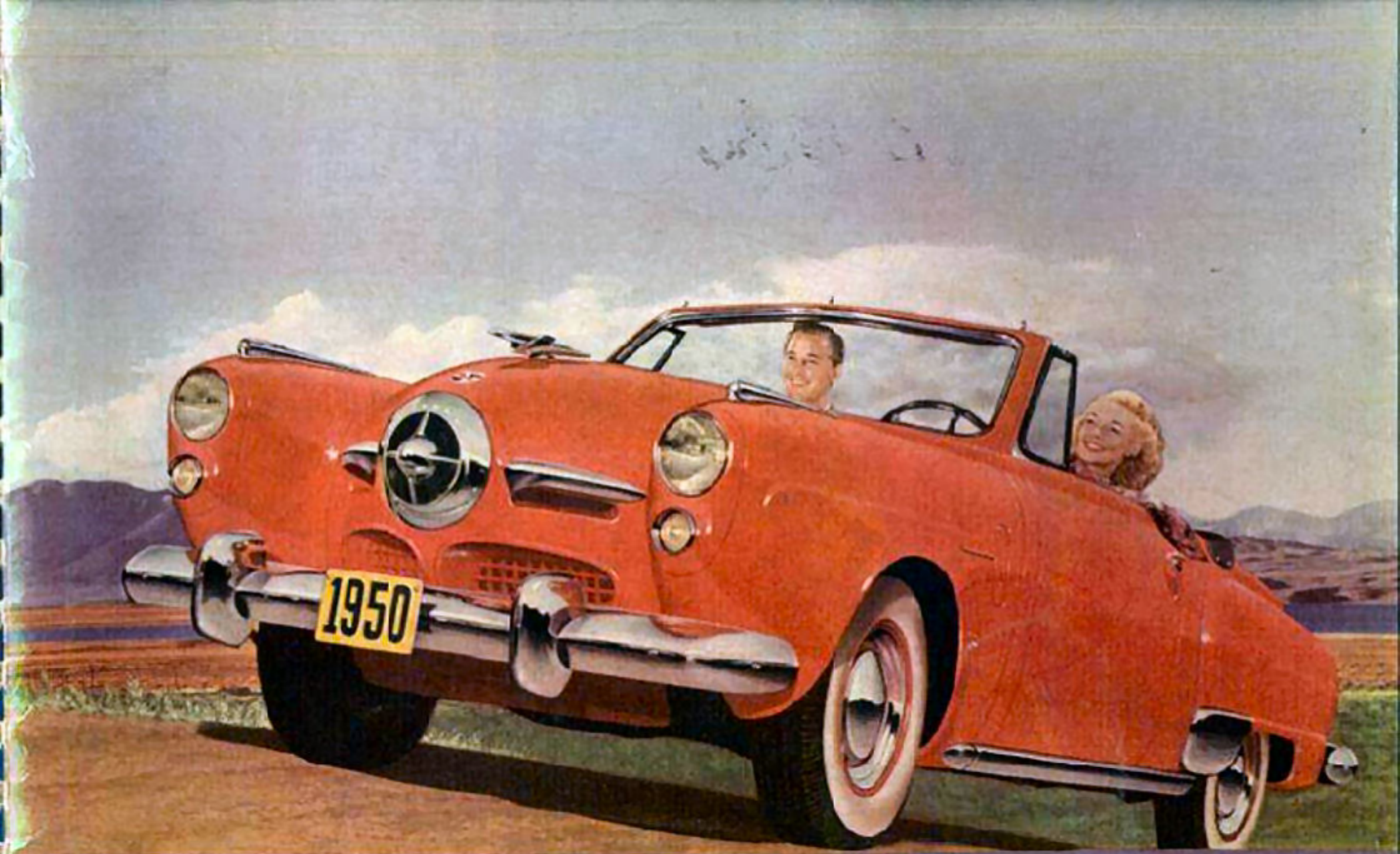


INSIDE FACTS

1950 Engineering manual for Studebaker salesmen


1950
STUDEBAKER
Father and Son
Craftsmanship
insures
enduring quality

Your obligation is to your customers

To Studebaker Salesmen:

When prospective buyers consider the purchase of Studebaker cars and trucks, they are entitled to expect that Studebaker *engineers* and *stylists* understand their needs and design the kind of vehicles they *want*.

They are entitled to have Studebaker *production men* carry out these designs skilfully and conscientiously in *building* the cars they *want*.

They are entitled to have Studebaker *dealers* provide efficient *maintenance service* for the cars they *buy*.

Buyers are equally entitled to have Studebaker SALESMEN *know the facts about Studebaker products; and to have those facts presented fully, accurately, clearly.*

Obviously, a full, accurate and clear "presentation" requires an *understanding attitude* toward the needs of each prospective buyer. It also requires that the buyer have a chance to learn everything that may have a bearing on the degree of personal satisfaction he expects to get out of his purchase—and this means *seeing and feeling* the superior quality of Studebaker cars, as well as hearing about them.

We believe that the material in the next few pages, suggesting *how to deal understandingly* with buyers—followed by a complete and orderly arrangement of Studebaker's 1950 passenger car *information and specifications*—will help you meet the obligation which you have to your customers.

VICE PRESIDENT IN CHARGE OF SALES

"The way of living for which all Americans are striving includes many things, but one of them—and not the least—is consumer freedom of choice. Many of the changes in merchandising, in better styling and design, in better adaptation of products to consumer needs, may be traced to the desires of good management to produce WANTED *goods."—Dr. Harry R. Tosdal, Harvard Business Review.*

A solid basis for automobile

Though the intelligent selling of Studebaker cars—or any other product that offers superior value—requires that the salesman *"know the product,"* it is just as necessary that he *"know the customer."*

Knowledge of even such favorable specifications as are explained in these pages doesn't, *in itself*, make you helpful to your customers—any more than memorizing a book on diet makes a good cook.

A cook can know all about ingredients, vitamins and calories—but still make atrocious apple pie. And a Studebaker salesman can know all the mechanical details about Studebaker's new spring suspension, high compression ratio, pounds feet of torque, symmetrical steering linkages, self-centering brakes, completeness of insulation, and interchangeable connecting rod bearings—but still not be able to make clear why it is to the advantage of a particular customer to buy a particular Studebaker model.

A definition of selling

Now, please don't misunderstand this. In these times, when so many owners of other makes are switching to Studebaker, it is more desirable than ever that every Studebaker salesman should know all significant facts about Studebaker and competing products. *Why* is it in the buyer's interest to make the change?

Facts are the foundation of *conviction*—and the selling job, as Paul G. Hoffman has defined it, is: "the process by which a salesman *transfers* to a prospective buyer his own sincere convictions about the prospect's need for the product he sells."

When you come to think of it, this is a pretty broad definition. Applied specifically to your being in the business of selling Studebaker cars and trucks, it means:

First, as a conscientious salesman you recognize that the car or truck you sell must be a *good product*—or you wouldn't have any convictions that are *worth* transferring.

Second, you must *know the facts* about both Studebaker and competing products. Otherwise you couldn't *justify* your conviction that a Studebaker car or truck is a better buy than some other make.

Third, you also need to know what the mechanical details have to do with the *useful services* a Studebaker car or truck performs. People spend their money for *their* "specifications" of what a given product does—and providing information about this is the main purpose of *Inside Facts*.

Fourth, you know that you must learn something of each *individual buyer's transportation needs*. Without this information, you could have no basis for an "understanding attitude" toward each customer's reasons for buying a car or truck in the first place—and buying a Studebaker in particular.

And, finally, it helps both you and your customer if you have some practical knowledge about *how to transfer* your convictions about satisfying his need for a Studebaker car or truck. In other words, you need to know *how to sell*.

No matter how sincere you may be,

TAKE BUYER'S MEASURE

In arriving at an understanding of the individual buyer's needs you, in effect, "take his measure" for a car; and four items of personal information that you will find most useful in doing this are: how many in his family, and ages of the children, if any; which members of the family drive; how the car is used—whether mostly for personal or business transportation; what kind of car the prospect now owns.

Most buyers take it for granted that you must have this minimum of information in order to discuss their needs intelligently—and such facts should be secured early in the interview. With these in mind, you have a good idea of what Studebaker model will best *fit* the "measure" of the *individual* and his family; and, from the start, can pattern your suggestions to conform to his *personal* needs.

The whole of *Inside Facts* is designed to help you follow through with this idea of making every Studebaker *presentation a personal matter*. Every automobile buyer will have his own ideas of the *relative* importance: styling, comfort, engine performance, safety, dependability and economy—and, as a salesman, you will want to go into such detail as he may wish about the qualities that are *of most interest to him*.

however, it is not enough merely to *tell* your customer of your conviction that a given Studebaker model is a good "fit" for his automobile needs.

Need for clear selling

Lack of clearness in demonstrating the *parallel* between the buyer's wishes and what the salesman's product offers is one of the most widespread shortcomings among sales people.

The difference between the sales presentation that "registers" deeply and permanently on a buyer's consciousness, and the kind of "sales talk" that goes "in one ear and out the other," is the same as the difference between a clear-cut professional photograph and the kind of amateurish out-of-focus snap-shot that turns out to be only a gray blur.

The rambling presentation that leaves only a blur of jumbled ideas on the buyer's mind is a waste of two people's time. Some of the most obvious aids to clearness in selling an automobile are:

Keep the *buyer's interests* in the foreground—from first to last.

Use words and facts that are *understood* by the buyer. Don't dwell on technicalities—except, possibly with buyers who have had technical training.

Find some way to reach the buyer's understanding through his *senses*, as well as with relevant words.

Cover *one point at a time*—and leave no point until you are sure that the buyer *agrees* on that particular feature.

Make each point personal. Associate it—directly or by suggestion—with the buyer's "measure" or with other ideas and desires already familiar to him.

Cover Studebaker features in *logical order*.

Make it *short*. Respect the buyer's time.

The *reasons* for your convictions must be *brought to life*—and this means letting each customer see, and feel, and experience for himself, whatever facts form the basis for your conviction.

Most automobile salesmen agree, therefore, that good selling requires: first, a preliminary *showing*—generally on the salesroom floor, or in the driveway at the customer's home; and, second, a road test—a demonstration—to permit the buyer to *sample* those satisfactions that can be experienced only when the car is in action.

It is important that Studebaker salesmen know *how* to show; and *how* to demonstrate—and effective methods of doing each are herein diagramed for your benefit.

What "closing" consists of

Although no mention has been made of "closing the sale," naturally, there's no such thing as "selling" without somebody placing an order—and "closing" can not be separated from the rest of the negotiations. Literally everything said or done while in contact with the customer is—or should be—"closing." The person who, in his own mind, is really convinced that he *needs* a given product—and can *afford* it—generally buys it.

This point needs emphasizing, because in many discussions of selling methods "closing" is spoken of as some mysterious

"step" where the salesman is supposed to "put on the pressure."

The fact is, if you look on selling as a process of "transferring convictions," there can be no place for "pressure" at all. The whole idea of transferring your own convictions to a buyer assumes that you are putting yourself in the buyer's shoes. You are trying to *understand his needs and wishes* —and present Studebaker's case from *that* point of view.

In other words, "closing" begins when you first establish a basis for *mutual confidence*; and, as shown by the diagram of the "sales mountain," continues throughout your explanation and demonstration of how a particular Studebaker model does *best* what the buyer *wants done most*.

HOW TO SHOW A 1950 STUDEBAKER

Many people who "shop around" in buying automobiles are amazed—and sometimes annoyed—at the incompleteness or fogginess with which the facts about cars are presented to them. Very often the sole difference between ringing up a "sale" or "no sale" has been the clarity of "focus" with which salesmen have helped prospective buyers to give their conscious attention to features which may well have had an important bearing on the *degree of* satisfaction and value they got for their money. *Complete* satisfaction requires buying the *whole* car—not understanding just one or two details, and overlooking the rest.

Don't overlook anything important. "Touch all the bases." Touch them in a *logical order*. Above all, make each point *clear*. Help your customer give conscious attention to essential features.

Follow the CLARITY route on opposite page. Pause at "C" to allow time to consider how the car will look in customer's driveway; then (L) open both doors for an overall look at the interior; (A) let customer feel the comfort and quality of upholstery; (R) explain scientific weight distribution and "long-travel" spring suspension; (I) emphasize engine performance; (T) explain box-section body and frame; then (Y) invite the buyer to go for complete road test.

Basis for creative selling

Good selling of Studebaker products requires, therefore, that Studebaker facts be presented in connection with:

(1) *Your knowledge of how to* DIAGNOSE *the individual prospect's transportation needs.*

(2) *Your desire to help him understand why and how much a given Studebaker model* SATISFIES *those needs.*

You will be helped greatly toward "transferring" your convictions and arriving at an intelligent *meeting of minds* about each buyer's needs if you also have a working understanding of some of the *human motives* that are involved when your prospect arrives at a decision to buy an automobile.

From a psychological standpoint, most purchases of a product like an automobile naturally involve, not just a few, but a *great many* motives: and the majority of these are liable to be unconscious. So the buyer himself seldom realizes the exact nature of *all* the desires that have to do with his decision.

Even if you had a psychologist at your elbow, it would hardly be either practicable or desirable, therefore, to present the case for Studebaker on a strictly "psychological" basis.

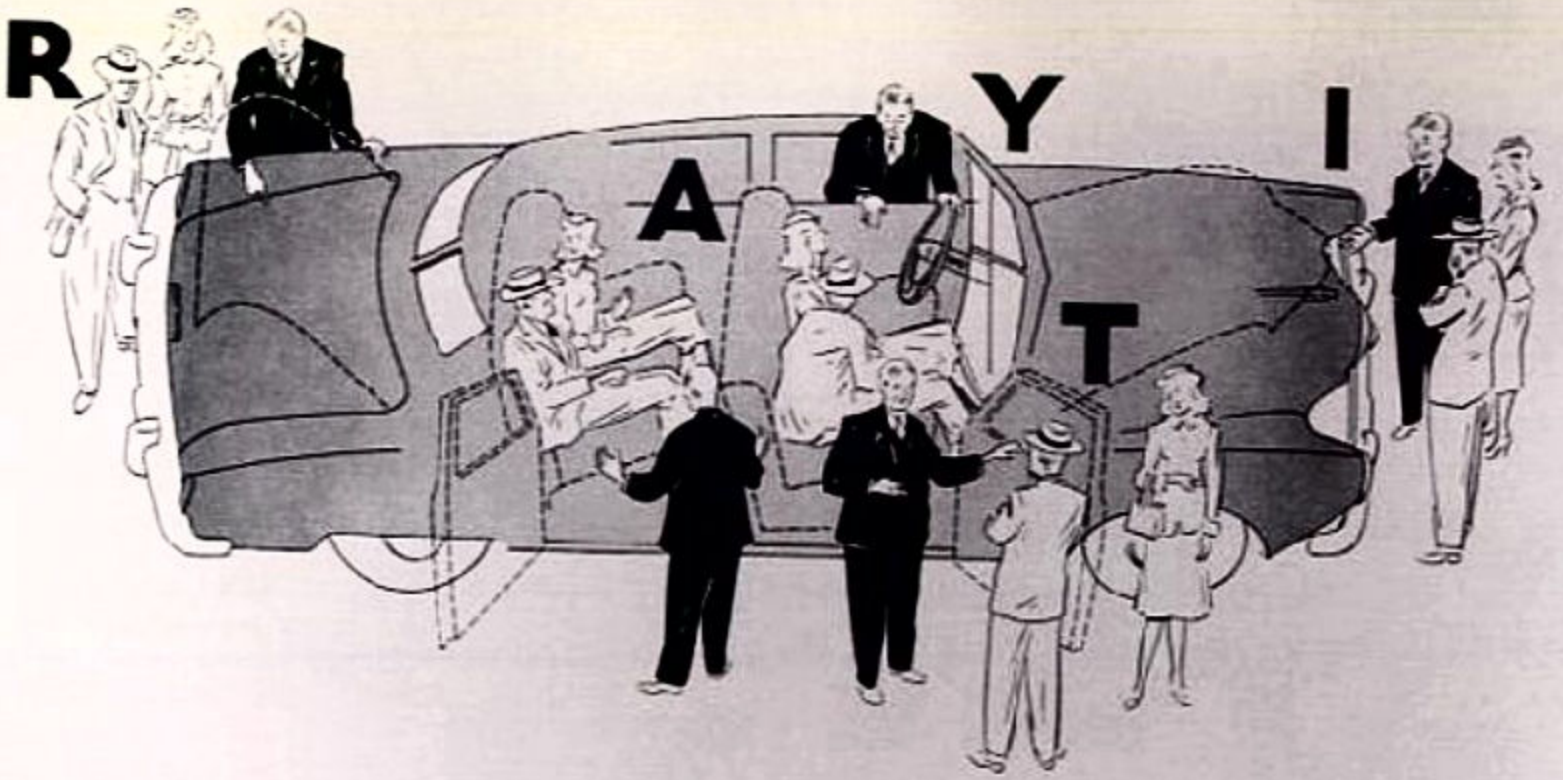
There are, however, a few motives with which virtually every buyer is concerned; and which he usually takes into account, directly or indirectly, in deciding *which* car gives him the most for his money.

Psychology of buying

Some of the "buying motives" most often spoken of by psychologists as being related to the purchase of automobiles are:

Curiosity: this motive is at work whenever people have a desire to investigate —go to *new* places—see and do *new* things — and automobile ownership makes it possible for whole families to satisfy this desire. Scientific curiosity is also a key motive in engineering research—and one of the most impressive examples of the effect of *buying* "research" is the tremendous number of motorists who have shifted to Studebaker during the past few years—after *investigating the reasons* for the growing popularity of Studebaker cars.

Rivalry: Psychologists agree that the desire to be recognized and appreciated is, perhaps, the strongest motive in human nature. This is the driving force of ambition. It is responsible for people being unwilling to "play second fiddle." It has a part in *pride of ownership*"—pride in one's home, or car, or farm, or any other possession. A nation-wide reputation for fine craftsmanship, and an established record of style leadership, are typical Studebaker appeals to this motive.



Consciously observe styling
Luxury and roominess
Accent on upholstery
Reasons for ride
Inspect power plant
Tell about body strength
Yes, let's ride

Conformity. Buyers want to know that the car they buy has been tested and approved by people whose judgement they respect. Hence, the experiences of automobile-wise owners help you "transfer conviction" about the all-'round satisfaction of Studebaker cars and trucks. The natural tendency to conform to *approved trends* also makes style the important factor it is in modern automobile merchandising—and it keeps alive the active markets needed to maintain high levels of employment. *Style leadership* has been one reason for Studebaker's *tremendous sales momentum*—and this sales record is, in turn, concrete evidence of *wide* public approval. Buyers recognize that such records are made only by cars that give a *high degree of satisfaction.* Moreover, the *high resale value* of Studebaker cars on the used car markets is proof of *lasting* public acceptance.

Exclusiveness: This causes buyers to appreciate the touch of *individuality*—the air of being "different"—that has been an outstanding characteristic of postwar Studebaker cars; and individuality is emphasized more than ever in the *distinctive styling* of the 1950 Studebaker line.

Caution: Few benefits that a salesman can offer are greater than the peace of mind that goes with *protection against causes of fear.* The strongest antidote for fear is *safety*—and Studebaker cars have important advantages, both in the *prevention* of accidents and in the *protection* of the owner and his passengers, in the event an accident *does* happen.

Affection: This is an important motive in buying many a Studebaker car. Beauty of upholstery and appointments; ease of parking; convenience of controls; and the many Studebaker features that allay fear and assure safety—all these assume increased importance when considered in relation to the *pleasure* or *protection* of those whom the buyer holds in affection.

Play and sociability: The enjoyment of going on a picnic, or to a ball game, visiting friends across town, taking a vacation, attending a convention—or just going for a ride—involves these motives; and the enjoyment is greater when Studebaker provides the transportation. The motor car's contribution to family fun is taken for granted—so much so that many owners still call them "pleasure cars," although the serious business of saving time, and the ability to do many things that could not otherwise be done, have long since come to be even more potent reasons for ownership.

Desire for ease: Everything that has to do with the luxury, convenience and minimizing fatigue is a direct appeal to this motive for buying Studebaker cars—roominess, quietness, riding ease, perfection of balance, confidence of control. In all of these, Studebaker offers the buyer something *extra.* It is not enough, however, merely to *tell* about them. To have a vivid sense of the *extent* to which Studebaker ownership will help him take it *extra easy*, the buyer must experience these superiorities *for himself.*

Acquisitiveness: This is the *profit* motive. It is back of the buyer's desire

HOW TO DEMONSTRATE A 1950 STUDEBAKER

The ROUTE PLAN opposite is a reminder of the *essentials of a good demonstration.* Before starting, tell your customer that the route provides *road tests for everything he wants a car to do.*

Tell him that, after he gets an idea of its operation under both extreme and normal conditions, you want him to give the Studebaker a work-out over a *route he uses every day.*

While the engine warms up, explain the controls: sub clutch-pedal starter; self-adjusting brakes; instrument visibility; *overdrive*; automatic control of Climatizer.

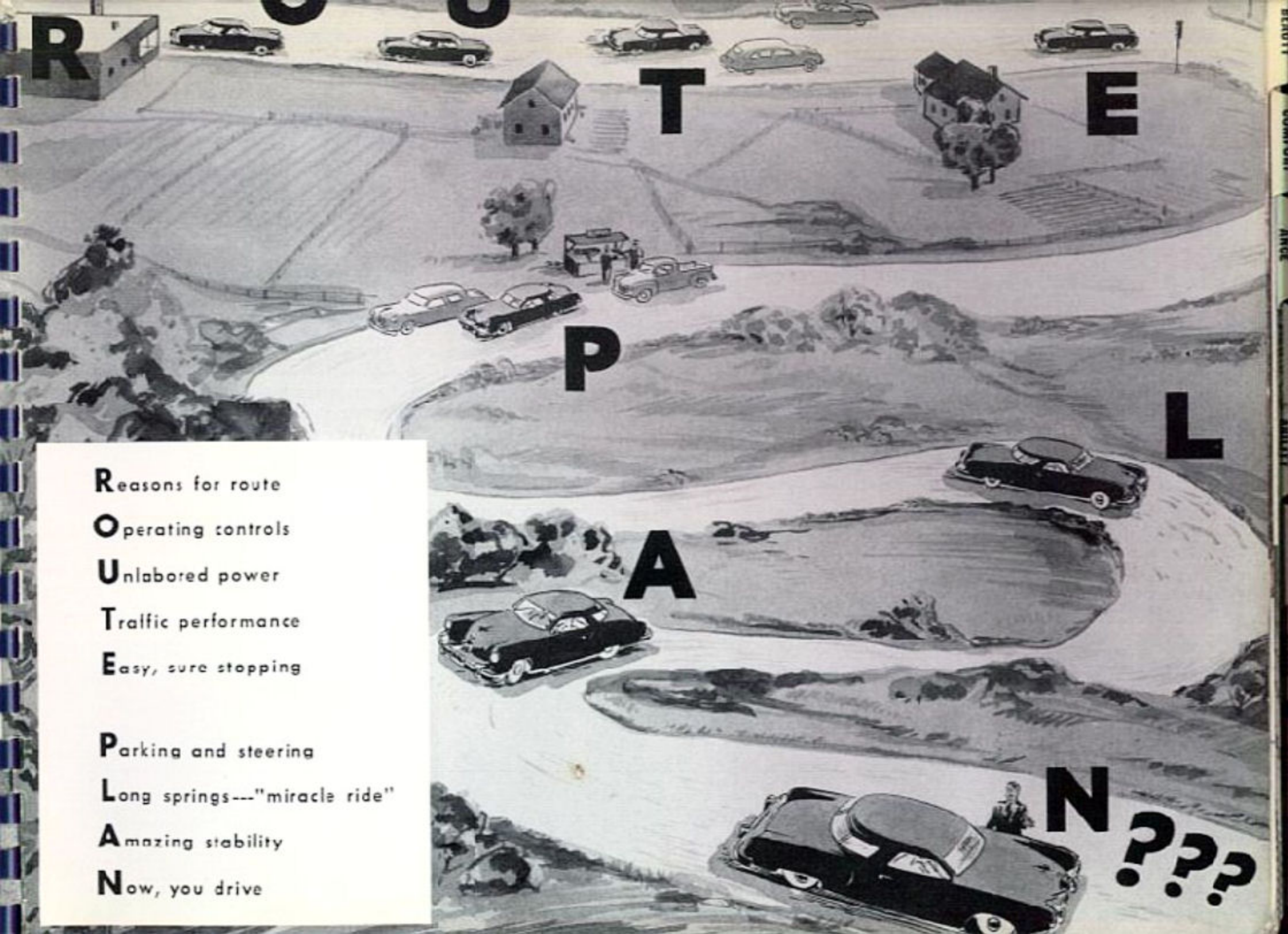
Start slowly. Emphasize *unlistened performance*—plenty of *reserve power. Don't rush.* When there's an opening, demonstrate *quick pick-up. Stress safety of* fast acceleration—no hesitation when passing another car. Make sure that the buyer notices what's being done.

At a stop street, demonstrate brakes. Remind buyer that efficiency is kept uniformly high by *automatic adjustment.* Demonstrate *hill-holder* at hills top.

When turning corners, *explain variable ratio steering.* Demonstrate *parking ease.* Call attention to *full vision.*

On a rough road, demonstrate Studebaker's 1950 "miracle ride." Stress *long travel* coil springs. On curves call attention to *super-stability*—no sideway.

Having covered your "planned route," *invite the buyer to drive over route of his own selection.*



Reasons for route

Operating controls

Unlabored power

Traffic performance

Easy, sure stopping

Parking and steering

Long springs---"miracle ride"

Amazing stability

Now, you drive

to get his money's worth—both in *dollar value* and in *operating economy*: and Studebaker's policy of offering "a lot of car for the money"—and long-established record for unusually low cost of maintenance and operation—appeal directly to this motive of "acquisitiveness."

When you analyze these almost universal human motives, you see how closely they are related to the six motor car characteristics charted on these pages.

It has been long apparent—from systematic reports by Studebaker dealers, and from various other sources of information—that any fact about an automobile that has any important interest to an owner is directly related to one or more of these six *functional* qualities. They are the buyers' "specifications"—and, in one way or another, *every buyer uses all six* in forming his judgement of the relative success of various automobile manufacturers in building cars to conform to his *personal* needs and motives. Obviously, the car which, in his judgement, *best combines* these qualities gives any buyer the most *all-around value* for his money.

These six basic attributes—or "buying specifications"—have, therefore, been used as a basis for indexing the details of product information throughout the following pages of *Inside Facts*.

Blueprint for organization

It is sound selling practice to organize *your personal* presentations in just about the same way. It is also good *buying* practice for any customer to have the same sort of "specifications" in mind, in case he wishes to make a really useful *comparison* between Studebaker and any other make of car.

The specifications on this yardstick, therefore, constitute a convenient blueprint for mentally *organizing* all kinds of automobile facts and experiences for ready use in every-day sales work. A habit of associating everything about Studebaker cars, and other makes, with one or more of those six basic qualities provides a working guide for the *effective use of facts* throughout a lifetime career of selling automobiles.

Consider how each Champion, Commander and Land Cruiser model—and competing cars in their respective price classes—measure up to each of these attributes. Then decide how you can best *show* and *demonstrate* Studebaker superiority, item by item. Whether or not competition is involved, this should give you a basis for a Studebaker sales presentation that will "touch all the bases" in covering everything any automobile buyer will care to know.

The car that best COMBINES these six qualities

BEAUTY: Does the styling conform to the buyer's standards of charm and good taste? Will it also be admired by others? How will it affect resale value on used car markets?

COMFORT: Is the car superior in ease and relaxation? In seat structure? In spring suspension? In feeling of stability? In handling? In heating and ventilation?

PERFORMANCE: Does the engine supply ample reserve power? Is acceleration prompt and unlabored? Has useless weight been eliminated throughout the car? Is the car really streamlined?

Also take into consideration the *order* in which the case for Studebaker is arranged in the pages of *Inside Facts*.

According to surveys among owners, this is about the order in which most of them have been accustomed to consider the facts about any cars in which they are interested.

Notice that the first four—beauty, comfort, performance and safety—cover nearly everything that any buyer can *see or feel for* himself in considering the relative merits of such automobiles as he may investigate. They are the only qualities you can *show or demonstrate*, or the buyer can examine. They sum up everything any car can *do*.

Hence, every buyer's *preference* will always be based on those four. But, of course, there are other things that enter into the *decision*.

For some cars do those things *more economically* than others; *or more dependably*.

So, you will want to be in a position to *show* and *demonstrate* the beauty, comfort, performance and all-'round safety of Studebaker cars—and then *prove* dependability and economy of operation. (Moreover, the *reputations of the manufacturer and the dealer* are also important elements of value.)

