

*Mechanical Features*

*Models 16 and 17*

**1910**

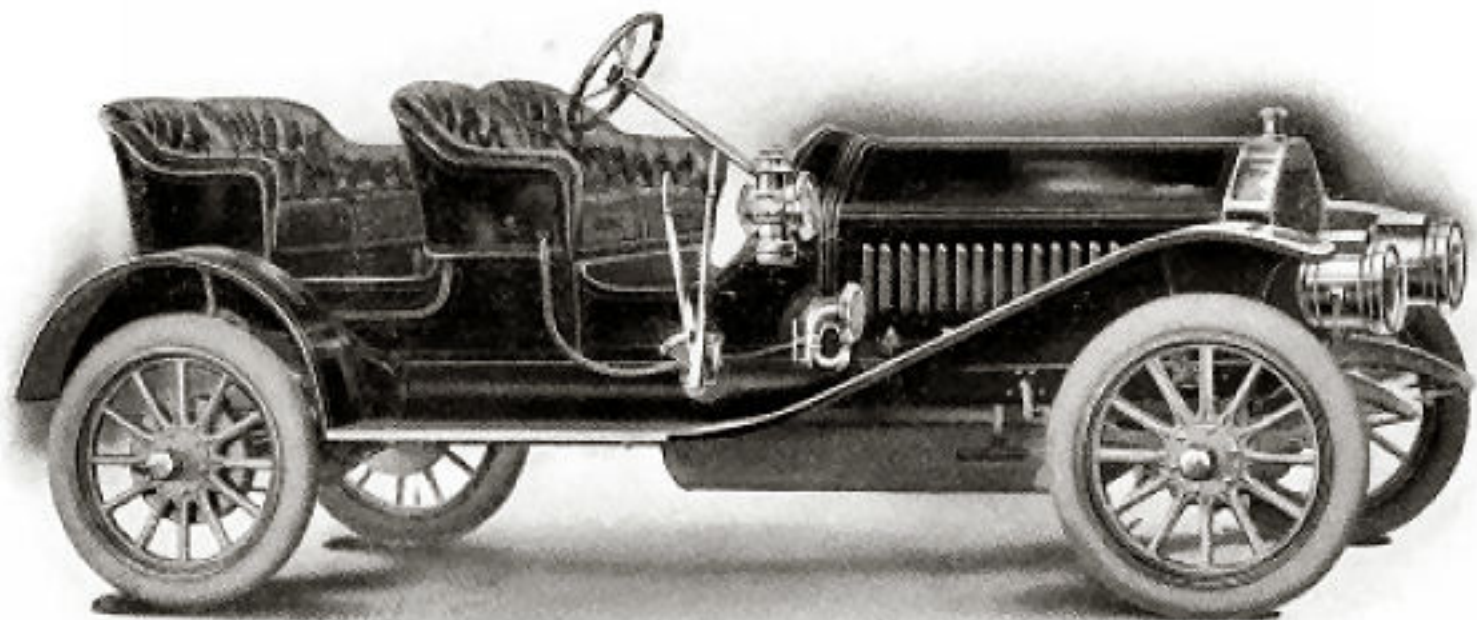
# Quick Motor Company

Flint, Michigan



## Branches :

Chicago, Ill.	Saginaw, Mich.
Milwaukee, Wis.	Buffalo, N. Y.
New York, N. Y.	Cleveland, O.
Philadelphia, Pa.	Battle Creek, Mich.
Pittsburg, Pa.	Kansas City, Mo.
St. Louis, Mo.	Toledo, O.
Indianapolis, Ind.	Grand Rapids, Mich.
Detroit, Mich.	Albany, N. Y.
Atlanta, Ga.	Boston, Mass.
Washington, D. C.	



