

NATIONAL HEAD SAYS SIX IDEAL AUTOMOBILE

Survey of Models at Show Reveals Fact That 55.3 Per Cent Are of This Type.

By GEORGE M. DICKSON, President National Motor Car and Vehicle Corporation.

The sixes on display at the 1920 automobile show present a solid and invincible front. The six cylinder, in fact, now holds an invulnerable position. In the last eleven years it has gradually risen to a height of unshakable dominance.

The following percentage table of chassis production, embracing every make of American car, shows very plainly how the tide of battle in the long war of the cylinders has run in favor of the six:—

Year.	Sixes.	All other types.
1910	30	70
1911	37	63
1912	39	61
1913	45	55
1914	46	54
1915	47	53
1916	48	52
1917	49	51
1918	50	50
1919	52	48
1920	55.3	44.7

Had our engineers not been convinced from the beginning that the six is deserving of all the popularity that is now accorded it National would not have introduced the first American six cylinder car in 1906, nor would the company now be concentrating on the production of the new National sextet exclusively.

Thirteen years ago, when the first National six was a distinct innovation, we believed that the engine of six cylinders would eventually be accepted as the most practical type of gasoline motor. The present dominance of the six bears us out in this early contention.

We believe the six cylinder engine is the nearest approach to the ideal. It gives complete overlapping of power impulses and the continuous flow of power. It is equally as patent that with the achievement of such continuous power, each cylinder that is added means nothing more than the addition of so much mechanism, which results in an infinitely greater complexity of construction and an increased opportunity for wear, with little, if any, offsetting gain in performance.

After building all types of engines, including fours, sixes and twelves, for the automobile market and eight for experimental purposes, National two years ago determined to stake their all on the most practical and popular of all cars—the six. Our engineers, moreover, realized that the six afforded the greatest opportunity for worth-while development and refinement.

National executives had every reason to believe that these engineers who had

Willys Regards 1920 as a Record Motor Year

Believes Public Is Searching for the Lightweight Vehicle and Has Developed New Overland "Four" to Meet Demand.

The utility of the automobile for the business and social needs of city and town has been sharply accentuated by the war and its consequent development of greater traffic and transportation needs. To 1920 men look forward with a new hopefulness and new optimism. In the automobile industry it seems quite certain that the new year will take its place among the greatest in the history of automobile manufacture. The buying power of the public probably never has been so large. And the automobile has become as necessary as the telephone.

There is a waiting ready market today for at least a million and a half to two million cars. Manufacturers, despite



JOHN N. WILLYS

enormously increased output, have not stocked the market. The market, in fact, is still far undersold. No better proof of that condition can be offered than the automobile salesroom. Today cars are sold there as rapidly as they are placed on the floor, and this condition means placing thousands of additional motor cars in service to increase the consumption of gasoline and oils.

It is conservatively estimated that there more than 7,000,000 automobiles in use today. There are probably 500,000 motor trucks in use, and these totals will be greatly increased in 1920. The automobile shows this year will undoubtedly disclose more pointedly than any previous year the trend toward light, economical cars. In the 1920 models the public will find that the demand for motor cars of greater utility, finer quality of design and materials, with resultant economies, has been met to a marked degree.

Certain unmistakable conditions make this trend toward the good light car imperative. Among these may be noted the conceived the first American six in 1906 and who had continued to build sixes without a day's interruption during the succeeding years, were the most competent to develop and perfect the latent possibilities of the six in a car of advanced construction.

So now the new National sextet is offered without reservation as proof of such engineering competency.

growing congestion of traffic in cities and towns with parking space at a premium. The car which can be easily and quickly manoeuvred within a short turning radius and backed or driven into a comparatively small parking space at the curb more than ever commands itself to the motorist. With the high costs prevailing, mobile transportation must necessarily be increased on city streets and county highways; more good roads must be developed and those that have been built must be properly maintained. And the more the motorist uses his car the more insistent is he of a very certain economy of operation and maintenance.

There is reason for that demand beyond the weekly garage bill. We are facing the fact that at least forty per cent of the estimated available petroleum supplies underground have been consumed. There are no known commercial substitutes for gasoline or for lubricating oils. These statements seem startling, but they are fathered by no less an authority than J. O. Lewis, acting director of the United States Bureau of Mines, Department of the Interior. They have been made public by his department to emphasize the great need for conservation of gasoline and oils while extensive research seeks practical substitutes. Better motor cars is the immediate answer to the problem.