Build a buyer's yardstick

Keep these "buying motives" in mind, therefore, as you take each of the 1950 Studebaker models out on the road. As a basis for a conviction that is *worthy* of being "transferred" to your customers, give *yourself* a thoroughgoing demonstration ride:

Ride over rough and smooth streets.

Drive in heavy traffic—and over deserted back roads.

Travel on the straightways—and around sharp curves.

Then check the average operating costs experienced by Studebaker owners in your town. Get their testimony on Studebaker *economy* and *dependability*.

You can't possibly do this without arousing a wealth of new enthusiasm for the building of a sales presentation based on first-hand knowledge.

You will be in a position to convey to your customers a sincere conviction that Studebaker offers them the car that *does best* the things that they, as automobile owners, *want most*.

You will also find that everything *any* buyer wants to know about *any* automobile can be classified under one or more of the six headings that have been used in the organization of *Inside Facts*—and are summed up in the sure-fire, six-point *buying formula* illustrated below.

gives your customer the *most for his money*

SAFETY: Full precautions to prevent accidents? *For example:* Full vision? Prompt, sure stopping? Quick, positive steering? Stability? Avoiding fatigue? Body strength?

DEPENDABILITY: Does the car have a record of giving satisfactory service, with a minimum of interruption? Does the dealer have a reputation for efficient service?

ECONOMY: What car has the best record for all-around economy of operation? Gasoline consumption? Lubrication efficiency? Maintenance cost? Resale value as used car?

COMMANDER REGAL DELUXE STARLIGHT COUPE

Studebaker's five-passenger coupes, with their striking design and vast expanse of "picture windows," are the kind of sport cars that style-conscious motorists had long dreamed about. Distinctive styling and beauty of appointments make this one of the most admired 1950 automobiles.

Beauty

Help them to SEE its styling

Before starting the close-up examination, pause a moment —a few feet away. Give your customers an opportunity fully to appreciate how the "next look" car will appear at the curb, in front of their home.

Help them SEE the interior

Let your customers savor the masterful styling—inside and out—of these finest examples of Raymond Loewy's designing skill. Help them to see—not just "look at"—the superior quality of upholstering, trim, appointments.

STYLING for satisfaction and value

In the modern automobile, styling has come to be an important element of dollar value, in addition to the effect it has on the owner's personal satisfaction. The skill of the designer now has as much to do with establishing the worth of a car as the skills of the architect and decorator have in determining the market value of a home.

A 1950 automobile with an old-fashioned, box-like body would be no better investment as family transportation than an old-fashioned house would be as a home; and nowhere has this economic phase of styling been taken into account more specifically than in the advanced design of the 1950 Studebaker.

This is in line with well-established Studebaker policy. It is recognized throughout the automobile industry that all of Studebaker's postwar cars have been developed with an eye on the *market value* of good styling—and that they have been delivering top value in this important field. They have won the sort of spontaneous and outspoken public approval that every automobile designer and manufacturer strives for—and every automobile salesman, and every owner, hopes for.

And now, with the 1950 models, Studebaker has produced a group of cars that are arousing even greater enthusiasm. Their styling is still newer, still fresher, still farther ahead of the field.

By thus protecting the buyer's investment, as well as giving him the enjoyment of new styling of the highest order, these "next look" cars also present Studebaker dealers and salesmen with a great merchandising opportunity.

Background of "next look"

From the time the new 1950 models first appeared at previews for Studebaker dealers and automobile editors, the success of the latest Studebaker styling has been obvious.

"How did this happen?" some have asked—and the answer is that it *didn't* "just happen." A style leader like this doesn't spring overnight from the drawing board to the assembly line. Such outstanding successes as Studebaker has achieved in recent years come into being only after skilled designers have spent long months—even years—of observing, and improving on, style trends.

The styling of the 1950 models has been no exception. The process of working out the details of the design finally adopted got under way soon after it first became apparent that the 1947 Studebaker had established a stable and popular style trend.

Notice strong box section structure at lower left where post has been cutaway for photographic purposes.

Long-wearing, easily-cleaned, quick-drying nylon is ideally suited to use where it may be exposed to weather, and is a 1950 alternate choice with genuine leather in Studebaker convertible cushion and seat backs. The trim is simulated leather. The fully automatic top responds instantly when the driver wants to raise or lower it—and fits snugly back of the rear seat when down.

Five style objectives

From the first, it was clear that the design of the 1950's must do five things even better than they have been done in the notably successful postwar Studebakers that preceded them:

First, of course, the appearance must appeal to discriminating buyers as being the "look" *they* would have planned, if *they* had been developing a new design.

Second, the styling must be "distinctive." It must have an unmistakable air of individuality. Every model must be the sort of car that causes people to turn their heads for an *admiring* second look. All must be "traffic stoppers"—conspicuous for their outstanding *good taste*.

Third, the design must give a definite impression *of unity*. The parts must give the feeling of belonging naturally together.

Fourth, the styling must also be "functional." The cars must *look the part* of providing luxurious and efficient highway transporation.

Fifth, the design must be in the forefront of the style *trend*. It must not only give the original owner a feeling of pride and satisfaction, but must have the sort of *lasting* good looks that (when the time comes to trade the car in) is one of the most important factors in keeping *resale value* high.

Studebaker is the World's oldest manufacturer of vehicles. In 1952 the company will observe the first hundredth anniversary of its founding, and will also round out *half a century* as a manufacturer of *automobiles*.

It is not by accident that, with the introduction of the 1950's, this dean of the World's vehicle manufacturers finishes off the first fifty years of the twentieth century—and approaches its own centennial year—with the fourth of a series of models that have themselves been in the nature of a celebration—and a promise for the future.

The strikingly designed instrument panels of the 1950 Studebakers—Champion, left; Commander and Land Cruiser, right—again have "black lighting" for all dials. Electric clocks are standard on the Land Cruiser, extra cost accessories on Champions and Commanders. The Champion steering wheel illustrated is standard on Regal Deluxe models; and the one on the right is standard on Land Cruiser and Regal Deluxe Commanders. Windshield wiper control is easily reached above upper center of panel. Built-in ash trays standard on all models. Studebaker—Philco radios, with "black lighted" dial, engineered to conform to acoustic qualities of Studebaker cars, available at extra cost.

Styled by *Raymond Loewy*

AMERICA'S MASTER DESIGNER

IN bringing every resource of talent and skill to bear in maintaining style leadership, Studebaker has long had the close collaboration of the most highly-regarded group of industrial designers in America.

Under the distinguished leadership of world-famed Raymond Loewy, this brilliant organization of artists, architects and engineers has produced in the 1950 Studebaker an *enduring* style that stems from the correctness of its fundamental design and the grace of its lines, rather than depending on gadgets and the glitter of surplus chrome.

Every line is a "speed" line. It is also a directional line. It suggests speed going *forward*.

Experienced with style trends

One of the important contributions of the Loewy group is that they bring to their studio in the Studebaker plant at South Bend, a broad experience with style *trends*. They have a genius for the kind of motor car design that not only *has*, but *retains* the prestige-generating style appeal that is such a substantial element in modern new car value.

Most of their work has been in fields where—as in a home or an automobile—the styling of a product is, to a considerable degree, a *symbol of the owner's personal taste*. In scores of products of this type the deft authority of the Loewy touch has had an important influence on both long-lasting popularity and the value of the merchandise. Raymond Loewy Associates have been outstandingly successful with transportation design including: Greyhound buses; Pennsylvania Railroad trains; Lockheed's Constellation airliners; the luxury ships of the Matson Line—as well as the trail-blazing styling of Studebaker cars.

Designed for UNITY, HARMONY

In recent years the policy of Studebaker in working steadily toward ever greater *unity* and *harmony* of design has had an important effect on the styling of virtually all American motor cars.

This is in keeping with another basic principle of good design that Studebaker stylists have applied with notable success—i.e., the rule that the *appearance* of a product should be in keeping with its use. (Good design is "functional"—and the obvious function of an automobile is to go places: go *quickly;* go in *comfort;* and go in *style.*)

One of the natural results of the practical application of these fundamentals is the *simplicity* of Studebaker design. Not stark severity, but an uncluttered styling that avoids the cheapening glitter of excessive ornamentation; design that gets its striking effects through symmetry, balance, and the beauty of graceful lines; through the effective placing of masses of color; and through *moderation* in the use of bright-metal high-lights.

The 1950 Studebakers are the latest and best examples of these modern trends toward the elimination of the sort of projections and ornamentation that only add confusion to the overall design and serve no useful purpose.

Examples of functional design

In these "next look" cars, touches of chrome or stainless steel have been used to *accent* — not as substitutes for — smooth curved lines and expertly planned masses of color. Body, fenders, bumpers, glass, and so forth, have been combined to give a convincing unified feeling of "belonging together."

Some of the results of *functional* design are that wind resistance has been reduced by streamlining; engine performance has

and USE

been improved by better cooling; gasoline consumption has been lowered at highway driving speeds.

Studebaker stylists led the way in making front and rear fenders integral parts of the overall design—instead of looking like something attached as an after-thought. From a *functional* standpoint this permitted an extension of the useful width of the body—thereby *increasing seat width.*

Something very near perfection of fore-and-aft balance came when Studebaker moved the passenger compartment far forward of the rear axle in the first all-postwar cars. This not only had the *functional* effect of making Studebaker's revolutionary ride possible; but, by moving forward the larger areas of body color, it also has had an important part in achieving the beautiful symmetry that has been still further refined in Studebaker's striking design for 1950.

Another place where the design of Studebaker's postwar bodies has served the dual purpose of beauty and function is in the introduction of "picture window" glass areas. Obviously, the great increase in the field of vision has increased the safety and pleasure of driving. But, in addition to this, it has given the upper part of the body something of the streamlined style of an airplane cockpit; and this treatment helps to convey the overall impression of lightness and speed.

Appearance of Swiftness

To convey a pleasing visual impression of possessing all these important qualities, modern motor car designers have long worked toward developing *dynamic* styling —appearance that suggests swift, smooth *movement;* and in this respect Raymond Loewy and his associates have achieved a masterpiece in the 1950 Studebakers. Even when they are standing still, they give the impression of being in motion. They *look the part* of fast, luxurious highway travel.

At the same time, this "next look" styling also conveys something of the feeling of the latest development in air travel. The rocket-like frontal appearance, with

The spacious passenger compartments of the Regal DeLuxe Champion are styled by skilled interior decorators. Restful foam-rubber cushions are standard. Deep-pile carpets pad the floor. Arm rests and assist straps add their touch of convenience and ease. Simulated leather on door panels, and bright metal kick-pads and front-seat foundation, are key features of the modern-styled trim.

Two rear-seat compartments for packages, thermos bottles lunch containers, and so forth, are features of Studebaker's popular Starlight coupe. A choice of two patterns of smart, long-wearing, easily cleaned nylon upholstery is offered as an option for all 1950 Commander Regal DeLuxe closed models and the Land Cruiser. Nylon is also alternative with genuine leather for Champion and Commander convertibles.

its gleaming chrome spinner and the airfoil fenders, suggest the sweep of a jet-propulsion plane, cutting its way through the air.

There is no vestige left of harsh, box-like angles and drab flatness. The smooth lines reduce frontal area and permit the unhampered flow of air around the car — important factors in the practical streamlining of 1950 Studebakers. There is nothing in those curved surfaces to give the idea of a car "ramming" its way along against power-killing, gasoline-eating wind resistance. (For details about the function of the new design in providing better cooling, see page 60.)

The *dynamic* effect is still further emphasized by the slope of the rear deck and the smart rear fenders (detachable for easy repair), with their vertical tail lamps.

So, whether gliding along in traffic or standing in the owner's driveway, the whole 1950 design gives the effect of *effortless, unlabored motion.* Going places with *ease!*

Besides their contribution to graceful styling, and their effect on reducing wind resistance, the *curved* surfaces of Studebaker bodies and sheet metal—front, rear, sides and top—have two further important *functional* values: they *increase strength* substantially; and they help greatly toward the *elimination of rumble.*

REGAL DELUXE LAND CRUISER

Favorite of the family that can afford the best, but also appreciates moderate cost and economy of operation, the 124-inch wheelbase Land Cruiser is one of the great achievements in quality car design. *See interior on next page.*

1950 Land Cruiser — the car of ECOMOMICAL LUXURY

Studebaker's Land Cruiser is a car designed for the family that wants unlimited motoring luxury—but wants it at a sensibly *limited* price; the family that can afford the best—and also wants economical operation.

This finely balanced, roomy, powerful automobile is one of America's finest examples of quality-car designing; and seldom has the skill of the decorator or trim engineer been displayed to better advantage.

It has a center arm rest for the rear seat; electric clock; wind wings on rear windows; robe cord and ash tray on back of front seat; nylon cord upholstery, in a choice of two patterns.

The Land Cruiser has extra-wide rear doors; extra leg-room in the front and rear seats; and extra room in the trunk.

Comfort

Let them FEEL the comfort

Give your customers a chance to judge—*from* the testimony of their own senses—the excellence of Studebaker cushion structure and the posture-correctness of height, width and depth of seats.

Let them EXPERIENCE the ride

The effect on comfort of Studebaker's new self-stabilizing, long-travel-coil-spring suspension can be judged only when the car is in actual use. Give each customer a road-test. Let the ride tell its own story under all road conditions.

New reasons for COMFORT leadership

Since those first history-making postwar models when Studebaker pioneered a thoroughgoing redistribution of weight that brought revolutionary improvements in riding and handling ease, Studebaker engineers have been busy with further refinements in every area and detail that contributes to comfort and relaxation. The important results of their work have now been put into production in Studebaker's 1950 "miracle ride":

1. ***The most advanced of spring suspensions:*** New long-travel coil springs in front. New anti-roll sway-bars. New shock absorbers, with roll-resisting "sea-leg" mountings in rear.
2. ***New perfection of balance:*** New refinements of scientific weight distribution, with increase in wheelbase.
3. ***New steering and parking ease:*** Refinement in symmetrical steering linkage. Longer, stronger variable ratio steering gear on Champion.
4. ***New seat luxury:*** Sea-foam cushions standard on all models except the lower-priced DeLuxe Champion group.
5. ***New smoothness and quietness:*** Improvements in rubber mountings and exhaust system.
6. ***The finest of heating and ventilating systems:*** New automatic temperature control for Studebaker's exclusive Climatizer.

Besides these direct major factors of comfort, many Studebaker refinements that primarily affect performance, safety, dependability or economy are also aids to comfort through their secondary contribution to convenience and peace of mind.

Studebaker's *self-adjusting brakes*, for example, are not only safer and less expensive to maintain, but do away with most of the inconvenience of taking the car to a service station for brake adjustment; and the added confidence of control contributes to peace of mind.

The *automatic choke* not only saves gasoline, engine wear and oil, but eliminates the inconvenience of having to think about the choke; and the *automatic fast idle* does away with the need for giving thought to engine speed during the warm-up period.

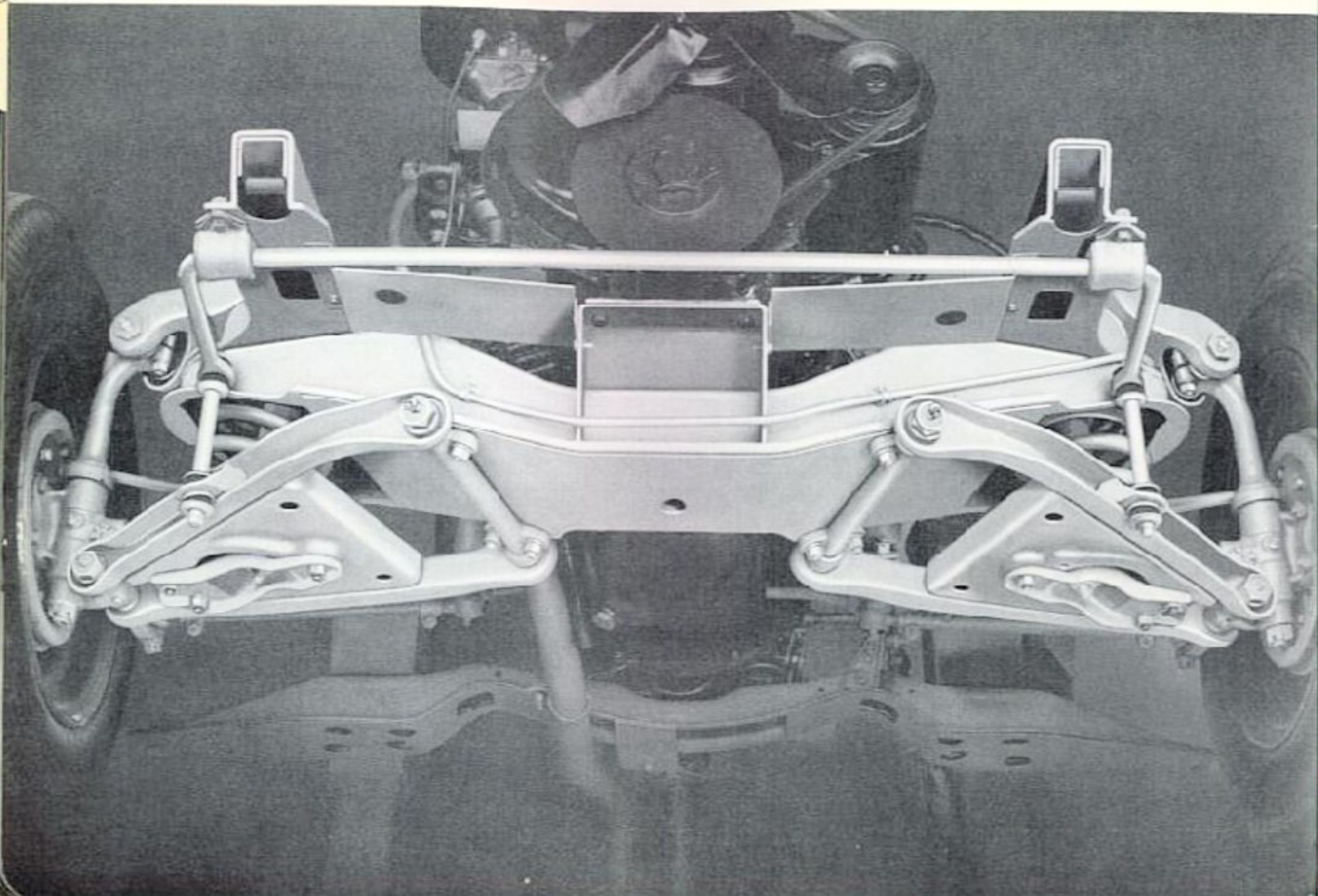
The big *18-gallon gasoline tank*, combined with the long-established Studebaker record of gasoline economy, puts off for many extra miles the need to stop for gasoline.

The *twist-resisting frame and body* not only provide greater protection and reduce the wear and tear of torsional stresses, but also protect against squeaks and rattles.

The *rotary door latches*—a Studebaker "first"—not only are extra-good at serving their purpose of fastening the doors, but do away with the need for door slamming.

These are just a few of the ways in which Studebaker superiority in other qualities also makes for greater comfort and relaxation.

Improved self-stabilizing suspension



--with long-travel coil springs

Of the important new features that contribute to Studebaker's remarkable 1950 advancements in riding and handling ease, the most obvious is the new suspension, with long-travel coil springs for the front end. (Champion suspension opposite page.)

Other things being equal, the "travel" of an automobile spring (that is, the limits of its up-and-down movement in compression and rebound) determine the softness of the ride—and, with the exception of some of the heaviest and most expensive cars, Studebaker's new coil springs have *longer travel* than those with which any other front suspension is equipped.

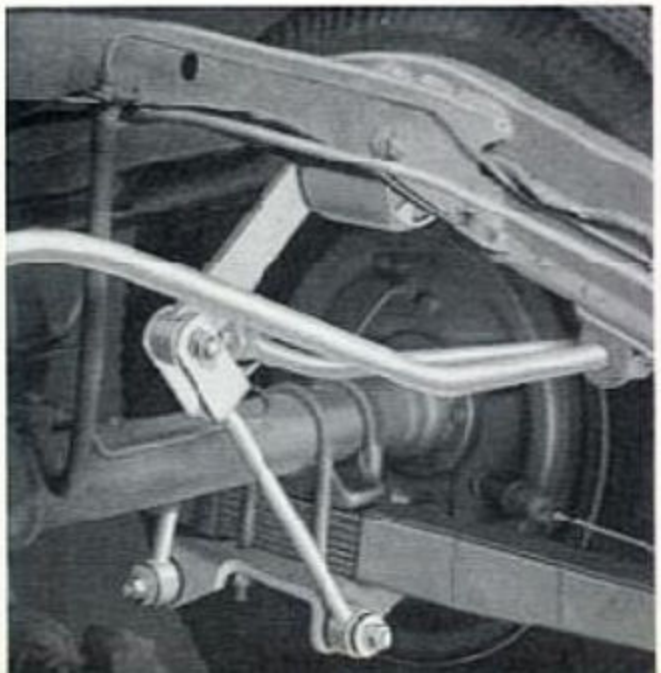
This, in combination with *extra-low-pressure tires*, sets new standards for good riding on *any* road—but on rough streets, country roads, over railroad tracks, and so forth, it can make all the difference between floating, and pitching or *jouncing*.

Along with the new softness of the 1950 ride goes an increase in the remarkable *stability* that has distinguished Studebaker's postwar cars. This increase is due largely to the new "sea-leg" mounting of rear shock absorbers and the use of new *anti-roll torsion bars* on the front of Champions, and both front and rear on Commanders and Land Cruisers.

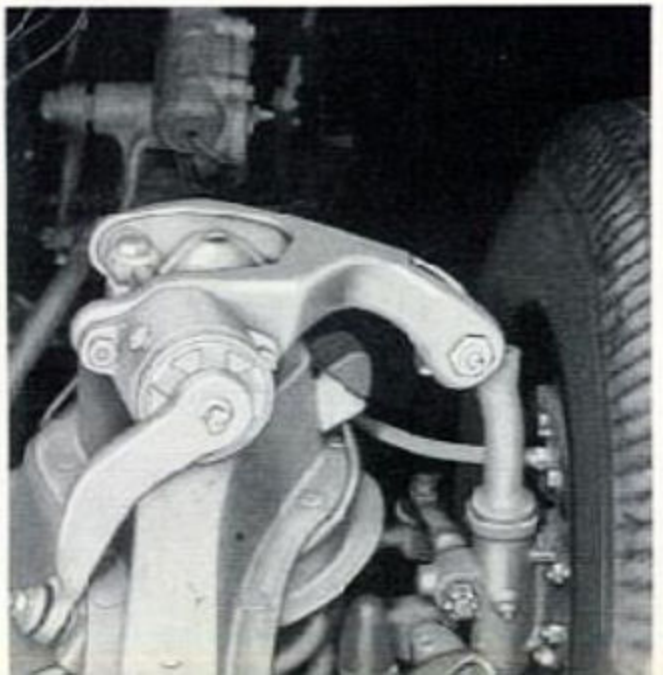
New, direct-acting tubular-type Houdaille shock absorbers have been adopted for the Champion. One of the features that distingaish this fine Houdaille equipment from conventional tubular shock absorbers is the hard-surfaced, long-wearing chrome-plated piston rod. It is held to unusually high precision specifications. A variation of only six millionths of an inch is allowed.

The attachment rings are so strongly welded that breckage at this critical point just doesn't happen. Each shock absorber has its own built-in dirt shield; and a heavy shield is also welded to the lower end to protect against stone and gravel.

By their "sea-leg" mounting, the double-acting rear shock absorbers on all 1950 Studebakers help *minimize side-to-side roll*, as well as controlling the compression and rebound of the long, soft, thoroughly lubricated rear springs. (Below) Lever-action Houdaille shock absorbers and mounting of rear sway-bar on Commanders and Land Cruisers.



The lever-action front shock absorbers on Commanders and Land Cruisers are mounted at the hinge of the strong channel-section upper support arms. Champions (right) have new direct-acting Houdaille tubular shocks. These are mounted inside the long-travel coil springs, and rest on the rubber mountings attached to the lower support arms.



Instead of pounding straight up and down over bumps and holes in the road, the front wheels "roll with the punch," because the mounting of the upper and lower support arms permits the steering knuckle to be raked rearward at a 15-degree angle. The quiet rubber mounting of the Champion's roll-control sway-bar is also shown.

Effect of weight distribution on STABILITY

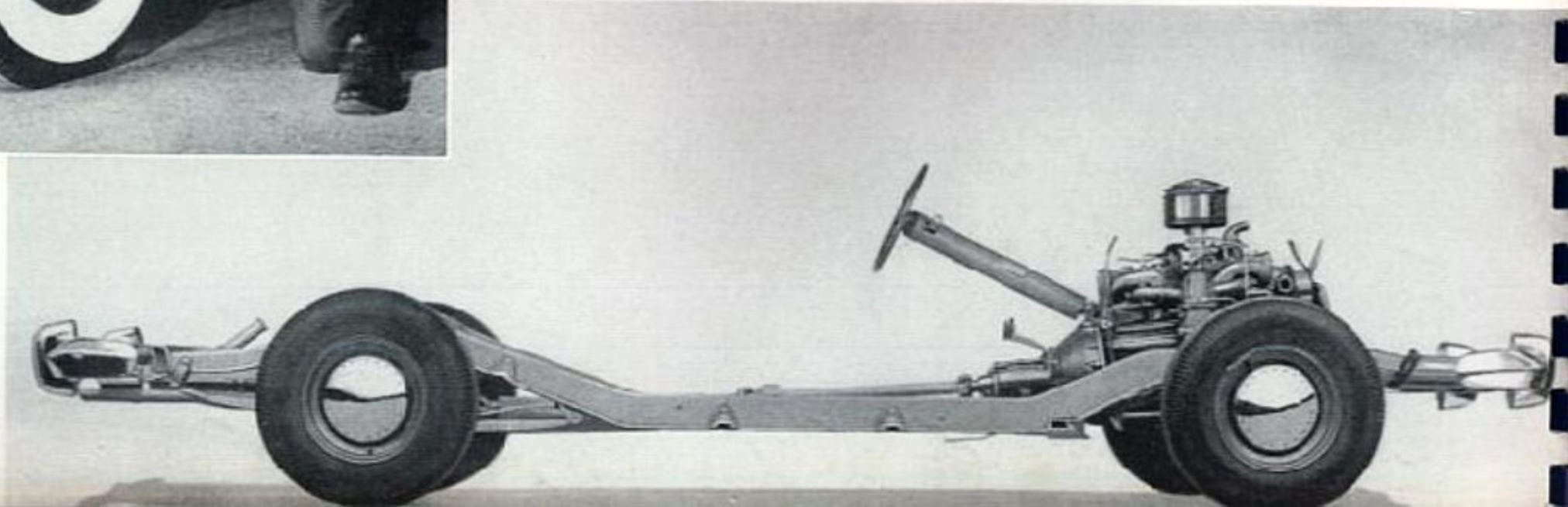
When all Studebaker cars were completely re-engineered for postwar production, the epochal ride introduced with the 1947 models set a new high for the comfort standards of the whole industry. This dramatic change was due mainly to radical improvements in the distribution of weight, including relocation of the passenger compartments.

The side view of the 1950 Commander chassis (below) shows how moving the engine forward made room for cradling the passengers at the point of balance between front and rear wheels.

Moving the whole body far ahead, to a point where the rear axle did not interfere with car height, made it possible to use the deep double-drop frame. Not only were overall height and the center of gravity thus lowered—and roll and side-sway greatly reduced—but passengers were seated at a level where they get the *full benefit* of the increased stability, as well as the benefits of perfected fore-and-aft balance. (One of the 1950 improvements in this general field is a one-inch increase of the wheelbase of all models.)

A further factor in the betterment of stability—as well as in providing a softer ride—is the use of wide-base rims, with the extra-low-pressure tires. (Commanders and Land Cruisers, 7.60x15 inches; Champions, 6.40x15 inches.)

The large tires provide better traction and a smoother, quicker stop, as well as playing an important part in the new restfulness of Studebaker's 1950 ride. The wide-base rims resist the tendency that all tires have to be forced out of shape by side-thrust on curves (especially at high speeds); and, in case of blow-out, the tires seldom, if ever, leave the rim.



