# MASINIMS

For

SPECIAL 'OPEN HOUSE' AND
SHOW SECTIONS

19/12

STORIES, PICTURES, FILLERS DEFENSE STORIES, PICTURES

> NASH MOTORS PRESS BUREAU DETROIT



Long, low and powerful are the Nash Ambassador sixes and eights for 1942. Both are built on the same wheelbase, as shown above, and motorists may have an eight for only a few dollars more. This is the four-door, streamlined sedan. The same model is available in the "torpedo" or trunk sedan.



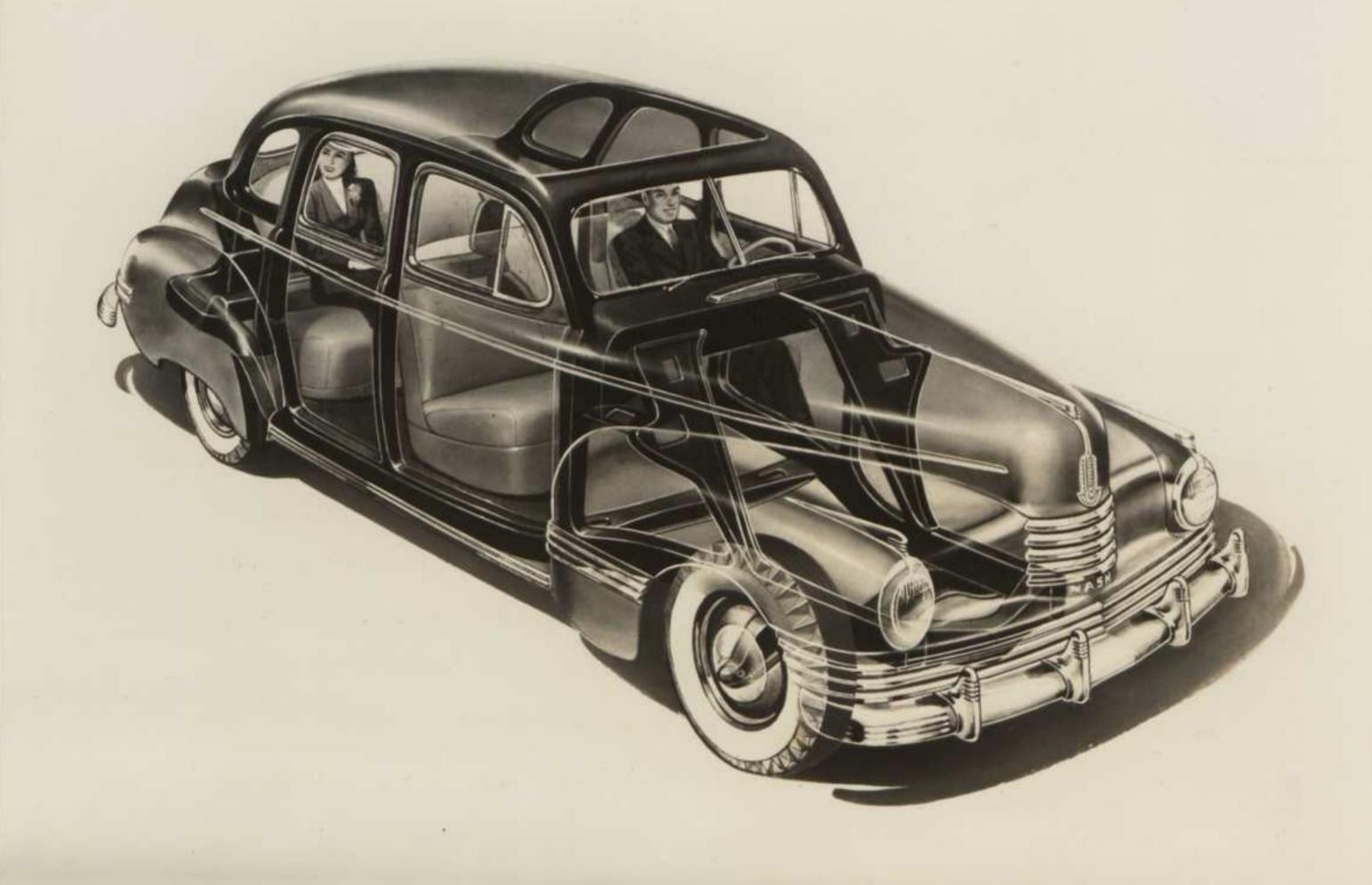
Newest development in aircraft controlled-pitch propellers is the Hamilton Standard three-bladed hydromatic propeller, which Nash-Kelvinator Corporation will manufacture as part of its more than \$100,000,000 in National Defense Contracts. A former auto plant in Lansing, Mich., is being converted into a modern aircraft factory for this purpose.



Beauty, once confined largely to the front end of automobiles, is carried to the rear, as shown in the new series of Nash cars for 1942. The front-end design is simulated in the rear, making the beauty lines and trim of the car complete.

This picture was made at America's newest airport, the Washington (D. C.)

National Airport, and the young ladies are hostesses in training for Pennsylvania Central Airlines.



A new kind of auto body makes its appearance in the 1942 Nash cars. It is all-welded steel, and the sturdy bridge cantilever principle is combined with the Monocoque principle for greater strength and longer life. The body sheet steel is utilized by the Monocoque method to add to the strength and safety of the car. Note how the sturdy bridge-like girders describe an arch from front to rear which makes it one of the safest cars ever built. Nash engineers say all auto bodies will be built as safely as this some day when the necessary machines become available. About 500 pounds of excess weight is cut from the low-price Nash Ambassador '600' by this principle, and the car is said to be about forty per cent more economical in operation as a result.



Here's the new Nash for 1942. Chrome grille bars extend across the entire front end, the bonnet with its regal crest is plain and tailored. Parking and signal lights are atop the fenders. The new models are long, low and powerful looking, and the good looks of the front are carried out in the rear. The name plate is incorporated in the front-ond design so that the car is readily identified.



Dedicated to saving gasoline, and consigned to a long life in a period when new cars will be scarce, the 1942 Nash cars, 15 of them in three series, are now being shown nationally. Here's what their new face looks like.

