THE Detroit ELECTRIC

SOCIETY'S TOWN CAR

1913

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WORLD'S
FOREMOST ELECTRIC
AUTOMOBILE

ANDERSON ELECTRIC CAR CO.
DETROIT, MICH., U. S. A.

NEW YORK: 80th and Broadway
BOSTON
BROOKLYN
BUFFALO
CHICAGO: 2416 Michigan Ave.
CLEVELAND
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FOREWORD

PUBLIC opinion ultimately decides the type and form of nearly every article universally used. The trend of this influence with reference to electric automobiles—their design, construction, etc.—is clearly evidenced by stringent laws, now enforced in many large cities, prohibiting anyone from sitting in front of the driver, as in the well-known face-to-face type of electric brougham. It is certain that this idea will ultimately receive universal approval, particularly in congested city districts where fully ninety per cent of automobiles are used. It is also reasonable to assume that more extensive legislation will insist upon all cars being so arranged as to afford the driver a clear view in all directions—front, both sides and the rear.

The Detroit Electric Clear Vision Brougham for 1913 not only covers the requirement already demanded in some quarters, but also anticipates that with respect to clear vision in all directions.

This is the car which conditions of two years ago clearly indicated would be the ultimate electric automobile. However, it was not immediately placed upon the market. It was considered better policy to allow the public's ideas to fully crystallize before manufacturing such a car on a large scale.

A year ago a Detroit Electric of this type was exhibited at Chicago with the result that the entire output was sold almost immediately. This proved that the time for the sale of a properly designed front driven car

had arrived. However, this conclusion was tempered by still another to the effect that the final model must not be too large and unwieldy; and not too expensive.

The degree of success attained in building a car of standard length, proper weight and pleasing appearance, yet with a comfortable and compact seating arrangement, will be fully appreciated by becoming thoroughly familiar with the New Detroit Electric Clear Vision Brougham, Model 42.

This car establishes a new and higher standard in body building. It seats all passengers facing forward and is both convenient and comfortable, whether occupied by one or more people.

The driver's seat on the left hand side in front is as comfortable as a large armchair. This seat is not in an isolated position—way up in front. It is centrally located, thus insuring an appearance of easy grace and balance even when one person is using the car.

The other front seat is just as comfortable and is so cleverly arranged that it not only folds out of the way but easily turns so that the person using it can face in any direction. The rear seat is wider and roomier than ever before.

This new type of car meets a variety of requirements in a most efficient manner. The Clear Vision Brougham fully suits the purposes of the society woman who insists upon being independent of a chauffeur.

Business or professional men, requiring an aristocratic vehicle always at instant command, will find this car effortless in operation, both from the standpoint of easy starting and speed-control in traffic.

Women or men who do not care to drive, but who at the same time desire freedom and out-of-door recreation, will secure untold pleasure in the use of this vehicle. One of the servants, a maid or a butler, can easily learn to drive the car. Even children of an intelligent age can handle it with perfect safety.

The Detroit Electric Clear Vision Brougham is a standard car and can be purchased with the assurance that its general lines and proportions will be standard indefinitely. Improvements in the future will be along the line of details.

In addition to the Model 42 Clear Vision Brougham, 1913 Detroit Electrics are also supplied in seven other models including Victorias, Gentlemen's Roadsters, Limousines and other types devoted to special purposes.

The Detroit Electric is not an assembled car. Practically since the time when the first Detroit Electric was introduced to the public, The Anderson Electric Car Co. has designed and built, in their entirety, all bodies, all mechanical and electrical parts, including motors and controllers—in fact everything.

1913 Detroit Electrics are the result of years of well-directed effort on the part of the largest organization in the world exclusively devoted to the manufacture of electrically propelled vehicles. The care, patience, and skill exercised in the building of these cars are all evidence of a fixed purpose to make each one please and satisfy. Unsolicited testimonials of this universal satisfaction are regularly received at our factory and are evidence that our policy is sound and well maintained.

Model 42

WITH either four or five people in the car, the operator not only has a clear vision of the road ahead, but also a clear view at either side and the rear, in the new 1913 Detroit Electric Clear Vision Brougham. There are no panels anywhere to obstruct the view, as will be noted by the illustration opposite.

Model 42 Clear Vision Brougham

Specifications

INTERIOR BODY DIMENSIONS: Rear seat, top of cushion, width 46 inches, depth 20 inches. Driver's seat, width 22 inches, depth 16 inches. Swivel front seat, 14 x 14 inches. Glass to glass, 70 inches. Width of doors, 23 inches.

UPHOLSTERY: Superfine Broadcloth or leather; blue, green and maroon shades. Bedford and Whipcords of exclusive imported fabrics.

PAINTING: Blue, Brewster green or maroon.

WHEEL BASE: 96 inches.

TREAD: 56 inches. (Standard)

BATTERY: 40 cells, 11 plate Detroit Electric Lead. (Guaranteed); 64 cells A-4 Edison.

STEERING: Side lever, conveniently mounted at side of car.

CONTROL: Horizontal lever, rod parallel with steering lever.

BRAKES: Two 12″ x 1¾″ internal expanding brakes in each rear hub.

TIRES: Optional 34 x 4 Special Electric Pneumatic or 36 x 4 Cushion.

FENDERS: Aluminum, fully enclosed and skirted to body.

SPEED: 5, 8, 13, 17, 20 miles per hour.

MILEAGE: 65 to 100 miles.

EQUIPMENT: Head lights, side lamps, tail lamp, inspection lamp, hub odometer, complete outfit of tools, flower vase, and a complete toilet and card case, including Limousine watch.

