previous makers. The faults and weaknesses of the old systems have been avoided and a new ideal of motor travel developed that gives a perfect vehicle for comfort, speed, absolute safety, greatest durability, simplicity of operation, wide radius of travel, and reliability under all conditions of roads. There is no other automobile that can be compared to the **Cadillac** in any particular of durability, ease of operation, or convenience of use.

Being unable to reach the majority of prospective purchasers of automobiles by Agencies or personal calls we hand you this catalogue which, in a measure, gives a general knowledge of the **Cadillac** and its most important features and at the same time illustrates and explains the vital points so that comparisons may be made with other vehicles and thus enable you to satisfy yourself as to our claims for superiority over all others. As to our **Motors** and **Transmission Gears,** the fact that they are made by the **Leland & Faulconer Company** of a special design for our exclusive use is a sufficient guarantee as to quality and finish. Their experience, gained by actual work in this special line, is well known all over the **United States** and they are today recognized as the largest builders of gasoline engines in the Country, and their best efforts have been devoted to the **Cadillac** motors and transmissions, as well as to many other parts which enter into the makeup of our vehicle.

In selecting materials we have not tried to see how cheap this, that, or the other part could be bought, but have paid strict attention to the "how good" idea. We use **Drop Forgings** always, in preference to malleable or so called steel castings, and by so doing, have produced a vehicle, every part of which will justify the most positive guarantee.

HANDSOME

CADILLAC RUNABOUT

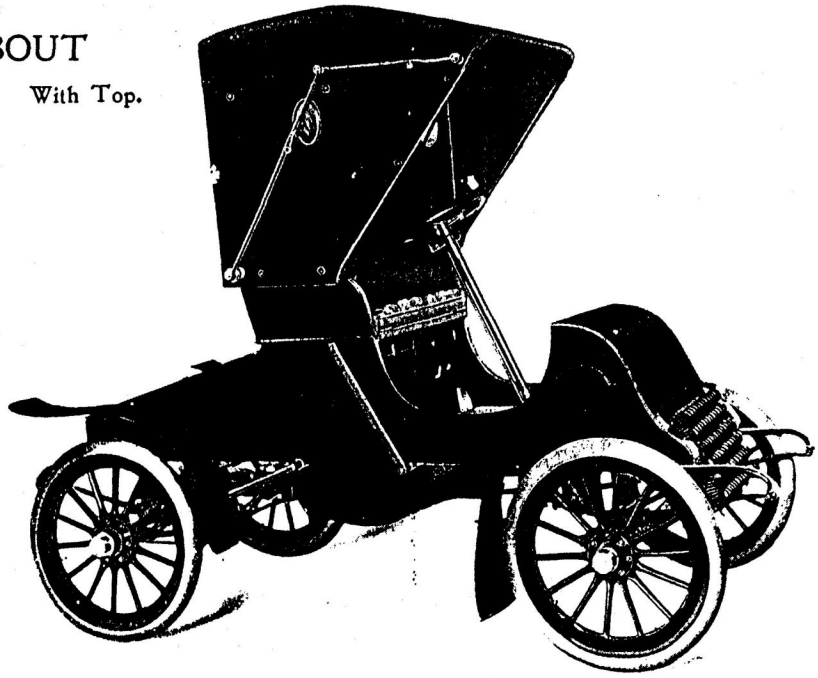


PRICE, $750.00. F. O. B. DETROIT.

STRONG

CADILLAC
RUNABOUT

With Top.

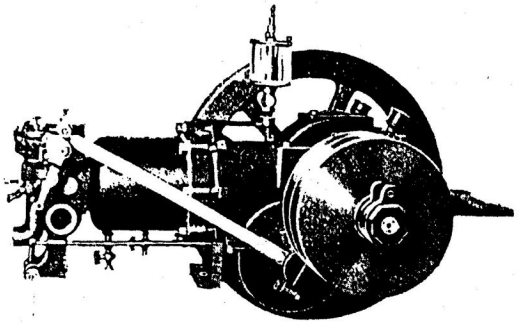


Price, with Leather Top and Storm Apron, $800.00. F. O. B. Detroit.
" " Rubber " " " " 780.00. " "

THE MOTOR.

The motor is of the 4-cycle single cylinder type; size of bore, 5 inches; develops 6½ H. P. and is so constructed that none of the wearing surfaces are parts of the engine frame. When you stop to consider that at some time or other the most careful user will neglect to give the lubricator proper attention, thus allowing the cylinder to cut, or other important parts to wear unnaturally, thus necessitating a new part, you can readily see the value of being able to have parts replaced, instead of buying a new motor, or be satisfied with using the worn one.