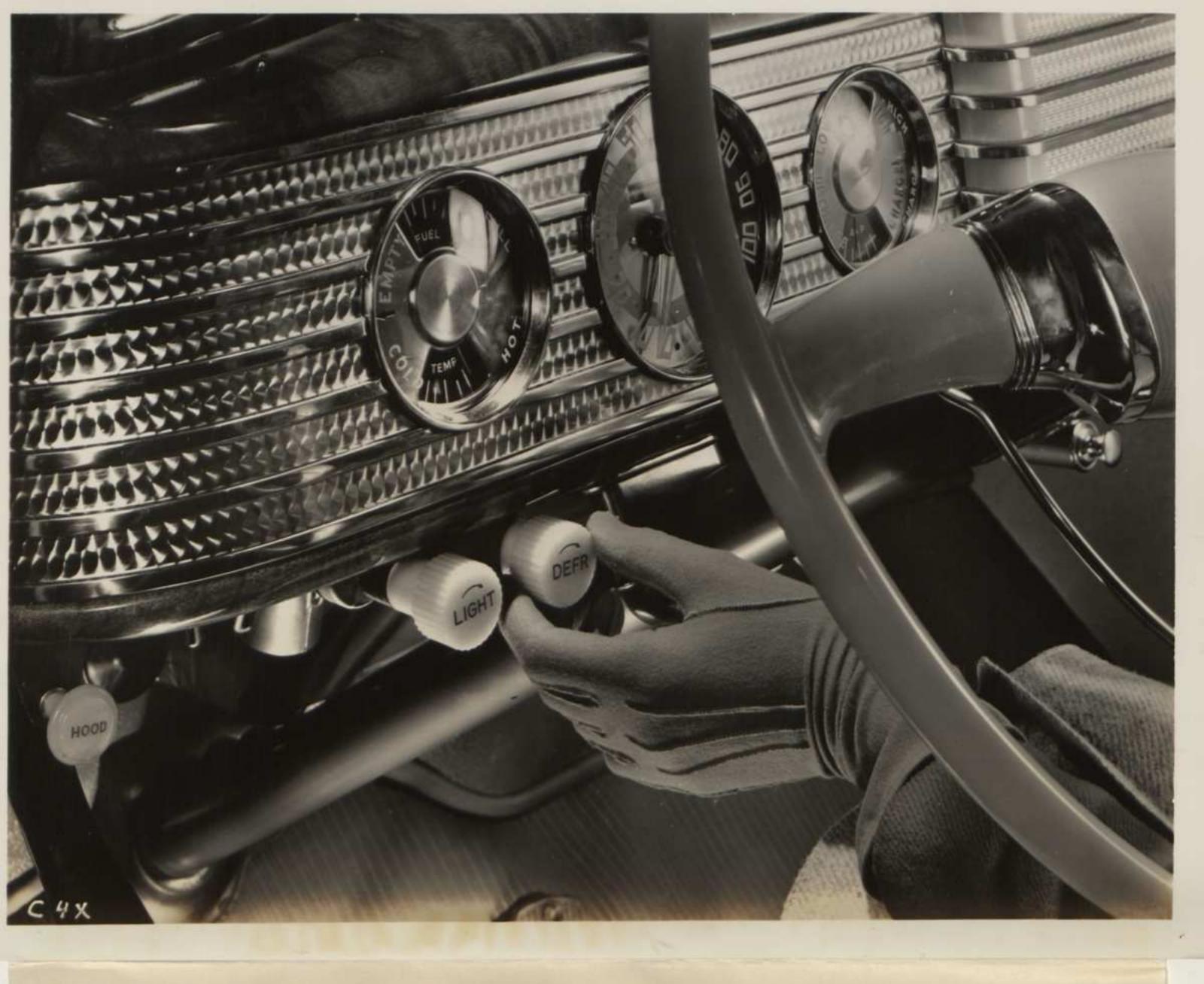
The picture was made at the most famous drive in the country, the one leading to the Nation's Capitol at Washington, D. C.



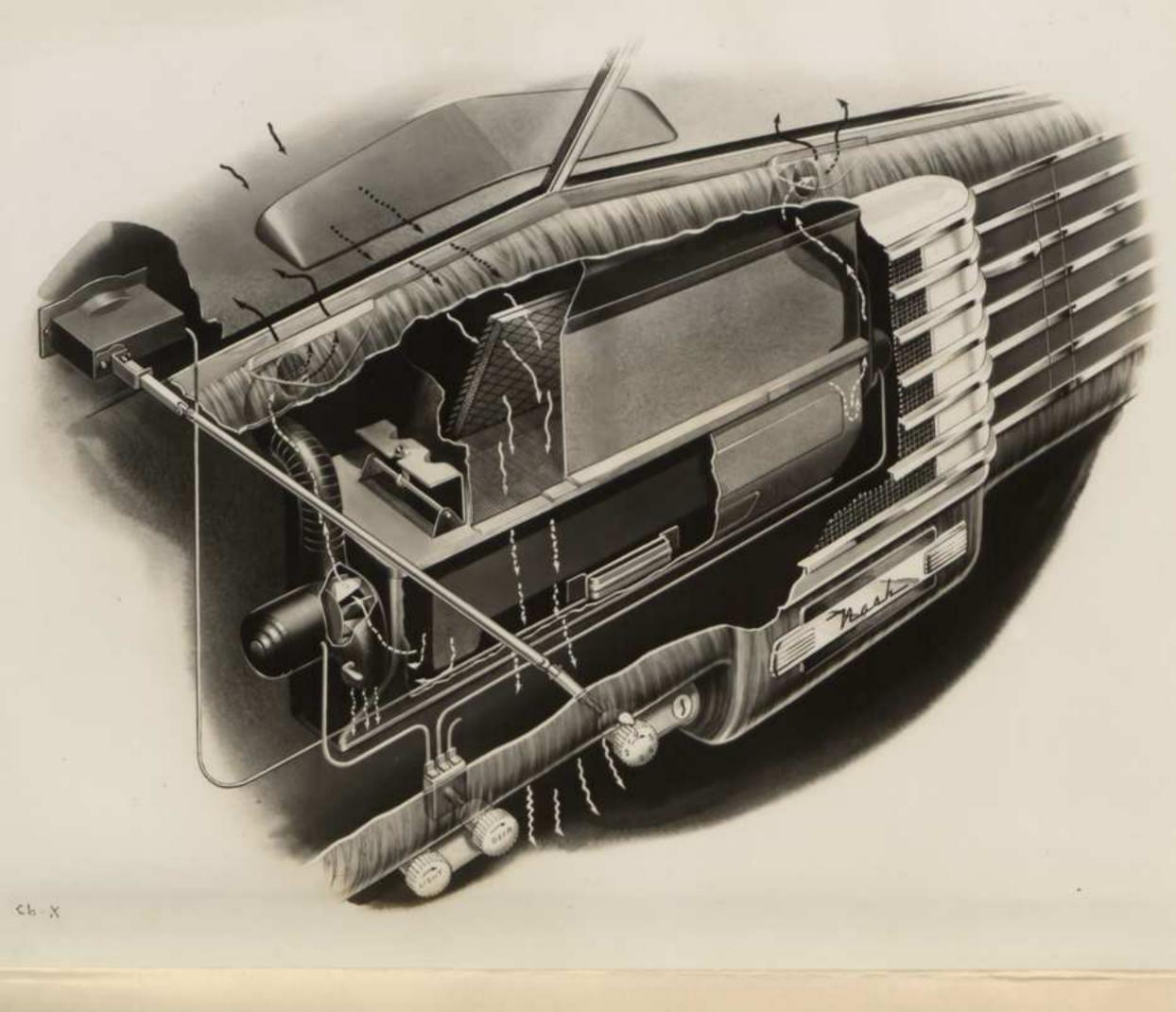
No doubt about the identity of this car -- it's the new Nash for 1942. The name plate has been worked into the front-end design so that the 15 new models being introduced by this company for the next model year are identifiable at a glance. Heading the line is the 1942 Nash Ambassador '600', which was developed, before priorities set in, at a cost of more than \$7,000,000.



