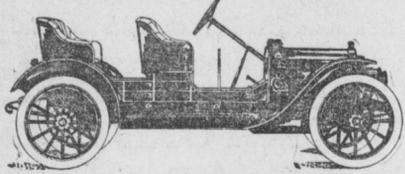


# Studebaker AUTOMOBILES

The Most Complete Line and the Largest Output of Any Factory in the World. 40,000 Complete Cars This Season. Every Model the Highest Grade and the Lowest Price of Any Car in Its Class.

## Studebaker - Flanders "20"



Four-Cylinder, 20 H. P., price \$850 delivered in Los Angeles as a two-Passenger Runabout or \$895 for a four-Passenger as shown.

Five weeks ago today the Studebaker company announced a new model—a 4-cylinder, 20 horsepower car, to sell at the factory for \$750 as a 2-passenger runabout, or \$780 as a 4-passenger suburban. The week following we were deluged with inquiries, and took a large number of orders at retail for delivery in January and February. At the present time we have 9 cars left for February shipment, and if you want one of these deliveries it behooves you to get in touch with us at once. Remember, we have only 500 of these cars coming in in 1910, and at the rate they are going we will have at least half of them sold before our demonstrator arrives, Jan. 1, 1910. We require a \$50 deposit on all orders, which will be filled in rotation as they are received. If, when the car comes, it is not satisfactory to the purchaser for any reason, we will re-turn his deposit and cancel the order.

### Specifications

#### THE MOTOR

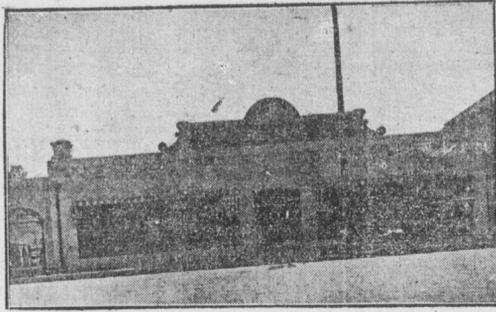
The bore is 3 5/8 inches and the stroke is 3 3/4 inches. All four cylinders are cast together. The valves are in pockets, all on one side, operated from a single cam shaft by straight tappets. Valve chambers are closed by screw plugs. The top of the water jacket is cast open and is closed by a pressed steel cover. The cover is retained by four studs, one at the center of each cylinder head, which draw it down tightly on its gasket. Its edges are flanged downward to retain the gasket. At its front end a short pipe is pressed out at an angle of about thirty degrees with the horizontal, to take the hose connection to the radiator.

The valves have beveled seats, are 1 7/16 inches in clear diameter and slide in guides pressed in from the outside. The springs are cylindrical and are retained by a pressed steel cupped washer, which is fastened by a horseshoe-shaped washer that fits a groove turned in the valve stem.

A Splitdorf Magneto supplies current for regular running; starting current is furnished by dry cells. The coil is in a cylindrical hard rubber case secured to the underside of the tube, which also carries the Magneto. The cutout switch is mounted on the dash, and the only wire which goes away from the motor is the low-tension wire to this switch.

#### THE CLUTCH

The clutch is of the leather-faced reversed cone type. Flat springs between metal cone and leather facing make it take hold gently. Both male and female cones are made from pressed steel. The spring is large diameter, conical. A ball thrust bearing takes the spring pressure when the clutch is disengaged. The cone runs on a die cast white metal bushing.



#### GEARS AND BEARINGS

The propeller shaft and differential casing are mounted on cup and cone ball bearing. Driving bevel and changed gears are carried in a cradle cast steel case open at the sides. This forms the center of the rear axle housing, as in the Studebaker E-M-F "20" the gears are 6-8 pitch. Fixed gears are keyed and pinned, and sliding gears mounted on a square shaft. Cup and cone bearings are used throughout, except back of the pinion shafts, where an annular ball bearing is used, since the thrust must be taken in both directions.

The direct drive high speed clutch is of the internal-external gear type. The lay shaft is above and the shifting rod below.

The differential is of the bevel type, its case is of pressed steel and the driving gear is bolted between the halves. The case is mounted in cup and cone ball bearing carried in vertically split supports, which are cast with the gear case.