The problems confronting the automobile manufacturer who seeks to meet the public's wants may fall, briefly, under these considerations:—

1. Strictest operating and maintenance economies, because of the era of high prices.

2. The increasing utility of the automobile in the development of all lines of business.

3. A 1920 good roads programme, five to six times as large as any single year's programme before this, vastly enlarging the automobile field for business and recreation, and again demanding economical motor car operation so as to be within the reach of all.

4. Congestion of railroads and interurbans, making the automobile more necessary and desirable than ever.

5. Increased traffic congestion in cities limiting the use of the big heavy automobile.

In my opinion, all these conditions—traffic, urban development, petroleum stock depletion—indicate that the light car is the car of today and the future.

The public wants a car whose lightness has not sacrificed any of the other desirable advantages of a good motor car. It has asked for actual big car riding qualities and comforts. This public wants a car easy to handle in traffic, and yet capable of long distance touring and the average daily use and abuse in uninterrupted service. At the Willys-Overland plant, we have had all these conditions in mind in designing the new Overland models. Overland 4, with its three point suspension Triplex springs introduces big car riding comfort in a car of light weight and enduring construction.

One of the exhibits which are attracting more than passing interest at the Automobile Show is that of the Apperson Brothers' Automobile Company, of Kokomo, Ind.

These pioneer builders have long been in the motor car manufacturing business, having first started in 1893, when Elmer and Edgar Apperson produced with their

HIGHER SPRING PRICES EXPECTED

Allen Motor Car Company Manufacturing Manager Anticipates a Rush of Buying and a Shortage of Cars.

By J. F. RICHMAN, Manufacturing Manager, the Allen Motor Company, Columbus, Ohio.

The man who purchases a motor car in New York, or any other American city, very likely doesn't appreciate how fortunate he is. Americans have a way of getting what they want when they want it, and this is largely due to the fact that American manufacturers have a way of getting out the products in spite of almost insurmountable difficulties.

The public generally probably does not know how hard it has been to get materials for motor car manufacturers during the last six months.

The car makers have competed with each other to get units from the parts makers who were wrestling with labor difficulties and material shortages.

For months it has been an endless fight to keep sources of supply open and to counteract the effects of labor tie-ups at this point or that.

But the American public has been moderately well served in spite of abnormal manufacturing conditions.

Of course, the whole situation has tended toward increased prices, which I believe will still further increase. Manufacturers in this field have fought to the limit against advances, and have only increased their lists when costs made no other course tenable.

Just how much better off the buyer is here than in England, for instance, is shown in a London dispatch, which states that buying a car in the British Isles is largely a matter of futures—of paying options on machines not yet built.

At an auto show just held in London there more people in attendance and fewer cars than ever before. It is recounted that \$5,000 premium was paid for the option on a chassis which was listed at \$15,000.

We are not coming to that in America, but I confidently expect to see a shortage of cars in the spring and prices considerably higher. Those who buy cars now will not only safeguard getting the car of their choice but in all probability they will buy it cheaper than if they waited.

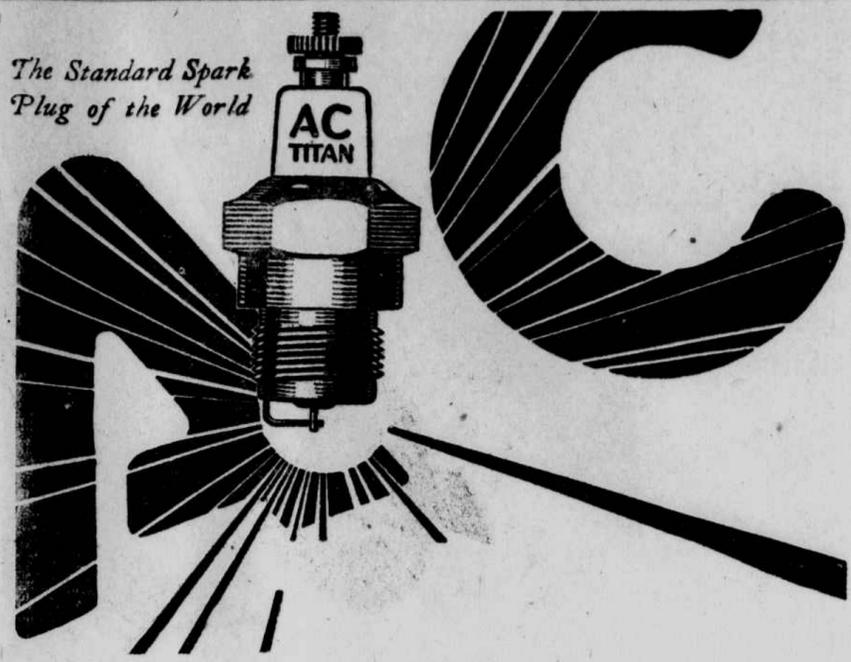
Apperson Bros. Built First Car in 1893

These pioneer builders have long been in the motor car manufacturing business, having first started in 1893, when Elmer and Edgar Apperson produced with their

