Studebaker 1946-1966

The Classic Postwar Years

Model-By-Model History, Technical Specifications, Historic Photographs

Richard M. Langworth

$24.95US

Studebaker 1946-1966

The Classic Postwar Years

Studebaker's innovations in transportation date back to the company's founding in 1852 to build horsedrawn wagons. As early as 1897, the Studebakers were experimenting with horseless carriages.

This is a comprehensive year-by-year account of one of the most important marques in the American automotive industry during the period following World War II.

Here are the stories of all the Studebaker greats: the Champion, Commander, Hawk, President, Lark, the fantastic gran turismo Avanti, and more. Included are technical development histories, specifications, production numbers, and a fantastic collection of historic photographs.

Studebaker 1946-1966: The Classic Postwar Years was first published in 1979. This is a reissue of the hard-to-find original edition of this book.

Richard M. Langworth is an experienced automotive writer who also authored **Hudson 1946-1957: The Classic Postwar Years** and **Chrysler & Imperial 1946-1975: The Classic Postwar Years,** both published by Motorbooks International.

Studebaker 1946-1966

The Classic Postwar Years

Richard M. Langworth

Motorbooks International
Publishers & Wholesalers

To Sharon and Asa
For all those nights in Torrington

Credits

Robert E. Bourke: p.18 (lower left), p.41, p.58 (upper right), p.75 (top), p.76 (upper left).

Asa E. Hall: p.9-11, p.12 (right), p.19 (right), p.20, p.23, p.29 (top), p.30-35, p.37(right), p.44, p.48-49, p.51-55, p.63, p.64 (upper left, right), p.66 (top), p.68 (right), p.73, p.77 (right), p.79, p.82-87, p.98-103, p.108-115, p.120-121, p.127-128, p.129 (upper left, right), p.142 (left), p.144, p.147, p.149 (bottom), p.150 (lower left), p.151, p.152 (lower left, right), p.153, p.156 (middle right, lower right), p.158 (lower right), p.159-160, all photographs in the Truck Appendix.

Holden Koto: p.29 (bottom), p.36, p.42, p.43 (upper left, center, right), p.50 (bottom), p.56, p.60 (lower left).

Raymond Loewy: p.13, p.17, p.25 (lower right), p.26 (left), p.71, p.134-137, p.139 (bottom), p.143.

Karl E. Ludvigsen Collection: p.68 (left, center), p.69.

Duncan McRae: p.89.

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Ted Pietsch: p.57, p.58 (upper left), p.59 (right), p.64 (lower left), p.65 (left), p.90, p.118, p.119 (upper left, center, right).

Richard Quinn: p.12 (left), p.15, p.19 (left), p.24 (left), p.39, p.66 (bottom), p.95, p.104, p.105 (top), p.107, p.131, p.138 (right), p.157.

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This edition published in 1993 by Motorbooks International Publishers & Wholesalers, PO Box 2, 729 Prospect Avenue, Osceola, WI 54020 USA

This is a reissue of the 1979 original edition with corrections and revisions added

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Library of Congress Cataloging-in-Publication Data
Langworth, Richard M.
Studebaker, 1946-1966 : the classic postwar years / Richard M. Langworth.
p. cm.
Rev. ed. of: Studebaker. 1979.
Includes index.
ISBN 0-87938-733-5
1. Studebaker automobile—History. 2. Studebaker Corporation—History. I. Langworth, Richard M. Studebaker. II. Title.
TL215.S79L37 1993
629.222'0973'09045—dc20 92-33786

On the front cover: The 1950 Studebaker Commander Convertible owned by Roy Yost. *Bud Juneau*

Printed and bound in the United States of America

Preface

WHY STUDEBAKER LEFT THE car business is scarcely a question of burning public import, though it might have been, one supposes, back in the middle sixties. As a document of automotive economics, this book is accordingly superfluous. As a work of automotive history, it is as valid as any. It is necessary to correct the mistaken notion that Studebaker built bad cars, engineered by farmers and styled by appliance salesmen. That is the mindless prattle of semi-sophisticated car magazines which have nothing better to do in their spare editorial moments. Let the blame be placed on top management, where it belongs.

The whole story of Studebaker since World War II is contained within, so a recap of the long, downhill slide at this point would be repetitive. It took almost half a chapter to list the reasons why Studebaker quit South Bend that gray December day in 1963, and quit the industry for good two years later. To sum it up quickly, the root cause was incompetence—the inability of management to ever make the right move, the unwillingness to understand that a tiny independent cannot compete toe-to-toe with giant multinationals. Studebaker started falling apart, for these reasons, in the thirties. It pulled itself back together in the forties, then fell to pieces for good in the fifties. The sixties were an anticlimax, however heroic.

Despite all those bleak years, it comes as a surprise to many an enthusiast when one suggests that Studebakers were interesting, even at times exciting, in the postwar era. But consider the record: In early 1946, Studebaker was the first prewar manufacturer to release an all-postwar design—a sleek, low, roomy package that set an industry standard for years. In 1950 Studebaker unveiled the first automatic transmission among low-priced cars; in 1951 it was first again in its field with its overhead valve, small displacement V-8. It need hardly be mentioned that the 1953 coupe-hardtop was the finest American automotive design of the entire decade; or that the 1956 Hawk was the basis of the personal car which is still a pillar of the industry; or that the Lark was the first compact of modern times; or that the Avanti was America's premier four-place *gran turismo*. One after another, all these stellar achievements issued forth from a midwestern firm that barely made the list of the nation's top one hundred companies—and accounted for four or five percent of the auto market when General Motors accounted for forty or fifty percent.

The postwar era was full of noble oddities: Kaiser-Frazer had its Darrin and Dragon, Hudson its Hornet, Packard its Caribbean, Nash its Healey, Willys its Jeepster, Crosley its Super Sports. But none of these models sustained their companies for long. All had disappeared by the sixties—when Studebaker was still impressing us with the GT Hawk and the Avanti—together with a series of V-8 engines capable of unbelievable power—up to 575 bhp at 7000 rpm. Of all the postwar independents, Studebaker lasted the longest. While its management busily went about the business of bad decision after bad decision, Studebaker's stylists and engineers continued to improve the breed. This is the paradox of the company, one that still puzzles and dismays enthusiasts of the marque. Herein I hope to put on record the outstanding automotive contributions of South Bend between 1945 and 1966, as well as the managerial failures which condemned the enterprise.

The list of people who made this work possible is extensive and deserving of your attention. As you will understand from the pages that follow, it would have been a pretty dull story without them. I was fortunate, firstly, to have the reminiscences of two one-time chief executives, James Nance and Harold Churchill, who gave me the benefits of their experience—the former in his first interview on the subject since leaving the automobile business. Roy D. Chapin, Jr., former chairman of American Motors, added perspective from the AMC side to the story of the scheme for a giant merger of independents. The late Nathan D. Altman took me to lunch one day in South Bend, told me about the Avanti, and of how he rescued it as the Avanti II. Engineers Harold Churchill and Otto Klausmeyer read portions of the manuscript pertaining to technical developments, and answered most of my questions thereon. Ed Reynolds, formerly attached to the Studebaker Proving Ground, provided assistance, along with several key photographs.

Studebaker styling is very deeply explored in this book—partly because it fascinated me, more because it was rarely uninteresting. Raymond Loewy read all of the manuscript pertaining to his efforts, and commented on (sometimes disagreed with!) my conclusions. Bob Bourke, Loewy's brilliant chief of design from 1950 to 1955, did likewise—revealing much about what happened, and didn't happen, in those crucial years. There were also endless observations by, interviews with, and comments from the following talented stylists: Holden 'Bob' Koto, the late Virgil M. Exner, Gordon M. Buehrig, Ted Pietsch, Bob Doehler, Duncan McRae, Dick Teague, Bill Schmidt, Bob Andrews, John Ebstein and Brooks Stevens.

Bob Andrews, Brooks Stevens and Bob Bourke should be singled out for particular thanks. They are as enthusiastic, as interested in the marque, as any collector—and because of that they are easy men to know. The hours I've spent with these three good friends, over drinks, over dinners, over brittle old drawings and documents, have provided me with a better understanding of the frustrations of South Bend than all the research for this book put together. Each of them is supremely talented, each contributed in his own way to a landmark Studebaker design. Yet none has ever knowingly claimed credit for something he didn't actually create. And in the world of car stylists, that's saying a lot.

Then there are people who themselves have investigated Studebaker history, and aided this writing through their insights, contributions, or permission to quote from their work: Michael Lamm, former editor of *Special-Interest Autos*, and R. Perry Zavitz, columnist for *Old Cars*. There are also the Studebaker enthusiasts: Fred K. Fox, who wrote the truck and literature appendices of this book, and Richard Quinn, who helped me with production figures and supplied many photographs. The bulk of the photos, however, comes from the fathomless collection of my friend Asa Hall, whose Studebaker library must be one of the most complete archives anywhere, and whose stable of Studebaker cars and trucks would do justice to any museum. Thanks also to Pat Chappell, for helping find and photocopy contemporary periodical references, and to Jack Pelzer, for permission to quote from previous issues of *Car Classics*.

Every writer is inevitably the product of personal experience. Where Studebakers are concerned, mine comes from a 1962 Gran Turismo Hawk which I owned and loved for five years, and from the Studebaker Drivers Club, of which I've been a contented member since 1968. Every writer is also the product of his editors, and here I was blessed with two good ones: William F. Kosfeld and Laura Schirle Brzezinski, who saved me from myself, and the manuscript for the reader.

Finally, I owe a debt of gratitude to Tom Warth, president of Motorbooks International—a man who had faith in me and who assigned me three books in this now well-established postwar series. It was not easy to decide to write freelance, however compelling the reasons were. People like Tom have made it not only possible, but an unalloyed pleasure for five years now.

But you are probably anxious to dispense with these preliminaries and dig into the story. You will find herein both facts and opinions, some with which you may not agree. I shall be pleased to receive corrections to errors of fact, and am certainly interested in opposite opinions. But I am confident of most of the facts, thanks to devoted checkers Fred Fox and Asa Hall; and I am reasonably sure the opinions are not without foundation. Corrections will be entered in the second edition—which reminds me of the time George Bernard Shaw sent Winston Churchill two tickets to his new play, saying "Come early and bring a friend, if you have a friend." To which Winston replied, "I can't make opening night but I will come the second night, if there is a second night." Good reading!

Richard M. Langworth
Putney House
Contoocook, New Hampshire
December, 1978

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CHAPTER 1

The First Hundred Years

IT'S TOO BAD STUDEBAKER had to die. In March of 1966, during its final death throes, a lot of people still cared about the old auto company. And care they might: This was no postwar upstart, born in the optimism of 1945 and going broke with equal abandon; no narrow manufacturer of peripheral products, failing because its market had dried up. This was the oldest vehicle manufacturer in continuous operation in the world, tracing its heritage back over one hundred years. Two years before the last Studebaker rolled off the line, enthusiastic members of a national drivers' club were besieging the executives of the corporation. Please, they vainly asked, don't let it die. Build the Avanti and the Hawk. Let the sedans go, if they must. But there should always be a Studebaker on the automotive scene.

Heritage is a precious commodity, easily lost. In the case of Studebaker, it took thirty-three years of hard work to lose it. But in the minds of many, after 1933 Studebaker was bound to fail. Said Production Vice President Ralph A. Vail in 1966, "It didn't seem to make any difference who was president. Every time they came to a fork in the road, they always took the wrong turn."

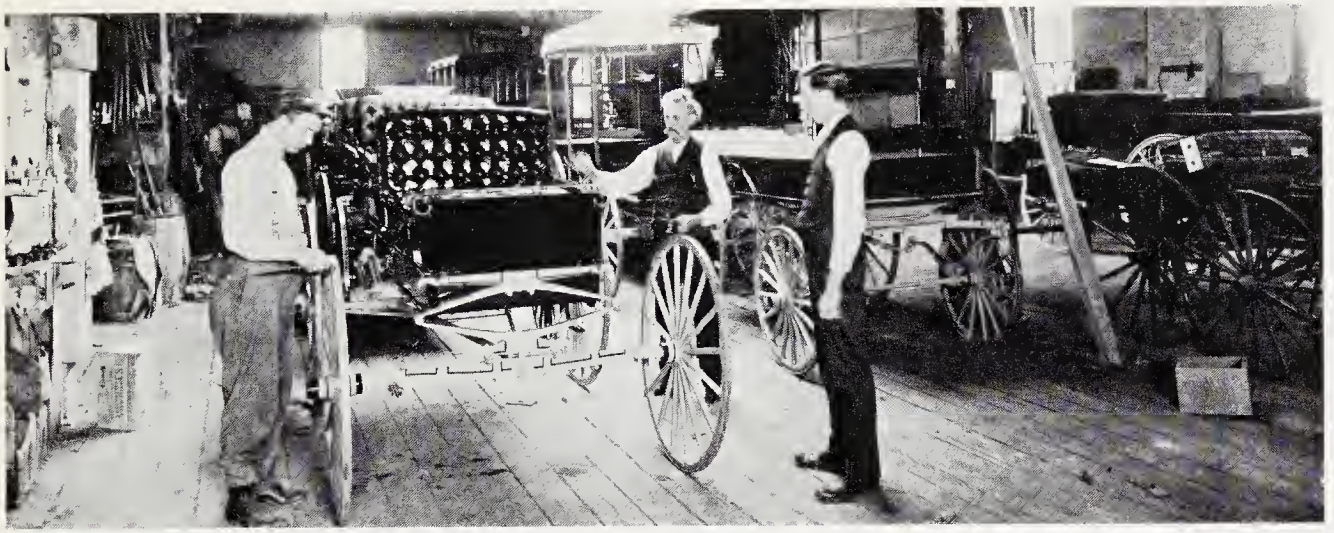
The legacy of Studebaker lives on in 12,000 members of the same car club that was so small and meaningless in 1966. It lives on primarily, I think, because Studebaker defied most laws of logic and built, during its thirty-three year decline, some of the most interesting cars in America. Had some of them been built by General Motors, they would probably be with us yet. And that is the real sorrow of Studebaker. It *could* have survived, had only certain decisions been different. In the brilliant afterglow of hindsight, those decisions seem as clear as that February day in South Bend, Indiana, when Henry and Clem Studebaker pooled their worldly wealth of sixty-eight dollars to set up a blacksmith shop and founded a partnership. The same year, they built three covered wagons. The year was 1852.

The Studebakers were of a stock we have all wonderingly known: strong, decent, bluff, shrewd, hearty; a personality, as writer Frank Rowsome puts it, "that we sometimes identify as midwestern—being most often encountered in the area of Ohio to Nebraska. It can partly be accounted for by the way of life and heritage of those sections, or even by the possibility that the mountains and salt air on each coast may in fact darken and convolute the native personality." The Studebakers' traits may have once been characterized by an eastern newspaperman, who described one of them as "a genial man with a highly suspect hayseed air. 'I'm just a country boy,' he will say disarmingly, but there is something about him that makes a city slicker count his fingers after a handshake."

The Studebakers were not among those three million people who came over on the *Mayflower*, but they could scarcely be gainsaid an application to the Sons of Liberty. The founders of the American family were Peter, Clement, Johannes and cousin Heinrich, who arrived in Philadelphia from Germany forty years before the Revolution. They sired a family of farmers, blacksmiths and carpenters in Penn's Woods. Clement's grandson John was one of these; John started his own business near Gettysburg (a state historical marker still indicates the spot), then moved west to Ohio in 1835. Henry and Clem—and John M., Peter and Jacob—each as bewhiskered as the Smith Brothers, were his sons. All of them, at one time or another, would involve themselves in Henry and Clem's business.

It was J. M. 'Wheelbarrow Johnny' Studebaker who actually transformed Studebaker Bros. from a cottage industry to a manufacturing colossus. Johnny had caught the gold fever and wended west in 1853, where he quickly abandoned panning for something more permanent: making wheelbarrows for the miners. He made a modest living, and when H. & C. Studebaker built its first buggy in 1857, Johnny came

Aerial view of the 126-acre South Bend passenger car plant.



Final inspection point of carriage assembly line. Studebaker wagon (right) won Gold Medal at Philadelphia Centennial celebrations in 1876.

marching home. His route back took him across the Isthmus of Panama and a lot of territory to its north, convincing him that the transportation field was going to become one of America's greatest. By 1858 he had bought out brother Henry's share in the company (Henry felt he didn't get enough pay for it) and began supplying wagons to westward-bound settlers and the U.S. Army, the annual gross inching up toward a quarter million dollars.

Brother Peter, a merchant at Goshen, Indiana, ordered three Studebaker wagons "for stock" in 1860, and sold them in a week. He came to South Bend looking for more, and stayed permanently after 1863—becoming sales manager by signing a two-line contract with Clem: "I, Peter Studebaker, agree to sell all the wagons my brother Clem can make." (Clem countersigned, "I agree to make all he can sell.")

The wagon business proved to be the gold mine J.M. hadn't found in California. By 1875 Studebaker Bros. was grossing over $1 million per annum—by 1887, $2 million. Fire twice destroyed much of the factory in the seventies, and thereby hangs a South Bend tale. 'Mr. J.M.,' goes the story, bet a cow that the fire department couldn't get water into his factory's belfry. The department accepted, and on Christmas Day, 1873, J.M. with three judges and former U.S. Vice President Schuyler Colfax climbed to the belfry. The firemen let go, and all five were thoroughly drenched. The cow was duly paraded before chuckling locals, then auctioned off to benefit a city charity.

Studebaker Bros. continued to be a pillar of South Bend prosperity. By 1898 it was building one hundred wagons and carriages every twenty-four hours, 75,000 a year, supplying the U.S. Army in the Spanish-American War and, a few years later, the British Army in the Boer War. Brother Jacob, who had come aboard in 1870, later came to head the carriage business. It continued to operate through 1919, rolling up one of the proudest records of production in the horse-drawn vehicle field. Wagons continued to be built into 1920.

Like many manufacturers at the turn of the century, Studebaker quickly got into the automobile business, despite J.M.'s aversions. From 1902 to 1910, they built many electrics. Gas-powered cars, J.M. characteristically commented, were "clumsy, dangerous, noisy brutes [which] stink to high heaven, break down at the worst possible moment, and are a public nuisance." But as J.M. surely knew, Studebaker was particularly well set up to build cars. It had, for example, 5,000 ready outlets all over the country. It could hardly miss. By 1908 the firm was number three in the young car-industry with 8,132 units—just a shade under Buick and only twenty percent below Ford.

Studebaker's well-built four-cylinder Garford '20', introduced in 1905, was an early ticket to success. Gas-powered cars first acquired the Studebaker name in 1913. Production exceeded 30,000 cars that year, and 40,000 in 1915. In these years it was rare for South Bend to rank below third in the field. In 1911, when the Studebaker Corporation was formed out of Studebaker Bros. and its subsidiary E-M-F, it actually finished second to Ford.

E-M-F stood for Everitt-Metzger-Flanders, set up in 1908 and purchased with exclusive rights by Studebaker in 1910. Its principals were accessories manufacturer Barney Everitt, former Cadillac sales manager Bill Metzger, and former Ford manufacturing boss Walter Flanders. The four-cylinder E-M-F car was not a rival to the Model T (it was priced at $1,000, well over Ford), but was an addition to Studebaker's medium-priced line. Nearly 8,000 E-M-F's were made in 1909. A Flanders four appeared in 1910 and ran up over 27,000 sales in 1911. The Studebaker Corporation, representing all of these diverse interests, made car-hating John M. chairman of the board, and Albert R. Erskine—a man who would be heard from further—treasurer.

In the ensuing years the Studebaker name rapidly became preeminent. The E-M-F had reliability problems, and soon suffered the sobriquets 'Every Morning Fixit' or 'Easy Mark's Favorite.' Any man with half the spunk of Mr. J.M. couldn't long stand still for that. Additionally, all three E-M-F namesakes departed—Everitt and Metzger in 1910, Flanders in 1912. Everitt built his own six- and four-cylinder cars, but they disappeared

The Studebaker brothers in 1877. Left to right: president Clem, treasurer Peter, co-founder Henry (retired in 1858), secretary Jacob, vice president John.

An EMF endurance run from 1909.

in 1912; there was no Metzger, though Bill unwisely attached his name to the company that built the Everitt. A Flanders electric made its debut in 1912, was temporarily misnamed the Tiffany, then expired ignobly, with most of the other electrics, circa 1915. Studebaker pressed on regardless. Production slowed only for World War I, during which plenty of money was made in defense work. By 1921, Studebaker was number four again with 65,000 cars; the next year it had topped 100,000. With 20,000 people employed by 1924, it ranked as the fifth largest automobile manufacturer in the country, behind Ford, GM, Dodge and Willys-Overland. Enter again Albert Russell Erskine—and Studebaker's first major mistake.

Erskine had joined Studebaker as a lowly accountant, but he rose rapidly to treasurer and vice president, then became president in 1915. By that time, all the Studebaker brothers except Wheelbarrow Johnny had passed on. From 1915 until his death in March 1917, John M. was listed as honorary president, but this was a meaningless title. All company policy was developed and set in Erskine's office.

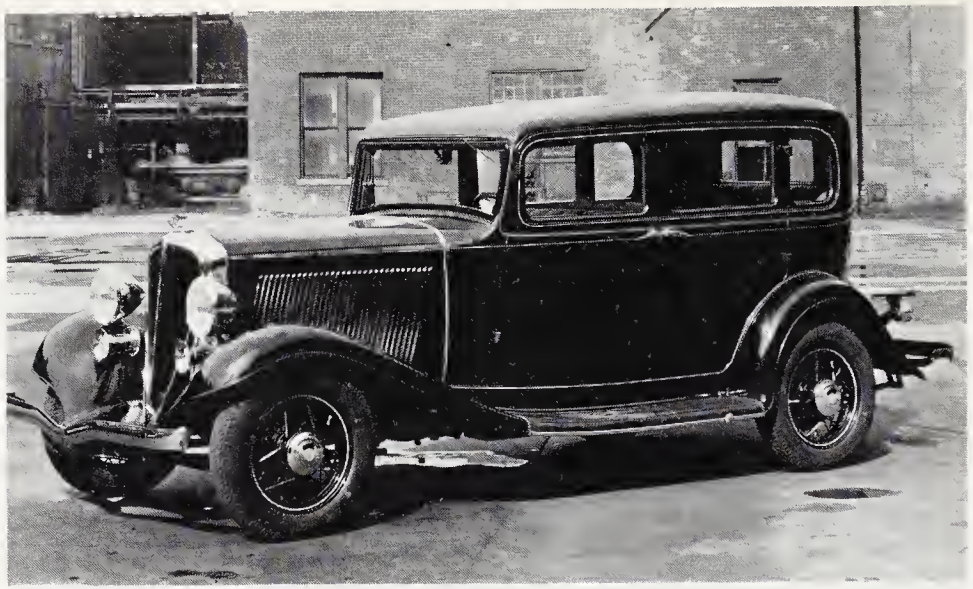
Albert R. Erskine's philosophy, based on a bubbling exuberance, was to make Studebaker "second only to Ford," and in some years he very nearly succeeded. By 1922, for example, Studebaker was producing three times the number of cars and earning more than ten times the profits it had earned a decade earlier. *Motor Age* called Erskine "a rare combination of master financier, manufacturer and salesman; he is blessed with that precious ability to find good men . . . He is proud as a peacock of the organization he has gathered around him, and from which a key man seldom departs. 'Yes sir,' he says, cracking his big hand, palm down, on his desk, 'I *defy* any one to take a Studebaker man away from us—*any one!* Well no, let's modify that—I simply say it can't be done,' . . . As long as he stands at the helm—watch Studebaker!"

But like many hard-driving executives who achieved a modicum of success in those heady post-World War I days, Erskine eventually bit off more than he could chew. His character was not entirely as sterling as *Motor Age* suggested, either. Though capable, he was capricious. He harbored grudges and often acted on the basis of emotion instead of cool logic. "One such incident," notes historian Maurice D. Hendry, "involving the termination of Studebaker's entire advertising account with one agency and its granting to another, arose from a dispute over a game of poker!"

Erskine's first mistake occurred in 1924, with the factory still humming along at a healthy rate. After a trip to Europe, he signed on Ray Dietrich to design what he modestly named the Erskine—nicknamed 'The Little Aristocrat.' It was, in due course, a disaster.

Introduced in December 1926, the Erskine was prompted by Ford-dreams, and temptations of the export market. Its small 2-5/8-inch bore was designed to take advantage of European tax formulas, and it sold well overseas, but it was a complete failure at home—where volume was most needed. It was an old formulation, this second-guessing of Ford, and it was just another in a long line of Ford-like cars that

Albert R. Erskine and Knute Rockne.



Rockne, named for Notre Dame's coach, was sales failure.

flopped. And Studebaker had tried and failed with Ford-beaters before—the Flanders four, the Models SA through SF, the Light Six. One might have thought they would have learned their lesson. The Erskine vanished in 1930. At almost double the price of the Ford Model A, it never really had a chance—and that price says a lot about Studebaker product planning at this juncture.

But Erskine's Erskine was not a crippling blow. Studebaker production remained well over 100,000 through 1928, largely through the efforts of Delmar G. 'Barney' Roos, who joined the firm in 1925. Roos engineered the first Studebaker eight, the 1928 President—one of the finest automobiles to ever put rubber to road. Presidents set dozens of stock car records, and from 1930 to 1937 President-based racing cars performed extremely well at the Indianapolis 500, finishing as high as third and on several occasions coming close to winning outright. To a reputation for solid reliability, Roos added performance, and this was reflected in the prewar sales slogan: "From the Speedway comes their Stamina, from the Skyway comes their Style." The President was accompanied by the traditional sixes, and despite the Erskine's failure, no serious sales problems were encountered until October 1929. During that fateful month, the stock market nearly disappeared. Studebaker nearly disappeared four years later.

At first, all companies suffered with the Depression. But as time passed, the strong ones or the innovative gradually pulled themselves together. Studebaker didn't. Sales plummeted to 43,000 by 1933. The situation wasn't helped by Erskine mistake number two, the 1928 purchase of Pierce-Arrow, an expensive albatross when most people couldn't afford Fords; nor by mistake number three, the 1932 Rockne, whose name was unfamiliar to anyone who didn't follow Notre Dame football. Most people who could afford new cars bought the competition. Profligate dividends practices were the final blow. Erskine had paid out ninety percent of 1928's $177-million profit to stockholders and, incredibly, he continued to give money away *after* the crash—$2.8 million more was paid in 1931, out of capital reserves. A merger was almost floated with White Motors, White wisely declined, sales continued low, and working capital dwindled. By 1933 Studebaker went into receivership, its liabilities exceeding its assets by $15 million. A broken man, Erskine resigned, shortly to die by his own hand.

But for a fortunate set of circumstances, Studebaker's history might have ended here. Erskine, sadly, made a pretty fair accountant but a terrible president. After six years of blunders like his, lesser companies would have foundered permanently. But Studebaker was a tough company to kill, at least in the 1930's.

No auto manufacturer which went into receivership during the Depression ultimately survived. Indeed Studebaker was the only one to survive World War II. The independent car companies who remained in 1945 had, with Studebaker the exception, all stayed in business during the thin years. Not insignificantly, all of them were located in or near Detroit, center of the component industry, the largest pool of automotive talent, and by 1930 the only place in the country where it made sense to build cars in large quantities. The postwar independents who avoided bankruptcy in the 1930's included Packard, mighty builder of luxury cars, which nevertheless moved into the

upper-medium price class with the soundly engineered One Twenty, and survived; Hudson, saved by the almost single-handed efforts of Roy D. Chapin, Sr.; and Nash, which merged with Kelvinator in 1937, acquiring that brilliant tactician George W. Mason. Studebaker had a much harder climb. Its salvation was in the kind fate of receivers who not only wished it to survive, but to do so as a builder of automobiles: Sales Vice President Paul G. Hoffman, Production Vice President Harold S. Vance, and White Motors' Chairman Ashton G. Bean (Studebaker held $26 million of White stock).

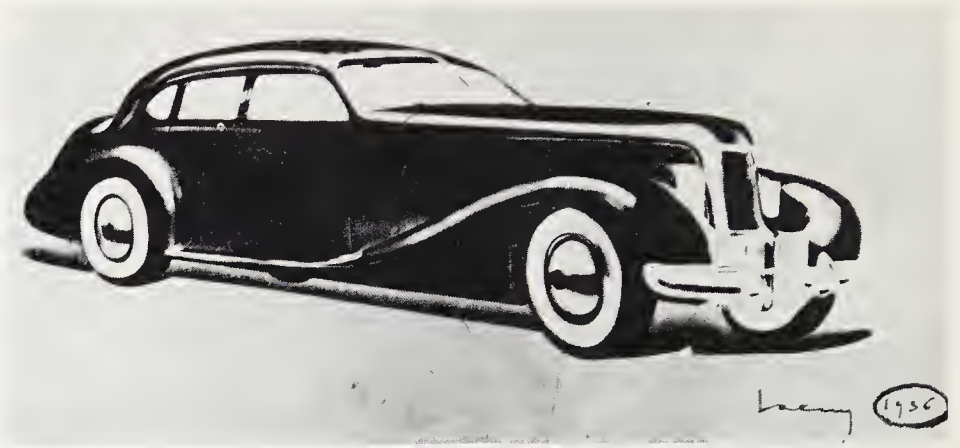
Vance and Hoffman brought vital skills to the down and out corporation. Hoffman had been an auto salesman in his early career, and in the early 1920's had created one of Studebaker's most profitable distributorships in Los Angeles. He had been sales vice president since 1925, and he thought he knew a lot about what was wrong with the marketing. Vance had started at South Bend as a mechanic, but rose with astounding speed to purchasing agent, assistant to President Erskine, overseas sales manager and general sales manager. He had served as vice president for production and engineering from 1926.

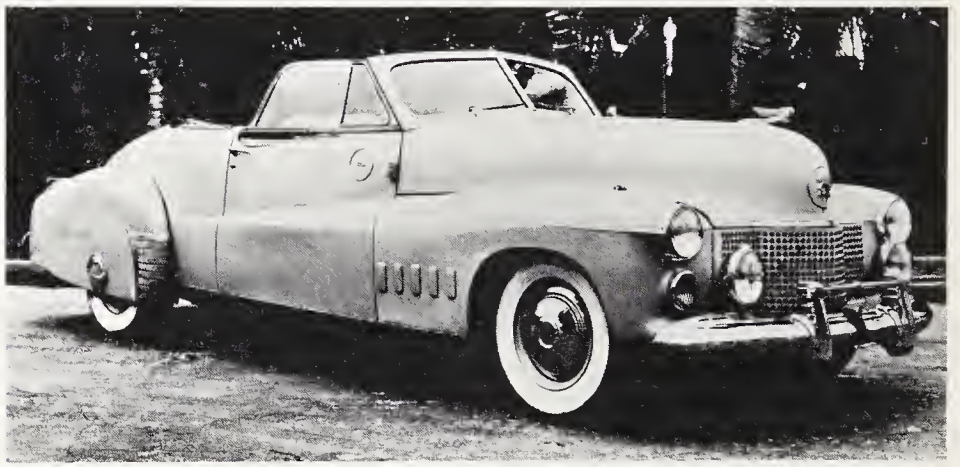
Vance and Hoffman moved fast. Pierce-Arrow was sold at a tremendous loss, but it nevertheless netted a million dollars in badly needed cash. Studebaker's production line had shut down in March 1933; Vance and Hoffman had it moving again in April, and by the end of that month a small $20,000 profit was realized. Some receivers in New York looked at this happy report with disbelief. "What's your opinion of these figures?" one creditor asked another. "If anything," his colleague replied, "they're too conservative!" "Well then, let's go ahead and see what they can do with the company." Harold Vance later recalled that moment as "the turning point."

By 1934 a $7-million line of credit was secured, and by 1935 Studebaker had opened a second assembly plant in Los Angeles. Sales were again approaching 50,000 a year. A new series of President Eights helped. Then, in 1939, the company went over the 100,000 mark again, the biggest gain over a past year in Studebaker history, with the new economy Champion—a name as perfectly suited for this corporate saviour as any name ever devised. At $705 the Champion was easy to own, and a good-looking car as well. The looks were not haphazardly achieved. They were owing to a brilliant designer whom Hoffman had brought in as a consultant in 1936: Raymond Loewy.

Loewy's name will intertwine with Studebaker's for the rest of this story, so it is appropriate to examine his career now. For many years, Raymond Loewy Associates would be the only thing standing between Studebaker and dull mediocrity. Aside from the Barney Roos period, Studebaker engineering never achieved the pinnacles of independents like Packard or Hudson. Its styling, before Loewy, had varied widely between the sublime and the silly, and some of its marketing policies—naming one Studebaker model car a Dictator at a time when the world was learning of Hitler, Franco and Mussolini, for example (the name was changed to Director in certain overseas countries, in self-defense!)—made intelligent people wonder whether they should laugh or cry. South Bend as a location for building cars made about as much sense, as, in the words of a later critic, "locating a shipyard in North Dakota."

When American GI's dragged a French soldier named Loewy off the World War I battle line and deposited him at a medical unit, they were saving one of the major talents of the industrial design world—and the talent had been showing for some time even then. Born in Paris in 1893, Loewy had designed a foot-long model airplane in 1908, and formed a company to manufacture it. He entered college to study electrical engineering,





Early Loewy sketch for streamlined President, 1936.

Loewy's customized Cadillac, 1941. Fenderline was strongly predictive of later production designs by Buick.

but the war intervened; after being patched up he shipped himself to America with forty dollars in his pocket, completed his education and decided on a career in commercial art. A Loewy design for Macy's caused an uproar—because it was clean, not cluttered—and he left their employ, vowing to be his own boss whatever the assignment in the future. Loewy's strikingly simple yet elegant designs would continue to cause uproars years later, in the cluttered age of American automotive styling. There was no reason, he would say to dubious audiences in the mid-fifties, for fads, chrome-plated or otherwise, tailfins especially: "The tailfin does not make sense, either from a practical or esthetic



Left to right: Robert E. Bourke, Virgil M. Exner and Gordon M. Buehrig.

point of view. The American car is already overweight; it adds only more pounds. Weight," Loewy declared, "is the enemy. My whole automotive career has been devoted to proving that point to disbelieving manufacturers."

In the beginning, the young Loewy took work where he could find it, freelancing fashion designs for slick magazines, or ad programs for department stores. He even designed ladies underwear and costumes for Flo Ziegfeld's follies. But his major interest was industrial design, in replacing ugly mechanical devices with beautiful ones. Never, as he said in his autobiography, would he settle for leaving well enough alone.

A break occurred finally in 1929: Gestetner, the duplicating machine people, asked Loewy if he could make their product look better. The resultant design lasted unchanged for twenty years. Soon Loewy's services were being sought for projects large and small, from Pepsodent toothpaste tubes and Schick electric shavers to Greyhound buses, TWA sleeper planes, ferryboats and Moore McCormack ocean liners. By the late thirties, when he contracted with Studebaker for a styling consultantship, 'R.L.' had won fame as the father of streamlining on the Pennsylvania, 'Standard Railroad of the World,' then the bluest of blue chip corporations. With the Pennsy streamliners, Loewy's future was assured.

After Pennsy, Loewy's clients multiplied rapidly. Prewar, the Royal Society of Arts awarded him their Royal Designer to Industry diploma—the first time this honor was conferred on a non-Briton since the Society had been founded in 1754. It was Raymond Loewy who designed the Lucky Strike green pack in 1940, sent it to war and brought it home as Lucky Strike white—the pack has been the same ever since. Today, if you drive your Avanti II to the post office, filling the tank with Exxon on the way, and come home to wash down a lunch of Oreo cookies with Canada Dry ginger ale, you'll have come in contact with five Loewy-designed packages or emblems within the hour.

More recently, R.L. was retained as consultant for the U.S. space program. He became involved in 1961 at the White House, where he was designing the interior of President Kennedy's Air Force One. The President phoned then-NASA administrator James Webb, recommending Loewy's retention; the suggestion was duplicated by Senate Space Committee head Stuart Symington. Eventually, Loewy was retained as habitability consultant by Dr. George E. Mueller, Deputy Administrator for Manned Spaceflights. Among the assignments were Skylab and early research and exploration for the earth shuttle, to be inserted in orbit in the spring of 1979. In 1976, Loewy was invited by the U.S.S.R. to participate in the Russian space program, but this R.L. preferred to decline.

Loewy had always loved cars—driving and racing them, as well as designing them. Said the irrepressible Tom McCahill some twenty years later, "When I was in Le Mans for the famous 24-hour race, I kept stumbling over Loewy in every pit. Unlike some of our home-grown design jackasses, who never stray further from their drafting boards than the nearest saloon, here was Raymond Loewy, checking every new angle and interesting curve the products of the best car brains of Europe had produced."

Loewy's first automotive design was for Hupmobile in 1934—one of the prettiest Hupps in history, it was an aerodynamic car based on a model that had won the designer a grand prize at Cannes two years before. The Hupp was apparently noticed by one of Studebaker's new bosses. "Paul Hoffman was a close friend of mine," Loewy told this writer, "a brilliant mind with imagination and always ready for new things. He brought me to Studebaker. Two major stockholders, Paul Mannheim of Lehman Brothers and *Life* chairman Tex Moore, also recommended me. Several other members of the board, whom I knew less well, also were in favor. Hoffman then asked me to start my own styling division. My responsibilities were twofold: to see that the designs being developed closely followed my own concepts, and to convince management that these

designs were essential to insure Studebaker's leadership and prosperity in the years ahead."

Loewy points out that no designer on his body staff, however talented, "possessed the prestige or sufficient credibility to achieve both these results." It is important, however, to note his many carefully chosen assistants—from over one hundred designers working for Loewy Associates by 1945.

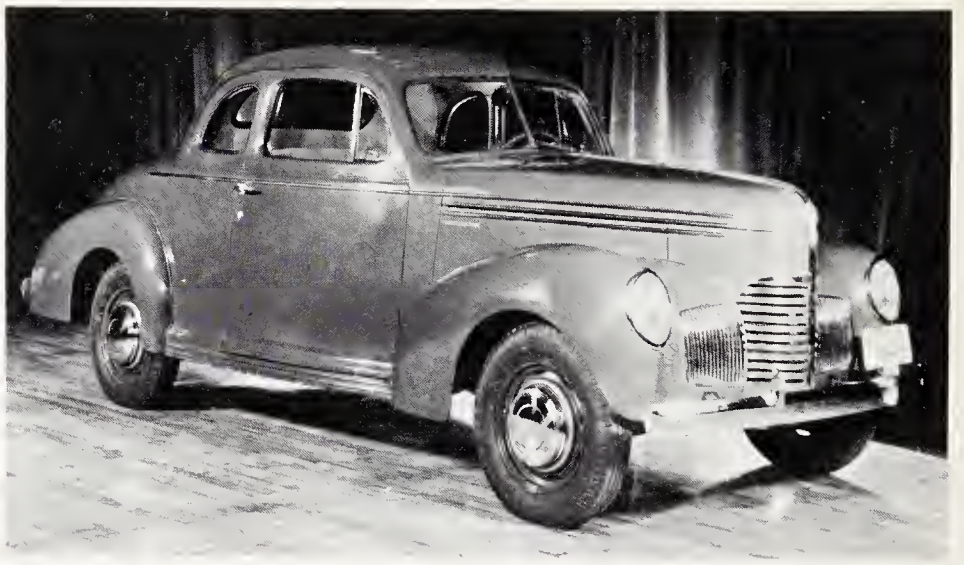
"I used to go to South Bend nearly every week [except] during the summer, when I was in my Paris or London offices," Loewy says. "When I was away, my associate A. B. Barnhart, or John Ebstein (an assistant and an excellent body designer) would insure application of my design direction, so that no diversions could occur—as my name and responsibilities were involved. There were several top-flight designers who I should mention—Gordon Buehrig, Bob Koto, Ted Brennan, John Cuccio and John Reinhart—but at South Bend I placed Robert E. Bourke in day-to-day charge. Bourke was an outstanding designer, knew all about making wood and clay mockups, was a good administrator and a devoted worker."

Bob Bourke entered industrial design in the mid-thirties, when he joined Sears, Roebuck in Chicago. "I worked there for years," he told the author, "designing such memorable devices as manure spreaders, power tools, outboard motors, radio cabinets, washing machines and refrigerators. I had always wanted to design automobiles," Bourke continued, "and an opportunity to show Virgil Exner my portfolio culminated in my being hired by Loewy Associates."

Virgil Exner brought considerable automotive design experience to Loewy's Styling Division in South Bend, which he headed when Bourke presented his portfolio. Exner had been chief stylist for Pontiac in 1934-38 (he helped originate the famous Silver Streak) before coming to Studebaker. Ater he left in 1949 he joined Chrysler, where he was responsible for a revolution in styling which helped save the company—and later introduced Loewy's hated tailfin. After leaving Chrysler in the early sixties, Exner headed his own design firm, and created a number of revival classics including the Stutz Blackhawk, which sold for years in its original form.

"It wasn't long before the war came," Bob Bourke continued, "and men with drafting or engineering experience were needed for the defense effort. A special division for new aircraft engine development was established at Studebaker by Curtiss-Wright, and I was soon hired by the latter to participate in design and testing of the new air-cooled turbocharged engine for the Army Air Corps. During this period I worked once more with Virgil Exner. 'Ex' and I, and an excellent modeler named Frank Ahlroth, began the initial work on the 1947 Studebaker program . . . Raymond Loewy was meanwhile evaluating what I could do, and finally asked if I'd like to join his team. Exner and Ahlroth were at the time the only Loewy personnel assigned to South Bend. I was delighted to accept R.L.'s offer. I'd always admired him, especially for his ability to sell advanced designs to recalcitrant executives. It was all really only a formality though, as I continued working with Ex and Frank on the postwar proposals. Loewy, meanwhile, was busy convincing management to accept these designs for the postwar era."

Lines resembling what Studebaker would eventually build for the 1947 model year began to emerge as early as 1942. Generally, the styling paralleled experiments at other companies such as Hudson where, as stylist Bob Andrews said, "you'd take a bar of soap and start carving." The cars were flush-sided, integrally fendered. Glass areas were large, curving, wrapped around at the front and cut up into the roof at the sides. Loewy



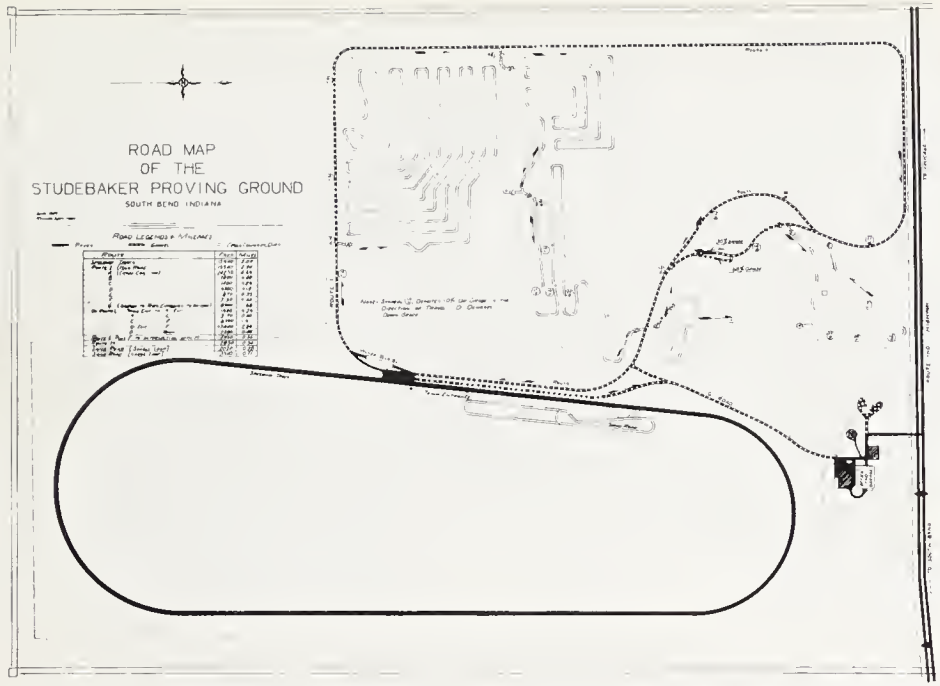
The 1939 Champion, an outstanding success. (Hubcaps are not standard.)

detested chrome for its own sake, and it was not very evident on the wartime prototypes. He approved slippery shapes, and some models used glass or transparent plastic covers over the head and parking lights to aid streamlining.

The 1939 Champion was hardly on the scene a year when Hitler marched into Poland, precipitating World War II. Studebaker had built 119,000-odd cars in 1941, but after Pearl Harbor production dwindled and finally stopped by government order. Only 9,285 cars left South Bend in calendar year 1942. Studebaker prospered under the defense effort, which saw more than $1.2 billion awarded in contracts through V-J Day. Working on a cost-plus basis, the company built 200,000 2½-ton Army trucks, 64,000 Wright Cyclone aircraft engines for the B-17 Flying Fortress, and 15,000 Champion-engined troop-carrying amphibians named Weasels. In 1943, with sales totaling nearly $213 million, the firm paid its first dividend since emerging from receivership. Employment reached a record 26,476 in early 1944; ninety-five percent of the work force participated in the war bond campaign, and of over 5,600 Studebaker men in uniform, 111 lost their lives.

Though Studebaker had recovered before Pearl Harbor, the war years left it in optimum condition for recommencing passenger car production, which it did in January 1946. Though Studebaker built no cars by the end of 1945, it had accumulated $33.6 million in working capital, $13.5 million in salable inventories, $17.7 million in plant and equipment, and only one small liability—a $12-million bank loan. It looked as if the miracle Hoffman and Vance had set out to accomplish had indeed occurred.

Postwar cars would require extensive testing, and to accomplish this Studebaker would again rely on its 840-acre Proving Ground, fifteen miles from South Bend. First of its kind in the country—built in 1926, just a year before Packard's—this "Million Dollar Outdoor Testing Laboratory" employed as many as one hundred people in the early



Studebaker Proving Ground provided an extensive testing facility.

Proving Ground 'tree sign' is still visible today.

days. Though its features, including the banked oval three-mile track, compared roughly to Packard's (many miles of twisting test roads with all kinds of surfaces, hills as steep as one-in-four, beds of water for splash tests and sand pits to check traction) it was more elaborate and nearly twice as large in total area. Whereas Packard's property housed the bare minimum of buildings, Studebaker's included a club house, recreational facilities, even living quarters for employees who preferred not to commute between the facility and South Bend. In a burst of pride, several thousand pine trees had been planted along a half-mile length at one end of the oval in 1937, spelling Studebaker from the air. They're still distinguishable today, though the current owner, Bendix, has not made particular efforts to preserve the pattern.

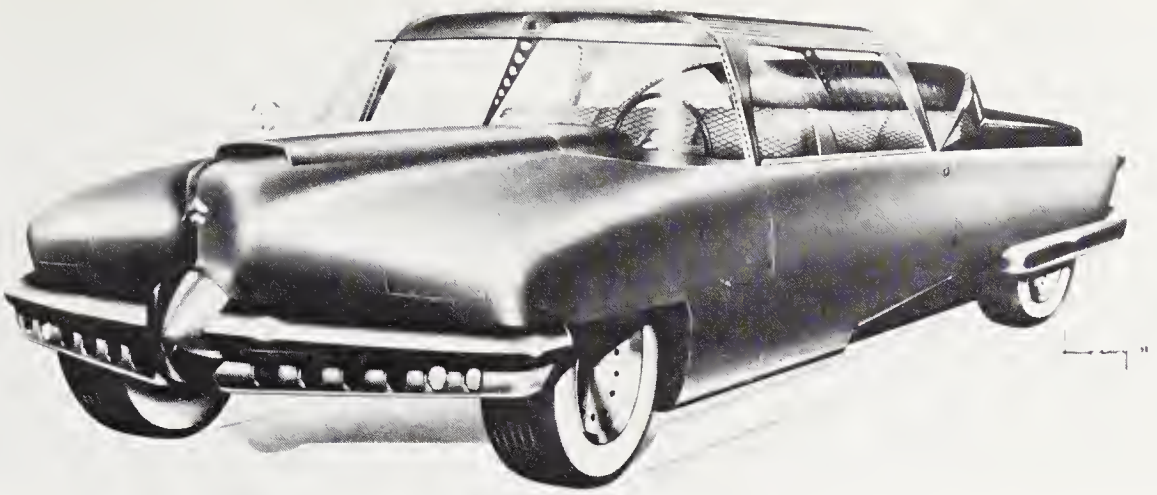
Prewar, the Proving Ground was used to test proposed or production cars and trucks, plus numerous foreign and domestic competitors purchased for evaluation. Occasionally it was opened to the public for displays and exhibitions, though its primary purpose was undisturbed research.

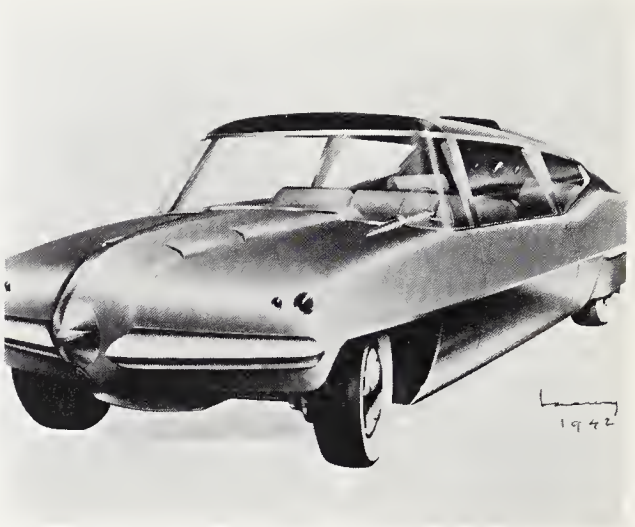
In March 1943, the Proving Ground was leased by the Army Ordnance Department for testing military vehicles. The road mileage was doubled, the 100-mph high-speed lane of the oval track was removed. Garages were expanded, a 250-foot basin was constructed for water testing. Over 650 vehicles were tested there, everything from tanks to half-tracks, logging nearly a million miles in little more than two years. With termination of the Ordnance contract in July 1945, the Proving Ground had to be extensively repaired, as the heavy vehicles had caused considerable damage. While Packard received government help in similar reconstruction at its proving ground, Studebaker apparently paid the cost without aid.

The expenses of converting from defense work were reflected and enlarged down the road in South Bend, and naturally affected the balance sheet. Though the company voted dividends totaling fifty cents a share for 1945, Studebaker sales had slid to $212.8 million and profit was only $3.2 million, both real financial worries. War contracts were completed on the basis of plans worked out eighteen months before, and Studebaker was fully ready for civilian production again by October 1. Actually it had been given government permission to build cars again in July, but conversion work and strikes in component industries, not to mention shortages of raw materials, prevented a restart until January 1946.

The speed at which Studebaker reconverted was partly due to its ace contract termination officials. Just 105 days after V-J Day, for example, the company settled $110 million in Army truck contracts. "For its size," commented *Business Week*, "this is easily the fastest and smoothest termination on the books." As subcontractors entered claims against commitments, Studebaker paid them off without waiting to pass the claims on to the government, receiving in the end only partial payments or nothing at all. If this appeared a strangely loose policy, it probably was. But the company liquidated war business faster than most auto manufacturers, and the amount lost by rapid defense settlements was probably a small price to pay for the advantage gained.

Significant, too, for the selling seasons to come, was the August 1944 changeover from the distributor system to direct retail dealers. Eliminating distributors meant that the profit increment they usually absorbed would go directly to the dealers, who naturally approved this policy loudly. But smaller manufacturers traditionally used the distributor system to assure themselves adequately financed representation, so the change indicated that Vance and Hoffman were thinking big about postwar production. This was borne out when production reached beyond a quarter million cars in 1950—but still, it





Advance styling proposals for 1943-44 models.

was only a fraction of Big Three output. One can question, then, whether dropping distributors was a good long-range idea. Some marketing men suggest that it wasn't. For an independent, the distributor was often a unifier and morale booster, who took care of his dealers better than they could themselves. But as Hudson learned before it dropped its distributors in 1949, the middlemen were a problem if another company went on dealer raids. If a distributor went over, he often took some of his dealer network with him. On balance the move was sound.

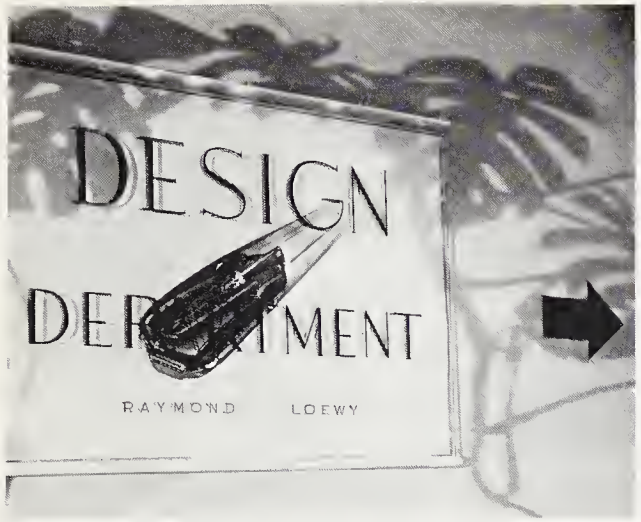
Though it was obvious from all these hasty preparations that Studebaker was readying something big for 1946, there were facilities to keep busy, employees to keep working. On October 23, Studebaker announced its 1946 line of Skyway Champions—like other manufacturers' cars, warmed over 1942's. (At least one source reported that the Dictator line would be revived in February 1946—as incredible as this sounds after WWII—but Studebaker never so indicated, and the imminence of a new 1947 design makes it unlikely that any such plan was considered.)

Skyway Champions, immediately distinguishable from prewar cars by an expanded bright-metal molding running along the bottoms of the fenders as well as the rocker panels, were available in four body styles and twelve single and duo-tone colors: Sierra red, Nassau blue, Berkshire gray, Sagamore green, Winetone maroon, Desert tan, Smoky Mountain gray, or combinations of same. They were powered by the 169.6-cubic-inch (bore and stroke of 3 x 4 inches) Champion six, most recently used in the wartime Weasel. Revised styling, improved riding qualities, and mechanical modifications were made, though advertising didn't take much note—sticking to WWII-style patriotic displays or emphasizing the long line of father-and-son craftsmanship personified by the South Bend work force. The last, incidentally, had never known an official strike, though wildcat stoppages were common and ran rampant after 1946. Not all of them were loyal, kind and industrious either; some former employees remember them lining a building adjacent to Union Depot, waving at the passenger trains—during working hours. Labor was going to be one of Studebaker's mightiest problems after the war.

Aside from the new rocker trim, 1946 styling was similar to 1942. There was a 1942-type grille (sans parking lamps), a nameplate along the lower rear part of the hood. The parking lights were carried in the headlight rings. Optional fender-top lamps could be used as extra parking lights or combined with turn-signals. Sturdier bumpers with 1942-type vertical guards were mounted. Interior changes included a new deluxe steering wheel, automatic dome light and luxurious Bedford cord upholstery. Studebaker's prewar Climatizer, providing forced air circulation in either warm or cool weather, was retained as an option, as were overdrive and a pushbutton radio. Available too were turn signals, dash-controlled radio antenna (cowl mounted), windshield washer and windguards similar to those of the '42 Commanders. Studebaker's Bendix-built Hill-Holder, a brake system designed to keep a car from rolling backward when declutched on grades, was also offered. Working through the hydraulic system, it retained brake fluid pressure on the hill until the clutch was released, eliminating the need to slip the clutch or use the handbrake.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 5G			
Cruising sedan (5)	$1,097	110	2,566
2dr Club sedan (5)	1,046	110	2,541
Coupe (5)	1,044	110	2,491
Coupe (3)	1,002	110	2,456

Though not loudly trumpeted, 'significant mechanical improvements' were evident in the '46 cars, some of them having actually appeared on '42 Champions. Spring action was improved with new Flex-o-liner inserts for the leaf springs, to reduce leaf friction and provide softer action and a smoother ride. (Studebaker was still using Barney Roos'



At the door to Loewy's South Bend studios and the Loewy Design Department in late 1945.

Bourke idea for Commander featured rubber side rub rail, airbrushed over factory photo, circa 1943.