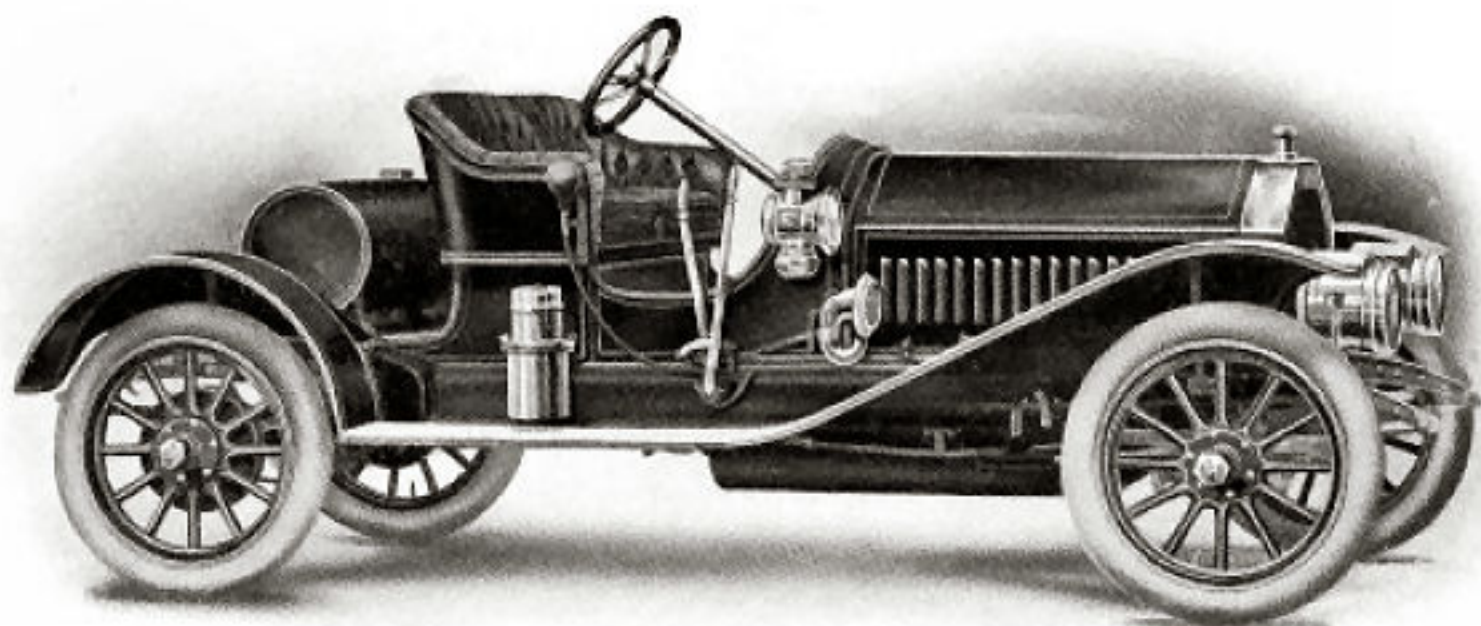
MODEL 16 SURREY

## Buick Model 16 Surrey

### SPECIFICATIONS

BODY - - - -	Wood, tourabout type. Detachable seat and box.
COLOR - - - -	Red body and gear, or blue body with ivory white gear.
SEATS - - - -	Four persons.
WHEEL BASE - -	112 inches.
TREAD - - - -	56 inches.
TIRES - - - -	34 x 4 inches.
BRAKES - - - -	Internal expanding hub and external contracting on driving shaft.
SPRINGS - - - -	Full elliptic rear, semi-elliptic front.
FRAME - - - -	Pressed steel.
STEERING GEAR -	Semi-irreversible type.
HORSE POWER -	Thirty.
CYLINDERS - - -	Four vertical. 4½ x 5 inches. Valve-in-the-head construction.
MOTOR SUSPENSION	Sub-frame.
COOLING - - - -	Water, circulated by pump.
IGNITION - - - -	Jump spark.
CURRENT SUPPLY	Magneto and reserve set of dry cells.
CARBURETOR - -	Schebler.
LUBRICATION - -	Self-contained system, oil circulated by pump.
MOTOR CONTROL -	Spark and throttle levers on top of steering wheel.
CLUTCH - - - -	Our special design.
TRANSMISSION - -	Sliding gear, selective type. Three speeds forward and one reverse.
CONTROL - - - -	Foot pedals for service brake and clutch; side lever for change gear; side lever for emergency brake.
DRIVE - - - -	Shaft.
PRICE - - - -	\$1,750 f. o. b. factory. This price includes oil lamps, tail lamp, generator, gas headlights, horn and repair outfit.
EXTRAS - - - -	Top, glass front, speedometer.

Prest-O-Lite equipment will be furnished instead of gas generator as an extra, if desired.



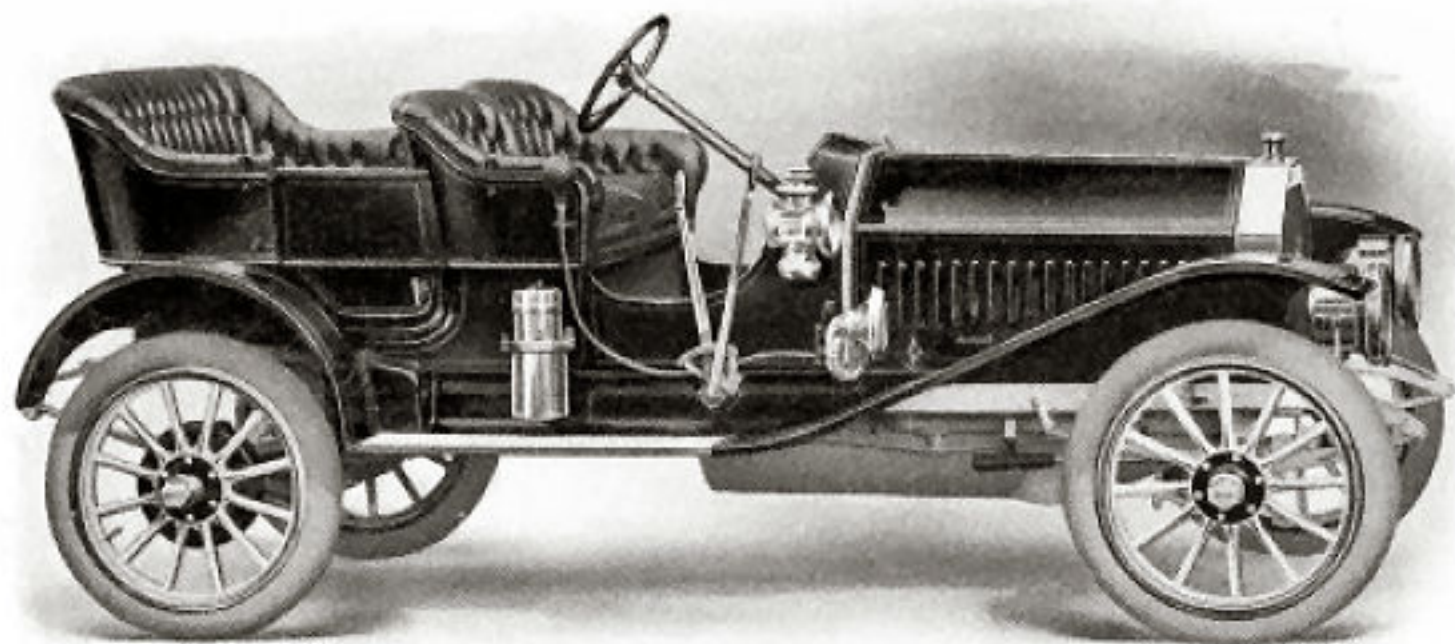
MODEL 16 ROADSTER

## Buick Model 16 Roadster

### SPECIFICATIONS

BODY - - - - -	Wood, roadster type.
COLOR - - - - -	Red body and gear, or blue body with ivory white gear.
SEATS - - - - -	Two persons.
WHEEL BASE - - -	112 inches.
TREAD - - - - -	56 inches.
TIRES - - - - -	34 x 4 inches.
BRAKES - - - - -	Internal expanding hub and external contracting on driving shaft.
SPRINGS - - - - -	Full elliptic rear, semi-elliptic front.
FRAME - - - - -	Pressed steel.
STEERING GEAR -	Semi-irreversible type.
HORSE POWER -	Thirty.
CYLINDERS - - -	Four vertical. 4½x5 inches. Valve-in-the-head construction.
MOTOR SUSPENSION	Sub-frame.
COOLING - - - - -	Water, circulated by pump.
IGNITION - - - - -	Jump spark.
CURRENT SUPPLY	Magneto and reserve set of dry cells.
CARBURETOR - - -	Schebler.
LUBRICATION - - -	Self-contained system, oil circulated by pump.
MOTOR CONTROL -	Spark and throttle levers on top of steering wheel.
CLUTCH - - - - -	Cone, our special design.
TRANSMISSION - -	Sliding gear, selective type. Three speeds forward, one reverse.
CONTROL - - - - -	Foot pedals for service brake and clutch; side lever for change gear; side lever for emergency brake.
DRIVE - - - - -	Shaft.
PRICE - - - - -	\$1,750 f. o. b. factory. This price includes oil lamps, tail lamp, generator, gas headlights, horn and repair outfit.
EXTRAS - - - - -	Top, glass front, speedometer.