These Pennsylvania Central Airlines hostesses salute the newest automobile, a car which incorporates many of the modern features of the modern airliner. It is the low-priced Nash Ambassador '600', which offers 25-to-30-miles-to-a-gallon economy, and a body of all-welded steel which is built along airplane principles for greater safety and longer life. It is heralded as the most modern automobile in the world.



When Winter comes the 1942 Nash cars are in their element. Nash for years has been making winter motoring popular, and this year Nash presents new developments to make Winter a thing of the past for motorists. A flip of this knob keeps the windshield clear even in a sleet storm. The device is connected with the famous Nash "Weather Eye." In the summer the system provides full ventilation without the discomfort of dust and rain.



This cutaway view of the 1942 version of the "Weather Eye," Nash's famed automobile weather-making system, gives some indication of the efficient, streamlined manner in which it does its job the year around. Air is drawn in through the fixed cowl ventilator at the rate of hundreds of cubic feet per minute, and is filtered and dehumidified before passing through the huge heating core. The radiator core, said to be the largest ever put into an automobile heating unit, is designed to keep the interior of the car comfortable in temperatures up to 20 degrees below zoro. Twin sirocco fans handle defrosting and draw air into the car when it is moving slowly or standing still. Constantly bringing fresh air into the car, the system is said to end completely the winter safety hazard of fogged and frosted windows.

In the summer, the system makes driving in the rain comfortable, and dust, dirt and bugs are kept out of the car while plenty of fresh air is provided.

Improved for five successive years since its introduction by Nash, the "Weather Eye" creates within the car a slightly greater air pressure than the outside atmosphere. As a result, stale used air is steadily being forced out of the car through minute body apertures.

It is considered by automotive observers to be the biggest winter driving comfort and safety development since the introduction of the sedan body.



Bed cars, introduced some years ago by Nash, have made a big hit with outdoor people and tourists. Thousands are being sold every year, end for 1942 Nash presents this big double bed. It can be made up in a few minutes and occupies the entire back of the sedan models. The cost is nominal.

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- 10. "Nash Conditioned Air Unit Shown in Cutaway"
- 11. "Convertible Bed Is Popular Feature"

Provided with entirely new production lines, machines and new-car dies before the national defense emergency set in, Nash Motors Division of Nash-Kelvinator Corporation finds itself today in one of the most fortunate positions in the automobile industry -- able to present fifteen strikingly new 1942 models without the slightest hitch in its work on more than \$100,000,000 in U. S. defense projects.

"Four years ago," declared W. A. Blees, general sales manager, Nash Motors Division, Nash-Kelvinator Corporation, "Nash began preparing to build a new and advanced automobile and to enter a car in the Ford, Chevrolet and Plymouth mass market. Millions were invested in new machines, new and advanced mass production lines, and new tools. This most complete modernization of an automobile plant in years was virtually completed before the national defense emergency set in, and so Nash was in a position to go ahead with its completely new cars."

Featuring the line is the low-priced, high-economy Nash '600,' which Nash engineers claim is the newest automobile in the world in that it involves construction principles entirely new to the mass production automobile world.

The new construction principles were thoroughly approved and acclaimed by thousands of drivers last year, but the car appears for 1942 with many advancements and improvements.

Considered the most beautiful of all Nash creations, all the fifteen 1942 models are big cars, with full three-passenger seats which are just short of

five feet wide. Even the low-priced '600' is  $196\frac{1}{2}$  inches in overall length, or about  $16\frac{1}{2}$  feet from bumper to bumper.

# '600' TO BE FEATURED

Nash is stressing the '600' this year, just as it did last year, and here are the outstanding features of this newest low-priced car:

New Styling ... Completely redesigned, the five new models in this series are longer and lower in appearance. The bright metal trim is set low in keeping with the low design of the car. The bonnet has a trim, tailored appearance. The front design motif has been carried out in effect in the rear so that the cars are beautiful coming or going.

Unusual Economy ... 25 to 30 miles on a gallon of gas.

New Type Body Construction ... The body is a single, welded, frameless steel unit. The cantilever bridge construction principle and the monocoque principle of arching body metal to make it a supporting member are employed. It is claimed to be the strongest, safest, most durable body construction employed today. The new construction makes for more usable interior space. Seats are wide, and there is ample leg room.

Coil Springs on All Four Wheels ... This is the first car in the low-priced field with this superior springing. Coil springs make for more comfortable riding conditions, and make handling much easier.

Two-way Roller Steering ... The steering mechanism rides up and down on fixed king pins mounted inside the coil springs. Springing and steering mechanism act as a unit -- no longer does one fight the other. As a result there is a new certainty in car handling, and there is little swaying on curves. Parking is easier and it is no trick at all to move in and out of traffic tight spots.

Wider Windshield, and Bigger Windows ... The new airliner type of welded

body construction provides more space for windows and windshields, making for safer and more pleasant driving.