The valve gears are of the spur style, are not exposed to the dirt and dust of the road, but are so encased together with other parts as to allow them to run continually in oil. This not only aids their action, but prevents them from cutting. To one who has had experience with spiral valve gears, this point will be appreciated, for in the latter it is not uncommon to have these gears cut out after a few months' use.



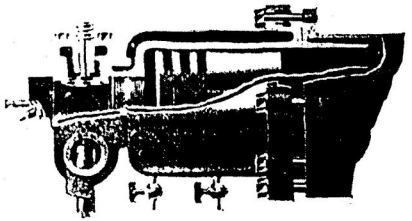
Another feature of value is the arrangement by which we do away with all except two bearings on the crank shaft. This is accomplished by the special transmission gear design and the generous proportions of the shaft and its bearings. We are not obliged to use a more or less perfect universal joint in the crank to compensate for the imperfect alignment of the usual third bearing, nor do we use a shaft so small and weak as to allow it to bend enough to accomplish the same purpose.

The engine is provided with a valve gear and carbureter or, more properly, vaporizer of novel design, which allows the driver to run the car from 5 or 6 to 25 or 30 miles an hour without changing the gear and, at the same time, makes the starting very simple.

The vaporizer has but one light moving part and cannot by any possibility flood the engine with gasoline even though the operator should leave the gasoline turned on for days.

THE WATER JACKET.

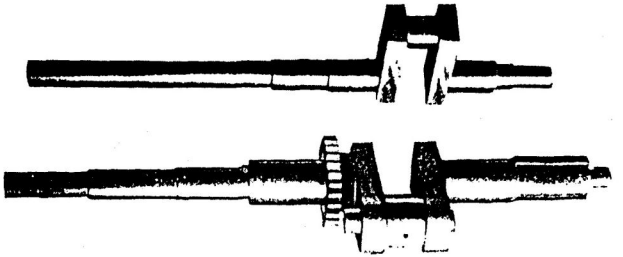
To one who has had no practical experience with the parts of a gasoline engine this part may not seem to be of great importance, but anyone who has had trouble with gaskets of rubber, which burn out; of asbestos, which soak out, or of other kinds which may blow out, the water jacket, as shown, will commend itself at a glance—it has **No Gaskets.**



The jacket is made of copper, pressed into shape, and being made of proper thickness its flexibility makes it less liable to damage, should the water freeze, than any other metal of which water jackets are usually made. The cylinder thus becomes a simple casting practically without any coring, of light weight yet at the same time giving all the strength necessary. The valve sets are in separate pieces and renewals can be made at a nominal expense.

CRANK SHAFTS.

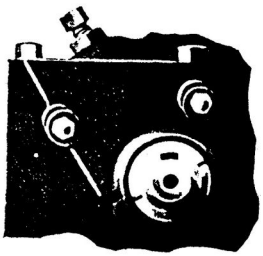
The accompanying cut leaves little to be said about the crank shafts placed in the **Cadillac** motors. These cuts, or more properly speaking, this cut, was made from a single photograph of two cranks placed side by side as shown, and gives a fair idea of how much the strength of this vital part has been increased over the crank shafts used in ordinary practice. The attenuated one is not from some freak experiment but is from an automobile widely used The slight difference in the size of cylinders does not account for the marked difference in the crank shafts, for though the **Cadillac** engine is slightly smaller in stroke it is enough larger in diameter to make up for the difference. To be exact, the cylinder of our motor is 5″x5″ while the one using the smaller crank is 4″½x6″. The **Cadillac Crank Shaft** has ample dimensions for its duty and this large diameter not only gives strength and long life but means avoidance of trouble and repairs.



A unique and efficient method of oiling the crank pin is partially shown in the illustration, the oil being forced out through the hole shown in the pin by centrifugal force, thus feeding the oil directly in between the bearing surfaces.

SHAFT BEARINGS.

We have elsewhere spoken of the ease of detaching wearing parts which may at times need replacing and these two illustrations will serve to show the manner in which this can be accomplished on the shaft bearings. In one view we show the bearing in place, the other cut showing the bearing with cap removed and the lower part of the bearing lining partly out. The removal of the cap permits this lower half to rotate in the frame, and as a half revolution brings it on top of the shaft it then may be lifted out and by a converse operation a new one easily put in its place, restoring the original perfect alignment and proper fit of the shaft bearings in a few minutes, no matter how long the old ones have been used. This is accomplished without disturbing in any way any other part of the motor. When this simple operation is compared with the old way of casting babbit metal directly into the bearings of the motor no other explanation, to uphold our claims, is necessary. It speaks for itself.