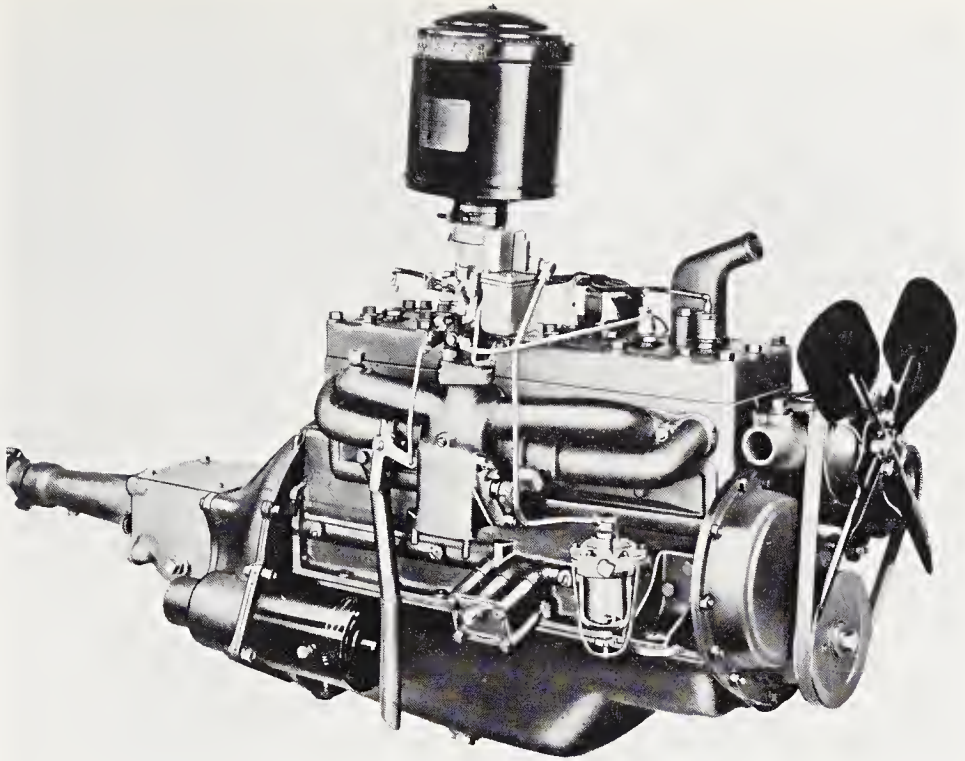
'planar' independent front suspension and had not as yet, in Keat's phrase, gone "independent of the leafy spring.") An automatic choke, floating oil screen, larger-capacity air cleaners and silent helical gears were featured. The engine was basically unchanged, though Studebaker had reverted to aluminum pistons—which had been dropped in 1942-45 sixes for cast iron when aluminum became scarce.

The L-head Champion six, still a young powerplant, was developed beginning in 1936 for the 1939 Champions. W. S. James, Roos' replacement, is credited with the design, working under Engineering Vice President Roy Cole. In 1939 it had been clean-slate; a lightweight engine but large enough to allow displacement increases for greater power. It would remain in production for a quarter century, disappearing only after 1960.

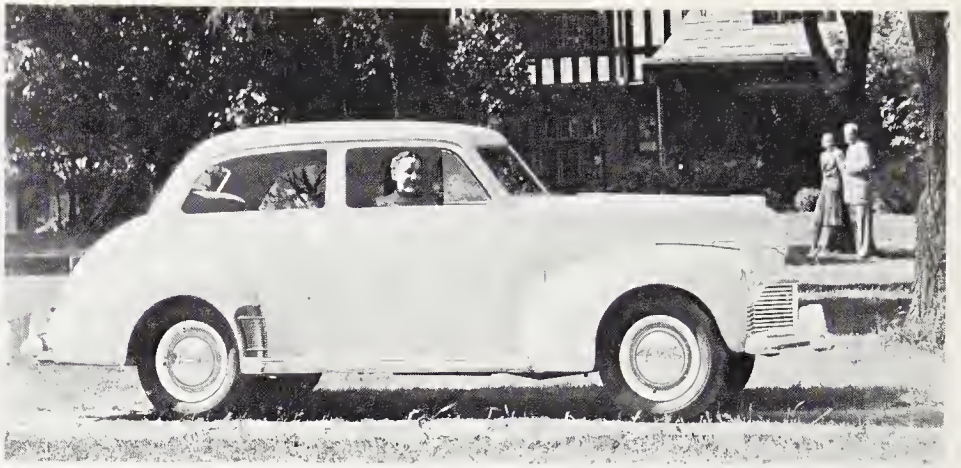
For 1939-40, the six displaced 164.3 cubic inches (3-7/8 x 4) and produced 78 bhp at 4000 rpm—the highest-revving engine in the industry. As it weighed from 178 to 255 pounds less than any Ford-Chevy-Plymouth engine, it provided the Champion with an important weight advantage. The whole car totaled only 2,375 pounds, against 2,750 for its nearest Big Three rival. This gave the Champion all manner of advantages: seventeen to twenty-four more horsepower per cubic inch, ten to forty-two percent more main bearing area per cubic inch, better fuel mileage. A good feature was its 3/16-inch overlap between the main and connecting rod bearings. There was full pressure lubrication, a sealed water pump and a one-piece manifold. The displacement increase came in 1941 when the engine was stroked to four inches; and a vibration damper was added in 1942. For 1946, the 170 was producing eighty horsepower at 4000 rpm, on 6.5:1 compression.

The 1946 Skyway Champion retained its prewar predecessor's virtues. It was capable of close to 80 mph—yet with its excellent fuel mileage and fifteen-gallon tank, it had a range of over 300 miles. With about 250 pounds *less* weight over the front wheels, it handled and steered better than the Big Three cars, and offered about as much interior space. Finally, it was priced up to $300 less than its rivals. These points told, and Studebaker was able to build nearly 20,000 '46's in the scant few months of production, a fair record in a day of slow start-ups after the wartime emergency.

The only test of a Skyway Champion came in *Mechanix Illustrated*, one of the first in a series that eventually covered 600 cars. Uncle Tom McCahill, the rich boy and ne'er do well who had peddled everything from suntan oil to Cadillacs before the war, hit his calling afterward: the unbiased, colorful road test. McCahill, who decided that people



Champion L-head six (water neck was lower in production).



1946 Skyway Champion two-door sedan.

would like to hear what somebody other than the companies had to say about the new cars, began borrowing them in late 1945, pretending they were for photo sessions: "I managed to hustle out a new car . . . and when I was around the bend I gave it a real workout. After I clanked back to the factory with it, the public relations man asked me if I'd had an accident. I told him I had just made some unusual shots. I tried this on about five companies, starting with the biggest, figuring that if I had the dope on their cars the smaller manufacturers would have to let me test theirs in self-defense. It was what you might call benevolent blackmail." Among the first five companies was Studebaker.

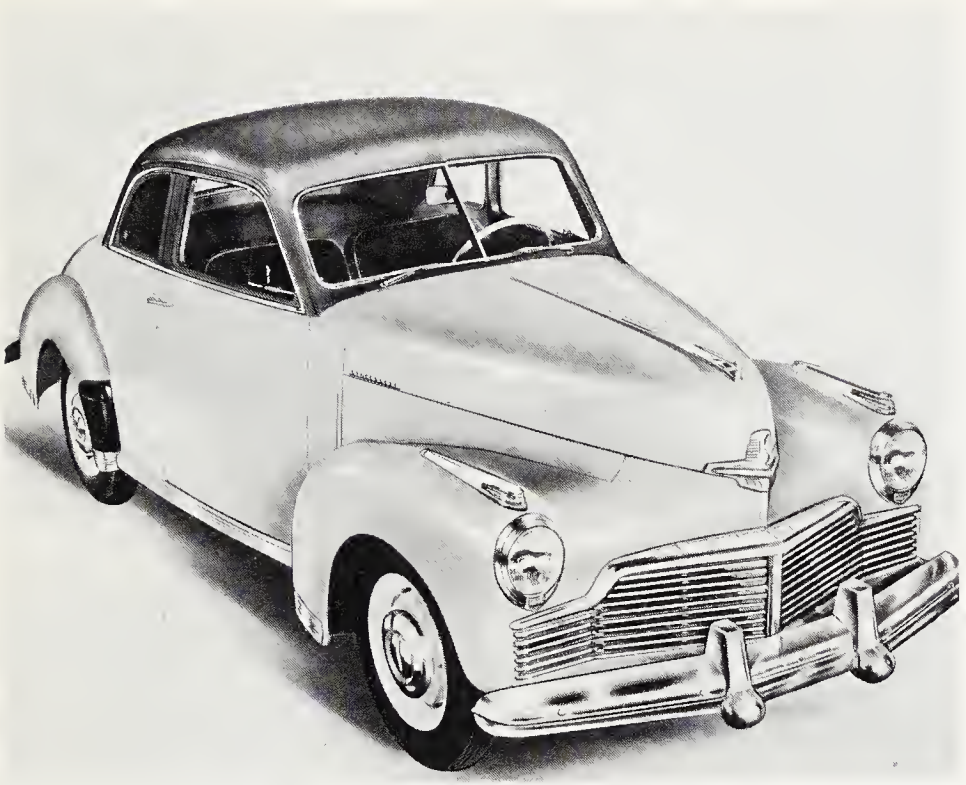
"At first glance I thought here's just a nice little car for someone's Aunt Susan," McCahill wrote. But later, "My impression was greatly changed. [The car] very closely resembles some of the fine little cars built in England. This means that the Studebaker should have great appeal to many motorists who seek handiness and agility in a small automobile." McCahill pronounced the Skyway Champion a suburban car, less at home on high-speed motorways but excellent for around-town usage. He found that in terms of pick-up and hillclimbing ability it "was far superior in every way to the English family cars I compared it to earlier." The fit and finish were deemed good, the headroom ample, the legroom barely adequate, and the car really more suitable for four passengers than five. Uncle Tom pointed out that its overdrive was unique to the low-priced field, and the Hill-Holder was unique, period. "If you are looking for a car with economy, ruggedness and small-car maneuverability rather than one with a roomy interior and a high-powered engine," he concluded, "by all means give the Studebaker serious consideration."

Studebaker was building about 2,750 Skyway Champions a week going into March 1946, through expanded South Bend facilities. For future export production, a new plant was acquired that month in Hamilton, Ontario, Canada. Built in 1940 by the Canadian government to manufacture anti-aircraft guns, Hamilton was expected to service Canadian and overseas markets by summer. Back at South Bend, the pace proceeded merrily along—then, just as suddenly as it had begun, the South Bend line shut down completely.

"Studebaker Corp., which is far enough from Detroit to operate without too much concern for what its competitors are doing," *Business Week* commented with prophetic accuracy, "will be in production late [in April] on 1947 passenger cars that will go on sale later in the spring. The plant . . . is now in the throes of changeover. About half of the normal 8,000 workers are idle while lines are being set up to build the new cars.

"Although the company will say nothing more about its plans than that its forthcoming assemblies are 'true postwar models,' dealers have been told that 1947's will appear in both the Champion and Commander series, low and medium priced models respectively. One unconfirmed report was that a new type of pancake engine might power the Champion series, and that the model might be lightened even more than its predecessors to keep prices down . . . The company is gearing itself for manufacturing volume much higher than [present]."

This writer asked Harold E. Churchill, then chief research engineer and later president of Studebaker, why the company halted the obviously profitable 1946 models so soon after restart. "Messrs. Vance and Hoffman recognized the necessity for fresh styling," Mr. Churchill replied, "and it could be done at a minimum cost in time because of the short changeover in our plants. Our principal war production (Wright engines) was done in 'war plants.' The military trucks and Weasels built in the passenger car plants did not use passenger car production equipment except in the machine shop. Other space was the principal requirement and therefore conversion to 'peace' production was fairly simple." Says Raymond Loewy, "we knew that management was shooting for mid-1946



Airbrushed photo for press release suggests that some Skyways were offered with two-tone paint jobs.

introduction, but it caused no styling rush in my division. Its concern was to get a steel prototype fast."

Studebaker engineering was indeed considering a pancake six, and many other mechanical innovations, including torsion bar suspension and rear-engined cars. "Various engine configurations were constantly under consideration," Harold Churchill stated, "from horizontal fours to straight tens and a V-12." Says Otto H. Klausmeyer, then plant engineer: "Many changes were tried on the existing engines, and an entirely new flat opposed six was built. As I remember some ten of these engines were installed in experimental cars. This project was abandoned, and further work done on the Champion six. Because of possible increases in compression ratios, it became obvious that the L-head engine would be supplanted with the overhead valve type, as it is not possible to reduce the combustion chamber space enough in the L-head design to take advantage of the latent possibilities of the fuel then available."

Otto Klausmeyer, who will be heard from again in this narrative, had a forty-seven-year career in the auto industry. It began in 1917 when he joined Willys-Overland in Toledo, Ohio, as an engine assembler. In 1918 he moved to Ford as a tool designer. By 1923 he was at South Bend, first as a draftsman, then as a checker, and then, in 1926, as plant engineer. He became assistant manufacturing manager in 1955, holding that position until retirement in February 1964.

Mr. Klausmeyer has high praise for Studebaker engineers, particularly the body people who, he says, "were always extremely capable and highly innovative. They produced the first one-piece cold-drawn front and rear fenders and radiator shells in 1913. They designed and built from scratch the five Pierce Silver Arrow prototypes in 1933 in the space of ninety days, and made every part!"

Studebaker was also apparently able to interest itself in innovators beyond South Bend—a habit that belies detractors who say Studebaker engineering was never worth pausing over. One of these was Ferry Porsche, who would later design for South Bend two experimental V-6 engines—one water-cooled and one air-cooled—and indeed a whole car for possible 1955 production. The relationship with Porsche dated from 1946—the year when Studebaker was offered a German subsidiary named Volkswagen.

The shattered dreams of Adolf Hitler were nowhere as apparent in 1945 as at Volkswagenwerk, a bombed-out factory in Wolfsburg, Germany, with tools and dies lying under piles of rubble. The occupying British set about resurrecting the place in July 1945, and had built 1,000 VW's by March 1946, with a total of over 10,000 for 1946. Another 9,000 were run off in 1947, a year when Germany's economy hit its all-time low.

But the British never looked at VW as more than a make-work project for unemployed Germans. The Humber Company, asked to review Wolfsburg's prospects for the British Intelligence Objectives Subcommittee, concluded: ". . . we do not consider that the design represents any special brilliance . . . it is suggested that it is not to be regarded as an example of first-class modern design to be copied by the British Industry." The English began searching for some foreign patsies to run this ridiculous plant, and in 1948 approached Henry Ford II. According to Ford Chairman Ernie Breech, Henry's reply was characteristically succinct: "I don't think what we are being offered here is worth a damn."

Studebaker too was approached, even before Ford. VW was offered as a subsidiary export operation with ancillary distributorship rights for North America. According to Export Vice President Richard Hutchinson, quoted by former Proving Ground tester and historian Ed Reynolds, Harold Vance was given "a bona fide proposal" to this effect, but rejected it without even looking at the car. A VW was received and tested, but according to Reynolds it was "given a very low priority rating, which indicated that any decisions concerning it had already been made."

Such a verdict should not be viewed as disastrous. VW was, on the surface, a shaky proposition in those years, and it would have taken a lot of vision to see its potential. Even Max Hoffman, canny imported car distributor who later built the Mercedes-Benz and BMW businesses in this country, was unable to sell VW's in 1950-51, and dropped his franchise. "It was my worst mistake," Hoffman later said. Ultimately the British turned VW over to a native German, Heinz Nordhoff, whose brilliant leadership made VW the formidable presence it was by 1955.

At South Bend, more pressing matters were at hand: the new 1947 cars. The focus, engineering experiments aside, was mainly on styling, and on the aggressively modern designs being prepared for late May release. Eleven months before, just a few weeks

New '46's all shiny and ready for delivery.

before the Ordnance operation ended, the first production prototypes had arrived at the Proving Ground, painted olive drab and shorn of chrome. They were undergoing last-minute adjustments, the grand entry only days off.

Truly, the country had never seen anything like the 1947 Studebaker cars. Never had anything as low, as stylish, been offered to the general public. Paul Hoffman and Harold Vance had planned well. A few years before, the former had said, "Let's make our postwar job stand out like a sore thumb. It could do more for us than all the sales effort and advertising imaginable." Vance agreed: "Whatever a really new car costs us, if we do it right it's worth every cent." The tab came to $11 million, a sizeable pile. But Studebaker had indeed done it right. The '47 was a winner.

CHAPTER 2

Which Way Is It Going?

THE QUESTION OF WHO designed the 1947 Studebakers, while not of earthshaking import to automotive history, is of salient interest to devotees of the marque. The answer has never been made clear, really, though plenty of evidence exists. The controversy is over three decades old now, but it's still hotly debated. There would be no question at all had Loewy and Exner not reached a parting of the ways—a most vigorous parting—during the 1947 design evolution. Because of that split, nearly every commentary has taken a fling at the source of the design, and some have even given full credit for it to Virgil Exner. But that's just not so. In discussing the problem, note must be taken of the Loewy role at Studebaker, and how it was perceived—by both Loewy and the South Bend management.

Raymond Loewy was, first of all, an outsider. Among the major auto manufacturers at the outset of World War II, only Studebaker relied strictly on an independent designer—and an internationally-known one at that—to shape its postwar cars. (That upstart Kaiser-Frazer would employ Dutch Darrin similarly after 1945 is irrelevant, since K-F also had other consultants and quickly built its own styling department.) Studebaker had only Loewy; though a design section had existed in Engineering since 1928, it had no effect on Studebaker shapes once Loewy had come up with the successful 1939 Champion.

The automobile business, like any other big business, is subject to politics. Little enclaves are built up and steadfastly guarded by their creators. Little wars are fought for control of 'territory,' which sometimes translate into major battles—when the warring parties enjoy relative equality. Thus it was with Studebaker. Whether out of a desire to reestablish Engineering's control over styling, or to defend and expand the Engineering enclave, Engineering Vice President Roy Cole decided that he didn't much care for the Loewy connection.

Engineers and stylists are not natural partners, except in the more fastidiously run corporations—General Motors is the leading example—and battles between the two sides have been rife since the stylist began to emerge in the thirties. Edsel Ford fought with his father over design as early as the coachbuilding days, and right on through the 1940 Lincoln Continental; Ray Dietrich was never able to stomach the conservative, engineering-dominated styling decisions at Chrysler in the same period; Hudson's engineers, who preferred to build cars as they might suspension bridges, considered the enlightened Frank Spring a charlatan; at Kaiser-Frazer the conflicts between Dutch Darrin and K-F engineers were constant, and crippling. It is interesting that a strong correlation exists between the ability of stylists to mesh with engineers and the success of the corporation. Ford, which reached equilibrium between the two forces rapidly after the war, quickly surpassed number two Chrysler, which took until 1953 or so to sort out its conflicts. The independents, where a man could go further by virtue of a smaller field of competitors, never saw an end to the stylist-engineer arguments. Packard, the most conservative of them, didn't even establish a separate styling department until the mid-fifties, and by then it had already lost 50,000 sales because the engineers had dictated a line of 1948-50 cars which were charitably known as 'pregnant elephants.' Studebaker, with Roy Cole facing off against Loewy Associates, was no exception to the rule.

Looking back on his South Bend career for the benefit of this book, Raymond Loewy outlines the problem as he saw it: "I tried hard to convince management, as early as 1939, that there existed among millions of Americans a segment, profitable to Studebaker, that could not find the kind of car they wanted to buy among the Big Three offerings. What these consumers wanted was a slender, compact automobile with European-type roadability and good acceleration. In fact, a leading newspaper later gave me credit for being first to use the word 'compact.'

The 1947 Studebaker heading, along with the fortunes of the company, into the stratosphere, probably Pikes Peak.

Loewy Studios at work: first table, Bourke and Exner; second table, Koto; standing at blackboard, Buehrig.

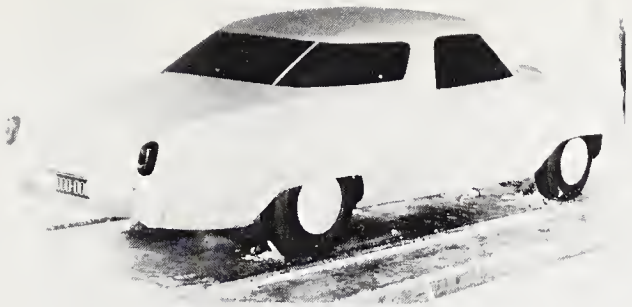
R.L. points to his famous styling slogan. At right, Bob Bourke; on Bourke's right, Gordon Buehrig.

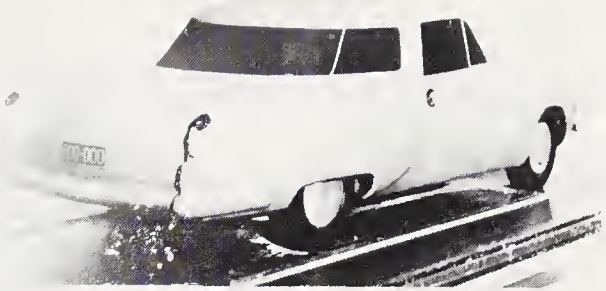
"One of my main and generally little-known contributions to Studebaker was my frequent presence in Europe, and a conviction that a lot could be learned there about automobiles—especially about suspension, roadability and lower gas consumption. Every time I had a chance I would try to bring into Cole's stuffy office a breath of what happened in this European automotive world. I usually met a rather contemptuous reaction for those 'freakish products of a nutty, half-baked industry.' "

Obviously, styling has a lot to do with acceleration, roadability and fuel consumption, but perhaps this was not obvious in the atmosphere of postwar South Bend. Roy Cole was unreceptive, and grew more so as time passed. Shortly after the war, Loewy notes, "I proposed to the board that I go to Stuttgart and ask Dr. Ferdinand Porsche, with whom I had discussed the matter, that his engineers develop for Studebaker an entirely new chassis and power train." (The possibility of a rear engine was, as previously noted, intrinsic to the rear-end shaping of the wartime prototypes.) "He was interested, and with Hoffman's and finally Cole's approval, I went to see Dr. Porsche. I had brought along the necessary info as to wheelbase, track, etc. and price range. Two months later Porsche sent his proposal, which Cole rejected." It was predictable. There was simply no rapport at all between Studebaker's outside design consultant and its very-much-inside Engineering vice president.

Into this strained atmosphere stepped Virgil Exner, chief of the Loewy team at South Bend during the evolution of the 1947 Studebakers. Almost immediately, an antipathy developed between Exner and Loewy. Says Robert Bourke, who remembers the old days with praiseworthy evenness, "The problem was basically a disagreement in philosophy and approach. Ex felt that a man was either a designer or a promoter, but not both, and to make matters worse he felt Loewy received all the credit [for Studebaker styling successes] from both management and the public. Although I understood Ex's viewpoint, I still held R.L. in high regard, as I recognized the necessity of being a good salesman in this profession. Mr. Loewy also had, and still has, a great 'eye.' While he may not have created a certain design, line or contour, he knew instinctively when a designer had better than average talent and drive, and he would always bring out the best that designer had to offer for the client. As I know him, R.L. is a diligent, intelligent and fair man, proven by his many successes in the field." But Exner didn't see it this way, and his feelings were to lead to his dismissal, with significant effects on 1947-49 design.

While Exner nursed his discontent, the South Bend design team began evolving the all-new cars for early introduction after the war, along the policy spelled out by Vance and Hoffman. According to Exner, who was interviewed before his death by former *Special-Interest Autos* Editor Michael Lamm, "Gene Hardig [chief chassis engineer] and I went to Roy Cole about 1942-43, because neither of us was too busy with war projects. We sold him on the idea of letting [Loewy Associates] do an advanced design. This would be engineered to some degree toward production." Renderings and quarter-scale





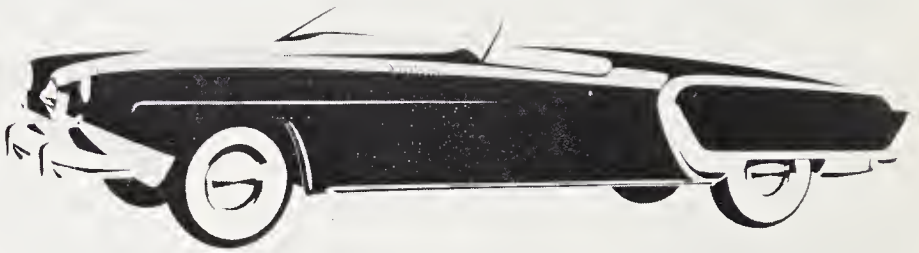
models, some previously discussed, were built over the next two or three years. Gradually, blind alleys were eliminated. The rear-mounted pancake six was fairly quickly abandoned, and the proposed design moved toward a conventional front engine/rear drive.

It is easiest to treat the evolution of the 1947 design in two segments: before and after the Loewy-Exner split. The 1947-49 cars were, in fact, an amalgam of both Loewy and Exner thinking, and how you view their various components is largely determined by your attitude toward two very diverse individuals.

First, the period of unity. The Loewy team, headed by Exner, shaped up like this: Bob Bourke, previously mentioned, was accompanied by designers Gordon Buehrig, Bob Koto, Ted Brennan, John Cuccio, John Reinhart, Vince Gardner and Jack Aldrich; modelers were scarce, but young Frank Ahlroth was one of the best, according to Bourke. It was a distinguished group: Reinhart would later design the image-shattering 1951 Packards and head up the styling of the 1946 Continental Mark II; Gardner would contribute to the Mark II and other fifties Ford designs; Koto, with Bourke's help, would style the '49 Ford and would later help Bourke with the 1953 Starliner; Buehrig had already won fame for his rakish prewar Auburns and Cords. Says Loewy, "Buehrig, Koto and Brennan, along with Bourke and our wood and clay modelers, were outstanding, probably among the best in the industry."

Upper management talent and enthusiasm seemed less consistent. Roy Cole seldom visited the styling studio, for he had no interest in it. Fortunately, Loewy says, "his assistant, Gene Hardig, was an outstanding engineer with an esthetic sense and a progressive mind. I often thought that if he had been chief engineer, Studebaker's future would be different. [But] Roy Cole never even made a hint of criticism to me, and both Paul Hoffman and Harold Vance were outspoken in their appreciation of our work." Vance, interviewed by *Time* in 1949, stated that Loewy had increased his South Bend staff from twenty-eight to thirty-nine for the 1947 project. R.L., said Vance, often talked designs over with engineers for feasibility, pulling styling ideas from hundreds of renderings, a curve here, a hood or fender sweep there: "I have seen Loewy shake his head in disapproval, then take out a knife and with one sweep correct the clay model to perfection." Other sources say that the rest of the board was even more enthusiastic about their design consultant.

Raymond Loewy continues, "One must keep in mind the context of what was going on at Studebaker's executive level at that time. Both Hoffman and Vance were deeply

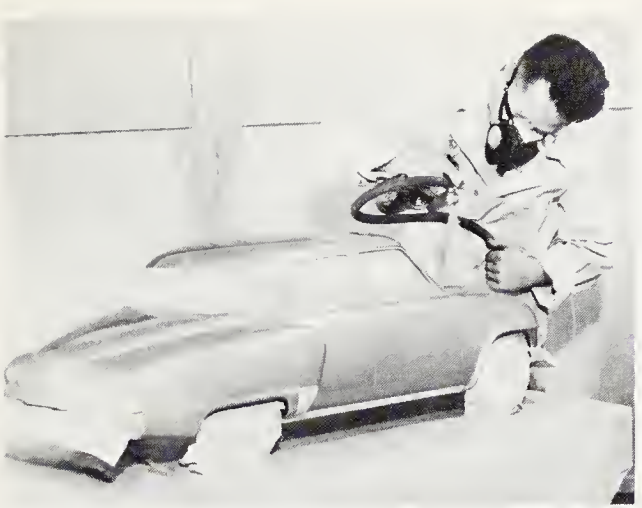


Scale models done for 1948-49, all with vast glass area.

Aerodynamic sports car designed by Loewy in 1945, which sets basic postwar theme and predicts bullet nose to come in 1950-51 models.

involved in Washington [war] activities and they spent little time in South Bend. Their greatest concern was to make time and to show the board of directors a postwar car in which they could actually sit down—a real car, made of metal. Vance was not very concerned, I have heard since, about when and how it was built—that was the chief engineer's job."

Both Loewy and Bourke state that the *concept* of the postwar Studebakers was laid down well before Exner and Loewy clashed. The team had decided by 1942, for instance, that it would have a full-width body rather than freestanding fenders. The industry was, of course, trending in this direction. While laughing off the impractical people-packages of Europeans like Jaray, Detroit in the 1930's had built the roomy Chrysler Airflows and Lincoln Zephyrs, and Buckminster Fuller had created the even further-out Dymaxion. Studebaker itself designed the predictive Pierce Silver Arrow, which bore only a hint of individual fenders. But Loewy's team decided to make the fenders flush at the sides of the car as well as the front, yet avoid a slab-sided appearance. Discussing one of the 1942-43 designs, Exner himself mentioned this: "It [needed] a pontoon rear end because of the beltline at that time. It seemed to have an



Left, Loewy Studios' scale model shows close resemblance to actual production—except at front, where rounded appearance suggests original Loewy ideas that were altered by Exner. Right, close to production: quarter-scale convertible, 1947.

awfully heavy look." Even so, "The upper structure, the curved one-piece windshield and wraparound back window and rear deck—those turned out quite a bit like the postwar production car." This was nearly two years before Exner departed the Loewy team.

Credit for the broad wraparound glass areas and tapered rear deck of the 1947 can therefore be assigned only to Loewy. As for the high beltline, it was perhaps dictated by 1942-43 concepts of a rear-mounted pancake six. Rear engines imply stringent design limitations, not the least of which is adequate deck height. Still, the Loewy team managed to impart to these early forerunners a streamlined, tapered rear end which survived right into production—even though by 1945 the rear engine had been abandoned. While eventual production cars were full envelope bodies, they retained the slimness, grace and visibility Raymond Loewy had preached since well before the war. As such they were far in advance of Kaiser-Frazer's models, the only other all-new designs for 1947.

Another facet of the '47 Studebaker that may directly be laid at Loewy's door is its light weight. Though he favored a lot of glass, R.L. was adamant about lightness: "I felt that the chief engineer was not sensitive enough or aware enough of the importance of the weight factor, of the necessity of attracting younger consumers. To emphasize the fact, I had dozens of black and white paper posters made, about eighteen by six inches, upon which was written in large white block letters: WEIGHT IS THE ENEMY. I had these applied to walls and partitions throughout the styling area, many protected by boat-deck shellac and stuck to the floor. We even had some applied to the ceiling! It was quite impressive." It was also effective: at about 2,700 pounds, the 1947 Champion was *up to 400 pounds lighter* than its Big Three competition.

Again at the front end, Loewy favored the sloping, aerodynamic approach, with a minimum of chrome. And as late as 1946, quarter-scale models indicate this directive was followed—one model, otherwise nearly identical to production, had a sloping, low front end far different from the ultimate production car. But up front was where Exner collided most strongly with his boss.

"I soon realized that Exner's conception of advanced body styling clashed with the ideas of the other fellows on the team," Loewy says. "Exner's taste was on the gaudy side." Though this is perhaps a simplification, it underlines Virgil Exner's very different design philosophy. Later, after he had joined Chrysler, Exner published an SAE paper in which he viewed styling as returning to a combination of the "German Functional," the "French Flamboyant," the "British Traditional" and the "Italian Simplistic" schools. These diverse philosophies, he said, should be combined on American cars—however difficult that might appear. Exner's Chrysler K310 show car was his evidence—Italianesque in shape, with traditional full wheel cutouts, a Germanic superstructure, a very flamboyant front and rear end. The face of the car was high and blunt with a prominent grille and a complicated spread-eagle radiator design. Such an ensemble would have probably outraged Loewy—even if he didn't know who had come up with it.

Thus we arrive at the fatal argument. Exner was ambitious, anxious to strike out on his own with his own ideas. He could see in Cole's diffident attitude toward Loewy a chance to do just that. Loewy remembers that by 1944 "Exner was not cooperative and became a disruptive element . . . he often by-passed me and made a big play for Roy Cole."

One day in the spring of 1944, Cole and Vance walked into Exner's office with a startling proposal: Would Exner secretly undertake a design independent of the Loewy Studios? He would have to do it on the sly, after working hours, probably at home. Exner said later, "I agreed to start immediately. I first cleared out one of my bedrooms at home and they sent me out an eight-foot drafting board. Then we went into my basement and installed an overhead fluorescent light, and they built me a quarter-scale clay modeling table . . . that's the way it started, and Gene Hardig, who was then chief of chassis drafting, came out every day.

"To begin with, we worked on seating and chassis layouts under [Hardig's] supervision. In the meantime they built me an armature [base] for a clay model, and I started that. This period in my home lasted about three to four months. On completion it was still a pretty good secret, even at Studebaker. Some rumors leaked out because some of the chassis had to be done right there."

Next, Exner/Hardig built a full-sized wooden mockup, with operable doors and trimable interior. "This gave us a chance to sit in and evaluate the car as to dimensions, vision, seating, wheel angle. [Meanwhile] there were several meetings with the Budd people from Philadelphia . . . because they were going to build the tools and supply major stampings." Exner was assisted by draftsman Tom Dingman and modeler Frank Ahlroth. "We then sent the quarter-scale model and all drawings to Philadelphia where the full-scale mockup was built and completed."

The first model sent to Budd called for smaller dimensions than the eventual car, using a 110-inch wheelbase from the 1946 Champion, and only sixty-seven inches wide. "Roy Cole had a thing at that time," said Exner. "His philosophy was that a car cost so much a pound. He stuck to that rigidly, and these were the dimensions he laid down. They were a little tough to work with." That was an understatement: the chassis was too wide, the car too short, so the wheelbase had to grow to 112 inches. The body had to be made considerably wider, to match the 69½-inch width. "We then built an all-new wooden mockup right there in the model shop at Studebaker, because most everybody knew about the car by that time. The body drawings were simply opened up and a two-inch strip put down the center without changing the profile, and the rear wheels were moved back 1.5 inches. Then the front end looked too short . . . I convinced Roy Cole we should add three inches [to the fenders] and two inches to the hood. The new wooden model was then finished up. . . ."

All very interesting—but it leaves a big question: While 'Ex' was moonlighting, what was going on at Loewy Studios?

Bob Bourke fills us in: "Frank Ahlroth and Ex and I worked on the initial advance styling mockups . . . We got into the thing later than Ex. [Eventually] we showed cars that were given the wrong dimensions. We worked on a car that was narrower and with worse proportions than Ex had to work with. It was sort of an underhanded deal on the part of Roy Cole, because he was trying to get Loewy out of there. We did two full-sized plaster automobiles, and when management viewed them, they said they were just too narrow. Well, those were the dimensions that we had to work with."

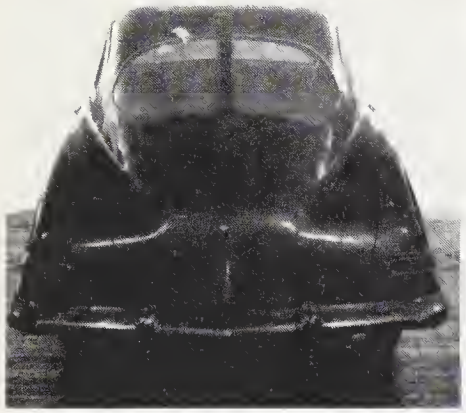
Six months after Exner began freelancing, his model was ready, and a board meeting was called. "This was a tremendous surprise," he said, "because Loewy hadn't seen this car or even heard about it." That was putting it mildly. "In my experience of over fifty years, working for more than a hundred corporations, I have never seen such a case of despicable behavior," Loewy told this writer. "The quarter-size model was done in Exner's basement by Frank Ahlroth—the same fellow who had made the clay scale model created by our team. Ahlroth had all the necessary templates we had made in our division, so Exner could take all credit for the postwar job and Cole apparently backed him up. The directors had never heard of Exner, and Roy Cole had pulled a rabbit out of a hat; he had acquired personal prestige with those who did not know about the dirty work that had taken place. When I learned about it, I immediately fired Exner for disloyalty and unprofessional behavior, just short of dishonesty. Roy Cole, furious, hired him at once [as an Engineering employee] but I did not allow Exner to come near my

Liaison with the engineers. Left to right: Chief Administrative Engineer W. W. Smith, Bob Bourke, Harold Churchill, Gene Hardig.

department." When asked about the rumor that he later tried to hire Exner back, Loewy says, "After firing him for duplicity and unprofessional conduct, it is almost insulting to hear it suggested that I would have rehired him."

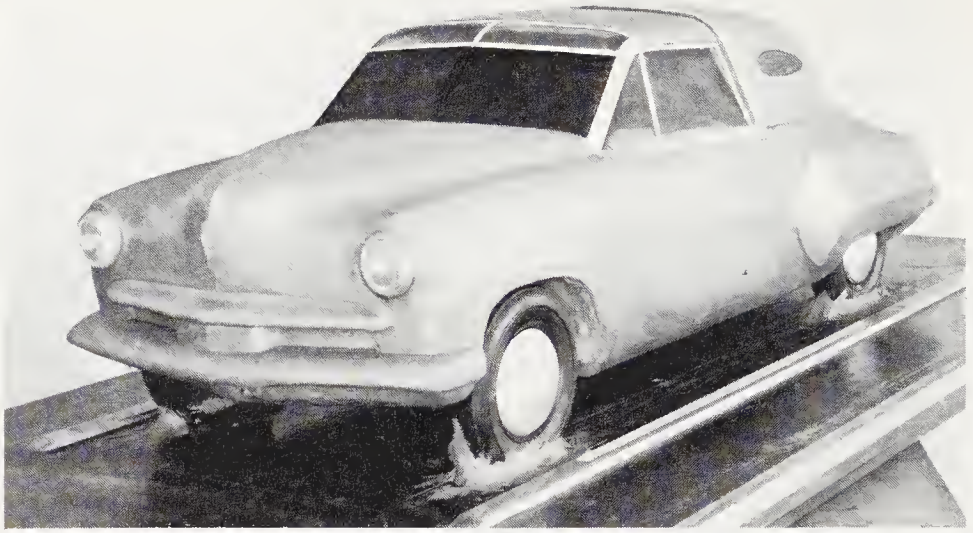
So—just what did Exner impart to the 1947 (and 1948-49) Studebakers that wasn't there originally?

From a careful study of his design ideas and subsequent career, as well as photographic evidence of contemporary prototypes, it is near-certain that a high, blunt hood and heavy-looking stainless steel grille were the main Virgil Exner additions. These stand in some contrast to the Loewy idea of sloping hoods and minimal chrome, and as everyone knows, the easiest place to change a design is that portion from the cowl forward. The author put this theory to Raymond Loewy and Bob Bourke, who both generally agree. "These high and clumsy hoods are typical of Exner's design," Loewy states ruefully. In his opinion they lacked finesse. Says Bourke: "During the period that I worked with and for Exner, the higher type hood was prevalent in the majority of our design sketches and three dimensional work-outs. I will agree that Ex favored this type of hood more than I did. I was equally to blame, however, for the fact that the '47 through '49 had a blunter hood as I had many predated design studies I did for Ex which



Quarter-scale exercise by Buehrig, showing characteristic split backlight later applied to Buehrig's Tasco sports car.

Loewy liked landau motif, caused this scale model to be built to explore the application in 1947.



portrayed hoods of this nature. Later on when I was manager and chief designer for Loewy, I had the opportunity to direct design efforts towards lower hoods."

According to all who worked in styling at this time, the actual grille detailing was by Vince Gardner and the wide oval dashboard gauge cluster by John Reinhart, both of the Loewy team. But as Bourke says, "Exner did the final design work." Of the too-narrow Loewy plaster models Bourke says, "In a matter of a week's time we cut them right down the middle and expanded them out to where the other jobs were." Bob felt they were at least as good as the Exner-Budd models, but by then the latter were being tooled for production.

The basis for Exner's latter-day claims to have designed the 1947 Studebaker independent of Loewy (and the claims of writers who interviewed him alone) is his at-home work in the spring and summer of 1944. But dated photographs and testimony from his fellow designers indicate that the *concept*—light weight, slimness of line, an aerodynamic look, lots of glass, a tapering deck and pontoon rear fenders—were all set forth before that time. The 1947 Studebaker must unquestionably be called the inspiration of Raymond Loewy Studios, with the tooling and cowl-forward details worked out by Virgil Exner.

Aside from the front end, of course, there is nothing about the 1947 Studebaker that Loewy would wish to change, "assuming that I was given the same chassis. A new, modern chassis would naturally lead to a lower profile, a lower beltline, lighter weight, improved stability, etc. But the overall concept would remain practically unchanged."

A few intriguing ideas were passed up along the way, one of them involving station wagons. A wagon proposed by Loewy contemplated the use of a fiberglass superstructure (to save weight), applied over a coupe body. An example of this prototype was rescued in 1971 by Studebaker Drivers Club members from a graveyard at the Proving Ground. A conventional wood-bodied wagon was also planned, and came much closer to production—at least one production prototype was built up from Loewy designs, a pretty four-door model with the rear door wood-trimmed around the pontoon fenders. This car was shown to South Bend employees in May 1946, and a press release described it as "not yet in production [due to] manufacturing problems because of lumber scarcity." Conjecture has attended the lack of a wagon in the line, but it appears to have been a commonsense decision to delete it. As Otto Klausmeyer says, "The percentage of station wagon bodies sold by Studebaker was predicated at five percent of the total, and five percent is too low a figure in sales to support such a large expenditure for body tooling." (Convertible production, for example, was nearly ten percent at peak.) Adds Harold Churchill, "Presumably the seller's market did not require it until later." The station wagon was never really popular, until it began to appear in all-steel, passenger-car-like form with the 1949 Plymouth, and Studebaker would not put one into its line until 1954. Cantrell and Mifflinburg, the wagon makers, did produce some commercial wood bodies for Studebaker pickup chassis in the intervening years.

Stylist Bob Koto was also involved in a small compact model of around one hundred-inch wheelbase, built in early 1945 for possible 1948 introduction. Surviving clays show several body styles, but the one Koto says "would have been it" is surprisingly modern looking, with rakish, low lines and semi-fastback configuration. "It was picked over two other full-size models built in the conventional way—casts taken from full-size clay," Koto says. "Incidentally, this car illustrated our process of building a full-size plaster model instead of a full-size clay. After a quarter-scale model was approved by Mr. Loewy, a draft was made showing all the ten-inch sections. From these, separate plaster ribs were made and put in place. Wire netting was placed between the ribs, and plaster was added and brought to the edge of the rib surface, then surfaced and painted. It eliminated the full-size clay model and was the only way we were able (at the time) to make a full-size model because of the lack of modelers."

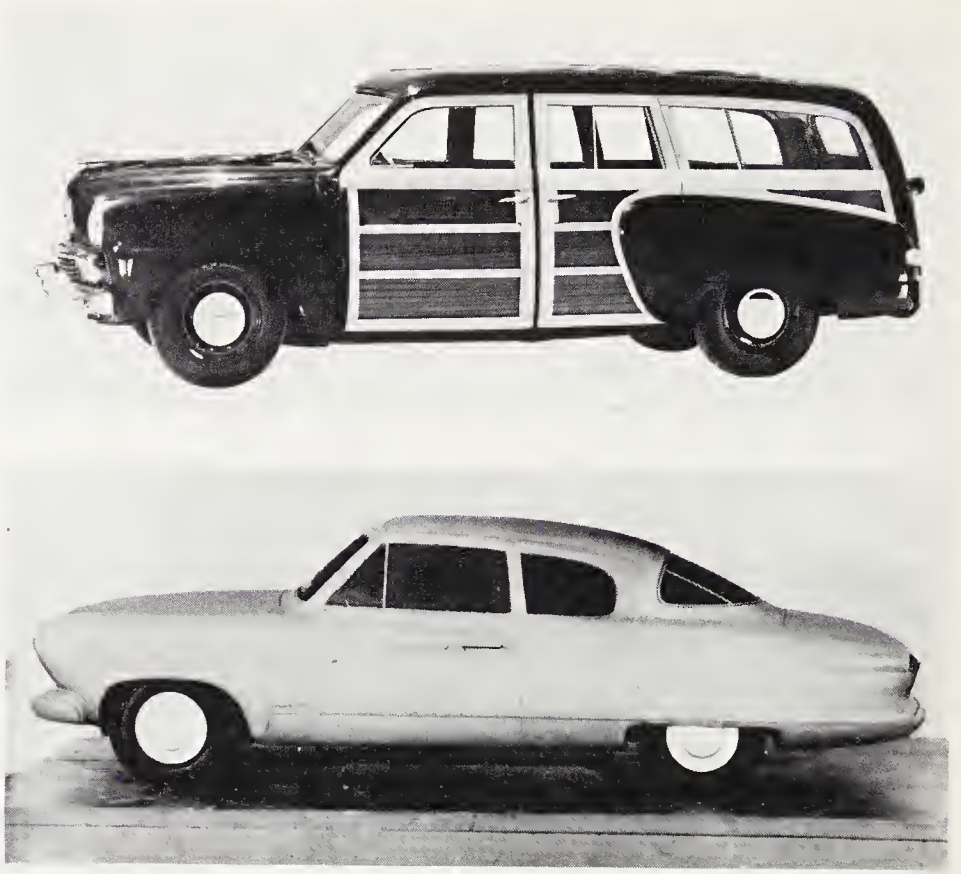
Other ideas were suggested: a full fastback by Gordon Buehrig bearing one of his best ideas—a split window not unlike the latter-day Corvette Sting Ray, also seen in

Buehrig's stillborn Tasco of 1949. A landau, one of Loewy's favorite styles, was clayed up in quarter-scale for him, with extra glass over the windshield and rear opera windows, but this did not see production. Still, the 1947 line as introduced was wide, offering both Champion and Commander models in DeLuxe and Regal trim, and three different wheelbases:

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 6G Champion Six			
DeLuxe sedan (6)	$1,478	112	2,735
DeLuxe 2dr sedan (6)	1,446	112	2,685
DeLuxe coupe (5)	1,472	112	2,670
DeLuxe coupe (3)	1,378	112	2,600
Regal DeLuxe sedan (6)	1,551	112	2,760
Regal DeLuxe 2dr sedan (6)	1,520	112	2,710
Regal DeLuxe coupe (5)	1,546	112	2,690
Regal DeLuxe coupe (3)	1,451	112	2,620
Regal DeLuxe convertible (5)	1,902	112	2,875
Series 15A Commander Six			
DeLuxe sedan (6)	$1,761	119	3,265
DeLuxe 2dr sedan (6)	1,729	119	3,230
DeLuxe coupe (5)	1,755	119	3,210
DeLuxe coupe (3)	1,661	119	3,140
Regal DeLuxe sedan (6)	1,882	119	3,280
Regal DeLuxe 2dr sedan (6)	1,850	119	3,245
Regal DeLuxe coupe (5)	1,877	119	3,225
Regal DeLuxe coupe (3)	1,782	119	3,155
Regal DeLuxe convertible (5)	2,236	119	3,420
Land Cruiser sedan (6)	2,043	123	3,340

The Commander six (3-5/16 bore by 4⅜ stroke, 226.2 cid) reactivated for 1947 delivered 94 hp at 3500 rpm. It dated back to 1932, when it was developed to power the ill-fated Rockne; though replaced in the 1951 line by a new V-8 it remained in production for Studebaker trucks through 1960. Originally rated at 66 hp, it featured a dynamically balanced, counterweighted crankshaft vibration damper and gear-driven camshaft, and achieved its 1947 displacement nine years before when it was bored out. It would be enlarged yet again, by stroking, to 245.6 cid in 1949. It was a rugged engine, well respected for low-end torque and high efficiency at low engine speeds, and in its final form it would develop 118 bhp and 204 pounds-feet of torque. The Champion engine was unchanged, basically. Both '47 powerplants, however, now used bearing inserts from the wartime Weasel for improved reliability, and the starter and oil filler tube were relocated.

The overdrive option was retained this year, so the engine/transmission packages were not unfamiliar at South Bend. What was new was the 'double-dropped' box section frame, with a lengthened wheelbase on the Champion and a reputation for rigidity. This frame is often erroneously credited to Harold Churchill. "Studebaker and the industry in general, as a continuing upgrading process, engaged in increasing torsional stiffness at a minimum cost increase," Churchill says. "Necessity is the mother of invention, and the double-drop grew in this way. Considerable work was done on tubular frames, but



Loewy proposed and actually built a pilot model of a woody wagon, but company chose not to take up manufacture.

Bob Koto's suggestion for a more compact, fastback Studebaker, designed in the spring of 1946.

proper cost effectiveness was not achieved. The 123-inch wheelbase frame was eight inches longer than the regular wheelbase, and as a unit had slightly more torsional deflection. Overall torsional rigidity of the car was about the same as the shorter wheelbase." An important point is that contrary to some rumors, the 1947 frame was never designed to take either a front or rear engine. "The production frame," Churchill says, "obviously had to be designed to accept a specific suspension."

Unlike the early prototypes, the new chassis relied on double A-frame planar front suspension and live rear axle instead of torsion bars. The bars were dropped just a few weeks before actual production started, and according to Harold Churchill were "seriously considered. I do not know who originally conceived torsion bars. (The coil spring, of course, is itself a compacted torsion bar.) The Manufacturing Department had

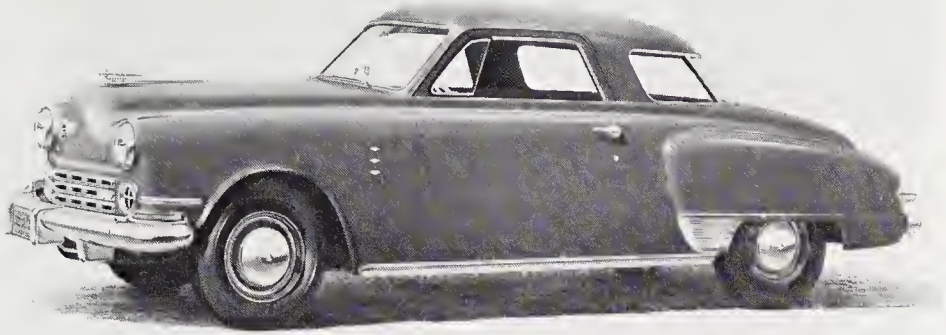
1947 Champion Regal DeLuxe two-door sedan.

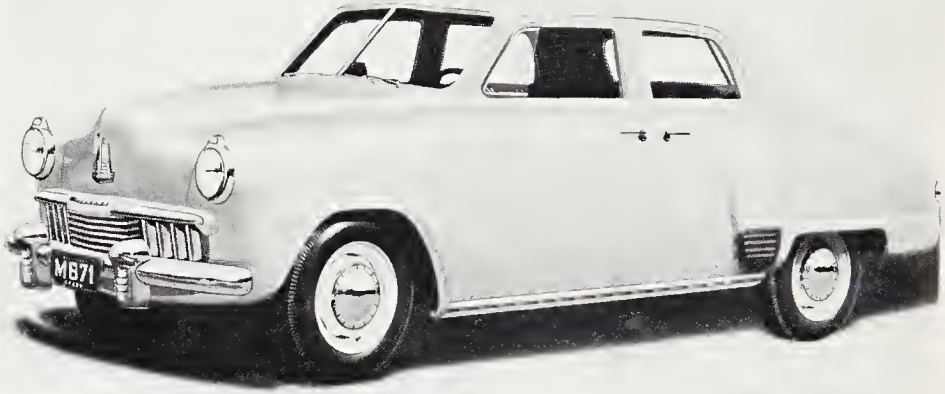
reservations regarding control of straightness and surface finish at the anchorage where maximum stress concentrations are most likely to occur. [But] the torsion bar prototypes had excellent handling characteristics, at least equal to the 1947 production vehicles."

Compared to the later Chrysler torsion bar suspension, Studebaker's was identical in providing height adjustment. But the Chrysler bars were mounted to the lower A-arm, whereas Studebaker's mounted to the upper. Torsion bars were not unique at the time Studebaker was considering them, nor ignored by other manufacturers. Henry C. McCaslin had the system in mind for Kaiser-Frazer and Chrysler was experimenting with it then, too. But like these manufacturers, Studebaker decided that torsion bars simply weren't necessary. Suspension design wasn't moving that fast, and it was the new styling which would sell the cars, as indeed it did.

A minor mechanical development for 1947 was the new braking system, with the first self-centering, self-adjusting hydraulics on an American production automobile. Another was Studebaker's predictive variable-ratio steering; although, unlike later systems by Saginaw and others, the variation wasn't infinite. There was a 30:1 ratio near the locks, and 24:1 dead ahead—a combination that allowed ease of handling in parking or tight corners and rapid response at higher speeds on the straightaway.

The double-dropped frame was important to the low lines of the 1947 Studebakers, and to their exceptional interior space utilization. Exner later said, "We wanted as much space inside the car within limitation of the body design." They got it—a seat width ten inches greater than the 1946 model's, and a rear seat eleven inches further forward. On the Champion, this last trick involved a penalty: To get the rear seat that far forward, the engine had to be moved up nine inches, putting it atop the front suspension and requiring the oil pan to be reversed, sump-forward, to achieve adequate clearance. With the longer wheelbases, careful attention also had to be paid to the longer drivetrain, which used a short jackshaft between the transmission and pillow block.





Exactly how the far-forward engine and commensurate front weight bias affected handling is hard to say, since the road tests in those days were sketchy, and no writer noted any serious faults. What it did do was provide interior space utterly unheard of in a 112-inch-wheelbase automobile. Even against the new Kaiser-Frazer cars, which were excellent in this department, the Champion scored well, offering eighty percent of its total width in hiproom, against K-F's eighty-five percent—on a much wider car. But the really astonishing comparison is with the Big Three compacts of thirteen years later, the front-engine Valiant and Falcon in particular:

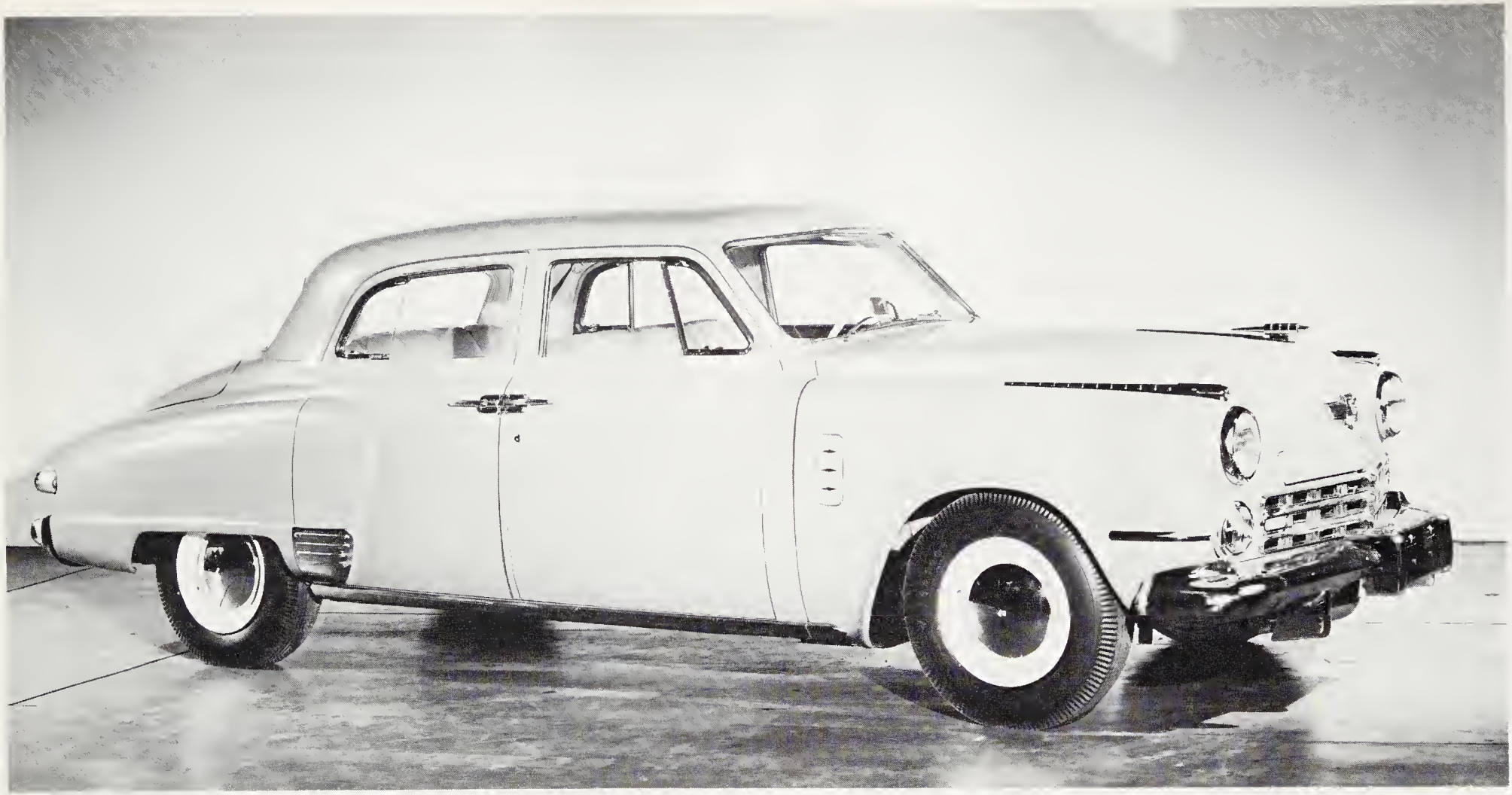
	Champion	Valiant	Falcon
length, in.	193.5	184.0	181.1
wheelbase, in.	112.0	106.5	109.5
width, in.	69.5	70.4	70.0
height, in.	61.5	53.3	54.5
weight, lbs.	2,755	2,635	2,289
hiproom f/r, in.	55/55	57/57	57/57
headroom f/r, in.	36/36	34/33	34/33
legroom f/r, in.	42/41	44/39	43/39
engine type	l.h. 6	ohv 6	ohv 6
displacement, ci.	169.7	170.0	170.0
hp/rpm	80/4000	101/3800	85/4000

Considered in light of the enormous strides made in the intervening years—in space utilization, structural rigidity, thin-section body panels and curved glass—the Champion seems almost unbelievable. With a length and wheelbase just a few inches more than the 1960 compacts, and a width actually less, it offered comparable or better seat width, headroom and legroom. Its engine displacement was almost exactly that of the Valiant and Falcon, with a little less horsepower. Granted it was a bit higher, but much lower than the average 1947 car—and a bit heavier. All in all it was a spectacular design achievement. We may now honestly put to rest the claim of American Motors to have invented the compact, unless by that term one includes only cars with less than 110 inches of wheelbase. Otherwise, Studebaker had a viable 'compact'—in 1947.

