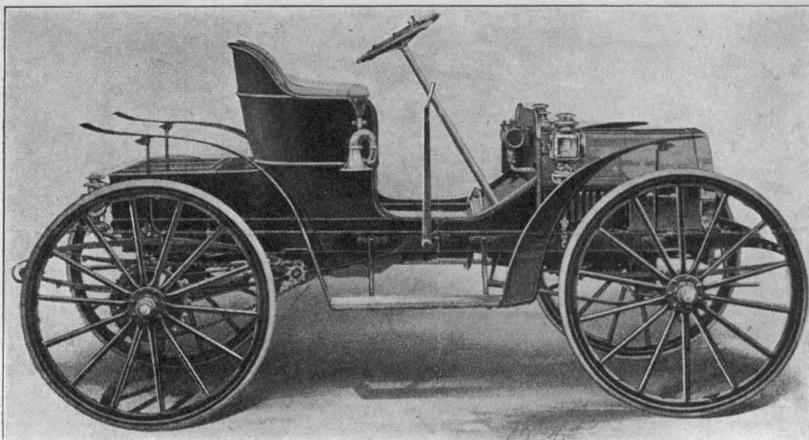


The Paterson Motor Buggy.

The W. A. Paterson Company, Flint, Mich., are producing a high wheeled type of car fitted with a 14 horse power, double opposed, air cooled motor. The cylinder dimensions are $4\frac{1}{4}$ inch bore by 4 inch stroke. The crank shaft is made from a drop forging and is supported in bronze bearings which are said to be extra large and long. A planetary two forward speed change gear is used, which together with the differential and bevel gear set is enclosed in a single casing, into which the tubular housings of the countershaft fit. All gears run in oil. The drive from the countershaft to the rear wheels is by side chains. Ignition is by battery and coil, a double coil being fitted to the dash. A pressure lubricator with sight feeds is provided. The steering device is of the irreversible gear type, and spark and throttle levers are mounted on the steering wheel. The frame is of pressed steel construction and is supported on semi-elliptic springs in front and full elliptic springs in the rear. Thirty-six inch artillery wheels with $1\frac{3}{8}$ inch solid rubber tires are used. The wheel base is 80 inches. Internal expanding brakes act on drums secured to the rear wheel hubs. The body is of the regular runabout type, with a large carrying space in the rear boot. The company refers to this model as its "Model 14."



PATERSON MODEL 14.

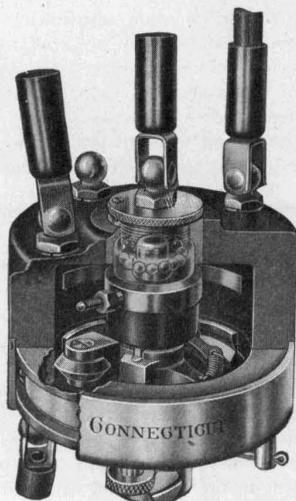
Chalmers-Detroit "Forty" With Close Coupled Body.

This new body design has been brought out to meet the demand for a car with more carrying capacity than a runabout but lighter than a touring car. The rear seat is brought well forward, making it easy riding; it has a full height back, so that it is more comfortable than toy tonneau models. All the mechanical specifications are the same as in the touring car.

The Connecticut Distributor.

The Connecticut distributor is composed of two principal parts, the primary and secondary, which are held together by two threaded studs with lock nuts, and are therefore easily separated for cleaning purposes without removing the instrument.

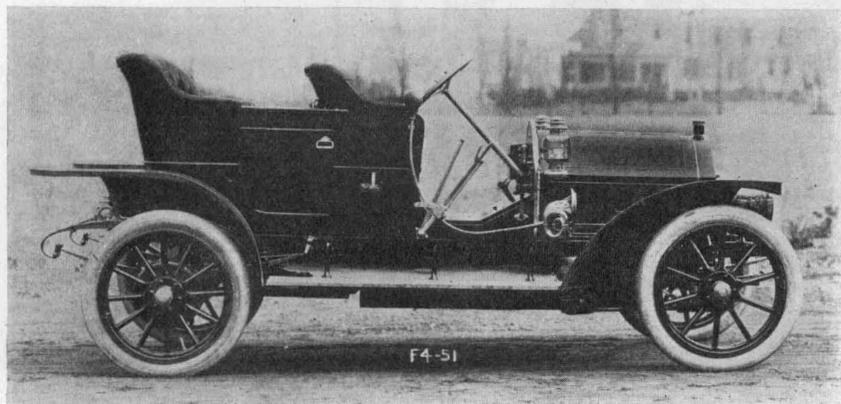
The primary section is made of aluminum, and forms the base, containing the ball bearing shaft and the timing or contact making device, which is essentially the same as in



CONNECTICUT DISTRIBUTOR.

the well known 1909 type Connecticut timer. The timer and distributor sections are separated by a hard fibre disk to prevent grease working from the timer into the dis-

tributor section. The upper or secondary section is composed of hard rubber, accurately machined and polished, and is of heavy construction to prevent warping or distortion when used in places of high temperature, and is claimed to be absolutely water and dust proof. Both primary and secondary connections are furnished with quick detachable terminals to fit any size wire desired. Mounted upon the shaft extending from the lower or primary section into the secondary section is a key fastened hard rubber cap, from which extends the distributor arm, which is insulated from the shaft, but in contact with the stud projecting from the top of this cap and forming the end of the shaft and reaching into the upper ball bearing, which is adjustable from the outside of the top of the distributor by means of an aluminum knurled knob, which may be locked after adjustment by means of a set screw. The distributor arm is formed of a closely wound piano wire spring, and is flexible and adjustable as to its length by a lock nut. Upon the inside of the rubber case and in line with the distributor arm are mounted the slightly projecting steel contact blocks spaced in synchronism with the contact maker in the lower part and fastened by means of studs and the ball terminal nuts. Connection for the primary current is made underneath by means of a quick detachable terminal, and the advance stud is on the opposite side.



CHALMERS-DETROIT FORTY, WITH CLOSE COUPLED BODY.

The Kidder Shock Absorber.

Wellington P. Kidder, of 18 Robeson street, Jamaica Plain, Boston, Mass., who in the early years of the light steam automobile brought out a steam runabout with direct spur gear drive, has lately been giving attention to the problem of shock absorbers, and has developed the device here illustrated. Mr. Kidder reasons that such mechanism to be satisfactory must possess the following elements: First, it must not materially interfere with the freedom of the springs in their easy, normal play. Second, either way from normal, the perfect device must gradually develop an increasing resist-