Soundproofing ... You don't have to shout to be heard inside this car, as it is soundproofed with "Sand Mortex," a sound deadener perfected by Nash and Kelvinator engineers. Engine vibration is blocked from the car proper by a new application of rubber between motor and the bellhousing.

Simplified, "Flying Scot" Engine ... This engine was developed for the Nash '600,' and is in perfect balance with the car. It is 75 horsepower, the inlet manifolding is sealed within the engine block, it has been simplified to a point where it has fewer parts than conventional motors. It offers from 25 to 30 miles to a gallon of gas, a significant feature in this year of gasoline shortage in some parts of the country.

Acceleration Increased ... Operating refinements in the motor, and a newly designed flywheel, have sharply improved the "pick-up" of the '600,' and the overall engine performance.

Concealed Running Boards ... There are running boards for safe entrance and exit from the car, but they are hidden under the doors, and do not mar the slipstreamed exterior lines of the car.

Conditioned Air for Winter Driving ... Nash's famous "Weather Eye" system has been improved again. You can make your own weather with this unique system, and drive in your shirtsleeves in clean, filtered air even in zero weather. The cowl ventilator, through which hundreds of cubic feet of fresh outside air is drawn into the car every minute, is permanently fixed so that a motorist's forgetfulness wiill not deprive him of the healthful benefits of this purified air system.

Airliner-type Instrument Panel ... Large dials with bold, indirectly illuminated figures which can be read at a glance are set in engine-turned chrome

steel panel, which gives the entire interior a new sparkle.

Cruising Gear ... This is an optional automatic fourth speed forward with an automatic "Overtake" for utilizing the full power of the engine in passing other cars, and in highway driving emergencies when a surge of power is needed. This saves gas and oil, and makes touring more fun.

# AMBASSADOR SIXES AND EIGHTS

Nash continues to have two large cars in the medium-price field this year. One is a six and the other is an eight-cylinder car. Both are built on the same wheelbase, and both are powered by a modernized valve-in-head motor which has a new cyclonic combustion chamber through which more of the power in gasoline can be utilized. Unlike conventional engines, these motors have sealed-in-manifolds, and are streamlined in that many parts have been eliminated.

For motorists who like the feel of tremendous power in their automobiles, the long-in-line, valve-in-head eight-cylinder engined car is available. It comes in five models, and each model is just \$50.00 higher than the corresponding six-cylinder model.

The Nash reputation was built on its big valve-in-head automobiles, Mr.

Blees pointed out in making the announcement. He said that these automobiles
this year are even finer than ever, and because of the new combustion principle
are more efficient and economical in operation.

### MAN-MADE CYCLONES

The shape of the new combustion chamber is such that the incoming gasoline is made to whirl in a cyclonic manner, and the fuel mixture thereby is broken up into finer particles, making the vapor easier to ignite. The center of the cyclonic disturbance in the inrushing fuel is maintained at the base of the plug so that the lightning-like spark explodes it quickly and evenly.

The new design of this cylinder head also makes possible more efficient

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cooling, which is an important factor in engine performance. The water jacketing of the engine is carried up higher, especially around the valves, and heat
is carried away more rapidly.

The five models in the six and in the eight-cylinder series are long, low cars, and they are wider than they are high. The overall length is  $205\frac{1}{2}$  inches from bumper to bumper.

The body proper is built in the new fashion -- that is, it is a balanced unit of welded steel box-type girders, and with the surface metal arched in the monocoque manner to contribute strength to the rigid steel shell.

Big, bridge-like girders, arranged along the cantilever principle of bridge construction, describe an arch from front to back. Stress and shocks are carried throughout the body and smothered. Maximum protection for passengers is maintained at all points inside this new sturdy welded steel safety zone, engineers say.

#### VALVE-IN-HEAD FEATURES

Although in the medium-priced field, these Sixes and Eights are luxury cars outwardly and inwardly, Mr. Blees declared. Engineers and designers have given them the "de luxe" touch throughout, he explained.

Here are some of the outstanding features:

The Six Engine Is Highly Economical ... This valve-in-head power plant promises up to 20 miles to a gallon of fuel, and offers 105 horsepower. It has a seven-bearing crankshaft for smooth, effortless performance.

Coil Springs Combine with Long-leaf Springs for Exceptional Ride ... The front-end suspension boasts easy-steering, easy-riding coil springs, and the rear wheels of these long cars are sprung by long-leaf springs. The combination, engineers say, provides the most comfortable ride for cars of this weight.

Luxury Interiors ... Seats are very wide, all being three-passenger seats, and there is lots of leg room. Upholstery is available in a number of combinations and two-tone interiors are featured, just as two-tone color exteriors are available in many combinations. Chrome hardware is plastic-tipped for beauty's sake, and there are robe rails, assist cords, ash trays, and similar fine car conveniences.

Engine-turned Instrument Panel ... This bright metal panel, which resembles a fine piece of engraved silver, sweeps from door-to-door and forms a luxurious background for a grouping of airplane-type instruments. They are of the dial type, with large, easy-to-read numerals. The lighting of all instruments is from an indirect source, which is a night-driving safety contribution. The entire panel resembles the instrument board in a fine racing plane. A new standard, less expensive panel also is available, and is a marked improvement over previous panels.

Conditioned Air for Winter Driving ... As in all Nash cars, this outstanding weather maker is available. It is located out of sight beneath the cowl, and the fresh air supply is drawn through a fixed ventilator, which is always open to assure motorists the full benefit of this noted fresh-air system.

Drafts are eliminated by maintaining a slight pressure inside the car by the volume of outside air which enters through the cowl ventilator. Stale air, fumes or tobacco smoke are magically whisked out of the car.

Automatic Cruising Gear and "Overtake" ... This is an optional extra available on all Nash's fifteen 1942 models. It is an automatic fourth speed forward for highway driving, and can quickly be geared in or out with a flip of the foot on the accelerator.

Foam Sponge Rubber Cushions Are Optional ... Those cloud-like rubber cushions which furniture and bedding manufacturers have so enthusiastically

accepted also are optional equipment on the Sixes and Eights. They may be had on both front and rear seats.

Soundproofing ... Both the Nash Sixes and Eights are thoroughly sound-proofed, and are held by engineers to be the most quiet cars on the road today. "Sand Mortex," a development of the Nash-Kelvinator laboratories, is applied liberally on these big cars to block out road and traffic noises.