1947 Commander Regal DeLuxe five-passenger coupe.

1947 Champion Regal DeLuxe four-door sedan.

1947 Commander DeLuxe three-passenger coupe.

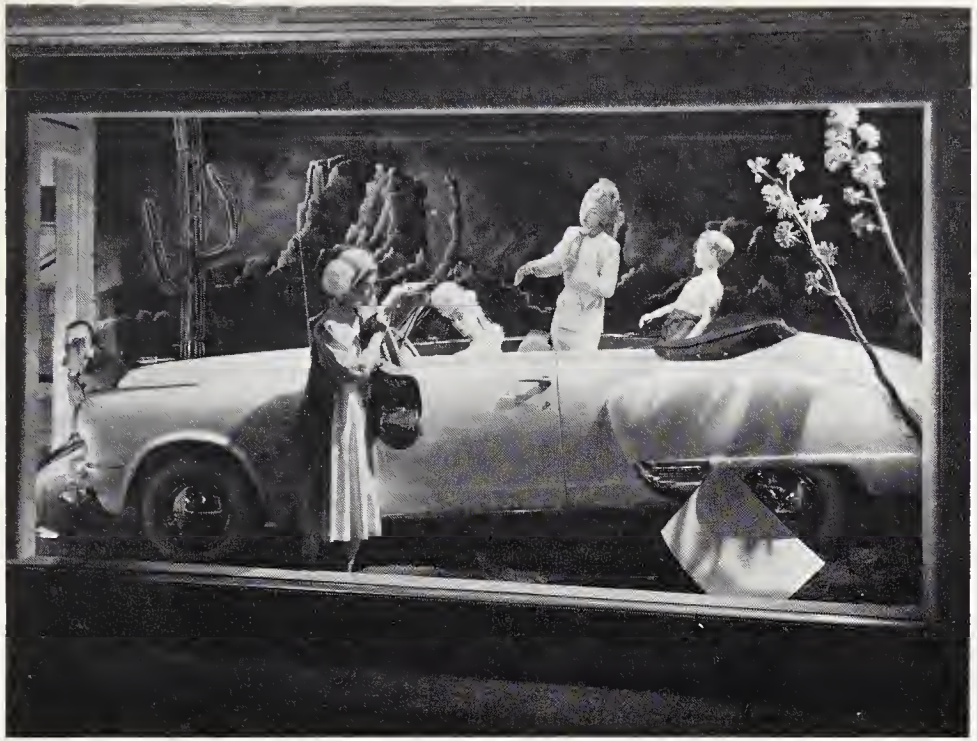


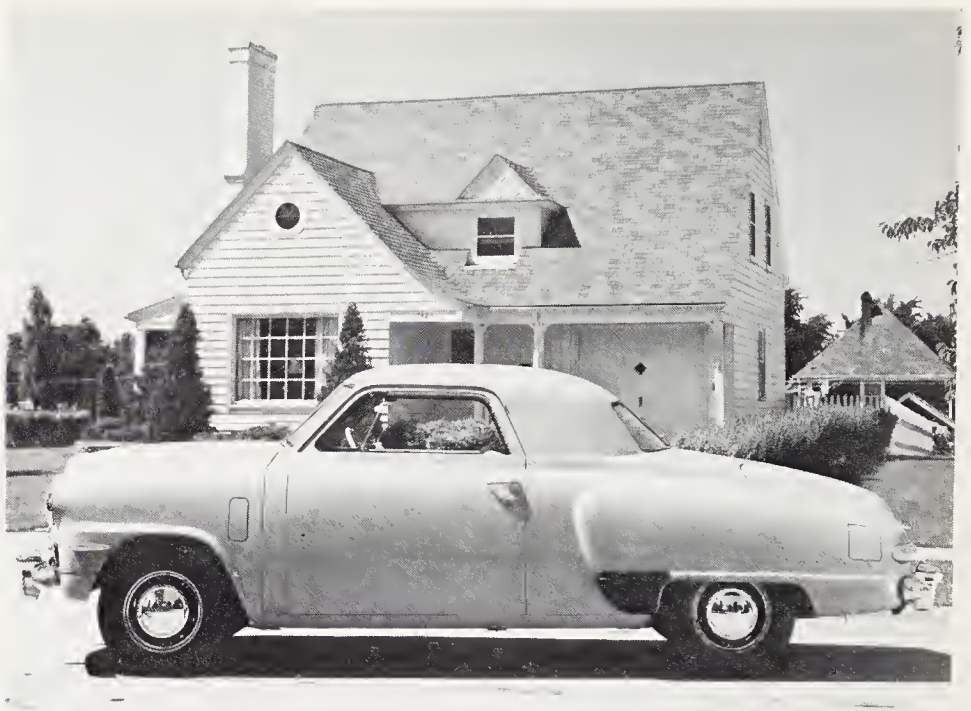
1947 Commander Land Cruiser.

The 1947 dashboard was modern and attractive, and already Studebaker had its instruments grouped before the driver—most rivals were still insisting on the symmetrical speedometer/clock arrangement. John Reinhart's three-hole instrument appliqué carried a segmented dial for minor instruments, clock and speedometer, with various controls including the radio (if installed) mounted underneath, and a right-hand emergency brake. (Reinhart also designed the various exterior badges.)

Despite the wheelbases, Champion and Commander bodies were basically the same. To get the extra length on the latter, a longer hood and front fenders were used; to expand it even further on the Land Cruiser, the rear doors were four inches wider (and fitted with vent wings). Interior trim, though, was generally uninspired. "Our team regretted to see such a gap between graceful, fresh styling and old-fashioned, drab interiors," says Loewy. "There was nothing we could do to change the situation. We were often told that old retired people bought Studebakers." The main difference between the Commander and Champion interiors was a better grade of cloth with more color keying on the former.

Led by the exotic-looking five-passenger coupes (called Starlights in late 1948), the new cars caused a sensation—the public simply couldn't believe their eyes. Notes writer Maurice Hendry, "I still recall my first encounter with one, virtually two years to the day after V-J Day; my first reaction, shared with college classmates who examined it outside a railway station, was that it must have flown in with Buck Rogers at the wheel. It looked like that." Hendry points particularly to its huge glass area—and here the cars were miles ahead. Compared to the 1946 models, there were 144 more square inches in the Land Cruiser-convertible-coupe one-piece (pioneered in 1941, exclusive to Studebaker in





1947 Commander Regal DeLuxe convertible.

1947 Champion Regal DeLuxe three-passenger coupe.

1947-49) windshield, 239 more in the backlight; an industry-leading 2,430 square inches altogether.

Comedians were quick to fasten on to the tapered deck with the quip, "Which way is it going?" But most found that tail-end appealing. Tom McCahill said it performed almost as well as it looked: "The car had considerable snap, considering the engine size [though] the performance could not be considered outstanding." (He said this of the Champion; the Commander was much livelier.) "For ride testing I drove the Champion over the standardized rough road of the Proving Grounds . . . long and sharp dips and deep man-made ruts . . . at several different speeds, and if any faulty roadability existed it was bound to show up; but it didn't." So much for any worries about the forward-mounted engine. "On the hill test," McCahill continued, "the low horsepower was noticeable, but a climb as extreme as that will seldom . . . be encountered." The Champion's big plus, he said, was its fuel economy—up to 30 mpg with overdrive. Combined with its excellent brakes, variable-ratio steering, and beautiful clean lines, the new car was as attractive a product as anyone could ask for. Even if Raymond Loewy's downswept nose was missing, what they didn't know didn't hurt them.

Studebaker built 77,597 cars in 1946—120,763 vehicles counting trucks. But material shortages—which plagued every manufacturer—forced the firm to reduce projected operating schedules from 265,000 vehicles, and only in December did production reach sixty percent of schedule. Accordingly, an operating loss of over $8 million was incurred, the largest in history. In 1940, at similar volume, Studebaker had made close to $3 million. The difference is almost precisely the $11 million tooling cost of the 1947 line, but much of this expense had been expected, whereas supply shortages and wildcat work stoppages were not. Though Studebaker's tax refund left it with a net income of $948,000 and a fifty-cent dividend was paid on each share of common stock, both Vance and Hoffman worried about the labor situation and high production costs, holding several meetings with supervisory personnel to chat about it.

Studebaker made much of its "unequalled labor record." It had never had an official strike, and according to Paul Hoffman its average employee tenure was ten years. Many father and son teams worked at the factory, some descended from even earlier generations who had put together Studebaker wagons. But all wasn't as placid as it appeared. During the war, countless maneuvers were performed by the work force to literally avoid working. Some even had friends punch their cards for them. Vance and Hoffman proudly proclaimed that they never missed sitting in on contract negotiations or bargaining sessions, but they never mentioned the wildcat shutdowns that were almost a daily occurrence in some periods. James J. Nance, whom this writer interviewed in 1976, became president of the combined Studebaker-Packard company in 1954; he had this to say of the labor situation: "During the war everybody's costs got out of line on that cost-plus government program. Afterwards the well-run companies like General Motors

Airbrushed photo of 1948 Champion front quarters displays curved one-piece windshield—and revised '48 grille. The one-piece windshield was used from 1947 to 1950 only on five-passenger coupes, Land Cruisers and convertibles. Other models had flat two-piece windshields. In 1951 all body styles used curved one-piece glass.

1948 Champion Regal DeLuxe convertible. Facelift was mild, with new grille, hood ornament and emblem.

took a strike and got their production cost situation back in line. But Studebaker did not take a strike, and was stuck with these costly wartime production standards, and as a result they were just not [cost] competitive."

The labor situation, bluntly, was bad. And though it mattered little in the sell-anything year of 1947, it would continue to worsen as time went on—to Studebaker's misfortune.

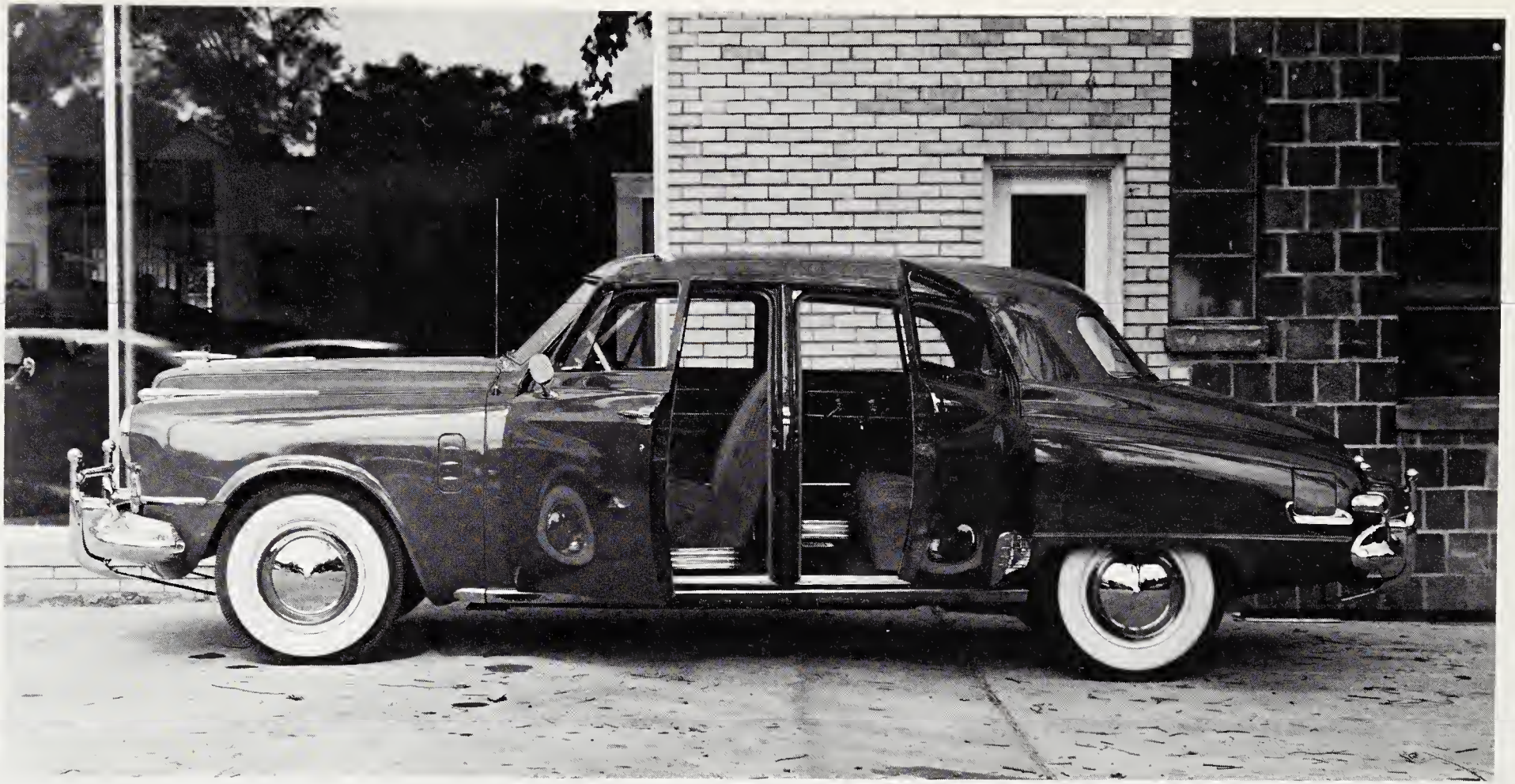
Meanwhile, on November 7, 1947, the new 1948 line appeared, unaltered in model lineup but with somewhat higher prices.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 7G Champion Six			
DeLuxe sedan (6)	$1,636	112	2,720
DeLuxe 2dr sedan (6)	1,604	112	2,675
DeLuxe coupe (5)	1,630	112	2,670
DeLuxe coupe (3)	1,535	112	2,590
Regal DeLuxe sedan (6)	1,709	112	2,725
Regal DeLuxe 2dr sedan (6)	1,678	112	2,685
Regal DeLuxe coupe (5)	1,704	112	2,690
Regal DeLuxe coupe (3)	1,609	112	2,615
Regal DeLuxe convertible (5)	2,060	112	2,865
Series 15A Six			
DeLuxe sedan (6)	$1,956	119	3,195
DeLuxe 2dr sedan (6)	1,925	119	3,165
DeLuxe coupe (5)	1,951	119	3,150
DeLuxe coupe (3)	1,856	119	3,080
Regal DeLuxe sedan (6)	2,078	119	3,215
Regal DeLuxe 2dr sedan (6)	2,046	119	3,175
Regal DeLuxe coupe (5)	2,072	119	3,165
Regal DeLuxe coupe (3)	1,978	119	3,095
Regal DeLuxe convertible (5)	2,431	119	3,385
Land Cruiser (6)	2,265	123	3,280

Alterations mainly affected trim. The hood medallion was now winged on all models. On the Champion, a horizontal bar was added to the grille. On the Commander, a heavy horizontal chrome upper grille molding appeared.

The material shortages seemed to ease now, and the labor situation mildly improved. The '48's continued to sell well, with car production reaching 164,753 for the calendar year, only 17,000 short of Kaiser-Frazer and good for ninth place (passing Mercury) in the industry. Again for 1948, Studebaker paid a hefty fifty-cent dividend on each share of common, and by the time the '49 models appeared had run up a profit of over $13 million. The book value per share had risen by October 1948 to $23.32—an astonishing fifteen dollars higher than ten years before and the best since the halcyon days of the Roaring Twenties. Ultimately, 1948 profits of around $18 million set a new record, thirty percent higher than the last best year, 1928.

Obviously much of Studebaker's sales success in 1948 resulted from the stridently demanding postwar seller's market—the greatest in history. *Fortune* reckoned that an immediate market existed for twelve to fourteen million cars: "In 1941, at Pearl Harbor time, the thirty-two million American families owned 29,600,000 cars . . . In 1946 the



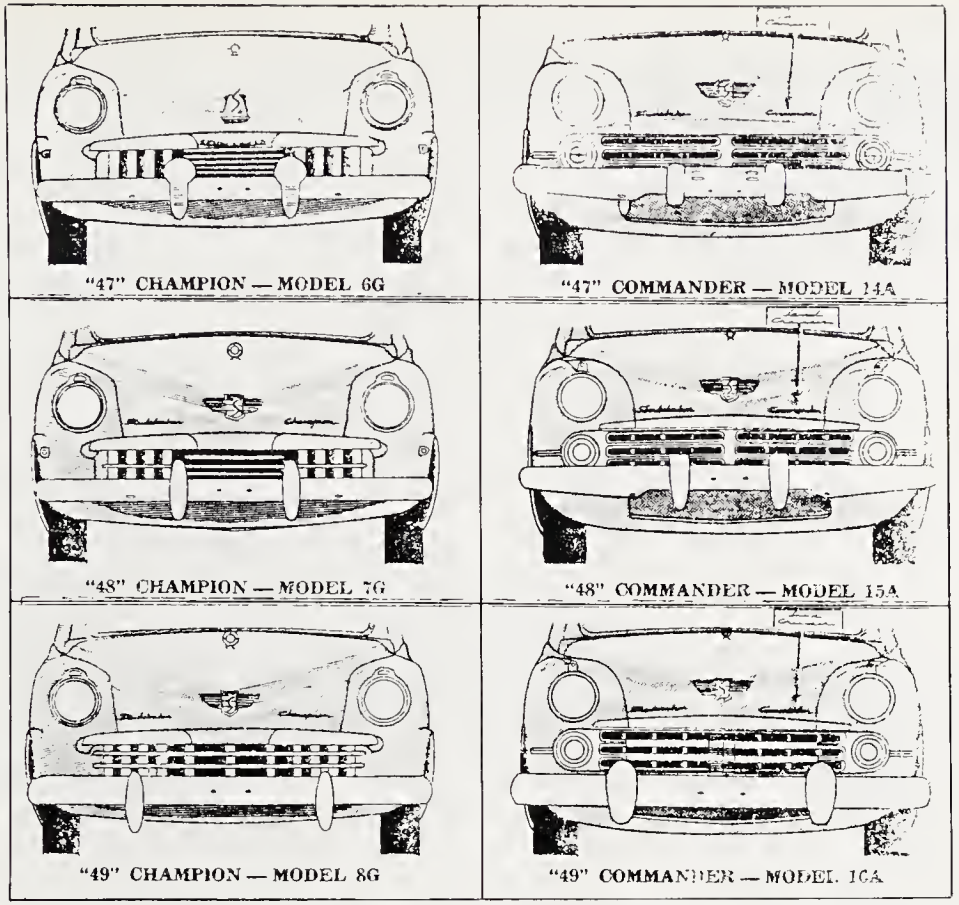
1948 Commander Land Cruiser.

cars were down to twenty-two million [and] fifty percent are ten years old." Despite the impressive power of General Motors, which held about forty percent of the market in those days, Studebaker's share was bigger than ever—4½ percent by the end of 1948, against its traditional three percent. The reasons were the Hoffman/Vance decision to be first out with a new postwar car, Loewy's inspired design of that car, its low price (about $200-$250 more than comparable Fords and Chevrolets), and its sound engineering.

Nineteen forty-eight, then, has to be considered a very good year. Studebaker's supply problems were generally solved, its cars were selling at high levels, dealer and employee morale were high, a check had occurred in the initial burst of work stoppages. In model year 1948 the company built more four-door sedans and convertibles than in 1947 (though two-doors and coupes tailed off slightly). It bears mentioning, too, that the five-passenger coupe outsold the two-door sedan—a very abnormal situation that attested to its sleek, novel lines and resultant popularity. In 1948 the firm built over 6,000 more coupes than two-doors, not even counting the 4,607 three-passenger coupes. Convertibles, too, showed surprising strength, with close to 18,000 built for 1948 against only 3,754 in 1947—a fairly healthy 9.6 percent of overall production. Altogether for the year, South Bend produced 186,526 cars.

Nor did the resignation of Paul G. Hoffman, who left in April to head President Truman's Economic Cooperation Administration and direct the Marshall Plan, check Studebaker's optimism. Harold S. Vance simply assumed the presidency as well as the board chairmanship, and carried on. All bank loans were covered with an issue of $15 million in sinking fund debentures sold at par to insurance companies at 3.16 percent interest. Plant capacity was expanded to twice the prewar capacity to meet the ever-growing demand for Champions, Commanders and Land Cruisers.

Quarter-scale plastic models, some designed as suggestions for 1947. Bob Koto designed two in foreground. Koto says most of these were actually wider than the Exner design, save the convertible, the car to the right of it, and the cars in the foreground, which were Exner-model modifications.



Detail differences between 1947, 1948 and 1949 models.

Miss Arkedelphia demonstrates Champion convertible.

Under such circumstances it probably seemed logical to stand with a good thing for 1949. Studebaker steadfastly did. The Champion received a new grille of horizontal and vertical louvers forming three rows of rectangular openings, while the Commander grille gained a large chrome rectangle and four horizontal trim pieces. The Commander Regal DeLuxes had eighteen-inch diameter three-spoke steering wheels. To make more room in the trunk, the spare tire and wheel were mounted vertically. The Commander's engine was stroked to 245.6 cubic inches (3-5/16 bore, 4¾ stroke), providing an even 100 bhp at 3400 rpm "and no more torque agony," in the words of one engineer. The Commander received Candalon all-nylon trim, and the Land Cruiser an attractive combination of nylon and alligator-grained vinyl; instruments were altered to be more readable at a glance.

Hindsight suggests that a more ambitious facelift might have been undertaken at this point. Kaiser-Frazer, for example, had introduced its own all-new cars almost simultaneously with Studebaker, and they facelifted for the first time in 1949. The competiton was, after all, getting stiffer. Hudson had introduced its new Step-down models in 1948 (they went unchanged for 1949), and Nash was out with its first new postwar cars. Most important, all members of the Big Three greeted 1949 with completely redesigned automobiles, GM bidding for a fifty-percent share of the market. Studebaker should have responded with a facelift based on *somebody's* ideas (both Loewy and Exner were competing hard for the redesign assignment), but it didn't. Indeed, the lineup was identical to that of 1947-48—no new body styles, no new models:

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 8G Champion Six			
DeLuxe sedan (6)	$1,689	112	2,745
DeLuxe 2dr sedan (6)	1,657	112	2,720
DeLuxe coupe (5)	1,683	112	2,705
DeLuxe coupe (3)	1,588	112	2,645
Regal DeLuxe sedan (6)	1,762	112	2,750
Regal DeLuxe 2dr sedan (6)	1,731	112	2,725
Regal DeLuxe coupe (5)	1,757	112	2,725
Regal DeLuxe coupe (3)	1,662	112	2,650
Regal DeLuxe convertible (5)	2,086	112	2,895
Series 16A Commander Six			
DeLuxe sedan (6)	$2,019	119	3,240
DeLuxe 2dr sedan (6)	1,988	119	3,215
DeLuxe coupe (5)	2,014	119	3,200
DeLuxe coupe (3)	1,919	119	3,130
Regal DeLuxe sedan (6)	2,141	119	3,245
Regal DeLuxe 2dr sedan (6)	2,109	199	3,220
Regal DeLuxe coupe (5)	2,135	119	3,205
Regal DeLuxe coupe (3)	2,041	119	3,135
Regal DeLuxe convertible (5)	2,468	119	3,415
Land Cruiser (6)	2,328	123	3,325

1949 Champion Regal DeLuxe four-door sedan. Facelift included wider bumper-guard spacing and revised grille for 1949.

The cars were just as good. This year Uncle Tom McCahill tried a Commander and a Land Cruiser, finding both of them superb, especially in the traction department. Hitting a rare Texas blizzard in the winter of '48, McCahill took to the snowbound roads in his Commander, finding not another car in sight. Then all of a sudden, "I heard a horn and a Studebaker Commander rushed by. Feeling a little sheepish about my own speed, I hit the throttle and started to follow suit. There was another horn blast and, so help me, another Studebaker whizzed by . . . I closed in behind them and did my best to stay there. As the day progressed, more and more cars appeared—but the three Studebakers passed everything. Their traction was amazing."

The other Studebakers turned out to be road test models driven by Proving Ground-baptized testers, but the demonstration was nevertheless impressive. McCahill found the long-wheelbase Land Cruiser equally adept—the riding qualities, fit and finish, and steering among the best in America. Performance was good—10 to 50 in 13.2 seconds in high, 10 to 60 in 20.6 seconds, 92.7 mph available with the overdrive Commander, and fuel mileage close to 20 mpg. Tom closed his test with this weighty testimony: "If there's any place where pride in workmanship still exists in the auto industry, it's in the Studebaker plant. They build good honest cars to the best of their ability [damning with faint praise?] And the public gets more than just an even break—it gets a fine car in the bargain." Unsurprisingly, there's a memorial to Uncle Tom at the Studebaker Century Center in South Bend.

Only one industrial problem marred 1949 for the company—its first formal strike. Beginning January 21, nearly 16,000 workers walked out to protest the discharge of forty-three of their fellows without grievance procedures, and the overtime study methods being undertaken by management. The labor force was already reacting to any attempt to determine South Bend's productivity level—or prove it lagged behind Detroit's. An agreement was reached on January 23: management simply gave up. They reinstated all forty-three discharged workers and formed a joint committee of union representatives and company officials to do the time studies. One of the purposes of the latter had been to examine piecework, a practice that seems like something out of Dickens, but which was common at South Bend in 1949. Though management didn't count it one, this was the first Studebaker strike, and South Bend had joined the UAW in 1933. Though it was solved rapidly, it gave evidence that union problems would accompany any attempt to make production more efficient.

With the exception of the January stoppage, the company continued to roll in 1949. A record-breaking $473 million in sales was rolled up, and Studebaker landed a fat $27,500,000 profit—its all-time high, and destined to remain so. In rank, it shot past Kaiser-Frazer to regain eighth place in production for the first time since 1940, with over 228,000 passenger cars (in 1940 it had only taken half that number). Studebaker would never rank as high in the production race again.

Any assessment of the first postwar Studebakers has to begin with the fact that they were significant waysetters to the automobile industry. It is probably optimistic to say they influenced the rest of the industry—GM, Ford and Chrysler were all on the way with envelope bodies by the time the '47's appeared, and literally nobody was considering the old separate fender method of construction. What they did do was show the public that South Bend could lead—and by a good margin—the design trends of the nation. They also showed that family cars didn't have to be overweight and overhung to "hug the road," despite the rampant rationale of thousands of Americans. They demonstrated that weight, as Raymond Loewy constantly proclaimed, was the enemy. Whether they also appealed to that segment of Americans Loewy had targeted them toward—the young and enthusiastic, rather than the old and conservative—is less clear. Studebaker never conducted a market survey at that time. But it is true that they made this a company to watch, a firm respected by its peers, treated seriously by its competitors. Ford, as was its wont, bought and disassembled a 1947 Champion almost as soon as it came out, carefully weighing and marking each part and basing comparisons on its own forthcoming 1949 models—this was good testimony indeed.

The only mistake Studebaker made in product planning in this period was the lack of a 1949 facelift. While calendar-year production increased, '49 model output slipped—to 129,303—indicating a downward trend and quite a few leftovers on dealer lots. This was to some extent predictable and unavoidable—but the drop was nearly 60,000 units from 1948, and could partly have been abated by something a little newer-looking.

For 1950, however, something new was in the works, a restyle almost as startling as the 1947 cars had been. Raymond Loewy had the ball again!

A '48 Commander paces trotters in high summer. Studebaker's prospects were never better than at this time in history.

CHAPTER 3

The Next Look, The Next Engine

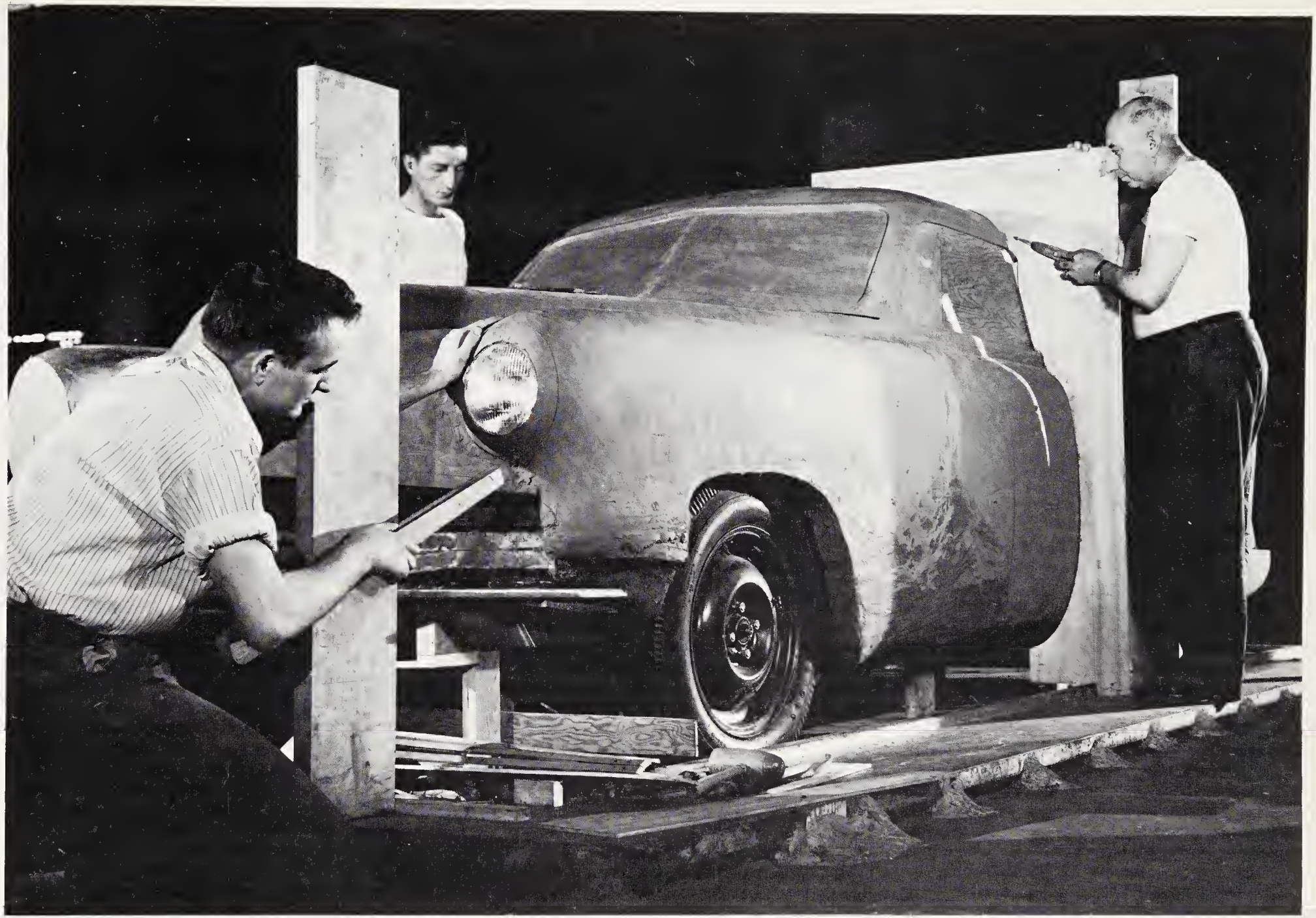
APROPOS THE 1950 STUDEBAKERS, one of the most instructive comments was that of Eugene Bordinat, Ford design vice president, during a recent interview in *Automotive News*: "You have to be awfully careful that you don't put something out, particularly in a mass-production car . . . where you alienate a lot of people. [But] you can take a rather strange-looking design, and if you were getting a million pieces out, by the time you got to the half-million mark it would probably look a little normal . . . An example would be Studebaker directly after World War II. They can divide the country into people who love the car a lot, and it can only represent a few percent, and the rest of the people might hate the damn thing. That kind of polarization is fine because they could keep their assembly lines going balls out with just those few numbers of cars."

This is exactly what Studebaker did with the New Look 1947's and again with the Next Look 1950's. In the process it set an all-time production record: 268,099 cars in calendar 1950, a grand total of 333,718 vehicles including Canadian production. Despite labor disputes in October 1950, passenger car production in South Bend and Los Angeles ran smoothly, and the 29,311 cars built in August established a new monthly record.

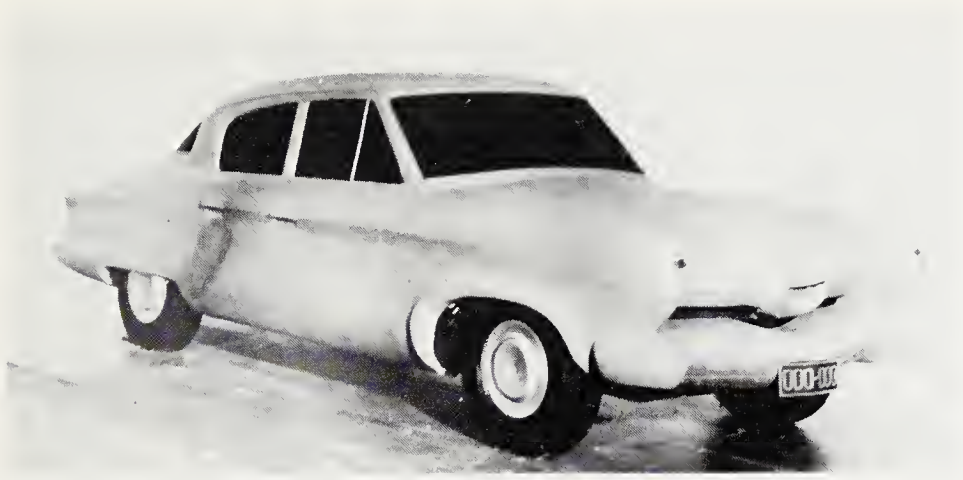
Expansion was the theme in this banner twelve months. In June the company acquired a 165-acre property in New Brunswick, New Jersey, for a $5.5 million assembly plant, though construction was delayed because of scarcity in building materials. (Studebaker said it would build 85,000 cars a year there, but never did, and ultimately New Brunswick became a jet engine plant.) An addition to the Los Angeles factory, increasing output from 184 to 240 units a day maximum, was scheduled for early 1951. Truck production was lower than the previous two years, but in July a government contract was netted, calling for 4,000 2½-ton military trucks to be produced in early 1951—with prospects for more later.

The stockholders couldn't complain much about company activity in 1950. On record sales of $477 million Studebaker earned $22.5 million profit which, if not its all-time high, was certainly among its top five. Whether or not investors loved the New Look of 1950 was very much a secondary question. Vance, for one, didn't care. He had what Bordinat called his dedicated minority. "I don't like this new car at all," a banker friend told him at the press preview, "but my twenty-year-old daughter thinks it's fine." Vance, aged fifty-nine, replied, "I don't care particularly what you old folks think." Perhaps Loewy's continued harping about the youth market was having some effect?

But with Hoffman gone, the strain was growing for Harold S. Vance. When Hoffman was handling the sales end, Vance had worked smoothly as a production man, but he couldn't run both jobs for long. He was approaching mandatory retirement age, too. Accordingly, Vance began searching around for help, and in the autumn of 1951 created four new vice presidents, including Kenneth B. Elliott at Sales and P. O. Peterson at Manufacturing—neither of whom represented new blood. Peterson had joined Studebaker in 1919, had been treasurer of the ill-fated Rockne Company, had directed Purchasing and acted as production chief from 1947. Elliott had signed on as assistant treasurer in 1928, became a vice president in 1936 and headed Sales after 1941. The other two V.P. positions were filled by the same men who had served their departments as general managers: E. C. Mendler at Parts & Accessories, and R. A. Hutchinson (also president of the Canadian corporation) at Export. Elliott and Peterson, *Business Week* said, "got the two top jobs because they have been filling bigger jobs all along. [Vance] makes clear that the changes are mostly just in titles . . . All four of the men will still be reporting directly to Vance. They'll be responsible only for their own departments." What these moves provided, then, was a second-string back-up in case Vance was suddenly absented—but not a definite successor, or even new input at the policy-making



Clay modelers, described by Bob Bourke as "best in the business," sculpt facelift in full size for 1950 proposal.



Scale model proposed for 1950 incorporated Loewy spinner, floating wing between fenders. Contoured bumper proved too expensive to produce.

level. But one industry mogul did have some ideas about Vance's successor, though he lived in far-off Kenosha, Wisconsin, and headed another company: George W. Mason, president of Nash-Kelvinator.

Among independent motor executives after the war, George Mason was the only one with any real vision. He could see plainly that while the seller's market lasted the independents could sell anything on wheels—but when supply finally equalled demand they'd be up against terrific competition from GM, Ford and Chrysler. Mason's backers, notably the Harris Trust in Chicago, agreed with his theory that the independents' survival depended on mergers. George Mason envisioned a huge amalgam of Nash, Hudson, Packard and Studebaker, its product line rationalized to avoid overlapping, doing battle with GM, Ford and Chrysler at every price bracket. He approached Hudson's Ed Barit about getting together as early as 1946—but Barit was making money by the barrelful and wasn't interested. Mason talked to Harold Vance around 1949—and got the same answer, delivered more scornfully. Studebaker had been a successful independent for nearly a century. Merge? Ridiculous!

But Mason was a man with a dream, and not to be denied if he could help it. The Harris Trust eventually set up a meeting between Mason and James J. Nance of Hotpoint in 1951, when Nance was being wooed to accept the presidency of Packard. "The approach to me was a first step of putting [the four companies] together," Nance says. "Mason . . . had not been able to negotiate a deal with Harold Vance. The offer to me was to put Studebaker and Packard together so that later on the four companies could be brought together as a multiple-line automotive manufacturer . . . I'm sure I wouldn't have wanted [Studebaker] if I didn't see them as part of a bigger picture."

By 1954, the Mason plan would start to come together. Nash had merged with Hudson, and Packard bought Studebaker. In 1950, though, Vance was unmovable. To an extent, the troubles that began to plague his company as the fifties wore on were due to his failure to name a successor, or to bring in new people with new ideas at the secondary level.

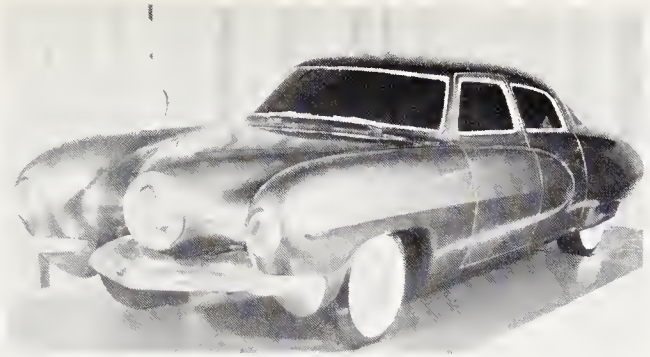
Studebaker design for 1950 has often been represented as the outcome of a 'contest' between the Loewy group and Virgil Exner, but that is a simplification. Evidence indicates that Exner and Loewy did not go toe-to-toe with a competing series of renderings and clay models, as they did for the '47's. Loewy had convinced management to let him come up with a radical facelift of the 1947-48 cars, originally for 1949, though this was later tabled until 1950. After some soul-searching, his proposal was accepted. Exner was channeled off on another area—the Cole-Vail project.

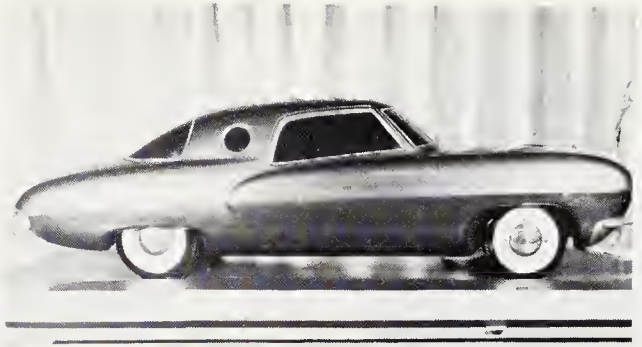
Roy Cole of Engineering and Ralph Vail of Production had been friends for thirty-five years. Together they had designed and engineered Dodges in the old Dodge Brothers days, Durants in the twenties, and their own products in partnership during the early thirties. Close friends, they too were nearing retirement age (the number of ancients in near-retirement positions was legion at South Bend) and were, according to Ed Reynolds, "neither mentally nor emotionally ready for it. [So] Harold S. Vance came up with a solution. Both men would be retired in conformity with company policy [but] retained as consultants and placed in charge of a new project." The Cole-Vail project must have caused Raymond Loewy some rueful moments when he heard about it. Roy Cole, who had shunned the influence of foreign cars in the forties, was now involved in the design of a 110-inch-wheelbase Studebaker compact! Naturally, Cole picked Exner to head its design.

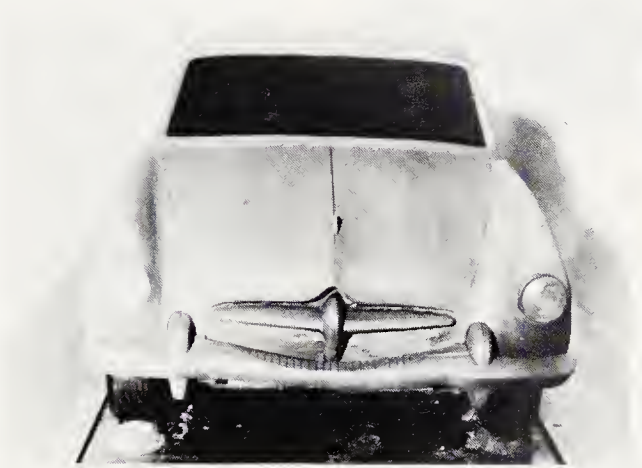
Cole-Vail operated at the Proving Ground clubhouse and garages, where Exner surrounded himself with clay modelers and draftsmen while Cole and Vail brought in talented technicians loyal only to them. They relied for engineering assistance on Proving Ground director O. K. Butzbach. Immediately, Ed Reynolds relates, the team brought in representative foreign cars for study—a Jowett, Simca, Lancia, Fiat, Alfa Romeo and a big Mercedes-Benz 300 four-door convertible: "They were evaluated on the basis of styling, dimensions and comfort level, ride and handling. Following this evaluation, each car was completely disassembled and the component parts carefully studied."

Eventually the Cole-Vail people came up with a unit-bodied two-door fastback powered by the Champion six, with coil and wishbone front suspension and conventional leaf-spring beam axle at the rear. Exner's prototype, with inboard headlights and elongated fenders, was built by Budd and tested at the Proving Ground, but the decision not to do much about it appears to have been predetermined. The car was soon stored in a shed at the Proving Ground (it was scrapped just before South Bend closed in 1963) and the Cole-Vail team was disbanded. The leaders went into reluctant retirement, while Virgil Exner joined Chrysler. There he would encounter even more conservative management, but eventually he created a long line of showcars culminating in the Forward Look Chrysler production automobiles, and the finned styling widely imitated through the early sixties. Exner's turn to laugh came when Studebakers sprouted huge tailfins in 1957, their stylists anxiously trying to keep up with his Chrysler products.

But back at Styling, the Loewy team was running the real production car project. Gordon Buehrig had replaced Exner in charge, but left after a year. Bob Bourke was now managing forty people, of whom ten were designers and the rest modelers, woodworkers and pattern makers.







Spinner-nosed Koto design, four-door on left side and sports coupe on right, proposed for 1950. Spinner was detachable.

Italian Cisitalia impressed Loewy Studios. Left, two scale models show its influence. Spinnerless Commander proposal, right, for 1950 bears resemblance to Kaiser-Frazer's Henry J.

"The first thing we came up with was the spinner-nose for 1950," Bob Bourke says. Though it was rumored that this feature stemmed from the Tucker, it had actually begun evolving much earlier—during the war. "The spinner-nose front end was developed to compete with a new front end that Ex had done," Bourke continues. "Ex's front end was closer in concept to the '49 Ford* approach or similar to early 1941-42 design perspectives I had done during the period I worked for him. Loewy desired something more distinctive at the time. As manager and chief designer, it was my job to reflect Loewy's wishes. There was a competition, management picked the Loewy design over Exner's for production. The spinner would not have reached production if management had picked Ex's job instead of the Loewy job. Management would listen to Loewy, but he was never in a position to insist that management produce any given design."

Instead of a blunt "bar of soap" like the '49 Ford, the Loewy group evolved rakish lines to complement the pointed nose. The front bumper was cut back under the headlights and followed the contour of the front end. "Originally we were allowed to change the cowl, which contributed significantly to the general front end configuration," Bob says. "But Engineering finally elected no cowl change which, coupled with certain detail changes, did much to wreck the general look of the front end—much to my dismay." The designers did retain a relatively low hood, but their original contoured front bumper was cancelled by the production people as too expensive. A straight bumper was adopted, held in place by support tubes. Bourke also lost the chrome appliqués he'd planned to go on the fenders under the headlights, for cost reasons.

There was a lot of debate about the final product when Raymond Loewy first submitted it to management in late 1947. To some directors it was as fresh and exciting as the 1947's had been, but others were less convinced. "Personally I didn't become

*Bourke and his assistant, Bob Koto, were asked by fellow designer Dick Caleal to help him finalize a clay model that was sold nearly as-is by George Walker to Ford for the 1949 restyle. The clay, Bob remembers, "was baked in the oven of Dick's wife in Mishewaka, Indiana. That's how things often were in those days . . ."

1950 Commander Land Cruiser; outer circle of spinner was chromed in 1950, painted body color in 1951. (Wheel covers not stock.)

ecstatic about it, but they sold very well," says Harold Churchill. Otto Klausmeyer felt they sold well only because they hit "at the apex of the postwar seller's market. Most of my acquaintances viewed the car coldly and damned it with faint praise."

In the Loewy team's defense, the actual production car ended up much higher and more ungainly looking than their concept for it, as witness many clay models and sketches. Says Loewy, "It is not generally known that the so-called bullet-nosed job started in a quarter-size clay model as a purely experimental sports car idea, one among many. As happens in such cases, the designers take liberties with the wheelbase, the track and, mostly, start with a low chassis . . . Designers must be given freedom of expression, it maintains a feeling for creativity. Unhindered by restrictions we had a very slender, racy looking job with a lean, streamlined front end. It looked like a slender fuselage, fast and graceful. Then someone wished to see it adapted to the existing high and short chassis with a tall engine. The result was a bulbous, rather clumsy, fat automobile. Aesthetically I never liked it much, but the customers did. I was told by the sales people that sales went sky high."

After much contemplation, management made a decision to produce the 1949's as a minor facelift, and the bullet nose was set back for 1950. Ed Reynolds at the Proving Ground thought he'd seen the last of the thing, a car neither its designers nor its builders liked. But then it was back, being tested for cooling standards, back to haunt their dreams again. And the body changes didn't help.

Mechanically the 1950 models were altered only in detail, the engines given slightly higher output thanks to improvements in compression ratio. The Champion 169.6-cid six was up to 85 hp at 4000 rpm, from 80 in 1949; the Commander 246 offered 102 hp at 3200 rpm instead of 100 as before; both models had higher compression. All-new in mid-year was Studebaker's automatic transmission, a $201 option, the cooperative development of South Bend and the Detroit Gear Division of Borg-Warner. A three-speed unit, it combined a cork friction clutch with conventional hydraulic torque converter and planetary transmission—complicated, but in practice one of the best automatics ever developed. Aside from Packard's Ultramatic, it was the only one ever produced by an independent.

In the 'drive' position, the gearbox provided two automatically shifted forward speeds, starting in second or intermediate with torque multiplication assisted by the converter. For a third speed the friction clutch was hydraulically engaged; the converter and planetary gears cut out after driveshaft speed and throttle opening were in correct combination. Manual downshifting from top to second was possible at speeds lower than 50 mph by flooring the accelerator, while the 'low' position embodied manual gear hold for fast takeoffs or engine braking, during which torque was transmitted by the hydraulic converter and planetary gearset.

Two important features unique to this transmission were independent air cooling (eliminating dependence on the engine cooling system) and its anti-creep Hill-Holder device. The latter design used an electric solenoid valve that retained pressure in the rear brake lines after they had been applied, with the engine idling and the transmission in gear. Returning one's foot to the accelerator pedal released the solenoid, and thus the brakes. (The feature was also applied to manual gearbox cars, the release switch linked to the clutch pedal.) Hill holding was accomplished by automatic locking in direct gear on upgrades. In the 'park' position the driveshaft locked up with the transmission case; the engine could not be started unless the selector was in 'park' or 'neutral.'

Again with the benefit of hindsight, it's possible to detect a mistake in Harold Vance's handling of this invention. He was approached by Ford with an offer to buy it on a proprietary basis, and he turned Ford away. Vance insisted on its exclusive use for at least a year; Ford went without for 1950 and came up with Ford-O-Matic for 1951—a combination of torque converter and planetary transmission manufactured by another Borg-Warner division, Warner Gear. Eventually, in 1955, Studebaker was buying so relatively few transmissions that Detroit Gear applied a stiff price increase, and Studebaker went to the simpler and less sophisticated Warner Gear system as its only alternative. The Detroit Gear automatic found itself on the likes of Jaguars and Daimlers in England, testifying to its worth. Its loss was a minor tragedy for Studebaker. In 1950 it didn't matter whether Ford offered the box under license, the demand for cars was so high. But by 1955 it might have been a helpful Studebaker sales feature, with automatics by then dominating the marketplace. Had only Vance the foresight to see that Ford's use would keep the price down for Studebaker . . . But hindsight is cheap, and Vance was no sales executive. Neither did he have Paul Hoffman by his side at the time, to provide what would undoubtedly have been expert counsel.

Aside from the new front end, changes for 1950 were small but significant. Studebaker front suspension switched from its traditional leaf springs to coils, the top of each coil being recessed in the front crossmember with the bottom located on the lower control arm. The upper and lower wishbones pivoted to give a fifteen-degree rear rake, and a rubber-mounted front stabilizer bar was used at each wheel, between the frame and leading edge of the lower wishbone. The arrangement, Studebaker claimed, "cushioned" the ride on rough roads by causing the front wheels to "travel away" from

a bump. Tubular shocks were mounted inside the coil springs, and there was a new, simplified center-point steering linkage on the Commander.

Dimensionally the cars were lengthened slightly by longer front fenders and a wheelbase change of one inch, giving the Champion 113 inches, the Commander 120, and the Land Cruiser 124. A redesigned Champion instrument panel, featuring a semi-circular speedometer and flanking minor gauges, was set four inches further away from the front passengers. Commander and Land Cruiser tires were increased to the super cushion size of 7.60x15. Interiors of Champions and Commanders could now be had with the Land Cruiser's tough nylon upholstery, and leather was optional at no extra charge on convertibles. All models received new, vertical taillights, adding more identity to the rear end.

The 1950 model line offered two changes over 1949: Commander three-passenger coupes were dropped, and a new, ultra-low-priced Champion Custom series was offered with prices as low as $1,419—within one hundred dollars of the least expensive Fords and Chevrolets.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 9G Champion Six			
Custom sedan (6)	$1,519	113	2,730
Custon 2dr sedan (6)	1,487	113	2,695
Custom coupe (5)	1,514	113	2,690
Custom coupe (3)	1,419	113	2,620
DeLuxe sedan (6)	1,597	113	2,750
DeLuxe 2dr sedan (6)	1,565	113	2,720
DeLuxe coupe (5)	1,592	113	2,705
DeLuxe coupe (3)	1,497	113	2,635
Regal DeLuxe sedan (6)	1,676	113	2,755
Regal DeLuxe 2dr sedan (6)	1,644	113	2,725
Regal DeLuxe coupe (5)	1,671	113	2,715
Regal DeLuxe coupe (3)	1,576	113	2,640
Regal DeLuxe convertible (5)	1,981	113	2,900
Series 17A Commander Six			
DeLuxe sedan (6)	$1,902	120	3,255
DeLuxe 2dr sedan (6)	1,871	120	3,215
DeLuxe coupe (5)	1,897	120	3,215
Regal DeLuxe sedan (6)	2,024	120	3,265
Regal DeLuxe 2dr sedan (6)	1,992	120	3,220
Regal DeLuxe coupe (5)	2,018	120	3,220
Regal DeLuxe convertible (5)	2,328	120	3,375
Land Cruiser sedan (6)	2,187	124	3,355

Most testers were eager to try the new suspension, and verify or explode Studebaker's excited claims for it. Walt Woron of *Motor Trend* was impressed. On sharp bends he found that "the car had amazing recovery, [coming] to an even keel almost automatically." Woron praised the Hill-Holder, calling it "one of the best features of the Studebaker, particularly for women." (It's amusing to look back on chauvinistic old *Motor Trend*, which actually ran a "Ladies View" in its road tests: womens' commentaries on trivia like upholstery fabrics and sun visor positions—but that was a different age!)

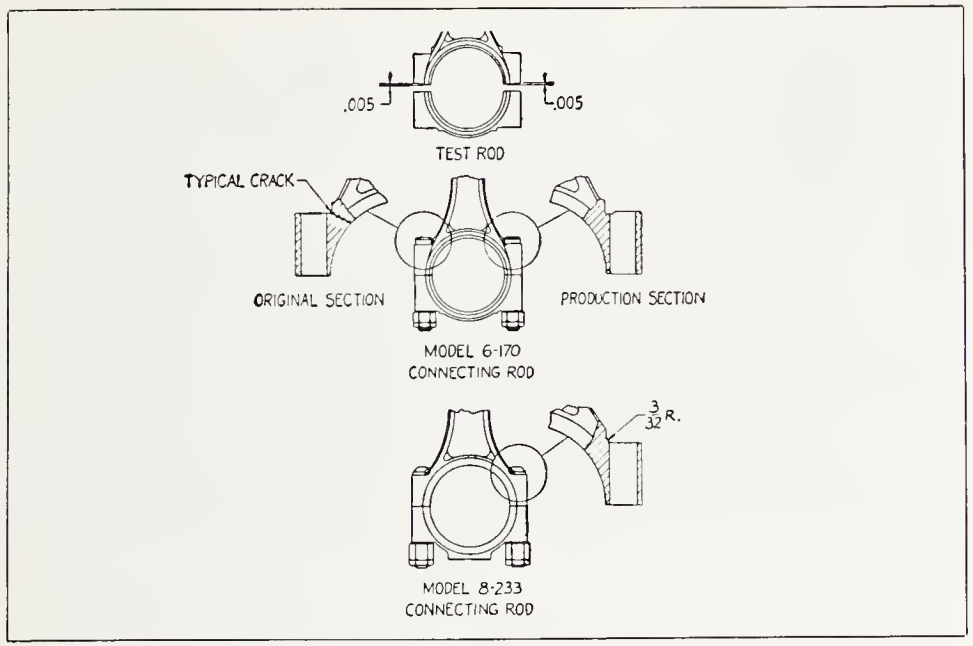
Britain's *The Autocar*, used to more firmly suspended cars, significantly had equal praise for the 1950 Studebaker's handling. "There is very little side sway, the car riding level in a very satisfactory way [although] there is an unusual proportion of total weight in front." Woron, however, had a heavier foot, obtaining 0-60 through the gears in 16.7 seconds with the overdrive. Both magazines cited a top speed of about 80 mph; the Commander, of course, would be commensurately quicker. Summarized *Motor Trend*: ". . . considering that the Champion is basically an economy and not a high-performance automobile, the 1950 model deserves much of the praise heaped on earlier models by enthusiastic Studebaker owners." Ah, but high performance was on its way, coming up in 1951. Studebaker was readying a V-8.