Price, F. O. B. Detroit, Lead Battery $3000; Edison Battery $3664

Model 37

THE roof of an enclosed body is the part most exposed to severe weather conditions. That is why the roofs of all 1913 Detroit Electric Broughams are made of one solid sheet of aluminum, which is positive assurance against leaks, cracks or checks and affords a beautiful finish.

Model 37 Brougham

Specifications

INTERIOR BODY DIMENSIONS: Rear seat, top of cushion, width 48 inches, depth 22 inches. Driver's seat, width 22 inches, depth 20 inches. Swivel front seat, 14 x 14 inches. Glass to glass, 76 inches. Width of doors, 23 inches.

UPHOLSTERY: Superfine Broadcloth or leather; blue, green and maroon shades. Bedford and Whipcords of exclusive imported fabrics.

PAINTING: Blue, Brewster green or maroon.

WHEEL BASE: 104 inches.

TREAD: 56 inches. (Standard)

BATTERY: 40 cells, 11 plate Detroit Electric Lead. (Guaranteed); 64 cells A-4 Edison.

STEERING: Side lever, conveniently mounted at side of car.

CONTROL: Horizontal lever, rod parallel with steering lever.

BRAKES: Two 12" x 1¾" internal expanding brakes in each rear hub.

TIRES: Optional 34 x 4 Special Electric Pneumatic or 36 x 4½ Cushion.

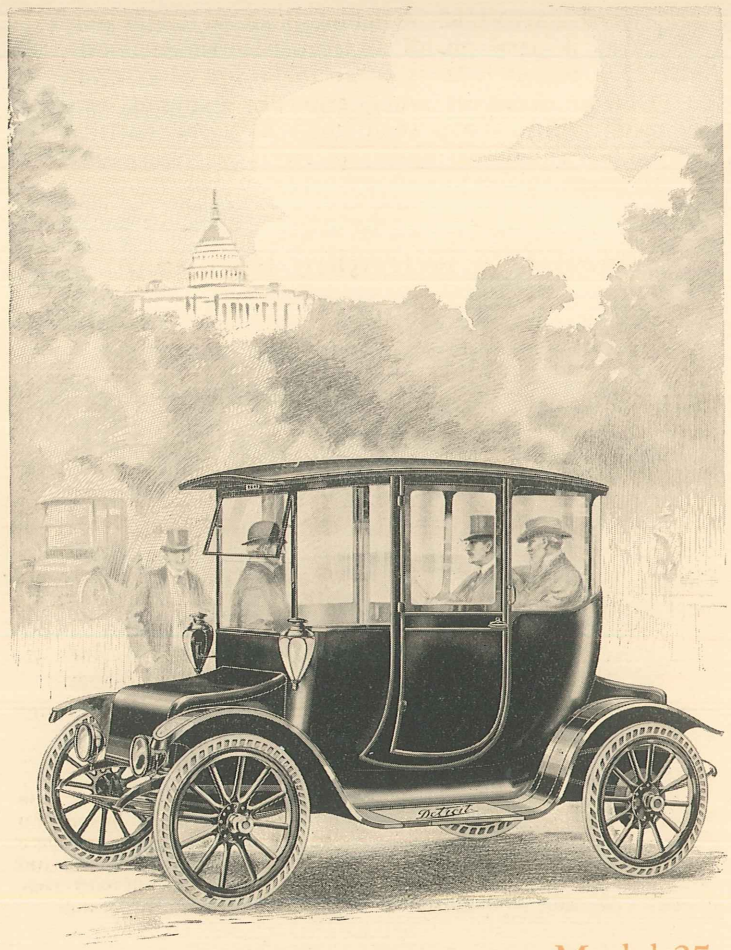
FENDERS: Aluminum, fully enclosed and skirted to body.

SPEED: 5, 8, 13, 17, 20 miles per hour.

MILEAGE: 50 to 85 miles.

EQUIPMENT: Head lights, side lamps, tail lamp, inspection lamp, hub odometer, complete outfit of tools, flower vase, and a complete toilet and card case, including Limousine watch.

Price, F. O. B. Detroit, Lead Battery $3600; Edison Battery $4264



Model 35

ALUMINUM Window Sash of one piece is used on all Detroit Electric enclosed bodies. It is impossible for aluminum sash to check or warp regardless of weather conditions. Wood sash must necessarily have joints, which will open up, swell and warp out of shape.

Model 35 Extension Brougham

Specifications

INTERIOR BODY DIMENSIONS: Rear seat, top of cushion, width 46 inches, depth 20 inches. Front seat, width 43 inches, depth 18 inches. Back of rear seat to back of front seat, 58 inches. Knee room between seats, 20 inches. Glass to glass, 70 inches.

UPHOLSTERY: Superfine Broadcloth or leather; blue, green and maroon shades. Bedford and Whipcords of exclusive imported fabrics.

PAINTING: Blue, Brewster green or maroon.

WHEEL BASE: 90 inches.

TREAD: 56 inches. (Standard)

BATTERY: 40 cells, 11 plate Detroit Electric Lead. (Guaranteed); 64 cells A-4 Edison.

STEERING: Side lever, conveniently mounted at side of car.

CONTROL: Horizontal lever, rod parallel with steering lever.

BRAKES: Two sets 12″ x 1¾″ internal expanding brakes in each rear hub.

TIRES: Optional 34 x 4 Special Electric Pneumatic or 36 x 4 Cushion.

FENDERS: Aluminum, fully enclosed and skirted to body.

SPEED: 5, 8, 13, 17, 20 miles per hour.

MILEAGE: 65 to 100 miles.

EQUIPMENT: Head lights, side lamps, tail lamp, inspection lamp, hub odometer, complete outfit of tools, flower vase, and a complete toilet and card case, including Limousine watch.