#### EIGHT IS A 'POWERHOUSE'

The big features of these cars are their extra power, the Nash Ambassador Eight having a nine-bearing, 115-horsepower, valve-in-head motor, which engineers say is unexcelled in the motor car world today. The economy of the Eight has been increased so that it is more economical to drive, and still permits the owner to go out and compete with the finest bit of motor car mechanism on our highways.

Nash will offer a wide range of colors, and color combinations in all models. Two-tone exteriors are available also.

#### SPECIFICATIONS

Here are the major specifications of the three new series of Nash cars for 1942:

#### THE AMBASSADOR '600'

ENGINE -- L-head; exclusive built-in inlet manifolds cast inside. Bore 3-1/8 inches; stroke 3-3/4 inches; displacement 172.6 cu. in.; taxable h.p. 23.44; developed h.p. 75 @ 3600 R.P.M., 4-point rubber engine mountings. Isothermal fuel system; down-draft carburetor; double automatic spark control; steel-strut aluminum pistons; four main bearing fully counterweighted crank-shaft dynamically balanced by radio; vibration damper; full pressure engine lubrication (rifle-bored connecting rods) of all bearings, piston pins and cylinders; cylinders completely water jacketed; oil capacity 5 quarts; fuel capacity 20 gallons.

CHASSIS -- 112 inch wheelbase; enclosed independent front suspension system and coil springs at all four wheels, controlled by two-way direct-acting hydraulic shock absorbers; torque tube drive with Axilizer alignment bar at rear. Full two-way roller shockproof steering system with 33-foot turning circle. Unitized body and frame construction. Super-hydraulic brakes; castiron drums. Synchro-Shift transmission with steering column control. Automatic cruising gear (4th speed), optional extra. 16 x 5.50 silent ribbed tires. Overall length 196½ inches.

BODY -- Unitized all-steel; internal bridge-truss construction and integral chassis frame welded into one rigid twistproof, shakeproof unit. Completely insulated and soundproofed with "Sand Mortex" applied to body side panels. Weather-sealed doors. Body and fenders Bonderized to prevent rust. Finished in high-gloss Permalux enamel. Exclusive Nash automatic "Weather Eye" conditioned air system and sedan sleeping car conversion, optional extra.

# NASH AMBASSADOR SIX

This valve-in-head, built-in manifold engine has a bore and stroke of 3-3/8 by 4-3/8 inches, displacement of 234 cubic inches, 105 horsepower at 3400 r.p.m.'s, oil capacity of six quarts and a full pressure lubrication system, 4-point rubber engine mountings, Isothermal fuel system, super-hydraulic brakes, automatic choke, down-draft carburetor, double automatic spark control, steel-strut aluminum pistons, four piston rings, full length water jacketing, seven main bearings, vibration damper, oil filter, and a 20-gallon gasoline tank.

# NASH AMBASSADOR EIGHT

Most of the above specifications apply to the Eight also and, in addition, it has eight cylinders, which produce 115 horsepower; the bore and stroke are 3-1/8 by 4-1/4 inches, and the displacement is 260 cubic inches. The full pressure oil system has a capacity of seven quarts. It has nine main bearings.

Despite the fact that this is a year in which many things are limited,

Nash is offering many extra-cost de luxe features for its cars, but cannot

guarantee that they will be continued in the line when the supply is ex
hausted.

The Government's drive for gasoline economy along the Eastern Seaboard has had the effect of making all U. S. motorists economy-conscious and has focused considerable attention on one of the most important new automotive developments.

Getting widespread study because of its unusual performance on the high-ways during the past few months, is the Nash Ambassador '600', a big new car that got its name from its ability to travel up to 600 miles on a tankful of gasoline.

Basis of its great economy, according to W. A. Blees, general sales manager, Nash Motors Division, is a radical new type of body construction that was borrowed from the aircraft industry, and a streamlined new L-head motor. They were developed in a long-range planning program just before the national defense emergency set in, Blees said, making it possible for Nash to introduce completely new cars for 1942 without interference with the more than \$100,000,000 worth of defense work the corporation is doing.

The body is an all-welded steel unit, with the sheet steel of the exterior fused inseparably to an inner skeleton of girder steel. It has an integral frame, and is said to have more than 500 pounds of dead weight engineered out of it.

The motor, as a result, has less weight to carry and can operate with about 40 per cent greater economy because of this factor alone. In addition to this, the motor itself is of a streamlined design, with many fewer parts than conven-

tional motors. Inlet manifolds, for example, are cast right inside the block instead of being bolted to the outside. This makes for better temperature control, which in turn reduces fuel consumption.

The company's claims last year, when the first Nash Ambassador '600' was introduced, that the car would travel between 25 and 30 miles on a gallon of gasoline, have been amply borne out, Blees declared.

Since the 1941 '600' broke into the news in January when it delivered more miles per gallon than any other six, eight or 12-cylinder car in America, these cars have traveled an estimated 300,000,000 miles and saved millions of gallons of gasoline.

During the year, the company undertook an unusual method of proving the economy of Nash cars in actual owner operation.

Encouraged by Nash dealers, owners were asked to plan special tours to see how far they could go on a tankful of gasoline. As they developed, these tests became popularly known as "Tankful Tours," and the record of hundreds of thousands of miles of highway travel was set down in log books supplied by the company.

Many owners registered as high as 33 miles to a gallon on their tours, and the national average reported was nearly 27 miles per gallon.

Nash also supplied all of its dealers with a new device known as a "consometer," which measures gasoline consumption in tenth-gallons. The device fits on the instrument panel and enables the driver to test fuel use quickly and accurately.

According to Blees, the company has greatly improved the performance of its cars through a number of refinements this year, and 1942 is likely to see entirely new economy records set up for full-size, stock model automobiles.

Motorists will save millions of gallons of gasoline during the next year as the result of an important new automobile body design principle borrowed from the aircraft industry.

The principle, knows as 'monocoque', has vastly increased the strength and cruising radius of long-range bombers, and as applied to automobile construction, sharply reduces dead-weight. At the same time it is declared to increase safety and roominess, and bring operating economy to a new high level for full size cars.

As described by Nash Motors' engineers, who introduced the new construction to the industry, the principle employs the sheet steel of the body as an integral strength-supplying member for the first time. When completed, the body of the new Nash is, as the name 'monocoque' implies, literally a 'single shell.'

All-welded, the body is composed of the sheet steel itself, joined inseparably to a powerful inner skeleton of bridge-truss steel girders that completely surrounds the passengers.