Engineers Gene Hardig, T. A. Scherger and S. W. Sparrow outlined the reasons for their 232-cubic-inch ohv V-8 in an SAE paper. The configuration, they said, was dictated by a desire to reduce vehicle length (hence cost) and the knowledge that a V-type engine afforded the turbulence characteristics best suited to high compression—which with higher octane fuels was the apparent wave of the future. (Engineers soon developed experimental pistons that came up flush with the tops of the cylinders, giving 9:1 compression and about 140 hp—and domed pistons that boosted compression to a fantastic 14:1! At the time, the industry still contemplated huge octane increases which would make such compression practical.) "The threat of small combustion chambers led us, somewhat reluctantly, to the overhead valves," the engineers wrote. Overhead camshafts were also considered, but discarded as too costly. Displacement was more arguable. More cubes, they knew, would provide more power, but would adversely affect economy. And economy, in this exercise, was taking precedence over performance. Even so, "when the [1951] car was found to weigh about six percent less than its predecessor, we felt confident of meeting our goal of equal performance without sacrifice in fuel economy."

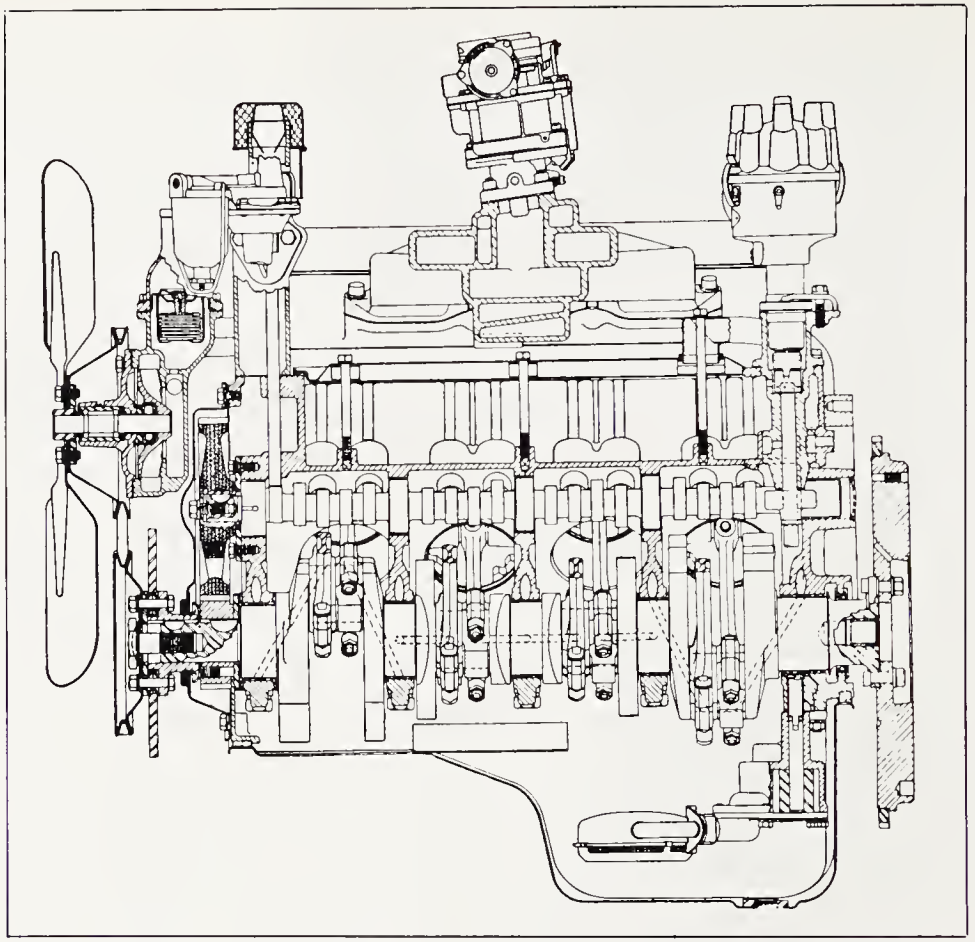
These considerations led to an oversquare bore and stroke of 3⅜ x 3¼ inches, giving a displacement five percent less than the Commander six. The engine was capable of being enlarged to over 300 cid (and would be), but what Studebaker had created was the first low-displacement, high-efficiency V-8 in mass-produced American cars—a benchmark for which the company deserves quite a hand. The big manufacturers, remember, were building engines well over 300 cid at the time. Not until 1955 did Chevrolet produce its outstanding 265 cid V-8, and that was four years after Studebaker. Combined with its excellent automatic transmission of 1950, the V-8 project gives the lie to latter-day claims that Studebaker lacked top-flight engineers—rather emphatically, in fact.

Hardig and his colleagues felt that engine design must be a practical rather than a theoretical exercise, and their SAE discussion was so presented "in the hope that it may contribute to the pleasure that most humans derive from watching the struggles of others to solve familiar problems," a homey, typically Indiana approach. If it didn't result in overhead cams or complex induction systems, it did produce one of the most reliable pioneer V-8 engines.

The 232 block was fully water-jacketed and nowhere was there less than half an inch of water between cylinders. The crank was a sturdy, five-main-bearing forging with the main journals overlapping the crankpins by 5/8 inch. Though torsional vibration was never excessive, a vibration damper made it nonexistent. Both main and conn-rod bearings were of micro-Babbitt steel. Since exaggerated stress-testing had shown the



Connecting rod failures were corrected through construction change indicated on 8-233.



Longitudinal drawing of ohv V-8 engine for 1951.

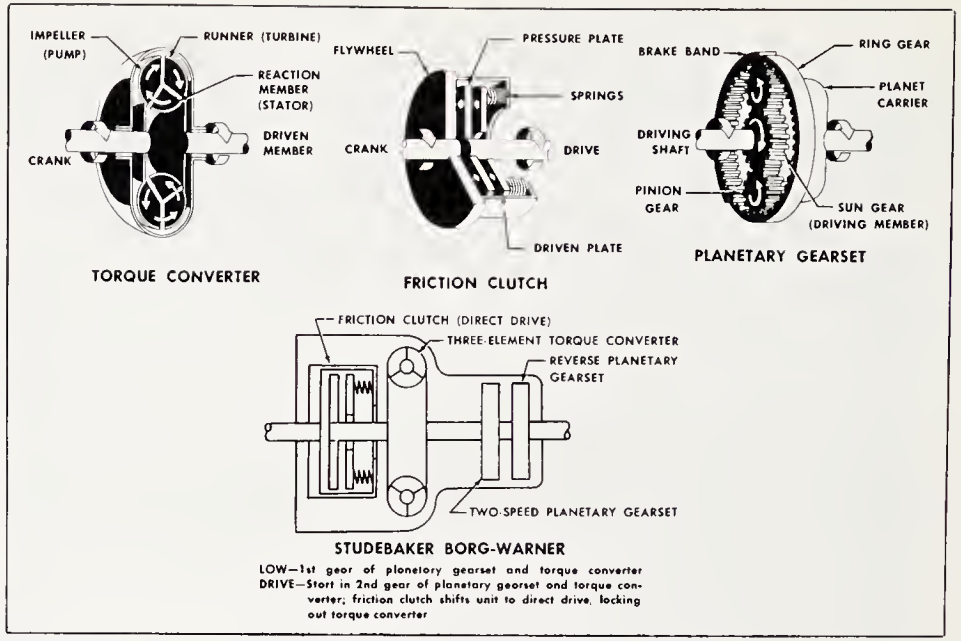
170-cid six susceptible to rod failure from the lack of flatness at the mating surfaces of the big end and its cap, a fillet was made at the flat, decreasing its tendency to crack.

Studebaker V-8's are known for oil leaks—they don't burn much, but they do leave a lot of the stuff on garage floors. It is interesting that much attention was given to oil sealing, though apparently it wasn't enough. At the front of the crankshaft was an oil-slinger felt washer and return groove. At the rear was another oil slinger and a lip-type neoprene seal, cork filler-blocks at the sides of the bearing cap, and "strips of neoprene spaghetti" across the face of the cap. "The spaghetti would not be required if the mating surfaces were perfectly smooth and flat," the engineers remarked wryly, "[but] instances have been known where manufactured parts did fall a trifle short of perfection. . . ."

The 232 pistons were cam ground and oval shaped like previous engine designs, with two compression rings—an inner ring used in conjunction with the oil ring. "There was a time when inner rings were seldom admitted into the polite society of new engines," the humorous SAE account continues, "and were forced to associate with derelicts which had developed an unquenchable thirst for oil as they tottered toward oblivion. Today inner rings are somewhat more respected—at any rate we like them." Combustion chambers were wedge shaped with inset spark plugs, and the valve train was conventional except for self-adjusting screw and wire springs "to make the lifter follow the cam after the valve reaches its seat." These were held-over features from former engine designs. The lifters were mechanical, due to a lack of conviction in the necessity of hydraulics. Each cylinder was fed its fuel-air mixture by an independent passage from the center of a duplex intake manifold. The engine developed 120 horsepower at 4000 rpm, though some sources state that another 10 or 15 hp was actually recorded during dynamometer testing.

The engineers' final remarks are priceless enough to be worth quoting in entirety: "Now when all these things and many others like unto them had been accomplished there was constructed an engine. And in this engine the pistons did go up and down and did develop pressures which were both mean and effective. And in this engine the crankshaft did go round and round and from it there came forth both power and torque. And in due time there were other engines like unto this in every particular, and these engines were installed in vehicles which did move forward and backward . . . and in the performance of these vehicles the owners thereof did find pleasure and satisfaction—we hope."

The only serious criticism ever leveled at the V-8 was that it was too large and heavy for its displacement—a fault that was perhaps only true in the later years, when it was compared to similar displacement units that were much more modern. Otto Klausmeyer says, "The V-8 was not excessively heavy at the time it was designed, but since then

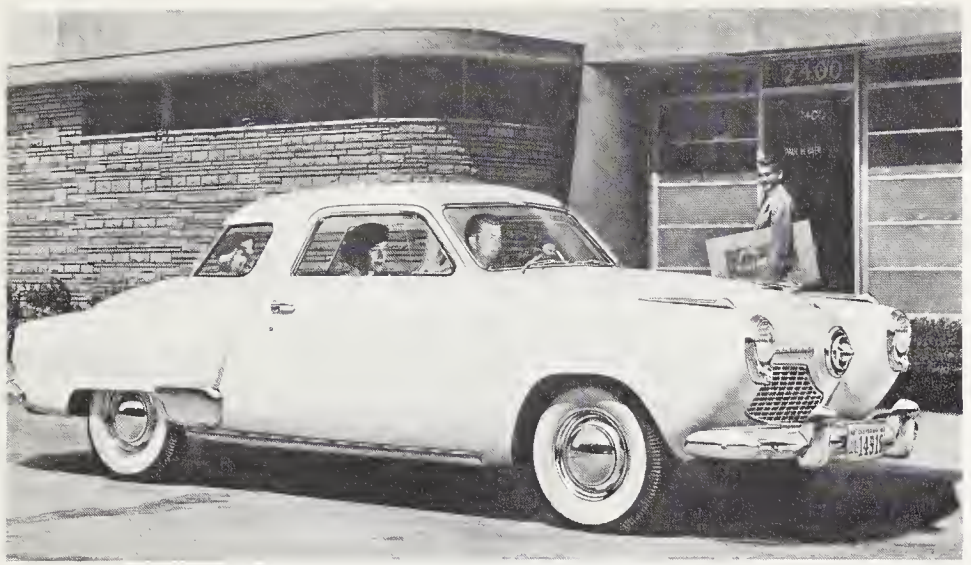


Paul Hoffman's dealership promotes the Land Cruiser.

Studebaker and Borg-Warner teamed to create unique automatic transmission incorporating torque converter, friction clutch and planetary gearset. In latter, ring gear was stationary and sun gear, planet carrier and driveshaft rotated in direction shown by arrows.

great strides were made in foundry techniques to produce a lighter part with the same strength. As for its reliability, I have two, both fourteen years old. They have never needed anything but batteries, plugs and points, for a total of 140,000 miles. They have never faltered nor failed to start." The writer can add similar personal experience from 35,000 miles in a GT Hawk, bought when it already had recorded about 35,000. True, the engine leaked oil, but it never burned any; it was incredibly economical, delivering up to 22 mpg at middle-range cruise speeds, providing all the power one could expect from a normally aspirated engine of this displacement. It was, in short, a winner, and those who criticized it later usually failed to consider that it was, after all, older than comparable engines by at least four years. Early V-8's had soft camshafts, but this was a relatively minor problem that could be solved, and was, with some expense to the company.

The new V-8 also enabled Studebaker to shorten its Commander and Land Cruiser for 1951. This was a quite unnatural step in an age of longer, lower and wider battlecruisers; but South Bend never marched to the same drummer as Detroit, and win or lose its decisions were always individual ones. To cut down on body-shell differentiation the Champion shared the same 115-inch wheelbase with the Commander—which had been reduced from 120. The Land Cruiser's wheelbase was



1951 Commander State Starlight coupe.

only 119. Commensurate saving in weight was realized, to the tune of an impressive 200 pounds in the Commander line. Stylewise there was little difference, the main visual alteration being a second chrome circle in the center of the spinner and a splash pan concealing the front bumper supports. The pointed part of the spinner was now plastic, and the grille flush with the body. A slight change was made to the taillights, which now protruded more at the top than the bottom. Series H cars had a three-hole gauge dash panel. All dashes were illuminated with black light. All cars had a one-piece windshield and a combination head lamp/parking lamp assembly. Aside from wheelbases the model range was the same, while 1951 prices were slightly up.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 10G Champion Six			
Custom sedan (6)	$1,667	115	2,690
Custom 2dr sedan (6)	1,634	115	2,670
Custom coupe (5)	1,662	115	2,650
Custom coupe (3)	1,561	115	2,585
DeLuxe sedan (6)	1,749	115	2,715
DeLuxe 2dr sedan (6)	1,716	115	2,690
DeLuxe coupe (5)	1,744	115	2,675
DeLuxe coupe (3)	1,643	115	2,610
Regal sedan (6)	1,833	115	2,720
Regal 2dr sedan (6)	1,800	115	2,690
Regal coupe (5)	1,828	115	2,675
Regal coupe (3)	1,727	115	2,615
Regal convertible (5)	2,157	115	2,890
Series H Commander V-8			
Regal sedan (6)	$2,032	115	3,065
Regal 2dr sedan (6)	1,997	115	3,045
Regal coupe (5)	2,026	115	3,030
State sedan (6)	2,143	115	3,070
State 2dr sedan (6)	2,108	115	3,045
State coupe (5)	2,137	115	3,030
State convertible (5)	2,481	115	3,240
Land Cruiser sedan (6)	2,289	119	3,165

The V-8 was the dominating news for 1951, and *Motor Trend* called it "a terrific surprise . . . The Studebaker Corporation should be able to sell all the V-8's they can build. They can't miss, offering the public such a package of power and comfort for the money." Their judgment is supported by the Commander's performance, here shown with the results of the concurrent *Road & Track* test as well as *Motor Trend*'s 1952 Commander, which was somewhat quicker. All cars were automatic-equipped four-door sedans:

	Motor Trend June 1951	*Road & Track* May 1951	*Motor Trend* March 1952	Avg.
0-60 mph	18.3 secs	15.4 secs	17.2 secs	17.0
¼-mile	20.7 secs	21.2 secs	20.5 secs	20.8
top speed	93.6 mph	94.7 mph	99.5 mph	95.9
economy	25.6 mpg	20.5 mpg	20.8 mpg	22.3

Such performance was scarcely on par with Oldsmobile 88's or Chrysler Saratogas, but it was far better than any comparably priced rivals in Studebaker's price class, including the flathead Ford V-8. Most testers found the acceleration smooth and the top-speed cruising ability excellent, reporting a silent 70 mph cruise. Given this kind of performance, the fuel economy was remarkable—it must have been easy for the average owner to record 20-plus mpg (the Land Cruiser's 27.66 mpg in the Mobilgas Economy Run cannot be regarded as typical). The new steering gave good control and required minimal effort, though with six turns lock-to-lock it wasn't the quickest around, and sports-car-oriented *Road & Track* felt that power steering was the only answer. Roadability was high, with some roll but fairly good cling, while ride did not significantly suffer from the good handling. Said *Motor Trend*, "The overall suspension system seems to us to have struck a perfect balance between softness and comfort on the one hand and stability and safety on the other." Most road tests concluded that the brakes were good, but not great. Their cooling could be improved, *Road & Track* suggested, by not using the full disc wheel covers, which obstructed airflow through the vented wheels. Fade was pronounced after hard braking, but it took repeated applications from high speed to really hamper braking effort and this was not something ordinarily encountered by the average driver.

Interior comfort was rated high by nearly everyone. The two-piece driveshaft had eliminated most of the rear floor hump long before, and the front hump wasn't of mammoth proportions. Visibility was good and headroom adequate. The instruments were probably an improvement over 1950, the dash's only negative point being the distance one had to reach to find the knobs. Automatic-equipped cars featured a T-handled starter-pull next to the hood latch on the far left, and this was easy to confuse

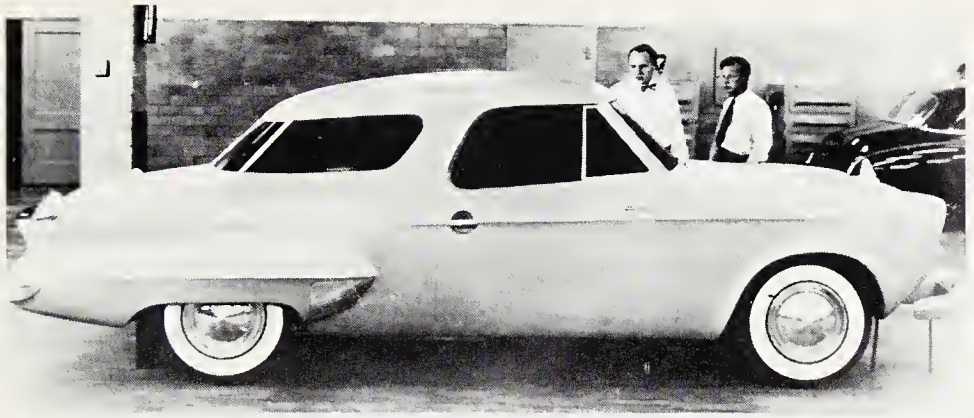
1951 Commander Land Cruiser. Prototype or early production (front fender ornaments were LC-standard).

when trying to start the car, though a regular user probably learned which was which by 'feel.' Fit and finish was rated high—higher, most observers felt, than the Ford-Chevy-Plymouth level.

Even though Studebaker failed to meet its National Price Administration (NPA) production quota of 4.35 percent in 1951, it did produce a healthy 222,000 cars (4.17 percent), maintaining its position as first among the independents and ninth overall in the industry. On sales of $503 million, a $12.6 million profit was realized. The V-8 was a major factor in 1951's success. Before it arrived Commander production was less than a third of the total automotive output—in 1951 it was well over half and still rising. And this was the first year in its hundred-year history that Studebaker sales passed the half-billion-dollar mark.

The problems hampering another record year were linked to the availability of supplies and parts, owing to the Korean emergency and resultant government restrictions. To keep production under the NPA limit, four-day work weeks were imposed, and in April the labor force was cut twenty percent from 23,000 to 18,500. Parts and materials shortages caused intermittent stoppages, the longest lasting a week in early July. On the plus side, defense work continued and truck output picked up slightly. The first jet engines were set for delivery in 1951, which the company said would put the military side of the business at fifty percent of the whole. One could say that such dependence on Washington was not necessarily good. The military is a notoriously fickle customer, politics are changeable, and wars are inclined to stop and start without notice, leaving companies that are dependent on defense sales either confused or without work. But with the government itself limiting civilian production, Studebaker didn't have many alternatives.

Although 1951 was Studebaker's hundredth year, 1952 was its Centennial. And 1952 was the right year for a restyle, but Korea interfered. 1952 proved a period of



Bourke-Koto study Model N proposal. Different styling ideas include grooved roof, dropped waistline, built-in door handles, pontoon rear fenders. Comparison Chevy lurks in background.

Bourke, Loewy and Koto with hood ornament alternatives. Car shown is actual '52 design, close to finalization.

curtailed production and saw yet another facelift. The restyle was put off until 1953—wisely, it turned out, because '52 didn't offer much scope for increased production.

The prototypes known as Model N (for "New" according to one source), or Champion 11G and Commander 2H, bespoke a more conventional shape for the forthcoming restyle, with more body sculpture, elongated fenders and decks, and probably a departure from the bullet nose—though the last was by no means certain until late. "I spent considerable time with Gene Hardig," Robert Bourke says, "developing revised seating and interior dimensions from existing production chassis and lowering the roof to give the automobile a chance to end up with relatively good proportions. Four of my designers were given a free hand in creating their concept of a new body form, sketching and then building quarter-scale clay models, At the same time I worked on my own quarter-scale model, developing two different concepts, one on each side. Mr. Loewy at this time left the States to visit his various design offices in other countries, and I was given a completely free hand to proceed with the car's development. The workload at this time was fantastic: we had design development programs covering standard bread-and-butter cars, sports cars, as well as truck programs—all with deadlines looming."

The Model N Starlight coupe developed in this period was an interesting design, bearing some relation to its production predecessors. The wrapped backlight was left intact, but the side windowline dropped low from the cowl instead of running back evenly along the beltline. The bolt-on rear fenders were eliminated and the door handle faired neatly into a crease molding. It was an interesting concept, and remained in the running until quite late with the approval of Raymond Loewy, who finally returned and saw it. When the all-new 1952's were shelved, however, the concept was dropped and not revived. The main reason was that management was now thinking in terms of hardtops, and five-window coupes based on them. Thus the first production hardtop Starliner appeared as part of the 1952 Centennial lineup.

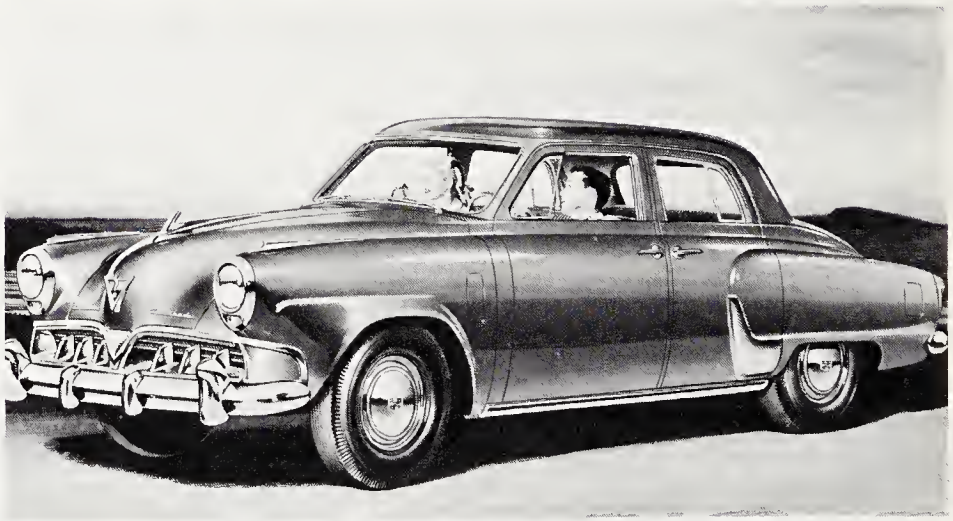
The writer asked Raymond Loewy if bullet nose styling disappeared after only two years because of reaction at the sales level. "Yes," he said, "[1952] was a typical facelift, and most welcome as it made it possible to lower the bonnet. I always objected to a high hood." One may write off the bullet nose as a not-very-timeless styling gimmick around which Studebaker could probably not build a generation's image. Its elimination was a good thing—it would not have done the new 1953 line much good, for example. The hardtop idea had been in the works a long time: "I don't know why it took so long to get into production," Loewy says. "We had made scale models before, and quite attractive ones, as well as dozens of renderings."

Taking so long to produce a hardtop must be considered a minor Studebaker mistake. Between 1950 and 1951 sales of this model nearly doubled. Plymouth, for example, which built no hardtops in 1950, sold 31,630 of them in 1951. Nash, which never came close to Studebaker in total output, built nearly 20,000 hardtops in 1951 accounting for four percent of the hardtop market. The Starliner simply *had* to be available. "There were endless arguments from the Sales department," Otto Klausmeyer remembers, "to the effect that it was necessary in order to present a full line to meet the competition." Studebaker did reap benefits from it in 1952, building over 25,000 Starliners, though South Bend still ranked second to Kenosha, among the independents, in hardtop production.

Aside from the new scoop-type front end and 'capped' taillights, body changes for 1952 were slight. The three-passenger coupes, dropped from the Commander line in 1950, were now gone entirely, while Starliner hardtops were available in both the Champion and Commander lines. Detail changes included a relocated tension spring on the trunk hinge to lighten the lifting effort. The starter T-handle for automatic cars was replaced by a starter button—cars with manual transmission started as before, through a switch under the clutch. An important mechanical improvement was the brakes, described at the time by Harold Churchill: "We have new linings now and a trailing reverse shoe (no return spring) which gives the effect of a self-adjusting shoe and compensates for expansion due to heat. This helps to reduce the fade. We've also changed the ratio of the connecting arms to give the same braking effect with less pedal pressure." There were still brake problems, though. The right-hand mounted parking brake was not strong enough to hold the car against even mild engine power; as *Speed Age* noted, "opening the two rear doors as landing flaps" was a more effective way to stop in an emergency. Churchill said continued braking research was going on—South Bend was considering both power boosters and improved methods of drum cooling.

Also for 1952, there was an internal vent carburetor to better retard dirt, a choke heater relocation (from exhaust to intake manifold), a 7 psi water cooling system to make up for the lowered copper content in the core—another necessity fostered by the military situation in Korea.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 12G Champion Six			
Custom sedan (6)	$1,769	115	2,695
Custom 2dr sedan (6)	1,735	115	2,655
Custom coupe (5)	1,763	115	2,660
DeLuxe sedan (6)	1,862	115	2,720
DeLuxe 2dr sedan (6)	1,828	115	2,685
DeLuxe coupe (5)	1,856	115	2,675
Regal sedan (6)	1,946	115	2,725
Regal 2dr sedan (6)	1,913	115	2,690
Regal coupe (5)	1,941	115	2,695
Regal Starliner hardtop (5)	2,220	115	2,860
Regal convertible (5)	2,273	115	2,870
Series 3H Commander V-8			
Regal sedan (6)	$2,121	115	3,085
Regal 2dr sedan (6)	2,086	115	3,040
Regal coupe (5)	2,115	115	3,030
State sedan (6)	2,208	115	3,075
State 2dr sedan (6)	2,172	115	3,055
State coupe (5)	2,202	115	3,025
State Starliner hardtop (5)	2,488	115	3,220
State convertible (5)	2,548	115	3,230
Land Cruiser sedan (6)	2,365	119	3,155



1952 Champion Regal five-passenger coupe.

1952 Commander State Land Cruiser.

The '52s roll off final assembly line at South Bend. (Commanders at left, Champions at right.)

Whatever criticisms could be leveled at the cars in 1952 were congenital ones that had been part of the design from the beginning. They included the always-hazardous rear-hinged rear doors on sedans, the long-reach dashboard, the dash-mounted rearview mirror (useless with three in the front seat) and the brakes, which were especially deficient when teamed with the V-8 engine. But any summation of the 1952 Studebaker has to be a positive one: it was a well-built, soundly engineered car offering good value for money. That one could still buy a V-8 Commander for little more than $2,000 is adequate testimony that the company, in old Clem Studebaker's words, was still delivering a little more than it promised.

Nineteen fifty-two was a memorable year in South Bend, a twelve-month-long celebration. Studebaker naturally paced the Indianapolis 500 (with a blue Commander convertible, later given to winner Troy Ruttman), and held pre-race activities that would warm the heart of any historian. A Memorial Day parade was led by the Conestoga wagon that had carried John Studebaker west to Ohio from Gettysburg in 1836. It was followed by locally built varieties, including Abraham Lincoln's 'last ride' carriage from 1865; then came a Studebaker electric, an EMF, and gas-powered Studebakers through to the present. "At the start of its second century, Studebaker is the oldest name in highway transportation in the world," said the Centennial report, "and the only automobile manufacturer with a history of performance that antedates the horseless carriage." The company now had "the strongest world-wide sales and distributing organization in [its] history. The enterprise which Henry and Clem Studebaker launched in 1852 with faith and integrity has prospered in succeeding hands, and at the end of its first one hundred years is a strong, vibrant business organization well-equipped to take advantage of the boundless opportunity with which it enters its second century."

That was what they said. The real situation was somewhat different.

In calendar 1952 the company produced only 161,520 cars, its lowest figure since 1947, when production hadn't yet built up to maximum. On sales of $585 million it netted $14 million profit—a fairly low percentage based on previous performance. Production was hampered by some happenings not of South Bend's doing—a nationwide steel strike, for instance, during the six middle weeks of summer. But there were other factors, distinctly Studebaker's own, that suggested trouble ahead.

Paul Hoffman had left Vance "a legacy of labor troubles," according to one latter-day postscript on the company. Work standards on the 1950-52 models were so inefficient, Harold Vance stated privately, that they'd lost $10 million for that reason alone. Vance often blamed the absent Hoffman for creating the labor climate and resultant unproductive work force—it was more expensive by fifteen percent, car for car, to build a Studebaker than a comparably priced Plymouth—but many who knew him said Vance was little more successful at taming the wildmen on the shop floor than Hoffman had been. "Studebaker was never seriously struck," one longtime executive relates, "but everybody else was. And everybody else took strikes in stride. Why didn't we?" Why indeed.

On the plus side, the J-47 turbo-jet aircraft engine project was in gear at New Brunswick and Chicago, Canadian assembly was increasing with plans on hand for its further expansion, and truck output was slightly up. The biggest hope for the future, though, was the new 1953 line. The Model N had evolved into an all-new European look, upon which Vance based a prediction of 350,000 vehicles and a fifty-percent production increase. It was the third time in less than a decade that Raymond Loewy Associates had helped Studebaker set the styling pace for the industry. And, on the engineering side, no one could say that Studebaker was one of those independents who had to buy every good mechanical idea from somebody else. Nor was it suffering from the lack of a decent V-8 engine.

So it is possible to understand Vance's optimistic view of the future. What is much harder to fathom—and what many have puzzled over since—is why the 1953 Studebakers, so brilliant in so many ways, let the company down.

1952 Commander State convertible.

CHAPTER 4

Triumph and Tragedy

ASK ANY INDUSTRIAL DESIGNER for the best automotive shape of the fifties, and he'll almost certainly pick the 1953-54 Studebaker coupes—the pillarless Starliner, the five-window Starlight. One must be very careful here: The fifties was not a time of universal stylistic perversity, anymore than an era of uniform ugliness. The Continental Mark II, the 1955 Imperial, the Chevrolet Nomad, the 1953 Packard Caribbean, all deserve credit for purity of line. But none of them matched the sheer perfection in every detail of the Studebaker coupes. They were, and are, magnificent-looking machines. Before their first year was up they'd won *Motor Trend*'s award for "the most aesthetically styled cars." They've been cited since as the outstanding industrial design of the decade by authorities who never before considered an automobile for that title.

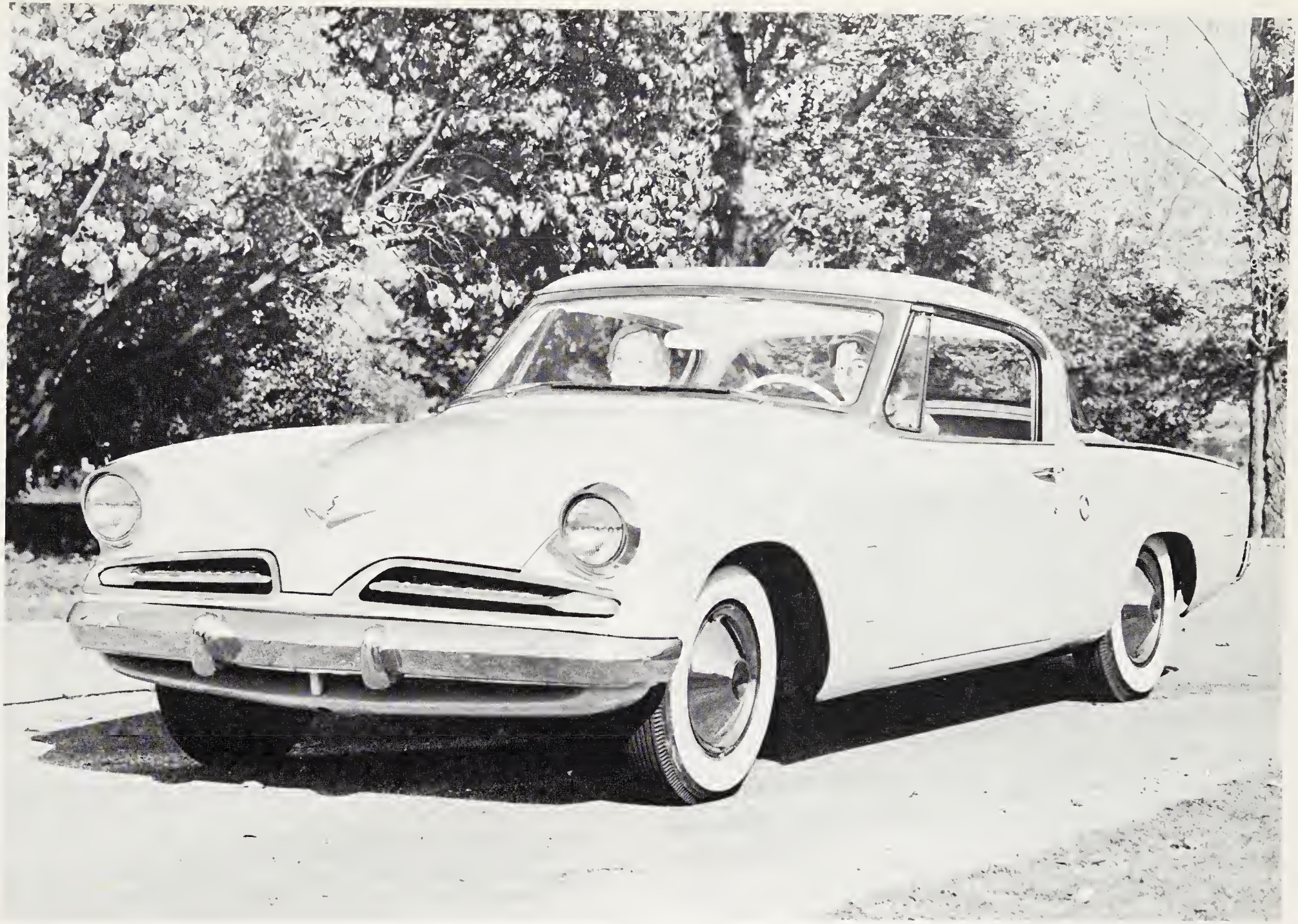
Designs for what became the '53 coupes had been a-brewing at South Bend for at least a decade, commencing while the war was still on. But it's generally known among enthusiasts that the actual production styling was that of Loewy Studios' chief designer Bob Bourke, ably assisted by Holden 'Bob' Koto. As overall boss, Loewy got the credit—as he would have if the result was horrendous. But Loewy is gracious about the work of Bourke, Koto and his other designers. "All I can say is that our styling division had a great working ambiance, excellent morale, and the fellows were devoted to their job," he told this writer. "Working with such men was a pleasure, an unforgettable experience. Our team's prestige in the industry was high. Many were astonished at the results obtained by such a small group, often in record time, and working for an old-fashioned company.

"Studebaker management was conservative to the extreme, except Hoffman who, regrettably, was often away. Dick Hutchinson [vice president, Export] also wanted a new and more sporty look, more cheerful interiors. I made constant efforts to try to get things moving; even some directors tried to help me. If we were able to go as far as we did, it was because I had to take a promoter-designer attitude every time I arrived in South Bend.

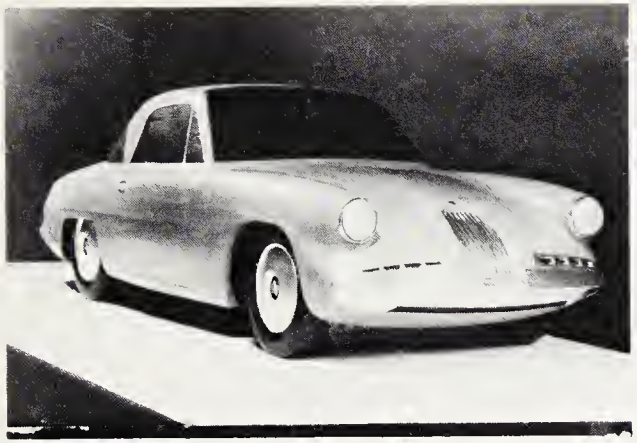
"That phrase, 'promoter-designer,' is often used by my critics. I admit to it. I had to be exactly that. When I started fifty years ago, nobody knew what I was talking about. Design talent was not enough by itself; executives, engineers had to be sold some way. It was very difficult and in order to convince them I had to acquire a new type of salesmanship, simple ways to make my points clear, to overcome doubt and, sometimes, antagonism. In order to succeed, I had to develop an effective type of 'sell,' unusual and unexpected—it was a great help. And if there are now 20,000 industrial designers all over the world making a good living, it is because a few of us, the pioneers, had to blend talent with salesmanship."

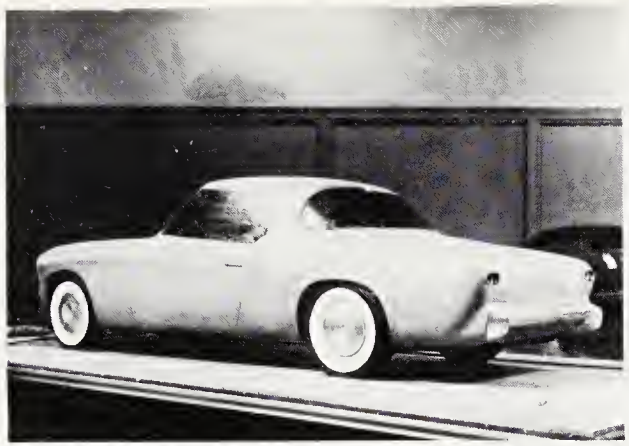
The reason the Studebaker coupes looked so good was because of Loewy's salesmanship. To his everlasting credit, Loewy insured that they went into production without significant changes from their drawing board appearance.

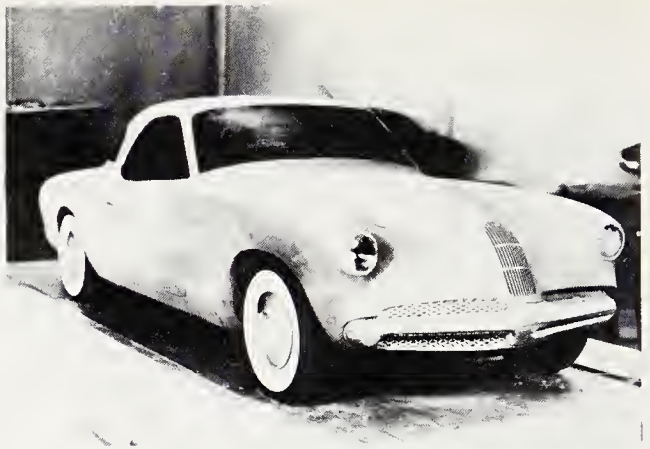
The project that led to the Starliner and Starlight began fairly late for an all-new design, in early 1951. Bob Bourke, as manager and chief designer of the Loewy group, sketched a closed sports car or grand tourer, a proposal for a show car on the order of GM's Motorama specials. "Normally you'd just run a thing like this off clean-slate," Bourke says, "with no thought of production. But something prompted me to keep it practical, on the slim chance that it just might appeal to management. From the start, it was checked out with Gene Hardig's department. Its lines were developed with production in mind. Interior measurements, seating, even roof and glass curvature were worked out along dimensions that we knew were possible. The rear glass problem of a one-piece window was resolved with the supplier, Libby-Owens-Ford. When Mr. Loewy decided to push the car for production, this gave it a tremendous edge."



1953 Champion Regal Starliner hardtop.







Koto styling ideas for 1953 include such features as dropped beltline, substantial C-pillars, broad glass area and low, ground-hugging front end.

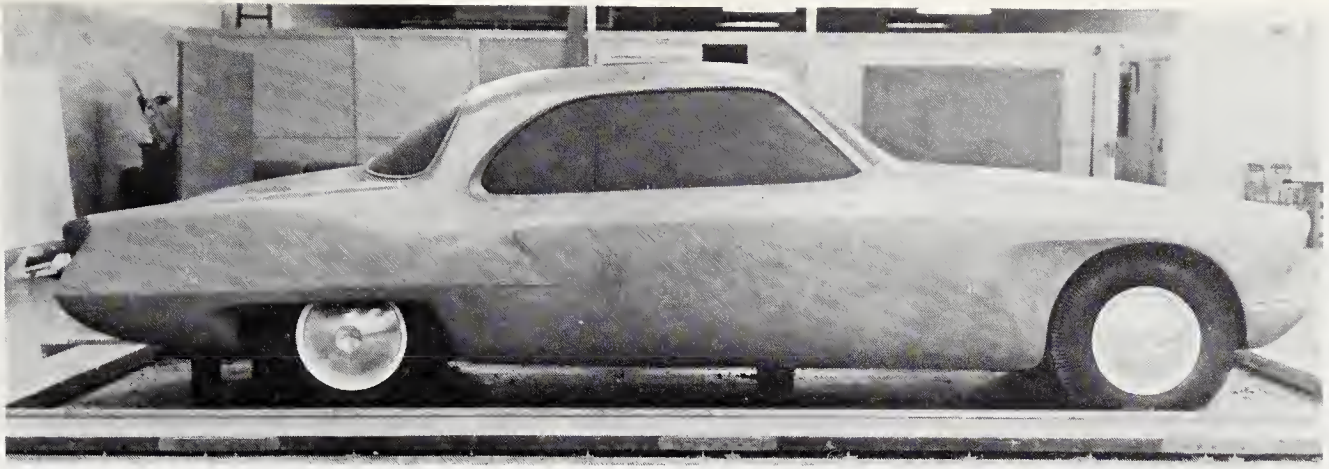
Raymond Loewy and stylists study ideas for '53.

Loewy liked to "look over the shoulders" of his designers on his trips to South Bend, and his shrewd judgment told him Bourke's dream car was more than just a whim. Here was a shape that appealed to all his senses, that boldly expressed the ideas he had preached for twenty years: slimness and grace, with weight the ever-present enemy.

Bourke had chosen the long Land Cruiser wheelbase for a more sweeping look, but allowed only minimal overhang at the front and rear. The hood was beautifully formed, dropping low toward the front. The fenders swept cleanly back into a reverse-angled taper. There was plenty of glass area but very little brightwork. The roof curvature was thin, not heavy; the car was dramatically low. Loewy asked Bourke to translate the drawing into full-scale clay. Bob Koto assisted, working out his ideas under Bourke's supervision on one side of the clay while Bourke tended to the other. Simultaneously, conventional 1953 models kept evolving—much higher cars, in keeping with the opposition from GM, Ford and Chrysler. These were the cars management had ordered and expected for model year 1953. Loewy was hoping to convince them to go for the Bourke alternative in a dramatic eleventh hour comparison.

"In designing the clay model," Bourke says, "I took much inspiration from the Lockheed Constellation aircraft, whose contours I admired. The general nose-down feel of the fuselage in particular was reflected in the front fender and hood contours." Bourke pioneered the angle termination of the rear fenders, with the taillights buried within and the bumpers appearing almost integral with the sheet metal. For side definition, he created a sweeping 'character line' running from the forward part of the front fenders through the door, then bending down to the rocker panel in a reverse angle duplicating the terminating angle of the rear fender. It was faintly reminiscent of the classic 'LeBaron sweep' of prewar years, but was crisper, in keeping with the new concept.

Bob Koto's model used the same wheelbase and seating arrangement but had an entirely different shape including different details. The side sculpture bent downward at mid-fuselage, then swept straight back to the rear bumper instead of continuing downward. Koto's taillights were prominent blisters which assured a wide angle of side lighting. Bourke recalls that all his designers, through necessity, used flared fender wheelhouse openings on their quarter-scale models to allow for wheel jounce clearance.



Bob Koto's side of the final hardtop clay model.

Bourke would have liked to have seen one original idea for the coupe—a single piece of door glass, like the post-1970 Camaro—go into production. But this created an immense door span for the day, and he changed it to facilitate production engineering. The door was shortened and a rear quarter window installed. Bourke states: "As can be readily surmised, the design suffered." (Production coupes also came in pillar style as the Starlight series, the thick B-pillar adding more strength to the body in that form.)

Studebaker management was not kept totally abreast of the '53 coupe prototype clay model. When it was nearing completion, Harold Vance began to take interest in it, and on one studio visit he was accompanied by Paul Hoffman. Bourke recalls that both men were obviously excited about the car's potential, and that Vance stressed the need to consider production costs: "That was a big encouragement to me, because if Mr. Vance cared about costs it meant this *might* be more than just a show car." Raymond Loewy in due course selected Bourke's side of the clay model and began pushing hard for its production.

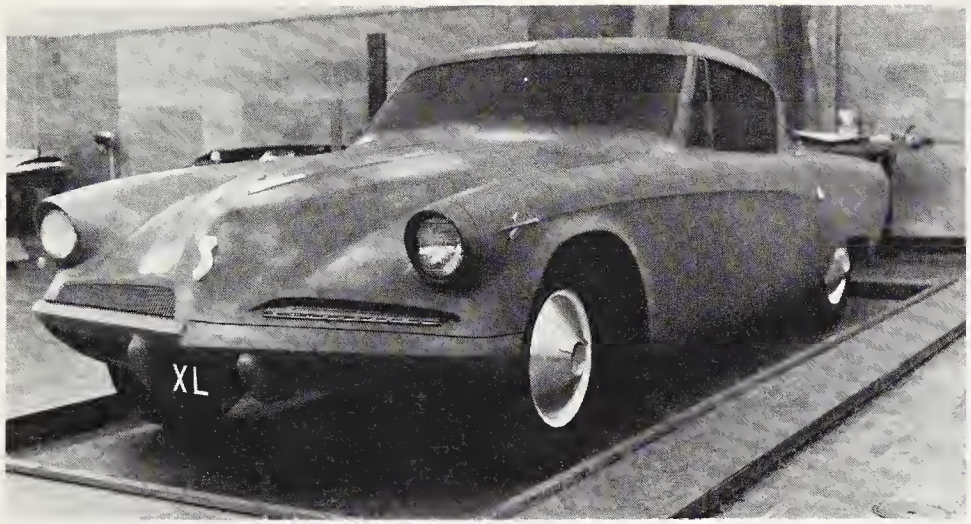
Considerable controversy attended board meetings where the radical and conventional approaches were discussed. Should Studebaker "go Detroit," striking out at Big Three rivals with cars of the same, dull dimensions? No, said Loewy, they must give the public a low, lithe, European design—a sensation equal to the '47's. It was nip and tuck for some weeks. But if Harold Vance was adventuresome at all, it was in regard to styling—and he had great respect for Loewy's acumen. "One night Mr. Vance and several directors visited the styling studios," Bob Bourke remembers. "Neither Mr. Loewy nor I were present. We heard about it the next day, and our hopes soared. Sure enough, the board shortly came in for a formal review, and we were told the 'European style' was to go into production! It was an emotional moment."

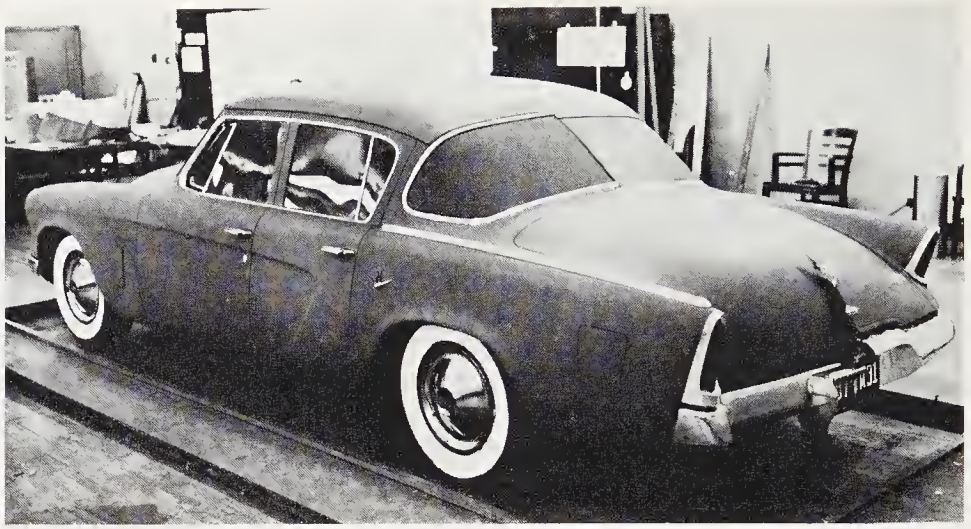
As any stylist knows, the selection of a brilliant model does not guarantee a brilliant end-product. On the way to production, compromises are made between the pure design and the needs of engineers, salesmen, management—even management spouses. There's no telling, when styling is subject to that much interference, whether the original idea will endure. There was no Harley Earl, as at General Motors, to take a long look at the alternatives and say, "We go with that." But Bourke and his crew were lucky: the Starliner hardtop and Starlight coupe made it to production with hardly an alteration. This was due to Loewy's overall influence, plus Bourke's cordial working relationship and careful preliminary planning with engineers like Hardig and Churchill.

This is not to say the coupes' paths were lined with gold. There were problems and engineering objections with certain features. Bob Bourke either resisted, in that quiet yet firm way for which he's always won respect, or proved that suspected troubles weren't really serious. Engineers doubted the ability of the prototype's thin roof curvature to provide sufficient strength, for example, but tests proved it was more than adequate. There was some question about whether the rear window could be one piece of glass, uninterrupted by a central bar; Bourke's liaison with Libby-Owens-Ford had made it not only possible but practical. Last-minute prototypes used old-style pull-type door handles with large chrome circular discs; Bourke successfully substituted slim, pushbutton handles. Trauma surrounded the front-end styling, and many proposals were horrendous. They could have destroyed the whole design. But Loewy prevailed: the ultimate front end was a clean design, with slim horizontal bars floating in narrow air intakes, assisted by a formed sheet metal scoop under the front bumper.

There were compromises, as there always are, but they didn't seriously alter the design. Bourke's original clay had taillights that were to be made of bumper stock, with recessed lenses. The lights were mounted on the rear bumper which conformed to the bodywork. This original concept was altered by Bourke to reduce production costs. Less prominent taillights in chrome-plated white metal housings, and a more functional rear bumper, were developed. Though Sales insisted on ungainly add-ons like front bumperette fog lights and a hood ornament the stylists dubbed 'Intercourse,' Bourke saw to it that the stock bumpers were clean and that the tinsel was optional instead of mandatory. The A-pillars were thickened in section for added strength as the integrity of the vehicles' stiffness depended on a strong cowl-to-roof tie. But the height of the car, and its smooth profile, were left blessedly alone.

In that age long before federal safety standards, interior crash-protection received inordinate attention. Dashboard workouts were designed to sweep away from the front





Bob Bourke's side of hardtop clay, preferred by Loewy.

Bob Bourke's sedan clay model. Bourke feels this design was more practical than the shape finally adopted.

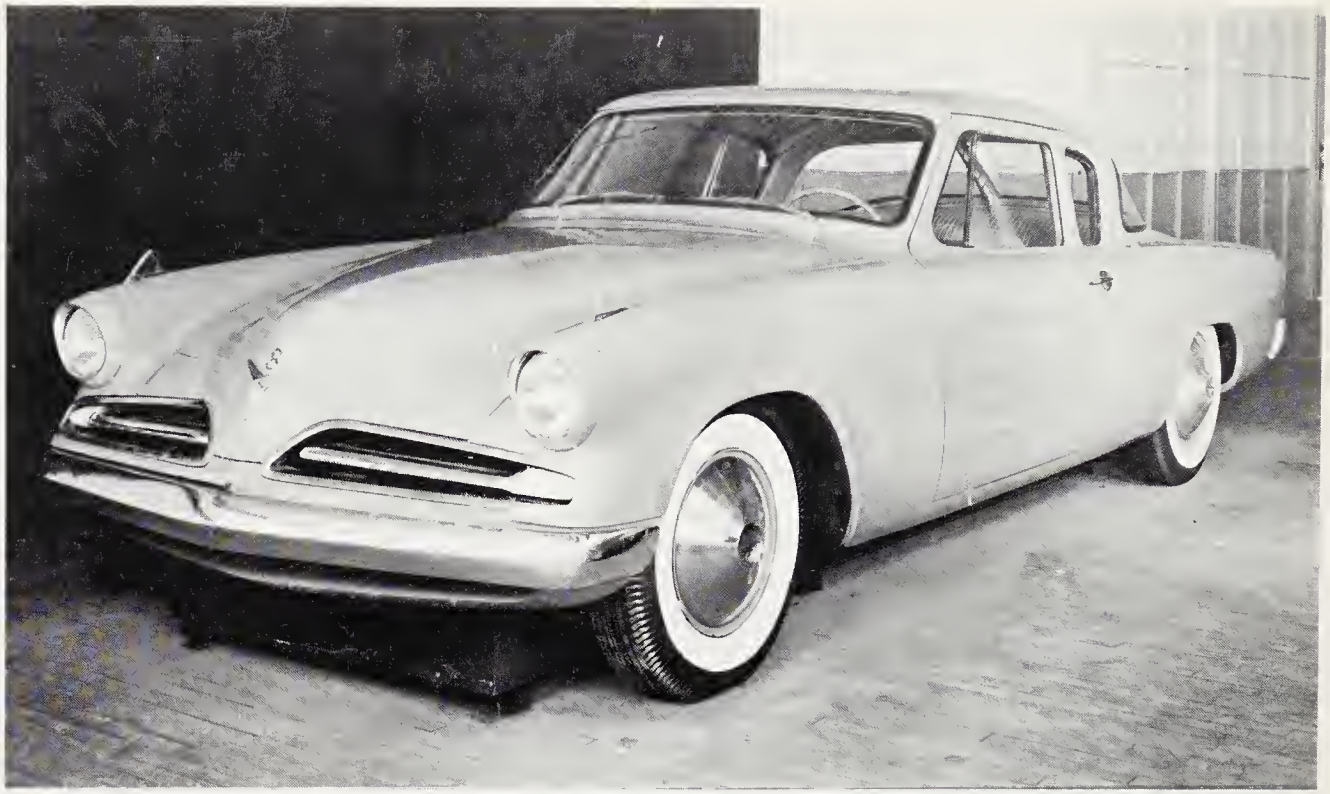
Bob Bourke, photographed in 1974 with his magnificent design. Bourke is an active car collector, owns a '54 Starliner.

passengers, providing extra knee room and keeping projections as far away as possible. Some steering wheel proposals included thick vinyl padding, but this was dropped because of cost. Bourke developed low, pod-type instrument nacelles for the Commander; stylist Randy Faurot made a less-expensive glass-covered panel for the Champion. Controls for lights, radio and heater were put out of the way to provide safety in event of a crash.