Price, F. O. B. Detroit, Lead Battery $2850; Edison Battery $3514

Model 36

THE Detroit Electric Horizontal Controller Lever, which regulates five speeds forward and reverse by one simple movement, is built into the side of the car. It occupies no valuable seat space and does not become entangled in one's clothing while in operation. When in use, it is lowered to a natural position parallel with the steering lever. On leaving the car, both levers are raised upright flat against the side of the car out of the way.

Model 36 Brougham

Specifications

INTERIOR BODY DIMENSIONS: Rear seat, top of cushion, width 45 inches, depth 19 inches. Front seat, width 42 inches, depth 16 inches. Back of rear seat to back of front seat, 54 inches. Knee room between seats, 18 inches. Glass to glass, 64 inches.

UPHOLSTERY: Superfine Broadcloth or leather; blue, green and maroon shades. Bedford and Whipcords of exclusive imported fabrics.

PAINTING: Blue, Brewster green or maroon.

WHEEL BASE: 85 inches.

TREAD: 56 inches. (Standard)

BATTERY: 40 cells, 11 plate Detroit Electric Lead. (Guaranteed); 64 cells A-4 Edison.

STEERING: Side lever, conveniently mounted at side of car.

CONTROL: Horizontal lever, rod parallel with steering lever.

BRAKES: Two sets 12" x 1¾" internal expanding brakes in each rear hub.

TIRES: Optional 34 x 4 Special Electric Pneumatic or 36 x 4 Cushion.

FENDERS: Aluminum, fully enclosed and skirted to body.

SPEED: 5, 8, 13, 17, 20 miles per hour.

MILEAGE: 65 to 100 miles.

EQUIPMENT: Head lights, side lamps, tail lamp, inspection lamp, hub odometer, complete outfit of tools, flower vase, and a complete toilet and card case, including Limousine watch.

Price, F. O. B. Detroit, Lead Battery $2700; Edison Battery $3364

Model 38

DESIGNED and built in our own factory for Detroit Electric cars, our motor is made exclusively to meet electric automobile road conditions. We do not use "stock" motors. Always dependable and economical in operation, the Detroit Electric Motor is recognized as one of the notable electrical achievements.

Model 38 Roadster Coupe

Specifications

INTERIOR BODY DIMENSIONS: Seat, top of cushion, width 45 inches, depth 20 inches. Folding third person seat, 14 x 14 inches. Distance from back of seat to front of dash, 52 inches. Glass to glass, 58 inches.

UPHOLSTERY: Superfine Broadcloth or leather; blue, green and maroon shades. Bedford and Whipcords of exclusive imported fabrics.

PAINTING: Blue, Brewster green or maroon.

WHEEL BASE: 96 inches.

TREAD: 56 inches. (Standard)

BATTERY: 40 cells, 11 plate Detroit Electric Lead. (Guaranteed); 64 cells A-4 Edison.

STEERING: Side lever, conveniently mounted at side of car.

CONTROL: Horizontal lever, rod parallel with steering lever.

BRAKES: Two 12″ x 1¾″ internal expanding brakes in each rear hub.

FENDERS: Aluminum, fully enclosed and skirted to body.

TIRES: Optional 32 x 4 Special Electric Pneumatic or 34 x 4 Cushion.

SPEED: 5, 8, 13, 17, 20 miles per hour.

MILEAGE: 65 to 100 miles.

EQUIPMENT: Head lights, side lamps, tail lamp, inspection lamp, hub odometer, complete outfit of tools, flower vase, and a complete toilet and card case, including Limousine watch.

Price, F. O. B. Detroit, Lead Battery $2600; Edison Battery $3264

Model 41

DETROIT Electric Brakes are purposely oversized. They act instantly, with little exertion on the driver's part. Two complete sets are furnished—two internal expanding brakes in each rear hub. Exposed ends of rear wheel drums are covered with metal discs, preventing mud, water, dust and dirt from interfering with smooth and satisfactory operation.

Model 41 Limousine

Specification

INTERIOR BODY DIMENSIONS: Rear seat, top of cushion, width 47 inches, depth 20 inches. Two auxiliary seats, folding type, 14 x 14 inches. Driver's seat, width 43 inches, depth 19 inches. Width of two rear doors, 22 inches. Width of two front doors, 22 inches.

SEATING CAPACITY: Rear compartment rear seat, three persons; auxiliary seats, two persons. Front compartment—two persons, including driver.

UPHOLSTERY: Superfine Broadcloth or leather; blue, green and maroon shades. Bedford and Whipcords of exclusive imported fabrics.

PAINTING: Blue, Brewster green or maroon.

WHEEL BASE: 112 inches.

TREAD: 56 inches. (Standard)

BATTERY: 60 cells A-6 Edison.

STEERING: Wheel steer.

CONTROL: Lever on steering wheel.

BRAKES: Two 12″ x 1¾″ internal expanding brakes in each rear hub.

TIRES: 34 x 5 Pneumatic tires with Demountable Rims.

FENDERS: Aluminum, fully enclosed and skirted to body.

SPEED: 5, 8, 13, 17, 20 miles per hour.

MILEAGE: 50 to 75 miles.

EQUIPMENT: Head lights, side lamps, tail lamp, inspection lamp, hub odometer, complete outfit of tools, flower vase, and a complete toilet and card case, including Limousine watch.

Price, F. O. B. Detroit; $5000

Model 39

DETROIT Electric Direct Shaft Driven "Chainless" Power plant. Termed "Shaft Driven Chainless" because of the entire absence of chains anywhere in its mechanism. Patented. The power is transmitted from the motor to the rear axle with less waste than in any other type of drive.