Declared to be one of the strongest automobile constructions ever used, the body of the new Nash Ambassador '600' has its own integrally-built frame, which replaces the separate chassis frame to which automobile bodies are conventionally bolted.

The chief benefit that is said to be derived from this new type of construction is the elimination of unnecessary weight -- approximately 500 pounds of it -- and the consequent increase in gasoline economy. The 1942 Nash '600'

is said to travel from 25 to 30 miles on a gallon of gasoline at highway speeds, despite its great size.

The car is much wider than it is tall and it is capacious enough in the rear compartment alone to accommodate a big six-foot double bed. Front seats are nearly five feet wide, measuring 58 inches across, making the car actually a six-passenger sedan. Leg room in front, with the seat in its rear position, extends over three and a half feet.

The rear seat has over five feet of elbow room, and leg room totals 42 inches. Both doors are wide and full. Each is four feet high, with the front door 34 inches wide and the rear door opening  $30\frac{1}{4}$  inches.

The new unitized bodies are very low -- only 66 inches in overall exterior height -- but headroom is generous, extending 38 inches above the front seat and  $36\frac{1}{2}$  inches over the rear.

Nash-Kelvinator Setting Up
Aircraft Motor Parts Plant

LANSING, Mich. -- Work of rehabilitating a second unit of the Reo Motor Car Company, and converting it into an aircraft factory soon will be started by Nash-Kelvinator Corporation, which has been awarded a multi-million dollar contract by the Government to reclaim the old plant, and operate it as an aircraft parts manufacturing plant.

Officials of Nash-Kelvinator Corporation, said that \$15,150,000 has been appropriated by the Defense Plant Corporation of the Reconstruction Finance Corporation of the government to rehabilitate the former automobile factory.

About 550,000 square feet of floor space is being put into shape to hold production lines made up of millions of dollars worth of high precision machinery, all of which is now being specified and ordered by the plant and production engineers, master mechanics and purchasing agents of Nash-Kelvinator.

The essential parts of the new Pratt and Whitney aircraft motors for the big bombing planes of the future will be manufactured in the plant, and the work will require the highest type of skilled craftsmen, it was reported.

Some of the other parts of this high-powered, eighteen cylinder motor also will be manufactured there.

When Nash-Kelvinator production engineers finish remodeling the old Reo building, and ordering the machinery to equip it as an aircraft motor plant, they will begin production of the motor parts. This contract is the largest

defense order held by Nash-Kelvinator, which has been awarded more than \$100,000,000 worth of national defense contracts. Most of the contracts call for products which require the highest of precision work, and the most skilled of craftsmen.

When the plant is placed in operation, officials said, a total of about 4500 employes will be on the payroll.

The plant is being leased to Nash-Kelvinator for \$1.00 a year by the Defense Plant Corporation of the Reconstruction Finance Corporation for the duration of the war emergency.

DEFENSE FIRST WITH NASH!

# Auto Plant Being Converted Into Propeller Factory

LANSING, Mich. -- The conversion of an automobile plant into a modern aircraft factory -- perhaps the first industrial transition of its kind -- is rapidly taking place in this city as Nash-Kelvinator Corporation converts a unit of the Reo Motor Car Company into a propeller manufacturing plant.

The new three-bladed Hamilton Standard propellers, which are used to power the big bombers to be manufactured for the United States, and England, and the hermetically-sealed mechanism which changes the pitch of the propeller blades soon will be manufactured there.

The contract for rehabilitating the old automobile plant and buying the equipment -- an \$8,500,000 appropriation -- is nearing fulfillment, officials of Nash-Kelvinator Corporation announced today. Practically all the orders for the necessary equipment and high precision machines for the new propeller factory have been let, and the first of the machines will begin arriving in Lansing next month, it was said.

The 450,000 square feet of floor space in the factory is being prepared for the machinery installations, and the plant building has been completely remodeled.

A sizeable force of plant and production engineers, master mechanics and purchasing agents has been assembled in temporary offices in the building and they have just about completed the work of laying out the plant and purchasing the equipment.

Shortly before the first of the year Nash-Kelvinator expects to have the first of the 3000 workers on the payroll.

Nash-Kelvinator will operate the plant for the government. They will lease it for \$1.00 a year from the Defense Plant Corporation of the Reconstruction Finance Corporation, the owners and the government agency which appropriated the millions for rehabilitation of the building.

Then Nash-Kelvinator will begin the propeller manufacturing program, which calls for the expenditure of millions, and is one of the large units of the more than \$100,000,000 in defense contracts awarded to this manufacturer of automobiles, electric refrigerators, electric ranges and commercial refrigeration products.

Newest symbol of comfort in the automotive world this year is the fixed cowl ventilator of the 1942 series of Nash cars.

Open the year around in all kinds of weather conditions, the ventilator supplies Nash's famous weather-making system with fresh, filtered and dehumidified air in hundreds of cubic feet per minute.

Known as the 'Weather Eye,' this pioneer system of conditioned air for motoring has been improved by Nash for the fifth successive year. It is said to make the interior of the car as balmy as a greenhouse in the coldest weather, eliminate the safety hazard of steamed and frosted windows, supply fresh air in summer without the discomforts of dust and rain, and ban drafts and noxious gases.

In operation, the system is very simple. When the car is in motion, fresh air is drawn in through the ventilator and passed through a special dirt filter and a dehumidifier. It is then routed through what is said to be the largest heating core in an automobile. Thermostatically controlled, this core rapidly heats the air to the desired temperature whenever any degree of heat is needed, or leaves it cool in the summer.

The device is located on the dashboard, up under the center of the instrument panel, where it is almost out of sight. It releases its flow of comfort-conditioned air into the car along the toe boards.

All of the car windows are kept closed when the Nash system is in operation, hence air pressure inside the car is always slightly greater than out-

side pressure. As a result, air movement is evenly distributed throughout the interior and is steadily outward, carrying with it tobacco smoke, stale air and moisture-laden breath (which in the winter helps cause steamed windows). For the same reason, drafts and outside fumes are not sucked into the car.

Although the cowl ventilator itself is fixed, an inside cut-off can be used to close the opening whenever it is desirable.

Two powerful sirocco fans maintain the fresh air supply when the car is standing still or moving slowly through traffic. They also serve to pump air into the defroster tubes when they are needed to prevent ice from forming on the windshield.

The "Weather Eye" system, introduced by Nash in 1937, is controlled from the instrument panel by a plastic knob that dials in warmth almost as readily as volume is dialed in on the radio. A thermostat maintains the temperature at the degrees selected. The system is said to be adequate for temperatures as cold as 20 below zero.