Interior colors were the cause of consternation to the designers. Loewy's men wanted satin or crackle-finish black for the 'universal' painted surfaces, which looked smart and blended with any upholstery color. Ken Elliott of Sales insisted on a dingy gray, underlining the power of negative thinking. His range of interior and exterior colors varied from fair to awful. One interior feature made a virtue of necessity: designers provided a fixed armrest with storage compartment over the rear center seat, atop the driveshaft hump. The car was so low, the hump intruded considerably. In 1954 the armrest lost its storage compartment, but was made removable. A child could then sit on the lowered armrest, or it could be raised to form a neat seat divider.

Once the Starliner and Starlight were being firmed up for production, management reconsidered the previously accepted 1953 sedans. The question in everyone's mind was: Should the sedans be closely related to the coupes? Bourke recalls that there was a "mad scramble" to complete a four-door full-size clay model that would utilize coupe design criteria. "The coupe design was, however, unique unto itself," Bourke says. "It did not immediately lend itself to the sedan's dimensional requirements. Good parts interchangeability with the coupes was not possible. Of course, sedans were the bread and butter models. However, if the sedans that went into production had not previously been accepted with certain engineering work completed, the coupe's styling could have been instrumental in increasing sales."

Bourke, it bears mentioning, was no impractical dreamer. He was constantly studying and considering engineering needs. The inherent rust problem concerned him, and for '53 he had worked out its elimination: breathing space where the front fenders overlapped the cowl and body pillar. Cost considerations prevented the improvement, and Studebakers continued to suffer from this familial affliction. By 1955 they had a permanent reputation for it that did little to encourage long-term users.



Loewy views Starlight five-window coupe clay. Door handle proved unreliable, delayed cars in production. Starlight steel prototype near production; still showing divided backlight.

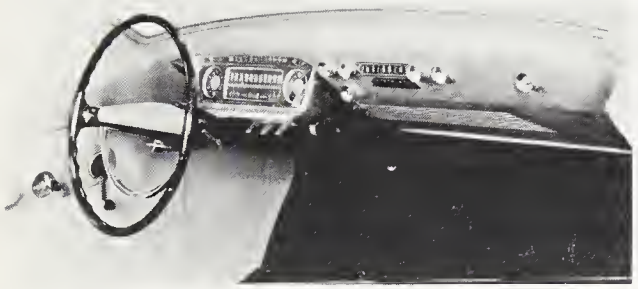
Engineer Otto Klausmeyer provides us with some background here. "The salt menace did not rear its ugly head until the late forties. Studebaker assumed that a heavy asphalt undercoat would be adequate to protect the car. In some areas this was true, but in the large northern cities it proved to be a sad failure. Detroit, for instance, recently applied 62,000 tons of salt to city streets in one winter. When this malady became apparent, Studebaker started to use a saltwater-proof compound in the boxed-in recesses of the body, but still chose to retain the asphalt on the fenders. When this was discovered to be an error, the time had come when no corrections were possible because of a serious loss position. I recall no planning sessions on this point."

Engineering changes for 1953 were few, but useful. Sedans were mounted on a 116½-inch wheelbase, Land Cruisers and coupes on 120½ inches. This increased the length of all cars by about an inch, while overall width actually decreased by an inch or so. Though total height dropped an inch on sedans, the height of the coupes was only fifty-six inches—lowest in the industry. Thanks to careful planning by the body engineers, interior space didn't suffer despite these decreases. Though front headroom was slightly down, rear headroom increased, as did legroom front and rear. The added wheelbase allowed Land Cruiser rear legroom to go from forty to forty-four inches, important in its price category.

With massive tooling costs for the new bodies commanding much of the firm's resources, engine modifications for 1953 were minor. The Champion's compression ratio was raised from 7:1 to 7.5:1 when equipped with automatic transmission, and a new Carter WE989S carburetor and intake manifold were fitted. To assist engine warm-up there was a heated throttle body, activated by the closing of the manifold heat-riser valve. Hot exhaust gases were sent through a drilled passage to a recessed area in the throttle body and back through another drilled passage to the exhaust pipe. As engine temperature rose, the heat-riser valve opened, preventing gas from passing through the throttle body. The Champion was also given an automatic choke.

On V-8 engines a new Stromberg WWUVL-26 carb was used (though horsepower was unaffected), and a throttle return check was provided on automatic transmission models to reduce stalling tendencies. The distributor had a new spark advance curve, permitting later initial timing without loss of part or full throttle performance. Initial setting of timing was now four degrees instead of eight degrees before top dead center.

By far the most interesting chassis/drivetrain feature was Studebaker's new mechanical power steering, offered initially as a $161 accessory, but soon withdrawn. It was developed by William B. Barnes of the Warner Gear Division of Borg-Warner. Only two pounds of effort at the steering wheel was needed to make the unit operative. The device weighed only twenty-two pounds and required 4½ turns lock-to-lock. It was resistant to road shock and provided good wheel-to-unit control.



Dashboard mockups by stylists were more imaginative than those finally approved. Padded steering wheels were rejected as implying unsafe conditions behind wheel.

Bob Koto's sedan derivative touted interchangeable body panels with coupe models, but they didn't on this model.

Barnes' device transmitted engine power to the unit by a crankshaft pulley and belt, connected to a driven pulley and a driving pinion. The driving pinion meshed with two more pinions. One rotated counterclockwise, driving the upper (left turn) clutch; the second rotated clockwise, doing the opposite for right turns. A clutch-activating plate mounted between the two clutches engaged either as required, moving through a ball race whose rotation was controlled by the steering wheel. The setup was protected against excess load by a spring mounting. If, for instance, the wheels were rubbing against a curb, the mounting would compress, allowing the drive belt to slip.

The multiple-disc turning clutches and plate were in motion whenever the engine was running, but when no steering action was applied they simply freewheeled. Turning the wheel caused the activating plate to cease freewheeling and engage the appropriate clutch. About twenty-five percent of the steering effort was manual. Should a belt break or the engine stall, the driver was able to exert control with much the normal non-power-steering effort. Warning of a broken belt or stalled power was given by an 'emergency ratchet,' which manually overrode the power unit and made a loud ratcheting noise.

Only about one hundred mechanical power steering units had been released before they were replaced with the GM Saginaw hydraulic system. Though the unit was brilliant in concept and without the traditional faults of hydraulic systems (complicated servicing, lack of road feel, hard-steering without power), it was far too costly. The Studebaker Borg-Warner unit cost the buyer $161 in 1953, the Saginaw only $134. Perhaps more importantly, GM's device cost Studebaker less than the Borg-Warner. Finally, engineers were bothered by a lot of gear whine in the mechanical unit, which would have required time and money to cure. It was another case where the good-enough unit of a big manufacturer was picked over the device of a smaller supplier, because the latter needed development time that an independent couldn't afford.

Other chassis/drivetrain changes for '53 were slight. The rear track on all models was increased 1½ inches to 55½ inches. Rear spring hangers were remounted on the rear side rails instead of underneath the frame. Body design created a low center of gravity, compared to 1952. The front spring rate of the Commander and Land Cruiser was increased from 296 to 325 pounds per inch; the rear spring rate of all styles except hardtops was reduced from 110 to ninety pounds per inch. Dust covers were removed from the front shocks, and Marshall Eclipse brake linings were fitted to V-8 models. To suit the new 1953 styling, driveshaft lengths were altered and exhaust outlets shifted.

Response to what everyone called the 'Loewy coupes' more than met management's expectations. If anything, it surpassed 1947. The St. Louis debut, typically, brought the greatest response in dealer history, according to regional manager A. Eissler: "So many people thought the car on the turntable was an experimental that a sign was placed alongside: 'This is not an experimental model. It is a regular production model which you can buy.' " Raymond Loewy was flying high, and loving it. "The trend of future automotive design is definitely toward more compact cars," he told an audience in enemy territory—Detroit. "The heavy automobile is on the way out because most of them are top heavy and should be redesigned anyway. Heavy application of chrome . . . is an attempt by some car makers to overcome bad design. Design is best

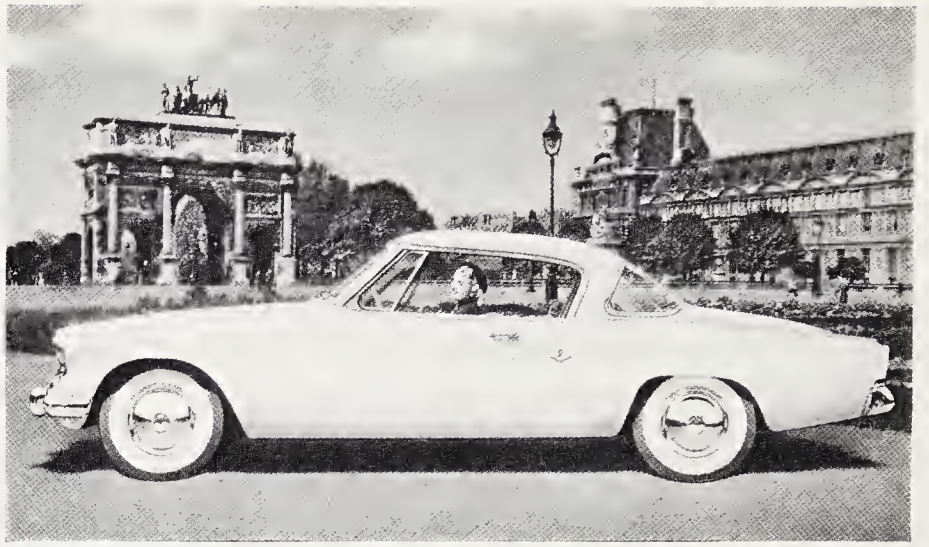
when it achieves shadow and highlight without chrome. This means careful analysis of metal pressings—their placement on the car and the effect created with overhead lights." Loewy compared car design with houses and furniture: the good ones were shaped, he said, to provide light, airiness and function. And, as ever, he pushed the youth image: "If I were asked to describe the car's design in one word I would call it a 'younger' car than any other. By this I mean it imparts a feeling of youth and it gives the road stability needed—something that is not often a characteristic of youth. We tried not only to have a fleet-looking automobile, but one that rode as close to European cars as possible."

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 14G Champion Six			
Custom sedan (6)	$1,767	116½	2,710
Custom 2dr sedan (6)	1,735	116½	2,690
DeLuxe sedan (6)	1,863	116½	2,735
DeLuxe 2dr sedan (6)	1,831	116½	2,700
DeLuxe Starlight coupe (5)	1,868	120½	2,695
Regal sedan (6)	1,949	116½	2,745
Regal 2dr sedan (6)	1,917	116½	2,715
Regal Starlight coupe (5)	1,955	120½	2,700
Regal Starliner hardtop (5)	2,116	120½	2,760
Series 4H Commander V-8			
DeLuxe sedan (6)	$2,121	116½	3,075
DeLuxe 2dr sedan (6)	2,089	116½	3,055
DeLuxe Starlight coupe (5)	2,127	120½	3,040
Regal sedan (6)	2,208	116½	3,095
Regal Starlight coupe (5)	2,213	120½	3,040
Regal Starliner hardtop (5)	2,374	120½	3,120
Land Cruiser sedan (6)	2,316	120½	3,180

Public reaction surprised those who thought Americans would be appalled at anything so European. The buff magazines competed for superlatives. "To our minds the new Studebaker is the most refreshing, stimulating and progressively styled car to emerge from a stock car manufacturer's factory since the days of the Lincoln Continental and the coffin-nosed Cord," said *Motor Trend*. "South Bend has come up with a terrific first step toward a sensible new American concept of motoring," *Road & Track* echoed. "They have the body, the chassis is acceptable and the engine provides good sturdy performance. It is possible that with this start Studebaker has the potential to force the other manufacturers to follow suit. Let us hope so." *Speed Age*'s comment was the briefest and the best: "They've Hoosiered up a dilly out South Bend, Indiana, way."

Commander coupe road tests resulted in a fair degree of consistent performance:

	Road & Track coupe, o.d.	*Speed Age* htp., auto.	*Motor Trend* coupe, auto.
0-30 mph	4.4 secs	5.2 secs	5.4 secs
0-60 mph	14.9 secs	16.5 secs	16.9 secs
top speed	97.9 mph	101.0 mph	98.1 mph
mileage	15-19 mpg	15-21 mpg	15-22 mpg



Studebaker again revolutionizes automobile styling

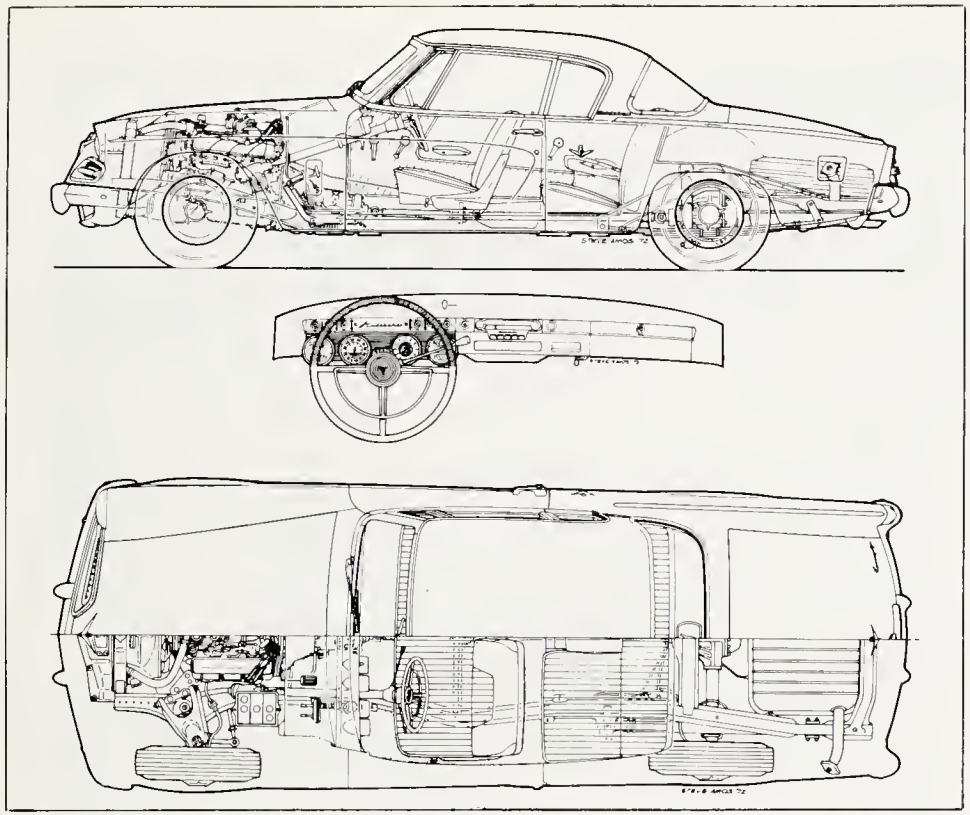
NEW 1953 STUDEBAKER

The new American car with the European look!

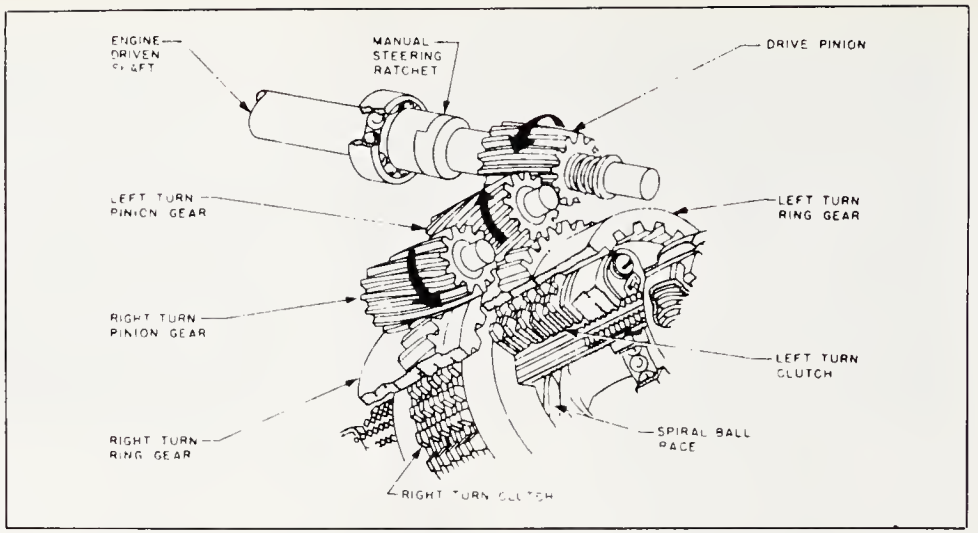
BEGINNING THE SECOND CENTURY OF STUDEBAKER PROGRESS ON THE ROADWAYS OF THE WORLD

169

It was, as they said, a styling revolution.



Starliner cutaways, courtesy *Special-Interest Autos*.



Studebaker's innovative power steering unit for 1953.

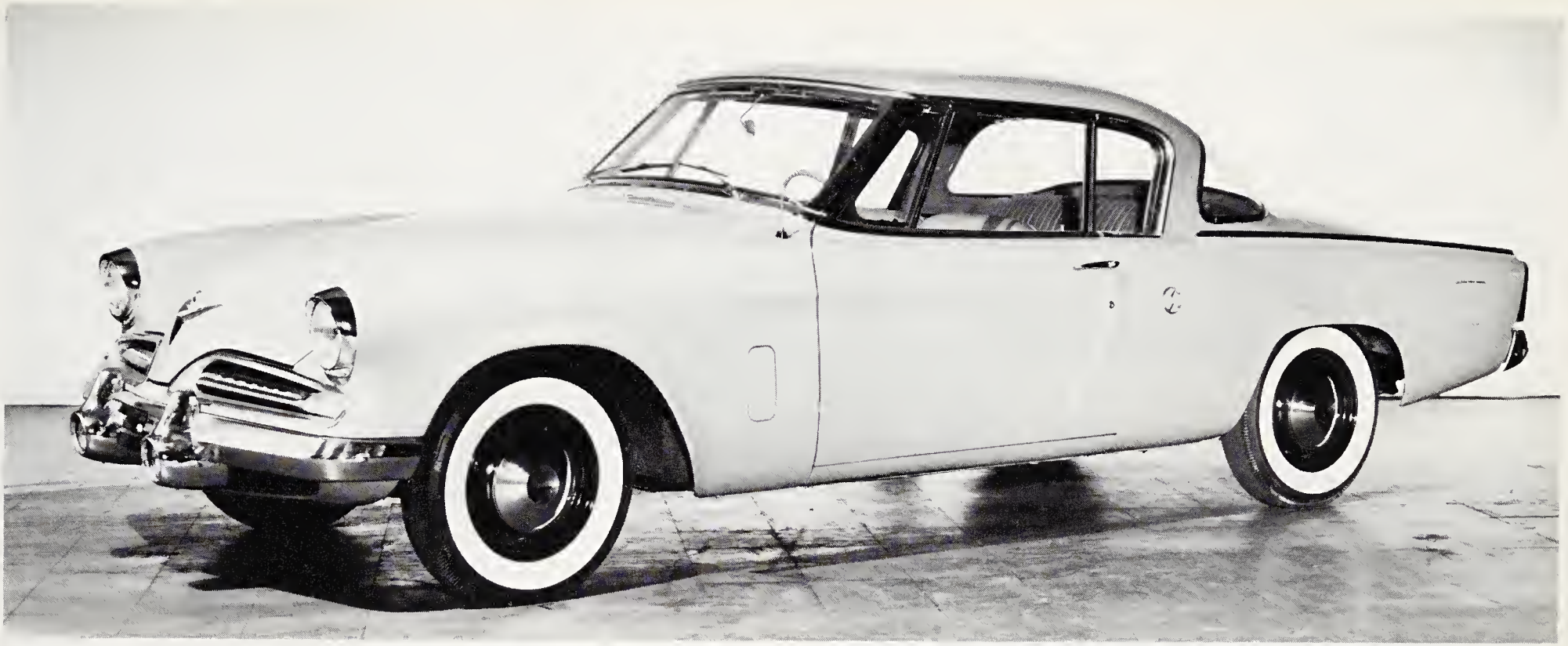
The sporty coupes soon attracted a host of modifiers. *Road & Track* tested a Commander with McCulloch supercharger late in 1953, running 0-60 in 11.9 seconds and the quarter mile in 14.6, with a top speed of over 107 mph. J. C. 'Aggie' Agajanian tried a double overhead cam version of the V-8 at Indy, and on Long Island Bill Frick simply lifted the stock mill and installed a Cadillac V-8, and called the result Studillac. Frick's bombs were blindingly fast for Studebakers—up to 125 mph. They also proved that the cars' handling was up to far more power than had ever been contemplated by South Bend.

Owing to the lowness of the hood, and despite a redesigned air cleaner, the V-8 had to be set back further on the chassis than it was in 1952. While this forced the transmission commensurately rearward and intruded on front seat floor space, it did provide better balance, and sports car people loved it. "The ride . . . is slightly more firm than any of its contemporaries, and we felt that it was an excellent compromise for an American car both in desirable firmness and cornering ability," said *Road & Track*. Undoubtedly, the cars cornered far better than any competitor—or any previous Studebaker. They were easy to correct going through a corner, with the handling almost neutral, tending toward mild oversteer. Even with manual steering, they were easy cars to handle, to drive and to park.

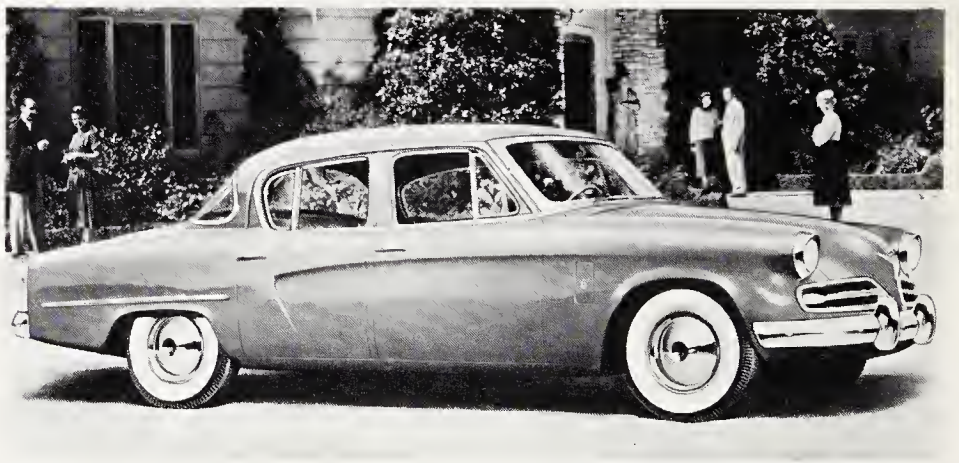
One can say without qualification that the smooth-looking coupes lived up to their looks in performance and handling. Relative to contemporaries in their price class, they represented a total break with tradition. A scattered coterie of sports car nuts were disappointed that they didn't come with a rev counter, bucket seats, leather upholstery and a shorter wheelbase. But they were never designed to be sports cars. Instead they ventured to change people's minds about the cars they drove every day, to convince them that heavier cars *didn't* necessarily "hold the road better" than light cars, that you could get four people into a much smaller package without sacrificing much comfort. They were more proof against the old charge that manufacturers dictate the public taste. Studebaker came up with this car on the hope that it would be accepted. But only the public would decide whether it won or lost. Would a public that expressed mild interest in sporty two-seaters accept a family car of the same impeccable line and contour, for daily conveyance of the kids to school, and shoppers to the grocery? That was the question. It was soon answered—but not quite in the way South Bend expected.

What happened to the brilliant '53's was a tragedy, one of the major automotive tragedies of the fifties. When people in the late fifties didn't buy Edsels, nobody cared much because Edsels were—well—ugly. But when people didn't buy Starliners and Starlights, everyone who loved cars mourned. So *why* didn't they buy them? Ah, there's the rub. One problem was that there weren't enough, and the scarcity was owed directly to management policy.

Our appendix tells the story. In model year 1952, the company built about 134,000 two- and four-door sedans, against some 49,000 hardtops and coupes—nearly a three-to-one proportion. In model year 1953 the proportion ended up at nine sedans to eight coupes. But Studebaker had originally based production planning on the 1952 ratio, not taking into account the tremendous appeal of the coupes. It was unprepared for the coupe demand. To this extent, the coupes were too good. Their percentage of overall production was far higher than normal for the industry, and well in excess of 1952. As the Loewy people had warned, previously designed sedans, using coupe styling details that were applied at the last moment before tooling, were just ghastly mistakes.



Rear quarters of a 1953 Commander Starlight coupe. In 1954, taillights were revised to offer side visibility.



1953 Champion Regal Starliner hardtop.

1953 Commander Land Cruiser.

Right, prototype station wagon on 1953 body. Wagon did go into production for 1954, left, as Conestoga.

Custom designed by Ted Pietsch for Loewy vice president A. Baker Barnhart. Directional signals were under bumper.

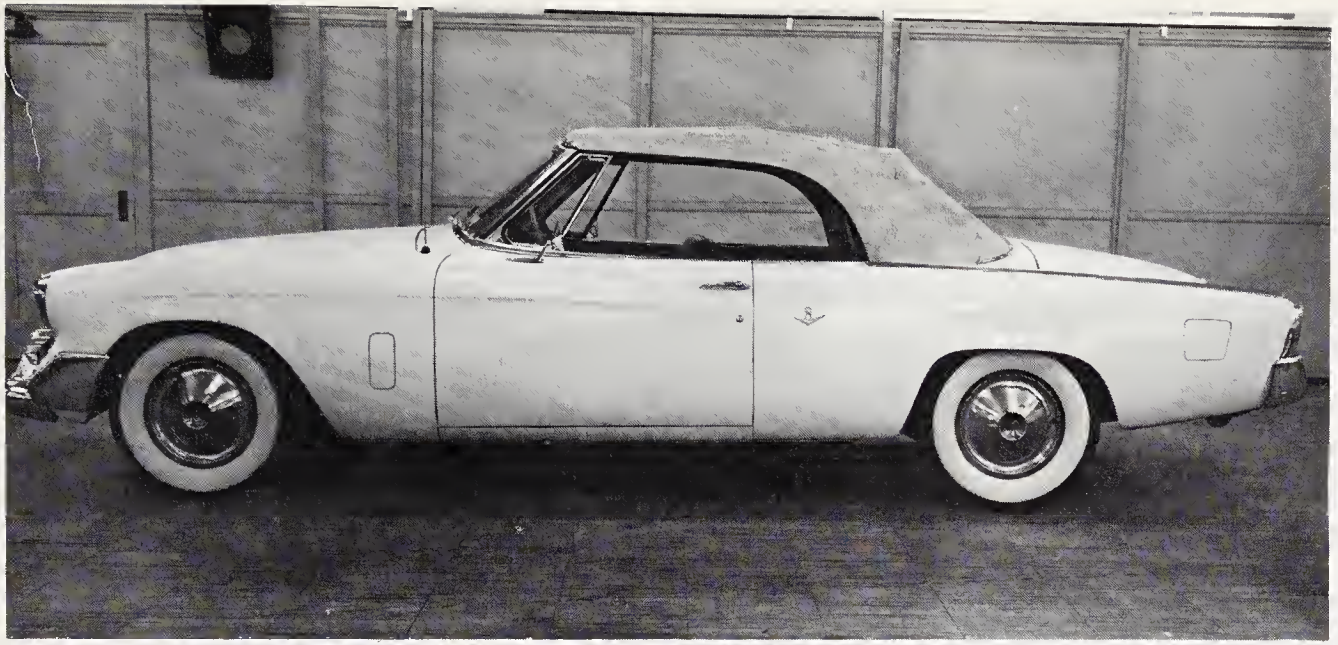
The success of the Loewy coupe often distracts enthusiasts from the really abysmal failure of the 1953 sedans—models on which every major company depends for its survival. Despite record coupe production, sedan sales were so slow that registrations plummeted. For the first four months of 1953 Studebaker ran eleventh in total registrations—versus eighth for the same period in 1952. In this time South Bend had recorded 63,000-odd 1952 registrations against 55,000 for 1953. And 1953 was a banner year elsewhere in the industry, during which almost every manufacturer was making and selling more cars than the year before.

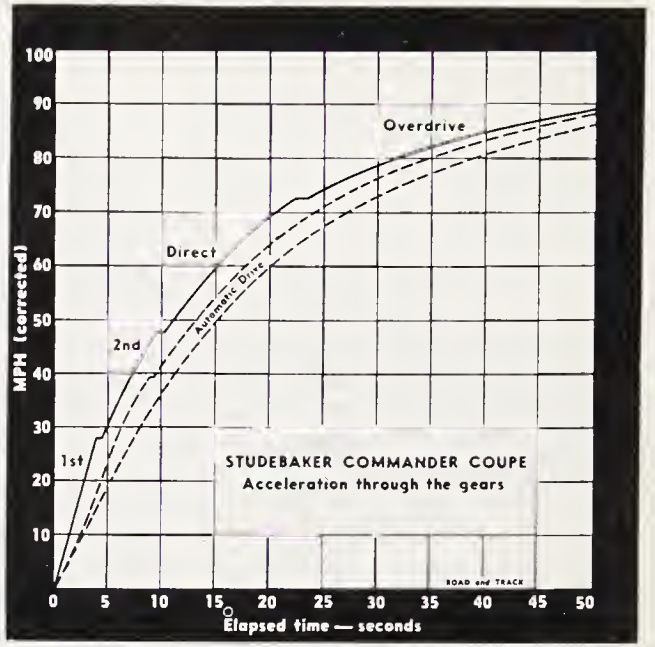
By December 31, with coupe production hastily increased, the situation had stabilized. South Bend's total of 186,000 cars was 23,000 higher than calendar 1952, and the marque retained its overall ninth place in sales. But significantly—and fearfully—corporate profits sank from over $14 million in 1952 to just $2.7 million. Had management not drawn down a $100 million line of government credit for its defense commitments, it would have recorded a whopping loss.

The time it took to adjust production to demand was increased by problems both within and without the factory. Borg-Warner underwent a lengthy strike in early 1953, slowing the supply of transmissions. Then, when the coupes started rolling in early 1953, the lines were almost immediately stopped by a tooling emergency.

As a small independent, Studebaker lacked the time or resources for much experimentation in setting up a production line. Assembly had to be right the first time. The 1953 chassis was engineered to fit three different body styles: sedans, coupes, Land Cruisers. It was modified from earlier chassis by patchwork, since brand-new tooling would have cost over $1 million, which the company couldn't afford. The different body styles dictated separate sets of parts for each. Not only were there more sets of parts, but more individual pieces for each body—the large, one-piece stampings of earlier years had been cut into smaller stampings for easier handling. When the front-end sheet metal of the first coupes met the chassis, the worst possible thing happened. It didn't fit!

Exactly why it didn't fit was a mystery, because Studebaker had worked out an ostensibly flawless tooling system, based on aircraft practice. Engineers mounted the





Right, Commander performance, from *Motor Trend*. Proposed convertible, left, was dropped due to fears about its structural rigidity, and low potential sales.

wooden prototypes on a dolly, and rolled it into a close-tolerance jig. Working from prior knowledge of assembly points on the prototype, they adjusted the jig accordingly. For production, the floor assembly was welded together on a dolly and set under the tooling fixture, where it was built up with the various subassemblies above it and electrically welded. It seemed foolproof, but at this critical time, it wasn't.

Studebaker also had traffic problems in its old plant, getting the wide variety of new parts from various production sources to the assembly line. For years these had been carted around on crude trailers, but the 1953's were so relatively complex that there was a bottleneck at nearly every plant intersection. Finally, engineers put up overhead conveyors throughout the seven plant buildings. They totaled 5,310 feet in length and cost $625,000. This greatly simplified the component transfer process, but it was late and dreadfully expensive.

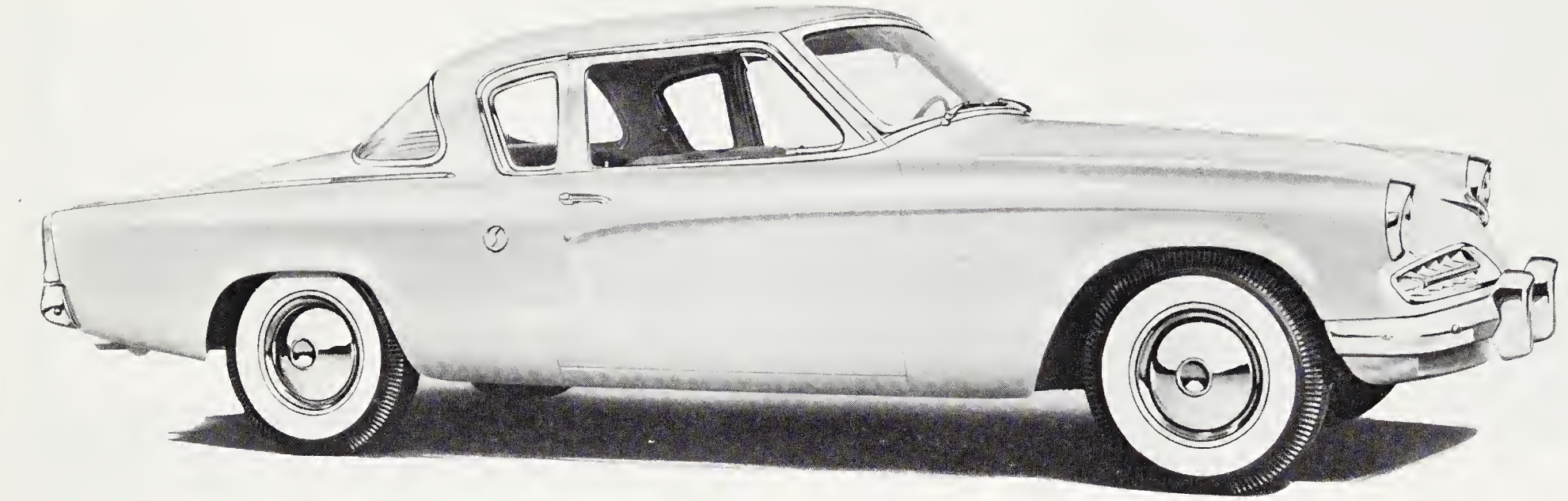
There were other snafus after production. One cost engineer came up with a door latch that cost ten cents less per unit than the one Studebaker was using. At the expected 350,000 unit level for 1953, it could have saved $35,000. But the latch had a tendency to throw open the doors on cornering. More delays were encountered while a replacement was hastily acquired—and of course it cost more than was planned.

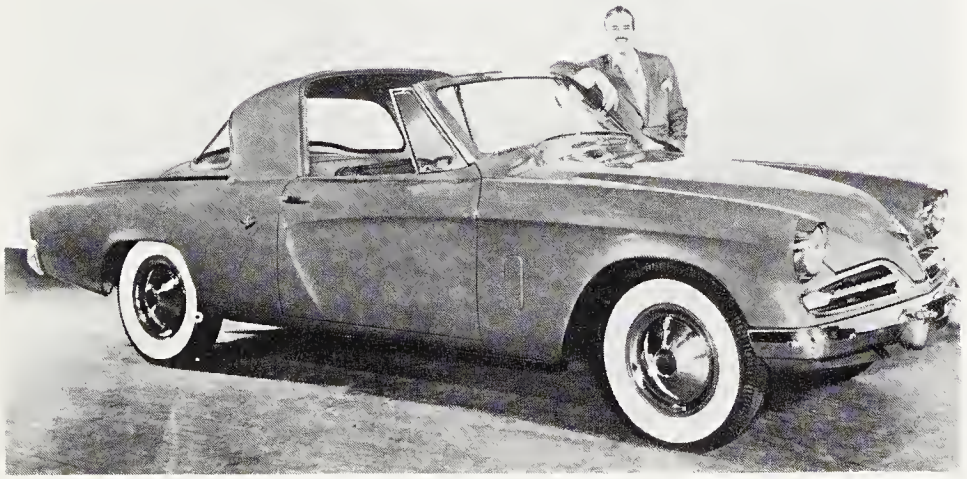
Towards the end of the model year, production was running as high as eighty percent coupes. Early production muddles had been fixed, and it finally began to look like success was just around the corner in 1954, even if the Loewy Studios' design was no longer brand new.

With the exception of a new station wagon, changes in appearance of the 1954's were minor. Mercedes-Benz had protested the inverted three-pointed star used on 1953 Commanders. This had been replaced in mid-1953 with a less contentious V-8 emblem. "There was nothing heated about our complaint," said a former Daimler-Benz executive who remembered the incident for the author. "After all, Studebaker-Packard would be selling Mercedes a few year later. This company has always guarded that star emblem jealously, and has never lost a campaign to get another manufacturer to drop it, or even anything vaguely like it." To distinguish the '54's at a glance, Bob Bourke incorporated five little vertical fins into each grille opening, forming a kind of egg crate pattern. "It added instant distinction and strengthened the horizontal bars," he says. Land Cruiser and Regal sedans were further distinguished by a wide bright strip on the sides, running from the front door to the rear fender—and pretty much destroying the 'character line' inherited from the original 1953 design. The coupes, however, were free of this excrescence. The 1954's all had new, three-way visible taillights and a new trunk handle.

The Conestoga, reviving an honored name from the old wagon-building days, was an inexpensive tooling job that produced a needed new body style. Sold in four variations—Champions and Commanders, DeLuxes or Regals—it seated six passengers and normally held forty cubic feet of luggage. With the rear seat folded away, sixty-four cubic feet of cargo capacity was available. The lift gate was counterbalanced for "one hand" operation and the spare tire neatly hidden in a depression under the rear floor. The Conestoga was important, too, because of the criticism about limited trunk capacity on other models. While it was hardly a smashing style leader, it did erase one possible reason for buyer reluctance.

Important progress had been made on brakes, as Harold Churchill had earlier predicted. Studebaker and Wagner Electric had combined to develop a new,





1954 Champion Regal Starlight coupe.

Special landau, created for Raymond Loewy in early 1954, was good-looking design suitable for production.

self-centering, self-energizing brake with heat-resistant linings. Lining area was increased, to nearly 150 square inches on Champions and close to 175 on Commanders. The brakes assured quick, straight stops with much less pedal pressure and greater fade resistance than previously. Attention had also been paid to keeping them quieter, and sealed from dirt and moisture. The difference in performance was notable: *Motor Trend*'s Commander sedan pulled up from 60 mph in 159 feet—thirty-seven feet less than its 1953 counterpart.

While styling didn't change in contour, it was vastly altered in material. A plethora of new interior colors had wiped out Ken Elliott's dull, mousey interiors of 1953, with their unimaginative pinstripes. In those days a popular fetish was to have interiors styled (or at least approved) by international fashion experts: Dorothy Draper for Packard, Marie Nichols for Kaiser, and Eleanor LeMaire for Studebaker. LeMaire's vision was useful in sprucing up Studebakers. Her interiors included a new leather upholstery option by mid-year.

Performancewise, the 1954's were comparable to the 1953's. Compression was raised from 7:1 to 7.5:1, and V-8 horsepower from 120 to 127. Racing driver Peter Clark, asked to "explain in writing" his reasons for choosing a Studebaker Starlight by the editor of Britain's *MotorSport*, wrote: "Curiously enough, under true mountain conditions, the brakes were not nearly as bad as I had feared they were going to be . . . This is perhaps not so illogical as might at first sight appear." Clark's car was fitted with the automatic—surprising in a European model—and he actually managed to praise it:

"If one is driving well [it] can be made to do exactly what one wants when one wants, but . . . if one is driving like a clot, [it] behaves like a double clot. Who then is laughing at whom?" Clark said his Starlight would do just over 100 mph, get twenty miles to the Imperial gallon, and handle well. "The steering and roadholding which, once one has ceased to be alarmed by a good deal of 'thumping and punching' from the suspension, are of a very high order. Indeed, I know of few cars which can be put over the broken-up edges of a heavily cambered Continental secondary road at high speeds with greater equanimity. But the noises from the suspension system when one does so are, until one realises that they don't mean a thing, quite terrifying." High praise, even if he took a lot of words to say it!

The longer 1954 wheelbase soon earned the sobriquet 'Rubber Frame' among certain South Bend wags and not a few enthusiastic drivers, and maybe the noisy flexing of the thing was what troubled Peter Clark. According to one former engineer, a purposeful amount of flex was built in to allow the frame to move with road irregularities. On the debit side was the fact that it would deflect and inflect a lot in doing so, and on a center-lift jack one couldn't get the doors open. But no one ever recorded particular problems from the arrangement.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 15G Champion Six			
Custom sedan (6)	$1,801	116½	2,735
Custom 2dr sedan (6)	1,758	116½	2,705
DeLuxe sedan (6)	1,918	116½	2,765
DeLuxe 2dr sedan (6)	1,875	116½	2,730
DeLuxe Starlight coupe (5)	1,972	120½	2,740
DeLuxe Conestoga wagon (6)	2,187	116½	2,930
Regal sedan (6)	2,026	116½	2,780
Regal 2dr sedan (6)	1,983	116½	2,745
Regal Starlight coupe (5)	2,080	120½	2,750
Regal Starliner hardtop (5)	2,241	120½	2,825
Regal Conestoga wagon (6)	2,295	116½	2,950
Series 5H Commander V-8			
DeLuxe sedan (6)	$2,179	116½	3,105
DeLuxe 2dr sedan (6)	2,136	116½	3,075
DeLuxe Starlight coupe (5)	2,233	120½	3,085
DeLuxe Conestoga wagon (6)	2,448	116½	3,265
Regal sedan (6)	2,287	116½	3,120
Regal Starlight coupe (5)	2,341	120½	3,095
Regal Starliner hardtop (5)	2,502	120½	3,175
Regal Conestoga wagon (6)	2,556	116½	3,265
Land Cruiser sedan (6)	2,438	120½	3,180

There were two intriguing developments in 1954 that might have amounted to something in better financial times. The first was a proposed convertible—a beautiful vehicle fashioned from a Starliner. The second was a car built in Europe for Studebaker's evaluation and possible production—by none other than Porsche.

Raymond Loewy often made specials, to evaluate new styling ideas or to simply show off. One such was an attractive landau with a fixed, transparent, smoked Plexiglas front roof section. The Plexiglas panel, which commenced at the windshield header and terminated in line with the rear point of the door glass, was a one-piece unit. Its surface was flush with surrounding sheet metal. Header and roof rail reinforcements were inserted to assure structural integrity. Bob Bourke, who was in charge of Loewy's special projects, states that Vince Gardner, Larry Broms and talented body sheet metal worker Leroy Schryver worked on the car. Ted Pietsch, a designer who joined the Loewy staff in 1952, did pencil work on the project, along with Bob Andrews and Ted Brennan.

The landau was lacquered blue-black. All brightwork had a transparent, deep bronze-tone baked enamel finish. Round medallions on the rear quarter panels contained the 'RL' initials on a blue field—Loewy was fond of the circle as a design element. (Photographs are known of a light-colored landau, but this was in reality a highly detailed quarter-scale model.)

Removable roof sections were not a new idea at Studebaker, dating back at least as far as the Gordon Buehrig tenure, after Exner left. Nothing came of the landau for production, but it did lead to the logical next step, a fully-open convertible.

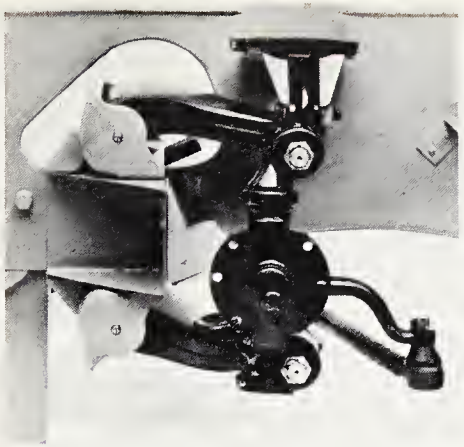
Ted Pietsch and Bob Bourke recall that this prototype was fully operational, though Studebaker never chose to build it in volume. Had the company so decided, the car would have required a greatly reinforced frame, and heavy sheet metal floor boxing to support the open bodywork. The factor preventing its production, according to Bourke, was Studebaker's lack of operating capital. "It was too bad," Pietsch says, "it would have been a beautiful car." Past doubt.

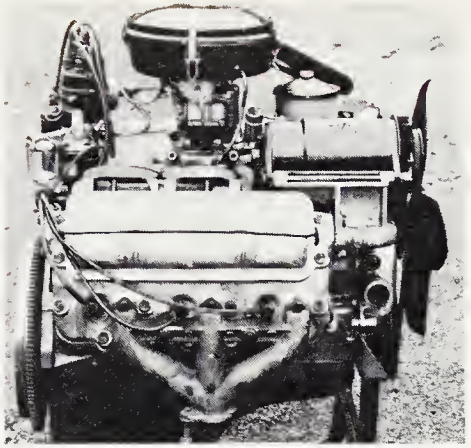
Another interesting custom was constructed for A. Baker Barnhart, a Loewy vice president. Notes Bourke: "The grille had an Aston Martin flavor. It was made of chrome-plated solid brass and had a complex compound shape and form. The brasswork was executed by Larry Broms. One extra grille was made in case the car was involved in an accident—it was never used, and still exists. The directional lights of the Barnhart car were under the bumper, and the car was painted metallic champagne."

For the 1955 facelift, Bourke proposed yet another special which had been built for Loewy—a Commander Starliner with a 'Remington shaver' grille composed of tiny vertical bars set close together. It featured twin hood scoops and ventilated wheel covers, but was otherwise similar to stock models. An interesting and clean workout, it didn't make production. "For 1955, the execs wanted more chrome," Bourke says.

While all this logical experimentation was going on, Ferry Porsche in Germany was busying himself on another Studebaker project. It will be recalled that Loewy had urged a Porsche connection back in the forties, without success. When Dr. Ferdinand Porsche's son visited the States in late 1951, Loewy praised Porsche talents again. But the real push, according to Karl Ludvigsen, came from export vice president Richard A. Hutchinson. The latter was approached by Porsche's friend Max Hoffman, the New York imported car distributor, who had an interest in getting Porsche more consultant work. Hoffman convinced Hutchinson that a 'South Bend Beetle' might not be a bad idea, and suggested that Porsche was the company to provide it.

Hutchinson didn't take much convincing. Earlier, he had handed Harold Vance a signed contract for Studebaker to become the U.S. representative for VW. Vance rejected the contract—a sheet of paper that could have altered South Bend history. The VW was too bizarre, Vance said, too mundane looking, too basic for Americans. Even Max Hoffman, ace salesman that he was, was having trouble selling it. Porsche's effort was to be Hutchinson's second try. Learning from experience, he hoped this German product would be larger, more luxurious, more technically interesting. He wasn't disappointed.





Left, Type 542 front left suspension mockup. Right, liquid-cooled V-6 engine.

Porsche Type 542 for Studebaker, photographed at Schloss Solitude near Stuttgart.

In the initial meeting at South Bend in May 1952, Ferry Porsche, his chief designer Karl Rabe, chassis engineer Leopold Schmid and body designer Erwin Komenda proposed the four-passenger Type 530 coupe, designed by Porsche for Studebaker production. Vance, Harold Churchill and Stanwood W. Sparrow (Roy Cole's successor as vice president, Engineering) asked for something more sophisticated. Porsche and Rabe returned in August with proposal number two, the Type 542—an envelope-styled, unit-body sedan on a 111-inch wheelbase—powered by a cast iron V-6!

Instead of the typical V-6 angle of sixty degrees, this engine had a 120-degree configuration. The cooling system was initially a combination of air-cooled cylinder heads and water-cooled cylinders—a weird arrangement, dictated by Studebaker's insistence on reliable hot water heating instead of forced air from an entirely air-cooled engine. The mixed cooling system proved too complicated, so Porsche created two alternatives: the 542L ('Luft,' or air) and the 542W ('Wasser,' for water). South Bend wanted cast iron engine parts to suit its foundry situation. This troubled Porsche, who favored aluminum, but he managed, using a very short crankshaft.

Styling of the car was on the round side, with no Loewy influence. The front end, with Studebaker identification, was decorated with a combination bumper-grille, the rear bumper being done similarly. The body held five people (two front, three rear), lacking springs for the middle of the front seat. Interior space utilization was excellent, with forty-five inches of legroom and thirty-six of headroom in front with a seat only 10½ inches high. Folding armrests were provided front and rear (but none in the doors) and upholstery was luxurious. There were one-speed wipers, a pushbutton radio and (in the 542W) a conventional water heating system with fresh air intakes behind the radiator grille.

Purely by luck, after reading Karl Ludvigsen's report in *Special-Interest Autos*, September-October 1974, this writer chanced across the final report on this car, known to Studebaker as the Z-87. It is dated April 11, 1956 (after the Packard tie-up), written by E. M. Nash and approved by John Z. DeLorean, then with Packard Engineering. The description and comments which follow are taken from it. Considering the financial situation at Studebaker-Packard by that time, it's not surprising that they came to the conclusions they did, but some of the wording is almost embarrassingly biased.

The report contains the following comparisons with the 1956 Studebaker Champion L-head six:

	T542 / Z-87 Studebaker-Porsche	**1956 Studebaker Champion**
engine	ohv V-6	L-head six
displacement	183.3 ci	185.6 ci
hp @ rpm	114@ 3600	101 @ 4000
bore × stroke, in.	3.54 × 3.49	3.00 × 4.38
compression ratio	7.2:1	7.8:1
torque lb-ft/rpm	155 @ 1600	152 @ 1800
transmission	3spd manual, o.d.	3spd manual, o.d.
ratios, forward	2.6, 1.6, 1.0	2.6, 1.6, 1.0
rear axle ratio	4.55:1	4.56:1
tires	6.40 × 15	6.40 × 15
suspension	Front: coil, trailing arms. Rear: coil, swing axle, wishbones.	Front: coil, wishbones. Rear: semi-elliptic leaf.
brakes	Wagner Hydraulic, 166 square inches area	
steering ratio	17:1	25-21½-26:1
turns lock-to-lock	3.5	4.5
turning circle, ft	37.8	39.0
electrical system	6 volt	12 volt
performance		
0-30 mph	5.4 secs	5.7 secs
0-60 mph	17.8 secs	20.6 secs
top speed	90.0 mph	85.4 mph
mileage @ 60	21.8 mpg	21.0 mpg

The engine was rated at 3.5 pounds per horsepower, against 3.96 for the Champion "but only 2.91 for the 1956 [V-8] Clipper . . . The V-6 engine is reasonably smooth, and better than might be expected from crankshaft balance analysis with V-6 arrangement. [But] it is rougher than the Champion six and would require more development work . . . The engine is noisier than American in-line sixes and V-8s. The overhead valves, exhaust manifolding and body insulation contribute largely to this result." Acceleration was better than the Champion, as was fuel mileage.

The chassis, engineers said, exhibited high torsional rigidity, "but some excessive vertical shake was noted and the vehicle weight seems greater than necessary in view of the simplified construction." The suspension gave a firm ride, but was "impossible to bottom," in some contrast to Torsion-Level Packards, which bottomed easily. There was a lot of doubt about the swing-axle independent rear suspension: "There still remains considerable lateral movement and rear-end steering, with undesirable amounts of oversteer noted in moderate to hard cornering. There is uneven tire wear . . . The amount of toe-in is very excessive; however the toe-in change at 5 passenger load is very low compared to our input data. The car steers quickly, but hard, and requires constant attention and correction for road wander. Cross-winds and slippery spots make driving tedious and rather dangerous."

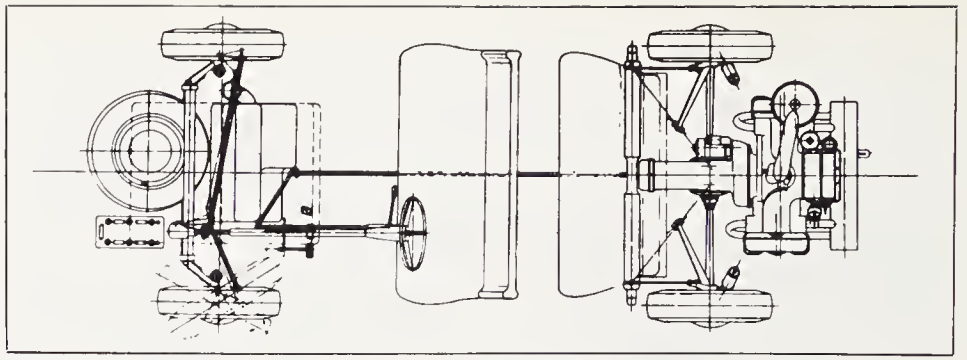
With potential South Bend production in mind, the Z-87 had been equipped with standard parts wherever necessary, including Wagner hydraulic brakes and standard transmission with overdrive. Both of these the engineers praised without qualification. The clutch pedal pressure was considered overly hard, possibly due to insufficent assistance from the clutch spring.

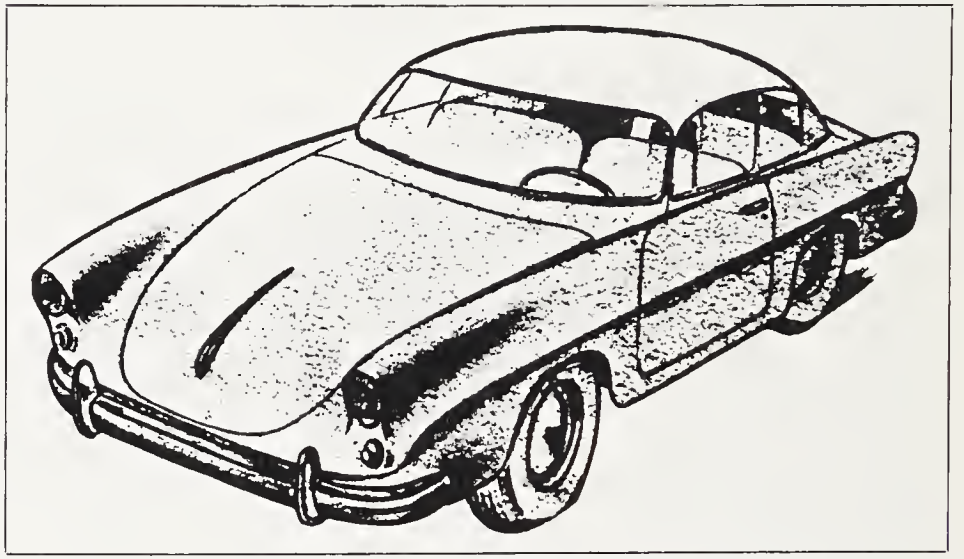
Z-87 styling was seen as very un-American: "The radiator, grille, hood and deck slopes are quite steep and not in keeping with current American boxy-styling. The car is full width but rather short . . . It appears small and bug-like due to the sloping hood and squeezed-in rear fender treatment." The evaluators did admit that interior space relative to exterior dimensions was excellent.

By now the reader can imagine the final conclusion, but here it is, just for the record: "This vehicle has a large amount of technical appeal, but a number of items need refinement to increase its overall appeal as a small car to the average American car buyer. The ride is very flat, but still too firm for American acceptance. The styling is smooth but not competitive today, the noise level is too high, and the steering effort is too high. An automatic transmission should also be fitted. The present rear swing axle is very poor for directional characteristics, and offers no advantages except on ice-free gravel roads where rear wheel hop was much better [less] than standard and general handling was good.

"The 1956 Champion or Commander is preferred to the Porsche for American driving, although the big bump and dip absorption qualities of the Porsche would be welcomed if a boulevard ride were maintained otherwise."

Though the test period apparently spanned eighteen months, the wording of the report suggests that the Porsche-Studebaker Z-87 (or even a piece of it, like the V-6) never had a chance. For Studebaker engineers it remained a foreign thing: swing axles, firm suspension and V-6 engines were not widely understood by Americans in 1956. Porsche later proposed yet a third idea, the Type 633—a notchback two-door with flat-four engine, aircooled and mounted behind the rear wheels—a sort of large VW. By this time Studebaker was in even worse financial shape, however, and there was no chance of production.





Porsche also suggested VW-like proposal with flat four of two liters displacement, rear-mounted.

Flat four was designated Type 633; Studebaker also rejected this proposal.

It is a popular pastime to fasten onto rejected products or ideas as the source of a car company's decline, but the Porsche-Studebaker shouldn't be one of them. The real opportunity—albeit well-disguised—came when Hutchinson proposed to take on VW distributorship. By 1956 the VW revolution was beginning—but it's questionable whether another, more expensive VW would have been a profitable venture. Interestingly, the 633 model looked a lot like the VW 1600's, which were half-hearted

successes in America during the late sixties. It's hard to imagine that such vehicles would have been any more successful with Studebaker badges.