Model 39 Roadster

Specifications

INTERIOR BODY DIMENSIONS: Seat, top of cushion, width 45 inches, depth 20 inches. Distance, front of seat to dash, 30 inches. Width of door, 21 inches.

UPHOLSTERY: Leather in blue, green or maroon shades.

TOP: Cape, with side and door curtains. First quality mohair.

PAINTING: Blue, Brewster green or maroon.

WHEEL BASE: 96 inches.

TREAD: 56 inches. (Standard)

BATTERY: 40 cells, 11 plate Detroit Electric Lead. (Guaranteed); 64 cells A-4 Edison.

STEERING: Side lever, conveniently mounted at side of car.

CONTROL: Horizontal lever, rod parallel with steering lever.

BRAKES: Two 12" x 1¾" internal expanding brakes in each rear hub.

TIRES: Optional 34 x 4 Special Electric Pneumatic or 36 x 4 Cushion.

FENDERS: Aluminum, fully enclosed and skirted to body.

SPEED: 5, 8, 13, 17, 21 miles per hour.

MILEAGE: 65 to 100 miles.

EQUIPMENT: Windshield, headlights, side lamps, tail lamp, inspection lamp, hub odometer and complete outfit of tools.

Price, F. O. B. Detroit, Lead Battery $2350; Edison Battery $3014

Model 40

DETROIT Electric Lead Batteries are made in and guaranteed by the Detroit Electric factory. The Edison Nickel and Steel Battery is also furnished with a full guarantee. The car itself is so designed and wired throughout as to secure the utmost efficiency in the use of either type.

Model 40 Victoria

Specifications

INTERIOR BODY DIMENSIONS: Rear seat, top of cushion, width 45 inches, depth 19 inches. Front seat, width 40 inches, depth 12 inches. Knee room between seats, 18 inches. Width of door, 19 inches.

UPHOLSTERY: Superfine Broadcloth or leather; blue, green and maroon shades. Bedford and Whipcords of exclusive imported fabrics.

TOP: Hand buffed enamel leather with side and door curtains.

PAINTING: Blue, Brewster green or maroon.

WHEEL BASE: 85 inches.

TREAD: 56 inches. (Standard)

BATTERY: 40 cells, 11 plate Detroit Electric Lead. (Guaranteed); 64 cells A-4 Edison.

STEERING: Side lever, conveniently mounted at side of car.

CONTROL: Horizontal lever, rod parallel with steering lever.

BRAKES: Two 12″ x 1¾″ internal expanding brakes in each rear hub.

TIRES: Optional 32 x 4 Special Electric Pneumatic or 34 x 4 Cushion.

FENDERS: Aluminum, fully enclosed and skirted to body.

SPEED: 5, 8, 13, 17, 21 miles per hour.

MILEAGE: 65 to 100 miles.

EQUIPMENT: Head lights, side lamps, tail lamp, inspection lamp, hub odometer, and complete outfit of tools.

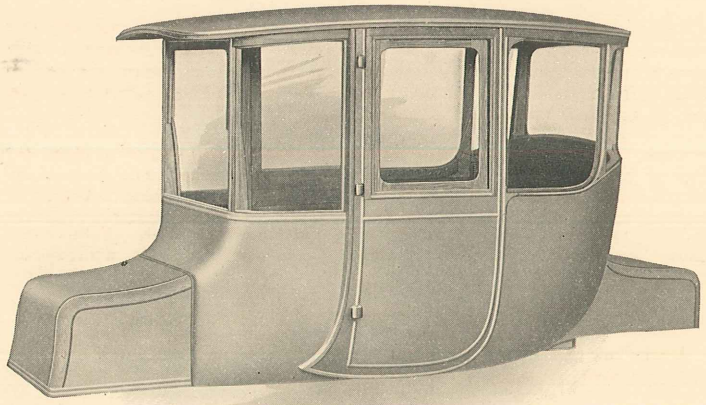
Price, F. O. B. Detroit, Lead Battery $2300; Edison Battery $2964

DETROIT ELECTRIC BODIES

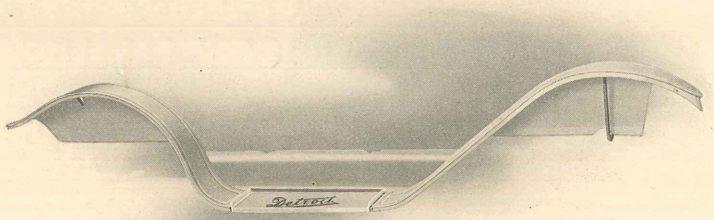
THE body of an automobile is largely responsible for the impression which it creates upon first sight. Thus it is that the beautiful, artistic curves and lines of each Detroit Electric body, intensified by unusually high grade finish and a display of careful attention to interior detail, never fail to create a most favorable impression.

White ash sills and pillar posts form a rugged foundation for supporting the lighter window frames and door jams, the complete framework being skillfully fitted together and joints doubly retained with screws and glue.

All body panels, including those of the doors, are shaped from pure aluminum, which reduces weight and supplies an unexcelled finishing surface. Body mouldings and window sashes are formed of the same light material. The roof also is formed of aluminum, carefully mounted upon the top ribs of the frame with a layer of felt matting between to eliminate all noise—a wonderful improvement over wood veneer or leather roofs formerly used, overcoming such objectionable features as checking, warping and cracking.



An unfinished body, illustrating panels, mouldings, window sash and roof, all of pure aluminum



A complete set of aluminum fenders as they appear before finishing

Aluminum fenders on all models are fully enclosed between step and body. This provides a neat method of protection from mud and dirt, which takes a lasting coat of polished enamel which will indefinitely withstand exposure to the elements.

