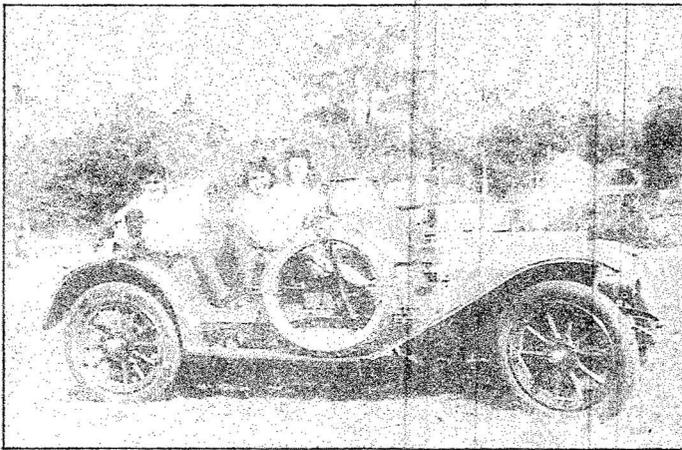


How to Drive a Chalmers-Detroit



1910 Chalmers-Detroit seen at Peterborough in 1946

The Chalmers-Detroit and later Chalmers 30 is peculiar to drive in one respect; there is but one pedal, which applies both clutch and brake. Actuated by the left foot, the first two inches or so of travel releases the clutch. After that, a brake is applied operating on a drum at the rear of the transmission.

To start the car, the operation goes like this: First you lift the hood on the right side. You will find four priming cups for the injection of raw gasoline direct to the four combustion chambers. Ignore them. There is an easier way. The intake horn of the carburetor has no choke valve, but the operator can inexpensively provide a thermos bottle stopper or a nice round potato to plug the vent. Inserting this into the air inlet, without turning the switch, pull up four times on the starting crank. (These instructions apply when starting a cold engine.) Take the stopple out of the carburetor. Next, take your place at the controls, preferable standing outside the car at the right side. Reach in past the gear and brake levers, past the steering column and turn the switch on the coil box to the position marked BAT. Move the spark lever on the steering wheel up and down with the throttle about one-third open. If your connections are all tight, she ought to start right up. No? Well, then, place the spark lever at a point near the bottom of the sector and go around to the front again. Grasp the starting handle in the approved manner (thumb and fingers all on the same side) and pull up four times, listening for the buzz of the vibrator coil in each case. Be prepared for a possible engine start at each turn of the crank. No buzz? Then lift the hood on the left side and check all the wiring for loose contacts. It takes very little to discourage the primary, or low tension circuit. If the coils still refuse to buzz, take the top off the coil box and "tickle" the coils. You probably have the "dial tone" by this time, so let's repeat the starting process until the engine comes to life, which it usually does with a roar.

All that a properly tuned engine requires to make it run are gasoline and ignition. If it does not choose to run it is usually for want of one of these ingredients. As soon as the engine starts, close the throttle gradually and raise the spark lever to the place where it runs best, switch her over on the MAG side and you are ready for the road.

In cool weather a good pre-starting trick is to enrich the mixture by giving the needle valve a quarter turn to the left. Be sure to adjust it back again as soon as the motor warms, otherwise you will have rather jerky progress.

Now then, release the multiple disc-in-oil clutch and pull the shift lever back and to the left for first speed. The clutch doesn't disengage? Do the gears object to meshing? That's bad. There are two possible ways to get around the

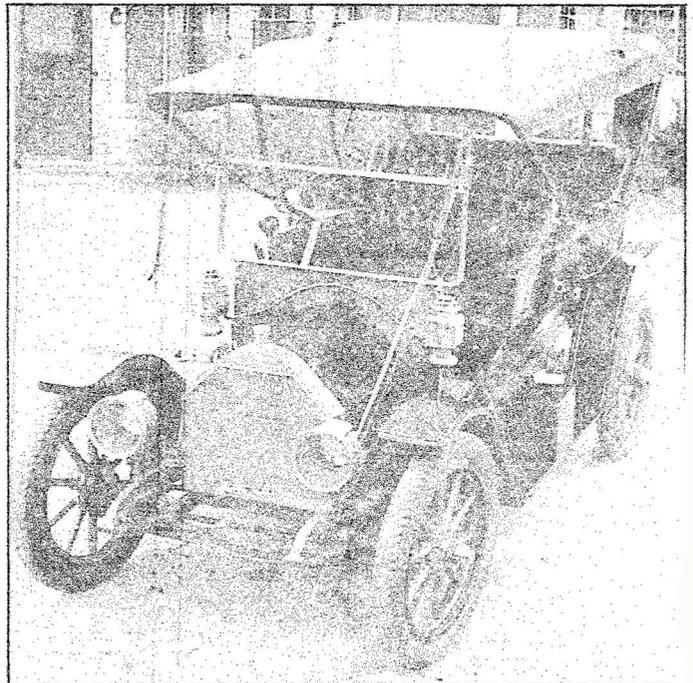
trouble. One is to throttle down the motor until it is just ticking over and jamb the gear lever into position, hoping that the resultant jump will not stall the car and the other is to shut her off, put the car in gear and use a piece of two by four to block out the clutch while you restart the engine. Better have the lever in reverse lest she run you down. Once the clutch becomes unstuck it is easy enough to shift gears.

So we are off. The old engine sounds good, does it not? That metallic sound? Only the timing gears; no fiber gear you know. That same metallic gear music was characteristic of every Chalmers that was built, up until the Morse silent chain was adopted in the 1918 model.

You will find the hand brake more effective for general use than the foot brake. The former works directly on the rear wheel drums, and with all squared joints (no splines), the less shock we deliver to the drive mechanism the better. We find the steering response is very quick, as it takes only about three-quarters of a turn of the wheel to go from extreme left to extreme right.

The spark lever is new to the younger generation of drivers. On the modern car it's all automatic, but the old timer knows how to use it. You will find him manipulating it a good deal of the time as the load on the engine becomes greater or less. A heavy pull at slow speed requires almost a full retard, whereas, at ordinary road speeds the spark is advanced to the point where the car runs best. The good driver can tell by the sound and feel of his motor where best to place the spark lever.

Apart from these notes there isn't much to tell. We assume that you know how to drive. The gear shift is like the modern standard shift. Of course, it is well to watch the oil gage, for the tell-tale flow of oil. It wells up inside a glass cylinder on the foot board. If that should stop, then you stop. Apart from that, there are no gauges to watch or worry you. Heat? Just keep the radiator filled and she'll not heat up. Amperes? No electric system. Speed? You can tell by the vibration. She is smooth up to thirty. At thirty the lamps rattle. You will feel a slight tremor on the steering wheel at thirty-five. When the floorboards rattle, that's forty. Above forty, the whole car sings in unison, you are flying.



1908 Model F Chalmers-Detroit five-passenger touring car-30 H.P. Owned by Robert E. McNair