On the other hand, it's a shame the evaluators were so negative about the lessons taught by the Porsche project. The V-6 was certainly a novel and interesting idea—yet Studebaker seemed to expect it to be as bug-free as the Champion six, which had a generation of development behind it. Nowhere did they admit in their report that the L-head six was becoming rather long in the tooth, needing replacement. Further, they didn t seem to appreciate the structural integrity of the Z-87, and failed to understand that its weight underlined the solidity with which it was built. As former stylist Bob Doehler said to *Special-Interest Autos*: "If Studebaker had taken a few lessons from Porsche, in such areas as body rigidity and craftsmanship, at least as much as they were able to, they might still be making cars in South Bend." That's probably an overstatement, but it makes a good point about the dangers of closed minds.

Back in the real world of 1954, the company was in worse shape than ever. Despite a major rework of the production line, and raising the coupe ratio to forty percent, sales of all models were now frankly terrible. In the production race, Studebaker dropped from ninth to eleventh, passed by Cadillac and Chrysler. Its production sank over 100,000 units to just over 85,000. On sales of $222 million (less than half of 1953's), it recorded a loss of $26 million. All this was happening in the face of the most beautiful car of the day, vivid new quality interiors, a fine V-8 engine—what was the matter?

There was no recession in 1954: car production was down only slightly, and there were several important gains. Ford production shot up to nearly 1.4 million cars, from 1.2 million in 1953; Buick built 50,000 more cars than '53 and marched into fourth place; Oldsmobile was 100,000 up, and right behind in fifth. The problem that did exist was the price war waged between Ford and GM, occasioned by Henry Ford II's rash determination to make Ford first or die trying.

In late 1953, Ford began dumping hordes of cars on dealers whether they wanted them or not, in an effort to please Henry by building more Fords than Chevies. GM and its dealers naturally followed suit. While both giants had the volume to discount madly, Chrysler and the independents did not. With the latter maintaining near-sticker prices there were two places for customers to go—and to Ford or GM they went. In the end, Ford didn't catch Chevrolet. The year proved a bonanza for both of them, a disaster for Chrysler, a near-fatal blow for AMC, Studebaker and Packard. Kaiser-Willys was all but wiped out, lasting only part of 1955 before throwing in the towel on passenger car production in the United States.

For the model year, Studebaker production fell to just about 82,000, of which some 69,000 were for the domestic market and the rest for Canadian or export. Commander production was barely over 30,000. At about 51,000, there hadn't been this few Champions since before the war.

A problem unto itself was Studebaker's mounting overhead and production costs. Even at sticker price, its cars were uncompetitive with Big Three opposition. Consider these figures for comparable hardtops:

	Six	V-8
Studebaker Starliner	$2,241	2,502
Ford Crestline Victoria	2,055	2,131
Chevrolet Bel Air	2,061	——
Plymouth Belvedere	2,145	——

Bob Bourke recalls an interesting exercise around this time by Studebaker Engineering: "They priced out a Commander Starliner using General Motors costing parameters. I found that Chevrolet could have built it to sell for around $2,000 if they wanted to—about $500 less than we were selling it for." The revelation is shocking.

It was also pretty shocking—and directly related to the facts Engineering uncovered—that Studebaker employees were making about twelve to fifteen percent more than the industry average. By August 1954, with sales bottoming and inventories bulging, something had to be done and fast. Paul Hoffman returned from Washington and joined Harold Vance in calling for "a competitive labor contract." They proposed elimination of piecework (Studebaker was the last firm in the industry to have it), deletion of higher shift bonuses, fewer shop stewards and the cutting of wages by an average of fourteen percent. This was a shocker for Studebaker Local 5 of the United Auto Workers—but Local president Louis Horvath joined management in the plea, and so did Walter Reuther, the UAW president.

The first meeting of the Union membership was attended by only 4,000 of the 10,000 workers in the bargaining unit. They rejected the cuts by a three to two vote. Vance and Hoffman, aided by Horvath, embarked on a massive campaign to reverse the decision, using newspaper and television. Horvath was risking his presidency—and he would duly lose it at the next election. Rumors began to spread that if the Union balked, Studebaker might close, or move auto production to Detroit. The turnaround was reached when such talk began to make workers nervous. The second vote, by 6,000 employees, ratified the cuts by an eight to one margin.

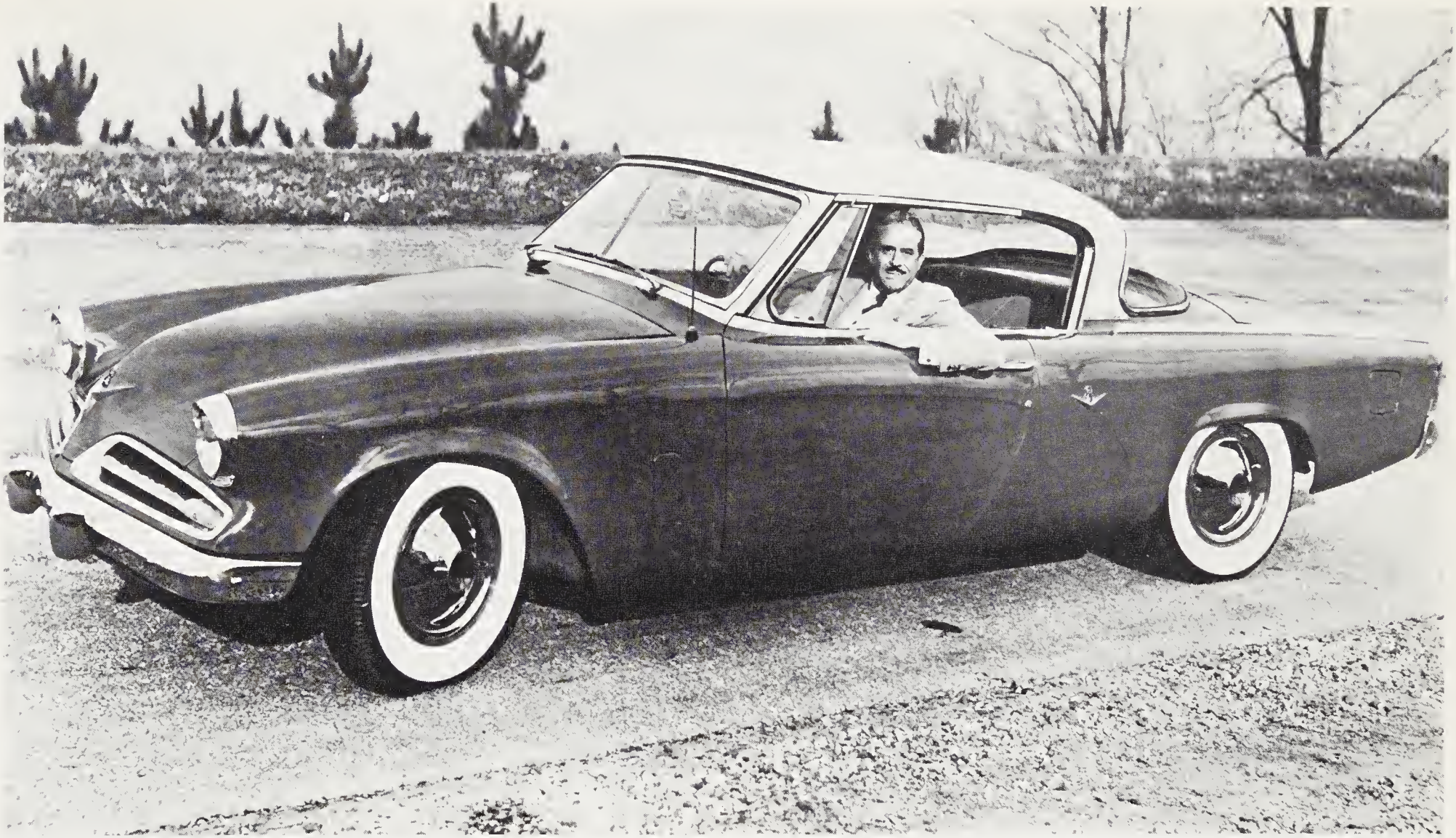
There's no question about the high rate of Studebaker pay, and the need to reduce it to what were then reasonable levels. The wartime cost-plus days were far behind: no longer could the company build products for cost, and be assured of a definite profit percentage by the government. But, while the well-managed companies had endured lengthy strikes to get postwar wage scales under control, Studebaker had stressed its strike-free record and continued to dish out the cream. Here are some examples of the 1954 situation:

	Studebaker		Industry
Position	Pre-cut	Post-cut	Average
major assembler	$2.44	$2.00	$1.98-2.00
drill press operator	2.64	2.00	1.95-1.98
grinder	2.64	2.10	2.05-2.14

Even after the cuts, Studebaker estimated that its workers were paid about three percent more than their peers in Detroit.

Also eliminated by this pay reform was the old incentive wage system, which could earn workers as high as three dollars an hour, also far higher than the industry average. Theoretically, the incentive system boosted production by giving a worker reason to put out more product. But with sales bombing there was no reason to exceed *normal* work standards. The Union reluctantly accepted the demise of the incentive system.

Much criticism of the Studebaker work force has beem implied in the past over this subject, but a lot of it was unearned. The old-time employees, the father-and-son teams of which Studebaker proudly boasted, traditionally put in a day's work for a day's pay. According to Union officials, it was the newer people, the ones attracted to South Bend by those high wage rates, who were expecting to get something for nothing. In the process of the 1954 alterations, many of the latter were found walking the streets.



Raymond Loewy and his creation, the great '53 Starliner.

Neither old nor new employees could really be blamed for accepting the high wages—after all, Studebaker was paying them without reluctance in the heady days immediately after the war. It's impossible to suggest that the workers should have urged restraint on management—that was management's job.

As the gloom mounted in South Bend, Hoffman and Vance began looking anew at the possibilities of a merger. What had seemed unthinkable three years before, now seemed entirely practical—maybe even necessary. Accordingly, negotiations were reopened with Packard, and before the year was out, Studebaker Corporation ceased to exist as a separate company. Henceforth it would be the Studebaker Division of Studebaker-Packard, a company its founders called "the fourth member of autodom's Big Four."

The deal which gave birth to Studebaker-Packard had taken a lot of negotiation, and what seemed to James J. Nance of Packard like a lot of careful research. In reality it wasn't careful at all. Nance had been sold a bill of goods by those old sharpies in South Bend. Like the Eastern visitor of nineteenth century Studebaker legend, he'd forgotten to count his fingers after the handshake. He would live to regret that.

CHAPTER 5

Marry in Haste...

UNTIL THE END of 1953, Harold S. Vance resisted the idea of teaming up with any other company. Setbacks, he said, were only temporary. Despite the labor, productivity and sales problems, better times were coming. His Christmas present to the board was a paper spelling out just how Studebaker would recover in 1954. Talks with Packard, which had begun formally in the third quarter of 1953, were terminated.

It was all wasted bravado. Studebaker sales for 1954 were worse than ever—not just below break-even, but at crisis level. Cash reserves by April 30 were barely $16 million, not counting an $8 million floating debenture. Around the same time, the first quarter 1954 statement detailed the further loss of $8.3 million. Talks with Packard resumed. . . .

James J. Nance, Packard's president, had been well known among durable goods manufacturers long before he got into automobiles. After training in the executive development program of the National Cash Register Company, Nance had joined the new Frigidaire Division of General Motors in 1927. There he'd risen to a top position in the organization that pioneered the electric refrigerator. But Nance left Frigidaire before the war. As he told this writer, "It was an orphan as far as GM was concerned. Nobody ever got promoted out of Frigidaire at the time. We were just an island in the automotive world . . . Many others joined me, and as a result Frigidaire provided the sales management in the whole appliance industry. Later on that policy was changed, but in my time it hadn't been."

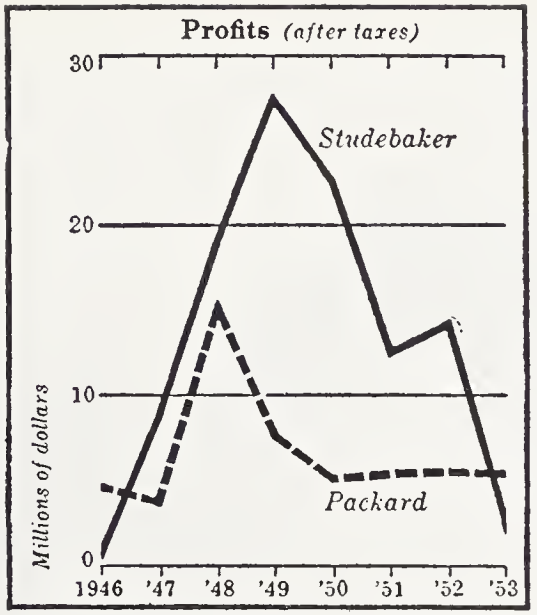
We have already seen how the Harris Trust Bank brought Nance and Packard's Hugh Ferry together, resulting in Nance's assuming the Packard presidency in the spring of 1952. He immediately laid out a three-point program for the faltering company which had once dominated the American luxury car field: (1) strengthen the dealer organization, (2) modernize the production facilities and bring more production into the Packard plants, and (3) reorganize management by an infusion of younger men. By late 1953, the dealer organization had been vastly improved, Packard's sales in the luxury car market were running ahead of its five-year average, and the average age of the twenty-five top executives was forty-six instead of fifty-nine. Nance hired a crew of talented stylists to reform the Packard image, gave product planning more teeth for the long-term programs, and built a new plant to manufacture V-8 engines near the Utica, Michigan, proving grounds. Recognizing the debilitating effect of the medium-priced Clipper on Packard's luxury image, he planned to separate Clipper as a make in its own right, leaving Packard to compete solely in the Cadillac-Lincoln price class.

By January 1954, Nance had made tremendous progress—albeit at great expense. But it's hard to make up for generations of misadventure in a few years without spending money. Nance himself suggested that even the huge amount of capital Packard was spending might not be enough.

Whatever people said later about Nance's mistakes, they could never gainsay his personal dynamism. He was on the job at eight in the morning, and all his executives were on twenty-four-hour call seven days a week. He used the committee system of management, but stressed the importance of the individual: "Every team has to have stars." He maintained a strong interest in morale and a deep appreciation of the value of public relations—not only for Packard's sake, but for what he saw as its future: a large corporation made up of several former independents.

In the long run, Nance said, Packard could not stand alone. The future was important because he believed in long-range planning, in five- and ten-year increments: "If you are going someplace you've got to have a road map marked all the way." As we now know, Nance had a well-charted road map, which led directly to amalgamation with Studebaker—and then American Motors.

The aggressive 1956 Golden Hawk.



Studebaker profits peaked in 1947-49, plummeted later.

With Studebaker again interested in negotiating with Packard, results were soon forthcoming. On April 6, 1954, three New York financial houses—Lehman Brothers; Kuhn, Loeb and Co.,; Glore, Forgan and Co.—circulated a paper to both sides, entitled "Benefits of a Merger." This was broken down into three basic industrial areas:

1. "Enhanced Stature and Effectiveness." The married company would combine the "two best names among independents," providing "stature" to dealers and suppliers as well as to owners. Since the Packard and Studebaker lines were not competitive, the new company would have broader market coverage. Together the two firms could acquire resources they could not acquire separately, like bodymaking facilities. There would be more financial resources, a larger pool of management talent, lower administrative costs.

2. "Manufacturing, Engineering and Designing." A combined company would receive higher volume, therefore lower costs on bodies through common styling and engineering, interchangeable parts and greater purchasing power. There would be "more efficient utilization of plant space." All this would benefit manufacturing. Engineering would enjoy the "more effective use of pooled talent," as would Styling. Styling could also carry out more sweeping consumer research, create design individuality within each line, yet develop product and company identification in the same way as Ford and GM.

3. "Merchandising, Marketing, Distribution." The two companies together would have "more effective sales research," plus coordinated promotion and a wider range of models at most dealerships. The unit cost of advertising would decrease through multi-make layouts. Marketing would improve through "the individual skills of Studebaker in the low-priced field and Packard in the medium- and high-priced fields." The combination would yield 2,500 Studebaker dealerships and 1,350 Packard dealerships, vastly increasing the outlets for cars. This would in turn improve resale values, provide more widespread service. There would be "an opportunity for increased export penetration beyond the 7% presently enjoyed by Studebaker."

The report cited a possible combined industry share of as high as fourteen percent for this "fourth member of the Big Four." Concluded its authors: "We are this year seeing for the first time since 1941 the return to a fully competitive automobile market. In many respects the current market is even more competitive than the prewar market of the 1930's and early 1940's . . . The fundamental problem today is not how to prepare for a real depression in the industry, but rather how to capitalize fully on the opportunities for aggressive participation . . . It is in this light that we view the proposed merger of Packard and Studebaker.

"It is our conclusion that the merger would bring into being the basis for a full-line company of a size and stature enabling it to compete effectively for a permanent and increasing position in the automobile industry. Such a merged company . . . would gain strength from an increase in absolute size, be broader in scope and stronger in management resources."

A month later the bankers issued Part II of their report, labeled as confidential and entitled, "Suggested Basis of Consolidation." For technical reasons they suggested the marriage "take the form of an acquisition by Packard of Studebaker's assets. This will not, however, preclude the fact that the resultant entity will have all the characteristics of a merged company." That the combination was *not* legally a merger has perhaps been given too much emphasis of late. A merger is what prompted the discussions originally, and was the real goal all along. For accuracy, however, we will refer to it in the legal sense, as a purchase.

The consolidation involved the reclassification of Packard stock, authorizing 6,440,455 shares instead of the 14,491,340 shares then outstanding. The former would then be exchanged for shares in the new company on a one-for-five ratio: the holder of 1,000 shares of Packard would receive 200 shares of Studebaker-Packard. This accounted for 2,898,268 shares. For the balance of 3,542,187 shares Packard would acquire Studebaker's assets, those shares being distributed to Studebaker's stockholders on a 1½-for-one basis: the holder of 1,000 shares of Studebaker would receive 1,500 shares of Studebaker-Packard. Studebaker stockholders would thus end up controlling fifty-five percent of the common stock. In effect this gave them an advantage, providing about thirty-three percent more market value for their new shares than their old, while reducing the market value of the Packard stock by about twenty percent. But this was not an attempt to make Studebaker supreme. Rather, it was a best-guess figure by both sides as to the relative net assets of the two companies. Studebaker was, of course, the larger company. If Studebaker had had less liabilities, Packard stockholders would have controlled even fewer shares.

At half past noon on Tuesday, June 22, 1954, Paul Hoffman and Harold Vance of Studebaker accompanied James Nance of Packard to meet the press at New York's Waldorf-Astoria Hotel. They handed out copies of a Purchase Agreement between their two companies, only just approved by both boards: "Packard desires to purchase, and Studebaker desires to sell, subject to the approval of their respective stockholders, substantially all the property and assets of Studebaker, including its name, business and

good will, in exchange solely for shares of Packard voting stock and the assumption by Packard of substantially all liabilities of Studebaker. Studebaker intends . . . to distribute such shares of voting stock of Packard to the stockholders of Studebaker in complete cancelation or redemption of its presently outstanding working stock and in complete liquidation."

Immediately, the press asked if this was a Studebaker sell-out. No, Paul Hoffman answered, but it wasn't a merger either. "I don't know what [term is] correct," he continued. Then Nance said that Studebaker truck distributorships would be vested with "the strongest dealer outlet in any respective community." What about all the other Studebaker dealers? a reporter wanted to know. They would be dualed to handle Packards, Nance said, or at least some of them. (In our interview twenty-two years later, Nance said: "I never thought Studebaker dealers could sell Packards, they weren't geared to it." But doubtless it seemed like a better idea in 1954.)

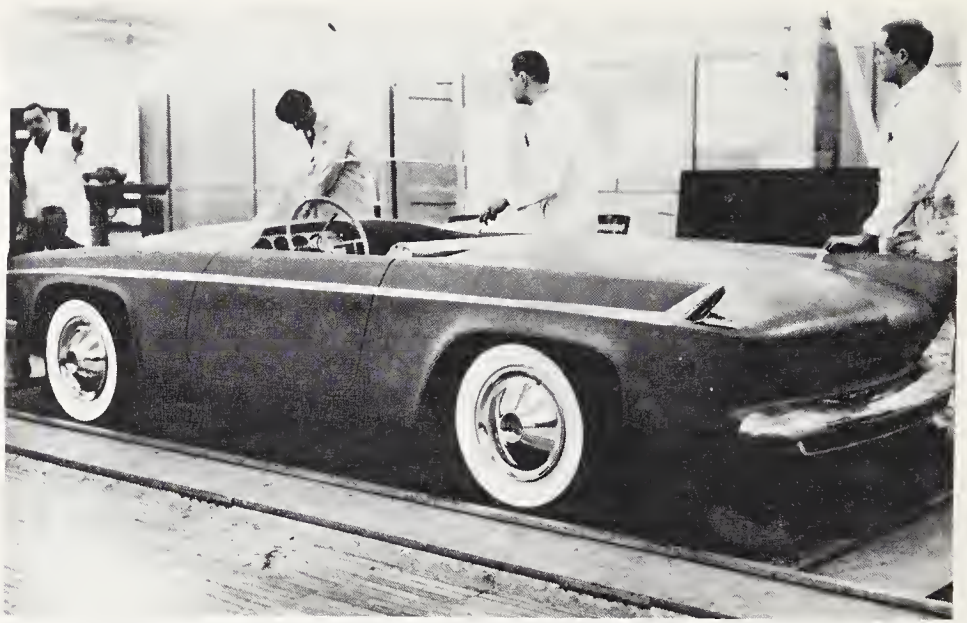
There had been rumors of the George Mason Plan for a Nash-Hudson-Packard-Studebaker merger for years, and the three executives were asked if they saw "an economic community" developing between AMC and Studebaker-Packard. "I think it is too soon to answer questions of that kind," said Paul Hoffman. The press also tried hard to learn when talks had first begun, but the leaders were vague. In fact, talks had started and stopped several times. Whether Hoffman or Vance knew of the Mason-Nance plans for further amalgamation is an interesting question. "About all I can tell you is that at the present moment all our thoughts and energies and hopes are concentrated on the consummation of this particular transaction," Hoffman said.

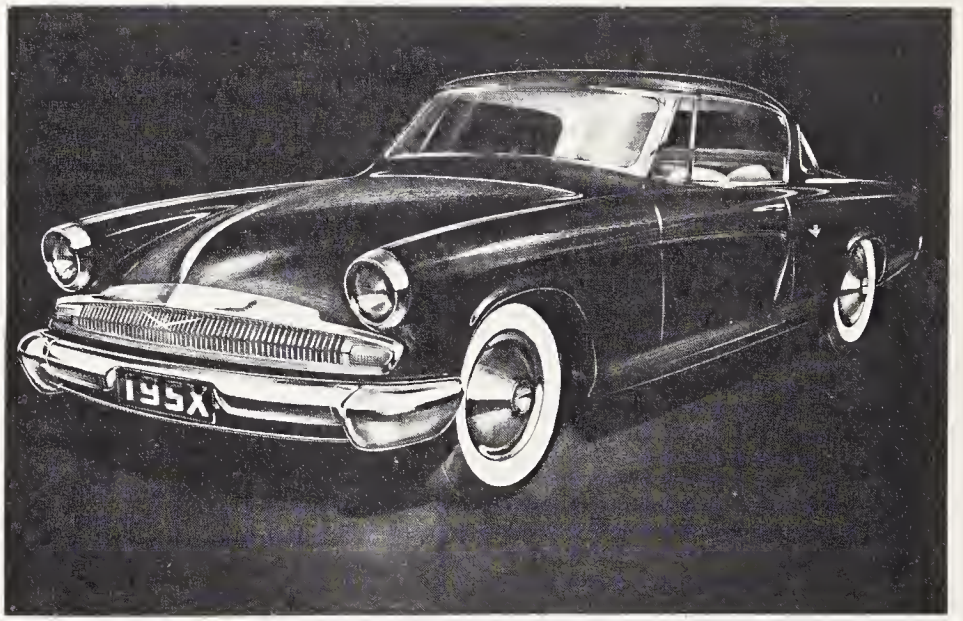
One report in *Business Week* suggested Mason and Nance were really rivals. "When Nance learned that Mason was serious about taking over Hudson, he got serious about Studebaker." This is probably a simplification, and Nance has since denied it. "I would have never wanted Studebaker," he told this writer, "unless I saw them as part of a bigger picture." There *was* a potential rivalry between Nance and Mason's lieutenant, George Romney, however. Many observers wondered where each man would stand if the four-company consolidation actually came off.

Proxies were sent to Studebaker and Packard stockholders, with an approval meeting set for August 17. This went off with a heavily favorable vote. Though a former Packard manager, Fred Rush, attempted to reverse the decision in September (on the grounds Studebaker was in far worse shape than it claimed) nothing was sufficient to alter the now-certain course of history. The two companies combined on October 1. A month later, Rush was vindicated. Management was suddenly confronted with the news that South Bend had drastically miscalculated its break-even point!

The purchase had been worked out on a "friendly basis," the business media noted. The bankers and insurance companies providing long-term credit had never insisted on really solid information about either partner. Metropolitan Insurance had offered a $25 million line of credit without any financial inquiries at all, solely on the guesstimate that Studebaker-Packard would lose money in 1955 and 1956, and turn the corner in 1957.

The break-even faux pas was revealed when Packard's chief financial officer Walter Grant went to South Bend to study Studebaker's costs. Grant's analysis indicated that Studebaker could not turn a profit short of 282,000 units—while Studebaker's June figure had been 165,000. The discrepancy, Grant said, was in Studebaker's labor cost estimates. Though its wage rates had been brought down, work standards were so low

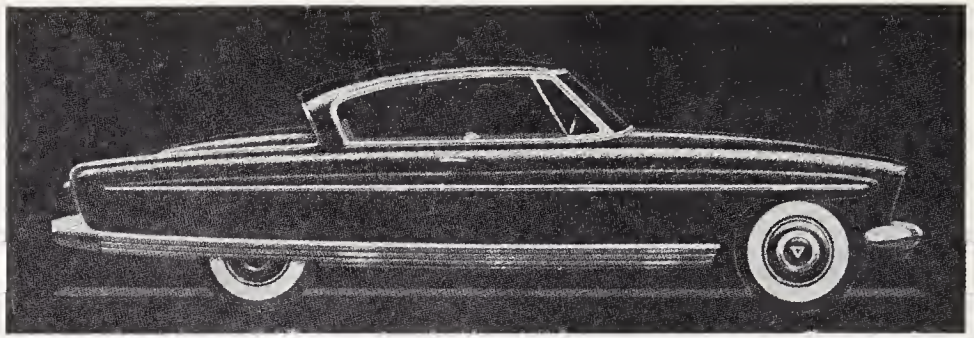




Bob Bourke's two-seater, neat but not produced.

For 1955, Bourke proposed slightly busier grille, but it wasn't enough to satisfy management.

Running prototype for 1955, again with too little frontal chrome for sales executives.



Phil Wright, who designed Aero-Willys, melded Studebaker and Hudson components in this 1954 Starliner proposal.

Do they really like it? Studebaker-Packard's top brass (left to right H. S. Vance, James J. Nance, Paul G. Hoffman) with the new '55 President State sedan. This is an airbrushed photo; the car was originally a 1954 Commander.

that those costs were still nearly double the industry average. The only way to get costs down was to take a strike.

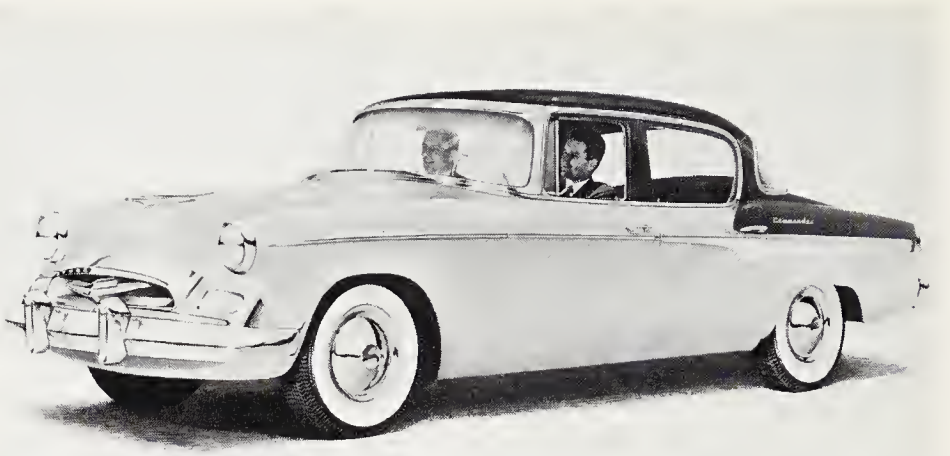
There was only one thing to do—go after the South Bend union again. Studebaker-Packard was not now asking its workers to take a cut, but to produce more work for the same pay—which amounted to the same thing. This met with stiff resistance and a slowdown.

"I'll never forget a meeting I was in on with the administration committee of Studebaker," says one highly placed Studebaker-Packard source. "As I recall, out of about fourteen members out there, six were from the union. They were absolutely discourteous. They'd sit there and whisper to each other during the meeting, and one would say, 'Joe, how many blocks are you turning out over in the foundry?' He'd say, 'Well, eight.' The other guy would say. 'Cut it, cut it to six.' In effect *they* were setting the production schedules. The other thing was that they were a completely independent local and well financed, because they'd always gotten everything they asked for. So the national headquarters had no influence on them whatsoever."

James J. Nance concluded that another strike was unavoidable. Paul Hoffman was terribly upset, Nance recollected: "He called me out to his home in Palm Springs and said, 'Don't you realize this company's over one hundred years old and has never had a strike?' And I said, 'That's too damn long to go *without* a strike.' " Hoffman was exaggerating though; not only had Studebaker experienced a brief official strike in 1949, but its history prior to World War II was not strikeless. The first walkout occurred in the 1880's, and there were hundreds of unofficial wildcat strikes from the mid-thirties on. During 1955 there were eighty-five of them.

Studebaker was duly shut down on January 20, 1955—for thirty-six precious days. The argument was no sooner settled when moderate Louis Horvath was voted out as the South Bend local's president, and replaced by Bill Ogden, a militant hard-liner. The contract won in March ran out August 31. It was renewed on a month-to-month basis until late 1955, when a reasonable agreement was finally reached. By 1956, Studebaker's labor costs were no longer abnormal. But thanks to a shutdown in the midst of production for 1955's spring buying season, Studebaker-Packard ran up a $29.7 million loss. This was in spite of a profitable year for the Packard-Clipper Division and over twice as much dollar volume as the year before.

Speedster ads promoted sporting appeal.



1955 Commander Regal four-door sedan

Paul Hoffman, as pro-labor as any auto executive had ever been, was appalled by Nance's nonchalant willingness to fight out wage rates with the union. In March 1955, shortly after the strike settlement, he wrote Nance a confidential letter in which he lectured the chief executive officer like a schoolboy:

"It is quite possible that Studebaker-Packard can win a place for itself by being a little Ford or GM. [But] in the case of Ford notably, and GM to some extent, workers are numbers . . . If we should decide as a matter of fundamental policy to make a living fact of the slogan 'America's Friendliest Factory,' we would, of course, have to treat our workers as people.

"To succeed in making it this kind of company and to have the company recognized for what it is, your personality must be projected to your associates in management, our workers, our union officials, our union bargaining committee, our dealers and our customers . . . there is still confusion in the organization as to what it is you are really seeking. It is my impression that our union officials and many of our workers believe that the company is no longer interested in them as human beings, that from now on they will be regarded simply as 'labor' and dealt with as natural antagonists . . . There is, I believe, a great urgency to get under way with a program for communicating to all Studebaker-Packard people the kind of company you want Studebaker-Packard to become."

To nobody's surprise, there was no Nance reply to this letter.

People who liked to blame objects instead of people tended to blame the problems of 1955 on the cars. The Studebakers were heavily facelifted; all chromed up, they said. But management had generally decided that chrome was fine. Buick was selling it by the square acre, and the European Look which Loewy espoused hadn't proven competitive. James Nance strongly expressed this view on more than one occasion, to a speechless Loewy.

Undoubtedly the European Look was what Raymond Loewy was selling. And whatever the pros and cons of the 1955 cars, the models his designers had wanted to

build for that model year were far prettier than those actually produced.

For 1955, Bob Bourke had taken the Starliner coupe to its next logical step: a sports car to do battle with Corvette and Thunderbird. "The chromed front end that actually appeared in 1955 was to have been painted the body color, forming a long, smooth snout, with mesh inserts," Bourke says. The sports car, with ultra-clean lines except for a sort of semi-fin at the rear, was built on a short wheelbase. It didn't have a chance for production, finances being what they were, but it's too bad its styling didn't more strongly influence the production '55's. Says Bourke: "Ken Elliott of Sales was convinced that more chrome was the way to go." Harold Churchill also felt a heavy front end would be more attuned with competition. Bright metal was applied liberally to the grille, sides—and even around the rear of the roof on the Speedsters. It was enough to totally change the appearance of the 1955 models.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 16G Champion Six			
Custom sedan (6)	$1,783	116½	2,790
Custom 2dr sedan (6)	1,741	116½	2,740
DeLuxe sedan (6)	1,885	116½	2,805
DeLuxe 2dr sedan (6)	1,841	116½	2,780
DeLuxe coupe (5)	1,875	120½	2,790
DeLuxe station wagon (6)	2,141	116½	2,980
Regal sedan (6)	1,993	116½	2,815
Regal coupe (5)	1,975	120½	2,795
Regal hardtop (5)	2,125	120½	2,865
Regal station wagon (6)	2,312	116½	2,985
Series 6G Commander V-8			
Custom sedan (6)	$1,919	116½	3,065
Custom 2dr sedan (6)	1,873	116½	3,105
DeLuxe sedan (6)	2,014	116½	3,075
DeLuxe 2dr sedan (6)	1,969	116½	3,045
DeLuxe coupe (5)	1,989	120½	3,065
DeLuxe station wagon (6)	2,274	116½	3,265
Regal sedan (6)	2,127	116½	3,080
Regal coupe (5)	2,094	120½	3,065
Regal hardtop (5)	2,282	120½	3,150
Regal Conestoga wagon (6)	2,445	116½	3,275
Series 6H President V-8			
DeLuxe sedan (6)	$2,311	120½	3,165
State sedan (6)	2,381	120½	3,220
State coupe (5)	2,270	120½	3,210
State hardtop (5)	2,456	120½	3,175
Speedster hardtop (5)	3,253	120½	3,301

Important from the marketing standpoint was the disappearance of the Land Cruiser as a single, long-wheelbase sedan. Instead the new President series appeared, eventually offering two four-door sedans, two hardtops and a coupe, all on the 120½-inch wheelbase. In reality this was nothing new chassis-wise, for the tooling existed already (and none was available for long-wheelbase two-door sedans), but it made the range look broader and allowed for more trim variation. The Commander series also proliferated, with three states of trim instead of two. An engine shuffle insured that each model had its own distinct powerplant.

The Champion six was stroked to 185.6 cubic inches (3 inches bore by 4.38 inches stroke) and now developed 101 hp at 4000 rpm. For the President, engineers gave the V-8 its first displacement increase, a bore-out from 3.37 to 3.56 inches and 259.2 cid, producing 175 horsepower at 4500 rpm. The Commander was actually decreased in size, to 224.3 cubic inches, at which it was very oversquare at 3.56 inches bore by 2.81 inches stroke. After January 1955, however, Commanders received the President's 259.2 cid engine, detuned to 162 hp at 4500 rpm. In the same month, President horsepower went from 175 to 185, power seats and windows were offered and air conditioning became available on Presidents and Commanders.

Another January change was the switch to new dashboards and wraparound windshields on sedans and wagons. Hastily contrived but cleverly executed without much tooling expense, the wrapped windshield was considered essential for competition by most managers—but not all. Export Vice President R. A. Hutchinson didn't like it a bit. In late 1954 he wrote Harold Vance: "I am firmly convinced that . . . we should run [the original 1955 design] through until the completely new 1956 model is available. The plan [for] the wraparound windshield is, in my opinion, a very serious mistake and I do not believe will sell an additional car for us, but on the other hand will create a very bad situation with our dealers, our public and ourselves. The thing that will sell cars for us is not a wraparound windshield but price . . . every General Motors dealer in the United States is cutting price, and I think that is one very important thing which we have to watch."

Was Hutchinson right? To a certain degree, yes. Consider 1955 price comparisons:

Four-door sedan	Cheapest Six	Top-line V-8
Studebaker	$1,783	$2,381
Chevrolet	1,728	2,031
Ford	1,753	2,060
Plymouth	1,926	2,109

Car for car, Studebakers still usually sold for more than the Big Three competition. Granted, South Bend had made cuts: the basic Custom two-door was $200 less than its 1954 counterpart, the Regal Conestoga wagon was over $100 less. But Hutchinson's point was that this wasn't enough. Avoiding mid-year tooling costs for the wrapped windshield would have allowed a spring price cut that could have sparked sales.

The 1955 Champion, perennial Mobilgas Economy Run leader, was said to provide up to thirty-three miles per gallon, though this was only achieved at a steady 30 mph in overdrive. A wide range of options included power steering-brakes-windows, but not air conditioning—that was considered too much of a load for the small L-head six. Interiors were improved again, and a brighter array of colors offered.

The Commander switched to the 259 cid V-8 when it was determined that no significant mileage advantage existed with the 224; the same economies could be derived from the 259 with a lower rear axle ratio. At its new price the Commander was a worthwhile buy, corresponding almost exactly to the V-8 Chevrolet Two-ten, though not quite as cheap as the Chevy One-fifty. These V-8's fought an industry stampede by holding fairly low compression and sticking with mechanical lifters. Commanders

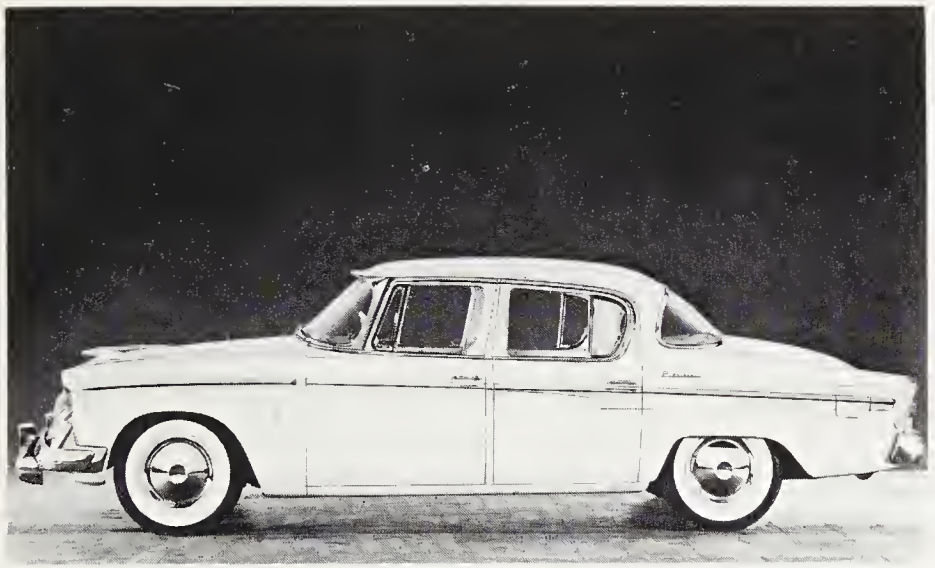
1955 President Speedster hardtop.

remained lithe, easy to handle, well-built cars, and sales responded. For the first time, Commander outsold Champion—by 58,000 to 50,000 units. This was a modest success, nearly twice the Commander volume of 1954. Underlining it was the lower pricetag the Commander received in '55—proving that with costs more under control, Studebaker could build a competitively priced automobile. It's too bad the proof came so late.

The new President series accounted for over 24,000 units in 1955. Sales increased after the hopped-up PassMaster V-8 with 185 hp appeared in January. Despite one magazine's contention that "a chrome-happy kid had a holiday" with the front end, the President was fun to drive compared to run-of-the-mill Detroit iron. It handled corners smoothly, rode well and performed with gusto. Its sales were well earned.

Though Bob Bourke's proposed two-seat sports car didn't make it to production, a less expensive sporty confection did. The Speedster, with its 185 hp engine, dual exhaust, 'tri-level' paint job and full instrumentation including tach, was appealing to sporting instincts. Originally twenty Speedsters were run off for the round of early '55 auto shows, but they proved so popular that the Speedster went into limited production. Ultimately, 2,215 were built.

To create a Speedster, Studebaker started off with a President hardtop. (The Starliner name was not widely used in 1955.) The outside was given special badging, simulated wire wheels, heavy bumperette/fog lights and the aforementioned paint job, which often came in wild combinations like Lemon and Lime or pink and gray. A broad bright band followed roof curvature ahead of the backlight. On the inside, diamond quilted leather and vinyl upholstery in color-keyed shades was combined with a magnificent, engine-turned dash and white-on-black instruments. Power steering and brakes, radio,



1955 President State four-door sedan, minus its standard rear fender skirts.

clock, whitewalls, back-up lights and fog lights were all standard.

The Speedster, according to *Motor Life*, was "more like a sports car than any other hardtop." The wheel sat flat in the lap, the seats were low, the driver's legs stretched out almost horizontally. The rev counter was useful even in automatic-equipped cars: "One time I started in LOW, moved the lever to DRIVE, but no shift came. A glance at the tach showed the needle rapidly climbing over 5000, so I backed off on the throttle. Without the tach I might have dangerously overrevved the engine."

Motor Trend was reluctant to return their Speedster after a brief 300-mile encounter: "It's fun to drive, both from a performance and handling standpoint. It should make an ideal automobile for anyone who wants a car with semi-sports car characteristics and a 'different' appearance, but who needs room for four or five people. The many custom touches and 'extras' which are ordinarily added cost items—power steering, power brakes, special paint job—combine to make it a high performer ideal for family driving."

Speedsters delivered over 110 mph performance in standard form, but Los Angeles dealer John McKusick wasn't satisfied with that. He offered a $390 option consisting of a McCulloch supercharger, bolted to a conventional transmission. The effect was electrifying. For comparison, here are the performance figures, including a standard automatic Speedster, President and six-cyclinder Champion:

	Supercharged Speedster	Speedster automatic	President automatic	Champion 3spd O.D.
Horsepower	210 est.	185	175	101
0-30 mph	3.0 secs	3.5 secs	3.8 secs	5.7 secs
0-60 mph	7.7 secs	10.2 secs	13.4 secs	20.6 secs
¼-mile	16.4 secs	17.5 secs	18.1 secs	22.0 secs
speed	86.0 mph	83.0 mph	79.8 mph	62.5 mph
top speed	120 est.	110.0 mph	105.8 mph	85.8 mph

Yet another Los Angeles dealer got tired of waiting for the oft-promised Studebaker convertible. Belmont Sanchez offered a $500 option, the Sahara. This unique model was a hardtop, with the roof cut off and reworked for a snap-on fitting, like a removable-top Thunderbird. The price wasn't bad, but probably did not involve much beefing of the frame to handle the added flex, which was the reason Studebaker itself decided not to produce a convertible for 1953.

Yet another fling with the Germans cropped up in late 1954, when Studebaker-Packard contemplated the Volkswagen transporter as a possible item for North American distribution. The small VW vans were being built under contract by Studebaker's Belgian plant, and Roger Bremer of Product Planning thought they might also be built at Hamilton, Ontario. In October 1954, Bremer recommended that the company evaluate a transporter accordingly. Nance suggested the matter "be held in abeyance" for a month, due to "all the more pressing problems of getting organized." But Nance never inquired further, and in February 1955, Bremer memoed Nance that he assumed the subject was closed. Unfortunately, this good idea didn't have time to grow. In 1955 or so, it would have been a real plus—far more lucrative than the Beetle itself at that time. By the late fifties, VW transporters and micro-buses had become one of the most profitable lines of small trucks in America.

But Nance could be excused, for there *was* more pressing business. There was the big loss for calendar 1955. There was the drop by Studebaker to thirteenth place in production (passed by AMC and DeSoto), despite the fact that it had built 112,000 cars—nearly 30,000 more than 1954. There was the big question as to who would provide the loan for product development, now estimated to be around $100 million. With all this staring him in the face, Nance eventually had to confront the fact that the '56 Studebaker could be no more than another facelift.

What Studebaker might have built was substantially more interesting than its actual 1956 products. The original program centered around a 'composite vehicle' for both Studebaker and the Packard Clipper that used the Studebaker body shell. After October 1, 1954, according to corporate memoranda, further study of competitive trends, costs and styling indicated this particular vehicle was "not practical for the competitive market. Immediate action was instituted to style a new vehicle, with additional approaches on interchangeability."

The second new vehicle, based on entirely new tooling, was much larger than even the 1955 President. "It had Buick-like proportions and the 120½-inch wheelbase," Bob Bourke remembers, "plus a 'saddle' fenderline and kicked-up rear fenders. It had a lot of chrome, like a Buick. The executives, most of them, felt Buick's success in 1953-54 was pointing us in this direction."

This model was reviewed by the Interim Product Committee in late December 1954. This thirteen-man group included Churchill, Hardig, Loewy and Bourke from Studebaker, and product planners Roger Bremer and Dick Stout from Packard. Churchill stressed the need to establish 1956 styling and stick with it, while Loewy made the styling presentation. "He pointed up the eventual evolution to kick-up character lines on rear fenders and quarter panels," read the minutes, "which will ultimately be required for clearance as cars become lower. He also covered the recommended transition to the sloping hood and fender." To this, Churchill took exception: Sloping hoods and European looks had just murdered Studebaker. Holding the line or accentuating it for 1956 would "be a calculated risk on the part of Studebaker to set styling trends in the

face of styling saturation established by GM with its pronounced adherence to high, blunt hoods and straight fenders."

It must have been an awful experience for Loewy, who had never marched to the GM drummer. But the commitment was total. The majority favored a bold, blunt front end—the nearest they'd have to Europe was a Mercedes-like grille. Competition had them running scared: "Engineering [was to investigate] tilting the rear seatback slightly forward, similar to competition . . . templates were taken from competitive cars . . . concern was expressed that the [side moldings] do not provide the full advantages of aesthetic molding sweeps á la the Florentine lines of General Motors . . ." Even the door handles were questioned: The Loewy designers had conceived of recessed, circular door handles, but "Engineering is to consider . . . a more conventional door handle as an escape route." Many more "escape routes" were suggested, the goal being a much more conventional Studebaker.

Less than a month later, this second retool followed the first into oblivion. Quoting a memo from the Nance file, dated January 19, 1955: "Interchangeability impossible to resolve now because of (1) unresolved Packard-Clipper new body and styling; (2) implications of mechanical features . . . (3) Late introduction (early February), lack of prototype testing time, problem of phasing future models favors deferring new model to very early 1957 introduction . . . Studies indicate need for 24- to 30-million dollars for this new model. New facilities for it also advisable . . . estimated to cost excess of 10-million dollars."

What to do for 1956? There was only one alternative—a facelift. This suggestion had been made earlier, but according to the Nance files, "preliminary skirmishes indicated final appearance as unacceptable." Now there was no choice: "Based on financial operations, size of tooling bill for new facelift made facelift route essential . . . a very rough estimate for facilities improvement [is] 2-million dollars . . . Several qualified designers have developed acceptable renderings."

One of those designers was Vince Gardner, a former Loewy employee who had left to freelance in Detroit. What brought Gardner in was the desperate need for a fast '56 facelift—combined with the imminent disappearance of the Loewy team.

"The Loewy contract ran out in early 1955," Bob Bourke says. "And Studebaker-Packard's new management decided not to renew it." The decision was partly made because Nance had built up his own house styling team at Packard, and partly because the Loewy contract was incredibly expensive. "Our billings were about a million a year," Bourke recalls. "This included a lot of woodworkers and clay modelers too. Loewy marked up everything. Salaries were marked up one hundred percent. I want to be very clear about this—it was entirely customary to mark up that much. But at the time I think it was the largest single industrial design account, and it was very expensive for Studebaker."

It scarcely needs mention that this created no great love between Raymond Loewy and James Nance.* But it was an obvious decision. And with Nance's stylists working

Basic Models 1955	Basic Models 1956	Extent of Facelift	Mechanical Features: Engine	Mechanical Features: Transmission	Mechanical Features: Other	Estimated tooling Cost	Public Introduction Date
Champion 2 Dr. Sedan 4 Dr. Sedan 2 Dr. Hardtop 2 Dr. Sta. Wag. 5 Pass. Coupe	Same Same Same* Same (None)	-Complete new front end -New rear quarter panel -New deck lid & upper back panel -New front & rear bumpers (to be carried into the '57 models) -New exterior mouldings -Improved new interior including inst. boards	Present 6 cyl. engine or improved design	Warner Gear or Detroit Gear Automatic Trans. Present standard trans. & overdrive	Torsion bar front suspension	$8,000,000	Middle of November
Commander Same as Champion		-Same as Champion	259 cu. in. V/8 or 289 cu. in. V/8 depending on the competitive situation	Ultramatic transmission Present standard transmission & overdrive	Same as Champion	Included in above estimate	Middle of November
President (None) 4 Dr. Sedan 2 Dr. Hardtop	2 Dr. Sedan Same Same*	-Same as Champion and Commander with different grille, exterior moulding treatment and interior trim schemes & materials	Packard 320 cu. in. V/8	Ultramatic transmission	Same as Champion	Included in above estimate	Middle of November
Special Hardtop Model 2 Dr. Hardtop (Present Speedster)	Same	-New grille -New exterior moulding -New interior trim schemes & material	Packard 320 cu. in. V/8	Ultramatic transmission	Same as Champion	$200,000	Middle of November

* (off sedan wrap-around cowl assy.)

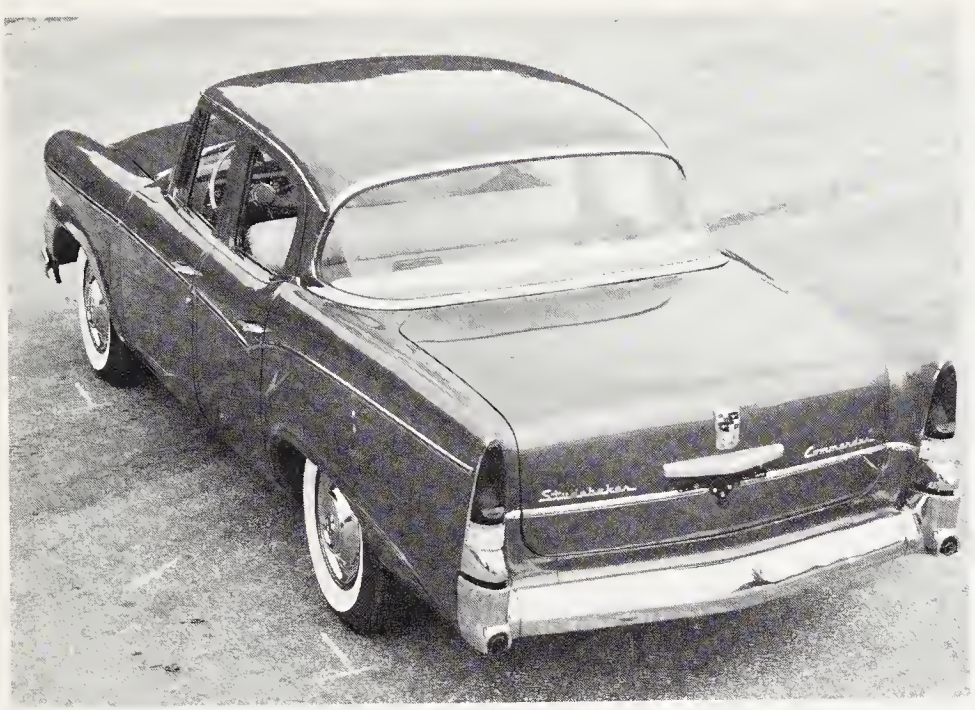
Studebaker's original 1956 facelift program.

day and night on the new 1957 body program, there was little time to spare for the '56 Studebakers. Nance's chief of styling, Bill Schmidt, liked and admired Vince Gardner; he recommended that Gardner be consulted, as well as Loewy, who was serving out his contract term.

"Vince could do anything with his hands," Bob Bourke remembers. "He was pretty much a loner, but when fired up he'd put roller skates on his feet. Vince modeled the front and rear of the 1956 Studebaker sedans. He created a very nice, squared-off deck and a clean grille, and carried over the two flanking grilles from earlier designs. He worked like hell. Compared to our billings what he asked was next to nothing—about $7,500. Sadly, for some reason S-P didn't want to pay it."

Richard H. Stout, formerly of Packard Product Planning, adds more information here: "I saw a great deal of Vince Gardner, about three times a week. I was liaison man on the project, being done secretly in Mount Clemens, Michigan. I never knew how it was initiated, but there it was and it continued several months. Finally the car was returned to South Bend, where the grille and hood panel were changed after a strange encounter of the Loewy, Packard and 'neutral' groups! Vince was talented but unhearing on the subject of money. The payment may have been held up temporarily, but I can't believe S-P didn't pay him. They wanted to."

* Even so, Nance tried to maintain some Loewy input. In a memo to styling chief Schmidt, dated November 17, 1955, he wrote: "Under our retainer arrangement with Loewy, we can call on his services, and I am wondering if you want to give any consideration to asking him to submit some renderings on a facelift for the Hawk series for '57." This was after an all-new 1957 program had been developed. Though Schmidt declined, the Loewy influence was still apparent in the actual production 1957 Hawks.



1956 Commander with Vince Gardner's rear quarters.

The secrecy of the project suggests that Nance put Gardner to work as an alternate to Loewy, knowing that the Loewy contract wouldn't be renewed. But most of those who remember say the 1956 Studebaker was largely Gardner's work. It was accompanied by all-new side molding, defining the two-tone area on more expensive models. Its interior was finished by Duncan McRae from the Schmidt team in Detroit. Chief feature of the dash was a 'cyclops eye' speedometer—a small drum, rotating to show only the current speed, changing colors from green to orange to red as speed mounted. The other instruments were carried directly below.

The last design Loewy's people created before departure was the 1956 Hawk series—Power and Flight Hawk for domestic markets using the old Starlight coupe body, Sky and Golden Hawk using the hardtop. "Again," Bourke recalls, "we were building a family resemblence here, with the Mercedes-like grille. Eventually, freestanding parking lights were mounted atop the front fenders. We had a real trial with the rear deck. The low, sloping deck of 1953-55 was criticized, so we kicked it up and added horizontal ribs to the exterior for some rear identity. It didn't look so 'foreign,' but it didn't increase trunk space either. The tooling bill for it wasn't bad, however."

Even before they'd settled on a 1956 facelift, Harold Vance was pushing a hardtop (based on the sedans) and four-door station wagon, to make Studebaker more competitive. "Every market study made during the past two years has shown an interest in hardtops considerably greater than their actual sales," he wrote Nance in late 1954. "The four-door hardtops to be introduced by Buick and Oldsmobile this spring will be popular, [and create] a substantial decline in two-door hardtop sales . . . I suggest that a study should be made of the possibility of reducing the three-basic-body program [four-door sedan, coupe/hardtop, station wagon] to a two-basic-body program: a four-door sedan and a four-door station wagon. [Thus] a two-door sedan could be evolved out of the basic four-door job as has been done heretofore, and I believe that a four-door hardtop also could be evolved out of the same basic four-door job. I suggest that we do not need both a two-door and a four-door hardtop."

A month later, with the facelift certain, Nance changed the approach ". . . with regard to hardtops, the differences in body construction in the areas of center pillars, roof rails, rear belt rails, rear window molding frames and underbody reinforcement required necessary tooling for these items . . . the two-door hardtop could easily be developed from the basic tools with little or no penalty. The door for the conventional coupe and sedans and for the hardtops can be made interchangeable if two-piece door construction is utilized and, for that matter, carried right through to the station wagons. We feel it would be best to defer final resolution concerning the elimination of a two-door hardtop until we have had better visibility concerning the strategy of the competition. Likewise a two-door station wagon can be made available in much the same manner . . . It will be recalled that Chevrolet added a two-door station wagon to their line early this year and station wagon sales currently are almost equally divided between two-door and four-door models."