The system is one of the most popular optional features in the industry, and nearly all Nash cars are so equipped at the factory.

Continuing to cover almost the complete range of demand, Nash Motors in 1942 will offer fifteen new automobiles in three different price series, beginning in the Ford, Chevrolet and Plymouth field and extending upward through 92 per cent of the market in which American automobiles are sold.

The three series include the new low-priced Nash Ambassador '600,' the low-medium priced Ambassador Six and the medium-priced Ambassador Eight.

The Eight has its own chassis, and the motor is not interchangeable with the Six, but it will cost only \$50 more for comparable models.

The following models constitute the 1942 Nash line:

Nash Ambassador '600' series -- Business Coupe; Brougham; 2-Door Slipstream Sedan; 4-Door Trunk Sedan, and 4-Door Fast Back Sedan.

Nash Ambassador Six series -- Business Coupe; Brougham; 2-Door Slipstream Sedan; 4-Door Trunk Sedan, and 4-Door Fast Back Sedan.

Nash Ambassador Eight series -- Business Coupe; Brougham; 2-Door Slipstream Sedan; 4-Door Trunk Sedan, and 4-Door Fast Back Sedan.

A wide variety of single and two-tone colors are available throughout the three series.

Single colors include Blue-Black, Bolero Red, Whaler Green, Strato Blue, Marlin Blue, Ghost Gray, Spar Beige, Shoal Green, and Winchester Gunmetal.

Two-tone combinations include Marlin Blue (lower)-Strato Blue (upper);
Winchester Gunmetal (lower)-Ghost Gray (upper); Whaler Green (lower)-Shoal
Green (upper); Ghost-Gray (lower)-Marlin Blue (upper), and Bolero Red (lower)Ghost Gray (upper).

America's most interesting class of motorist -- made up of more than 30,000 automobile owners who travel in cars with convertible beds -- is likely to be increased by thousands of converts this year.

This unusual car feature, pioneered by Nash Motors many years ago, reaches the 'grown up' stage in the 1942 models, and early-season interest indicates that it will be more popular than ever, with the rising cost of vacationing playing a hand.

Available for use in all 1942 Nash sedans, the bed is big enough for two sprawling six-footers, and can be made up in about the same time it takes to make up a bed at home.

To make up the bed, the rear seat is pulled forward on a permanently installed folding carriage that is under the seat when the bed is not in use.

The back of the rear seat is then swung up and out of the way, and a hinged mattress shelf drops into the space normally occupied by the rear seat.

A mattress section is then laid over the shelf covering the spare tire, bedding is spread into place, and the bed is ready for occupancy.

Special window screens are available to add to touring comfort, and for warmer evenings, the big fans of the "Weather Eye" conditioned air system can be turned on to circulate filtered air through the car.

The convertible bed sedan, widely used by doctors and in police emergency work as well as in adding to the pleasures of motoring, is specially built-in at the Nash factory.

It can be left up and used while traveling, and many parents have found the bed an excellent spot for children on long trips.

Motorists can thank rough European road conditions for initiating some of the important springing developments that make the 1942 automobiles ride and handle so well.

Nash uses an unusual type of suspension system on its new Ambassador '600' that was inspired by an expensive European design and improved by Nash engineers after three years of experimental development.

The system employs a surprising new front-end suspension arrangement that is said to contribute greatly to the smooth riding quality of the car, and also to provide one of the most efficient steering systems.

The car rides on four coil springs, the only car in its class to do so.

At the rear, oversize, direct-acting shock absorbers are set inside the coil or helical springs, an unusual arrangement that is said to provide double action and aid synchronization.

In the front, the coil springs are set around giant kingpins, and are aided in their work by the parallel action of big shock absorbers. The front wheels move up and down -- and turn -- on mirror-smooth collars that ride these pins. The wheel spindle is set on 12 roller bearings, instead of being fixed rigidly to the kingpins.

The result is what Nash calls "two-way roller steering," and the car is said to park and handle with remarkable ease. It makes a graceful turn in a circle of only 38 feet.

The system is said to be exceedingly simple in design and sturdy in con-

struction. It further reduces unsprung weight and permits the use of lowrate springs to produce soft, easy action. The rear springs have only one
function to perform -- cushioning and supporting the rear end of the car.
Since a torque tube drive is used, the springs are relieved of transmission
of all driving and braking forces.

Rear axle alignment is maintained by a transverse "axilizer" bar which floats in rubber and holds the rear axle in T-square alignment at all times.

The suspension system of the Nash Ambassador Sixes and Eights are also inspired by a highly successful European arrangement -- the famous Mercedes system.

As developed by Nash engineers, the system utilizes the combination of long leaf springs and long, vertically set shocks in the rear, with independent coil springs suspension in front. The shock absorbers in front are set inside the springs. Both sets of shock absorbers are said to be 40 per cent larger than ordinarily used.

Their action is also improved by a new type of mounting that increases shock absorption. The shock absorber moves equidistant with the movement of the axle, while with angular mounting, the movement was only a certain proportion of the distance the axle travelled. This direct action is claimed to produce more effective spring control.

A 25-year-old reputation for precision engineering, largely responsible for Nash's selection to manufacture more than \$100,000,000 in defense materials of exacting specifications, gains added luster this year with the performance of three new Nash powerplants.

Especially significant today because of its great economy, the "Flying Scot" engine that powers the new 25-to-30-mile-a-gallon Ambassador '600' is the industry's newest motor. It is highly simplified, has many fewer parts than conventional powerplants, and is said to develop its greatest efficiency in the range of normal use.

The motor was completely redesigned to take advantage of the unusual construction of the Nash '600' body, with its 500-pound reduction in dead weight. Because it has less tonnage to drag, the motor can deliver more spirited performance with fewer horsepower -- and consequently, with about a third less gasoline.

One of the most notable elements in the design of this new motor is the radio balancing of the entire crankshaft and flywheel assembly. This is done on special new machines that detect improper balance by radio and rectify it automatically. Nash is said to have the only balancing machines of this type in the automobile industry, and the result is unusually smooth performance and long bearing life, according to the company's engineers.

An important change in the Ambassador Six and Eight motors is a new high turbulence cylinder head that improves performance and economy. The shape of the combustion chamber is altered so that the fuel mixture is turbulated, and crowded in a smaller area at the base of the spark plug. The new design also greatly improves cooling, particularly around the valves and spark plugs.