Aluminum hoods at the front and rear are attached to the body by a full width piano hinge, insuring a perfect fit throughout the life of the car.

Superfinishing a Detroit Electric body is possible, due to the excellent surface provided throughout. It would seem superfluous to have a body undergo twenty-three separate and distinct operations to secure the desired effect. However, a most beautiful finish is the result of this painstaking care, and is, therefore, well worth the effort.

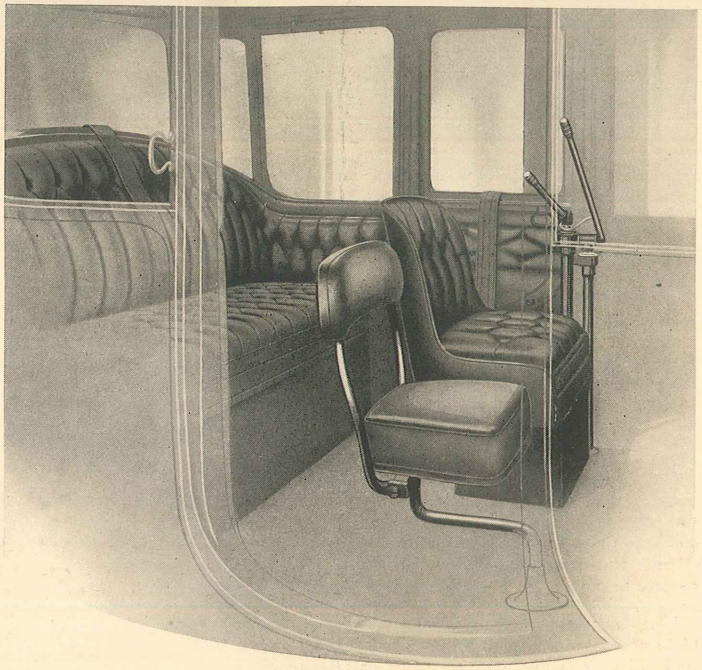
Glass panels in all broughams are of the best silvering quality plate, the highest grade of glass procurable for this purpose. The front glass of all enclosed cars is divided, the upper half being arranged to swing outward.

Door and rear windows are of the adjustable drop type. Rear corner panels are curved glass sections, affording the driver with an unobstructed rear view.

Enclosed cars are equipped with a neat ventilator above the front glass.

Doors open forward, facilitating convenience in alighting from the car, and preventing accidents should a door not be locked with the car in motion.

The interior of the body displays still further evidence of care and skill. A novel spring arrangement forms a basis for a set of unusually comfortable and easy riding cushions. These coil springs are used in two sizes, the larger ones being in the majority and ingeniously reinforced by those of



Seating arrangement, Clear Vision Brougham, Model 42

smaller size. This combination allows the cushion to automatically adapt itself to either a light or heavy person, or to uneven street conditions, and still retain its normal shape and beauty after years of use.

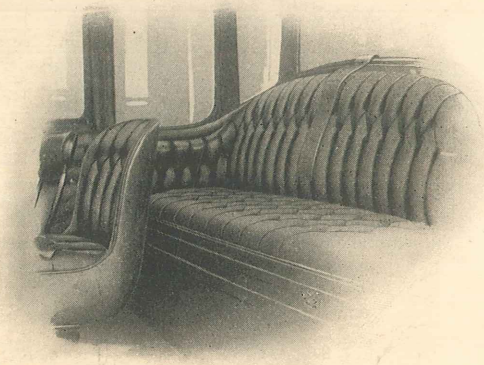
Paddings for stuffings are made of first quality white sterilized hair, each pad containing an exact amount of hair, carefully determined by weight.

Green, blue and maroon shades of upholstering are supplied in leather and broadcloth. Broadcloths are all of pure Australian wool, twenty-one ounces in weight, and of absolutely fast colors. Leathers are of the highest

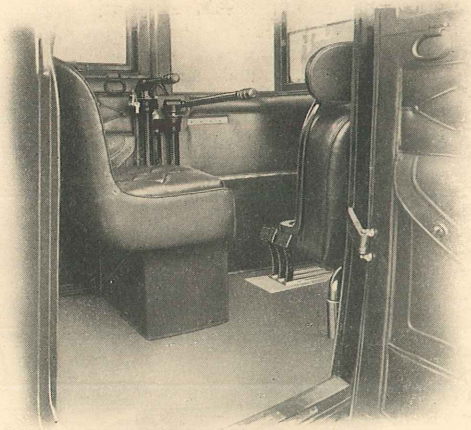
grade of water-grained, Morocco finished, hand-buffed. Bedford and Whipcord fabrics are imported exclusively for use in Detroit Electrics.

Interior metal mountings are silver-plated white metal. Vulcanized rubber-covered handle grasps provide a uniform finish which will not tarnish from handling.

A convenient toilet case is provided, including a neat seven-jewel Limousine watch. A cut glass flower vase is also furnished.