Prest O-Lite equipment will be furnished instead of gas generator as an extra, if desired.



MODEL 16 TOY TONNEAU

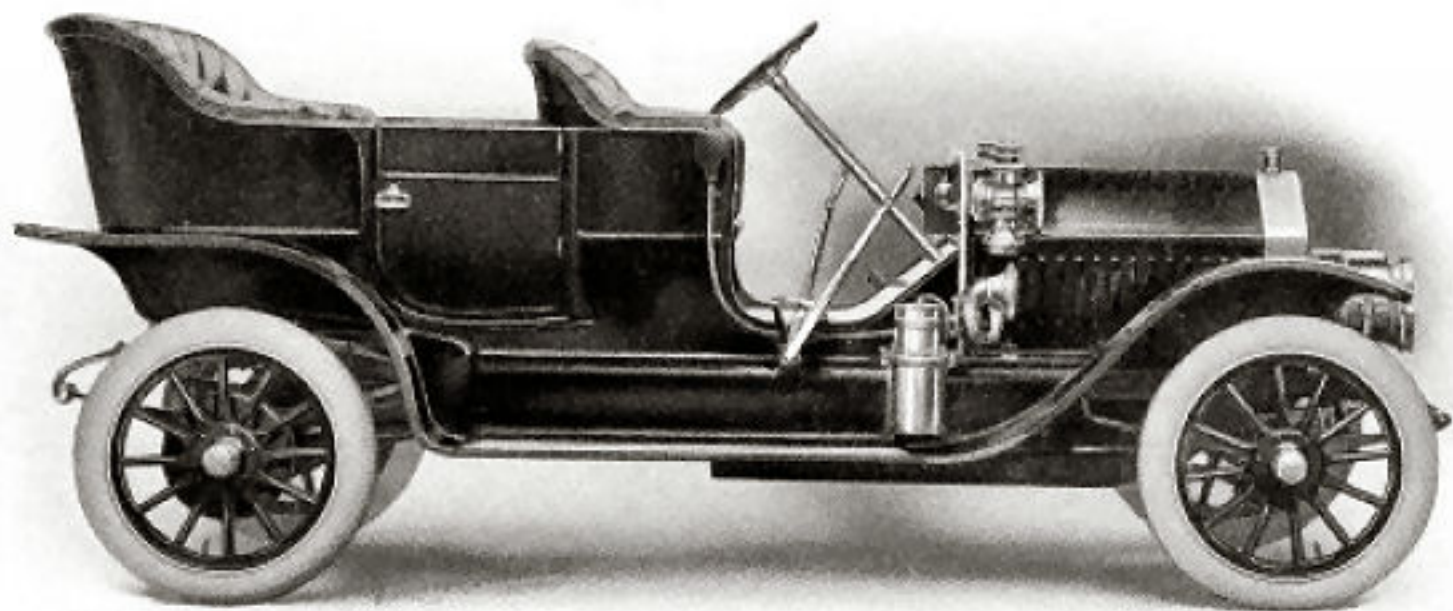
## Buick Model 16 Toy Tonneau

### SPECIFICATIONS

BODY - - - - -	Wood, toy tonneau type. Detachable.
COLOR - - - - -	Red body and gear, or blue body with ivory white gear.
SEATS - - - - -	Five persons.
WHEEL BASE - - -	112 inches.
TREAD - - - - -	56 inches.
TIRES - - - - -	34 x 4 inches.
BRAKES - - - - -	Internal expanding hub and external contracting on driving shaft.
SPRINGS - - - - -	Full elliptic rear, semi-elliptic front.
FRAME - - - - -	Pressed steel.
STEERING GEAR -	Semi-irreversible type.
HORSE POWER -	Thirty.
CYLINDERS - - -	Four vertical. 4½ x 5 inches. Valve-in-the-head construction.
MOTOR SUSPENSION	Sub-frame.
COOLING - - - - -	Water, circulated by pump.
IGNITION - - - - -	Jump spark.
CURRENT SUPPLY -	Magneto and reserve set of dry cells.
CARBURETOR - - -	Schebler.
LUBRICATION - - -	Self-contained system, oil circulated by pump.
MOTOR CONTROL -	Spark and throttle levers on top of steering wheel.
CLUTCH - - - - -	Cone, our special design.
TRANSMISSION - -	Sliding gear, selective type. Three speeds forward, one reverse.
CONTROL - - - - -	Foot pedals for service brake and clutch; side lever for change gear; side lever for emergency brake.
DRIVE - - - - -	Shaft.
PRICE - - - - -	\$1,750 f. o. b. factory. This price includes oil lamps, tail lamp, generator, gas headlights, horn and repair outfit.
EXTRAS - - - - -	Top, glass front, speedometer.

Prest-O-Lite equipment will be furnished instead of gas generator as an extra, if desired.