#### DROP FORGE AXLE

The front axle is drop forged from special steels in "I" beam sections. The axle bends down outside the spring seat and is also curved downward between the seats. The seats are forged integral and the springs are secured by a single wide clip, which passes through the center of the axle, as in Studebaker E-M-F "30" and Studebaker-Garford models.

Both sets of brakes extend inside the rear wheel drum. They are 8 1/2 x 1 1/2 inches, cam expanded. The knuckles are forged and are bushed with bronze. Knuckle pins are hardened and have nuts done over a pressed steel frame which fits down outside the top of the seat a little way, making a neat job. The flooring and sills are of wood, assembled and slotted inside the side sheets.

#### THE FRONT AND REAR SPRINGS

Front spokes are semi-elliptic and the rear springs are scroll head full elliptic, shackled at both ends. They are 1 1/2 inches wide. The rear spring seats are of pressed steel and turned between collars fast on the axle tube. The springs turn on pins secured to the frame; so by removing them from these pins and taking out the four bolts in the globe joint the axle can be removed from the car.

Both sets of brakes extend inside the rear wheel drum. They are 8 1/2 x 1 1/2 inches, cam expanded. The frame is of pressed steel, neither dropped or narrowed. The power unit is supported on a cross member in front and by two saddles under the rear motor leg, making a three-point support.

#### PRESSED STEEL FRAME BODY AND SEATS

The body is made from pressed steel. It is of the same type as the well known Studebaker "Suburban"; the rear seats are removable, and when they are off there is a large carrying space at the rear.

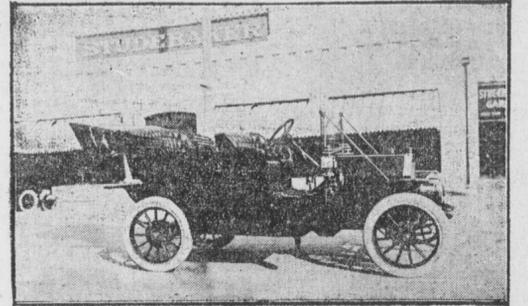
Each side piece below the seat is pressed from a sheet of steel, and is given a paneled effect by half oval ribs raised by pressing. The rear end is made in a similar manner. Sides and rear are fastened together by corner molding and screws. Cross members, also of pressed steel, are fastened in by molding and screws. The seats are of pressed steel, bolted to the under body. Upholstering is done over a pressed steel frame which fits down outside the top of the seat a little way, making a neat job. The flooring and sills are of wood, assembled and slotted inside the side sheets.

Body, frame, axles, indeed all parts but the wheels, are finished in enamel and baked. The wheel base is 100 inches. Tread is standard. Wheels are 32-inch, with 3-inch tires. Weight 1200 pounds.

#### FOR BUSINESS OR PLEASURE USES

With its readily removable parts, body with roomy baggage and its durable baked enamel finish the new car promises to be suitable for many business purposes as well as for pleasure uses.

## Studebaker E-M-F "30"



Four-Cylinder, 30 H. P., \$1400 delivered in Los Angeles, including magneto, full set of five lamps and generator.

When the Studebaker company announced this car about a year ago then would-be competitors, after studying over the specifications and considering the reputation of the firm behind them, realized that they were up against a tough proposition, and that about the only thing left for them to do was to get up and "holler" and raise all the dust possible to obscure the real merits of the car. The result has been that no car has been knocked so hard BY COMPETITORS AND NO CAR IN ITS CLASS PRAISED SO HIGHLY BY THOUSANDS OF SATISFIED OWNERS.

Depend upon it, no dealer is wasting his ammunition on a "dead-one," and the car he knocks the hardest is the one he is most afraid of. You see these cars everywhere, and if you want to know their real merit stop any owner on the street! He is in a position to give you information based on experience, and that is what you want.

When anyone commences to tell you what a poor car this is, listen to his tale and then ask him to refer you to one dissatisfied owner. We doubt if he can find one, but if he can we will undertake to produce dozens of enthusiastic boosters for every growler he can name.