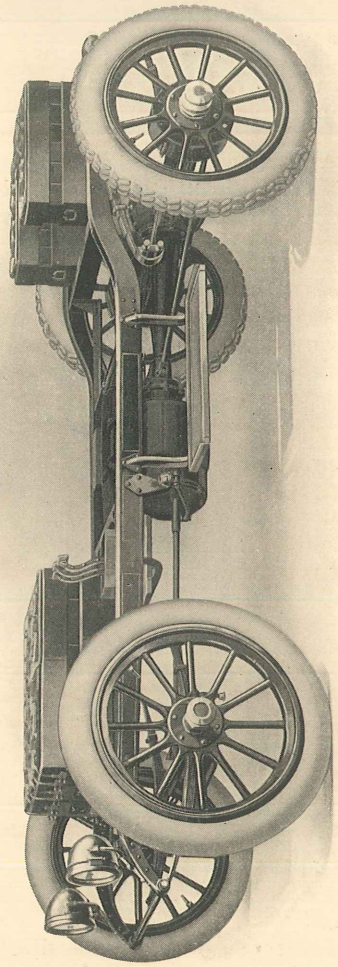


An example of Detroit Electric upholstering. Rear seat, Model 42 Clear Vision Brougham



Illustrating the convenient location of brakepedals and the Horizontal Controller and Steering Lever in a Model 42. This arrangement is standard in all Detroit Electrics

Steering and control levers are parts of the body proper. Both levers are of the Horizontal type. Being mounted at the side of the car, assuming a parallel position one above the other, the utmost ease in operation results. No valuable seat room is infringed upon by the vertical shaft and housing tube of either one. These vertical shafts operate upon self-aligning ball-bearings.



In a Detroit Electric Chassis efficient operation is always insured, due to its extremely simple and business-like construction throughout. This chassis represents the careful refinement of engineering standards which have proven themselves to be correct in years of previous application in Detroit Electrics used throughout the world.

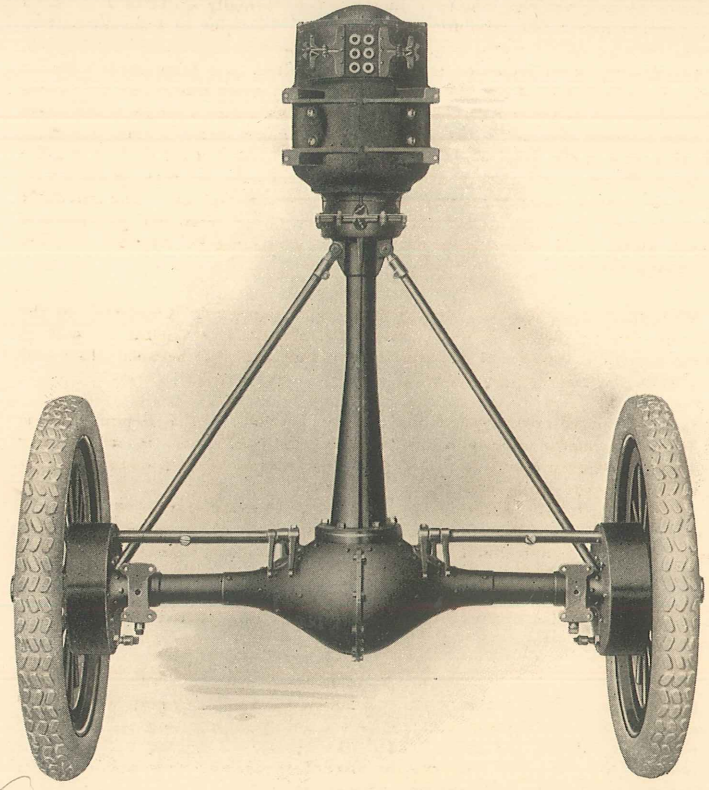
DETROIT ELECTRIC CHASSIS

A 1913 Detroit Electric, stripped of its body and other decorative features, reveals a chassis whose clean-cut simplicity displays most careful attention to engineering detail. This chassis is not the product of hastily drawn conclusions. It is rather a refined application of principles which have already seen several seasons of actual service in the hands of owners located throughout the world. Naturally such a prolonged and strictly impartial test of construction methods and materials formed a very solid basis for 1913 practice.

A trip through the Detroit Electric factories will reveal the fact that it is a car in which so-called "stock" parts are conspicuous by their absence. All mechanical and electrical parts being of our own design and built in our own shops, the Detroit Electric is a car in which high efficiency throughout is secured by a most careful supervision of all details. Each part is exactly suited for co-operation with all others to which it bears any working relation.

The fact that perfect workmanship can only be secured by using high grade materials is not overlooked. The finest of steels in nickel, vanadium, and other alloys are employed, the selection in each individual case being determined by a scientific analysis of the work which the part is required to perform. Drop forgings are used wherever it is possible to do so.

All models are completed on the same standard design of chassis, the only variation being in size for accommodating cars of different wheel-base dimensions.



Direct Shaft Drive "Chainless" Power Plant

Among the many mechanical features which have contributed to the universal success of the Detroit Electric, none ranks higher in importance than the "Chainless" Direct Shaft Drive. The result secured from this type of construction is the application, at the rear wheels, of the highest possible percentage of the power delivered by the battery to the motor.

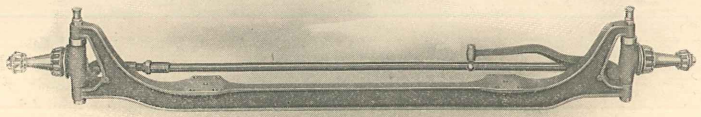
Some electric vehicles employ a motor which normally operates at a speed of approximately 1,600 revolutions per minute. In order to transmit battery power through such a motor and drive the rear wheels at proper normal speed, power-wasting speed reduction methods are required. In some cases a pinion gear on an extension of the motor shaft reduces its speed into a rear axle bevel gear of a very large and unwieldy size. In other cases a single chain drive is used between the motor and propellor shaft, which latter is then geared to the rear axle in the usual manner. Sometimes the last method is reversed, the motor shaft being extended to a point near the rear axle and then connected by chain to another stub shaft driving the usual rear gear system. The inevitable result in each case is a loss of valuable battery power dissipated in friction—power which could otherwise be employed in exercising its intended function of driving the car.