own hands a mechanically successful American automobile. This year they are showing a complete and varied line in both open and enclosed types. There is also a wide range of prices. They offer the "Anniversary" seven passenger touring and a tourster for four

of the same design. These are luxurious looking open types. They are of the bevelled edge design, handomely finished and modernly equipped in every way. The car as sold by the factory is complete in every detail, even to the spare tire on the rear.

Next in the open jobs are the standard seven passenger touring, the four passenger "Sportster" and the two passenger "AC" roadster. These are good looking jobs of a modern and accepted type of design. They present all of the latest innovations in motor car building, but are not as expensively equipped as their sister car—the Anniversary.



The Standard Spark Plug of the World

Their Title Is Secure

The standard spark plug of the world!

This is the title won by AC's in many years of unerringly reliable service.

And their title is secure.

During the year of 1919, they were put to the test time and again with always the same result.

AC's stood up under the terrific strains imposed on them by automobile race drivers, airplane pilots and speed boat helmsmen.

They rode with Tommy Milton in the Duesenberg that crowded 113 miles into one fleeting hour.

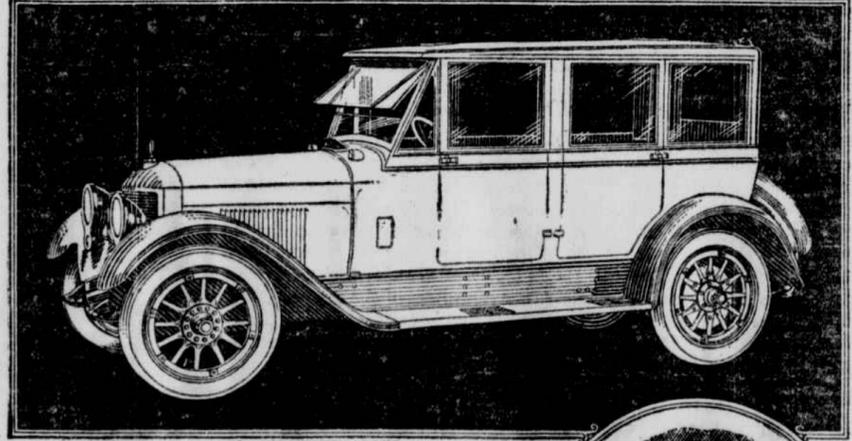
They sparked the Curtiss Wasp that climbed with Roland Rohlfs to the roof of the world.

They dashed to Gold Cup victory, in the American power boat championships, with Miss Detroit the Third.

In the light of these and many other notable achievements, can you wonder why AC Plugs are the choice of the leading passenger car, motor truck and tractor makers as standard equipment?

For unfailing ignition, equip your car with AC's. Their superiorities have been conclusively proven. You can rely on them to the utmost.

Champion Ignition Company, FLINT, Michigan
U. S. Pat. No. 1,186,727, April 12, 1916. U. S. Pat. No. 1,216,129, Feb. 16, 1917. Other Patents Pending.



WHILE the great mass of automobile users today still employ the motor car merely as a means of getting about, there are those who seek to express, in the equipages they own, something of the finer impulses and of the finer ideals that guide them in the choosing of their friends and of their homes. To such as these, the present post-war series of Premier motor cars will make resistless appeal.

Here is upholstery that is upholstery—not merely deep cushions, but actually deeper and softer cushions. Note heater in floor—all Premier cars, both closed and open, are regularly equipped with this great comfort feature.

Show Space B-30 Grand Central Palace

PREMIER

MOTOR CORPORATION
INDIANAPOLIS, U.S.A.

THE ALUMINUM SIX WITH MAGNETIC GEAR SHIFT

THANKS TO THOUSANDS OF LOYAL CUSTOMERS
A WONDERFUL CAR

THE Buick

SIX

Leads all exhibitors in the value of its production and secures first choice:—Space No. 1 at the National Automobile Shows.

World's Largest Builders of Six Cylinder Automobiles

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