Ultimately, Nance got only a piece of what he wanted. His hardtop had to wait—there was no money to tool it, and with a shared-body Studebaker-Clipper for 1957, it wasn't worth the investment for 1956. The old Starliner hardtop was still around, and could be adapted to the new styling. Nance did retain a two-door wagon, but not a four-door wagon. One can only conclude that all the hesitation over the shape of the '56 models didn't do the line much good from a market standpoint, and that the final selection wasn't the best possible set of body styles that could have been offered.

Strongly affecting all corporate forward planning was the question of cooperation with American Motors. With the death of George Mason in the autumn of 1954, there was doubt as to where his successor, George Romney, stood on the subject. In late 1954, the Interim Product Committee decided to find out.

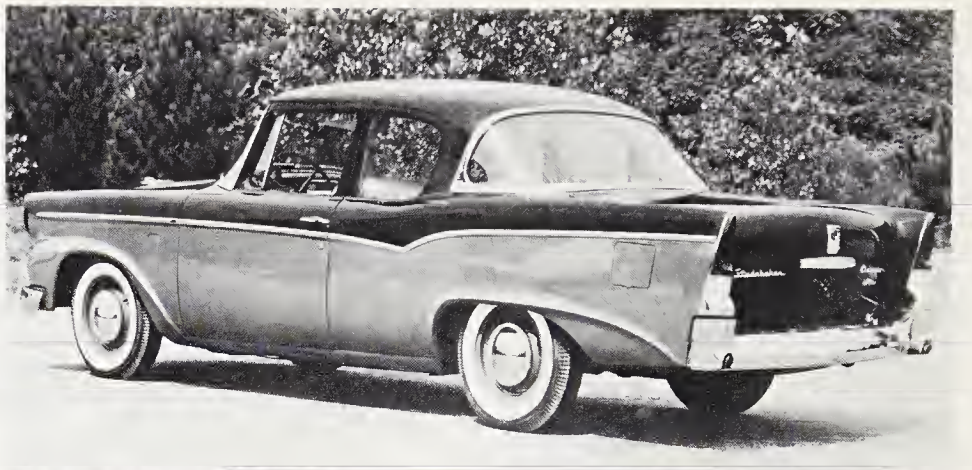
Engines spurred Studebaker-Packard's interest. As of December 1954, the 1956 engine line-up contemplated for Studebaker was as follows:

Model	Cyl.	CID	Carb.	BHP
Champion	six	185.6	2 bbl	125
Commander	V-8	259.2	2 bbl	163
President	V-8	289.0	4 bbl	210

The 289 was to be created by stroking the 259.2 cid engine from 3.25 inches to 3.63 inches. That was no problem, but squeezing 125 bhp out of the Champion was. This horsepower was going to be achieved by converting the L-head to F-head configuration, much as Barney Roos had done with the L-head Willys engines in 1950. (Roos bypassed the intake valve seat and installed new heads and camshafts.) But the Committee was worried, its minutes record, about "the necessity of maintaining service requirements off of existing equipment and capital investments required for a new F-head engine, [since] it will not be competitive with the overhead valve engines of the competition . . ."

Barney Roos himself had been called in for consultation with William H. Graves, Packard's engineering vice president. Roos doubtless discussed his old L-head/F-head

Pinehurst was President station wagon for 1956.



1956 Champion two-door sedan.

conversion, and perhaps suggested that it was pretty old hat by 1955 standards. But Roos also had another idea: Why not trade the Studebaker 259 V-8 for an American Motors 200 cid six? AMC was in the market for a small eight for the Hudson Wasp and Nash Statesman—and it was already buying a 320 cid V-8 from Studebaker-Packard for its larger Nashes and Hudsons.

Graves went to see AMC chief engineer Meade Moore, and a swap of these engines was arranged in February. But that was as far as the deal got. By April, Graves had learned that AMC would introduce its own 250 cid V-8 as a 1956½ model, and would not be needing the small block Studebaker. But Studebaker had already cancelled its tooling order for a new F-head Champion! Would AMC still sell it the ohv six?

George Romney was polite, but unyielding. No, he said, AMC wouldn't. Just as politely—one can visualize him gritting his teeth—Nance thanked Romney for his consideration. On September 16 Romney felt moved to explain his actions: ". . . if we furnished the 30,000 to 40,000 six-cylinder engines to Studebaker, we would be short of sufficient engines for the expected Rambler sales volume in 1957. Expansion of present capacity would call for an expensive across-the-board investment in machinery, equipment and considerable plant rearrangement . . . Our difficulty was capacity, not a lack of willingness to produce engines for Studebaker if it were possible and practical to do so."

Romney was being sincere. The Rambler was on the brink of its historic climb to number three position in the industry. AMC had a capacity at Kenosha for 160,000 to 180,000 six-cylinder engines a year. In 1957 AMC built 114,000 cars, but for 1958 it would build 217,000, most of them Rambler sixes. Romney was just as sincere when he cancelled further orders for Packard-built V-8's in late 1956. With Rambler in the ascendancy, AMC was closing out its big Hudsons and Nashes.

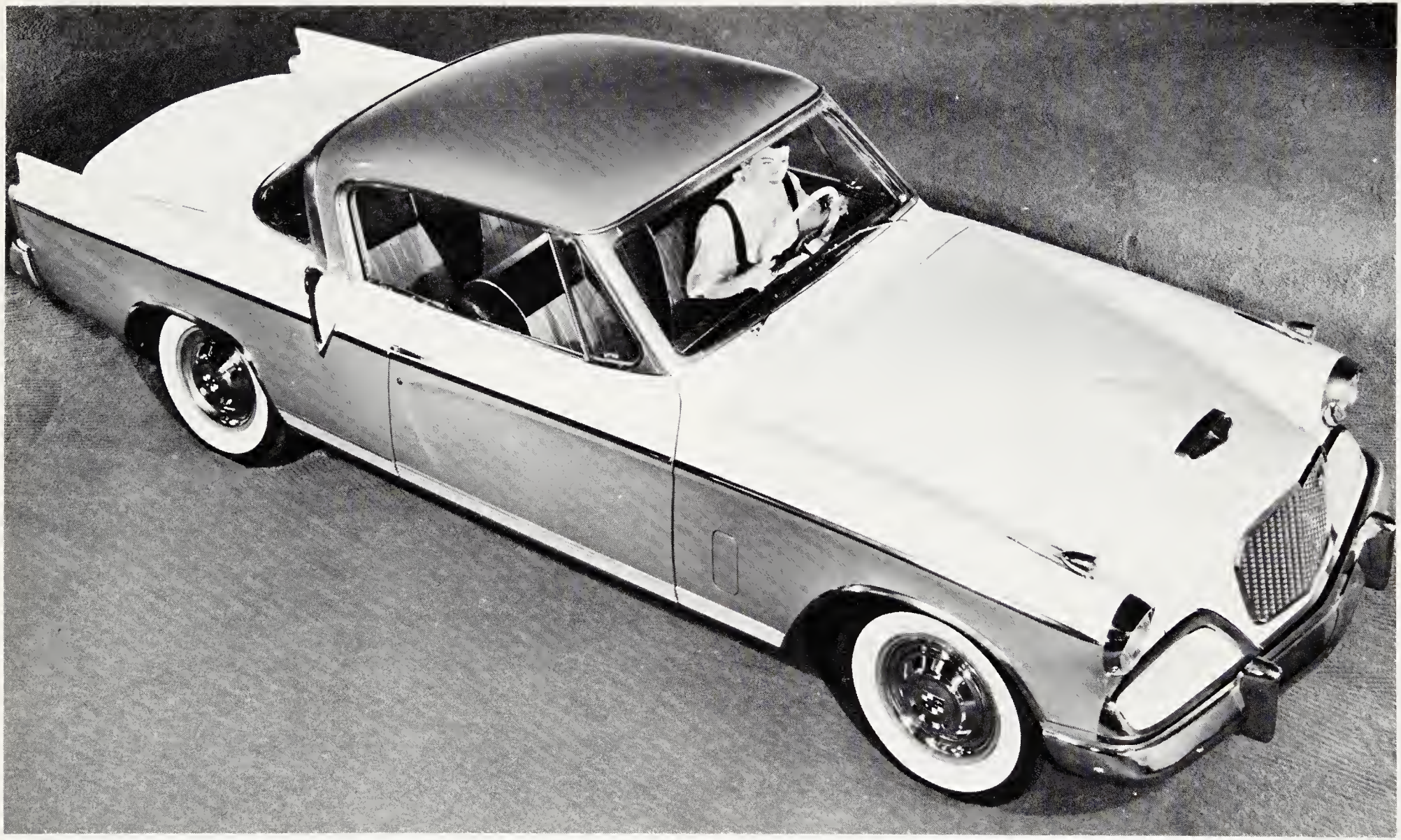
Other ideas of Studebaker-Packard/AMC cooperation also came to naught, though it's worth listing them here. Early in 1954, for example, George Mason suggested assembling Packard body panels in Kenosha; this proved uneconomical due to handling and freight costs from Wisconsin to Detroit. Packard also considered the use of AMC air conditioning, but Bill Graves nixed that because both companies already bought their compressors, evaporators and condensers from the same supplier, and the controls had to look different regardless. In August 1954, Packard asked AMC to quote on engine blocks; the figure was $33.48 each against $30.70 from a local foundry, and AMC said it couldn't start delivering for up to nine months. Before Mason's death, Graves and Moore had worked out dimensions for a possible common inner body shell. Studies determined that the AMC integral frame and the Packard separate body-frame were not major stumbling blocks. But this project died with George Mason.

Then there was the body stampings fiasco. Studebaker-Packard had furnished drawings and requested bids from AMC for certain stampings and subassemblies. These were quoted by Hudson—and in nearly every case were way over other bidders:

Item	Hudson	Other
Front end cowl top and windshield	$7.56	$4.59
Front fender splashers	2.07	1.35
Radiator lower splasher	1.66	1.12
Splasher battery carrier	0.86	0.15

"In many cases," wrote W. R. Grant, "we asked them to check their bids because of obvious error. We did give them the oil pan for both Packard and AMC, together with reinforcements, even though Hudson was not the lowest bidder. It would appear that Studebaker-Packard has tried to keep a spirit of cooperation with AMC, and substantial progress was being made up until Mr. Mason's death, but since that time the progress of the program has been very uncertain." So much for the 'common market' among the remaining independents.

Very uncertain too was the sharing of components between the Studebaker-Packard divisions themselves. In early 1955, for example, plans were afoot for using Packard's



Mighty 1956 Golden Hawk offered 275 hp Packard engine.

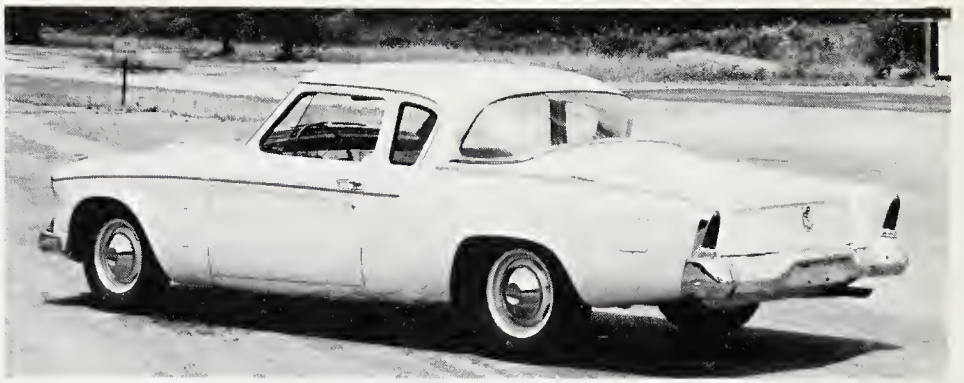
Torsion-Level suspension on Studebakers. This interconnected all-wheel system had arrived in 1955, complete with automatic leveling, and had been a major suspension breakthrough by Packard. According to a Product Committee memo, "Engineering [is] working on the development of the torsion level suspension to incorporate all improvements possible [but] ultimate determination of costs would govern the vehicles on which [it] would be installed. [It is] sufficiently flexible for adoption of the low-priced Clipper, if that vehicle should be taken off the 'Studebaker' body." But again, costs prohibited Torsion-Level's use, even on Studebaker Presidents. This was a bitter disappointment to James Nance. In late 1955 he confidentially wrote Bill Graves: "Being completely honest with ourselves, I think we are trying to push water uphill with the Studebaker until such time as we come up with some feature like the Torsion-Level ride. The '56 cars are beautiful and completely competitive, but on the other hand, there is nothing to recommend them over their competition."

Another shared component that largely ended on the scrap pile was Packard's Ultramatic. In January 1955, the decision was made to scrap Studebaker's automatic for the simpler Detroit Gear unit on all 1956's except the President Speedster (later to be named Golden Hawk). And Ultramatic was barely being saved for that. "I am being pushed very hard by the Borg-Warner people," Nance wrote Graves, "to take us out of the transmission business by purchasing our manufacturing equipment and so forth . . . this is the last thing I want to do. We have about $15 million invested in [Ultramatic] and should therefore [make] it pay off. So far, Packard has made no money being in the transmission business, but it was hoped that this would be one of the benefits of the merger."

Graves replied that Studebaker-Packard "will and should stay in the transmission business . . . Ultramatic will be competitive productwise at least through 1958 . . . For 1956 Ultramatic would be moderately satisfactory in Commander and President cars and less suitable for the Champion." But cost analysis soon showed there was no future for Ultramatic. It could not compete, costwise, with store-bought Borg-Warner units. On Studebakers it appeared for 1956 only in the Golden Hawk, and by 1957 it was gone for good. Along the way fell other bright engineering ideas, scrapped for lack of development money in 1956: Bosch and Simmonds fuel injection for Studebaker V-8's, Al-Fin aluminum brake drums, Auto Specialties and Girling disc brakes, Monroe rack and pinion steering.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 56G Six			
Champion sedan (6)	$1,996	116½	2,835
Champion 2dr sedan (6)	1,946	116½	2,800
Champion sedanet (6)	1,844	116½	2,780
Pelham 2dr wagon (6)	2,232	116½	3,000
Flight Hawk coupe (5)	1,986	120½	2,780
Flight Hawk hardtop (5)*	n.a.	120½	3,200
Series 56B V-8 (259.2 cid)			
Commander sedan (6)	$2,125	116½	3,140
Commander 2dr sedan (6)	2,076	116½	3,110
Commander sedanet (6)	1,974	116½	3,085
Parkview 2dr wagon (6)	2,354	116½	3,300
Power Hawk coupe (5)	2,101	120½	3,095
Series 56H V-8 (289 cid)			
President sedan (6)	$2,235	116½	3,210
President 2dr sedan (6)	2,188	116½	3,180
President Classic sedan (6)	2,489	120½	3,295
Pinehurst 2dr wagon (6)	2,529	116½	3,395
Sky Hawk hardtop (5)	2,477	120½	3,215
Series 56J V-8 (352 cid)			
Golden Hawk hardtop (5)	$3,061	120½	3,360

*export only.



Six-cylinder Flight Hawk sold for $1,986 base price. (Hubcaps actually 1953-55s.)

Compared to 1955, there was considerable model realignment. Presidents were no longer strictly long-wheelbase cars. The only long sedan was the President Classic. The rest went over to the 116½-inch wheelbase. In effect, Studebaker was reverting to the old Land Cruiser policy, offering just one long sedan. This seemed a decision without justification. The President long-wheelbase line had sold relatively well in 1955, coming close to 25,000 units; in 1956 only 18,209 were sold. As for 'sedanet,' that was just a name to describe a detrimmed two-door six or V-8, with one-tone paint, minimal chrome and a spartan interior.

The Champion was rated America's most economical car by *Motor Trend*, but it lacked sales appeal. Perhaps 20,000 were built (production figures are vague because they include Flight Hawks and wagons), an all-time low for the model. Economical sixes were not very popular that year—ironically, one of the first years when the Champion had price parity with Big Three sixes. Also, the car was hurt by its engine. Without the AMC six, or an F-head conversion, this L-head was pumping out the same 101 hp it produced in 1955. This did not compare favorably with the Ford six (137 hp) or the Chevy (140 hp), and the Champion's mileage bonus was minimal against these competitors.

The Commander attempted to combine the economy of the Champion with V-8 power, offering a 170 hp 259.2 cid engine with 185 hp optional. As such it was quite attractive, and again it outsold the Champion. A few Commanders were equipped with President 289's as Police Specials, in which guise they'd do 0-60 in about ten seconds and generally surprise the occasional hot rod. But compared to 1955, Commander sales were less than half: just over 30,000 were sold, including about 5,000 Power Hawks and a number of Parkview station wagons.

Gaily two-toned and good looking, the Studebaker Presidents did fairly well in sales, but not as well as was hoped. In the President, Nance achieved what he'd been preaching for a long time—flashy looks, high and wide styling, an end to the European flair that had been such a disappointment to South Bend. The President Classic was a big car. It weighed about 3,300 pounds and listed for about $2,500, with most examples optioned to the $3,000 level.

President Classic power was the stroked-out 289 V-8, with four-barrel carburetor and dual exhausts, developing 210 bhp, versus 195 bhp in other Presidents. The cars were brisk performers, achieving 0-60 times of around eleven seconds and a top speed of 105 mph. *Motor Trend* held this on par with the 1955 Oldsmobile Super 88, which was quite decent company indeed. The President Classic handled "with delightful ease," and its finned drum brakes were wonderful, surviving twelve consecutive stops from 60 mph without a trace of fade. It was called "a good road car, even when compared to its very agile Hawk brothers. Lean during hard cornering is not disturbing to driver or passengers and there is plenty of power to correct any tendency to slide. It hugs the road at high speeds, not being too much disturbed by crosswinds or crowned surfaces. Vibration from the two-piece driveshaft, a chronic complaint against past Studebakers, has all but been eliminated." Ride was good, economy reasonable, and the editors liked the styling. "There isn't much more you can ask for in a new family car," they concluded. Studebaker-Packard could have asked for something more—sales. But in 1956, it just wasn't to be. The President Classic was probably the kind of sedan South Bend should have built in 1953.

A bright spot in the '56 picture was the new line of Studebaker Hawks, probably the first American sporty 'personal cars' as we know them today. True, Studebaker fell into this market by accident, because it couldn't afford a sporty two-seater. But nevertheless, the Hawk was a good idea. Studebaker-Packard sold nearly 20,000 of them in 1956—not a bad percentage against an overall sale of only 85,462.

The four-Hawk lineup blanketed the market, with the Flight Hawk at just under $2,000 and the Golden Hawk at just over $3,000. Flight Hawks offered the economy six, Power Hawks the 170 hp 259 V-8, both in five-window coupe bodies. The Golden Hawk ran the big Packard 352 V-8 with optional Ultramatic, while the Sky Hawk used the 210 hp 289 V-8 with optional Borg-Warner automatic; both of these were hardtops.

The Golden Hawk, with its distinctive fiberglass tailfins and luxurious interior in vinyl or vinyl-and-cloth, was naturally the big road-test attraction. Definitely in the hot class, it was competitive with two-seaters like the Thunderbird, and with Ultramatic it was only slightly slower than with stick/overdrive:

	Hot Rod ***3spd O.D.***	*Motor Trend* ***Ultramatic***
0-30 mph	—	3.4 secs
0-60 mph	10.0 secs	10.2 secs
¼-mi time	16.8 secs	17.3 secs
¼-mi speed	83.0 mph	80.0 mph
top speed	120-plus mph	118.1 mph
economy	13.1 mpg	12.2mpg

Unfortunately the Golden Hawk had a drawback—it was nose-heavy. The Packard engine weighed about one hundred pounds more than the Studebaker 289, itself no lightweight. This made the car understeer with singleminded consistency, and sometimes even interfered with acceleration. "Due to the tremendous torque of the engine (380 pounds-feet at 2800 rpm), *and* due to the [heavy engine], it is almost impossible to make a fast getaway start on any surface without considerable wheel spinning," wrote Tom McCahill. ". . . if I'd shoved two or three hundred pounds of sand in the trunk to equalize the weight distribution, my times would have been considerably better." Interestingly, no other tester condemned the Golden Hawk for nose-heaviness at the time. But in 1957, when the Packard engine gave way to a supercharged 289, they outdid themselves to say what an improvement it was.

For those who found balance and finesse as important as brute force, the Sky Hawk provided a reasonable alternative. At $500 less than the Golden Hawk, it was one of the best buys around in 1956. Like the Golden Hawk (but not the Power and Flight Hawks), it used finned brake drums, which were highly resistant to fade. It handled beautifully, and with 210 hp was no slouch in performance. There was a vinyl interior of luxurious design, the same tooled metal dash as the Golden Hawk (tachometer optional), and much cleaner exterior styling. The Sky Hawk was devoid of what Bob Bourke called "those damnable fiberglass fins." It lacked the Golden Hawk's bright metal rocker panel covers and its band across the rear roofline. Like the Golden Hawk, it was subject to rather wild two-toning, with a beltline divider causing the hood to come in a different color than the deck. But solid colors were also available.

The Power and Flight Hawks were more modestly trimmed and offered two-toning only on their roofs. Both were clean-lined, good-looking, finless cars, the Power Hawk providing excellent performance for only $2,101. Though produced in greater numbers than their hardtop brethren, they are rare cars today. Like many models before and since, they were overlooked by collectors who sought out their more glittery linemates, and remain obscure except to the few who know and appreciate their quiet merits.

Considering the short time that had elapsed since the fateful marriage of Packard and Studebaker, the company had made considerable progress in refining its line to the needs of the market. In the rush to condemn James Nance many overlook just how much he and his team accomplished in the short months allotted to them—despite the worst conditions in which any car company ever found itself. The Studebaker sedans, for example, had been translated from bizarre derivations of the beautiful Loewy Studios' coupes to appealing cars in keeping with current taste; it took only seven weeks for the '56 facelift to go from clay to production prototype. A broad product line, making as much use as possible of both company's components, had been developed. Many other components, and improvements, were forestalled only because of the lack of funds—or the intransigence of American Motors. But, to be sure, AMC wasn't in business to bail out Studebaker-Packard.

At Detroit and South Bend, it was hoped that 1956 would see a holding action. But the hope was forlorn. In a declining year for the industry at large, Studebaker held thirteenth place, but its production was down to 82,000 units. On sales of $303 million, the corporation lost three times more money than Studebaker alone had ever lost: $103 million. Its net worth shrank to only $15 million by the end of 1956.

Earlier in the year things had looked a lot more positive. Despite the $29 million 1955 loss, working capital had only declined to about $10 million—most of that in '56 tooling. And the Packard-Clipper Division was breaking even. By April 1956, however, the roof had fallen in. Packard-Clipper was losing money. Studebaker-Packard lost a $420 million jet engine contract from the government, due to revisions in defense planning. The company's Aerophysics Corporation subsidiary still had a $200-300 million contract for guided missiles, but the money wasn't immediately forthcoming.

The insurance companies who backed Studebaker-Packard took a hard look at all this and about-faced. Late in April, the heaviest blow of all fell: the $100 million line of long-term credit Nance had sought, to strengthen the dealer organization and finance all-new bodies, had been withdrawn. Studebaker was now left with $15.3 million in

A Studebaker dealer's answer for the luxury camper.

credit and $50 million in operating capital—roughly enough to keep afloat until September. What had started as a hasty but seemingly beneficial marriage was fast turning into a major catastrophe. Swiftly, Studebaker-Packard cut back on production, and laid off twenty percent of its administrative personnel. The financial committee which had been seeking backing from investors turned into a rescue committee.

Studebaker-Packard had next to no support in these days from its dealer body. "We sweat and strain to produce and price our cars competitively," Nance said wearily, "and then our dealers get $200 to $300 more than competition . . . on limited volume, of course. In January, Studebaker dealers 'creamed' the deals for a Variable Net of $374 while Chevrolet dealers were about $100, so we are advised by a good source . . . Our dealers are not facing up to market conditions. Since our dealer body, as a whole, has a breakeven point substantially below that of the factory, they bleed us to death . . . We can't make cars cheaper than GM, and they're getting about fifty-five percent of the business."

Unless something was done fast, Studebaker-Packard was clearly doomed. A facelift for 1957, most directors felt, would only push the company further into the hole. *Admitting* that only a facelift was planned for 1957 would undoubtedly put off potential backers. Hurriedly, Styling and Engineering were told to put on paper their most optimistic plans for the all-new 1957 line. Studebaker-Packard executives, led by Nance, tucked these documents under their arms and began pounding the pavement from New York to California, looking for an angel.

At this point, in April or May of 1956, James J. Nance made a personal decision. Whoever bought Studebaker-Packard wouldn't get him with it. He would stay, as he later told this writer, "long enough to get the ship in port." But in the gray spring of 1956, nobody knew where the port was.

CHAPTER 6

Repent at Leisure

STUDEBAKER-PACKARD HAD plenty of time to regret its hasty marriage. It took over six months between the revelations about Studebaker's true break-even point and the emergence of a last-ditch plan to save the company. While Nance and his associates plodded from one reluctant source of finance to another, reflective minds in South Bend and Detroit could remonstrate over a long series of disasters, omissions and mistakes.

Why, for example, had the Studebaker board left Harold Vance in place for three years of steadily decreasing business? Such a thing would be unheard of at General Motors. There were at least two competent replacements available—Peter O. Peterson and Harold Churchill. Peterson finally left Studebaker in February 1955, to become president of Mack. A year later, he'd doubled Mack's business and increased its profits sixfold. Harold E. Churchill enjoyed a high reputation; his abilities as a manager, as well as an engineer, were well-known. It's possible that Vance's long tenure, depression-years service, and continued promises of better days to come persuaded his board to leave him in the saddle. But the Studebaker board was hardly inexperienced (average tenure fifteen years compared to only five for Packard directors), and experienced boards don't tolerate failures.

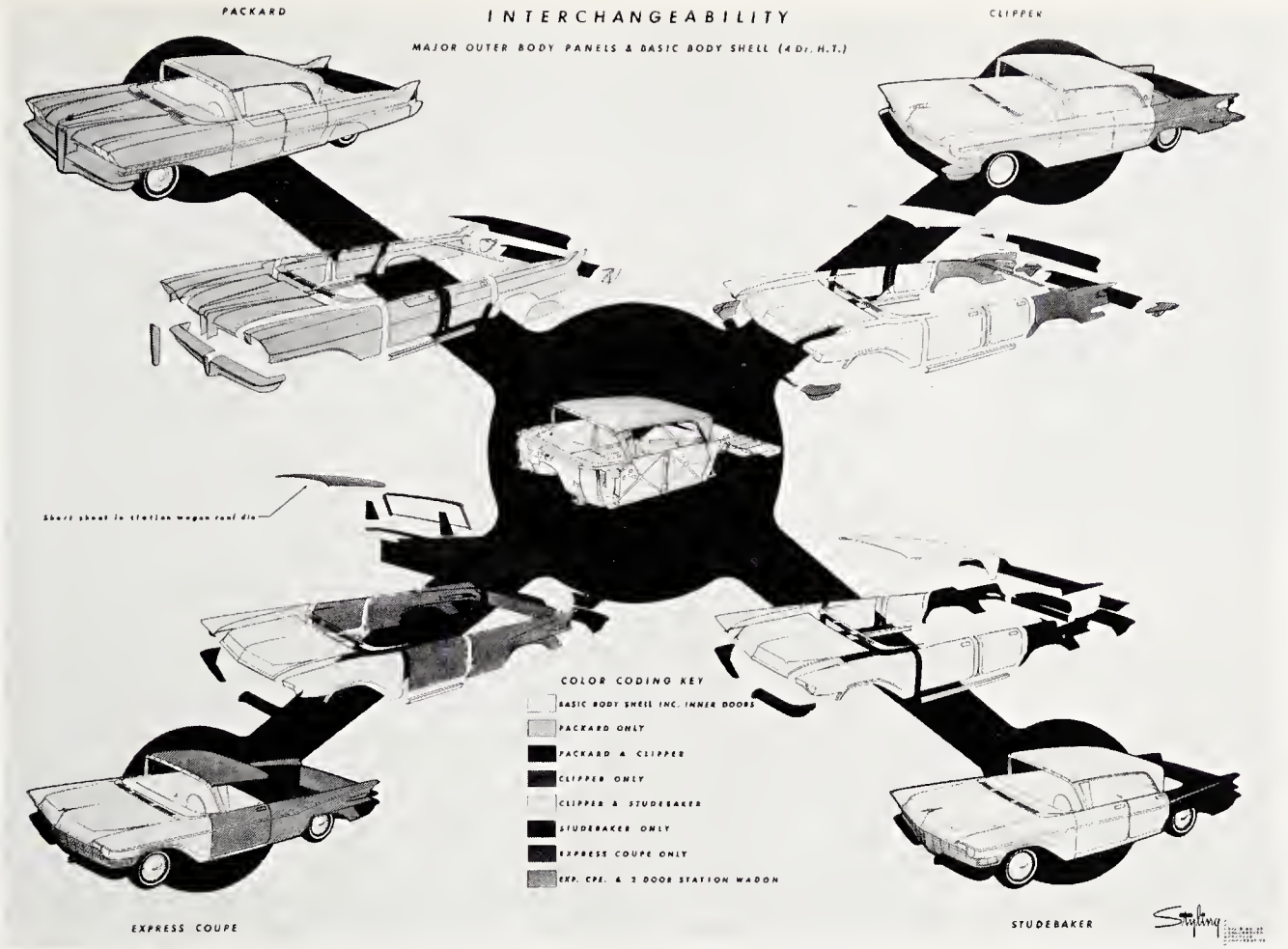
With a cash crisis staring it in the face, Studebaker-Packard was forced to consider liquidation. Two such plans were presented: the first came in April from Ernst & Ernst, prominent Detroit accountant-consultants; the second appeared in May, via Robert Heller Associates, another consultant firm.

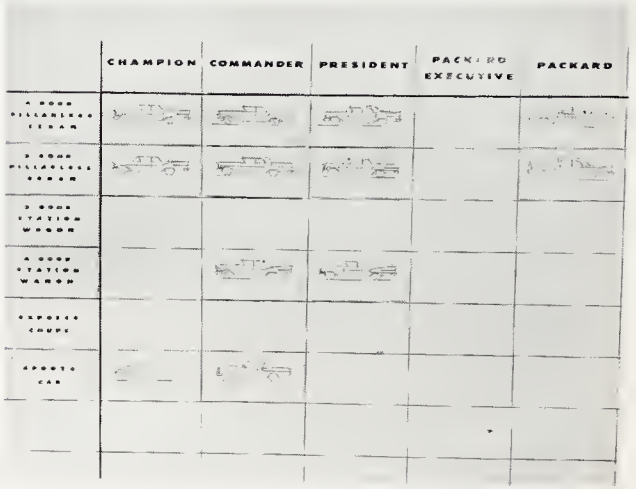
Ernst & Ernst actually proposed three alternatives: moving Packard-Clipper to South Bend and abandoning Detroit, including the Utica engine plant; discontinuing Packard, or selling it outright; and complete liquidation. Under the third alternative, enormous losses were forecast—a minimum of $45 million. It was never given more than momentary, frightened attention—nobody wanted to quit.

The Heller plan a month later—with no financial rescue yet in sight—involved even more losses. Heller's idea was to first announce a determination to stay in business—but to simultaneously begin to quietly dispose of manufacturing plants and release employees. By the end of the 1956 model year, one at a time, production of Packards, Clippers and Studebakers—in that order—would cease. The wind-up would not be announced until October. Heller considered that this maneuver would involve a loss of $108 million, leaving the company in the hole to the tune of nearly $20 million. This would be nullified by provisions of the bankruptcy act. Until early May, Heller's was the only course open. But to a company with the long history of Studebaker, it was hard to face.

Contrary to popular belief, James Nance did not at this point throw up his hands and dissipate what little funds remained to the company. Neither did he call down the $45 million line of short-term bank credit he had secured in 1955—despite pressure to do so from his board. Without a change in the current situation, it would have gone for naught, because there was no strong backer willing to take long-term responsibility. Nance did not resign—nor did he accept a position he'd been offered at Ford, at three times his current salary. Realizing that the grand merger scheme of George Mason was not to be, he must have known that the outlook for unmerged Studebaker-Packard was dim. All he could do was keep looking for a virile partner to rescue the automotive end of the company—and place many of his trusted lieutenants in more secure positions elsewhere.

Convinced that Studebaker-Packard could still contribute to the automotive world, Nance consulted Chrysler, Ford and General Motors. Chrysler's Tex Colbert was sympathetic, but could not assist. His company had launched the Imperial as a separate make. It was doing well, better even than Lincoln at the time, and Colbert could not contemplate giving that up to take on Packard. And Chrysler had no need for Studebaker, since it already had Plymouth. Folding in the army of Studebaker and Packard dualled





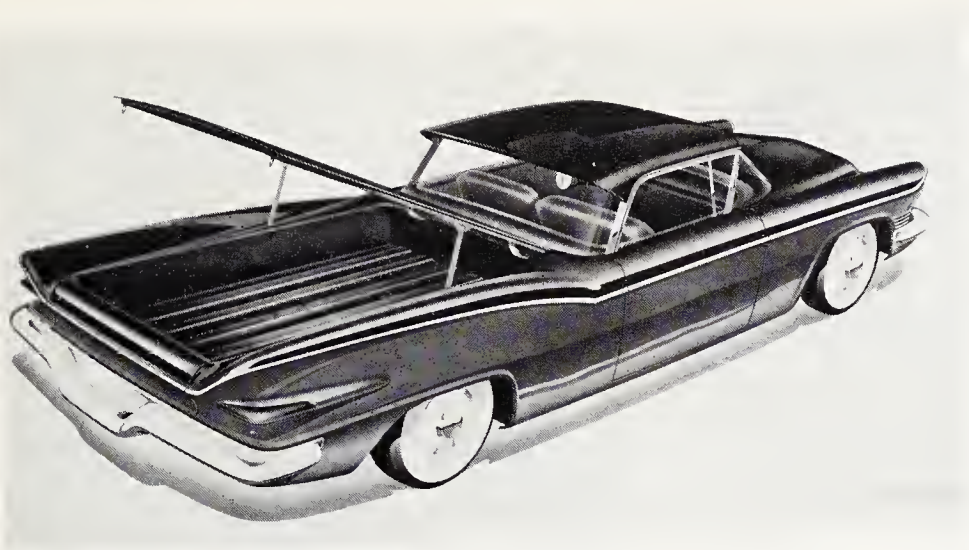
Left, the Studebaker-Packard interchangeability plan for 1957. Right, model lineups for the 'Fourth Full-Line Corporation.'

and independent agencies with Chrysler's already complicated dealer network was a further deterrent to any amalgamation.

Nance was on very cordial terms with Henry Ford II, and proposed selling out to Ford (or at least selling Packard) early in 1956. But Ford saw more hope for his new Continental Division than for taking on Packard—and, like Chrysler, he had no real place for Studebaker. Ford Motor Company was also working on its 'E-car' (later to be called Edsel), and considered its own dealer-distributor arrangements for that make better than using Studebaker-Packard dealers—especially as the E-car was still eighteen months off. Henry II did react favorably to a Nance proposal that Packard share the Lincoln inner body shells, resulting in considerable savings to both companies. But an exploratory meeting at Dearborn indicated this feeling wasn't popular with Ford President Ernie Breech.

General Motors was too broadly spread out in the market to benefit from absorbing Studebaker-Packard, but Nance went to see its officers at the suggestion of Metropolitan—one of his reluctant insurance friends. If GM would endorse the proposed insurance loan, Metropolitan suggested, a loan might be forthcoming after all. GM said no, but not with malice. It was the horns of a dilemma: If GM backed the loan and Studebaker-Packard survived, GM might be faced with antitrust action—"controlling the competition." If it backed the loan and Studebaker-Packard failed, GM would be called its murderer.

Of all the possible Big Three deals, Ford was the most likely. An outright sale, in exchange for blue chip Ford stock, would have been royally welcomed by Studebaker-Packard stockholders. But with Ford, GM and Chrysler out of the picture (and AMC long since gone its own way), the automotive avenues were exhausted. So was James Nance.



Express Coupe designs by Ted Pietsch under Bill Schmidt, after the Packard Styling takeover. Reverse-opening tonneau was novel and practical idea.

"It was out of my hands," he said, "after the lawyers and financial committee took over."

The quest was pursued by Glore, Forgan and Company, which was contacted in early 1956 by the profitable, highly diversified Textron American, Inc. Contrary to certain histories, Textron approached Studebaker-Packard—not vice versa—and Textron was *interested*, not just casually talking.

By late April 1956, Mr. Forgan reported to the board that Textron had proposed a tentative agreement: distribution of 500,000 shares of Textron American preferred stock, and combination of Textron and Studebaker-Packard common stock on the ratio of one-tenth of theirs to one share of the car company's. Textron President Royal Little emphasized that his proposal was only "an indication of possible interest," and anything beyond that would require a study of the Studebaker-Packard books. The books were offered. Later it was reported in the business press that Little was disinterested because he "had no prior automotive experience."

Textron American's feeler was never really acted upon, however. By late March 1956, it began to look like Studebaker-Packard's best hope was a deal with Curtiss-Wright Corporation. On March 23, the board decided to hold up any negotiations with Textron or Ford (still a distant possibility) pending the outcome of the Curtiss-Wright talks.

Curtiss-Wright President Roy T. Hurley had worked wonders for the old-line airplane firm since arriving at its helm in 1949. In eight years, he had raised Curtiss-Wright's earnings from $5 million on $112 million sales to $35 million on $500 million sales. He was rapidly diversifying, and interested in the automobile business. Hurley had spent fifteen years in Detroit, with Bendix and Ford in manufacturing positions, and thought he knew a good deal about the auto business. So did the Studebaker-Packard financial committee. Glore, Forgan and Company offered "full disclosure," and from February through April, Hurley's minions pored over the bleak books. Curtiss-Wright's interest brightened, waned, brightened again. Only in late April did a deal begin to look possible.

Initially, Curtiss-Wright had concluded that Studebaker-Packard was a very bad investment. First, it was starving for money to facelift older models and produce new ones. Second, it had too much floor space devoted to unprofitable production, i.e., cars. Third, its labor costs were still excessive. The only good thing was Studebaker-Packard's potential as a tax write-off against Curtiss-Wright's profits. In early 1956 this amounted to $70 million. (By late 1956 it had doubled.) But the government was cracking down on the purchase of losers by profitable companies for tax purposes: The IRS was on the verge of requiring losers to remain in their previous business for at least two years after merging with a profit-maker. By no means was Hurley sure that Studebaker-Packard could *stay* in the car business another two years!

A rumor abounds, without foundation, that the U.S. government hampered Studebaker-Packard's quest for support, especially by withholding fat defense contracts. Actually, it was the other way around: The government played an important role in the Curtiss-Wright negotiations. Defense Secretary Charles Wilson promised Hurley $200 million worth of defense business if the two corporations merged, or worked out a joint management agreement. As an ex-GM president, Wilson had nothing to gain by scuttling Studebaker-Packard, and everything to lose: conflict of interest charges, public fear of big conglomerates, a depression in South Bend, major unemployment in Detroit—all bad news in an election year.

As of late April, Roy Hurley was reported in Studebaker board minutes as "going back to Washington with some of his directors . . . it was obvious that he continued to have some interest in trying to work something out." The evidence is considerable that Hurley wanted Studebaker-Packard for far more than a tax write-off—as is generally believed. Instead, it appears that Hurley coveted the substantial new plant space he would acquire, as well as the possibility that something automotive might be saved after all.

By May 8, prospects looked favorable. Hurley's program called for a clear division of business: defense in Detroit under Curtiss-Wright, cars in South Bend under Studebaker-Packard. To obtain the Utica, Michigan, and Chippewa, Indiana, plants for defense business, Curtiss-Wright proposed a twelve-year lease of $25 million—payable immediately. (Curtiss-Wright ultimately bought Utica and Chippewa, but sold the latter back to Studebaker in late 1961.) It would further pay $10 million for the present defense inventories (mainly jet engine parts). This would give Studebaker-Packard a desperately needed injection of $35 million cash.

Curtiss-Wright also agreed to manage the corporation for three years at cost, in exchange for a two-year option on five million shares of unissued Studebaker-Packard common stock (then valued at about eight dollars per share). Since the eventual $150 million tax write-off credit amounted to thirteen dollars a share, Curtiss-Wright would actually pay five dollars per share for a forty-five percent interest in Studebaker-Packard.

One other condition was set down by Hurley: Studebaker-Packard must agree to distribute Daimler-Benz products via Studebaker-Packard dealerships. In return, Daimler-Benz would agree to buy one million shares of Studebaker-Packard common

stock at five dollars per share. Daimler-Benz, the board was told, could begin immediate shipments and have all the American dealers stocked by August 1. Hurley had long admired the products of the German firm, and had a close relationship with its officers. More importantly, he was laying a groundwork to keep dealers occupied and franchises active if the worst happened and Studebaker-Packard stopped building cars.

The May 8 offer was contingent on approval by the banks (which would loan $15 million and extend the maturity of another $30 million loan already outstanding), and the insurance companies that still held equity in Studebaker-Packard through past financing agreements. It was also subject to U.S. government agreement to provide the $200 million in defense business. The May 8 board meeting was adjourned while Forgan met with the banks and Curtiss-Wright. He returned late in the afternoon and reported that the banks had agreed. Nance submitted the resignations of several key executives, and promised to resign himself as soon as was practical, since the "Joint Program has no place in it for him," quoting the board minutes. (Nance did stay on for several weeks without salary in August, to help place many of his Detroit associates in other industry positions. As he told the writer, "I have very loyal alumni.")

Stockholder approval of the Curtiss-Wright deal came surprisingly easy. There was no quibble about Curtiss-Wright's option on Studebaker-Packard stock, nor about reducing the par value of same from ten dollars to one dollar. In November, stockholder Sol A. Dann, a Detroit attorney, did attempt to recoup his dissipated investment by demanding an audit of the company's records and possibly dissolving it completely, but the stockholders voted him down. Earlier, Dann had been denied a Federal court injunction to prevent Studebaker-Packard officers from voting their proxies.

In assessing the Nance period at Studebaker, one must bear in mind the monumental problems it presented, no matter who was president. Nance was beset on all sides—by labor used to being coddled, by two managements wary of each other, by out-of-date products, by demoralized dealers, by inefficient, high-overhead plants. He was also deprived of the hook-up he expected with American Motors. But above all, Nance management was thwarted by lack of the most essential commodity—money. By a sad coincidence, capital for business planning began getting scarce around the same time the fully competitive market returned to the auto industry. Postwar managers, *Business Week* commented, had been "conditioned to expect open arms in money markets. Now this has changed—and the change puts a premium on a manager's knowing well his source of capital." The one big lesson he learned from the experience, Nance told the writer, "was the reason I welcomed the opportunity to run a bank [at this writing he is president of the First Union in Cleveland]. You can't do anything without money! I just concluded that sooner or later everybody ends up at the bank . . . I only wish I'd had the banking experience earlier in my career."

With the Curtiss-Wright agreement, many old Studebaker managers departed. Paul Hoffman resigned as chairman, Harold Vance left to join the Atomic Energy Commission. Roy Hurley, the new board chairman, appointed Studebaker General Manager Harold Churchill as president and vowed to put Studebaker-Packard back into the black.

Harold Churchill was an ideal choice—steeped in experience, well-liked by the men around him, with a product creed opposite to the multi-model Nance policy: "You must compete in areas where you are prepared to compete." Churchill felt Studebaker-Packard was prepared to compete in the low-priced field, and in the small but promising sporty car market with the Hawks.

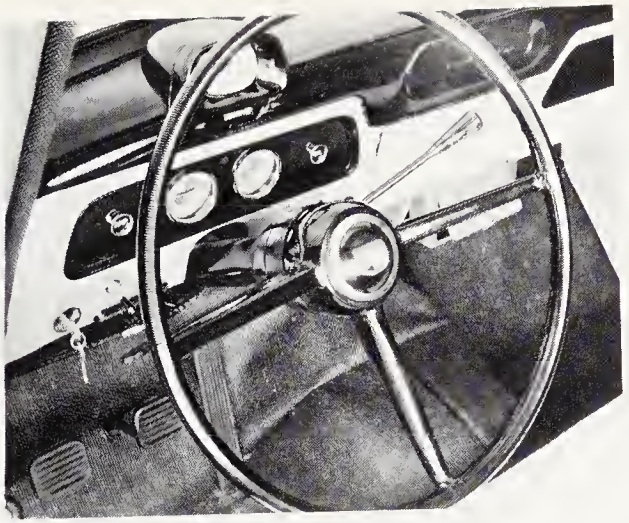
Strictly conjecture, by Studebaker-Packard styling in 1956.

"Unlike other auto chief executives," wrote *Time*, "Churchill does not compete as a supersalesman or financial whiz. He came up as an oldtime, dirty-fingernail mechanic, who still loves to tinker under an open hood." Churchill had joined Studebaker in 1926, after two years' engineering training at Western Michigan University. He soon became an 'all-rounder,' ready to take on any engineering assignment. He was among the three men who engineered the successful 1939 Champion; he produced the wartime Weasel just fifty days after Studebaker got the order. He engineered the postwar chassis that still supported Studebakers, and he was devoted to quality. 'Church' soon covered the South Bend plants with large signs: QUALITY CAN'T BE REPAIRED INTO A CAR. Though he considered the Mercedes-Benz connection "Roy Hurley's baby," Churchill frankly admired the quality of the German cars, and admitted Studebaker-Packard "couldn't build the kind of product Mercedes-Benz builds."

Churchill lived in a small, inexpensively furnished South Bend office, ate in the regular dining room, and spent what little spare time he had restoring his one-hundred-year-old farmhouse near South Bend. He raised sixty head of cattle, grew a lot of corn, and refinished furniture in his home workroom—which he called "the scabbiest workshop you've ever seen."

These sturdy midwestern virtues were surely needed as Churchill took command. First-half losses for 1956 had totalled $35 million in operations and $60 million in capital reserves—the cost of cleaning up the balance sheet for the Curtiss-Wright agreement. Corporate net worth had dropped to $23 million.

Hurley and Churchill budgeted for 157,000 unit sales (cars and trucks, domestic and export) in 1957, with 100,000 for the American market. New styling, possibly for spring 1957, was projected for both Studebaker and Packard, using the $35 million Curtiss-Wright had brought into the company. "It is hard to imagine Hurley betting that



Detrimmed Scotsman was 1957 bargain basement offering. Cyclops Eye speedometer was featured.

kind of money unless it looks like a sure thing," said *Fortune*. "Meanwhile, Hurley can be expected to diversify Studebaker-Packard. Negotiations are in progress for Studebaker-Packard produced Daimler-Benz diesel engines, Daimler-Benz trucks, busses, and the Jeep-like Unimog. And Roy Hurley has one other characteristic that should improve Studebaker-Packard's last chance for survival—toughness. If Studebaker-Packard doesn't turn in a good record and soon—well, in Hurley's words, 'a lotta people will just get fired.' "

The first policy change under Churchill management reflected his concern with competing only in selected markets, rather than across-the-board. For 1957, Studebaker-Packard planned to emphasize the sporty Hawk series and an economical line of Studebakers. Packards would be built in South Bend—a line of sedans and wagons using Studebaker President bodies, designed to keep the Packard name alive in the event of a large new Packard later. In Detroit, the Packard-Clipper plant on East Grand Boulevard, and the body plant on Conner Avenue, were both sold. Packard parts in Detroit were sent for warehousing to South Bend. The Conner Avenue plant was demolished in the sixties, while East Grand still stands, providing warehouse and factory facilities to several industries and the U.S. government.

In conformance with the agreement, the entire defense business was consolidated into a new Curtiss-Wright subsidiary, the Utica-Bend Corporation, using the Utica and Chippewa plants. Utica's auto engine business ended in August with final deliveries to AMC, which now had its own V-8. The Studebaker Los Angeles plant was declared surplus. The two field sales organizations, which had curiously remained independent, were consolidated under the new general sales manager, Carl Revelle. Weaker dealers were culled out, leaving 3,500 agencies—later this would drop still further. At least there was no model cleanup to worry about; Nance had refused to ship a 1956 car except on order, and there were only 300 '56 models in factory inventory by October.

None of the above prevented the company from having to settle for a facelifted 1957 Studebaker. The financial backing on which the all-new '57 was based had been delayed much too long to allow for tooling and production. But the ultimate program was an imaginative piece of strategy, and is worth describing here.

Nance management had wanted considerable body interchangeability from Studebaker right up to Packard—a familial resemblance for each make, but differences on the surface in keeping with its market sector. Four separate series were desired: Packard, Clipper, Studebaker and (Studebaker) Express Coupe. All shared the same inner panels; all but the Express Coupe shared the same roof. Clipper shared its rear fenders and front pan with Studebaker. The Express Coupe used Studebaker sedan panels from the cowl forward, but had its own foreshortened cab roof, and a pickup bed which also served as a basis for the Studebaker two-door station wagon. There were three wheelbases ranging from 118 inches (Studebakers and Express Coupe) to 125 inches (Clipper) and 130 inches (Packard).

The basic inner body shell would have cost $10 million to tool. Another $11 million was earmarked for the '57 Packard outer shell, with the resultant car to debut in December 1956. The 1957 Clipper and Studebaker set for October 1956 introduction would have been based on 1956 tooling and facelifted—but in the spring they would be replaced by 1958 models using the shared body. Anticipated costs were $13 million for the '58 Studebaker and $3 million for the Clipper.

Styling for the oft-postponed Studebaker was handled by Duncan McRae, initially under Studebaker-Packard styling chief Bill Schmidt. But later Schmidt left to form his own design studio and McRae worked on his own. McRae brought considerable skills to Studebaker. He had participated significantly in the design of the landmark 1951 Kaiser. Later, with Ford, he would figure in the creation of the English Cortina Mark II and Consul Classic Capri, the German Taunus 23M, and models for 1973 and beyond from Ford of Australia. McRae has since retired to his sheep ranch in Australia, but provided the writer with much information about his days at South Bend.

McRae's styling for the all-new model was good—clean, individual, glittery enough to fit the marketing needs of the late fifties. Featured were a kicked-up, concave-finned rear deck; a smooth fuselage; and a forward-raked, full-width egg-crate grille. This combined nicely with the roof, inspired by the Packard Predictor showcar with its reverse-slanted rear window and extractor air vents in the rear header. (Bill Schmidt, sent to the Paris Automobile Show in October 1955, commented that extractor vents were appearing on the new Mercedes-Benz and Citroën DS-19.)

"But it was finally realized that there just wasn't going to be enough money to do these new cars," McRae recalled. "The company at that point started to disintegrate again. That left me with a whole bag of nothing. We didn't have any money, we were way behind for coming out with anything new, because we'd been planning on our new car that suddenly wasn't going to be produced. We did a facelift for the basic Studebaker that I'm not particularly pleased with."

It *wasn't* easy for a stylist to be pleased with McRae's assignment. But he did manage to impart some of the flavor of the all-new car in the 1957 facelift. The front end gained a full-width grille, extending downward at center to a dropped front bumper. The object, McRae says, was Churchill's desire to forsake the old Loewy ideas of a European look, in exchange for the massive approach. The rear end was without fins, but gained large chrome taillight housings containing turn, tail and back-up signals, pointed like arrowheads toward the front. The sides were clean. A single bright molding on cheaper models provided a two-tone division. On Presidents, two-toning was carried in a rear fender section, pointed forward like the taillight housings.

While the Hawks—rationalized into a hardtop Golden Hawk and Silver Hawk coupe—moved still further toward European styling, the sedans were becoming American. We refer here of course to domestic Hawks. Export markets often received Hawks in which body styles, names and engines were switched around: a Flight Hawk hardtop in 1956; 259 cid V-8 Silver Hawk hardtop and coupe in 1957-58, Hawk sixes in 1960 and 1961—L-head and overhead valve engines, respectively—Gran Turismo Hawk sixes in 1962-64. Some 1960-64 export Hawks were also V-8's.

The 1957 model lineup offered one of two new advances: Four-door station wagons were finally available, and the Scotsman series helped cut the price of the cheapest Studebaker some seventy-five dollars under 1956 prices.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 57G Six			
Scotsman sedan (6)	$1,826	116½	2,725
Scotsman club sedan (6)	1,776	116½	2,680
Scotsman 2dr wagon (6)	1,995	116½	2,875
Champion Custom sedan (6)	2,049	116½	2,785
Champ. Custom club sedan (6)	2,001	116½	2,755
Champion DeLuxe sedan (6)	2,171	116½	2,810
Champ. DeLuxe club sedan (6)	2,123	116½	2,780
Pelham 2dr wagon (6)	2,382	116½	3,015
Silver Hawk coupe (5)	2,142	120½	2,790
Series 57B V-8 (259.2 cid)			
Commander Custom sedan (6)	2,173	116½	3,105
Comm. Custom club sedan (6)	2,124	116½	3,075
Commander DeLuxe sedan (6)	2,295	116½	3,140
Comm. DeLuxe club sedan (6)	2,246	116½	3,100
Provincial 4dr wagon (6)	2,561	116½	3,355
Parkview 2dr wagon (6)	2,505	116½	3,310
Series 57H V-8 (289 cid)			
President Classic sedan (6)	2,539	120½	3,270
President sedan (6)	2,407	116½	3,205
President club sedan (6)	2,358	116½	3,170
Broadmoor 4dr wagon (6)	2,666	116½	3,415
Silver Hawk coupe (5)	2,263	120½	3,185
Golden Hawk hardtop (5)	3,182	120½	3,185
Golden Hawk 400 hardtop (5)	3,500*	120½	3,400

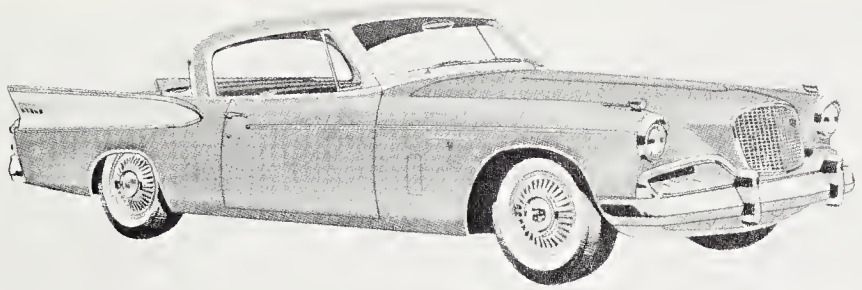
* estimated

The Scotsman, which didn't appear until May 1957, was a composite idea of Hurley and Churchill. Eyeing the increasing sales penetration of austerity Europeans like VW, Austin and Renault, they reasoned that a full-sized but stripped American sedan might discover a new market sector. The Scotsman was *very* basic, although heater and turn signals were included in its price. Only three body styles were offered. The price was only about $100 less than Ford and Chevrolet, whose Custom and One-Fifty were better looking, better finished cars—though hardly luxurious. At one point, in fact, Ford's two-door six sold for only $1,783, which was altogether too close to the Scotsman two-door. But the Scotsman sold! Instead of the predicted 4,000, Studebaker-Packard moved about 10.000 of them, and dealer profits increased sixty-six percent after their introduction. This small success, Churchill decided, indicated a market for an ultra-economical Studebaker—but perhaps one slightly better trimmed. He immediately announced his intent to produce "a small economy car of a new design" for 1959 introduction.

The six-cylinder Champions, V-8 Commanders and Presidents provided better standards of upholstery and finish. The Cyclops Eye speedometer was continued, while lesser gauges overlapped red-on-green or green-on-red depending on the condition of fuel, oil, generator and coolant. The dashboard was very clean for the time.

The President Classic sedan was the only Studebaker except for Hawks mounted on the long, ex-Land Cruiser wheelbase. Presidents also had a horsepower increase through higher compression—225 hp with four-barrel carb or 210 with standard two-barrel. The 259 cid Commander V-8 developed 180 hp standard and 195 with four-barrel. The Champion six remained the same aged L-head, at 101 hp, and was strictly for economy—and its economy was very good, in the range of twenty-five to twenty-nine miles per gallon.

Studebaker's engineers continued to contribute to the product picture for 1957. New this year were variable-rate front coil springs and optional Twin Traction (limited-slip) differential. Both developments were significant. Twin Traction, allowing drive to one rear wheel when the other lost traction, provided up to eighty percent of engine power to the wheel with the best traction. With the new springs, the front coil



Studebaker Golden Hawk with built-in supercharger

You project your own future...

with a "Balanced Volume" Franchise

• Your future is as big and bright as you want to make it, with a Studebaker-Packard "*Balanced Volume*" *Franchise*. Because with Studebaker-Packard, you're the man who runs the show. You control your own business . . . all of it! That's the way it should be . . . the way it is with Studebaker-Packard. You do the business you and your facilities are capable of handling. As opportunities for growth, increased sales and greater profits present themselves, you're ready to meet them soundly, realistically.