With these facts in mind, the application of the word "Chainless" to the Detroit Electric Direct Shaft Drive is significant. Side chains as well as those sometimes concealed between motor and shaft or between shaft and rear axle gears, are entirely absent.

This Detroit Electric construction is made possible by the Detroit Electric Motor. This motor is designed and built in our own factory to operate at a speed of 800 revolutions per minute. This speed requires reduction only once between the motor and rear system, and is so reduced by a bevel gear at the rear axle of perfectly normal size and specifications. A motor of this type has many other advantages. Being necessarily larger, its wiring and other parts can be built up in such a way as to enable it to withstand sudden or long overloads without excessive heating—a most desirable feature in a vehicle motor. However, this construction in no way increases the total weight of the power plant because the elimination of chains, extra gears, housings, etc., more than offsets the relatively slight increase in motor weight.

Connection between motor shaft and propellor shaft is through a universal joint. All parts of the cross in this joint are hardened drop forgings ground to a perfect fit. When the car is loaded, the motor and driving shafts assume a position in a straight line, the purpose of the joint being simply to act when the car travels over uneven surfaces, etc.

The propellor shaft, pinion gear and its shaft are all of chrome nickel and vanadium steel and are entirely enclosed in a pressed steel housing of neat design. The pinion gear and its shaft are integral, the whole piece being connected to the propellor shaft by means of a square drive. Motor and shafts all travel on ball bearings of liberal size, reducing friction to the lowest possible limit.



Drop forged, I-Beam section, one-piece front axle; steering knuckles, front hubs and bearings

Front Axle and Steering System

A drop-forged I-beam section of high carbon specially heat-treated steel forms a front axle capable of standing up indefinitely under all possible service conditions. This axle, including spring pads and knuckle yokes, is all in one forging, providing a maximum of strength with least possible weight.

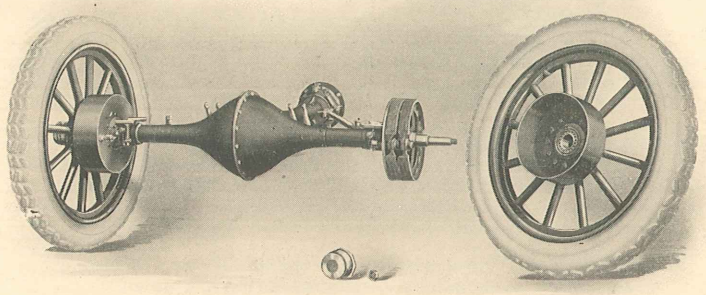
Front knuckles and knuckle arms are all of three and one-half per cent nickel steel, specially treated. Knuckles pivot on two sets of ball thrust bearings, making easy steering possible. Front hubs are equipped with Timken Roller Bearings.

Springs

Front springs are of half-elliptic type, the rear set being full elliptic with scroll ends. These springs are made of high grade imported alloy steel. The leaves are shaped by hand from rolled bars and treated in hot oil baths from three to five times. This produces a leaf having an elastic limit exceeding 200,000 pounds to the square inch.

Eyes at spring ends are machined and fitted with bushings carefully faced for accurate fit of bolts. Buffing each spring leaf reduces internal friction to a minimum. All leaves are thoroughly lubricated before assembling.

Spring bushings are of bronze, assuring silent action and only slight wear on spring bolts. Each spring bolt is fitted with a standard grease cup.



Complete Rear Axle

Rear Axle

The rear axle housing is of smoothly finished pressed steel, no truss rods being required, the shape of the housing itself being such as to make them entirely unnecessary. This housing is built up in two sections only, with one circumferential joint at the center. This joint is of flanged type, secured by bolts and sealed with shellac.

All gears and shafts are of best quality chrome nickel and vanadium steel. The differential gearing moves on extra large annular ball bearings supported by end thrust bearings.

Detachable round metal discs cover the inner ends of brake drums on each rear hub. Each rear wheel travels on a double row of S. K. F. self-aligning ball-bearings, the weight of the car being entirely supported on the housings.

Frame

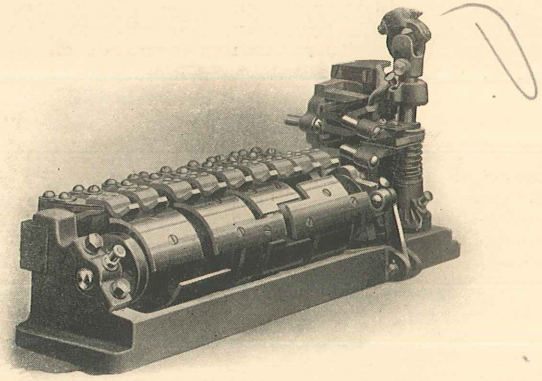
The frame is of cold rolled channel section steel, containing just enough carbon to combine great strength with ductility. This frame has a four-inch drop between the rear and front, making a lower center of gravity possible. This reduces swaying effect on turns, etc., to a minimum. Frames are also four inches narrower in front than at the rear, which facilitates the turning of the car in circles of small radius.

Braking and Control

Two sets of internal expanding brakes are supplied in each rear hub, each individual brake being 1¾ inches wide by 12 inches in diameter. Brakes are controlled by two hinged foot pedals mounted on adjustable levers.

Connection to equalizer bars is made through a special counter shaft, easily lubricated through one oil cup. Equalizer bars and brake rods are all of vanadium steel drop forgings which are both light and very tough. Ball and socket connections between rods and bars materially assist easy operation. Brake cam shafts are telescoped and lubricated from one oil hole. These brakes require very little energy for their effective operation.