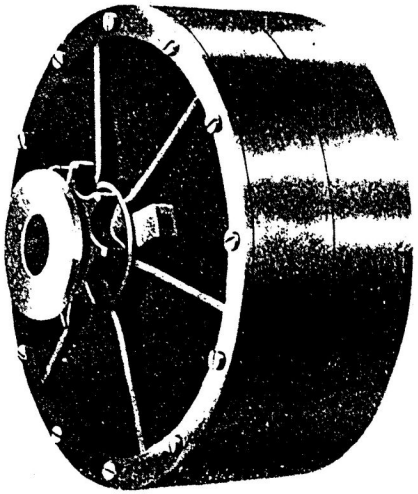
In the old way the motor must be removed from the frame, the old bearings taken out with hammer and cold chisel and the shaft firmly fixed after the old alignment is determined; then one must have a forge, ladle and babbit with which the bearings are re-cast into place. However, after all this preparation and care, the alignment must necessarily be more or less imperfect and the bearing not nearly as good as it originally was when cast around a smaller shaft and then enlarged to proper size after the metal has been compressed in a proper manner. We feel that any one who has had his troubles in replacing wearing parts, whether in an automobile or a threshing machine, will be favorably impressed with the knowledge that our bearings are made of first quality bronze, of ample dimensions to stand any amount of wear and tear to which bearings are subjected.

We have devoted considerable space and printers' ink to the single subject of **Bearings,** but if the prospective owner of an Automobile will read this page carefully he will readily understand our motive in paying a great deal of attention to one of the vital parts of the **Cadillac.**

THE TRANSMISSION GEAR.

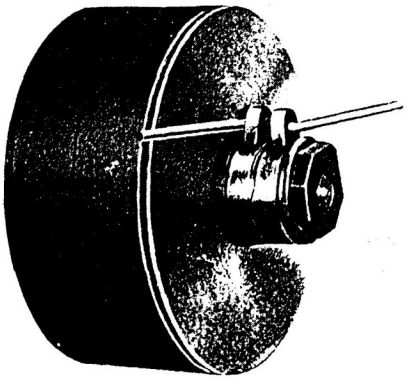
Designed for and used exclusively in the **Cadillac** automobile.

The gears are of the planetary type and only steel and bronze are used in their construction. **They run in oil** and one oil hole lubricates all the bearings. The total number of places for oiling the **Cadillac** motor and transmission is less than the number of oil holes of the transmission alone of some other makes.



Our transmission is strong enough to stand the greatest strain that can be put upon it by the motor.

It has two speeds forward and one backward. A high gear for ordinary travel on fair roads and moderate hills, at speeds varying from 5 or 6 to 25 or 30 miles an hour; a low gear for extremely bad roads and steep hills, and last, a low gear to drive the car backward at about the same speed and power as the forward low or hill climbing gear. It is so arranged as to allow the engine to run without moving the car, yet at the same time the operator can start the vehicle and use any gear he may choose. It is almost noiseless at all times and especially so when the engine is running and the car standing still. It is carelessness proof so that an operator can not damage it in the least by changing quickly from one speed to another; and the operator may use the reverse gear as a brake under ordinary circumstances. It is fastened to the engine shaft by one piece only: the driving gear, and has *only one* internal gear fastened to the sprocket wheel.



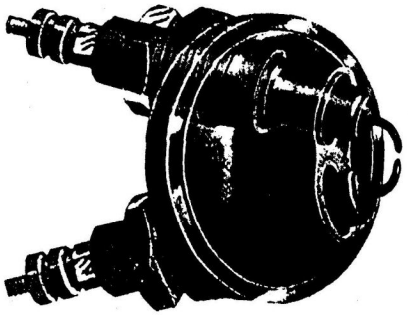
The Transmission has no gears or other moving parts that can under any conditions revolve at a greater speed than the engine, this results in quieter running, and greater durability than is in other automobiles.

THE LUBRICATOR.

The lubricator is automatic in its action and shuts off the supply of oil when the engine is not in motion. This prevents the excessive flow of oil into the cylinder which so often creates a disagreeable odor when the motor starts and makes a deposit which interferes with the proper action of the sparking device.

THE CADILLAC SPARK PLUG.