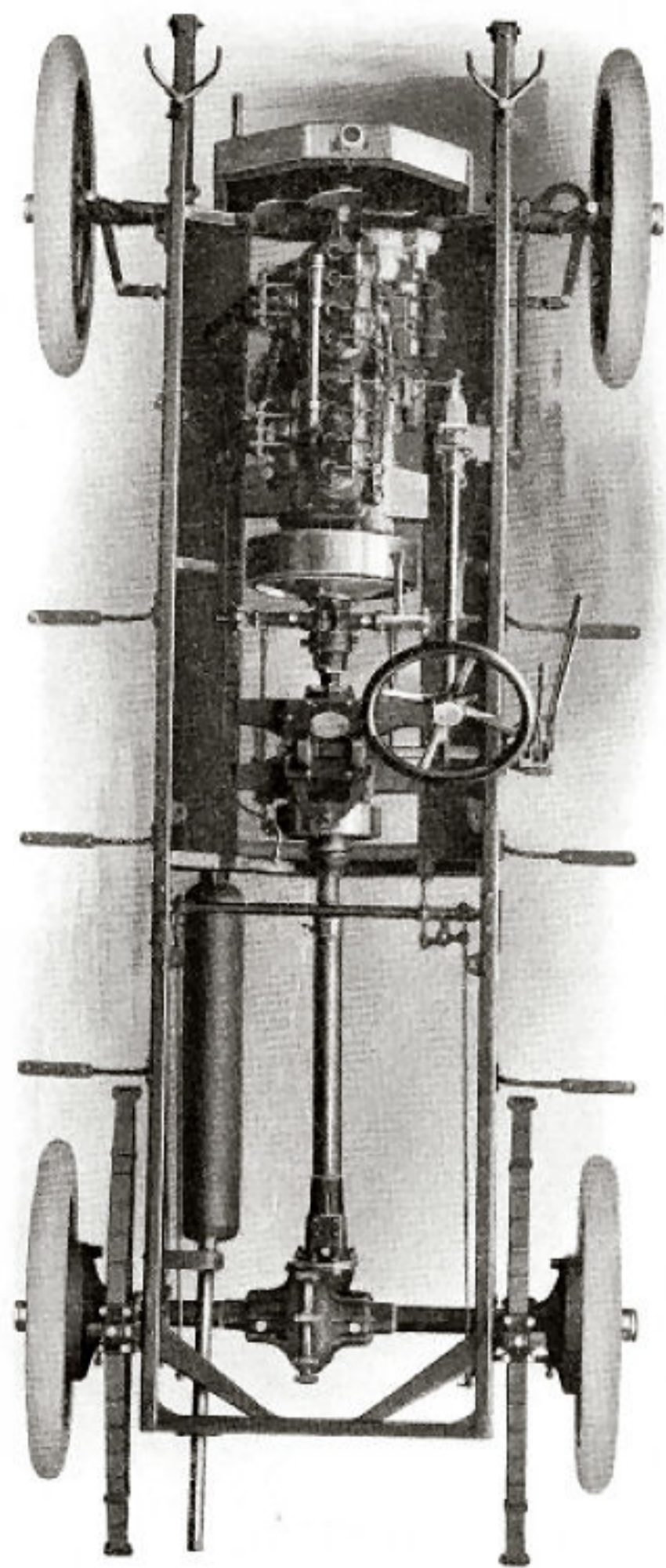
MODEL 17

## Buick Model 17

### SPECIFICATIONS

BODY - - - - -	Wood, touring type.
COLOR - - - - -	Red body and gear, or blue body with ivory white gear.
SEATS - - - - -	Five persons.
WHEEL BASE - - -	112 inches.
TREAD - - - - -	56 inches.
TIRES - - - - -	34 x 4 inches.
BRAKES - - - - -	Internal expanding hub and external contracting on driving shaft.
SPRINGS - - - - -	Full elliptic rear, semi-elliptic front.
FRAME - - - - -	Pressed steel.
STEERING GEAR -	Semi-irreversible type.
HORSE POWER - -	Thirty.
CYLINDERS - - -	Four vertical. 4½ x 5 inches. Valve-in-the-head construction.
MOTOR SUSPENSION	Sub-frame.
COOLING - - - - -	Water, circulated by pump.
IGNITION - - - - -	Jump spark.
CURRENT SUPPLY	Magneto and reserve set of dry cells.
CARBURETOR - - -	Schebler.
LUBRICATION - - -	Self-contained system, oil circulated by pump.
MOTOR CONTROL -	Spark and throttle levers on top of steering wheel.
CLUTCH - - - - -	Cone, our special design.
TRANSMISSION - -	Sliding gear, selective type. Three speeds forward, one reverse.
CONTROL - - - - -	Foot pedals for service brake and clutch; side lever for change gear; side lever for emergency brake.
DRIVE - - - - -	Shaft.
PRICE - - - - -	\$1,750 f. o. b. factory. This price includes oil lamps, tail lamp, generator, gas headlights, horn and repair outfit.
EXTRAS - - - - -	Top, glass front, speedometer.

Prest-O-Lite equipment will be furnished instead of gas generator as an extra, if desired.





IN comparing the Buick 1910 models with those of the past year, one's first impression would be that no changes have been made. This impression is true with regards to outlines. 1910 cars, however, while retaining the same general appearance, have been improved upon from a mechanical standpoint until we are now offering to our patrons, automobiles as near perfect as skilled workmen can make them. It will be our purpose in the following pages to call attention to some of the mechanical features incorporated in our 1910 cars which assure the purchaser full value for every dollar expended.

No more positive proof and guarantee of the stability of our product can be afforded than a statement of the growth of the Buick line since the first year of our incorporation. The increase in output from year to year is as follows:

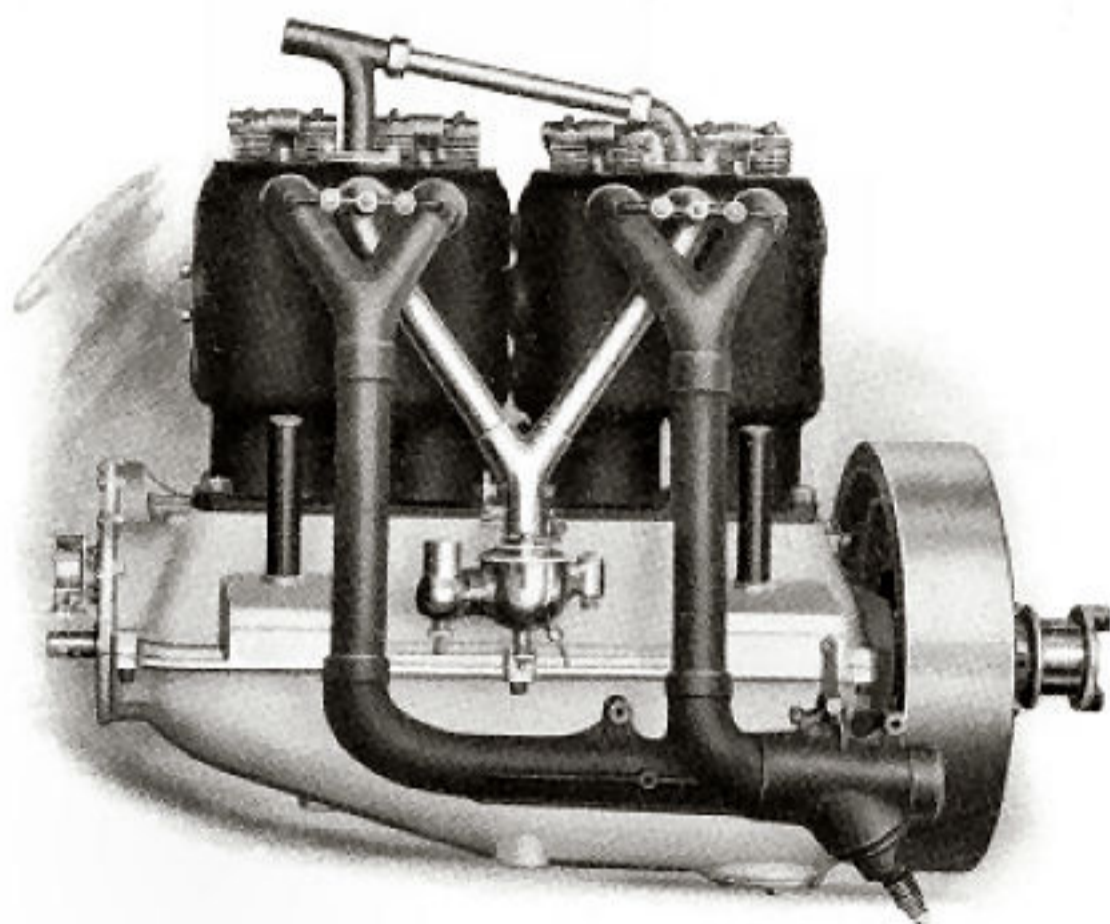
In 1904 . . . . .	37 cars
In 1905 . . . . .	750 cars
In 1906 . . . . .	1,400 cars
In 1907 . . . . .	4,592 cars
In 1908 . . . . .	8,820 cars
In 1909 . . . . .	14,603 cars
In 1910 . . . . .	40,100 cars

The principal feature of an automobile and one which commands the attention of the prospective buyer is that of the MOTIVE POWER.

### **Motor**

The motor is, so to speak, the heart of the automobile. Mechanical construction of the car in general may be ever so perfect, but if this unit be lacking in power or stability, the entire whole becomes useless and disappointing.

Our motors combine a simplicity of construction, a mechanical perfection of which we are justly proud and a power of the greatest efficiency. We desire especially to call attention to the well known Buick

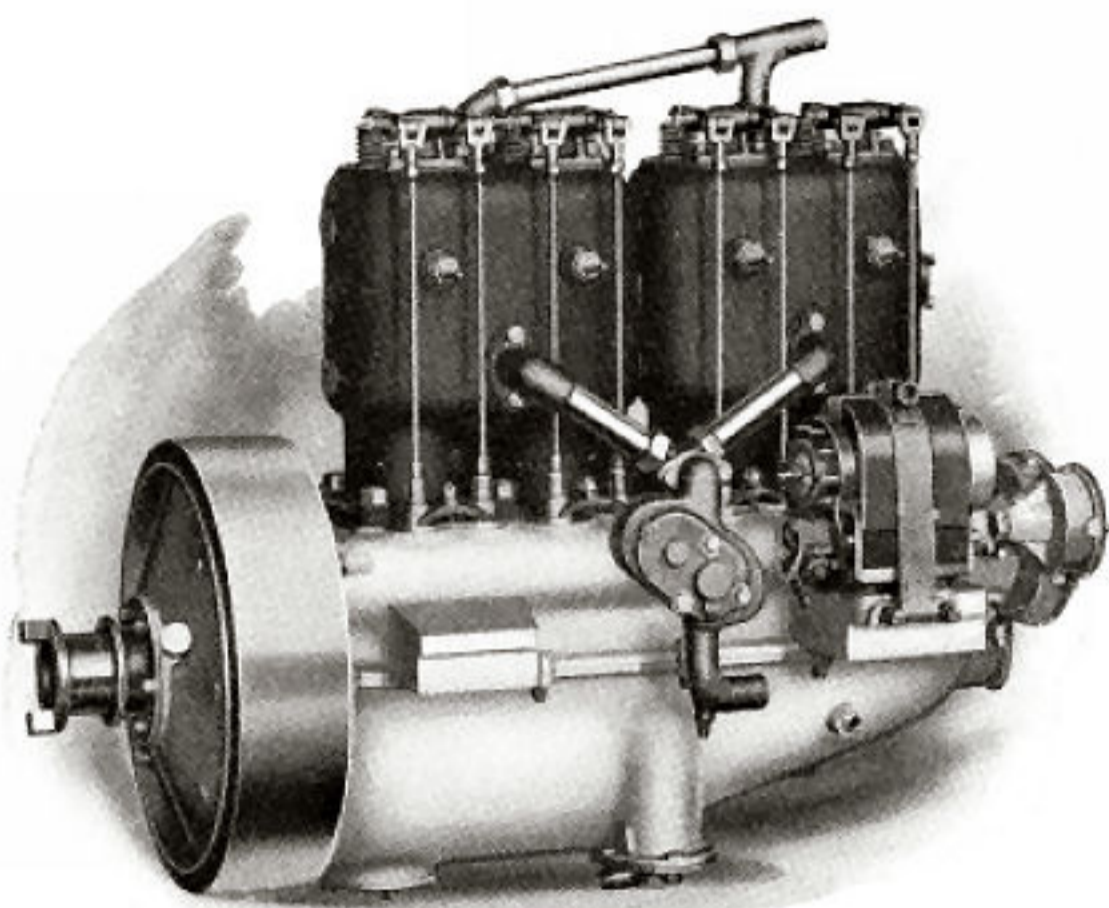


Left Side of Motor showing Intake and Exhaust

valve-in-the-head construction—a feature incorporated in all our motors. By using this type, we do away with the pockets which must be had over the intake and exhaust valves in the L and T head forms, consequently there is not the amount of burned gases remaining in the cylinders after each explosion to mix with the incoming new gas; or in other words, the valve-in-the-head construction permits better scavenging of exhaust gases than the L and T head types. This feature, coupled with the fact that the power created upon ignition is directly applied to the piston head, owing to the cylinder walls being straight, results in a gain of 20% more power from the same sized cylinders—a fact admitted by the best engineers.