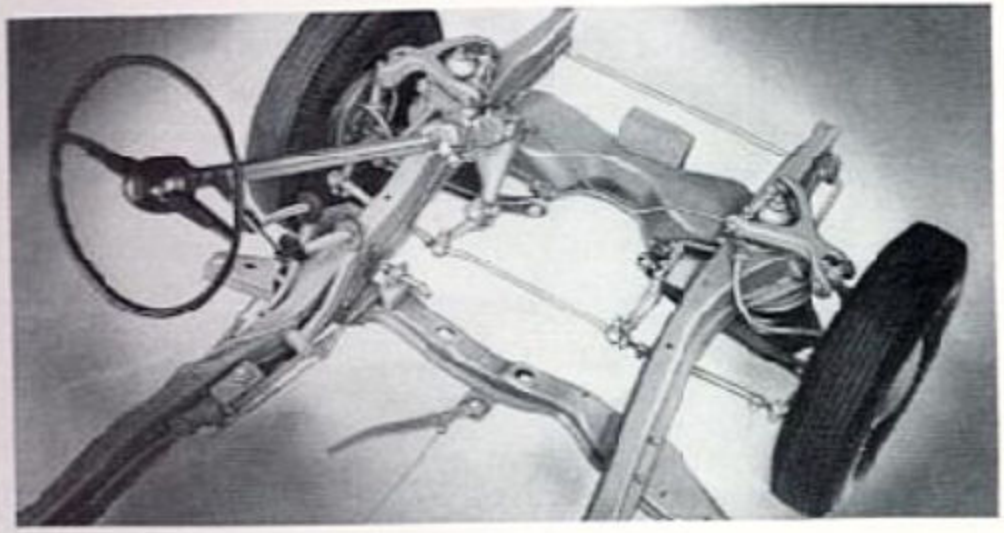
Effortless handling and easy parking

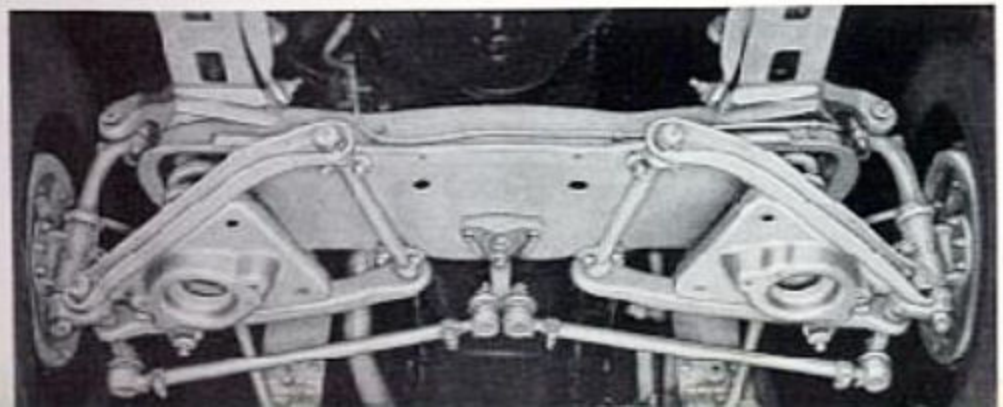
The feeling of positive control, with a minimum of effort, that has been an outstanding quality of Studebaker's postwar cars is even more pronounced for 1950.

Working out the details of the new front suspension included a considerable amount of redesigning of the steering linkages; and two hook-ups were developed—one of them best adapted to the handling characteristics of the Champion, and the other for Commanders and Land Cruisers.

Owners who have heretofore been enthusiastic about the "solid feel" of the Studebaker steering wheel, and the absence of "kick-back" and vibration, are even more impressed by the new handling.

Variable ratio steering (with its quick action for straight-ahead driving, and progressively easier action as the wheel is turned to one side or the other for parking) continues as standard equipment on all models; but the Champion gear is larger and has increased load-carrying capacity. Both steering and parking are easier than ever. Rubber bushings and mountings throughout the steering linkage banish road shock and vibration from the steering wheel.





The 1950 Champions have a new symmetrical steering linkage (above), and the center-point symmetrical hook-up used for Commanders and Land Cruisers has been simplified and improved. Stiff twist-resisting body and frame also contribute to handling ease.

Soft cushions and lots of room

Studebaker's broad, soft, form-fitting cushions; wide, easy-entrance doors; and spacious, carry-all trunk provide a superb combination of roominess and ease.

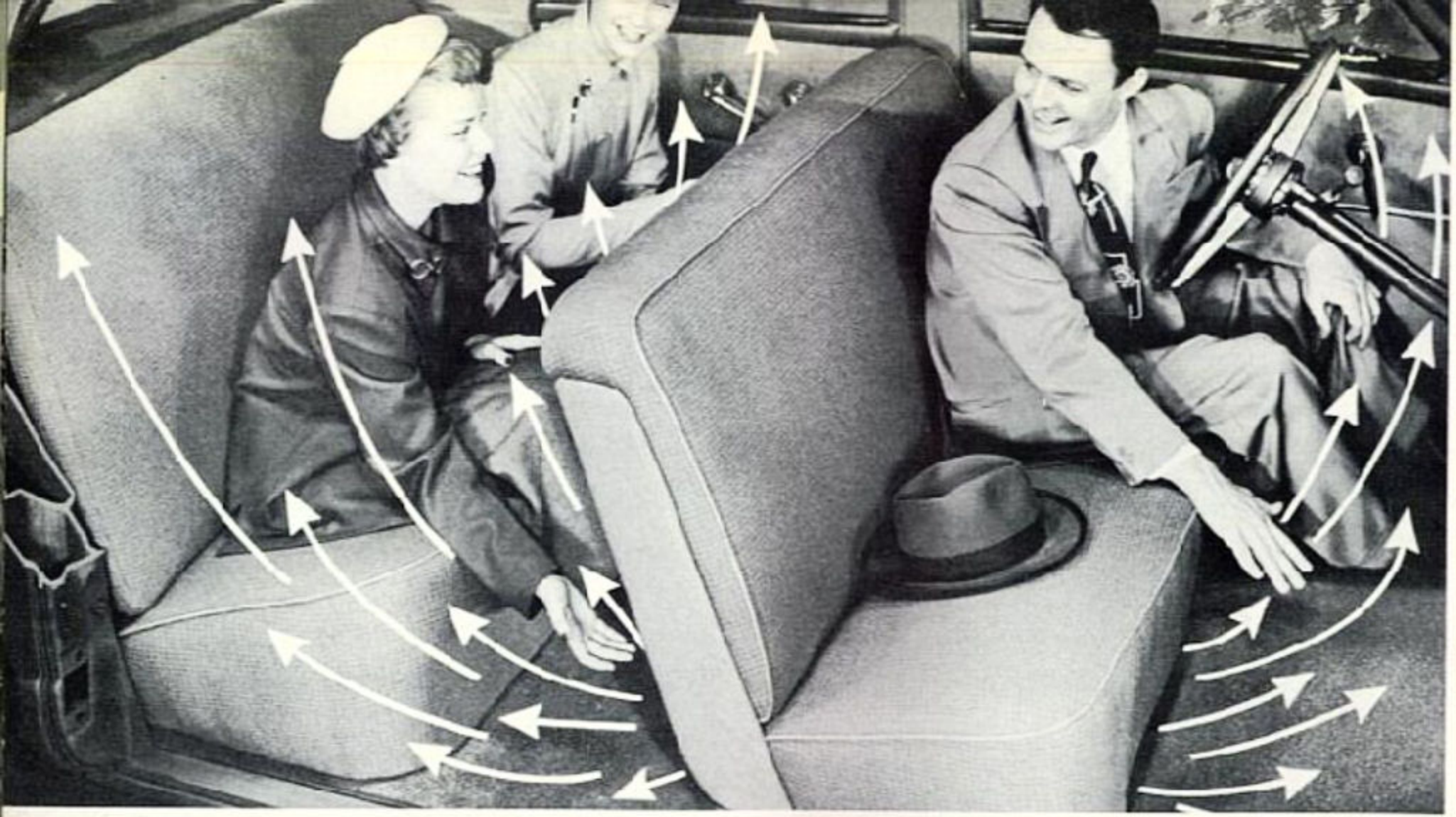
For 1950, all models except the lower-priced Champion DeLuxe, have foam rubber cushions as standard equipment.

All models retain Studebaker-pioneered Select-O-Seat accessory springs for the front cushions. With these, extra coils can be installed by Studebaker dealers, at small extra cost, to provide just the firmness best suited to the weight, or the preference, of the individual owner.

There's a great amount of usable luggage space in the trunks; and trunk lids are held up by counterbalanced spring hinges—no props. Lids lock automatically (like a night latch) if closed in locked position. Studebaker offers luggage of fine quality, with heavy hardware and good strong locks.

COMMANDER REGAL DELUXE 4-DOOR SEDAN

The remarkable riding qualities and handling ease of the 1950 Studebakers are particularly well exemplified in this fine six-passenger model. Its 102-horsepower engine; 120-inch wheelbase; 7.60 by 15 tires; automatic hill-holder; vacuum booster for keeping windshield wipers operating on hills; foam-rubber seat cushions; and nylon upholstery are some of the extra values it offers.



The Climatizer now has thermostatic control

The Climatizer, Studebaker's great fresh-air heating and ventilating system, with its equal distribution of warmed air under pressure to front and rear compartments, is still offered as an accessory on all models—but *with an important improvement.*

Fully *automatic* heat adjustment is added for 1950. The new thermostatic control makes it unnecessary for the driver to adjust the Climatizer to meet changing outdoor temperature conditions.

The driver merely sets the T-handle dash control for the desired heat output from his Climatizer. Then the thermostat takes over.

Studebaker's Climatizer installation is located under the front seat—where it doesn't take up passenger compartment space, and supplies foot-level heat quickly.

Performance

Let them CONTROL the power

Only from personal experience behind the wheel can your customers fully appreciate the smooth, unlabored response of Studebaker engines —better than ever for 1950.

Prompt ACTION for every need

Quick, sure, unhesitating *acceleration* is the key to a satisfactory power plant—in heavy traffic or cross-country. Emphasize what Studebaker acceleration means to the owner—in *safety*, as well as time-saving and *enjoyment*.

Studebaker's stepped-up PEFORMANCE

1. ***More Powerful Engines:*** Increased horsepower and torque ratings for 1950 Champion and Commander power plants insure even quicker, surer response in traffic. And Studebaker engines can "take it"—in hour-after-hour highway cruising and the heavy demands of mountain country driving.

2. ***No Wasteful Weight:*** Clumsy bulk and wasteful, useless poundage have been eliminated from Studebaker cars. Studebaker engineers pioneered in exploding the myth that big, heavy cars are better riding, safer or more comfortable. Studebaker cars are noted for their superb riding and handling qualities, safety, and comfort, as well as for agile performance.

3. ***Reduced Friction:*** Fine-quality anti-friction bearings are used liberally in Studebaker chassis. The smoothness of bearing surfaces is held to high-precision limits. Engine and chassis lubrication systems are complete—for making the most of engine power, as well as for effective, dependable protection of moving parts. Streamlining reduces frontal area, cuts down wind resistance—improves performance at highway cruising speeds.

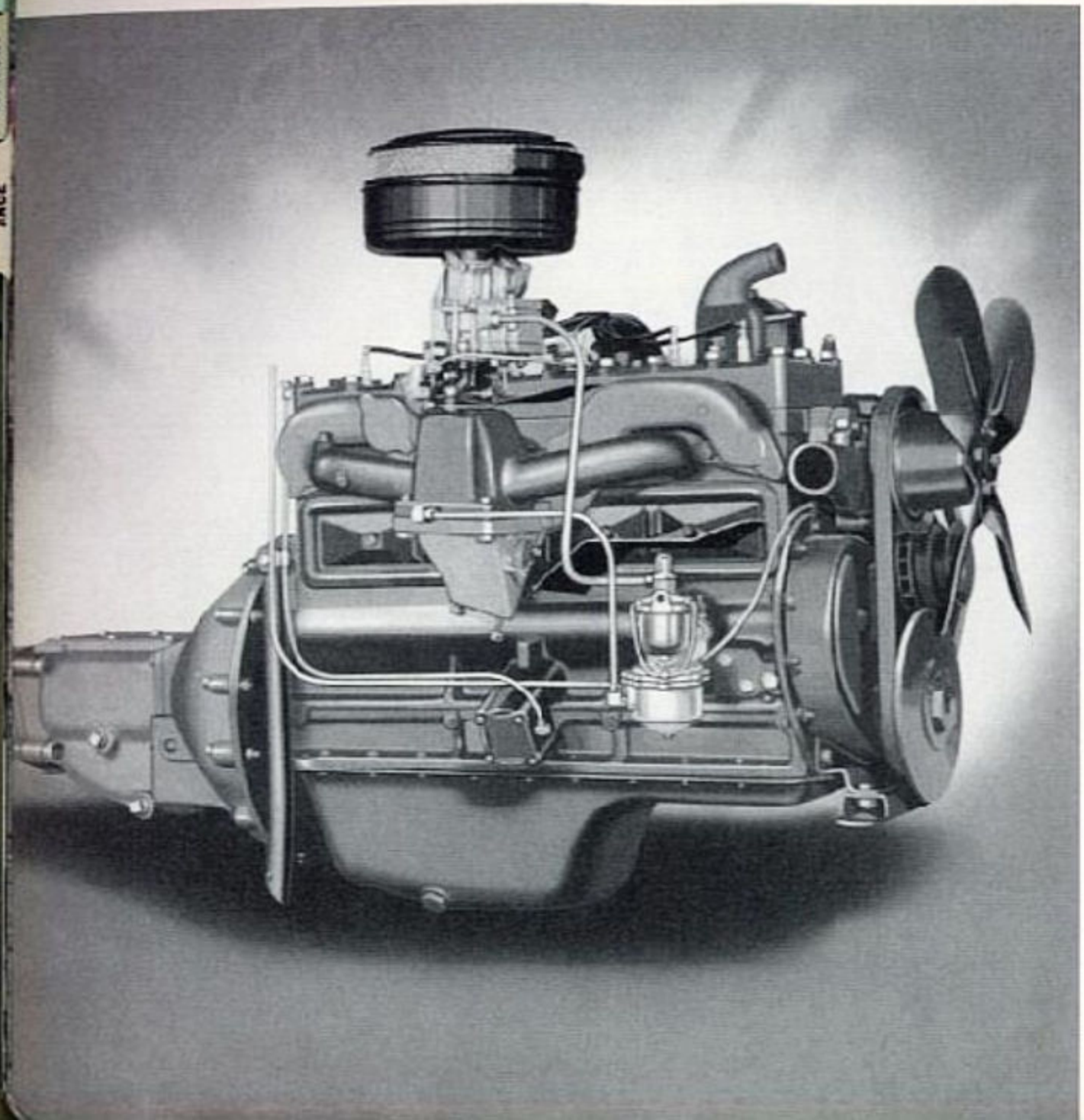
4. ***Geared for Fast Action:*** Studebaker's transmission provides high-efficiency gear ratios for every type of driving—city traffic, the open highway and for hard pulling. Overdrive, available for all models at reasonable extra cost, adds still further to flexibility. (See page 36.)

5. ***Wide-Range Acceleration:*** Powerful engines, a high power-weight ratio and correct gear ratios provide fast acceleration, for quick, safe passing at highway cruising speeds, as well as in heavy city traffic.

6. ***Smoothness:*** Aluminum pistons and short, stiff counterbalanced crankshafts with liberal bearing areas, vibration dampers—these are some of the basic reasons for the vibration-free operation of Studebaker engines. Efficient cooling and lubrication, favorable power-to-weight ratios, and even the correct fore-and-aft weight distribution of the chassis, also contribute to Studebaker's smooth, effortless performance at any speed.

Cooling efficiency is increased in the 1950 Studebakers *(right)*. More openings for free flow of air. *(See page 66.)*

Two great POWER PLANTS--



The development of Studebaker's Commander and Champion engines over the years has been one of the best examples of continuing upward progress in automotive power plant efficiency; and for 1950 they have *more* pick-up, *more* pulling power and *more* top speed than ever. Moreover, this has been done *without use of premium fuels* —while still maintaining the outstanding Commander and Champion records for low gasoline consumption.

The Champion engine now develops 85 horsepower at 4,000 r.p.m.; and the Commander 102 horsepower at 3200 r.p.m. Commander torque now 205 pounds feet at 1200 r.p.m.; Champion 138 pounds feet at 2400 r.p.m.

Key to the stepped-up performance in both cases is the new 7.0 to 1 compression ratio—compacting the fuel charge into a more concentrated mass before it is ignited.

Other factors in the unusually high power and torque developed by the 1950 Studebaker engines include:

Completeness of combustion and "follow-through" of the power impulse, by reason of the high turbulence set up by Studebaker's dome-shaped combustion chamber. (*See page 33.*)

Maximum duration of intake valve opening, to admit the optimum gasoline-and-air mixture into the cylinders for each power stroke.

Automatic spark modifier to adjust

with still more power and pull

the timing instantly to power requirements of load or speed.

Redesigning of the air cleaner and carburetor silencer to permit a freer intake of air.

Improvement in Studebaker's straight-through muffler, to eliminate still more power-killing back-pressure from the exhaust system.

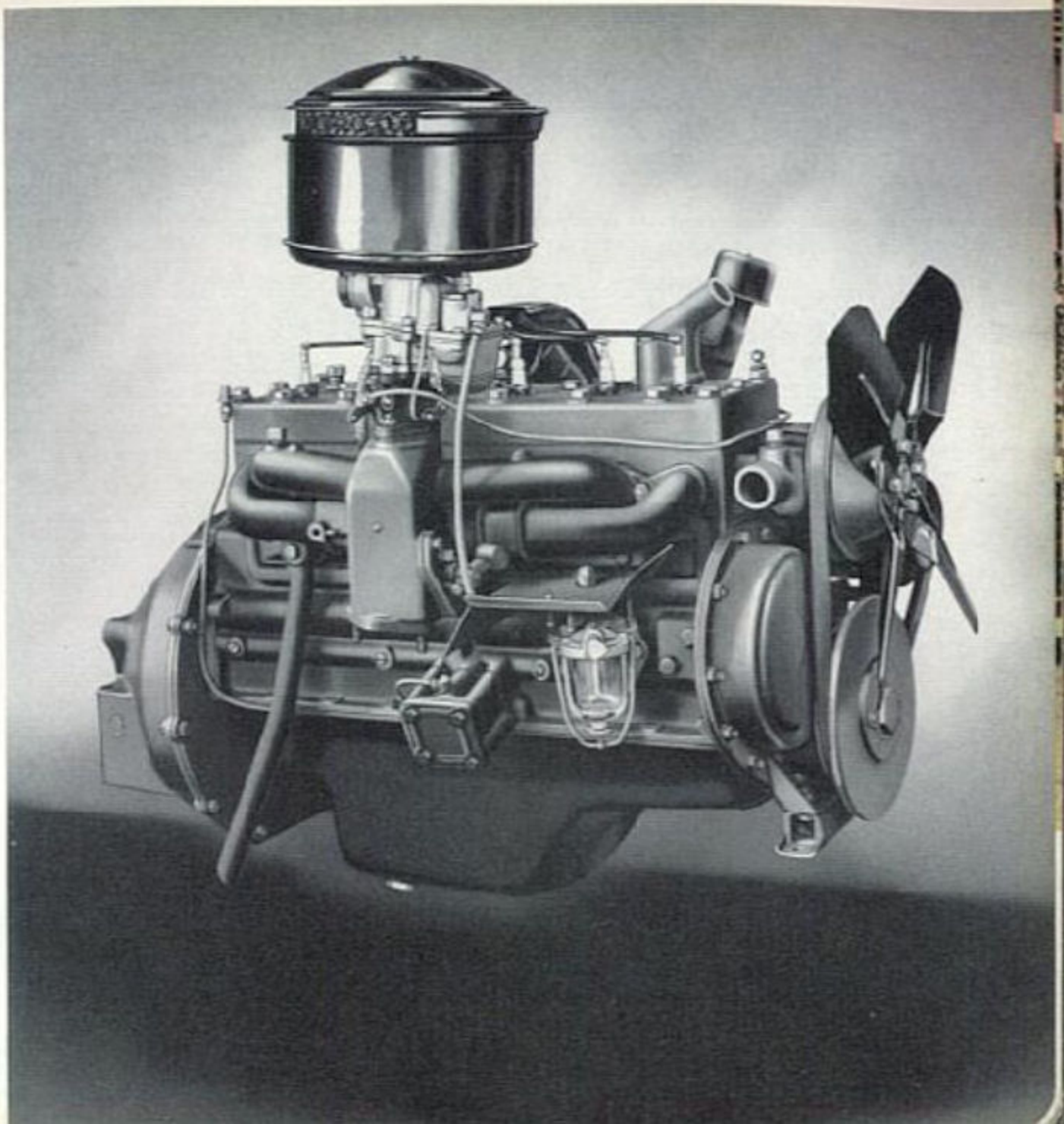
The nimble performance for which Studebaker cars have been noted has been due not only to these powerful and responsive engines, but also to the fact that the *whole car*—from streamlined body to fast-action gear ratios—is designed for *action*.

A few of the Studebaker "firsts" in these engines are: "non-scratch" compression rings; automatic spark control; cartridge-type oil filter; full-power muffler; "heat-dam" pistons.

Heat-dam pistons

After exhaustive experimental work and road experience, Studebaker engineers were first to establish the fact that better results are secured when three, instead of four, rings are used, leaving a fairly wide "land" of piston material above the top ring.

This wide space forms a "heat-dam" that dissipates heat, and thus protects the top ring against the searing high temperatures of combustion. By preventing the burning away of oil, it keeps rings and cylinder walls from being scuffed and scratched.



OVERDRIVE--for extra smoothness and economy

The main purposes of the overdrive (available on all Studebaker cars at moderate extra cost) are: greater smoothness at either traffic or highway speeds; saving in gasoline consumption; and lower maintenance cost. It can double engine life—and steps up the car's *resale value*.

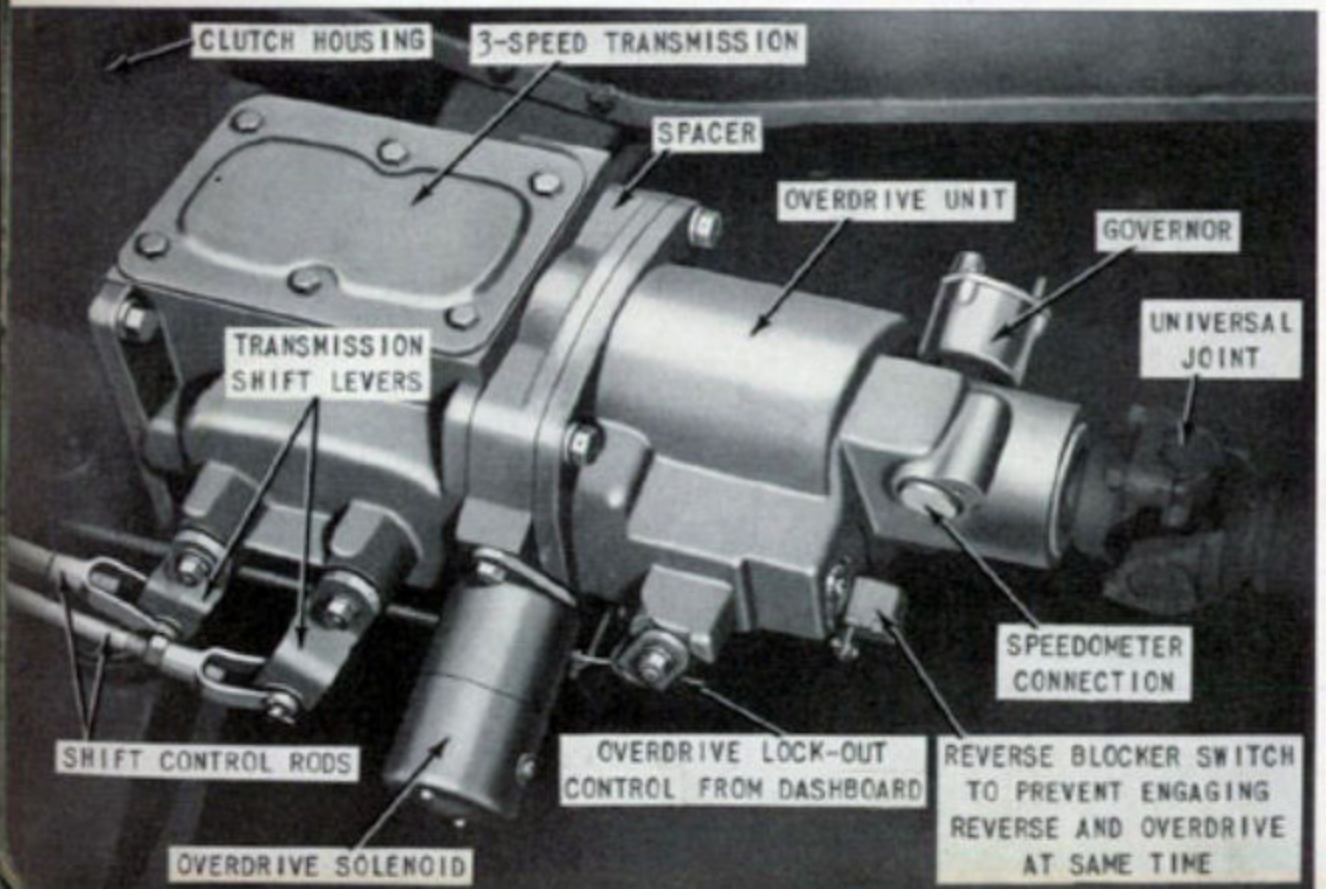
It does all these by reducing engine speed nearly one-third at speeds above approximately 28 miles per hour, and permitting engine to drop to idling speed (free-wheeling) whenever the driver takes his toe off the accelerator pedal at lower speeds. When the *car* speed is sixty the *engine* speed is just a little over forty.

If, at *any* speed, the driver wants an extra burst of power—to pass another car safely, for example—pressing the accelerator pedal to the floor-board shifts *instantly and automatically* from overdrive to direct. Then, momentarily letting up on the accelerator *automatically* shifts back to the smooth, gas-saving overdrive.

For long, steady pulling in mountainous country, with car speeds over 28 miles per hour, *overdrive second* is a favorite gear of many drivers. It is approximately the equivalent of high-gear direct drive.

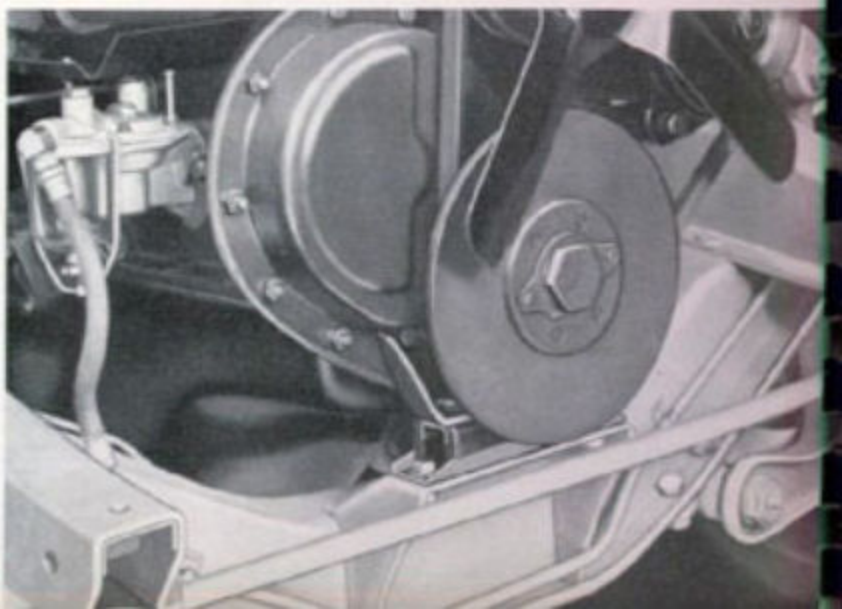
Overdrive can be locked out by the dash control. One of the special advantages of Studebaker overdrive is that the *driver always retains* control. The automatic shifts are made only when the driver *wants* them made.

Studebaker's regular transmission has double blocker synchronizers, and throwing out the clutch automatically lines up second and third gears. If the driver wants to shift in either direction, he does it *instantly*—by throwing out clutch and using hand lever. (To use second as a brake *under 28 miles per hour*, overdrive must be locked out.)



Vibration Control

Studebaker is one of the pioneers in the use of live rubber mountings to absorb the high-frequency vibrations inherent in engine combustion; and also in the use of vibration dampers for crankshafts. The circular vibration damper (a rubber-mounted disc) and the front engine mounting of the Champion are shown below. Other live rubber mountings are illustrated on page 81.



CHAMPION REGAL DELUXE CONVERTIBLE

This dashing five-passenger model—and its big brother the Commander convertible—have become familiar sights wherever the youthful-minded motorists gather. Thrilling performance makes good the promise of their dynamic styling. The top raises or lowers automatically. A choice of nylon or genuine leather upholstery is offered.

Factory schools for "service doctors"

To keep Studebaker maintenance up to date at neighborhood service stations, the Studebaker service division not only provides a continuous flow of information through manuals and bulletins, but also conducts a year-around service school at the South Bend factory; and a large force of service specialists conducts regularly scheduled field clinics for dealers' service personnel.

Men come to the factory schools from Studebaker dealerships all over the World. Instruction is tailored to fit the needs of the individual. Many come back year after year for "refresher" courses.