Two of the most frequent difficulties encountered in a gasoline engine are unsatisfactory insulation of the igniting current and faulty action of the igniting plug. By making a special spark plug, and careful wiring these sources of trouble are practically eliminated. The amount of insulating material is double that generally used. The inner ends of the insulated sparking points are in close proximity to the inlet valve so that the incoming charge of cold air keeps them free from any deposit of soot, a very frequent source of trouble. The igniting current by the use of our plug is kept out of the engine frame and prevents the possibility of electric shocks.



Appreciating the possibility of accidents to spark plugs in spite of all precautions, we regularly provide each vehicle with an extra plug, as shown in cut, and have also arranged so that any ordinary plug may temporarily take the place of the one of our own design. This feature will appeal to operators when too far away from a **Cadillac** agency to procure the regular **Cadillac** plug.

The Equalizing Gears are made by the Brown-Lipe Company whose experience in this line is recognized as being foremost among makers of spur gear types of compensating mechanism. The drums used in our equalizing gears are specially designed and instead of using a six-inch single brake band, we make safety an important feature by using **two** eight-inch drum surfaces with a two-inch brake band acting on each. Furthermore, as the brake drums are securely keyed on to each member of the axle separately and as the drums act independently of each other, absolute safety is guaranteed where it is found necessary to stop the vehicle suddenly.

Ordinarily an equalizing gear will give but one ratio of speed and power, and buyers are obliged to take an automobile *as it is made*, so far as sprockets go. We go a little farther in this matter and have so arranged our equalizing gears as to allow for both level and hilly roads by making the sprockets interchangeable, that is to say, you can order a vehicle with sprockets fitted for level roads and by purchasing a larger sprocket, be prepared for very hilly country. The regular equipment will be a 31-tooth sprocket, but we can furnish 34, 38 and 41, as desired.

The Radiator is made of ⅝ seamless copper tubing, with copper discs placed ⅜ inches apart, so as to allow the greatest amount of radiating surface possible. The tubing forms an endless coil of twelve tubes and, having no side plates, the liability of leakage is entirely done away with. The circulation of water at all speeds is so perfect that the consumption of water is reduced to a minimum. To avoid the unsightly appearance of copper covered with verdigris and stains, we give the entire radiator a thorough nickle plate, which makes a handsome finish.

THE STEERING MECHANISM.

The **Cadillac** is provided with a sensitive and powerful wheel steering gear in which the quickness of the lever and the strength and ease of the wheel are combined. It has a positive and effective adjustment, which prevents the usual excessive and dangerous back lash.

The Muffler is made so as to take away the objectionable sound of the exhaust, which, in many automobiles, is disagreeable. We have also provided the muffler with a cut-out for use in touring or country runs where noise is less objectionable than in cities.

A SAFETY DEVICE has been provided, making it impossible thoughtlessly to attempt to start the engine on the early spark, thereby preventing the operator from getting a sprained wrist or a broken arm or rib. Such accidents have happened to operators of well known machines.

THE THROTTLE LEVER which regulates the speed and power of the engine is located on the steering staff, within easy reach of the fingers of steering hand.

THE AXLES both front and rear, have been specially designed for the **Cadillac Automobile** and embody the most refined practice in ball-bearing construction. They are made by the American Ball-Bearing Company. The cones are *ground* externally and internally to gauge and all ball cups are accurately *ground* after being pressed into position. All fits on axles are *ground* to gauge.

WHEELS and TIRES The **Cadillac** is equipped with standard compression wood wheels, using deep steel channels fitted for single tube tires 28 x 3 inch. Either Hartford or Fisk Tires are furnished.

FRAMEWORK The framework is of a new construction of steel angles, securely braced throughout, and as all frames are made to exact size, there can be no misfits or variation.

WOOD WORK, UPHOLSTERING, ETC. The body is made strictly first class, of thoroughly seasoned material. In our upholstering we use only first quality hair and No. 1 buffed leather. The seat and back are provided with coil springs to give the utmost comfort. As the trimming and painting are done in our own plant, under strict supervision, there is no chance of inferior work leaving the factory.

REMOVING BODY FROM RUNNING GEAR There are times when one likes to get at the insides of the machine and "see the wheels go 'round." To assist you in this, we have arranged the fastening of the body to frame-work so that, by loosening six bolts, you can entirely remove the woodwork *without disturbing a single lever or wire.*

TOPS **All Cadillac Runabouts** are regularly furnished without tops, but we carry in stock a supply of finished seats, ironed for tops, and can make shipments either way.