The simple fact is that with almost no advertising and an output of fifty cars per day, we have never been able to catch up with the demand until now. In six months over four hundred of these machines have been sold in and are now running in California, and we could have sold twice as many if we could have obtained them from the factory—advertising was useless under such circumstances.

We have received eighteen of these cars in the past week and can make immediate delivery if you act quick! Glad to demonstrate the car at any time.

Distributor for Southern California  
1032-38 South Olive Street  
Phones 10854 Main 5470 Los Angeles, Cal.

# LORD MOTOR CAR CO.

Durocar Factory, Los Angeles Built Automobiles

## GREATEST RACING OUTFIT IN WORLD

Buick Team Carries Fifteen Racing Cars and Four Mechanics and Adds Two More Men to Driver List

The Buick boys are on the course at Lowell, Mass., having arrived with fifteen cars and four mechanics on Thursday.

Two new drivers have been added to the team—Arthur Chevrolet, the young brother of Louis Chevrolet, the Cobsa cup winner, and Ray Harroun of Chicago, a western driver of note, but who has been out of the automobile racing game for two years making aeroplane experiments. Lewis Strang, the winner of last year's Lowell race; Bobby Burman, the sensation of the last race here; Louis Chevrolet and George Dewitt, the old members of the team, are the pronounced favorites in practice and are known to every farmer along the course.

For the sweepstake events on Monday there are two Buicks entered in each of the three races. The three races are run at the same time, the smaller and middleweight cars going shorter distances than the big cars. In the speed trials over a mile straightaway course on Tuesday there are nine Buicks entered in the different classes, while in the National Stock Chassis 318 mile race Wednesday, Strang, Chevrolet and Burman will carry the Buick colors. Although the Buicks will race twice their piston displacement, the Buick boys are favorites.

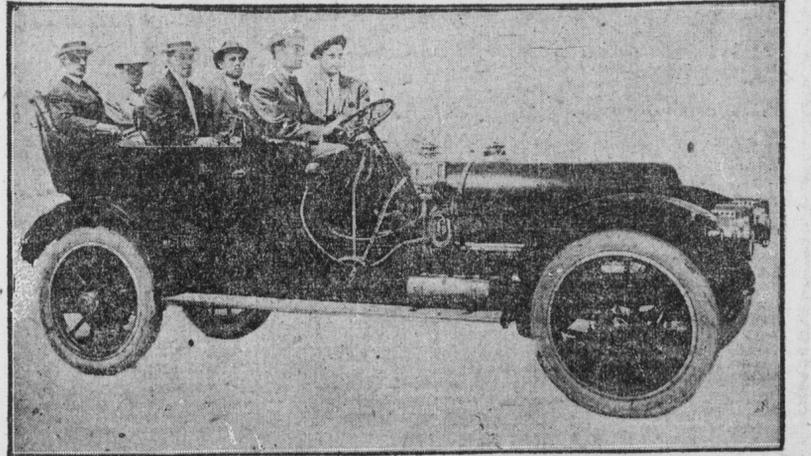
### I LOVE MY HORSE AND WAGON, BUT OH, YOU BUICK!

Ward E. McFadden of the Ship cafe at Venice is the latest purchaser of a Buick 40-horsepower roadster. He took delivery of the car this week and in appreciation of his new wagon the several singers and entertainers employed by Mr. McFadden at his popular resort sang for the edification of Mr. McFadden and his friends the new automobile song, "I Love My Horse and Wagon, But Oh, You Buick Car!" and, with some few changes, making the song more applicable to Mr. McFadden's new purchase, the entertainers scored quite a hit.

The song has just been gotten out by W. J. Mead, manager of the Chicago branch of the Buick Motor company, and on the title page are half-tone portraits of all the members of the Buick racing team, including the noted drivers Louis Chevrolet, Lewis Strang and Robert Burman.

\*\*\*\*\* auto stage will travel in half the present time and needs no fresh horses. Last Saturday the new car was tried over the Camp Baldy route with a full load, and on the heaviest part of the run two more passengers were added. The run was a perfect demonstration to the stage people, who had come up from Campo to get the car, and Sunday morning the Campo car was headed for San Diego, a representative of the Durocar factory going with the new owners to spend a week on the Campo route, teaching the former stage driver to operate the new machine instead of a six-in-hand.