The principle of "learning by doing" is followed in nearly all the instruction. Whether they are beginners or experienced service managers, everyone works with actual cars, trucks and parts, besides having access to cutaway assemblies, charts and many specialized instruction devices.

Emphasize Accident PREVENTION

Show each customer how Studebaker excels in all of the precautions for *avoiding* accidents: full vision for the driver; prompt, sure braking; easy, positive steering; fast acceleration for traffic emergencies; balance and stability; flood-lighting for night driving—without glare on the instrument panel; relaxation to forestall fatigue.

Safety

Show strength of PROTECTION

If, in spite of thoroughgoing precautions against accident, a mishap involving impact does occur, such defenses as Studebaker's all-steel bodies; box-section frame, safety glass; and wrap-around bumpers give drivers and passengers maximum protection.

Ingredients of Studebaker SAFETY leadership

1. ***Full vision—day or night:*** The first requirement of accident *prevention* is for the driver to be able to see where he is going; and to get a broad view of traffic coming up from behind; with flood-lighting ahead and no instrument glare for night driving. Wide-angle tail lights illuminate large area.

2. ***Prompt, sure, ample braking:*** Studebaker's self-adjusting, self-centering brakes, retain *new-brake efficiency* for the life of the linings; and excel in braking area and predictability.

3. ***Road-holding stability:*** A very low center of gravity, and other extraordinary preventive measures against roll and sidesway, provide unmatched precautions against upsets or loss of control.

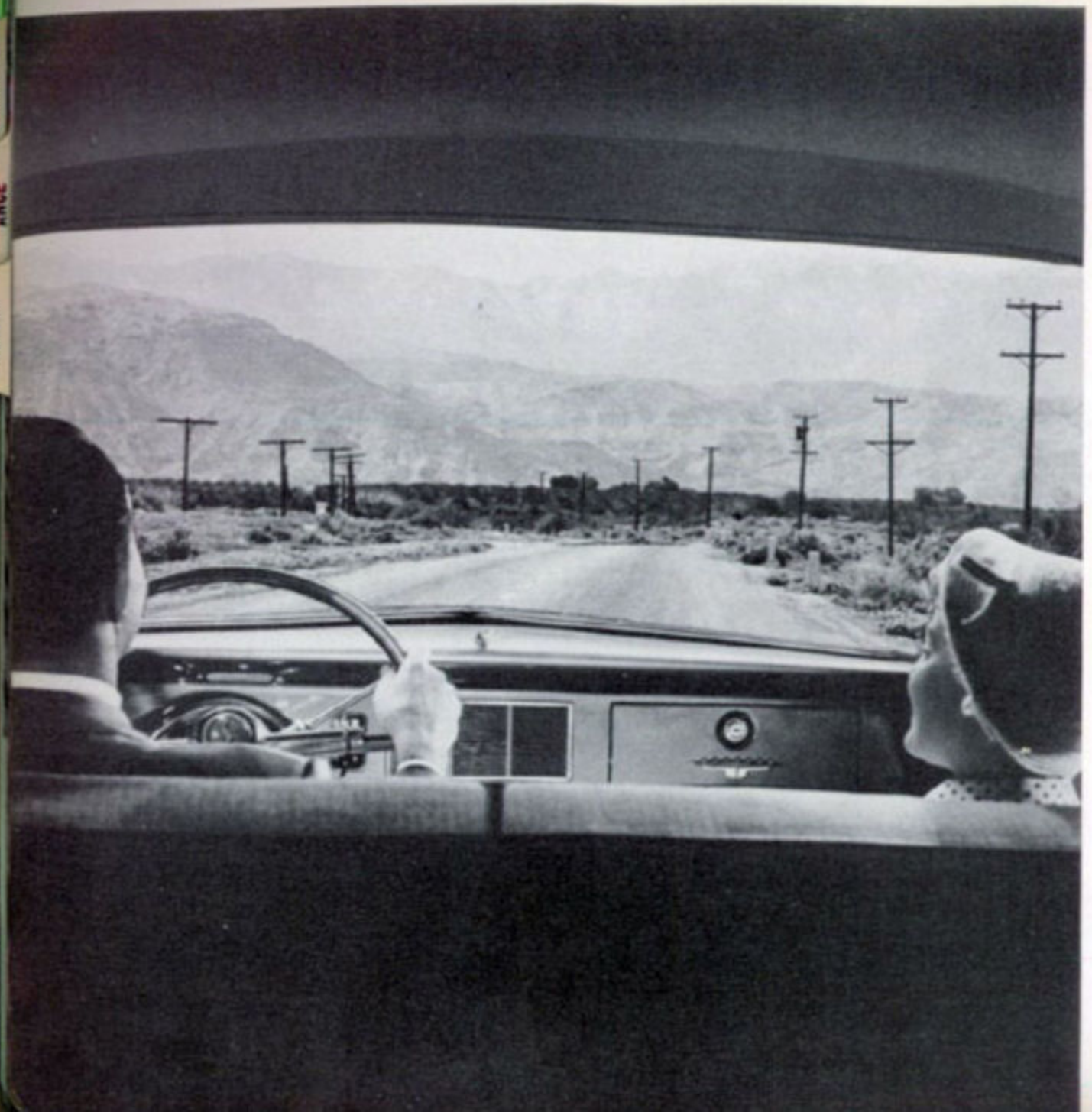
4. ***Superb steering mechanism:*** Studebaker's rugged variable ratio steering gear; symmetrical steering linkages; and liberal use of anti-friction bearing give the driver the all-important combination of *responsiveness and ease* required for confident handling.

5. ***Instant acceleration:*** Whether for city driving or at highway cruising speeds, Studebaker power plants provide the quick response to the accelerator that is required for passing other cars, or traffic emergencies.

6. ***Prevention of fatigue:*** The extent to which driver-weariness multiplies probability of accidents is one of the main reasons for the extreme lengths to which Studebaker has gone to assure restful riding.

7. ***Strength of body and frame:*** If, in spite of preventive measures, a Studebaker car is involved in an accident, the super-strong box-section construction of body and frame—plus safety-glass all around—provide unexcelled *protection* of passengers. So do the massive wrap-around bumpers. (*Right.*)

Full vision--ahead or behind--day or night



The great increase in the driver's field of vision that Studebaker introduced in 1947 has been universally approved as one of the most important safety advancements since all-steel bodies—also pioneered by Studebaker.

Not only do the large, correctly proportioned windshields permit the driver to see much farther on each side of the road, but the broad rear windows (extending all the way around to the sides of the rear seat in Starlight coupes) greatly reduce the blind-spots that have heretofore hidden cars starting to pass.

Besides the greater safety of this extra vision to Studebaker owners, drivers coming up from the rear get a good view of the road ahead—*through* Studebaker cars. This greatly increases their ability to judge whether it is safe to pass.

At night the flood-lighting of the road is safely sure because Studebaker's *all-glass*, hermetically sealed headlamps hold their *full brilliance* for the life of the light element.

The 1950 models also retain the glare-free "black-lighting" of the instrument panel, one of Studebaker's important postwar "firsts."

Full vision is supplemented by the location of instruments and accessory controls, to minimize the need for the driver to take his eyes off the road.

Good brakes that STAY good

Studebaker brakes are: foot-regulated; self-adjusting, self-centering; and have a large lining area in proportion to car weight.

Being *foot-regulated*, instead of "self-energizing," they produce stopping power in exact *proportion to pedal pressure*. They are *predictable*. The driver knows that he can count on an straight-line stop.

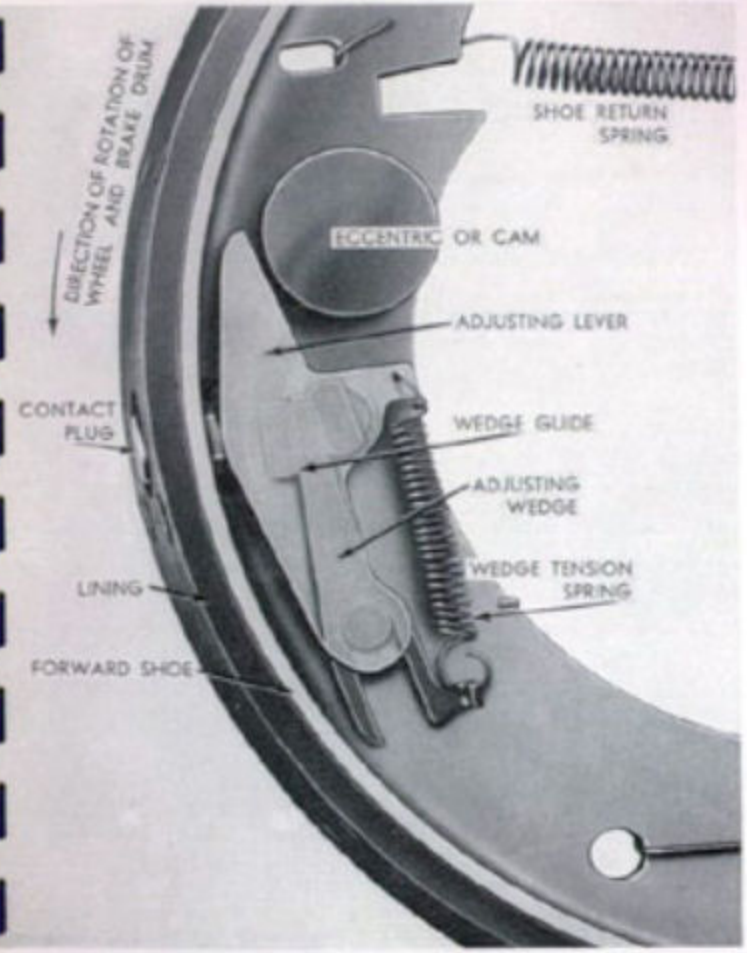
Being *self-adjusting*, each *forward* shoe is constantly being repositioned to compensate for lining wear, so that it maintains correct clearance between shoe and brake drum. Thus the brakes retain virtually their full effectiveness for the life of the linings. *Rear* shoes need only one or two adjustments during lining life. The owner is saved the inconvenience and cost of periodic adjustments.

Being *self-centering*, Studebaker brake shoes are not pinned down at either end. With each brake application the *whole* lining area moves from the center of the shoes' arc, straight into *uniform* contact with the drum. Full braking power is utilized. Lining wear is equalized.

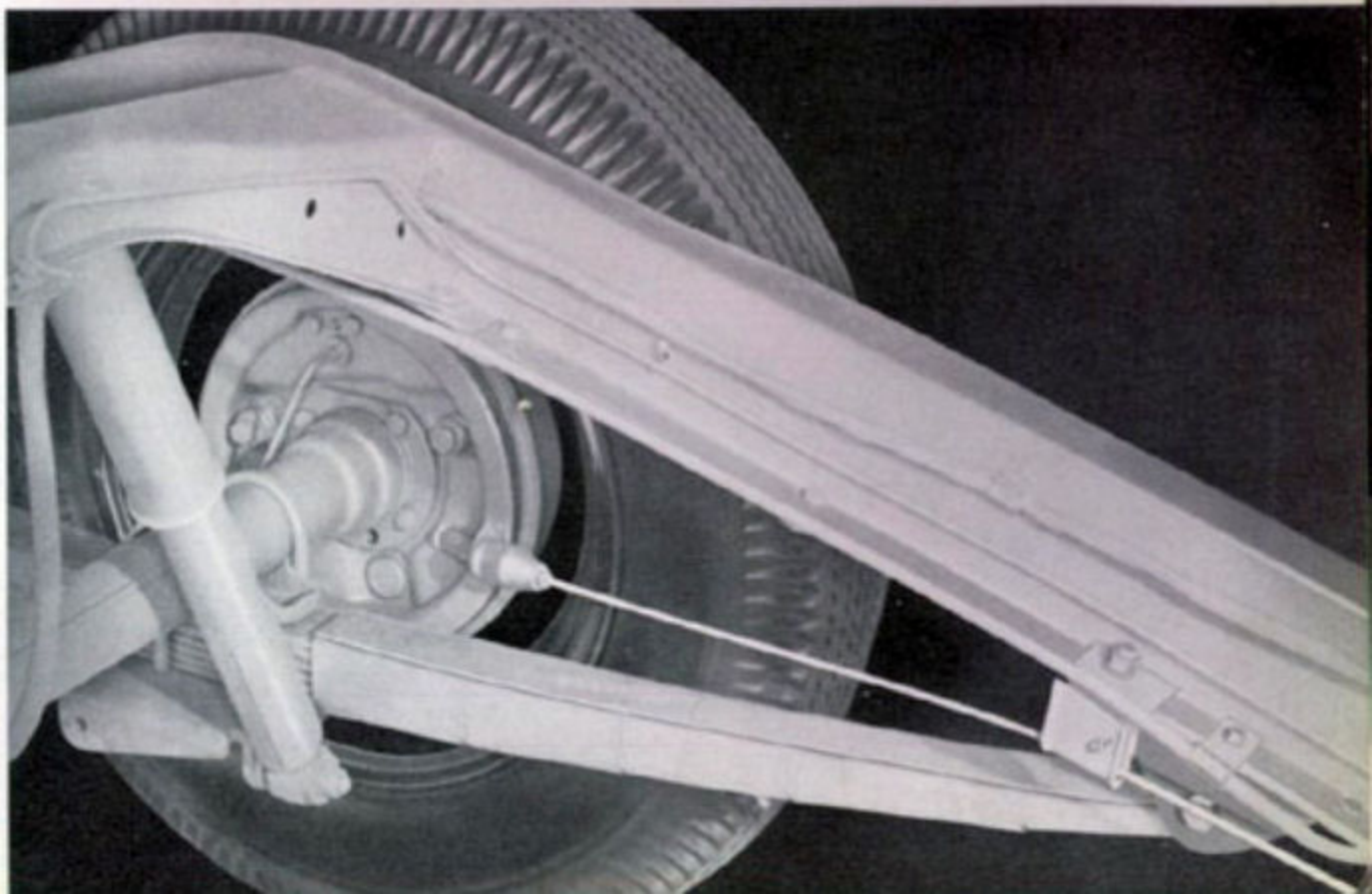
Having a *large lining area* in proportion to car weight, the smooth brake action, without "grabbing" or swerving is further emphasized—and lining life is long.

Studebaker's parking brakes are operated mechanically—*independent of the hydraulic system*. They use the *rear brake shoes* (*below*) —not a drum on the drive-shaft. *Neither* wheel can roll when rear axle is jacked up.

Studebaker's *hill-holder* prevents rolling back when starting on a hill. It is standard on Commanders; available at extra cost on Champions.



Studebaker's self-adjusting mechanism for the front shoes is actuated by a graphite-bronze contact plug. It automatically readjusts the clearance between drum and lining with each *five-thousandths of an inch of* lining wear.



Superb strength and confident control

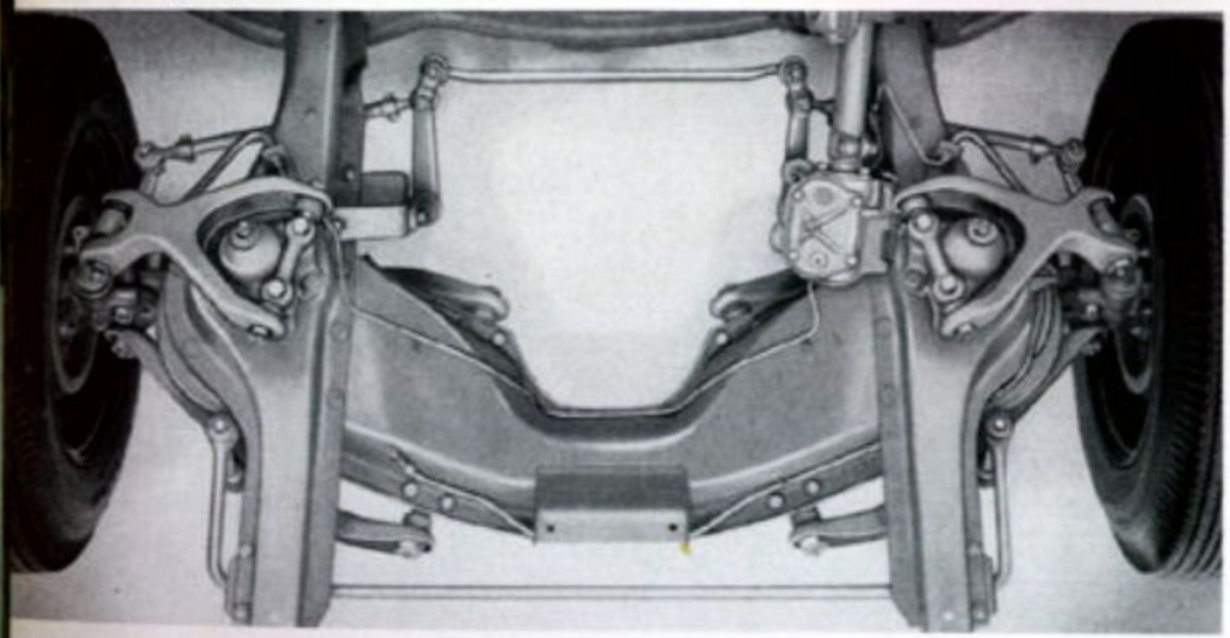
The safe control of an automobile depends, to a large extent, on the driver's confidence. And confident handling, in turn, depends not only on brakes and steering, but also on the "feel" of *solidity* and of *stability* (*page 26*) in holding the road.

The massive concentration of strength in the front cross member of the frame, and in the controls that are built around it (*Champion below*), give even the non-technical owner of an automobile some impression of the extent to which Studebaker engineers have gone in perfecting these important elements of easy, safe, confident handling.

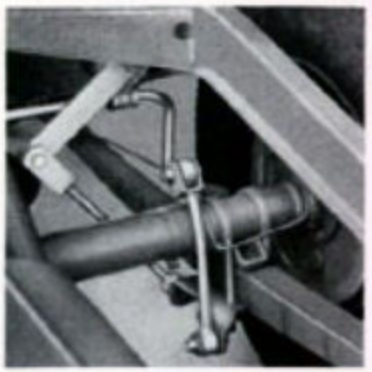
This is the part of the car on which the steering mechanism is mounted; and, of course, it also takes the first impact of road irregularities and the powerful twist of front-wheel brake torque.

In redesigning the front end for the new coil-spring suspension, Studebaker engineers have given uncompromising attention to scores of details at this vital point: the structure of the twist-resisting box-section frame (*see page 52*); the design of the rigid "wish-bone" support arms (on which the long-travel coil springs are mounted) raked to the rear at an angle of fifteen degrees (*see page 25*) to minimize road shock and promote accurate steering alignment; the structure and rubber mounting of the anti-roll sway-bar (*across front of frame on Champion; back of front cross member on Commander—see page 24*); the symmetrical steering linkages, for exactly uniform control of front wheels; the super-strong steering knuckle—mounted with anti-friction bearings for easy steering.

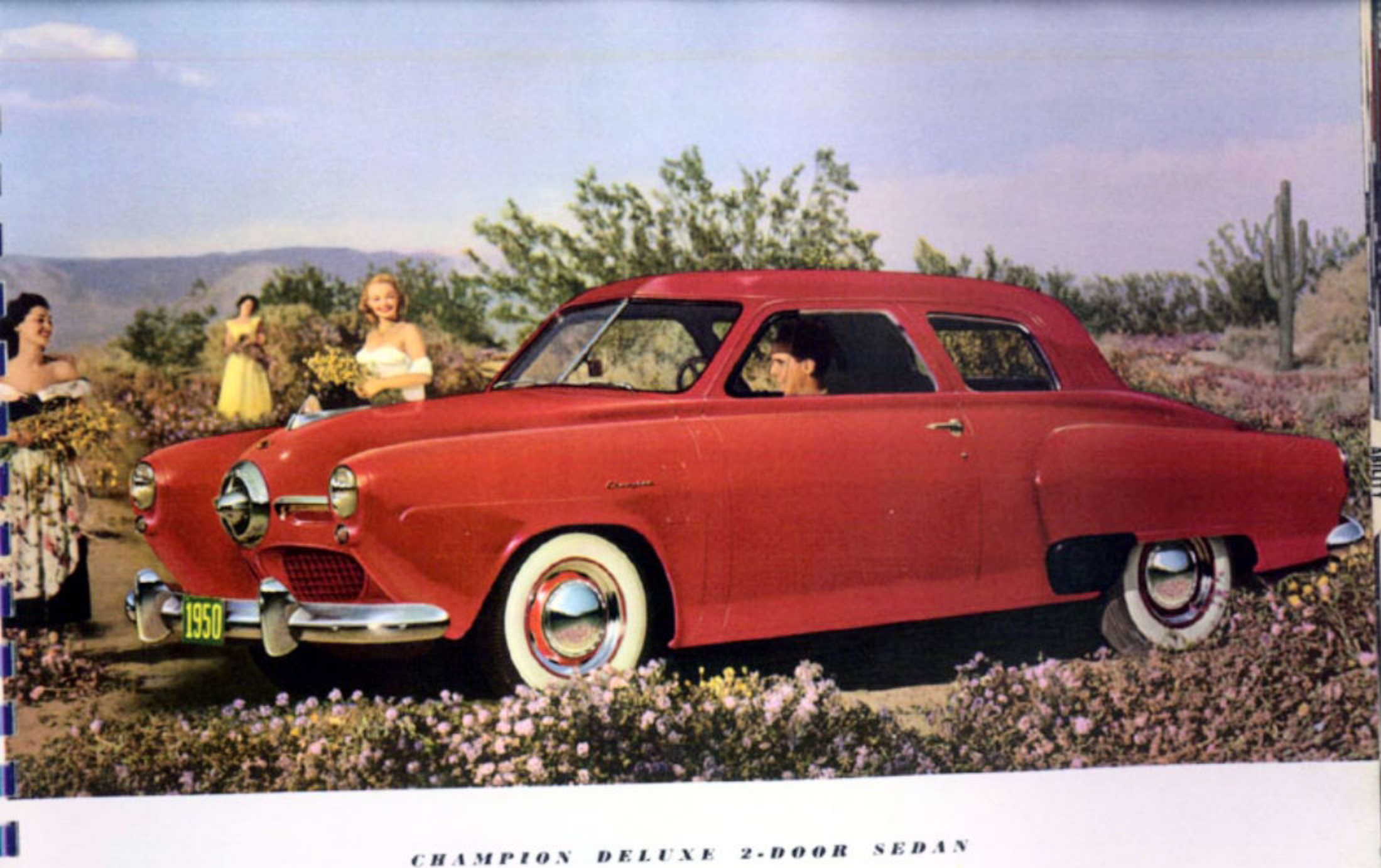
These elements of safe handling are only those that are grouped around the front of the frame. Studebaker's postwar design has been keyed to stability in several other important ways (*see page 26*); and two of these other contributions to safety through control of side-sway are illustrated below.



Both the Houdaille tubular shock absorber itself and the "sea-leg" rear mounting are new on the Champion. Being mounted at an angle, these rear shock absorbers exercise effective control on *sidewise* compression and rebound, as well as on the up-and-down motion of the rear springs. They help prevent side-sway from getting started—increase safety and comfort.



The Houdaille link-and-lever rear shock absorbers for the Commander and Land Cruiser are also mounted "sea-leg" fashion; and, on *all* 1950 Studebakers, a specially-located frame member provides a safe and solid upper mounting for rear shock absorbers. One end of the rubber-mounted rear sway-bar for Commanders and Land Cruisers also shown.



CHAMPION DELUXE 2-DOOR SEDAN

This lowest-priced six-passenger model is a special favorite of families with small children. Its wide doors make it easy to get into and out of the rear seat; and its wide-vision glass area, self-adjusting brakes, positive steering and immensely strong body and frame contribute to outstanding safety.

The safety of fatigue prevention

"Fatigue is the ally of accidents—*tired* drivers are *unsafe* drivers," says the accident report of one of the large insurance companies. This is supported by records which show that more than three times as many accidents occur between the hours of 4 to 7 P.M. (when people are going home from work) as between 6 and 9 A.M. (when they are starting out after a night's rest).

Hence, Studebaker engineers rate fatigue prevention (through comfort, relaxation and peace of mind) right along with good visibility, good handling, good brakes, good lighting and superb road-holding stability as *safety* measures, as well as contributions to the owner's pleasure and satisfaction.

The new standards of comfort set by the 1950 models constitute an important step in this direction: the softness of the new long-travel coil springs; the further minimizing of pitch and sidesway; the nerve-soothing quietness; the confidence in instant acceleration, dependable brakes, sure, easy steering and the driver's ability to see where he is going—day or night. All of these fatigue preventives are *safety precautions.*

The responsibility of drivers for the safe *use* of automobiles has been made clearer each year as the number of cars on the streets and highways increases; and accident records show that upwards of 95 per cent of the cars involved were apparently in good condition. About two-thirds of the accidents involve mistakes by drivers; and exceeding the speed limit heads the list of causes by a large margin.

Dependability

1950 STUDEBAKER

Father and Son

Craftsmanship insures enduring quality

"Sell" Studebaker PEOPLE

Back of Studebaker reliability and "standing up" are brilliant engineers; world-renowned craftsmen; infinitely careful inspectors—all taking seriously the Studebaker statement of policy: "*Always give more than you promise.*"

Service that KEEPS good cars GOOD

Painstaking and experienced mechanics in Studebaker dealers' shops—hundreds of them factory-trained—provide service that parallels the dependability built into Studebaker cars.

1950--heir to century-old dependability

Studebaker's long-established reputation for producing *reliable* transportation—vehicles that "stand up"—was laid in the characters of the men who started the business back in 1852; and was expressed in the Studebaker Brothers' terse statement of basic policy: "*Always give more than you promise.*" Some of today's most significant results of putting this policy into effect are:

1. ***Unhampered engineering:*** The freedom of action under which Studebaker's brilliant engineering organization works is made possible by Studebaker's dominant position as a manufacturer concentrating on *one line* of passenger cars and trucks. It is a situation that has attracted professional men and administrators of the highest type.

2. ***World-renowned craftsmanship:*** Under the leadership of some of the automobile industry's top administrators, Studebaker's *extra margin* of conscientious craftsmanship adds an important *extra margin* of dependability and long life.

3. ***Infinitely careful inspection:*** To make sure that all material and the workmanship on each individual part are "right" before they go into a Studebaker car or truck, eagle-eyed inspectors and laboratory technicians check and double check at every step in the manufacturing processes.

4. ***Strategically located parts depots:*** If a replacement part is needed, Studebaker dealers usually have it in stock—but, if they don't, factory parts depots are so placed that delivery can be had within twenty-four hours.

5. ***Reliable dealer service:*** The painstaking experienced mechanics in the shops of Studebaker dealers—many of them factory-trained in the service school at South Bend—provide owners with maintenance service that parallels in dependability the craftsmanship in the factory.

This quality of "dependability" can, of course, be applied to the whole car, and everything the owner expects it to do. Whether or not it is consciously interpreted in that way, "dependability" probably is, by long odds, the subject that is of most concern to the great majority of owners. Certainly most of the comments of Studebaker owners can be classified, in one way or another, under this heading.

World-wide reputation for "STANDING UP"

The public usually has quite a definite impression regarding every well-established product—and the longer established the product, the better the chances that these impressions come quite close to expressing the truth.