### **Cylinders**

The cylinders are cast in pairs with ample water jacket on sides and head.



Right Side of Motor showing Valve Action

Pistons and rings are accurately ground, polished, fitted and lapped into the cylinders, assuring an absolute gas tight fit.

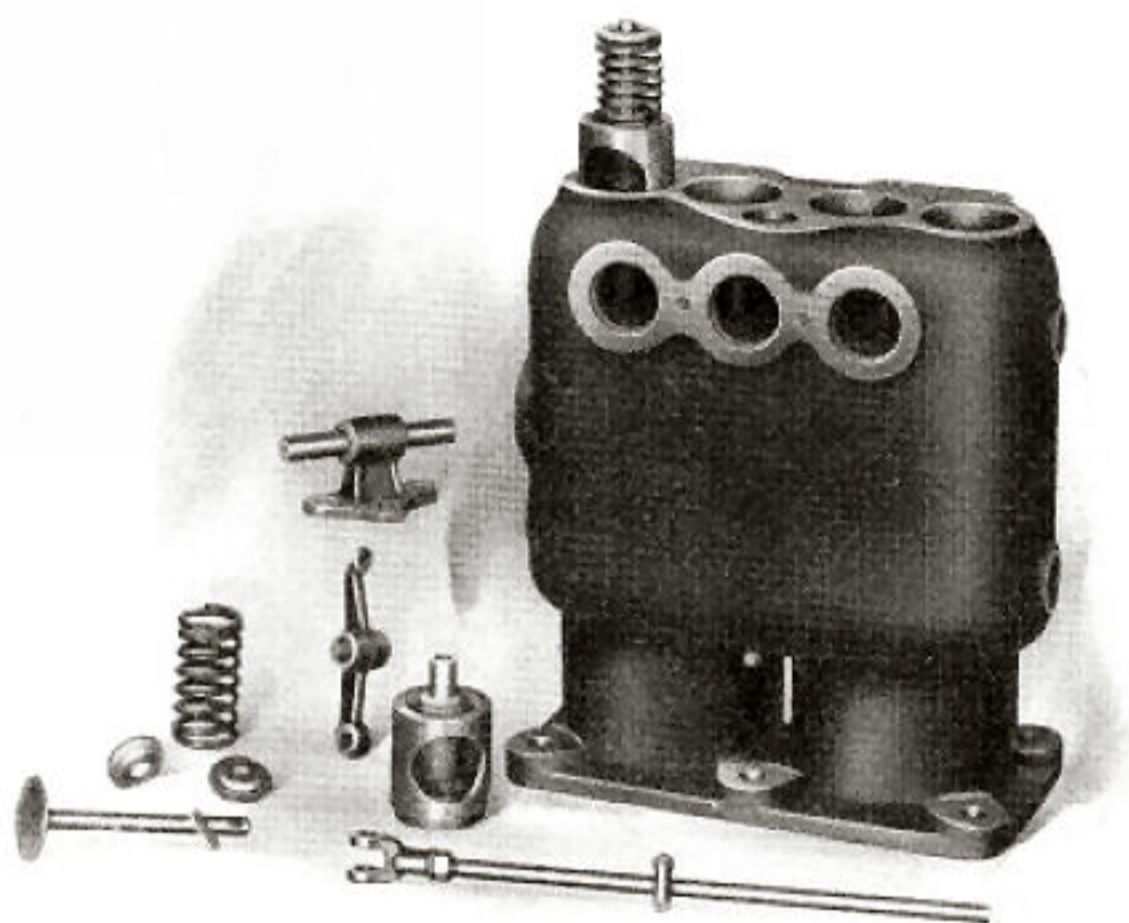
The valve cages are easily removed at any time for the regrinding of valves. Push rods and valve levers are all on the outside and easy of access.

### **Cooling**

Water circulation through jackets and radiator is produced by a gear pump. This pump is large and gives a fast and free water circulation. A car can be run for hours at any speed and the hand put on the radiator and kept there for any length of time.

### **Crank Shaft**

The crank shaft is a solid drop forging, made of high grade nickel steel. This, together with the connecting rods, which are especially large and strong, are most carefully machined and fitted, assuring long life and a smooth running motor.



Cylinders

### Cam Shaft

A single cam shaft operates both the intake and exhaust valves. All of the cam shaft and magneto gears are enclosed and run in oil.

### Crank Case

The crank case is in two sections and made of aluminum. The upper section carries the crank shaft bearings which are extra large and so fitted as to insure maximum wear and stability. Buick motors do not pound loose.

### Lubrication

The cylinders and all of the motor bearings are lubricated by the splash system, a constant level of oil being maintained in the crank case. A gear pump forces the oil from the reservoir to the fountain sight feed on the dash and from this point a constant stream of oil flows to the crank case, thereby main-