## The New 1910 Franklin 6-Cylinder Touring Car



RALPH C. HAMLIN AND PARTY ON PLEASURE TRIP. R. C. HAMLIN AT THE WHEEL OF HIS BIG "SIX"

### Big "50" is Coming

Manager Fred Flint of the Stoddard Dayton Motor Car company announces that the new fifty-horsepower Stoddard Dayton touring car will arrive within the next three weeks. Last week the first Stoddard Thirty touring car was received and attracted much attention. It is a little beauty, built along stylish lines and shows power and speed. This company also has a carload of Baker electric on the way. The following new Stoddard Dayton sales are reported: Robert A. Smith,

30-horsepower roadster; W. A. Banks, "30" roadster; Dr. C. E. Parker, "30" roadster; Dr. C. L. Caveh, 40-horsepower touring car.

Dr. Ross Moore has purchased the little Stoddard which finished second in the Santa Monica road race. Fred Flint has ordered a 50-horsepower roadster.

It's as easy to secure a bargain in a used automobile, through want advertising, as it used to be—and still is—to secure a horse and carriage.

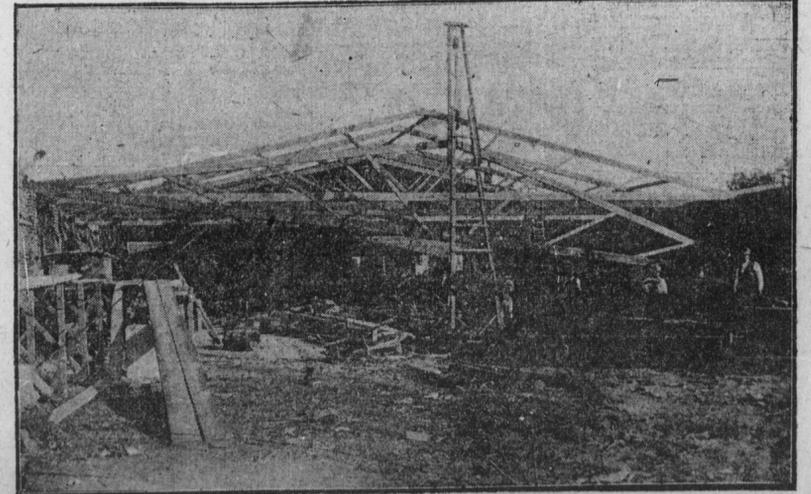
### On Hunting Expedition

Mr. and Mrs. Henry E. Herman and Mr. and Mrs. Jack McCormick left Los Angeles this week on an extended hunting expedition into San Diego county, which will probably carry them as far south as the Mexican line.

Mr. and Mrs. Herman drove their Buick "White Streak," while Mr. and Mrs. McCormick journeyed southward in their Maxwell runabout.

Both the cars were fully equipped for the full enjoyment of outdoor life for several weeks at least.

## New Garage and Warerooms of Woolwine Co.



TOP, SHOWS ASSEMBLING ROOM, AND BOTTOM, GENERAL SALESROOM

THE Durocar factory in this city has just delivered to a stage line in San Diego county the second mountain car turned out by this local factory. The first one is in daily use between Camp Baldy in San Antonio canyon and the end of the trolley line on the mesa below. The latest Durocar mountain car is built to carry eight comfortably, and has a double tonneau though the wheel base is but 120 inches. The regular 26-

horsepower double-cylinder engine is used, but the new feature is a double transmission, giving nine speeds forward and three speeds in reverse, all of selective sliding gear. The transmission is very simple. Two of the standard sliding gear transmissions are coupled tandem, and ordinarily the rear transmission is left in the high, thus giving direct transmission through that gear. The front transmission is worked with the ordinary gear shift quadrant or H. When roads

get steeper or heavier the rear transmission is shifted to intermediate, and that gives a lower speed on the three front speeds, but more power. Another shift to the low in rear gears again lowers speed and gives still more power. This new car has been turned out for the San Diego and Campo stage line, which now uses twenty-one horses every day in its stage of sixty miles along the Mexican line. There are two relay stations for horses on the way, but the