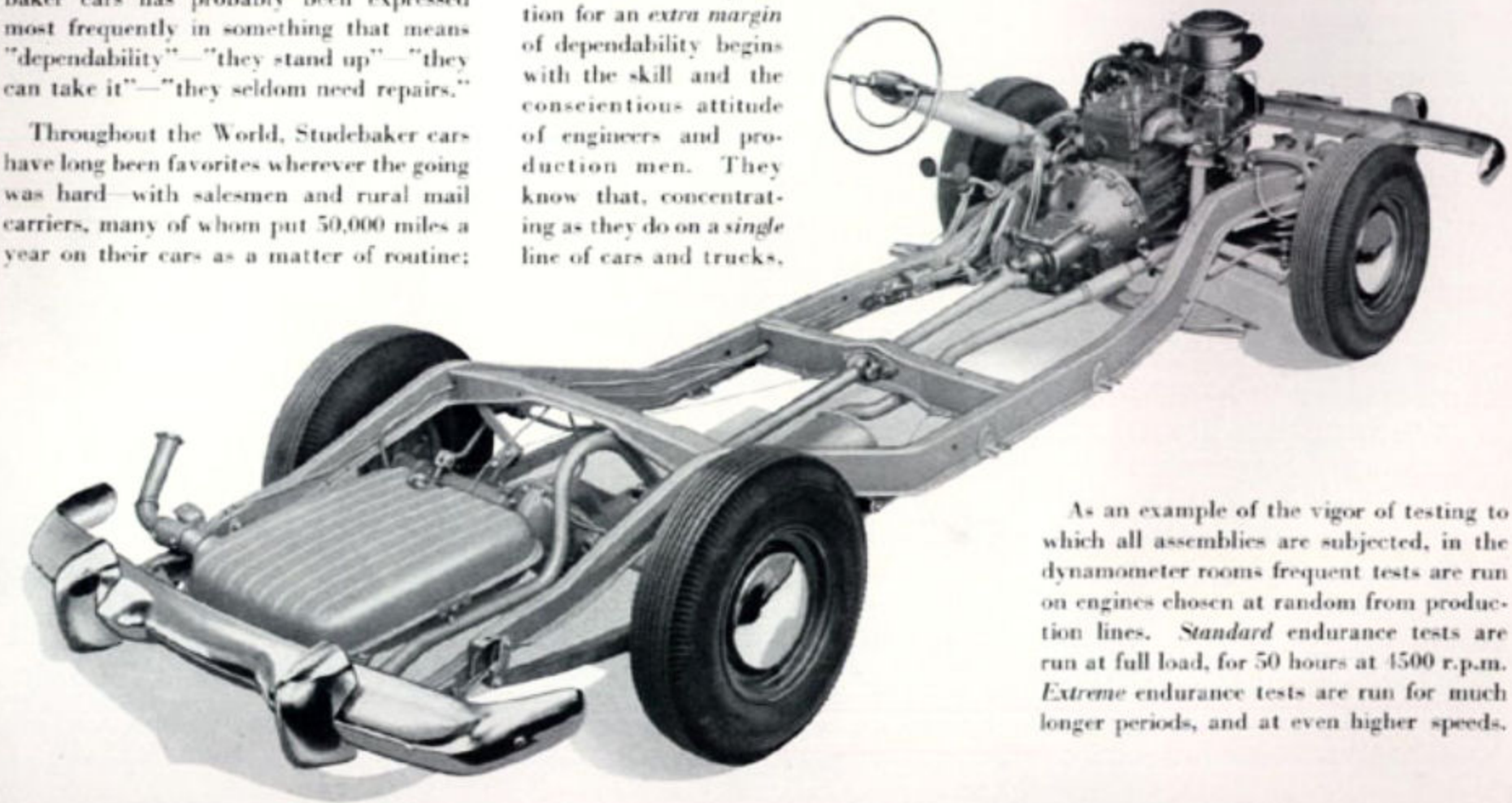
Over the years, the first impression that people have of owner experience with Studebaker cars has probably been expressed most frequently in something that means "dependability"—"they stand up"—"they can take it"—"they seldom need repairs."

Throughout the World, Studebaker cars have long been favorites wherever the going was hard—with salesmen and rural mail carriers, many of whom put 50,000 miles a year on their cars as a matter of routine; with doctors, with whom the next call may at any time be an *emergency* call, and transportation *must* be reliable; on gruelling desert runs and rough country roads.

Many thousands of Studebakers have upwards of 100,000 miles on their odometers—and are still going strong.

Studebaker's reputation for an *extra margin* of dependability begins with the skill and the conscientious attitude of engineers and production men. They know that, concentrating as they do on a *single* line of cars and trucks, taking pains is doubly important.

The ability to "stand up" naturally centers in the chassis; and attention has been directed in the *comfort*, *performance* and *economy* sections of *Inside Facts* to many of the chassis characteristics that have also a direct bearing on ability to "take it."



As an example of the vigor of testing to which all assemblies are subjected, in the dynamometer rooms frequent tests are run on engines chosen at random from production lines. *Standard* endurance tests are run at full load, for 50 hours at 4500 r.p.m. *Extreme* endurance tests are run for much longer periods, and at even higher speeds.

Out of the shop--on the road

Besides their record for "standing up," Studebaker owners report an unusually satisfying ability of their cars to stay on the job with a minimum of time out for adjustments or repairs. This important phase of Studebaker dependability is due, of course, to attention to a thousand and one details—on the part of production men as well as engineers. Examples:

Vacuum spark modifiers are now integral with the distributors, instead of being separate units—reducing the likelihood of faulty operation due to improper adjustment.

Automatic voltage control protects the battery against both overcharging and undercharging.

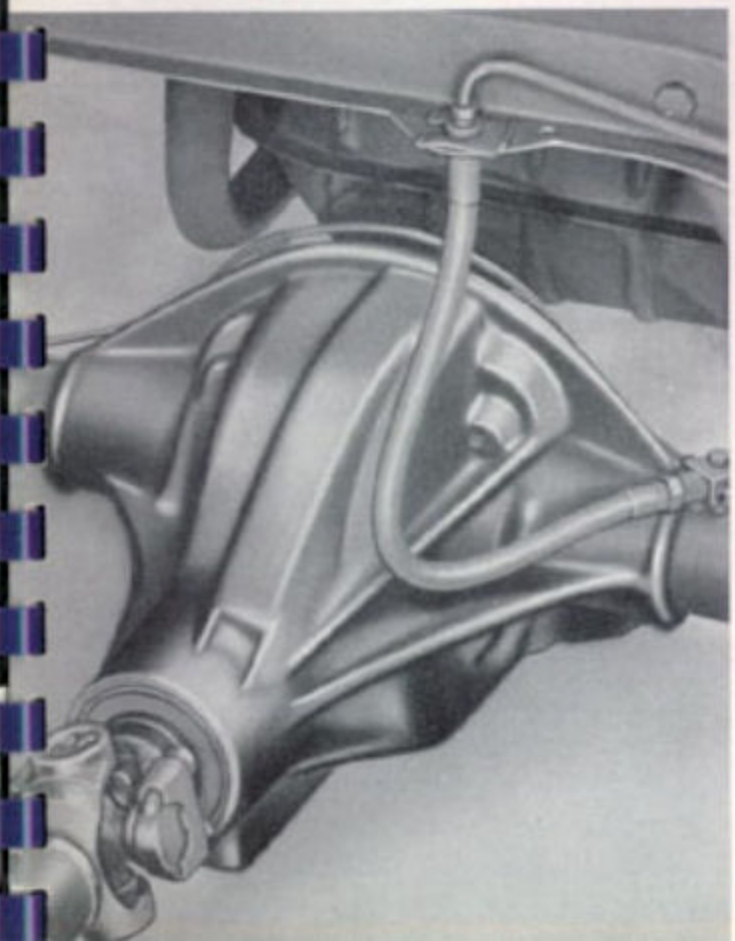
The increase in the standard compression ratio to 7.0 to 1 gives the 1950 Studebakers still better performance and gasoline mileage—without having to use premium fuels.

The automatic choke, with automatic fast idle, helps to get the engine going quickly—and minimizes stalling when cold.

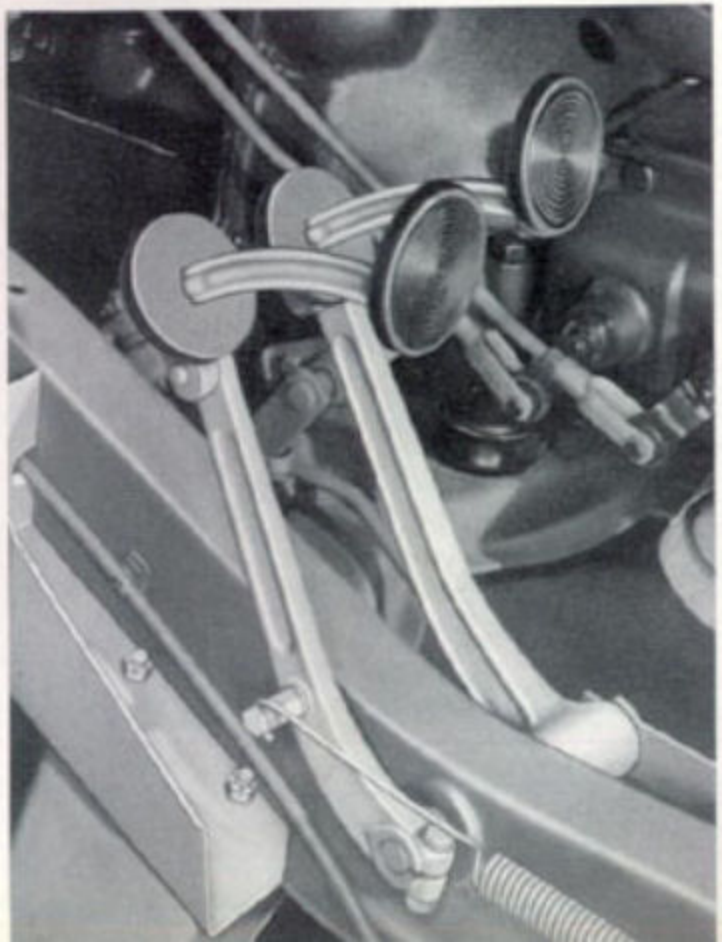
Clutch-pedal starting relieves the engine of transmission drag at the time of the starting impulse. The driver *can't forget* to throw out the clutch.

Designing the engine block so that cylinders are cast in pairs makes possible the use of short, stiff crankshafts; bearing areas are large; and all crankshafts have vibration dampers. These are some reasons why Studebakers seldom have bearing troubles.

Studebaker's extra-rigid *built-up-carrier* type *rear* axles have given a fine account of themselves—for their *ability to maintain correct alignment*, as well as their strength and quietness. These high-strength axles—and Hotchkiss drive—also help to increase comfort by minimizing unsprung weight.



Examples of the extent to which Studebaker engineers go to assure certainty of operation are the steel shields to protect clutch and brake pedals from being put out of commission by frozen slush in winter driving. The design of drums and backing plates also protects brakes against dirt and moisture.



One important factor in keeping out of repair shops is good bumper protection—and the 1950 Studebakers are particularly well equipped. The new wrap-around bumpers are extra-strong; and long mountings set both front and rear bumpers well out from the sheet metal and lamps they are designed to protect.

Twist-resisting frame and body

To a greater extent than is sometimes realizes, the resistance that an automobile frame and body set up against torsional stresses *lengthens car life*—and meantime helps keep out squeaks, rattles, and also more important maintenance costs.

Studebaker has long given extra attention to this element of dependability, safety and economy—and one of the outstanding examples is the liberal use of box-section structure and reinforcements throughout the frame and body. Stiffness and quietness are also increased wherever a groove or beading is pressed into sheet metal.

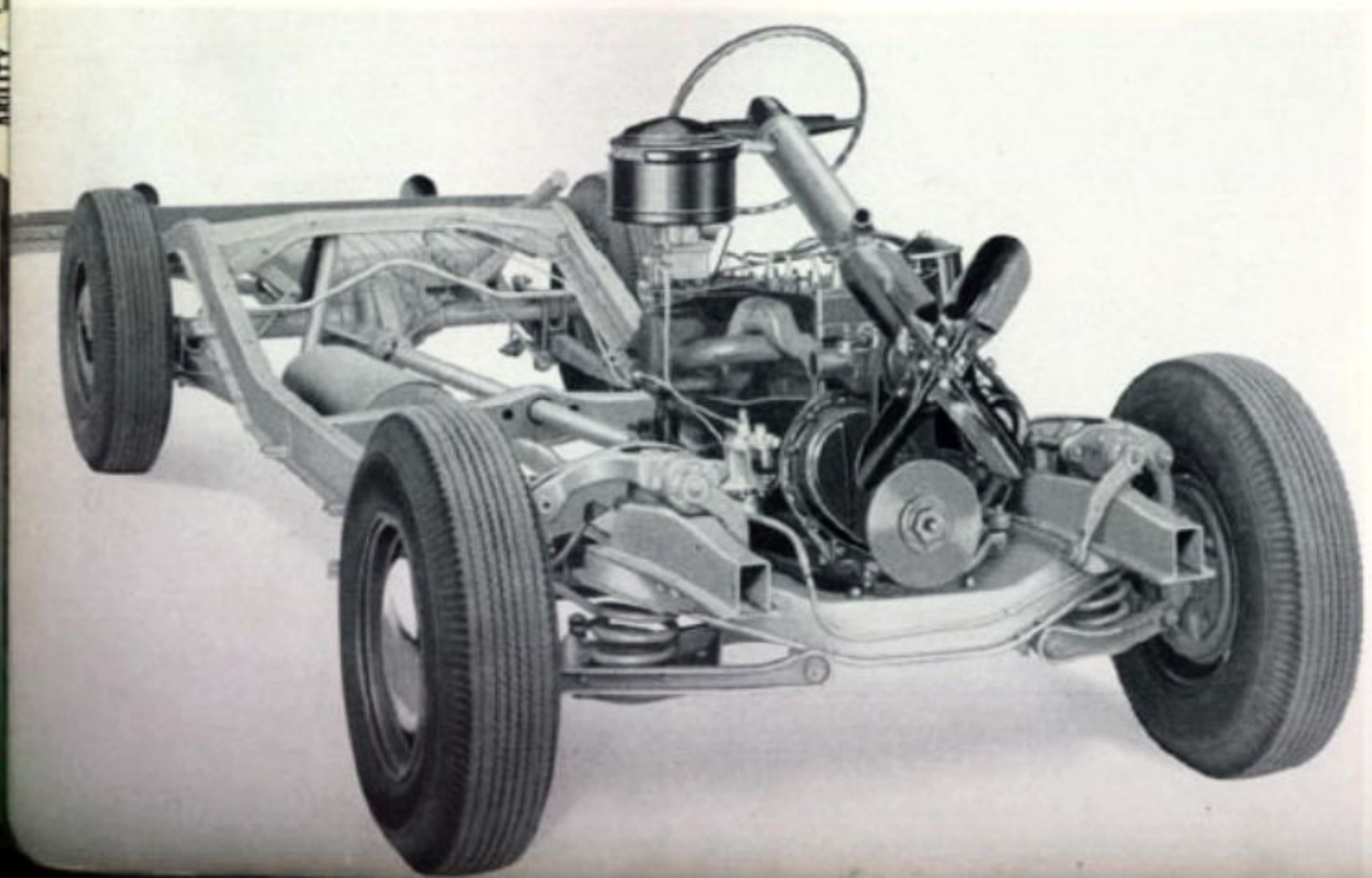
Box-sections constitute one of the strongest structural forms. They offer far greater resistance to twisting, buckling or impact than the usual open-channel forms; and they are still stronger when "flanged" (*below*) where the parts are welded together.

Studebaker uses box-section posts and framing for the windshield, windows, doors —and wherever they are needed to give extra strength and "solidity" to the body frame work. In fact the top, sides, front and rear members of the body are welded together into a box-section *whole*. Many of these sections are double-flanged.

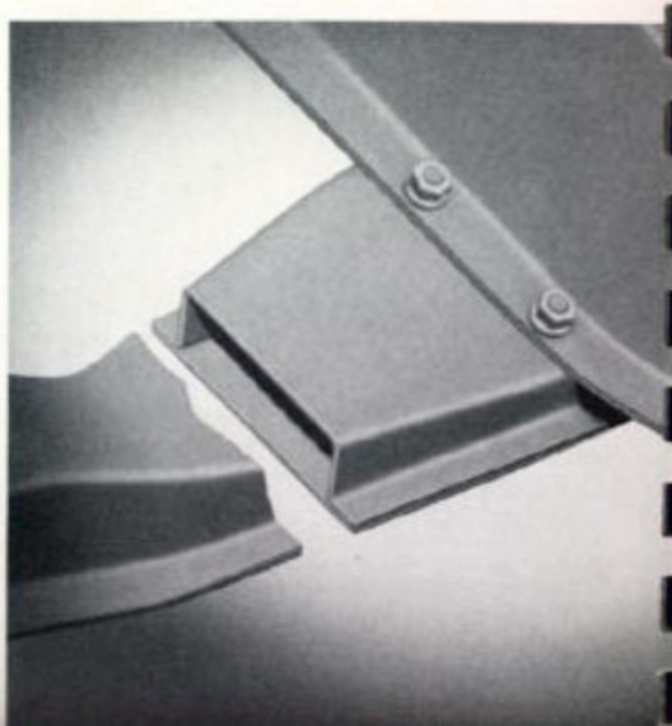
The side rails of the frame, and four of the five cross members, are double-flanged box-section members.

Besides their *individual* strength, Studebaker bodies and frames are securely *locked together* at so many points (all rubber-insulated) that the body becomes, in effect, an extension of the depth of the frame.

The effect is to form a tough twist-resisting unit that has a great deal to do with keeping Studebaker cars "young"—as well as providing a shock-resisting armor for the protection of passengers.



The section below shows the double-flanging of one of the frame's cross-members; and, the ends of the frame side rails (*left*) show the double-flanging of those members. The steel is *double-thick* where the flanges are welded together. The width of the flanges also adds to stiffness.



CHAMPION REGAL DELUXE 4-DOOR SEDAN

This roomy, dependable and beautiful six-passenger Studebaker has aroused spontaneous enthusiasm everywhere. Its Raymond Loewy styling, superb riding qualities, nimble performance and outstanding economy make it the ideal family car.

Within twenty-four hours of spare parts

An important factor of Studebaker *dependability* is quick access to repair parts. Supplementing the stocks carried in dealers' own parts departments and in the huge parts and accessories plant at South Bend, Studebaker maintains *twenty-three regional depots* in the United States. These are so located that deliveries can be made, anywhere in the country, within twenty-four hours. Typical regional plants here illustrated are: (*left*) Cincinnati, O., and Decatur, Ga.; (*below*) Minneapolis, Minn., Washington, D. C.

Economy

EXPLAIN time and money savings

Show buyers that fewer-and-smaller repair bills—with less loss of owners' time—are the pay-off of brilliant engineering in building cars that are outstandingly economical to own and operate.

Low cost of oil and gas

Invite buyers to investigate local evidence back of Studebaker's solid reputation for thriftiness in use of gasoline and oil—and to *make their own tests.* Show engineering reasons for outstanding leadership in operating economy.

Background for Studebaker ECONOMY record

1. ***Low repair cost:*** One of the sources of satisfaction that owners of Studebaker cars and trucks comment on most is their unusually low maintenance expense and small amount of time lost.

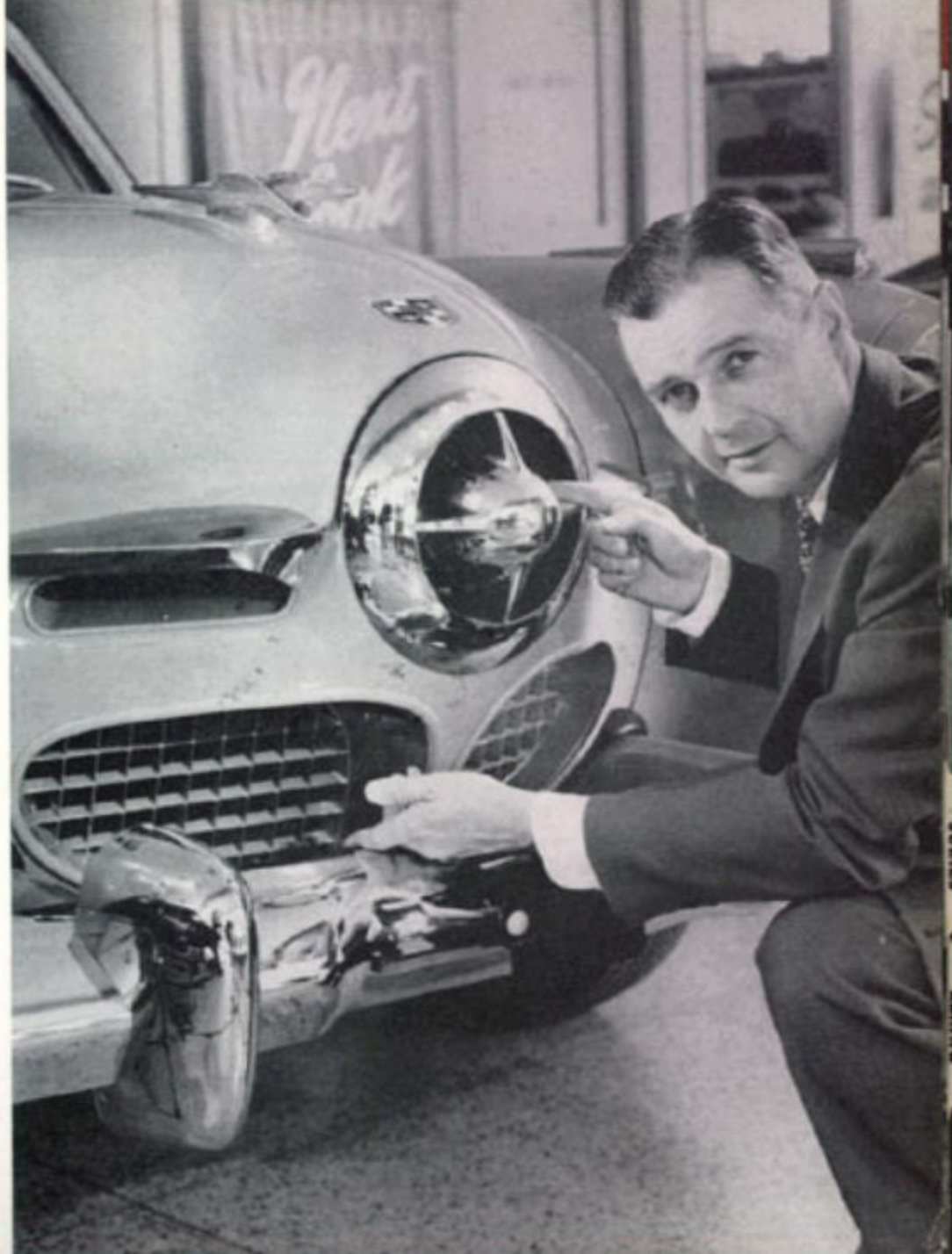
2. ***Low fuel consumption:*** High-efficiency, high-compression engines wring maximum energy from each drop of fuel. Liberal use of fine-quality anti-friction bearings; and design that eliminates useless weight and reduces wind resistance, are other Studebaker characteristics that contribute to thrift in gas use.

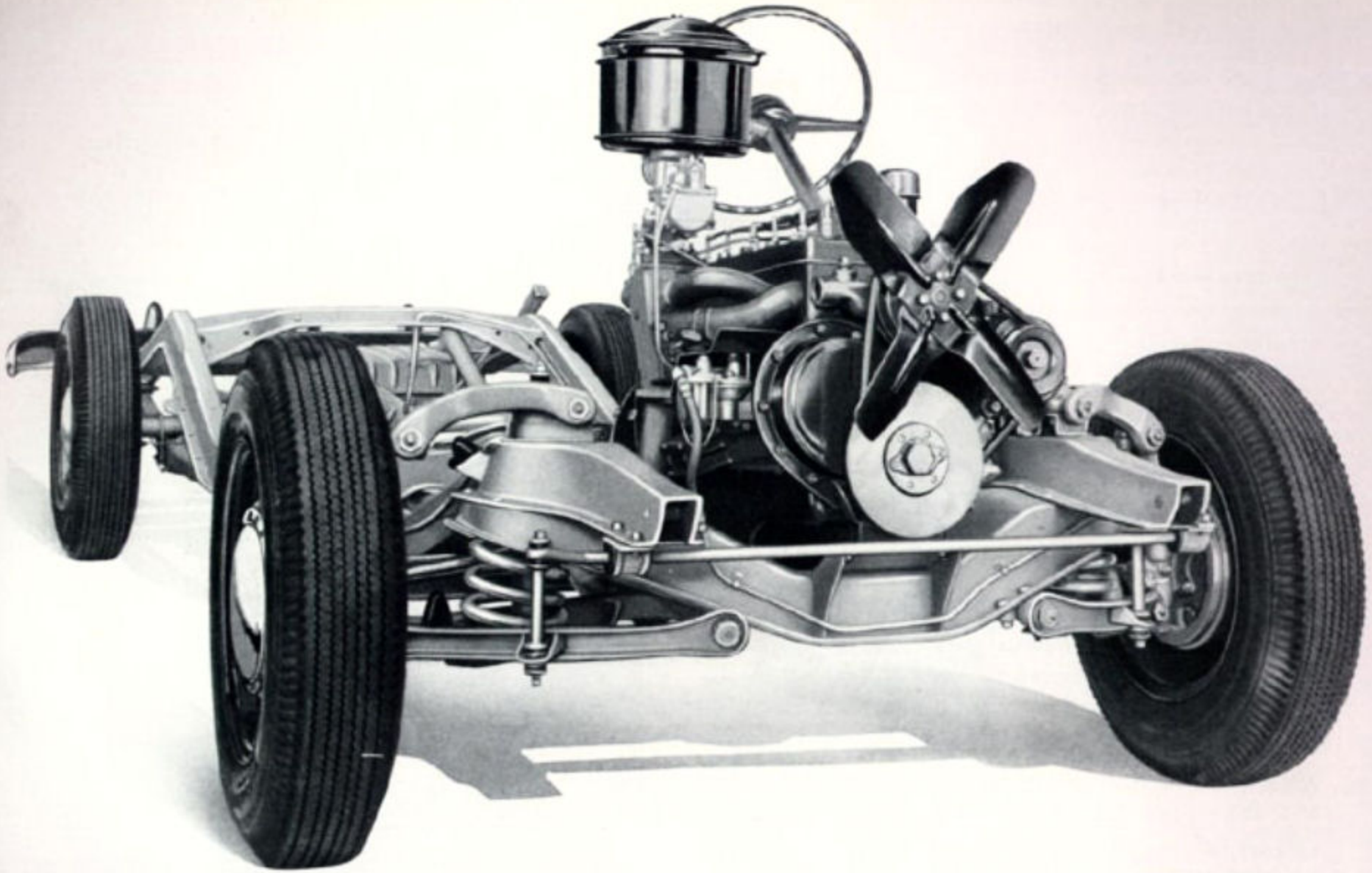
3. ***Oil saving:*** Studebaker's "heat dam" aluminum pistons; carefully fitted piston rings, and the highly effective engine cooling system are some of the key elements of Studebaker's low oil consumption. In addition, automatic engine heat control; automatic choke; automatic manifold heat regulator; crankcase ventilation; and floating oil screen team up to help to *keep engine oil in good condition.* (Call extra attention to new cooling efficiency—*page 60.*)

4. ***Long-lasting finishes:*** Bonderizing body and sheet metal parts insures a rust-resistant foundation; and multiple coats of enamel are *oven-baked* to provide a beautiful and durable hard-surfaced finish.

5. ***Top dollar value:*** Brilliant engineering and production skills; strategically located, up-to-date factories; expert purchasing; rigid inspection of incoming raw materials by shop and laboratory inspectors; friendly employee relations—these are some of the things that combine to give Studebaker owners top dollar value.

6. ***High resale record:*** Some reasons why Studebaker cars rate high with used car buyers; and are fast-moving merchandise on used car lots, are: the Studebaker record for "standing-up" and for economical operation; the reputation of Studebaker's "miracle ride"; advanced styling that *stays* fresh and new-looking.