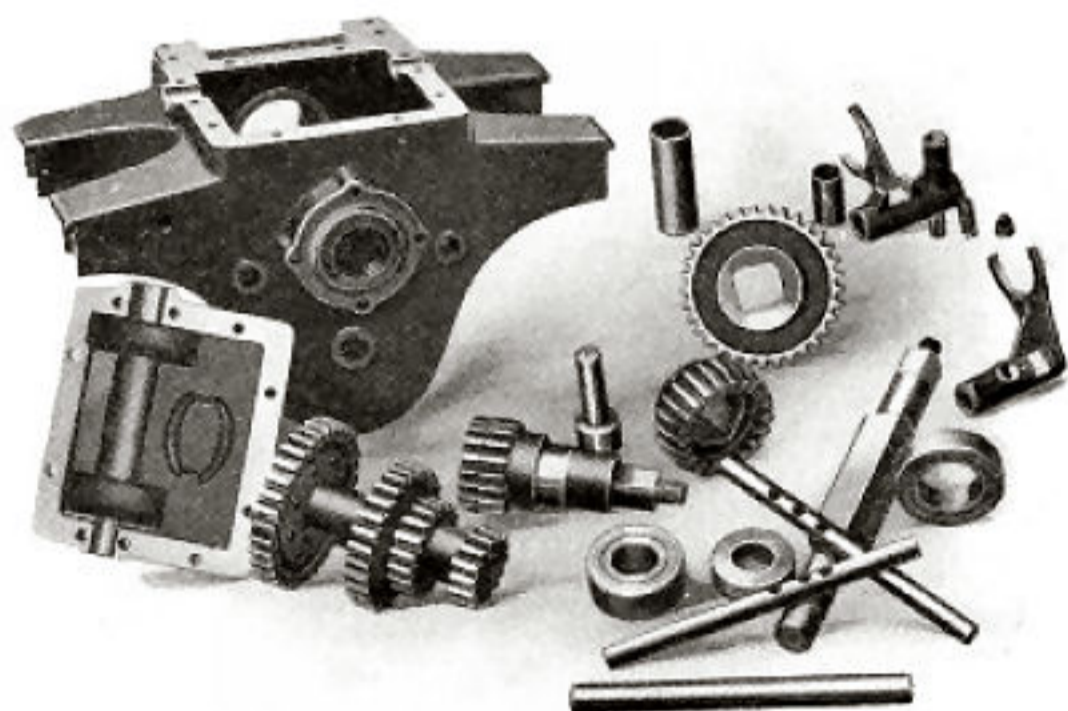
taining the desired level. All oil in excess of that required to maintain this level, returns to the oil reservoir through overflow ducts provided in the crankcase.

### **Ignition**

The current is supplied by a Remy magneto which is simple and effective. A reserve set of dry cells is supplied which furnishes the primary current for starting. Both the magneto and battery primary currents travel the same course after reaching the coil box, the circuit breaker and distributor section of the magneto being used in either case.

### **Self Starting**

The self-starting feature is certainly worth mentioning. Connections are so made that by turning switch over to B (battery) and pushing and releasing the starting button, the primary current from the battery is sent through the coil no matter whether contact is being made by the circuit breaker or not. In other words, it is possible to get a spark at any place in the cycle of the motor.

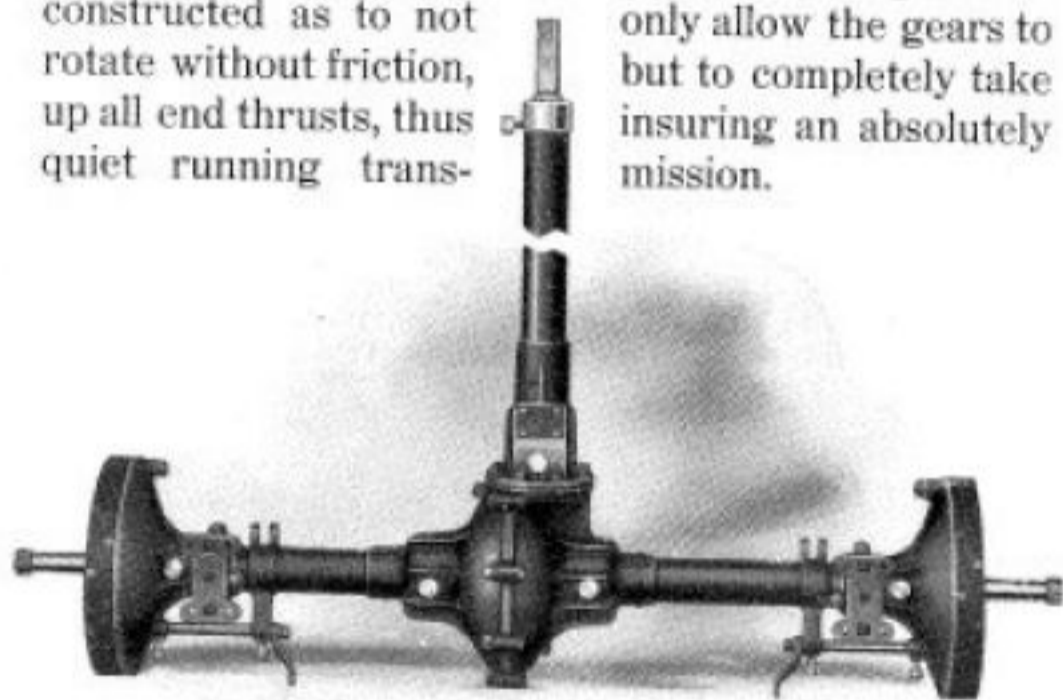


**Transmission—Dis-assembled**



## Transmission

The transmission is of the sliding gear, selective type and is very compact and strong. Three speeds forward and one reverse are provided. The shifting of the gears is effected quietly, quickly and positively. All parts are made of the best nickel steel, specially treated, rendering them capable of resisting friction and wear and at the same time so tough as to stand the tremendous strain being put upon them without breaking. The teeth on these gears are of the stub type, giving the highest possible strength and efficiency. "New Departure" ball bearings are used throughout. These bearings are so constructed as to not only allow the gears to rotate without friction, but to completely take up all end thrusts, thus insuring an absolutely quiet running transmission.



Rear Axle

## Rear Axle

The rear axles used in our cars are of the semi-floating type, that is to say, the live axles or driving shafts are relieved of all but the natural strains in driving and weight of car, the load being carried on the tubular steel case, entirely independent of the driving mechanism. The differential housing is of very strong construction. Both the pinion and main



Rear Axle—Dis-assembled

shafts are made from a high carbon steel, specially treated for the purpose, and of ample proportion for strength and durability. The differential is of the latest bevel pinion type. All gears are made from drop forgings of high grade steel and specially heat-treated to give the utmost strength and toughen the metal. The teeth are so cut as to give a maximum of strength, together with quiet running. Radial loads are carried on Hyatt flexible roll bearings running in hardened steel bushings, while thrust loads are taken on special ball thrust bearings. Axles are equipped with 14-inch internal hub brakes of the full wrapping type, making same very powerful and efficient.

### **Front Axle**

Front axles are made from the best quality of seamless drawn steel tubing; yokes and steering knuckles are steel drop forged. King bolts are of hardened steel and run in phosphor bronze bushings.