Another foot lever, located between those controlling the hub brakes, operates an emergency cut-out switch. A pressure of the foot on all three pedals at once instantly cuts off the power supply between the battery and motor, the brakes then bringing the car to an abrupt stop. It is then impossible to release the brakes without first returning the controller lever to its neutral position. This prevents any accidents in cases where an excited driver, after cutting off the power and braking the car, should release all three pedals again with the controller lever in a speed position. Brakes set on leaving the car are not releasable with the controller in vertical position. Therefore, a Yale lock and key on the controller prevents not only any accidental release of brakes, but also any use of the car without the owner's knowledge.



Detroit Electric Drum Type Controller

Controller

The Detroit Electric Controller is of the drum type, providing five forward and reverse speeds. Switching blocks and terminals on this controller are of very rugged proportions, thus providing years of wear. A thumb adjusting screw is supplied by means of which the spring tension on the controller cam may be increased or decreased at will. This allows the controller to be adjusted so that its operation by the lever may be easy or not according to individual wishes.

Wheels

Wheels on Detroit Electrics are of the regular artillery type. Spokes are of second growth white hickory, split instead of sawed, thus insuring straight grain and consequently much greater strength. All wood parts are oiled immediately upon being finished, preventing moisture of any kind from entering the wood. Quick detachable rims are used for pneumatic tires, a one-piece clincher being supplied when cushion tires are furnished.

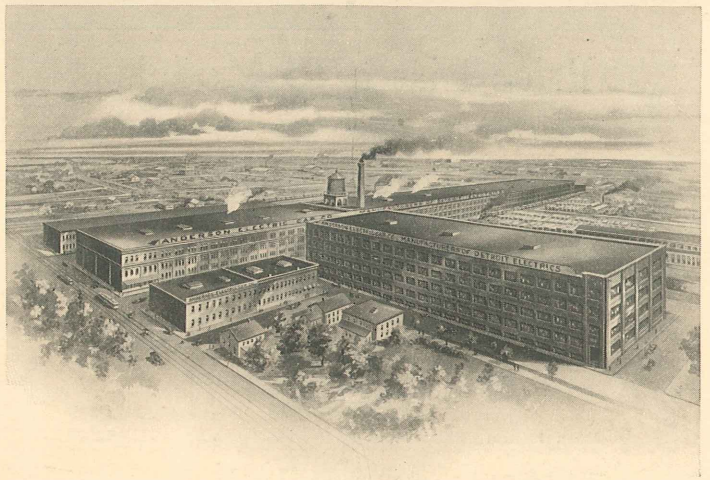
Tires

Pneumatic tires or those of the solid cushion type are optional on all models excepting the Model 41 Limousine. 34 x 4-inch pneumatic tires are made of special heavy fabric covered with a most efficient rubber compound. These tires are guaranteed by their makers. The solid cushion tire is supplied in the 36 x 4-inch size; is of high efficiency construction throughout; and is guaranteed by its manufacturers.

Wiring

All connections between battery, motor, controller, etc., are formed of No. 1 flexible stranded copper wire. This wire is large enough to transmit all current passing through it at any time without heating, thereby reducing any loss of voltage from wire resistance to the lowest possible degree. Wherever necessary wiring is carried through metal conduits.

Direct Factory Branches



Factories of the Anderson Electric Car Co., Detroit, Michigan

Detroit Electric Service

CONTINUOUS satisfaction in the ownership of a Detroit Electric automobile is due, not only to the intrinsic value of the car itself, but also to the splendidly equipped Service Department at the factory, supplemented by either a Direct Factory Branch or a Detroit Electric Agency in more than two hundred of the larger cities of the United States and Canada.

By these means, expert information and advice on the proper care and operation of cars is always at the disposal of Detroit Electric owners, free of charge. In addition, a corps of traveling inspectors is maintained for the assistance of dealers and individual owners living in towns which have no Detroit Electric Agency.

All Direct Factory Branches and the majority of the Agencies carry a complete line of spare parts in stock regularly—undeniably a great convenience in case of emergency.

Price List 1913 Models

Prices subject to change without notice.

Model 35 Extension Brougham:

With Detroit Electric Guaranteed Lead Battery	$2,850
With Edison Battery	3,514

Model 36 Brougham:

With Detroit Electric Guaranteed Lead Battery	$2,700
With Edison Battery	3,364

Model 37 Brougham:

With Detroit Electric Guaranteed Lead Battery	$3,600
With Edison Battery	4,264

Model 38 Roadster Coupe:

With Detroit Electric Guaranteed Lead Battery	$2,600
With Edison Battery	3,264

Model 39 Roadster:

With Detroit Electric Guaranteed Lead Battery	$2,350
With Edison Battery	3,014

Model 40 Victoria:

With Detroit Electric Guaranteed Lead Battery	$2,300
With Edison Battery	2,964

Model 41 Limousine:

With Edison Battery	$5,000

Model 42 Clear Vision Brougham:

With Detroit Electric Guaranteed Lead Battery	$3,000
With Edison Battery	3,664

Warranty

WE warrant all electric vehicles manufactured by this Company for one year following the date of shipment, based upon the invoice date.

This warranty is limited to the replacement at our factory of all parts giving out under normal service in consequence of defective material or workmanship. If the circumstances do not permit that the work be executed in our factory, this warranty is limited to the shipment, without charge, of the parts intended to replace those acknowledged to be defective.

It is, however, understood that we make no warranty whatever regarding tires.

The condition of this warranty is such that if the electric vehicle to which it applies is altered or repaired outside of our factory, our liability under this warranty shall cease. The purchaser understands and agrees that no warranty of the vehicle is made or authorized to be made by this Company other than herein above set forth.

Designed, Engraved
and Printed by
The Cargill Company
Grand Rapids, Mich.