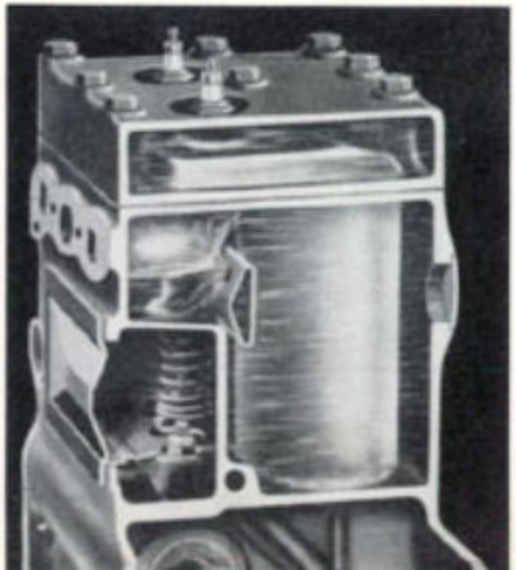
LOW MAINTENANCE COST

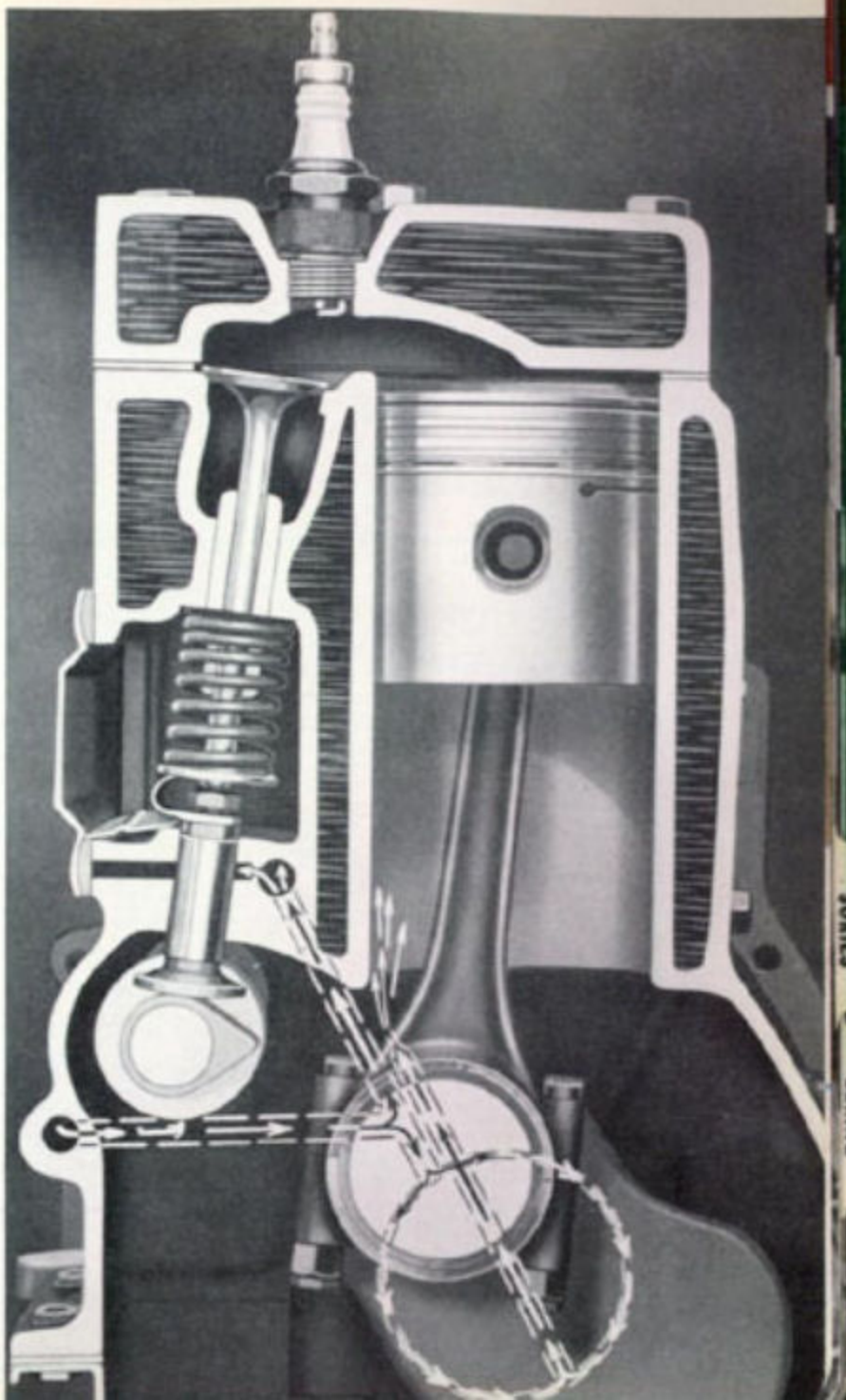
The reputation for building cars and trucks that do their work with a minimum of expense for shop work—as typified in the rugged Champion chassis (*opposite*)—is due to the many things involved in: first-rate design; modern production facilities; expert workmanship.

As *just one example*, some of the reasons why so many Studebaker owners report that they "have never had to have any work done on the engine block" are: the high quality alloy in the engine block resists wear; an efficient air cleaner keeps abrasive dust out of the cylinders; efficient ventilation draws out water and gasoline from the crankcase as fast as they are vaporized by hot oil; a floating oil screen (*see page 60*) admits only the cleanest oil into the lubrication system; an efficient oil filter, on Commanders and Land Cruisers (extra cost on the Champion) removes whatever abrasives do get in; a high-capacity oil pump, with quiet helical-cut gears, forces the clean oil to all bearings—and even to the tappets—and plays a stream onto cylinder walls (*right*); a remarkably efficient cooling system (*see page 60*) with full-length water-jacketing (*right*) prevents warping and conserves oil; "heat-dam" pistons protect cylinder-wall lubrication from burning off; automatic choke and automatic manifold heat control help to keep raw gasoline from washing oil from cylinder walls during warming-up period. *All of these have a direct bearing on holding down maintenance costs.*

Use of unusually large numbers of anti-friction bearings throughout Studebaker chassis keeps down wear, saves repair costs. (*Below*) As they wear, *tapered roller* bearings are adjusted—not replaced. These are used on front and rear wheels; and for rear-axle pinions.

Studebaker's full-length water-jacketing (*below and right*) prevents cylinder barrel warping; reduces oil temperature about 50 degrees. Right: full lubrication to valve lifters; oil jet to cylinder wall; "heat-dam" piston (*see page 60*).





Complete, clean, efficient LUBRICATION

Good engine lubrication depends on: (1) completeness and efficiency of full-pressure oiling and (2) oil cleanness.

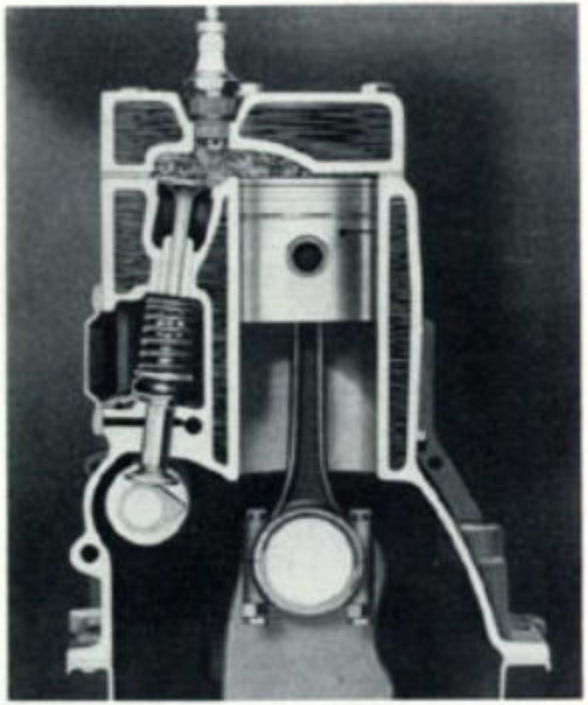
The extra degree of completeness and efficiency of Studebaker oiling systems include: an oil screen that floats just below the surface, where it selects the cleanest oil in the crankcase; a quiet, helical-geared high-capacity oil pump delivers oil to the main gallery; besides delivering oil under pressure to all main and connecting rod bearings, and to the timing gears, Studebaker includes valve tappets in the pressure lubrication system. (In most engines tappet lubrication is left entirely to oil "fog" created by engine operation.) *For cylinder wall and wrist-pin lubrication see page 59.*

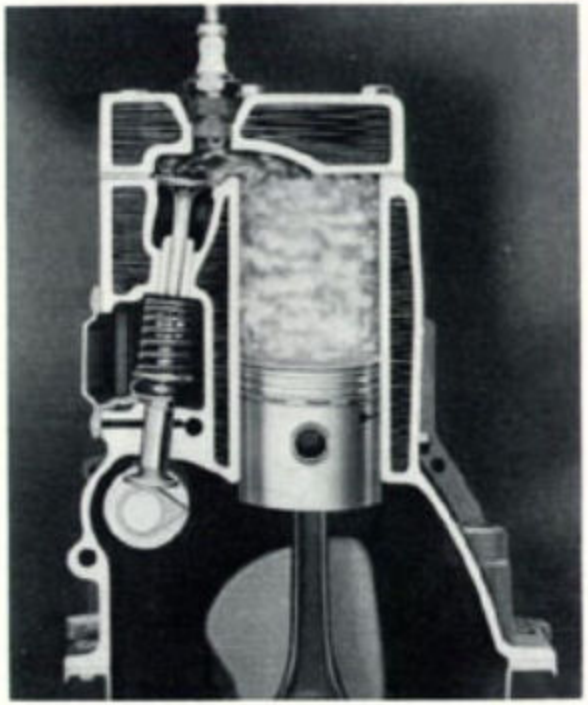
Besides having the floating oil screen to select the cleanest oil, Studebaker Commanders and Land Cruisers have the most efficient type of oil cleaner (*below*) as standard equipment. On Champions at extra cost.

Oil *temperature* is also an important factor in lubrication efficiency; and for 1950 engine cooling has been improved by from 10 to 15 per cent. Besides two air scoops at the bottom, air is also admitted through the circular "spinner" (*see page 57*) and horizontal openings on each side—a free flow of air for the whole radiator front.

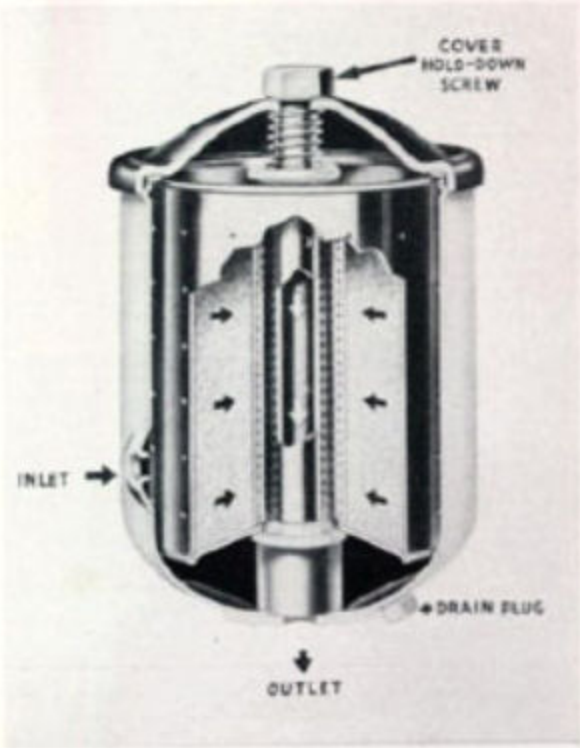
Another improvement is a new shrouding around the rear of the radiator core and the fan. This channels cool air through the core and keeps the fan from picking up warm air from under the hood. The consequent improvement in cooling is particularly important at slow traffic speeds, when the fan must do most of the work.

Full-power combustion





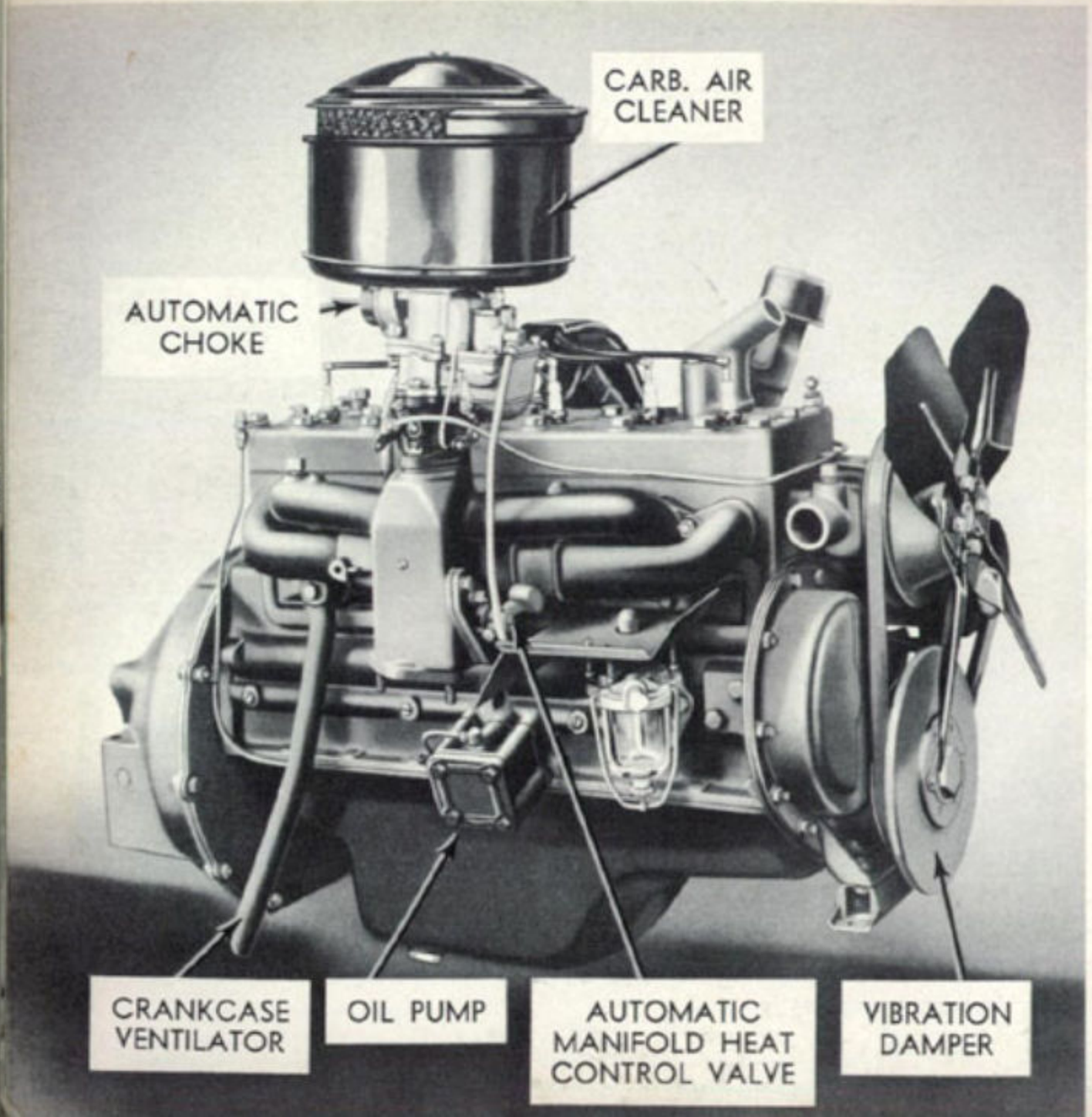
Studebaker's scientific dome-shaped high-compression combustion chamber starts a miniature tornado to swirling as the full charge is sucked into the cylinders (*left*) through the intake valves and past the spark plug. This turbulence is at its peak just as the mixture is ignited; so that minute particles of flaming gasoline are swept at lightning speed to every corner of the combustion chamber, spreading ignition as they go—like the "chain reaction" of an atom bomb. The result is complete combustion—with a smooth "follow-through" power impulse (*right*) that builds up momentum (*without knock, and without use of premium gasoline*) as the piston drives toward the bottom of the stroke.



CHAMPION DELUXE COUPE

Studebaker's popular three-passenger utility car combines outstanding economy and spacious load-carrying capacity with a dashing beauty and a fatigue-foiling ride that make it a special favorite with those who use cars primarily as business transportation.

Diagram of economical power



Many refinements share the credit for Studebaker's record of economy in the consumption of gasoline and oil: everything from the major designing achievement of eliminating useless weight and clumsy bulkiness to the use of gasoline caps that prevent gas loss from sloshing out on curves.

Some of the engine features that play important economy roles are diagramed at the left: fuel waste when starting—and also damage to cylinder walls from washing off oil by raw gasoline—are minimized by the *automatic choke*; the *automatic heat control* saves gas and cylinder wall damage by shortening the time when rich mixtures are needed; the *carburetor air cleaner* keeps dust and dirt from being sucked in with the fuel mixture (also silences intake roar); *crankcase ventilation* draws off gasoline or water condensation from the oiling system; the powerful and quiet helical-geared *fuel pump* keeps oil circulating within the engine under full pressure; the *vibration damper* prevents bearing-battering crankshaft vibration.

Passages for a liberal supply of coolant (below) protect exhaust valve seats from heat damage.

Accessories

Make each car PERSONAL

Studebaker custom-designed accessories become integral parts of Studebaker cars, both in operation and in styling. Wide selection permits Studebaker owners to *individualize* their cars to suit their own personal desires.

"Customized" ACCESSORIES

Finger-set keyboard selectors: Studebaker radios make it easy for the owner to set up the station selectors without fuss or tools. He simply presses in any one of the selector buttons and turns it until desired station is received.

Micromatic keyboard tuning: After easily adjusting his radio as described above, the Studebaker owner needs only touch in any selector button to hear his favorite station sharply and clearly. The micromatic tuning is convenient, safe.

Manual tuning: Studebaker radios also incorporate manual tuning of the complete range of stations on the radio dial —without disturbing the automatic tuning set-up. To dial manually the driver simply presses in the small selector button on the right and turns the large right knob marked "manual tuning."

When he buys a new car every Studebaker owner expresses personal taste through choice of the model best suited to his needs and desires, its color and its upholstery. To help him further individualize his car, Studebaker offers him a varied assortment of factory-engineered and guaranteed accessories. These custom-styled accessories are selected to satisfy the most exacting requirements; and the wide selection enables the owner to buy Studebaker accessories to match the appointments of his car and with complete confidence and assurance that they will give him long, satisfactory service.

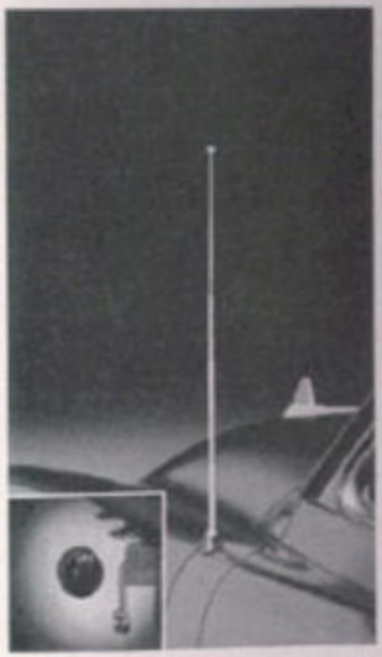
Studebaker's "Stratoline" radio

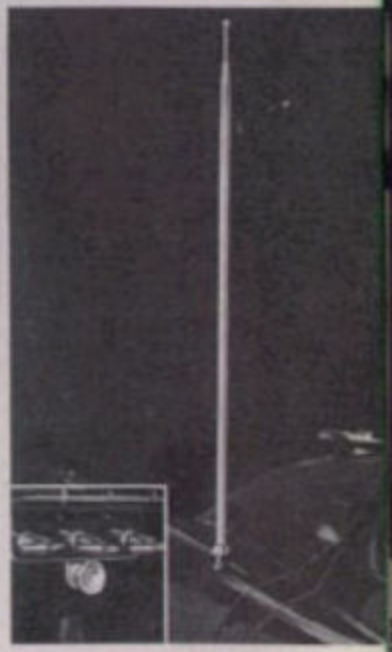
There is no finer car radio than this *Stratoline* micromatic tuning radio. Designed and engineered by the expert technicians who pioneered automobile radios, the Studebaker "*Stratoline's*" fidelity of tone and reproduction can't be distinguished from the costliest home console. It is precisely designed to fit the acoustic qualities of Studebaker passenger cars.

One point in particular that no discerning owner should overlook is that the *Stratoline* micromatic tuning radio has an exclusively Studebaker-engineered *noise suppression system*, virtually eliminating static and interference due to ignition and engine operation.

In addition to advanced styling which matches the interior appointments of their cars, Studebaker owners also appreciate such *Stratoline* advancements as: eight tubes including rectifier; six micromatic keyboard station selectors; micromatic tuning of six stations plus manual tuning; easy owner setting of automatic stations; big, heavy-duty, symphonic tone speaker; non-glare dial illumination; and full-range tonal control.

The micromatic tuning Stratoline radio: Studebaker's *Stratoline* radio is just like a costly home console in performance, power and reliability. The *exclusive Studebaker-engineered noise suppression system* enables Studebaker owners to enjoy a favorite program free from disturbance, interference and static due to engine operation.



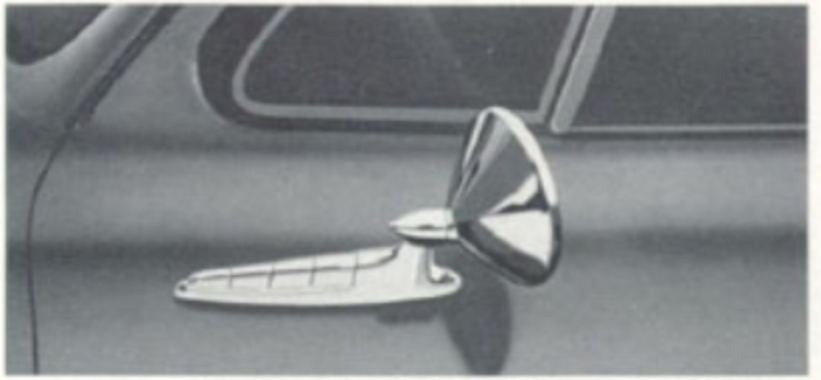


Studebaker-engineered antennae: Two Deluxe antennae are balanced and synchronized precisely with the functional units of Studebaker radios. Illustrated are the internally controlled, concealed reel type of all models (*above left*); and the vacuum powered antenna for Commander only (*above right*). A moderately priced, concealed manual antenna for all models is also available.

Lumite plastic seat covers: Woven of Saran, a durable plastic fabric, lumite seat covers wear indefinitely. They are impervious to stains, water, oil and gum. They resist scuffs and abrasions. Facings are made of long wearing leatherette. Available in handsome maroon, blue and green patterns.

Electric clocks: Studebaker electric clocks are electronically calibrated and tested; engineered and built for accuracy and dependability. Airplane-type *"black light"* provides high visibility, without eye-tiring glare. For convenience, a re-set knob is located on the outside. Each clock is styled to harmonize with the Studebaker instrument panel ensemble.

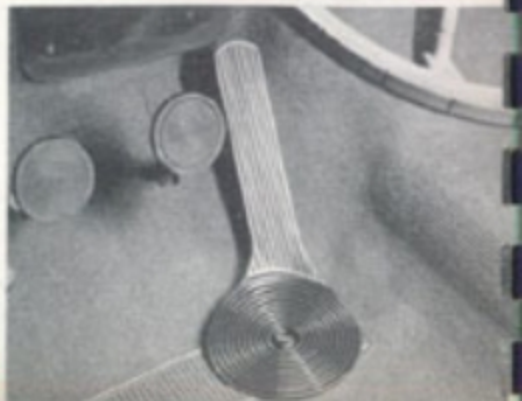
Deluxtex seat covers: Deluxtex covers are made of the finest quality, wear-tested, smooth-woven fibre. They fit smoothly and provide a high degree of riding comfort. Matting is the material used, except around the top and side of seat backs. Colorful patterns in maroon, blue, green.



Strut-o-ra outside mirror: This exclusive Studebaker accessory is highly popular with Studebaker owners. Strikingly finished in long-lasting, gleaming chromium, this outside mirror mounts on the door panel. The mirror case is set in an offset cone of polished chromium. The high quality, non-glare lens is easily adjustable to any desired angle.

Glare-proof mirror: The glare of following headlights is eliminated by this mirror, which has two reflecting surfaces. Simply flicking the tab at base of mirror deflects glare from the driver's eyes. In normal position, this safety accessory provides a soft, non-glare view of following traffic.

Accelerator cover and wear-pad: Fabricated of heavy black rubber, it affords added protection for the front floor carpets and mats at the point where driver's heel tends to wear through.



Drawmatic cigarette lighter: The Drawmatic is the latest in cigarette lighters. Merely insert the cigarette, press in the chrome ring—and in a few seconds a C-L-I-C-K signals that the cigarette is lighted. Thus the driver who smokes may enjoy greater safety and convenience from his lighter.

Parking brake warning light: This warning light flashes RED with an audible T-I-C-K. It operates when ignition switch is turned on and parking brake applied. Light automatically shuts off when brake is released.

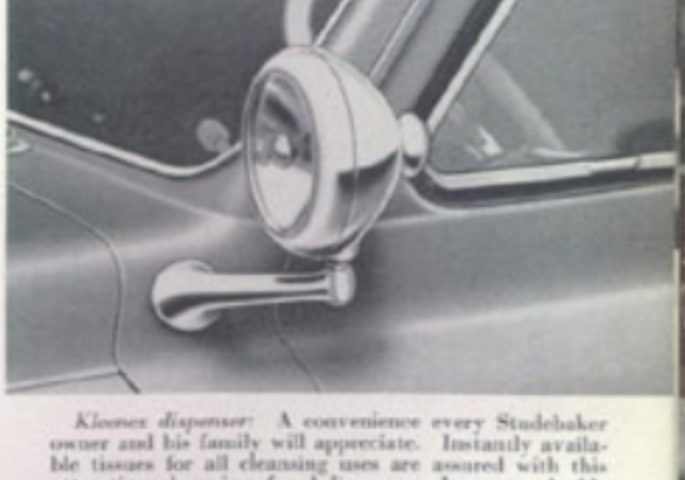
Saf-Vue windshield washer: A foot-operated jet control ejects two streams of water onto the windshield permitting the wipers to whisk away dirt, grime and road splash. Safe, clear driving vision at all times is assured. This positive, quick-acting windshield washer reacts to only a slight toe pressure. Safety-minded Studebaker owners will want this new and improved Saf-Vue windshield washer installed on their new cars.

Stratoline fender ornaments: For the Studebaker owner who wants to give his car an added sparkle the enduring chromium finish of these beautifully designed ornaments blends harmoniously into the exterior fittings. The design of these fender ornaments is planned to augment the rocket-like styling of the 1950 Champions.

Internally controlled spotlight: A powerful beam quickly spots road signs, house numbers and driving hazards, assuring extra safety and convenience. These spotlights are carefully designed with "Glasealed" bulb and enduring chrome finish, for installation on either left or right side. They are readily adjustable from inside the car by means of a Tenite pistol-grip, which has a built-in switch for quick, convenient operation.

Externally controlled spotlight: An outside controlled spotlight with maximum lighting efficiency, safety and convenience—plus its ornamental qualities—at low cost. The bulb is "Glasealed." The lamp body and brackets are finished in sparkling chromium. Easily adjustable from outside of car. Available for either left or right side they will fit all models.

Rubber rug floor mats: Moulded from soft, pliable rubber, these floor cover protectors simulate high pile carpeting. They fit snugly around the floor controls on the driver's side; and will add many months of extra service to the life of the carpets. Available in forest green, silver grey and burgundy red for front and rear compartments.



Kleenex dispenser: A convenience every Studebaker owner and his family will appreciate. Instantly available tissues for all cleansing uses are assured with this attractive, chromium-faced dispenser. It saves valuable storage space in the glove compartment and is furnished with a 200-sheet box of Kleenex.

Weather-beam lights: An important aid to safety in fog, rain, snow and mist. "Glasealed" bulbs with beam cut-off hood over filaments give maximum lighting and stay brighter longer. These safety features are essential.

Stainless-steel wheel discs: Combined with hub covers, they envelop the entire wheel in flashing stainless steel for added sparkle. Tough tension grippers built into discs assure a permanent, snug fit. Easily cleaned.

Whitewall wheel discs: Made of plastic, these discs provide at low cost the ornamental advantages of white sidewall tires. Mounted inside the edge of rims they prevent curb scuffing yet retain original finish.

Strutsline wheel shields: Shields accent the low lines of the car. They are easy to install or remove. Available for all models in polished stainless steel or painted to match car finish.

Strutsline exhaust deflector: Deflects hot, injurious exhaust gases away from bumper and body. Styled in gleaming polished chromium; modern as "next look."

Matched luggage: Studebaker's quality luggage is available in all popular standard sizes; in complete sets to fit trunk compartments or as individual pieces. Made with attractive and durable outside coverings and luxuriously appointed interiors with arrangements for maximum storage. Substantial hardware and locks are features of this new luggage.

Automatic back-up light: The "next look" with added convenience and safety. No guess work when the car is in reverse. At night these lights turn on automatically and illuminate a wide area to the rear of the car. Furnished singly or in pairs.

Deluxe license frames: These snug fitting, beautifully finished chromium frames add style and distinction to otherwise unsightly license plates. They also prevent vibration and rattles from this source.

Directional signal equipment: Warns of intended turns conveniently and safely. For left turn, move lever backward. For right turn, move it forward. Front and rear lights flash intermittently to indicate direction of turn. Control lever returns automatically to "off" position when turn is completed. Arrows on speedometer dial indicate turn direction.

Engineering

Tell buyers about the ENGINEERS

The 1950 cars themselves are the best evidence that Studebaker salesmen have back of them the creative *ability* and the continuing progressive *activity* of one of the world's most distinguished organizations of automotive engineers.

Tell about Studebaker PRODUCTION men

Key reasons for Studebaker's margin of extra quality are the men who build them—skilled craftsmen under the direction of some of the automotive industry's top administrators.

"Men who are never satisfied"

Most good automobile salesmen keep in the front part of their minds the fact that what their customers buy is not certain amounts of various kinds of materials, but *the skill of engineers and production men* in selecting materials and putting them together in the most satisfactory form.

With this in mind, some of the most convincing reasons for the abiding confidence that Studebaker salesmen and their customers have shown in Studebaker products are the men of character and competence grouped around conference tables on the two preceding pages: Studebaker engineering executives, under the leadership of Vice-president Stanwood W. Sparrow; and Studebaker manufacturing executives, headed up by Vice-president P. O. Peterson.

Able engineering and factory management, supported by the conscientious skill of laboratory technicians and fine craftsmanship on the production lines, have, from the beginning, been the solid foundation for the reputation that Studebaker products have long had for having an *extra margin* of dependability and all-'round satisfaction.