Cooling and proper temperature control, one of the most important of all motor problems, has long been a specialty of Nash engineers, who developed the Isothermal fuel system and Nash's exclusive built-in manifolds.

In all Nash motors, the inlet manifolds are cast into the motor where their temperature is controlled by the water in the cooling system and the exhaust gases. (In conventional construction, the manifolds are separate and bolted to the outside of the motor.) Nash engineers claim that the use of a leaner fuel mixture is possible with their design, and that performance is more consistently smooth.

General specifications of the three new motors are as follows:

NASH AMBASSADOR '600' ENGINE -- L-head; exclusive built-in inlet manifolds cast inside. Bore 3-1/8"; stroke 3-3/4"; displacement 172.6 cu. in; taxable h.p. 23.44; developed h.p. 75 @ 3600 R.P.M. 4-point rubber engine mountings. Isothermal fuel system; downdraft carburetor; double automatic spark control; steel-strut aluminum pistons; four main bearing fully counterweighted crankshaft dynamically balanced by radio; vibration damper; full pressure engine lubrication (rifle-bored connecting rods) of all bearings, piston pins and cylinders; cylinders completely water jacketed; oil capacity 5 quarts; fuel capacity 20 gallons.

NASH AMBASSADOR SIX AND EIGHT ENGINES -- Valve-in-head; built-in inlet manifolds cast inside. Eight Engine: Bore and stroke 3-1/8" x 4-1/4"; Displacement 260 cu. in.; Taxable h.p. 31.2; Developed h.p. 115 @ 3400; Oil capacity 7 quarts. Six Engine: Bore and stroke 3-3/8" x 4-3/8"; Displacement 234 cu. in.; Taxable h.p. 27.3; Developed h.p. 105 @ 3400; Oil capacity 6 quarts. 4-point rubber engine mountings. Isothermal fuel system; down-draft carburetor; automatic choke; double automatic spark control; steel-strut aluminum pistons; four piston rings; full length water-jacketing. Seven and nine bearing crank-shafts; vibration damper; full pressure engine lubrication (rifle-bored connecting rods) of all bearings and piston pins; oil filter. Fuel capacity 20 gallons.

A fourth speed forward is again being made available by Nash for use in all its 1942 cars. The device is a cruising gear that is said to reduce engine wear by 30 per cent and greatly increase gasoline and oil economy.

An important feature of the device is an electric solenoid 'overtake' development which provides the immediate acceleration of conventional third gear whenever it is desired for safety or special situations.

Fourth speed forward is entirely automatic in its operation and cuts in at around 33 miles per hour when the control button on the instrument panel is set, and pressure on the accelerator is momentarily relaxed. It disengages and returns automatically to conventional high gear at about 27 miles per hour.

When the driver wants extra acceleration on the highway, he simply depresses the accelerator pedal the full distance of its travel.

With cruising gear in operation, the motor travels about 30 per cent slower to obtain the same car speed as it would in high gear.

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Nash cars are insulated thoroughly against noise by an unusual type of insulating material known as sand mortex.

It is an asphalt-like material that is high in sand content. The sand in the mortex "dances," blocking out sound waves and dissipating them before they can pass into the car.

Additional operating quietness is said to result from the use of Fabreeka spring mountings at the point where each spring is attached to the chassis.

Fabreeka is an effective shock- and noise-absorption material.

NASH NOTES ....

One of the most convenient and safe features of the 1942 Nash cars is a starter that operates coincidentally with the clutch pedal. The feature contributes to easy and faster starting in the winter and conserves the battery. The clutch pedal must always be depressed to start the engine, hence the starter never has to turn over the transmission gears in grease that may be stiff in cold weather. False starts, because the car has been left in gear, are also impossible with this arrangement.

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More efficient cooling and reduction of anti-freeze loss is said to result from the new cross-flow radiators of the new Nash Ambassador Sixes and Eights. The liquid travels from the left side of the core to the right, instead of from top to bottom. An expansion tank above the radiator prevents air from entering the system and also serves to condense anti-freeze vapors back into liquid, cutting loss.

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Cowl ventilator of the new Nash cars is fixed this year, and made an integral part of the design. It is fixed because Nash's conditioned air system draws hundreds of cubic feet of fresh air in through the open ventilator, and there was seldom any need to close it. A dehumidifier keeps water out of the car.

NASH NOTES....

The stability and roadability of the Nash Ambassador Sixes and Eights are said to be vastly improved by a ride stabilizer. It consists of a spring steel bar mounted in rubber on the frame and connected to the lower control arms, and resists rolling or swaying.

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Fond of safety, Nash engineers have developed hydraulic brakes for their new cars that are said to be equal in braking capacity to that of many  $1\frac{1}{2}$ -ton trucks. They employ an unusually high proportion of braking area to car weight. Cast iron drums are used.

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Although 25 to 30 miles to a gallon of gasoline is sensational mileage for an automobile -- Nash advertises this mileage for its big '600' -- many owners have reported as high as 33 miles to a gallon on trips, factory officials report.

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All new 1942 Nash cars are equipped with the all-glass type of Sealed Beam headlights, which are declared to be the greatest contribution to safer night driving in the last decade.

NASH NOTES....

Nash has two kinds of backs on its 1942 sedans -- a streamlined or "fast" back, and a trunk or deck back. Both are said to have an unusual amount of luggage space.

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The running-board controversy has been smartly settled by Nash. The new boards are built-in, concealed under the doors, where they stay clean and dry, and do not mar the slipstreaming of the cars.

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Nash Ambassador Six and Eight engines have a main bearing on each side of the connecting rod. This is said to improve performance greatly, and reduce strain on the engine.

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When the new Nash cars are locked, the motor compartment is locked, too.

The hood lock is controlled from the instrument panel.

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There is no danger of half-shut doors in the new Nash cars. A rotary door latch eliminates slamming, and shakes itself shut.

NASH NOTES ....

Seats of the Nash Ambassador '600' are nearly five feet wide in the front, indicating the remarkable roominess of this new 'gas-saver' car.

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Nearly half of the 1,350,000 automobiles built by Nash during the past quarter of a century are still in active service for their owners.

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To save oil, all Nash connecting rods are rifle-bored throughout their length, for complete lubrication of cylinder and piston pin.

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The 1942 Nash cars are actually wider than they are high, by more than eight inches.

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All Nash doors have stay-checks that keep them open until they are pulled shut.