### **Frame**

Our frames are made of pressed steel throughout. All parts are large and capable of withstanding the greatest strains. Motors are suspended in a special re-enforced sub-frame.

### **Springs**

Front springs are of semi-elliptic and rear springs full elliptic type. All are made of best grade crucible steel and thoroughly tested.

### **Steering Gear**

The steering gear used is semi-irreversible and has been adopted for its long life and durability. It is of the worm and split nut type. All parts and bearings are large and strongly constructed.

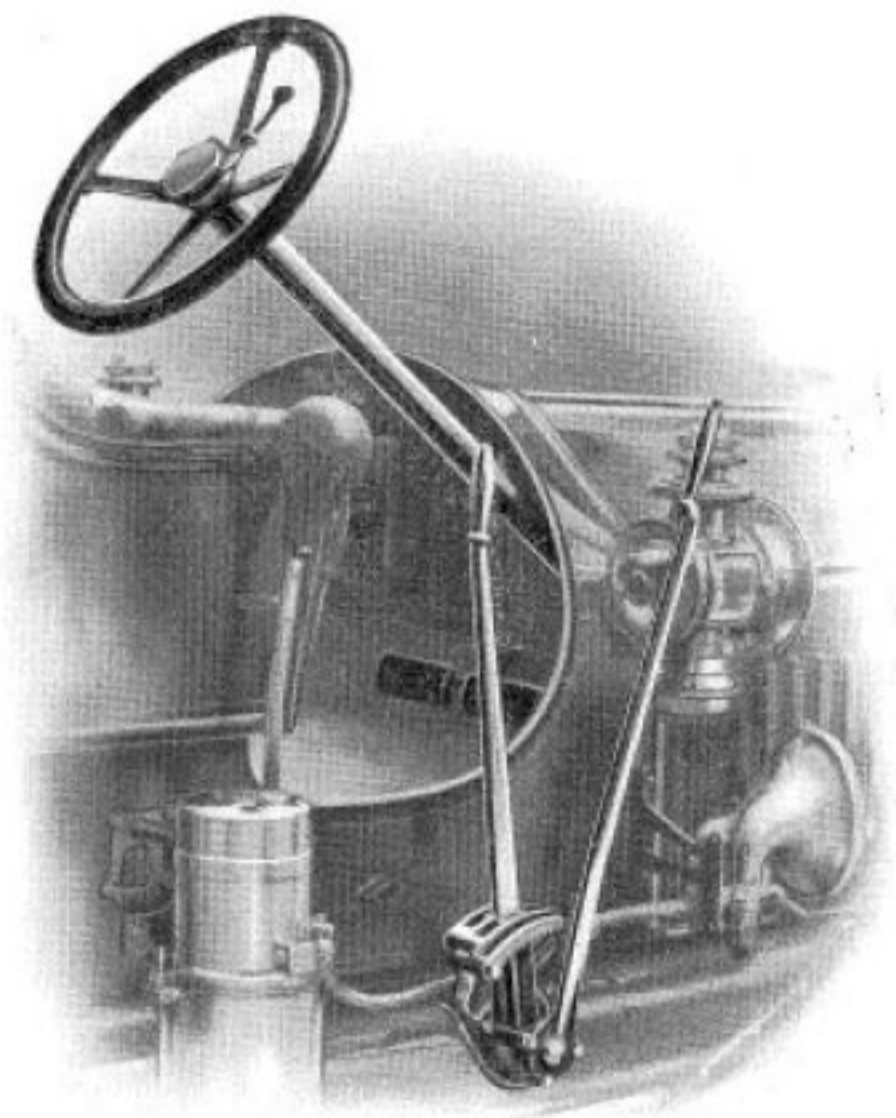


**Steering Gear**

By using the semi-irreversible instead of the irreversible type, all sudden strains on the steering gear are greatly modified and a smoothness is imparted in the handling of the car, which is so much desired.

## Clutch

Our improved clutch release is so constructed that a child can operate it with ease. The leather facing used in our clutch is supported and expanded by means of steel springs, giving a smoothness in starting the car desired by everyone.



Control

## Control

Both spark and throttle levers are located on steering wheel and work on an immovable sector.

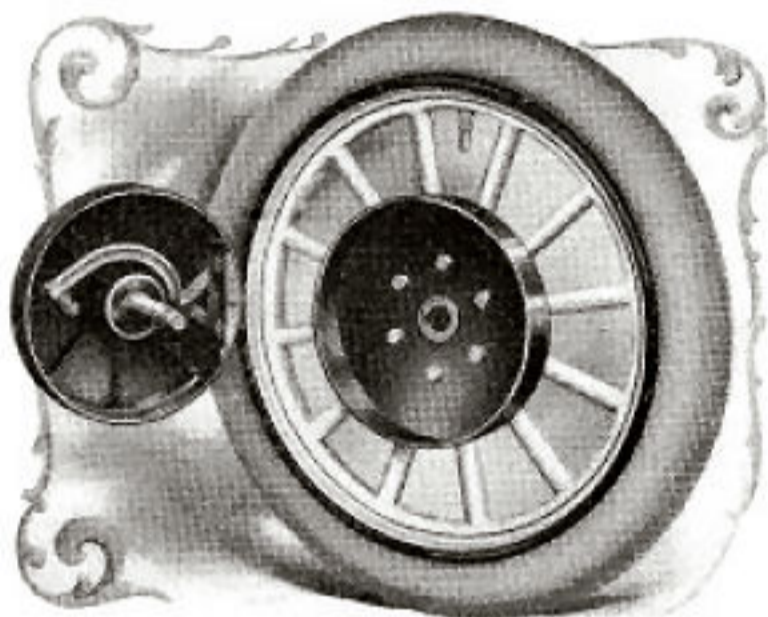
Speed changes are effected by means of a hand lever, three speeds forward and one reverse being

provided. The emergency brake is applied by the emergency brake lever.

Foot pedals operate the clutch release and service brake.

### **Brakes**

The emergency brakes are internal expanding on hub and act upon 14-inch drums. These, together with the service brake, are sufficient for any grade which the car can climb.



**Brake**

*"Buick Customers are Our Best Salesmen."*