Impressed by what he saw of the engineers' record of pioneering and the constant improvement of manufacturing processes, the editor of one of the automobile trade papers once referred to Studebaker's top-notch administrators as: "men who are never satisfied." The whole automotive industry rates them among the highest for technical, creative and organizing skill.

Although their work seems entirely different from that of a salesman, these men are "sales-minded" to the core. Their first thought is that they must, first, meet today's needs and demands of car and truck owners; and then anticipate what motorists will be needing and desiring tomorrow, and in the years beyond.

No effort nor cost is spared in placing at the disposal of the engineers every facility for the development and testing of their ideas; and as fast as production machinery is invented that will turn out work faster or better, old equipment goes out and new comes in. (*Chassis drafting-room below; body drafting-room opposite page.*)

Before a change is made every new idea is checked and double checked in the laboratories. Current Studebaker products are also constantly under test in comparison with other American and European cars.

Road tests are continually under way, both on cross-country runs and on Studebaker's 840-acre proving ground. At the proving ground (*page 71*) the tests are made under controlled conditions—and in privacy—over roads that include every sort of natural and man-made hazard.

For tests at sustained high speeds, there's a three-mile concrete oval speedway, steeply banked at the ends.

For break-down endurance tests, there's a three-mile road of black-top and gravel. This is built so ingeniously rough that 1,000 miles at forty or fifty miles per hour is worse than 9,000 or 10,000 miles of normal driving. Ditches are cut diagonally across some stretches. High chassis-twisting

mounds alternate on the right and left sides at other points.

There are special roads where the car or truck stirs up a terrific dust; or must fight its way through deep sand.

There are hill roads, with grades running as high as thirty per cent.

At one point there's a water-hole detour, where the driver must plunge through a 250-foot concrete basin. Sometimes the water is mixed with sand or cinders, depending on what the engineers are trying to find about each vehicle's ability to "take it."

After each vehicle has been put through the tests specified it is dismantled and the parts checked—with everything from micrometers to microscopes.

Besides the work done on new models, and the comparison tests between Studebaker production models and competing products, cars and trucks are taken at random from the production lines every day and put through their proving ground paces.

Through these continuing tests, the engineers and production men keep their own work constantly under challenge—and, by never being satisfied, give Studebaker salesmen and their customers assurance of the maintenance of Studebaker quality.

Engineering watch-dogs of quality

To check the efficiency of oils of various types; to observe the nature of wear; and also to determine the kind of the materials that owners must guard against, Studebaker chemists in the quality control laboratories subject to analysis samples of oil used in engines under test on the dynamometers or on cross-country runs. This is only one of many chemical tests.

Will it *break*? On this big laboratory machine, chief metallurgist William J. Harris is testing the tensile strength of a production sample of Studebaker's vibration-absorbing engine mountings; measuring the "stretchability" of the rubber and the tightness with which it is bonded to the steel mounting block. Studebaker uses live rubber mountings at many points.

Will it *wear* out? To assure durability of upholstery, samples cut from bolts of fabric are run through this abrasion machine for measured periods and at controlled pressures. Floor coverings and other materials are also tested here. In the physical laboratories all sorts of finished parts and accessories are also subjected to break-down tests, as well as efficiency tests.

Will it *fade*? In Studebaker's experimental paint laboratories, this weatherometer subjects samples of all colors and types of finishes to the effects of around-the-clock light and moisture. Upholstery fabrics are similarly tested.

Will it *tear*? Materials like leather and leatherette for upholstery and trim must be pliant and flexible; must resist cracking and wear. This flexing machine submits samples of such supplies to far worse treatment than they could ever get in actual use during the life of a car. Here a materials laboratory technician checks results with a magnifying glass.

Are the *tools* accurate? Not only materials and parts, but also craftsmen's tools and inspector's gauges are constantly checked to make sure of quality and accuracy. The master gauges used as standards are amazingly perfect. Here a laboratory expert is checking the accuracy of a heat control instrument.

Where ideas become facts

One example of the engineering background of the widespread reputation of Studebaker cars for "standing up" is this routine endurance test in one of the many dynamometer rooms at Studebaker's laboratories. Here engines from production lines are frequently submitted to the terrific stresses of *50 hours at 4500 revolutions per minute*—with full load.

Here shock absorbers are being tested for endurance. A crank and connecting rod raises and trips a heavy seventeen-plate spring, which hurls a load of approximately 3,000 pounds onto the shock absorbers—sixteen times per minute. The laboratory technician is regulating a stream of air needed to keep the shock absorber cool during this rigorous test.

On this machine, Studebaker's long-travel coil springs are tested for carrying-height and spring-rate. In conjunction with this test, the spring is measured for the diameter of material, outside diameter, and weight. An inside caliper here measures the spring's carrying height under a load of 1625 pounds. The scale on the left is used to show spring rates.

This equipment was developed by Studebaker engineers for measuring the influence of various factors on overall steering efficiency—steering gear, steering linkage, tire friction, and so forth, including Studebaker's liberal use of anti-friction bearings in steering knuckles—important in handling ease.

This ungainly machine is one of those used at Studebaker's proving ground to study the exact results of various kinds of driving conditions on cooling. On level ground it puts on the engine whatever "drag" is needed to simulate any mountain grade or other load condition responsible for engine load.

An important factor in dependability and endurance is the extent to which the heat-treating, and alloy content of moving parts (like the connecting rod here being examined by a metallurgist) affect the ability to withstand "fatigue"—the weakening resulting from long-continued or frequently-repeated stress.

The industrial magic of

The extra satisfaction that results from able administration and the pride of craftsmanship that go into Studebaker cars and trucks cost the buyer nothing extra. They are, in fact, the sort of things that *can't* be bought. Yet their effect on the long life and low maintenance cost of Studebaker products are just as real as if their value to the owner could be computed in terms of extra quality or quantity of materials, or extra labor hours.

That kind of painstaking care is standard practice throughout the Studebaker plants—and it's one of the reasons a Studebaker buying wave has been sweeping the country. Many a new owner who has bought a 1950 Studebaker did so to get the wear-resisting soundness with which Studebaker craftsmen build.

For generations, the men in family after family of Studebaker's home community have been following their fathers, and even grandfathers, into jobs at Studebaker.

This continuity of interest has built up a Studebaker reputation for top quality workmanship that has spread around the world.

The thousands of solid citizens who man the Studebaker production lines, uphold that reputation today—add new luster to it with every Studebaker car and truck they manufacture.

They're more than master craftsmen, these men of the Studebaker working force. They're just about the most effective salesmen Studebaker cars and trucks could have.

That's why the loyal, friendly team-work of the father-and-son teams in Studebaker factories has long been featured in Studebaker national advertising. They are symbols of the consistently high ideas that go into the construction of Studebaker products.

Almost everyone who drives an automobile has become familiar with this phase of Studebaker public relations—and Studebaker *owners* know from experience the *extra margin* of satisfaction for which the

Good workmanship in any product has always been one of the most important elements of value; and the Clayton family, at the left, is typical of the kind of people who put this sort of value into Studebaker cars and trucks. Master assembler Leroy Clayton (*left*) is a 25-year veteran on his Studebaker job. Sons Lawrence G. and George C. came back from war to resume Studebaker work begun in 1941.

loyalty and craftsmanship

attitude of the builders of Studebaker cars and trucks is responsible. They know that, even where mechanical "specifications" may be exactly the same, the average Studebaker craftsman manages to put an added touch of value into the finished job.

A century of progress

The Studebaker Corporation has grown up with America. On February 16, 1952, it will be one hundred years old. But the company's spirit of *youth*, not its age, will be celebrated on that centennial occasion.

From the start, Studebaker leadership has steered away from ruts and grooves. Successive managements have passed along the enduring respect for creative skills manifested in the craftsmanship of today; and have fostered the independent pioneering spirit that has kept the engineering of Studebaker products in the forefront of transportation development.

The Studebakers built mostly wagons in their early days; but, in the middle seventies, they were among the first to sense the meaning of a rising demand for comfort, style and lower cost in buggies and carriages. They played the leading role in making the last quarter of the nineteenth century the beginning of a new era of riding for fun. Thus, they had a paramount influence on the rising tide of public enthusiasm; and recognition of the need for the *personal ownership* of transportation—the state of mind that became the corner-stone of the motor age.

No young blade felt himself complete without a yellow-wheeled Studebaker runabout—the "convertible" of grandfather's courting days. The family of modest means had a Studebaker surrey—"with the fringe on top."

Those who could afford a truly deluxe equipage owned such showy Studebaker outfits as victorias, landaus, broughams, tandems, cabriolets—or one of those ultimate badges of distinction and prestige, a Studebaker four-in-hand coach.

The "next look" cars of 1950 are direct descendents of these fine vehicles.

To make it possible for the men of skill and good will in the Studebaker plants to put their abilities to the most effective use, Studebaker is continually making huge investments in the finest and latest tools. The mechanized giants at the right are some of the new presses recently installed in the stamping division at a cost of millions of dollars. These are only a few of many similar machines.

Family pride of craftsmanship

Studebaker veteran Stanley Lipowski and his son, Stanley Frank, make up one of the family teams that are an institution at Studebaker. It's a custom that began with the founding of the business, some 98 years ago; and is one of the things that assures continuity in Studebaker quality.

When W. A. Smith, Jr., *(left)* came back from the Army Air Forces he took up where he left off as an apprentice tool maker in 1942; and during and after his apprentice years has had the benefit of on-the-job coaching from W. A., Senior, tool supervisor and veteran of thirty years with Studebaker.

Harold F. Ditsch, *(left)* is a skilled toolmaker who has been a member of the Studebaker organization for twenty-eight years; and his toolmaker son, Harold E., a graduate of the Studebaker apprentice program has had four years with Studebaker and three in the Army. They work together.

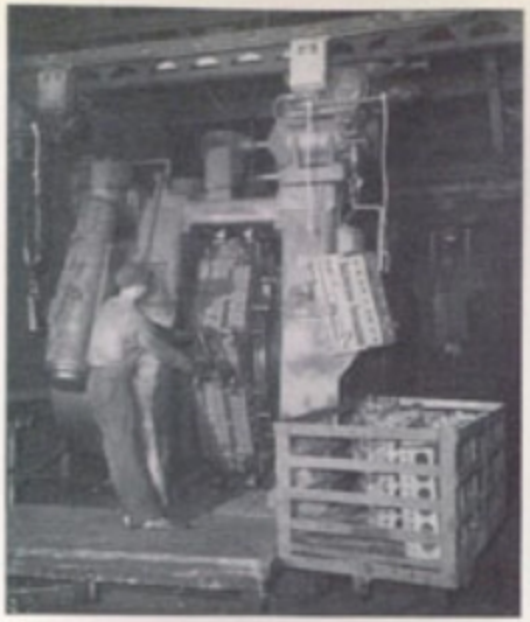
William Slater (who is called "Fred" by his friends) is a millwright who has had thirteen years with Studebaker. His son William, Jr., (Bill) has served two years of a three-year Studebaker apprentice program; and is being taught the millwright trade by his father on equipment maintenance jobs.

Joe Andert, of the Studebaker machine shop, has been with Studebaker thirty-one years and has broken in three sons as machinists. Left to right, they are Louis, two years with Studebaker; Gene, one and a half years; and Joe, Jr., with seven and a half years. Louis and Joe, Jr., were G. I.'s.

The superior skill of welding specialists and their conscientious attitude toward their jobs are long-life "plus" values that owners of Studebaker cars and trucks get from craftsmen like Stanley Bielaski and his son Eugene. Owners cash in on such qualities every mile they drive a Studebaker vehicle.

Marvels of accurate production

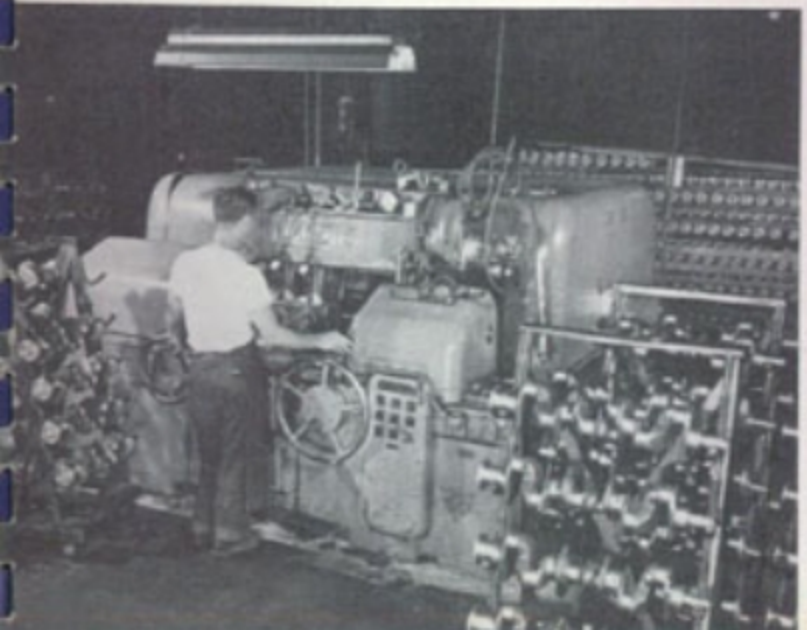
The Studebaker foundry is one of the largest and most modern under one roof. Here, on one of the continuous moulding lines, the tough cast iron alloy for the engine block is being poured. Studebaker reputation for engines that can "take it" begins here.



From the foundry, the rough castings of engine blocks start here for the first of a large number of machining, drilling, boring and cylinder-polishing operations. This time-saving vertical mill machines tops and bottoms of the blocks in one operation.

Because of their greater accuracy and speed, the latest electronic induction hardening furnaces are used at many points in the Studebaker plant. This one is simultaneously heat-treating two surfaces of the steering knuckle upper arm support.

Multiple operations performed by huge machines like this are important factors in the economy of production that make it possible for Studebaker to give high value for the buyer's dollar. This one punches many holes in heavy metal parts at one operation.



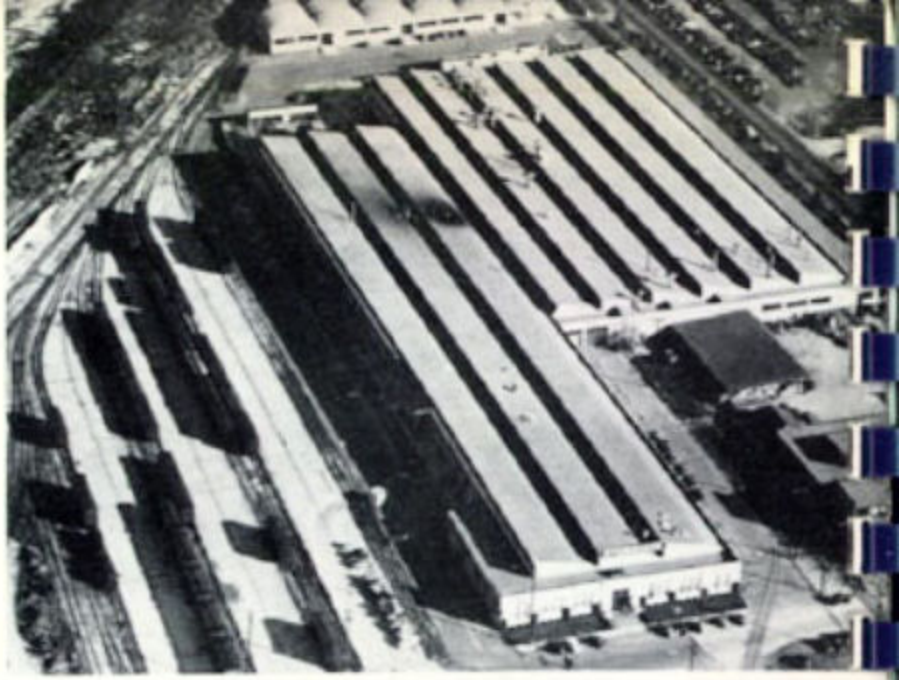
Expensive butt-welding machines are used in the fabrication of Studebaker all-steel bodies and for certain mechanical parts. Here (*left*) the ends of strip steel are being welded to form the true circle of a flywheel ring gear. It will be finished and electronically heat-treated in the machine shop.

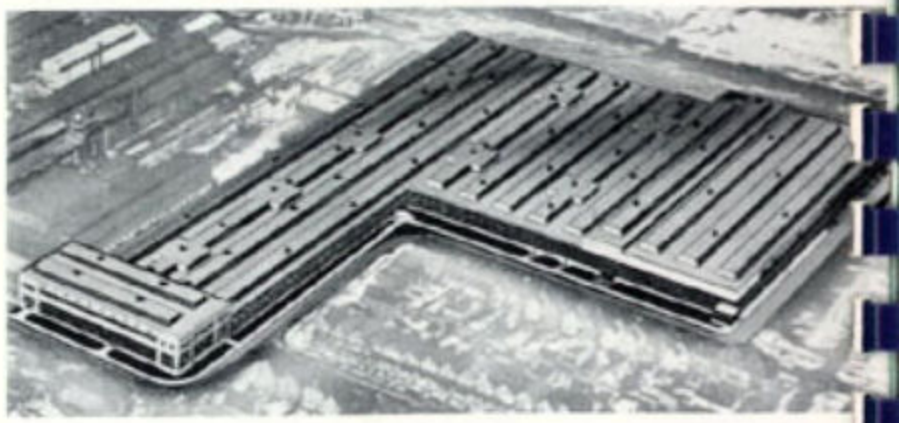
Four completely finished bearing surfaces of a Champion crankshaft are ground in one operation on this $80,000 ultra-modern grinder (*extreme left*). Only one or two manufacturers hold precision workmanship to the extra-close limits of accuracy specified by Studebaker engineers.

Superbly-equipped plants

Besides the big plants in the United States and Canada, Studebaker has assembly and manufacturing plants in nine other countries: India, South Africa, Brazil, Belgium, Denmark, Mexico, Sweden, Egypt and Ireland.

Below, main passenger car plant at South Bend. Truck plant is on page 94. At right, top to bottom, plants of wholly owned subsidiaries: The Studebaker Pacific Corporation at Los Angeles; The Studebaker Corporation of Canada, Ltd., Hamilton, Ontario; The Empire Steel Company, Mansfield, Ohio. The Studebaker parts and accessories division also has a big plant at South Bend, plus twenty-three regional parts depots in the United States.






ENGINEERING
DEPENDABILITY
1950
STUDEBAKER
Father and Son
Craftsmanship
insures
enduring quality
PERFORMANCE
SAFETY
ECONOMY
Index and Specifications
BEAUTY
COMFORT

Match "Specifications" to buyers' needs and desires

Studebaker engineering spares no effort or expense in developing the "specifications" that best meet the *needs* and *desires* of the people who drive and ride in Studebaker cars. They expect Studebaker salesmen to be able to point out *which* "specifications" do *what* for Studebaker owners.

Specifications for 1950 motoring satisfaction

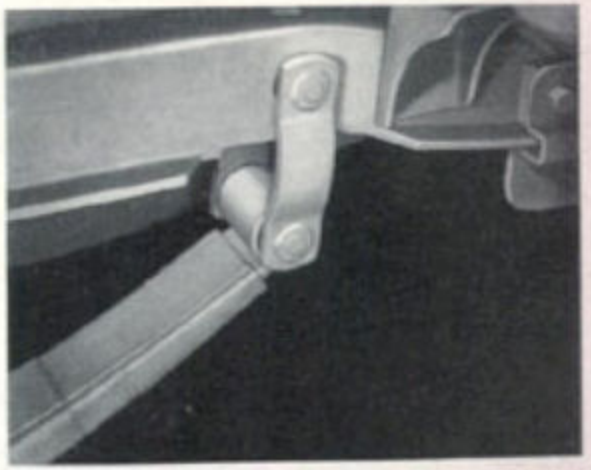
GENERAL	*Champion*	*Commander*
Overall length (bumper to bumper)	197¾"	207⅞"-211⅞" (a)
Overall width	69⅞"	69⅝"
Overall height (loaded)	61"	62⅛"
Overall height (no load)	62⅛"	63¼"
Wheelbase	113"	120"-124" (a)
Tread (front-rear)	56⅞"-54"	55½"-54"
Tire size (4-ply)	6.40 x 15 LP	7.60 x 15 LP
Rim—wide base type	5"	6"
Road clearance (front-rear)	8¼"-8"	8⅜"-8⅜"
Shipping wt. (4-dr. sedan)	2750 lbs.	3255-3355 (a)
Curb wt. (4-dr. sedan)	2885 lbs.	3398-3498 (a)

ENGINE		
Type and No. of cylinders	L—6	L—6
Bore and stroke	3" x 4"	3⅜" x 4¾"

ENGINE – Continued	*Champion*	*Commander*
Piston displacement	169.6 cu. in.	245.6 cu. in.
Horsepower (brake)	85 at 4000 r.p.m.	102 at 3200 r.p.m.
Weight per brake H.P.	32.3 lbs.	31.9 lbs-32.9 lbs. (a)
Horsepower (taxable)	21.6	26.33
Engine torque (lb. ft.)	138 at 2400 r.p.m.	205 at 1200 r.p.m.
Compression ratio (standard)	7.0 to 1	7.0 to 1
Compression ratio (optional for altitudes over 5000 feet)	7.5 to 1	7.5 to 1
Pistons—"Heat Dam" type	Aluminum alloy, stannic-plated	Aluminum alloy, stannic-plated
Piston rings	3	3
Main and connecting rod bearings	Replaceable steel-backed micro-babbitt	Replaceable steel-backed micro-babbitt
Crankshaft	Forged steel with integral counter-weights	Forged steel with integral counter-weights

NOTE: (a) Land Cruiser.

Studebaker was one of the pioneers in the use of live rubber mountings for automobile engines. These mountings absorb the high-frequency vibrations produced by the explosions in the cylinders; and keep them from being "telegraphed" into the frame and body. Thus, they play an important part in the smoothness and quietness that characterize Studebaker power plants. (*Right*) Front mounting. (*Left*) One of the two rear mountings. In these mountings the rubber is bonded tightly to steel blocks. (*See page 75.*) The vibration-killing effect of rubber mountings adds the final touch of smoothness to the quiet performance of Studebaker's *inherently* smooth engines. (*See page 36.*)



In addition to the greater quietness, many lubrication points have been done away with in Studebaker cars by the use of live rubber at joints to displace metal-to-metal contact. Besides spring shackles (*above*) these include: shock absorber and steering linkages; sway-bar mountings; driveshaft mounting; exhaust system suspension.

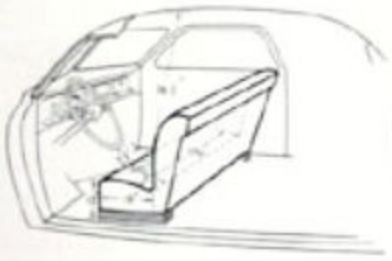
Specifications for 1950 – Continued

ENGINE – Continued	*Champion*	*Commander*
Camshaft drive	Non-metallic gear	Non-metallic gear
Vibration damper	Rubber-mounted disc	Rubber-mounted disc
Engine lubrication	Full pressure, including tappets	Full pressure, including tappets
Oil intake screen	Floating	Floating
Oil filter	Extra cost	Standard
Crankcase oil capacity	5 qts.	6 qts.
Oil pump gears	Silent helical	Silent helical
Valve seats	Integral	Integral
Water jackets	Full-length	Full-length
Radiator (type)	Cellular-tubular	Cellular-tubular
Cooling system capacity	10 qts.	13½ qts.
Ignition control	Automatic with octane selector	Automatic with octane selector
Manifold heat control	Automatic	Automatic
Choke	Automatic	Automatic
Vacuum booster pump for windshield	Extra cost	Standard

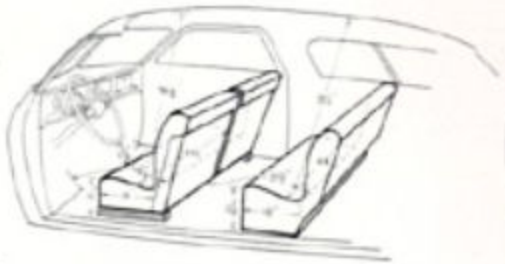
ELECTRICAL		
Generator (type)	Shunt wound	Shunt wound
Generator output (max.)	35 amp.	35 amp.

ELECTRICAL – Continued	*Champion*	*Commander*
Generator control	Voltage, current and cut-out	Voltage, current and cut-out
Battery (safety-fill type)	Under hood	Under hood
Battery—plates and amp. hours	15—100	15—100
Tail and stop lights	Two	Two
Horns	Two	Two
Starter	Safety type, operated by clutch pedal	Safety type, operated by clutch pedal
"Black lighted" instruments	Standard	Standard
Map light—door operated	Automatic plus manual switch	Automatic plus manual switch
Dome light—door operated	Automatic plus manual switch	Automatic plus manual switch
Trunk light—automatic	Standard on Regal Deluxe, extra cost on Deluxe	Standard
Glove box light—automatic	Accessory	Standard

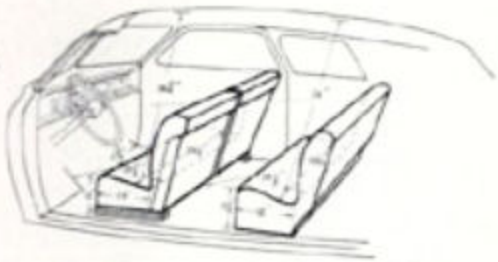
CHASSIS		
Front suspension	Independent coil	Independent coil
Rear suspension	7-leaf springs—50" x 1¾"	7-leaf springs—54" x 1¾"



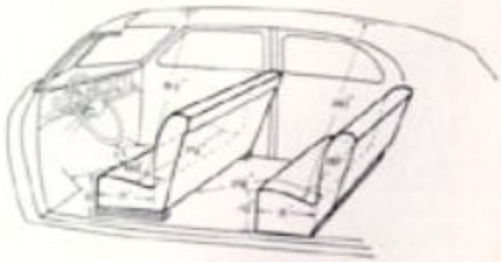
Three-passenger coupe. Large storage space in rear of seat — accessible from inside or from trunk. 47-inch doors. Good looking, long-lasting leatherette for seat backs and trim.



Five-passenger coupe. Seats three in front; two in rear. Extra storage space under rear arm rests. Large baggage space in trunk. Huge rear window. One-piece windshield. Easy access, 47-inch doors.



Two-door sedan. Seats six comfortably. 47-inch doors for ready access to roomy rear seat. An ideal car for the family with small children, or for combination family and business use. Front seat is split type.



Four-door sedan. Doors, front 39¼"; rear 30 11/16". (Land Cruiser: Rear doors 34 3/16 inches; legroom, front 40¾", rear 39½"; seat depth, rear 19"; headroom, front 36½", rear 35". One-piece windshield.)

Specifications for 1950—Continued

CHASSIS—Continued	*Champion*	*Commander*
Rear spring shackles	Rubber-bushed	Rubber-bushed
Shock absorbers	Direct-acting tubular	Link-and-lever rotary
Shock absorber mounts	Rubber-bushed	Rubber-bushed
Steering linkage	Symmetrical	Symmetrical, center-point
Steering linkage joints	Rubber-bushed and ball-and-socket	Needle bearing and ball-and-socket
Steering gear—variable ratio	Straight ahead 13.5 to 1 Full turn—L or R 15.4 to 1	15 to 1 17 to 1
Overall steering ratio	Straight ahead 20.5 to 1 Full turn—L or R 26 to 1	24 to 1 34 to 1
Turning radius—Right	20'-4	20'-7"
Left	19'-8"	19'-10"
Stabilizers	Front	Front and Rear
Rear axle gear ratio	4.10 to 1	4.09 to 1
Rear axle gear ratio (cars with overdrive)	4.56 to 1	4.55 to 1
Overall ratio—engine to axle	4.10 to 1	4.09 to 1
Overall ratio—engine to axle—with overdrive	3.19 to 1	3.18 to 1
Rear axle drive	Hotchkiss	Hotchkiss
Rear axle (type)	Rigid built-up	Rigid built-up
Rear axle gears	Hypoid	Hypoid
Brakes (type)	Hydraulic, foot-regulated	Hydraulic, foot-regulated
Brakes (operation)	Self-adjusting, self-centering	Self-adjusting, self-centering
Brake drum—dia. and surface	9" cast iron	11" cast iron
Brake lining area	148 sq. in.	178 sq. in.
Car wt. per sq. in brake lining	18.5 lbs.	18.3 lbs.-18.8 lbs. (a)
Brake effort	57% front—43% rear	57% front—43% rear
Parking brakes	Direct to rear wheels	Direct to rear wheels
Fuel tank capacity	18 gallons	18 gallons
Automatic hill holder	Extra cost	Standard

CHASSIS—Continued	*Champion*	*Commander*
Total number anti-friction bearings:		
Standard	39	41
Overdrive	43	45
Transmission gears	Silent helical	Silent helical
Transmission ratios:		
Low	2.60 to 1	2.57 to 1
Second	1.63 to 1	1.55 to 1
High	1.00 to 1	1.00 to 1
Overdrive	.70 to 1	.70 to 1
Reverse	3.53 to 1	3.48 to 1
Clashless gear synchronizers	Second and high	Second and high
Frame	Double flanged box section	Double flanged box section
Frame cross members	5	5

BODY		
Front seat adjustment	5 3/16"	5 3/16"
Front seat cushions	Select-O-Seat springs	Select-O-Seat springs
Door latches	Rotary	Rotary
Door locks	Both front doors	Both front doors
Deck lid hinges	Counterbalanced spring	Counterbalanced spring
Body type	All-steel welded	All-steel welded
Sun visors	2	2
Arm rests	2 front, 2 rear (b)	2 front, 2 rear (b) (c)
Rear seat distance in front of rear axle	18 3/4"	19 3/4"-21 3/4" (a)
Hood lock	Dash control	Dash control
Climatizer and defroster—includes automatic thermostatic control	Accessory	Accessory

NOTE: (a) Land Cruiser. (b) Front only on convertible.
(c) Also rear seat center arm rest in Land Cruiser.