COLORS We have adopted as regular colors, ***Jet Black Body*** with ***Wine Colored Running Gear and Trimmings.***

TONNEAU The **Cadillac Runabout** was at first designed as a one-seated vehicle only, but having found that it could easily carry four passengers, we decided to make a *Tonneau* which could be placed on the vehicle without changing any of its parts. The advantage of possessing a moderate-priced Automobile capable of carrying four people, if desired, will appeal to those who do not care to purchase a Touring Car for every day use.

PRICE LIST OF ACCESSORIES.

TONNEAU complete, handsomely finished, with Spring Backs and Seats, **$100.00**

LEATHER TOP, cloth lined, made of high grade leather, complete with side curtains and lights, also storm apron - - - - - - **$50.00**

RUBBER TOP, made of first quality goods, complete with lined side curtains, side lights and apron - - - - - - - - - **$30.00**

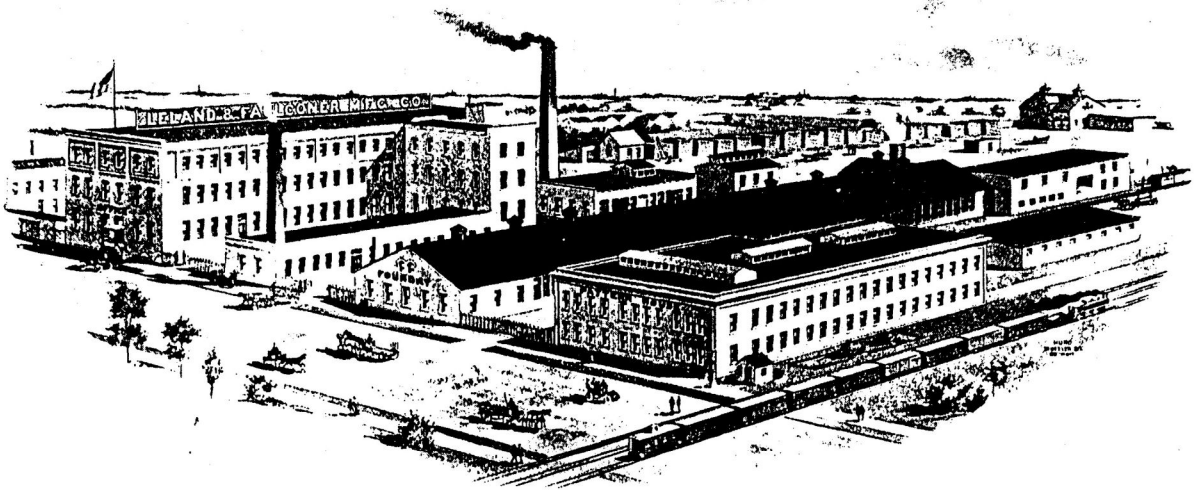
THE GUARANTEE

Of the National Association of Automobile Manufacturers covers **Cadillac** Automobiles. Parts that we decide are defective will be replaced at our factory, provided they are sent us charges pre-paid. Tires used on **Cadillac** Automobiles are guaranteed by the tire manufactures and should be sent direct to them.

LIST OF CADILLAC AUTOMOBILE AGENCIES

Up to January 1st, 1903.

NEW YORK CITY,	The Cadillac Company of New York.
CHICAGO, ILL.	The Cadillac Company of Illinois.
PHILADELPHIA, PA.	John Wanamaker.
BOSTON, MASS.	American Cycle Manufacturing Company.
INDIANAPOLIS, IND.	Conrad Mueller Company.
CLEVELAND, OHIO,	Cleveland Automobile and Supply Co.
MINNEAPOLIS, MINN.	The Pence Automobile Company.
WASHINGTON, D. C.	American Cycle Manufacturing Company.
BUFFALO, N. Y.	Centaur Motor Vehicle Company.
CINCINNATI, OHIO,	The Hanauer Automobile Company.
DETROIT, MICH.	William E. Metzger.
NEWARK, N. J.	New Jersey Automobile Company.
PROVIDENCE, R. I.	American Cycle Manufacturing Company.
COLUMBUS, OHIO,	Oscar Lear.
GRAND RAPIDS, MICH.	Michigan Automobile Company.
PORTLAND, ME.	F. O. Bailey Carriage Company.
DENVER, COLO.	A. T. Wilson.
JERSEY CITY, N. J.	Crescent Automobile Company.
SAVANNAH, GA.	R. V. Connerat.



WHERE THE MOTORS ARE BUILT.