White sidewall tires, bright metal wheel discs and trim rings shown on cars illustrated are available on all models at extra cost.

Studebaker reserves the right to change any of the specifications listed in this book without obligation to subsequent purchasers, or to add new designs or improvements without making similar alterations in automobiles manufactured.

Variations in Equipment and Trim

The table below shows the principal variations in equipment among Studebaker's 1950 models. The index gives the pages where information about other equipment, or about mechanical specifications, may be found. Information about colors, and about variations and options in upholstery and trim, is given in special sales department bulletins on these subjects.

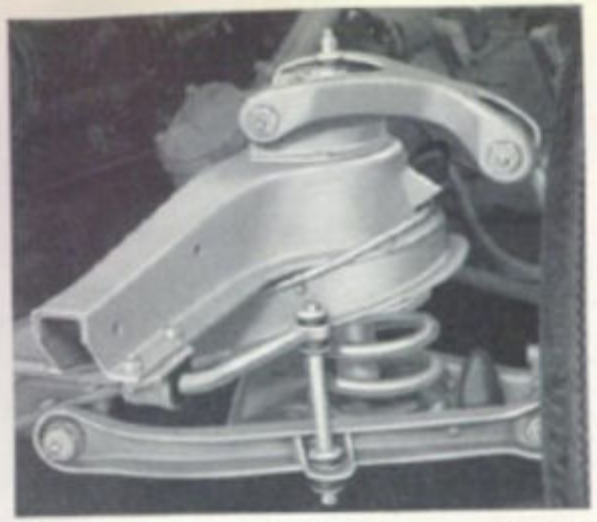
	CHAMPION		COMMANDER		
	DeLuxe	Regal DeLuxe	DeLuxe	Regal DeLuxe	Land Cruiser
Ash trays—rear	5-Pass. Coupe	Standard	Standard	Standard	Standard
Assist straps—rear	5-Pass. Coupe & 2-dr. sedan	Sedans and 5-pass. coupe	Standard	Sedans and 5-pass. coupe	Standard
Automatic glove box light	Accessory	Accessory	Standard	Standard	Standard
Automatic trunk light	Accessory	Standard	Standard	Standard	Standard
Body sill mouldings	Painted	Stainless steel	Painted	Stainless steel	Stainless steel
Door escutcheon plates	Plastic	Stainless steel	St. steel & plastic	St. steel & plastic (a)	Stainless steel
Door scuff panels	Leatherette	Stainless steel	Leatherette	Stainless steel	Stainless steel
Electric clock	Accessory	Accessory	Accessory	Accessory	Standard
Floor covering—front	Rubber	Carpet	Rubber	Carpet	Carpet
Foam rubber seat cushions	Optional—extra cost	Standard	Standard	Standard	Standard
Front seat trim band	Painted	Stainless steel	Painted	Stainless steel	Stainless steel
Hill holder	Opt., extra cost	Opt., extra cost	Standard	Standard	Standard
Oil filter	Opt., extra cost	Opt., extra cost	Standard	Standard	Standard
Rear fender gravel pads	Rubber	Rubber (a)	Rubber	Stainless steel	Stainless steel
Robe cord	Accessory	Accessory	Accessory	Accessory	Standard
Stabilizers	Front	Front	Front and rear	Front and rear	Front and rear
Steering wheel	2-spoke with horn button	2-spoke with horn half-ring	2-spoke with button and bar	3-spoke with horn half-ring	3-spoke with horn half-ring
Upholstery—seats	Pile cloth	Wool flat cloth (c)	Wool flat cloth	Nylon cord (c)	Nylon cord
Upholstery—doors	Fabric (d)	Fabric and leatherette	Fabric	Fabric and leatherette	Fabric and leatherette
Window moulding—rear	None	Stainless steel (b)	None	Stainless steel (b)	Stainless steel
Window vent wings	Front	Front	Front	Front	Front and rear
Window vent wing frames	Painted	Stainless steel	Painted	Stainless steel	Stainless steel
Windshield—sedans & 3-pass. coupe	Two piece (e)	Two piece (e)	Two piece (e)	Two piece (e)	One piece
Windshield moulding	None	Stainless steel	None	Stainless steel	Stainless steel
Windshield wiper booster	Accessory	Accessory	Standard	Standard	Standard

(a) Stainless steel on convertible (b) None on 5-pass. coupe (c) Leather & leatherette, or Nylon cord & leatherette on convertible
(d) Leatherette on 3-pass. coupe (e) One piece on 5-pass. coupe and convertible

The purpose— and result of CREATIVE SELLING

The buyer who sets out to purchase an automobile is looking for the model and the accessory equipment that will give him the *most all-'round satisfaction, by fitting his needs best;* and the more helpful you are in laying the facts about the 1950 Studebaker cars before him—*clearly and completely*—the greater the certainty that he will find this sort of satisfaction in a Champion, Commander or Land Cruiser.

Index for 1950 Inside Facts



Because of the extra length of the new coil springs Studebaker front suspensions take hard bumps without "bottoming." They have longer up-and-down "travel" than the springs on any but the most expensive competing cars. (*See page 25.*) The end of the stabilizer bar (*lower center*) is mounted in rubber and has rubber bushings in the joints. *Front end of* frame side-rail (left) shows box-section construction. Champion suspension shown.

Index for 1950—Continued

When the car is stopped going up hill Studebaker's hill-holder keeps it from rolling back, while the driver takes his foot off the brake and uses the accelerator. While on an up-grade it holds in the hydraulic brake lines (*as long as the clutch is thrown out*) whatever pressure the driver has put on the brake pedal. Hill-holders are standard on Commanders and Land Cruisers; available at extra cost on Champions.

Index for 1950—Continued

Heating and defrosting

Studebaker's Climatizer (*see page 30*), fresh-air heating and ventilating system includes a windshield defroster; and separate controls are provided for the space heater and the defroster. Each has its own high-capacity two-speed blower.

The forced-air feature changes the air completely every 30 seconds. It is especially advantageous in slow city traffic, when the car is not traveling at high enough speed to force the fresh air through the heater.

The fresh-air intake for the Climatizer remains high on the side of the car, away from the danger of monoxide gas. Even in slow, heavy traffic, or when parked behind a car that has its motor idling, it is not subject to the risk that is present in some cars where the intake is low and close to the exhaust pipe of the car ahead.

Index for 1950—Continued

Cost of maintenance of the finishes for Studebaker bodies and sheet metal is kept at a minimum by extra-heavy coatings of color-fast, scratch resisting, hard-surface enamel—baked on, after all steel surfaces have been Bonderized as a rust preventive. Inspectors on the body assembly lines (above) check thickness of enamel with "paint meters."

Studebaker has America's finest truck plant

Studebaker builds TRUCKS for nearly every need

1. *Agriculture:* For nearly a century Studebaker has been a respected name on the farms of the World and has never rated higher than now for the thousand-and-one farm hauling jobs.

2. *Light Delivery:* For grocer, baker, plumber, cleaner, wholesaler, retailer, manufacturer — Studebaker supplies sturdy, comfortable economical pick-ups; or chassis for custom-built bodies.

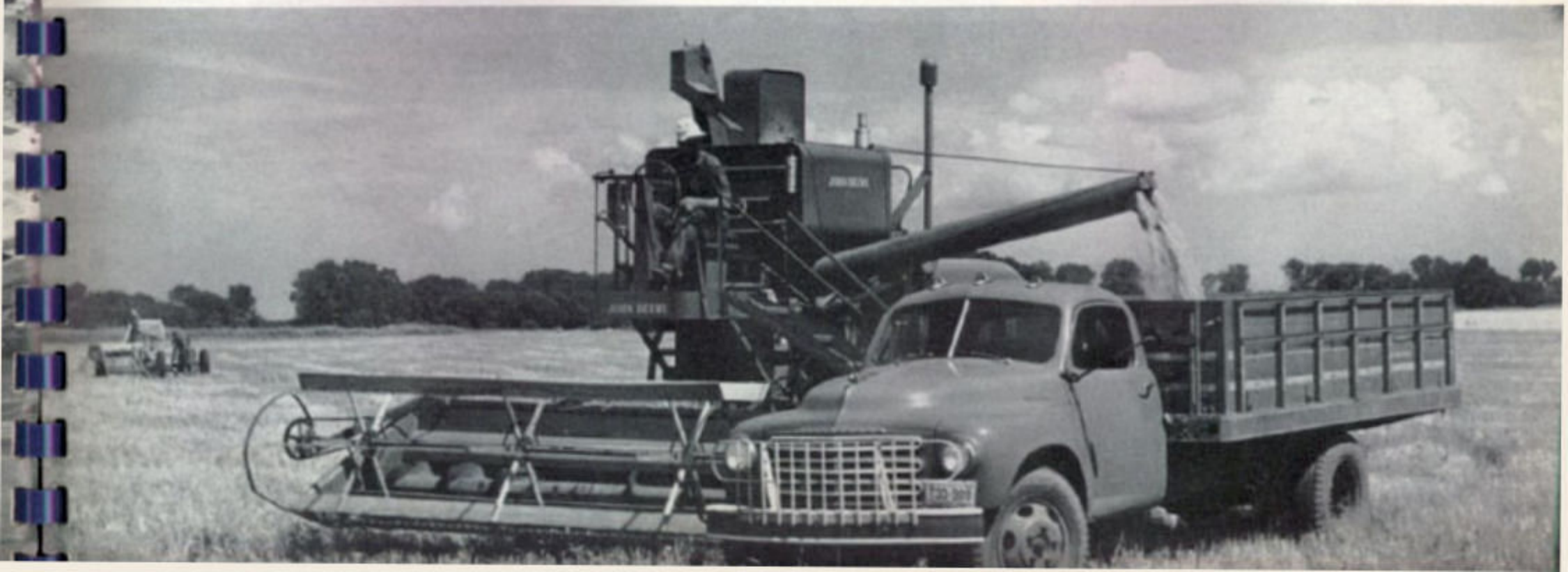
Opposite page: Studebaker's big modern truck plant.

3. *Medium Loads:* Studebaker's rugged trucks are prime favorites with thousands of individual users and fleet operators. They are breaking records for operating economy and ability to stay on the road and out of the shop.

4. *General Hauling:* Studebaker trucks are preferred units for trucking operations of many of the biggest truckers and transport contractors. Comfort and handling ease also make Studebaker trucks favorites with drivers.

5. *Specialized Hauling:* Studebaker chassis have won wide popularity as foundations for tankers hauling gasoline, oil and other liquids; for dump trucks; beverage trucks; "stores-on-wheels"; patrol wagons; fire equipment.

6. *School Buses:* For many years the safety, gasoline economy, low cost of upkeep and record of reliability established by Studebaker school buses has won friends for them among school officials in every part of the country.



Twenty Studebaker chassis features that every buyer should know

1. ***Super-stabilized front suspension,*** with new long-travel coil springs. The most advanced independent spring suspension. (*Pages 24 and 25.*)

2. ***Perfection of balance.*** Scientific weight distribution; passenger compartment located far ahead of the rear axle; extra-low center of gravity. (*Page 26.*)

3. ***"Sea-leg"-mounted rear shock absorbers,*** as extra precautions against roll and side-sway. (*Page 25.*)

4. ***Extra-low-pressure tires*** that "wrap around" and absorb road irregularities. (*Page 26.*)

5. ***Wide-base rims*** that add to safety and stability—and keep tires from leaving rims in event of blow-out. (*Page 26.*)

6. ***Increased engine power and torque.*** Commander and Champion engines—two of the World's finest—now better than ever. (*Pages 34, 35.*)

7. ***Power plant smoothness.*** Vibration banished by short, stiff crankshafts; big bearing areas; vibration dampers; aluminum alloy pistons. *Still smoother* when car is equipped with overdrive. (*Pages 36, 51.*)

8. ***Full-length water jacketing.*** Keeps cylinder barrels from warping from overheating; conserves oil. (*Page 59.*)

9. ***Live rubber mountings and bushings.*** Insulate against noise and vibration; and eliminate many lubrication points. (*See page 83.*)

10. ***Automatic choke.*** Feeds extra gasoline when the engine is cold—and doesn't forget to reduce the supply as the engine warms up. Reduces cost of gasoline, oil, repairs. (*Page 51.*)

11. ***Automatic spark control.*** Assures exactly the right engine timing for load and speed; an aid to both economy and performance. (*Pages 34, 35, 51.*)

12. ***Floating oil screen*** admits only cleanest oil into engine lubrication system. Supplementing this, Commanders and Land Cruisers have an oil filter as standard equipment; extra cost on Champions. (*Page 60.*)

13. ***Highly efficient cooling system,*** with increased and better controlled flow of air through the radiator. (*See page 60.*)

14. ***"Heat-dam" pistons.*** Protect the piston rings and cylinder walls against intense heat of engine explosions. (*Page 35.*)

15. ***Eighteen-gallon gasoline tank,*** combined with Studebaker gasoline economy, means fewer stops for gasoline.

16. ***Self-adjusting, self-centering brakes.*** Save time and expense of periodic brake adjustment; new-brake efficiency for the life of the linings; longer lining life. (*Page 43.*)

17. ***Direct-acting parking brake.*** Uses rear service shoes—not on drive-shaft. (*Page 43.*)

18. ***Hill-holder.*** Automatically holds pressure in brake cylinders until the driver uses the accelerator to start uphill after stopping on a grade. Standard on Commanders and Land Cruisers—extra cost on Champions. (*Pages 43 and 85.*)

19. ***Rugged, twist-resisting frame,*** with side rails and four of the five cross members formed of double-flanged box-section steel. (*See page 52.*)

20. ***Variable ratio steering.*** Provides quick action for straight-ahead driving and extra-easy response to the wheel for parking or turning curves. (*Page 27.*)

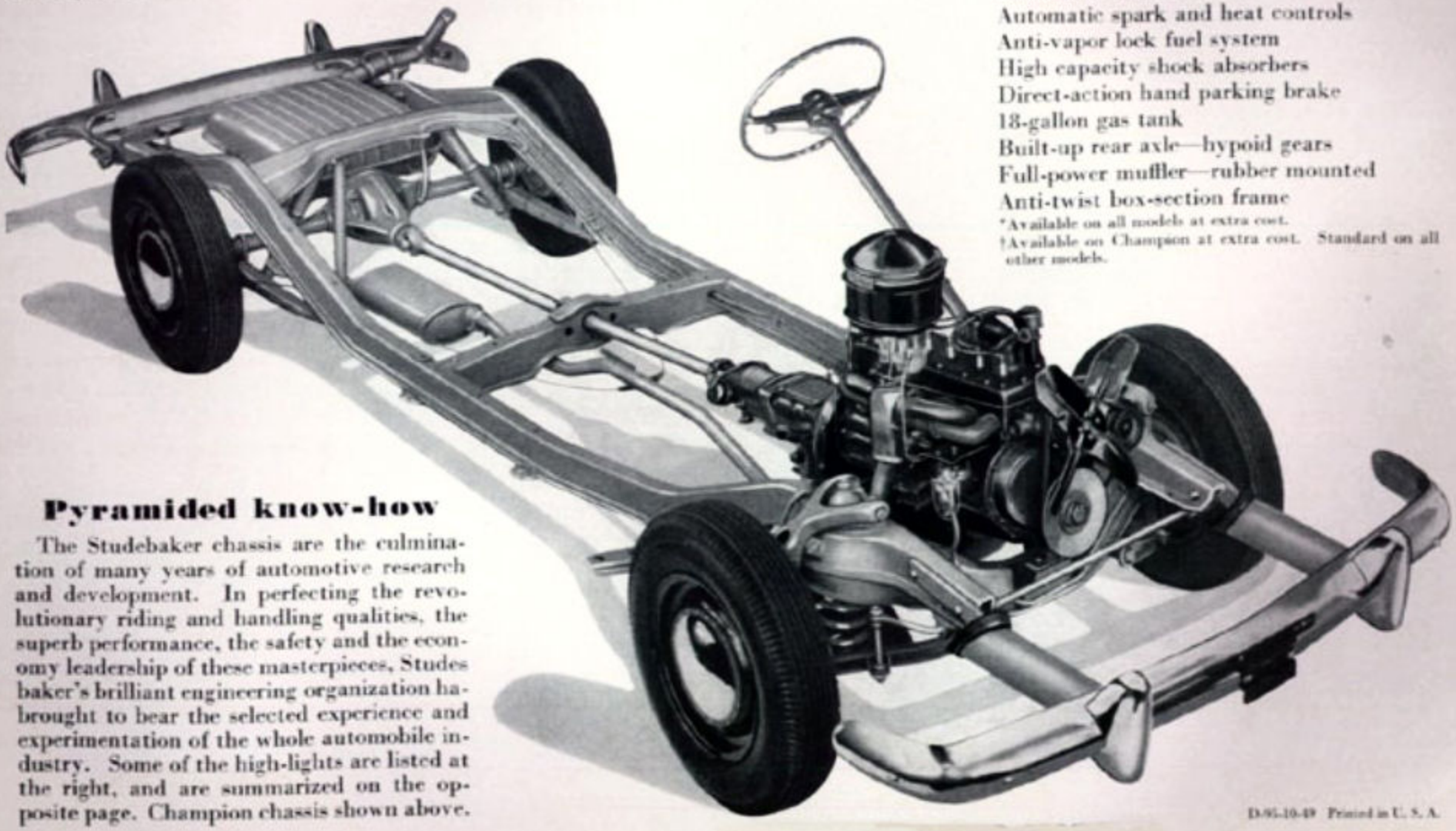
One of the World's top-ranking chassis

Gas-saving automatic overdrive*
Automatic hill holder†
Wide rim wheels and extra-low-pressure tires
Self-stabilizing independent coil-spring front wheel suspension
Self-adjusting brakes

Anti-vibration rubber engine mountings
Super-smooth, short coupled crankshaft with vibration damper
Large capacity oil cleaner†—full pressure oiling system
Heat-dam aluminum alloy pistons
Full-length water jacketing

Valve seats integral with block
Automatic current-and-voltage-regulated generator
Vacuum booster for windshield wipers†
Variable ratio steering gear—symmetrical steering linkage
Hi-compression engine
Automatic choke control
Automatic spark and heat controls
Anti-vapor lock fuel system
High capacity shock absorbers
Direct-action hand parking brake
18-gallon gas tank
Built-up rear axle—hypoid gears
Full-power muffler—rubber mounted
Anti-twist box-section frame

*Available on all models at extra cost.
†Available on Champion at extra cost. Standard on all other models.



Pyramided know-how

The Studebaker chassis are the culmination of many years of automotive research and development. In perfecting the revolutionary riding and handling qualities, the superb performance, the safety and the economy leadership of these masterpieces, Studebaker's brilliant engineering organization has brought to bear the selected experience and experimentation of the whole automobile industry. Some of the high-lights are listed at the right, and are summarized on the opposite page. Champion chassis shown above.

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THE FOUNDATION OF VALUE

To Studebaker Salesmen:

This volume graphically portrays the solid foundations on which the superior qualities of Studebaker cars are based. It gives expression to your convictions and ours that the 1950 models establish a new high in meeting the needs and preferences of car owners.

You have also seen presented in these pages several examples of Studebaker's substantial investment in modern engineering research and production facilities. These facilities constitute good reasons for your confidence in the continuing high quality of Studebaker products.

For you as a Studebaker salesman, knowledge of Studebaker cars and their background has the greatest significance. In a very real sense, your own stake in the future will depend on the skill and enthusiasm with which you transfer your personal convictions to your customers.

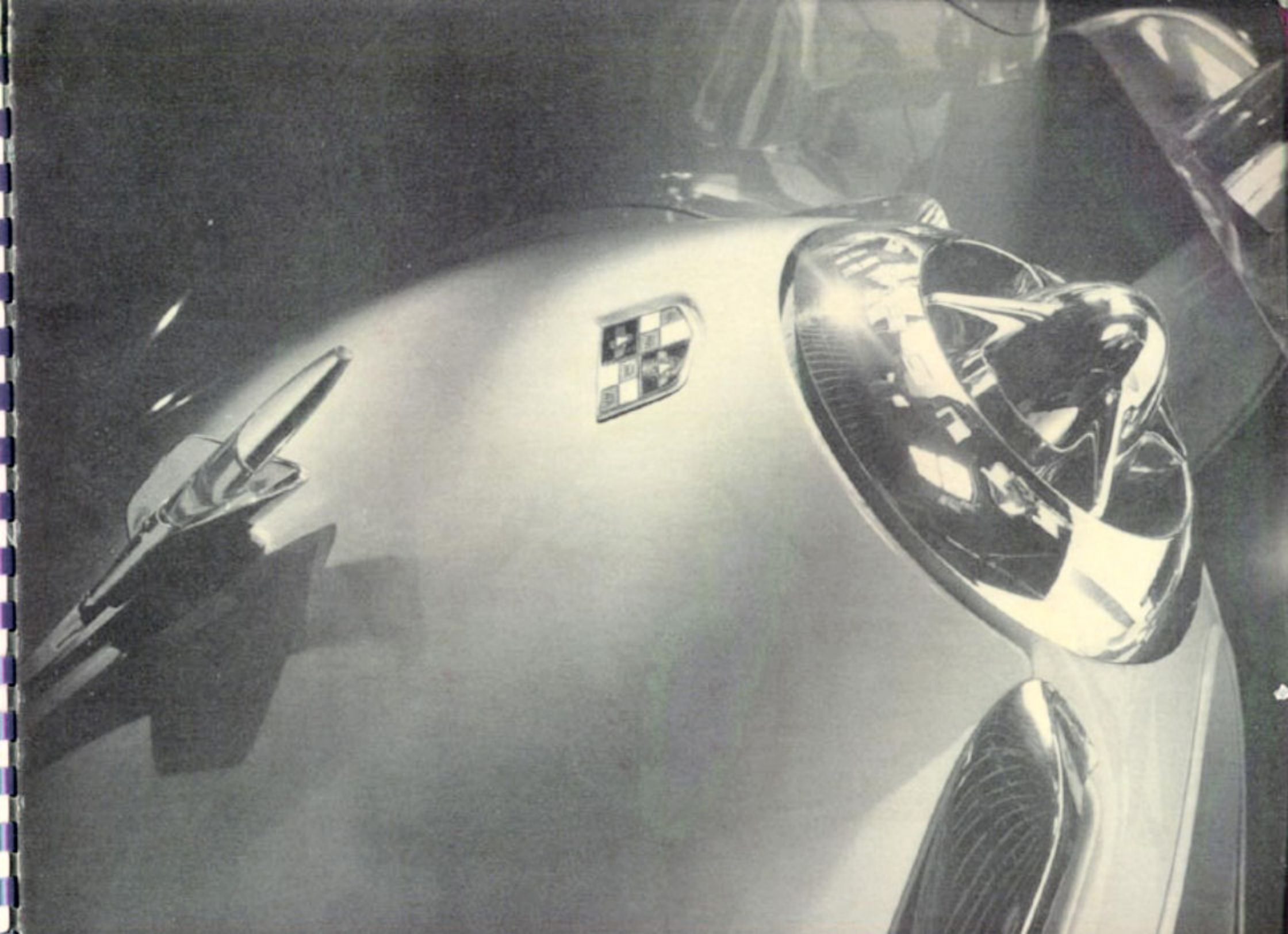
I am certain you will avail yourself fully of your opportunities in that connection and that you will find the material presented in *Inside Facts* useful not only to yourself, but also to those whose needs for passenger car transportation must at all times be served by the best products we are able to manufacture and sell.

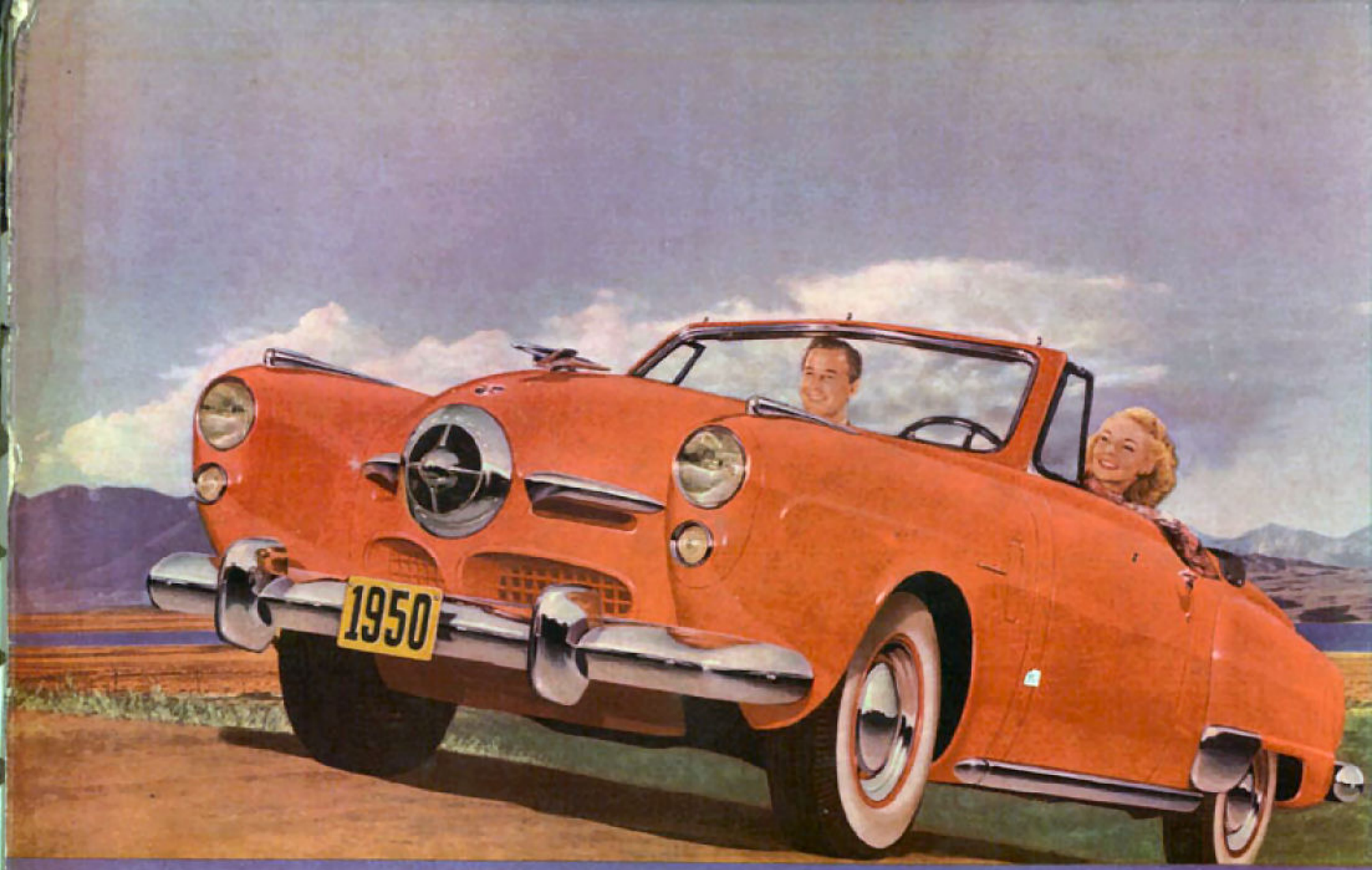
I hope you will make a special point of conveying to owners and prospective owners of Studebaker cars, not only the tangible and physical reasons for Studebaker quality, but also something of the individual pride of achievement and of the friendly team spirit which prevail among the tens of thousands of men and women who make up the Studebaker factory and dealer organizations.

In a most important sense these human qualities are the real foundation of Studebaker value.

H. S. Vance

CHAIRMAN OF THE BOARD AND PRESIDENT





INSIDE FACTS

1950 Engineering manual
for Studebaker salesmen