If you're interested in becoming part of a strong team, sparked by sound management and progressive policies—in a full line of cars and trucks that will let you control your own business . . . and bring substantial profits, too, call or write Dealer Development, Dept. N, Studebaker-Packard Corporation, South Bend 27, Indiana.

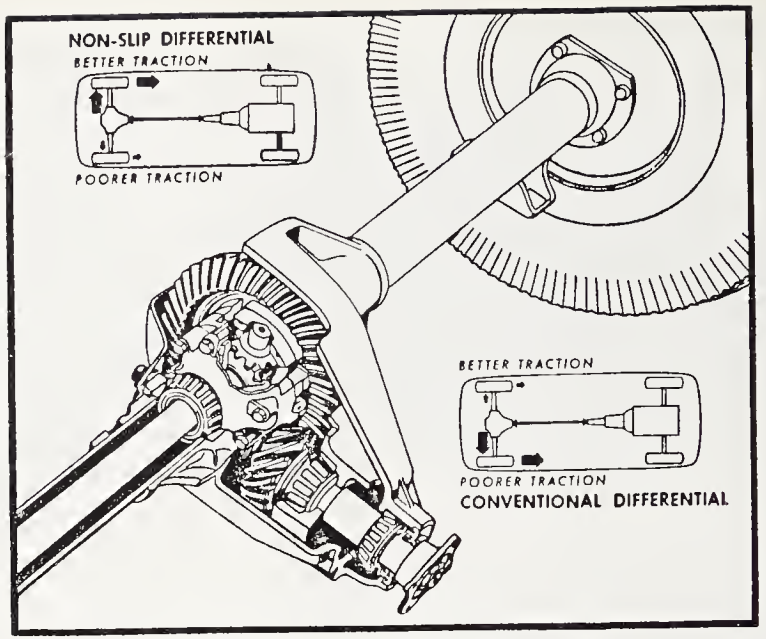
Studebaker-Packard
CORPORATION

Where pride of Workmanship comes first!

Packard Clipper Town Sedan

Studebaker Broadmoor Station Wagon

Ad for dealers featuring the 1957 Golden Hawk.

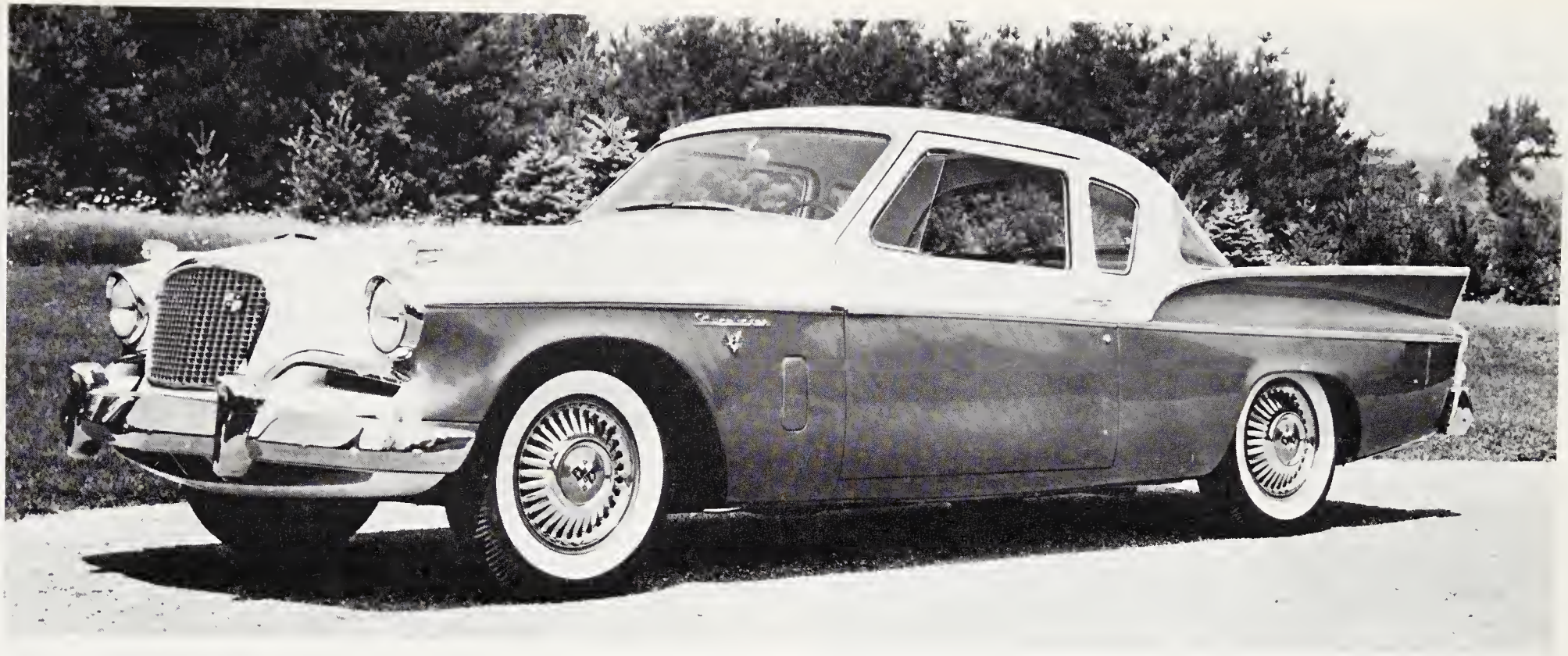


Twin-Traction differential allowed up to eighty percent of engine power to reach wheel with best traction.

compressed at an equal rate, coil by coil, helping to equalize spring action under all load and surface conditions. Presidents and Golden Hawks also featured finned brake drums, which were important in eliminating fade. One idea, unfortunately not adopted, was rack and pinion steering—the Monroe Corporation had experimented with it on a 1956 Studebaker, but costs were prohibitive.

Probably the most publicized new engineering feature was the McCulloch centrifugal supercharger—on the dashing new Golden Hawk. The blower, which had recently been used on the 1955 Kaiser Manhattan, was designed in 1951 by Robert McCulloch, who had built both Roots-type and centrifugal superchargers since the 1930's. It represented about $700,000 in research and development. Its drive came from a belt off the crankshaft pulley, through a planetary ball mechanism, which increased impeller speed 4.4 times over belt speed. The impeller was activated by a solenoid built into the accelerator linkage and its speed was variable—controlled by the position of the pedal. At a medium cruise, the blower freewheeled, delivering only about 1½ psi boost. Depressing the accelerator increased the boost to 5.0 psi. Although impeller speed did not exceed 30,000 rpm, McCulloch claimed 60,000 was obtainable with no damage. The supercharger had its own built-in oil reservoir (using automatic transmission fluid) and an independent pressure lubrication which did not require service. On the 289 V-8, the blower boosted horsepower from 225 to 275.

Duncan McRae's stylists tried to keep pace with Chrysler by adding tall, steel, concave fins to the 1957 Golden and Silver Hawks. They also cleaned up the bright metal considerably, without altering the classic-type radiator, ribbed rear deck and purposeful instrument panel. Instead of the shape-concealing two-tone paint jobs of 1956, McRae restricted Golden Hawk second colors to the fins, leaving the roof the same color as the rest of the body. The Silver Hawk featured a fender-to-fender bright



1957 Silver Hawk.

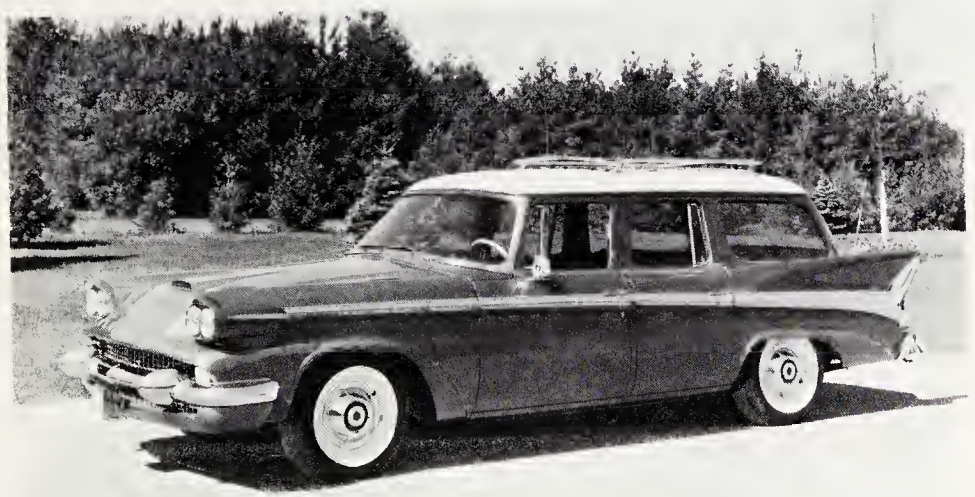
strip, bisecting the two-tone combinations. Both cars were luxuriously done in pleated and smooth vinyl. Silver Hawks used bench seats, covered in cloth and vinyl or all vinyl. Offered with the unsupercharged 289 V-8 (210 or 225 hp) or L-head six, the Silver Hawk was billed as "The Sports Car Your Budget Won't Believe"—and could be had for as little as $2,142 f.o.b. South Bend.

One other Hawk variation, little-known and extremely rare, was the ultra-luxurious Golden Hawk 400, introduced in April 1957. The designation was derived from Packard, which had used it since 1951 to define some of its higher-priced models. Originally the term referred to the social 'four hundred,' the most prominent families in America. In 1957, with the Packard Four Hundred no more, this was the finest car Studebaker offered. The most significant feature of the Golden Hawk 400 was its interior—done in full leather, identical to the 1958 Packard Hawk except that the latter had vinyl exterior doorsills. It also came with a fully lined trunk and flared armrests like those on 1956 Hawks. When two-toned (which was usual), the forward air intake openings flanking the grille were painted the same color as the rear concave fins. The interior was available only in white or tan, and nonwearing surfaces like door panels, sun visors, headliner and instrument panel were done in vinyl.

The 400, said General Sales Manager Sydney A. Skillman, gave dealers "a distinctive, ultra-luxury car that will appeal to an important new segment of the car buying public . . . [The car] was being built in limited numbers expressly for those discriminating buyers who demand and can afford the finest." Studebaker dealers were furnished a promotion kit containing four-color postcards (now collectors' items), a newspaper release, radio scripts and newspaper ad mats. But the Golden Hawk 400 actually received little attention from the press, and if production exceeded the number in its name, it would be surprising. No exact figures are, however, available.

A year of no surprises in the sedan and wagon field left most Studebaker road-testers interested in the Golden Hawk. Most comments were favorable. With the '56 Golden Hawk out of the picture, editors considered it safe now to admit its handling problems. One said it had "the weight distribution of a blackjack." Said *Hot Rod*, the 1957 Golden Hawk "is as far removed from its '56 namesake as it is from a Sherman tank. The '57 model is so much superior in all respects to the '56 car that the two are simply not comparable, even though they both share the same basic body and frame structures."

While the '56 Golden Hawk had close to sixty percent of its weight over the front wheels, the '57 worked out to only 56.8 percent. Though still considerable, this was much less than the '56 and provided the '57 with better roadability. The Golden Hawk was still softly sprung, to allow for a soft ride—but the variable-rate front coils tightened things up considerably at really high speeds.



Attempts to keep a marque alive: the 1957 Packard Clipper town sedan (top) and 1958 Packard station wagon (bottom).

There were some curious aspects to Golden Hawk roadability that bear mentioning, small as they are. As one might expect from its weight bias, the car did exhibit understeer—the tendency to keep going straight when rounding a corner. But at 65 mph, steering correction was required to prevent it from turning more *sharply*! This was precisely opposite what one expects from an understeering car—a sort of loaded shotgun ready to surprise the experienced driver. Of course, most Golden Hawks were rarely driven at European gran turismo speeds for any length of time. But for those that were, it was a bizarre condition.

Further up the scale at 70 mph, *Hot Rod* also noticed the understeer changed to oversteer—the rear end breaking loose and starting to come around toward the front. "Undoubtedly, the cause for this is that the inside rear spring extends more than the outside spring compresses," said *Hot Rod*, "thereby shortening the horizontal distance between the forward spring and the center of the inside wheel . . . And generally speaking, the higher the roll angle at the rear of the car, the more pronounced this tendency becomes." Rear-wheel-steer was present, the editors explained, in all cars with semi-elliptic rear springs. But the Hawk was the first one they tested in which it caused "serious concern about our test car becoming a permanent part of the landscape."

Incredibly, this complaint wasn't really all it appeared to be. Driving hard through the same turn at 75 mph, the editors made no steering correction when the rear end began to drift: "It drifted a foot—and stopped! No amount of maneuvering would dislodge it as long as the throttle was down." The average driver in that position, however, might well be expected to let up on the throttle—which would guarantee a spin-out. Evidently the '57's handling, while improved over 1956, was not all it should have been.

Hot Rod concluded that with familiarization and the proper corrections, the '57 Golden Hawk "can cut a pretty fancy corner without any of the front end 'wash out' displayed by the '56." But it did take a degree of learning. An important factor in roadability was tire pressures. *Sports Cars Illustrated* took them up to 32/30 psi front/rear (24/20 were recommended for normal driving) and got far better handling, at the expense of ride.

Everyone was impressed with Golden Hawk performance. Here are comparisons between *Hot Rod*'s automatic version and *Sports Cars Illustrated*'s manual with overdrive:

	Hot Rod	***Sports Cars Illustrated***
0-60 mph	8.8 sec	9.3 sec
0-80 mph	16.0 sec	15.5 sec
¼ mile-time	16.7 sec	17.3 sec
-speed	82.3 mph	86.0 mph
top speed	122.7 mph	120.0 mph
mpg average	15.0 mpg	15.3 mpg

These figures leave several big questions, because on paper the *Sports Cars Illustrated* car should have been faster. Its three-speed manual with overdrive was hooked to a stump-pulling 4.27:1 rear axle ratio, while *Hot Rod's* car had Flight-O-Matic and a 3.54:1 rear axle ratio. Possibly the clumsiness of the three-speed column stick (Studebaker didn't want, or couldn't afford, to offer a floorshift) accounted for some of the *Sports Cars Illustrated* car's lassitude.

Sports Cars Illustrated did praise the new Twin Traction differential, an inexpensive option they strongly recommended. They said, "It works like a charm, selecting the side which is most in need of traction. It held us in the corners, lessened wheel spin on bumps, gave us excellent tracking qualities, and insured high speed stability. For the small cost it doesn't pay to be without it."

Sports Cars Illustrated's test Golden Hawk also had heavy-duty springs and Hill-Holder, both of which were greeted enthusiastically. Their car must have ridden as hard as a sled with those springs and high tire pressures. They admitted the Golden Hawk was not a sports car in the true sense of the word, but "in our steadily-rising American frame of reference it's a capable Gran Turismo machine." They also felt the quality of construction was vastly improved: "Its former reputation for loose construction and ill-fitting appointments is a long way behind it. [It] has a meticulously hand-finished look . . . a concentrated effort was made on quality rather than on quantity. Volume was cut, and the savings of this measure were put into careful construction of each individual vehicle. The result is gratifying—with every car a complete package, and no loose ends anywhere."

Actually there were more 1957 Golden Hawks (4,356) than 1956's (4,071). And at 15,318, the 1957 Silver Hawk probably equalled the 1956 volume of Flight-Power Sky Hawks. But even if Hawk production was up, overall production was down again.

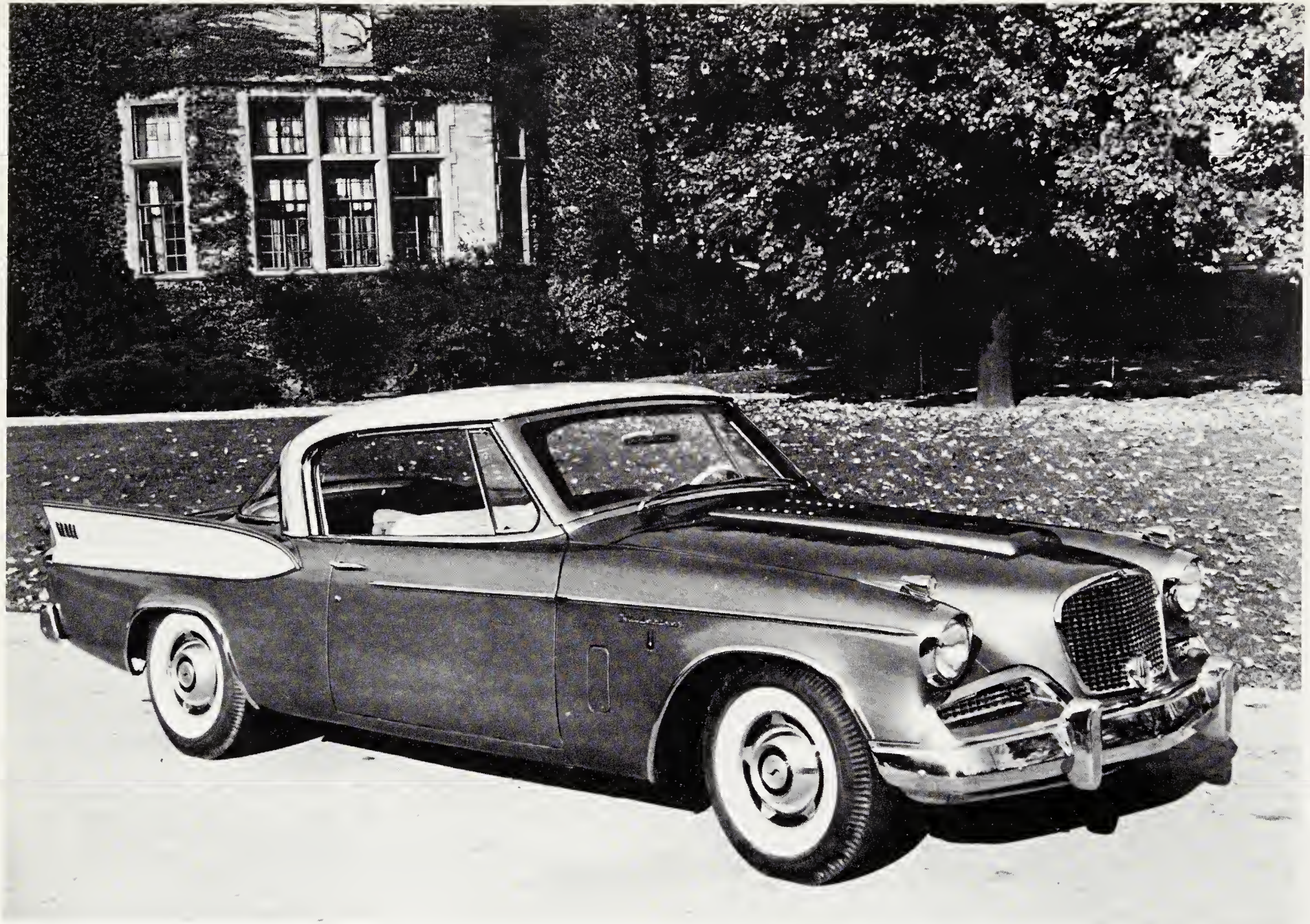
Harold Churchill tried hard to decrease costs. Determined to bring break-even volume down, he cut back on employment and salaries. By September the work force was down to 10,000, against a postwar high of 32,000 for Studebaker and Packard combined. The executive payroll dropped from $1.25 million to $350,000. Churchill even cut his own $64,000 salary—small by Detroit standards—down to $60,000. A thoroughgoing matériel drive included using pencils down to the nub and limiting long-distance phone calls. The company took on some stamping work it had formerly farmed out, saving $3.5 million. In mid-1957, though Studebaker-Packard had recorded a loss of $6 million-plus for the first half, Roy Hurley predicted it would "make money or break even" for the year.

The dealership total had now thinned out to 2,500, which was probably the strongest 2,500 available. "If we can sell just one more car a month for each dealer," said one company executive, "we'll be over the break-even point." As a result of Churchill's economies, that point had shrunk from the horrendous quarter million of 1955 to 100,000 units—and Studebaker-Packard hoped to cut it to 80,000.

Either way, though, it wasn't enough. Calendar year 1957 production (including the handful of 1957 and 1958 'Packardbakers') was only 72,889—10,000 down from 1956. The company continued to lose money in the last half—though at a reduced rate—and ended up with an $11,135,108 deficit. Studebaker-Packard as a whole continued to rank thirteenth in production, behind AMC and DeSoto, with a bare one-percent share. In a year when total industry output rose 5.2 percent, Studebaker-Packard production had dropped about twenty-four percent (counting Packard) from the year before. Dollar volume was down thirty percent to $213.2 million. By the announcement of these depressing figures in the spring of 1958, South Bend was on the list of areas of substantial unemployment: the work force was down to less than 5,000.

Churchill could not yet count on Roy Hurley to exercise Curtiss-Wright's purchase options. Studebaker-Packard, Hurley soon confirmed, would have to make money if Curtiss-Wright was to come in on a full merger basis. Wall Street, *Forbes* commented, was now ready to give Churchill a tip of the hat but pronounce his company dead: "Many a Canyon pundit was visibly impressed that [he] had managed to fare as well as he had . . . but they generally agreed that, up against the hot competition of the Big Three automakers, Churchill's job had been hopeless from the start."

On a paltry budget, Studebaker-Packard managed nice line-art advertising for the 1958 models.



1958 Golden Hawk, with side grille mesh and round medallion to distinguish it from 1957.

Roy Hurley, who wouldn't merge but wouldn't stand for continued losses either, now tried to diversify quickly. "Hurley became very active in top management decisions," says one former insider to the Studebaker-Packard executive council. Among other things he attempted to get Churchill to purchase profitable diversified businesses to benefit from the tax carry-forward advantages of Studebaker-Packard's losses. The Graveley Tractor Company was taken over as a result of this.

"Mr. Hurley had seen a Ferrari and a Mercedes during one of his European trips and insisted that a special Hawk be designed to imitate them. The result was what we smilingly called the 'Hurley Hawk,' but what was officially the 1958 Packard Hawk—a perfect example of the wrong idea, overpriced, uncompetitive, overdecorated. Together with the other 1958 Packards it proved a sad end to the marque which expired in mid-year in Studebaker clothing."

Hurley's rationale for the 1958 Packards has never been published, but there was one. He knew the company could still not afford an all-new big Packard, but as late as July 1957 he was still hoping one would eventually be built. Packard, Hurley wrote Churchill at that time, must be continued in the interim: "If you are cautious and come up with a more conventional style I am quite sure it will be labeled a Studebaker and will fail, and I doubt that Packard can stand another year of that atmosphere . . . You must avoid any action that would cause the public to feel that Studebaker-Packard is going to dry up and that you will be an importer of foreign cars. The new Packard is the best answer to this kind of skepticism."

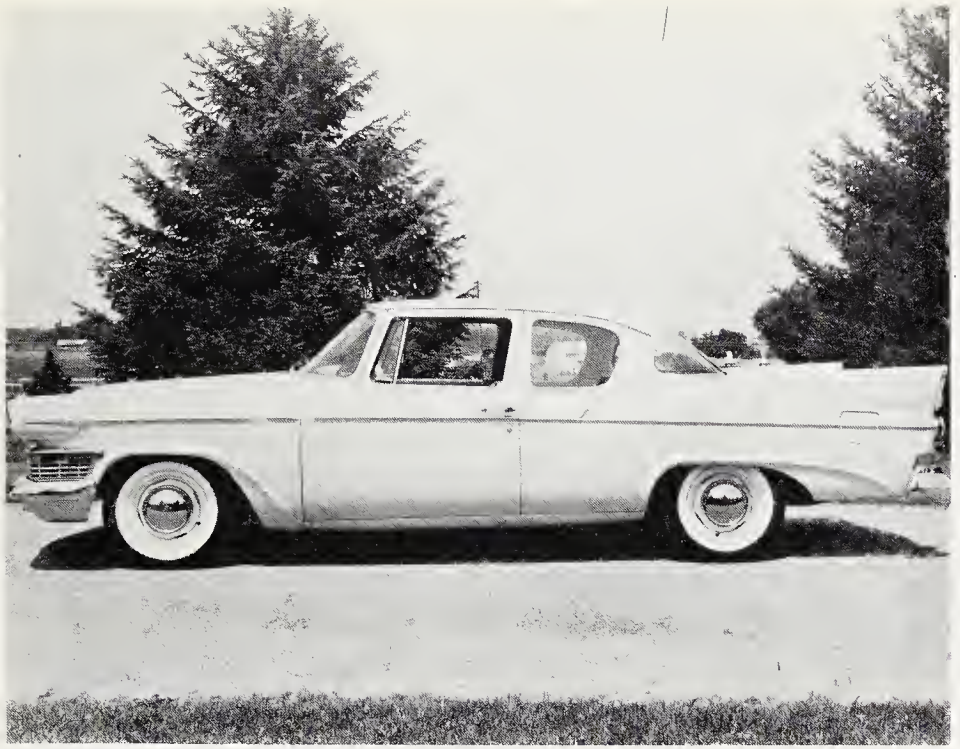
Evidently the new Packards were labeled Studebakers anyway, didn't sell and were abandoned. But Packards were not Churchill's concern—economy cars were. The Scotsman had pointed the way, and a new Studebaker small car was under development. Church was a car man—he disliked the idea of diversifying. If South Bend couldn't build cars, what could it build? In October 1957, Churchill bravely introduced the 1958 Studebakers—stopgaps to hold the fort before his upcoming compact. The '58's were advertised as products of the company "Where pride of workmanship comes first."

1958 Silver Hawk followed Golden Hawk's styling revisions.

Model Body style (passengers)	Price	W.B.(in.)	Wt.(lbs.)
Series 58G Six			
Scotsman sedan (6)	$1,874	116½	2,740
Scotsman 2dr sedan (6)	1,795	116½	2,695
Scotsman 2dr wagon (6)	2,055	116½	2,870
Champion sedan (6)	2,253	116½	2,835
Champion 2dr sedan (6)	2,189	116½	2,795
Silver Hawk coupe (6)	2,219	120½	2,810
Series 58B V-8 (259.2 cid)			
Commander sedan (6)	2,378	116½	3,185
Commander Starlight hardtop (6)	2,493	116½	3,270
Provincial 4dr wagon (6)	2,644	116½	3,420
Series 58H V-8 (289 cid)			
President sedan (6)	2,639	120½	3,365
President Starlight hardtop (6)	2,695	116½	3,355
Silver Hawk coupe (6)	2,352	120½	3,210
Golden Hawk hardtop (6)	3,282	120½	3,470

Poor Duncan McRae was the man charged with trying to make the '58's look different. It was a time, Duncan told the writer one night years later, of "dog days in South Bend. The financial position left us without a [new] Studebaker sedan line for 1958. It was felt that somehow we must come up with a vehicle with twin headlights since that was the industry trend. Since there was no money for fenders we came up with a pod design that, looking back, seems ridiculous. But in the short period of time available, it seemed to give us something new looking. The rear fins were also tacked on the old quarter panels. We only hoped to survive until our new small car could be introduced." (Pod lights were not used on the Scotsman.)

The 1958 line was promoted at minimal expense in the media (though some lovely line art was done for the inexpensive black and white display ad campaign), and restricted to one-page broadsides for dealer use. Models were greatly rationalized; the wide series of two- and four-door station wagons was reduced to one two-door Scotsman and a four-door Provincial powered by the Commander V-8. Champion sedans came in only one trim series; the shorter-wheelbase President four-door and club sedan were eliminated. One new body style was added: the Starlight hardtop—the first pillarless Studebaker not based on a Raymond Loewy design. "This was a fairly nice



1958 Champion grafted on fins, used headlight pads to hold dual (standard) or quad lights.

workout," McRae comments, "bearing a roof and backlight astonishingly similar to the concurrent DeSoto. There's no truth to the rumor that we borrowed the DeSoto for templates—sizes are different—but it did have an impact on our thinking."

At a time of great financial trauma, the Starlight was the only indication of lavishness in the Studebaker-Packard budget. It came in Commander or President guise and was priced comparably to Big Three hardtops. Less than 4,000 were built, with about 3,000 going to the domestic market. This "Scintillating Studebaker" was evidently not scintillating enough to tempt many buyers.

For 1958, dual headlights were standard on Commanders and Presidents. Hoods of all sedans and hardtops were smooth, carrying block letter identification only, with the grilles (same as 1957, with less vertical spears) bearing a 'V' medallion to indicate V-8 models. Fourteen-inch wheels were standard on Commanders, Presidents and V-8 wagons. The smaller wheels, with revised floor-roof stampings, made the sedans two inches lower. Inside the sedans, the Cyclops Eye speedometer was retained, but incorporated within the main instrument panel—and thus less readable at a glance. The Scotsman, which had been bought in some quantity in rural areas, continued to use fifteen-inch wheels, and the Champion could be had with fourteen-inchers only as an option. The new stampings did not cut down on headroom, because a one-piece drive had been adopted, permitting a lower transmission tunnel. The gearbox on manual cars had an extended shaft, and only two U-joints were employed—something uncommon to Studebakers for many years past.

Mechanically, little change was registered in the engine line-up, except for the raising of compression ratios one point. Once again, the supercharger was confined only to the Golden Hawk. Presidents came standard with four-barrel carb, and continued with finned brake drums. Handling was improved: A new, stronger, front antisway bar between the lower control arms prevented nosedive and aided cornering. Front-end geometry and steering were not altered, but the variable-rate front coil springs were given new rates and shock absorber values were altered. There was also a change on the rear suspension, with asymmetrical leaf springs fitted, lengthened toward the rear. The advantages gained were an elimination of the curious handling characteristics of 1957—less tendency to oversteer under hard cornering. According to *Motor Trend,* the 1958's "rode better and cornered better" than the 1957's.

The Scotsman and the Golden and Silver Hawks for 1958 were the least changed of all models. Said Chief Research Engineer Mike De Blumenthal, "Why change drastically when Hawk acceptance has proven we're on the right track for those who want a jaunty sports-like family car?" A good point, for Hawk sales had remained bright in 1957, and there was little reason to alter that one-year-old facelift. Hawks were down an inch in height, however, due to the use of fourteen-inch wheels. Instant recognition of a '58 was provided by a circular badge in the main grille, bearing the upright-winged Studebaker-Packard eagle; continuation of main grille latticework into the side openings; and tiny fins for the parking lights.

Inside, the Hawk rear seat was modified through omission of the collapsible center armrest, allowing three (small) people to squeeze into the back seat. The Golden Hawk 400 with its leather interior was no longer offered, but a wide range of durable fabrics, with metallic thread and textured vinyls, were available. Foam rubber was used over the seat springs in all '58 Studebakers—and it is notable that those springs were coils, not mesh-type.

Nineteen fifty-eight was a declining year for the auto industry, as people shunned middle-range offerings like Ford's new Edsel and turned in increasing numbers to economical imported invaders like the Volkswagen and Renault Dauphine. The Big Three pressed compact car programs into their advance plans, and GM tried to meet the new public taste by importing Opels from Germany. To this extent Studebaker was unharmed; by happenstance if not by plan, Studebaker-Packard had divested itself of the middle-priced Clipper. Had that car been built, it would have almost certainly caused a far greater loss to the corporation. Even so, sales continued to drop, and calendar-year production was only 56,869—a postwar low. Studebaker-Packard lost another $13 million, and the fact that it had passed both Chrysler and DeSoto for eleventh place in production was no consolation.

Once again, the bankers and investors shook their heads and pronounced Studebaker-Packard a candidate for the automotive graveyard. But Harold Churchill had other notions. In the fall of 1958, he introduced his game plan for Studebaker's survival—a car he had ordered designed after the spurt in sales caused by the economy Scotsman. The new car was an instant hit, and Church was a South Bend hero. By mid-1959, he was promising great things for the future. *Time* magazine's profile caught a little of his spirit, calling Churchill a "Man on a Lark."

1958 President four-door sedan. Considering the budget they had, the '58 President was not a bad-looking facelift, but it failed to sell.

CHAPTER 7

Church Has a Better Idea

THE REASON STUDEBAKER would never die, many South Bend loyalists reiterated, was because it always had a way of saving itself. In 1939 there had been the Champion—the economy car wonder, arriving just in time to pull the company out of the late thirties recession. After the war, Studebaker had recovered its position as the leading independent on the shoulders of Loewy Associates and their dynamic, different-looking designs. In 1954, with business off again, Studebaker had joined with Packard and kept going, although that cash injection proved only temporary salvation. Studebaker was ready with another miracle in 1959—the Lark.

There is no doubt at all that if the Lark hadn't arrived when it did, the Studebaker-Packard Corporation would have soon left the auto business for good. As of June 30, 1958, the balance sheet showed cash and marketable securities of $26.9 million, against accounts payable of $24.2 million and a 3½-year combined loss of $97.4 million. Payments on loans from twenty banks and three insurance companies couldn't be met. The stockholders' equity was nil. As executive vice president and financial head A. J. Porta put it a year later, "we were flat busted."

The Lark changed all that. Brilliantly timed, as carefully laid as a product plan from Ford or General Motors, it was produced in record time, smack on estimated target dates. It sold like nickel hamburgers. It was the most successful single-model Studebaker since the 1951 Commander. On sales of $387 million (the best for Studebaker alone since 1953), the company earned over $28 million. Employment increased over sixty percent to 12,000 by mid-1959. Production kept building as model year 1960 arrived, and total production for the twelve months of 1959 exceeded 150,000. Studebaker shot past Cadillac into tenth place in the industry, a position it hadn't held since 1953.

As management saw it, the Lark decision was only common sense. "It was obvious that most of the rest of the industry was going for bigger, wider, faster, more powerful cars," Otto Klausmeyer told *Special-Interest Autos* magazine in 1977. "By that time, Studebaker was in a position where it couldn't spend any money to develop big cars or for any kind of major redesign program. There was only one route to take, and anybody with an ounce of brains would have taken it."

Churchill himself added: "What strength we had was in offering something a bit different than the main market was offering. After all, that's true of American Motors today. I think our product-planning people had information about the competitive compacts, but we took a chance because we thought we could move quicker than they did."

Yet the Lark—the car under the skin, anyway—was not new. The engines were the same ones Studebaker had been offering since 1951. The transmissions were the same as those sold since 1955. The body shell dated back to 1953. There had even been a point in the design process when engineers considered using the sedan body of the 1947-52 generation—but that was discarded because the beltline would have been too high.

That old car-lover, Harold Churchill, had ordered the Lark program in mid-1957, when the Studebaker Scotsman scored its modest but encouraging sales success. "The Scotsman was a drab price leader," Churchill recalled. "When you trimmed all the appointments down, you still hadn't changed the concept of the basic car. [But it] showed a full-sized competitive direction for us . . ." At product planning meetings in the summer and autumn of 1957, Churchill dragged out old films of the 1939 Champion, to help inspire his engineers and designers. Ideas began to be put on paper, and by early 1958 Duncan McRae and his team—including Bob Doehler, Ted Pietsch, Virgil Exner, Jr., Bert Holmes, Byron Brown, Bob McNerney, Bill Bonner and Ray Everts—were working on full-size clay models.

The body engineering was tackled by Chief Engineer Gene Hardig. "Without him and his many talents the Lark would not have been possible," McRae told the writer. "I

Church's better idea: the salable Lark. 1960 models shown.

Larks on the line at an invigorated South Bend, 1959.

believe that Gene and his people took less than nine months from clay approval to introduction—timing unheard of in those days. A comparable program today would take about twenty-two months."

By September 1957 Hardig had produced a cobbled-up body to indicate the avenues that were open for the "smaller, full-sized car" Churchill needed. Hardig's mockup was mainly intended to illustrate dimensions— and those dimensions were remarkable. "Big on the inside, small on the outside," has only lately entered the Detroit lexicon, as downsizing becomes a way of life in the fuel-short seventies. But Studebaker engineered such a vehicle *twenty years ago*—and the 1959 Lark still compares favorably in space utilization with today's intermediates and compacts.

Its basis was a 1958 sedan, "sawed off at both ends," as McRae puts it, "just a seating buck really, to show how much room there'd be for passengers and to illustrate minimum overall length . . . The short overhang resulted from using the Champion as the center section. We wanted a small car, so a lot had to be taken off ahead of the front wheels." Adds designer Bob Doehler, who was responsible for one of the later full-size clays, "Hardig's prototype constituted the basic direction, and it defined the body package through the cowl and doors. We had only to design new fenders—and the front and rear ends."

The designers had hoped for an all-new car from the ground up—as they always do. The finances for that weren't available, but what they did get was almost as good. "We were allowed to flatten the 1953-style Champion roof," says Duncan McRae (actually the roof had been flattened already—with the 1958 models). "And it was the first time in my three years with the company that we were given new fenders, hood and grille, deck lid, rear quarters, lower deck panel, new bumpers and instrument panel [sans Cyclops speedometer] to work with . . . We developed two full-sized clay models; Bill Bonner was in charge of one and Bob Doehler the other. When they were completed, I was pleased that the product-planning committee selected the model Bill Bonner had created."

Lest we oversimplify, it should be remembered that the Lark was a composite vehicle by McRae's team, though its basic shape was Bonner's. According to Virgil Exner, Jr.—who brought an old design name back to South Bend for the first time in nearly a decade—"Bonner pretty much did the entire front end—which was the most important part . . . All I did on the Lark was a little bit on the rear quarter and taillight area." The Lark's square grille was probably McRae's idea, though it did not, as is oft-assumed, stem from the Mercedes-Benz line Studebaker dealers were selling. "Actually it was more of a Lancia approach," said McRae. "Bob Bourke had designed the early Hawk, and we wanted to get the feel of that type of front end without copying it." The grille came off rather well, though the designers did have reservations about the front overhang. It looked, Bob Doehler says, "like one of those cross-country trucks, with no meat ahead of the wheels. The Lark was skimpy in that respect."

In March 1958—with just seven months to go before introduction time—the styling clay model was approved by management. Now Gene Hardig's department took over for production engineering. To eliminate costly and time-consuming tooling, they fastened onto whatever extant pieces they could. The Lark windshield stemmed back to the Ultra Vista 1955½ models, its central glovebox to '56, its steering wheel to '57. Doors for the hardtop were pirated from 1958. Said Churchill, "We put a lot of tooling into one die shop and had absolutely no problems as far as tryouts were concerned . . . when the dies came into the plant, everything went together as it should—not like the '53's, where there were a lot of problems. We didn't use anywhere near the launching reserve that we'd provided for the Lark. When you start a new model, you always make a provision for down time . . . as a result of something new going down the line. It went together well, I think, because of damn good planning . . . Nothing magic about it, just sound business practice. Budd supplied the big sheet-metal dies on time, and we easily met the target date for production."

Despite latter-day accusations by one sports car magazine of "dead last engineering," the Lark's engineering was indicative of entirely the opposite. Considering the time available, it was nothing short of spectacular. Hardig and company shortened the ladder-type Champion frame eight inches, but held its original width, adding considerable stiffness and increasing the gauge. Both torsional and beam rigidity increased about one-fourth over the Champion. A box-section frontal frame, made from a single stamping, also added stiffness. Although the Lark was targeted to be much lighter than its predecessors (model for model it weighed over 200 pounds less than the 1958 Champion), it was a much more confident package over the road. Spring rates and frequencies were matched by driving prototypes over the roughest sections of the Proving Ground. "We made it on our second try," Mike De Blumenthal said, and considered that unbelievable.

The Lark's engineered lightness was the first volume departure from the fifties trend toward heavier vehicles, and gave the lie to the old saw about "heavy cars holding the road." Car for car, a Lark was a much finer road machine than any previous Studebaker sedan. Braking was improved, as well as road-holding. Although the six's brakes were

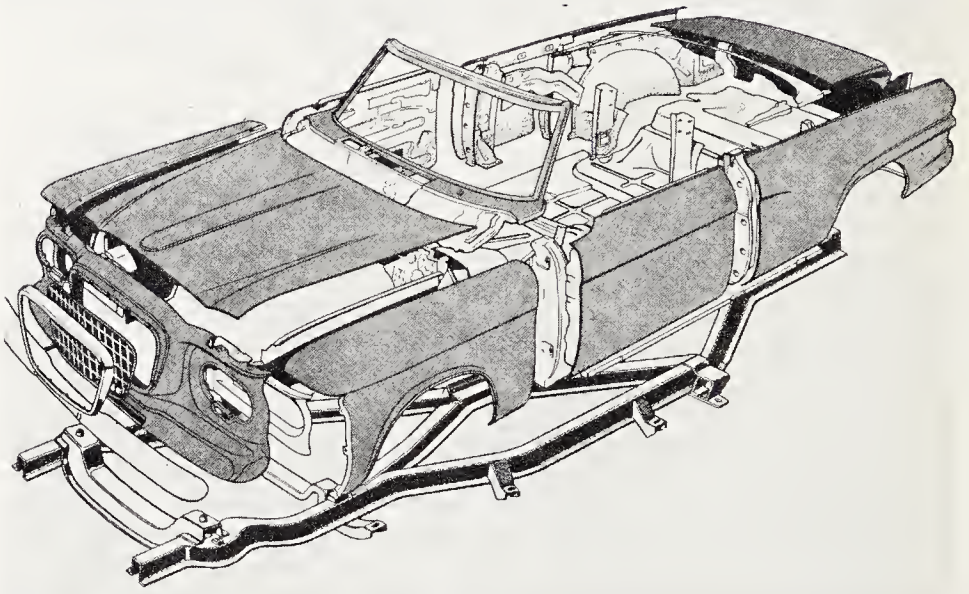
unchanged from Champion application, they were more effective due to the lighter weight. The larger Commander brakes, which were supplied with V-8 Larks, were similarly effective. Neither six nor eight allowed more than eighteen pounds of car per square inch of braking area—while Big Three sedans and AMC's Rambler were well above that figure.

Hardig's engineers also gave attention to the aged Champion engine. Though a new overhead-valve six was scheduled for production in 1961, the Lark project precluded its development for 1959—as much for time limitations as for money. Churchill had wanted a "smaller, stiffer engine" for maximum economy and durability, so Hardig destroked the L-head from 4.375 to 4.00 inches, lowering displacement to the pre-1955 169.6 cid and horsepower to ninety. Yet torque was hardly affected, dropping from only 152 pounds-feet at 1800 rpm to 145 at 2000. Hardig increased compression on both the six and V-8 to 8.3:1 and 8.8:1, respectively. Again in consideration of the Lark's lightness and need for economy, the 289 was dropped. The 259.2 cid was the only V-8 engine offered, though the 195 hp power-pack option returned with its four-barrel carburetor and dual exhausts.

The public knew that a different, compact Studebaker was coming, but the Lark was successfully kept secret until announcement time. Even its name was in doubt until very late. It was eventually selected from a list of unspoken-for names supplied by the D'Arcy advertising agency. In an interview with the Studebaker Drivers Club's Fred K. Fox, Harold Churchill noted: "A professor of semantics from Northwestern concluded that the name Lark would be a companion to the existing Hawk." In 1959, Lark grilles bore the familiar eagle emblem also applied to the Hawk, but a stylized lark in flight was used in advertising, and replaced the eagle emblem in 1960.

Studebaker anticipated selling up to 300,000 Larks in 1959 (six percent of the American market), and it was a foregone conclusion that the Hawk line would be very much second fiddle—if it was produced at all. So much was riding on the Lark that the Hawk's presence didn't matter: the best Hawk year had seen sales of only 20,000. Management, Ed Reynolds told this writer, would have preferred to drop the Hawk altogether. But they were talked out of it by the people in the showrooms: "The dealers rebelled. They said they had to have the Hawk to maintain floor traffic. The Hawk was expensive to build, a low-profit car with insufficient volume, and the dies were beginning to wear out. As a compromise we dropped the hardtop, which we could produce less cheaply. The theory was that other [Lark] hardtops would take up the appeal slack lost by the demise of the Golden Hawk." The dealer position was understandable. To them, the Lark was an unknown entity which might fail as well as succeed. They felt they needed something in the showroom besides Larks and the occasional Mercedes-Benz.

So the dealers had their way. The 1959 Silver Hawk used the same smaller V-8 engine as the Lark—no 289 cid V-8 was available. Trim was changed for recognition purposes—the circular grille badge was eliminated in favor of a small eagle emblem on a black background, in the lower right corner of the grille. The straight-through beltline molding of 1958 was replaced by a piece of bright metal on front fenders and doors, and a separate piece of brightwork ran under the tailfins. The fins also bore the black eagle emblem and model name in script. The parking/directional lights were moved off the fenders into the little side openings that flanked the grille. "High fashion interiors commended by *Harper's Bazaar*" were offered in combinations of cloth and vinyl, and



1959 Lark two-door hardtop.

Lark body-chassis meld; 1963 model illustrated.

reclining seats were a new option. The engine-turned dash with white-on-black instrumentation was retained.

With focus of promotion on the new compact, the Silver Hawk was feted with a corner of the catalog otherwise devoted to Larks. "There's no car quite like the Silver Hawk," it read. "Long, lithe, suave and charmingly continental . . . a superb example of styling that relies on purity of line rather than ornamentation . . . Its performance is as distinguished as its appearance. For *this* car revels in the delight of driving. It appreciates a knowledgeable hand on its wheel and ready feet on its pedals—and shows it by responding with precision and alacrity. It is an unusually distinctive automobile, crafted for the owner who has a zest for life and the imagination to live it." This was an accurate summary of the Silver Hawk, and it continued to create a modest amount of business. Close to 8,000 were sold for 1959, forming an attractive part of the lineup.

Series Model (passengers)	Price	W.B.(in.)	Wt.(lbs.)
59S Lark VI			
DeLuxe sedan (6)	$1,995	108½	2,605
DeLuxe 2dr sedan (6)	1,925	108½	2,577
DeLuxe 2dr wagon (6)	2,295	108½	2,805
Regal sedan (6)	2,175	108½	2,600
Regal hardtop (6)	2,275	108½	2,710
Regal 2dr wagon (6)	2,455	113	2,815
59V Lark VIII			
Regal sedan (6)	$2,310	108½	2,924
Regal hardtop (6)	2,410	108½	3,034
Regal 2dr wagon (6)	2,590	113	3,148
59S, 59V Silver Hawk			
coupe, six-cyl (5)	$2,360	120½	2,795
coupe, eight-cyl (5)	2,495	120½	3,140

The broad Lark model range gave Studebaker a wider selection of body types than it had usually had in recent years, including a two-door hardtop and two-door station wagon, although the V-8 Larks were restricted to only three models in the more luxurious Regal trim style. The two-door sedan was available only in six-cylinder format, while the hardtop was offered with six or eight, but only as a Regal. The 108½-inch wheelbase was universal except for the wagons (113 inches) and Hawks. The 113 was essentially the old Land Cruiser/Hawk wheelbase, reduced about eight inches.

Road testers loved the Lark in both six and V-8 form. Perhaps the most telling tribute came from *Road & Track*, which had been preaching the virtues of smaller cars for years. John R. Bond called it "A less insolent chariot," borrowing a phrase from Keats to define one American car which didn't assume all Americans wanted bulk and weight and twelve miles to the gallon. *R&T* noted Lark's exceptional six-passenger roominess combined with compact size, and strongly praised its handling: "There is absolutely no feeling at any time of driving or riding in a small, light car. The ride is extremely comfortable, yet, for an American car, it does not feel soft or mushy. It also rides quite flat, and high-speed stability seems excellent. [On the V-8] strong understeer (with driver only) becomes only moderate when the car is fully loaded. Minor changes in Studebaker's variable-rate coil springs plus an effective anti-roll bar have resulted in very moderate roll angles, even with the driver alone and at high speeds on the skid pad."

The Lark V-8 in normal 180 hp tune would usually run 0-60 in about twelve seconds (though *Motor Trend* got one down to only 10.7), while the optional 195 hp model would do it in just under ten. The six was commensurately slower. The real advantages of the Lark, however, show up when compared to its chief rival, the Rambler. The figures below were compiled in a comparison test by Devon Francis in *Popular Science* (except for price figures which are from National Automobile Dealer's Association manuals):

Price	**Lark**	**Rambler**
cheapest six	$1,925	$2,047
dearest V-8	2,590	2,751
Cheapest 4dr six		
weight	2,755 lbs	3,055 lbs
wheelbase	108.5 in.	108.0 in.
hiproom f/r	59.5/59 in.	59.8/60.1 in.
legroom f/r	44/41 in.	43/40 in.

Fuel economy, mpg	**six**	**V-8**	**six**	**V-8**
30 mph	26.3	24.0	25.0	22.1
30 mph O.D.	33.9	27.5	30.8	24.2
60 mph	20.7	17.5	20.0	16.2
60 mph O.D.	25.7	20.5	21.2	18.0
Performance, secs				
0-60 mph	20.4	9.2	16.3	13.5
40-60 mph	10.6	6.1	8.7	6.5

Comparisons obviously favor the Lark. Model-for-model, it was about $125 cheaper than comparable Ramblers. It was lighter, yet it handled better and provided more interior space. It was more economical in either six or V-8 form. The V-8 Lark overwhelmed the V-8 Rambler in performance, while the Rambler six was considerably quicker than the Lark six. AMC, of course, also offered the one hundred-inch wheelbase American, which could outscore the Lark in economy—but then again, the American was much smaller, and felt like it.

Against concurrent imports, including captive imports brought in by the Big Three, the Lark was usually superior in every category except for fuel economy. It was roomier, more comfortable, faster, and often comparably priced:

	Length	**Weight**	**Hp**	**Price**
Austin A-35	136 in.	1,480 lb	34	$1,557
Fiat 1200	154 in.	2,050 lb	55	2,253
Ford Consul	172 in.	2,500 lb	60	2,012
Hillman Minx	163 in.	2,200 lb	51	1,699
Opel Kadett	175 in.	1,908 lb	51	1,957
Renault Dauphine	155 in.	1,397 lb	32	1,645
Vauxhall Victor	168 in.	2,218 lb	55	1,957
Volkswagen	160 in.	1,565 lb	36	1,545
LARK	175 in.	2,745 lb	90	1,925

Small-displacement mini-cars like the Austin or Volkswagen could be expected to get better mileage. Indeed, that was the choice proffered economy car buyers in 1959—more fuel mileage and less comfort with imports, or the reverse with Lark or Rambler. But the Lark was no slouch, as the *Popular Science* figures show, in the economy department. With frequent use of overdrive, the manual six could be expected to average about 25 mpg, which was 7-8 mpg less than 1200cc VW's. Use of the smaller 259.2 cid V-8 was also vindicated in terms of fuel mileage: In the 1959 Mobilgas Economy Run, a Lark V-8 driven by Dick Griffith bested its field of thirty-seven V-8 competitors with a 22.28 mpg average over the 1,898-mile course from Kansas City to Los Angeles. This was close to 3 mpg better than the V-8 average.

Relatively few magazines tested the Silver Hawk in 1959, but those that did liked it. The most detailed test was undertaken by *Motor Trend*, which found it an "agile sportscar/coupe," far different from the Detroit crop of land yachts laden with ornamentation. "At the risk of being called old-fashioned, we personally like instruments that look like instruments, control knobs that are clearly marked, and lights that illuminate. This is one of the pleasures of sliding behind the wheel of the Hawk for the first time." *Motor Trend* rated the Silver Hawk "tops" in handling ease, riding comfort and roadability, and "good" in acceleration, braking and gas mileage. The latter figure came to 17 mpg average for 1,019 miles on their 180 hp V-8 test car. The Flight-O-Matic equipped Silver Hawk accelerated to sixty from rest in just 13.8 seconds and turned the quarter mile in 19.3 seconds at 70 mph. "The handling is excellent, with a sportscar response and flatness on curves that does not sacrifice smooth riding qualities on and off the pavement. If you like functional automobiles, don't overlook the Hawk."

The 1959 Hawk sold moderately well, although not as well as 1957 or even 1958, when there were two models in the lineup. A total of 7,788 were built, with a two-to-one preponderance of V-8's. The big sales blast came from the Lark. It was a winner! Not the 300,000-unit winner Church had envisioned, but an undoubted success nonetheless. Close to 100,000 sixes and over 30,000 V-8's were sold for the model year. Altogether, 138,866 1959 Studebakers were sold. The old magic had worked again: South Bend had come up with a saving grace, just when it needed one most.

But the 1959 miracle was worked only in part because of the Lark. The other part was due to efforts by management to put Studebaker-Packard's financial house in order. Sorting out the fiscal picture was Harold Churchill's number one task, once he'd ordered the Lark program. That the effort could not be delayed was made clear in July, when Roy Hurley and Curtiss-Wright washed its hands of Studebaker-Packard, which had done nothing but lose money under its stewardship.

Though the Curtiss-Wright management contract would not expire until November 1959, Hurley agreed to depart in September 1958, and to drop his option to buy five million shares of stock. Curtiss-Wright bought outright the Utica and Chippewa plants, paying $2 million in addition to the $25 million rent it had provided in 1956. Studebaker-Packard bought the rights to distribute Mercedes-Benz, DKW and Auto-Union cars, the latter two then being marketed by Daimler-Benz AG.

Without Curtiss-Wright, Churchill was placed in the same position Nance had been in during 1956: Find outside help or expire. In 1959, the five-year maximum for carry-over tax losses would run out, and not being able to apply its losses to its taxes would cost Studebaker dearly.

1959 Silver Hawk came with six or V-8.

In July 1958, Churchill placed a call to Abraham Malcolm Sonnabend, "the marrying Sam of the corporate merger business." Son of a Boston pawnbroker, Sonnabend was Harvard-educated and Wall Street-trained; he made his first million as a Boston and Miami real estate operator, and by 1957 controlled a $180 million hotel, manufacturing and retail sales empire. In the years since 1954, Sonnabend had put together twenty-odd moneymaking companies with losers, using the losers' losses for tax advantages. *Car and Driver* once called Sonnabend a major villain in the Studebaker story, not really knowing the facts. First, Churchill had called him in, not vice versa. Second, while he stood to make a few million if he succeeded, he stood to lose his reputation as a merger wizard if he failed. Sonnabend duly joined the Studebaker-Packard board of directors as head of an 'acquisitions committee'—but his salary was only $25,000, and his stock options were exercisable only in proportion to whatever profits his acquisitions brought Studebaker-Packard (7,500 shares for every $1 million profit). Abraham Sonnabend had helped more than a few losing companies in the past. In 1958, with the Lark still a question mark, his services were essential. Soon the board had authorized three million more shares of common and 250,000 more shares of preferred stock, both to be used by Sonnabend in his program for acquisitions, written off against some $121 million in tax loss credits.

In addition to Sonnabend's arrival and Curtiss-Wright's departure, Churchill engineered the refinance of Studebaker-Packard's $54.7 million outstanding debt with

1960 Lark VI found small market as taxicab as well as standard four-door.

the banks and insurance companies. Studebaker-Packard converted $16.5 million of it into fifteen-year secured notes, and another $16.5 million into five-percent preferred stock (convertible in 1960 to 5.5 million shares of common). The chance the financiers agreed to take was that the stock would rise enough to make up for the other $20-odd million debt. In 1958, it must have looked like a hell of a gamble.

One can see now how Harold Churchill became a hero. Less than a year later, the Lark had rocketed Studebaker-Packard back into the ranks of profitmakers. Investors were making millions on the increase in value of the stock, the banks and insurance companies were placated. In June 1959, the first of Sonnabend's acquisitions came in: Studebaker-Packard bought Gering Products of New Jersey for $10 million, with $2 million down. Gering made plastic compounds, polyethylene film and plastic hose, doing $20 million worth of sales a year. It became a Studebaker-Packard division, but was operated by its former owners.

The acquisition program had of necessity to be a little at a time. The money for it was based strictly on tax loss credits, of which $26 million would evaporate during 1959. Further, not all of the acquired companies' profits could be paid immediately to Studebaker-Packard—it was more like twenty-five percent. Sonnabend was talking to companies with a combined profit of some $38 million, which meant a benefit of only $8.5 million in the first five years.

But it was the only thing left to do. Sonnabend insisted it wasn't as hard as laymen saw it. Initially he would look for hard-goods companies, so stockholders wouldn't be appalled at the difference between the old and new Studebaker-Packard products. But later he might venture into soft goods and service companies. If it worked, total annual sales could be increased to $400 million and annual net to $30 million, especially if the Lark continued to sell well. The banks would be happy, and Sonnabend quite rich. It all looked like a good idea at the time . . .

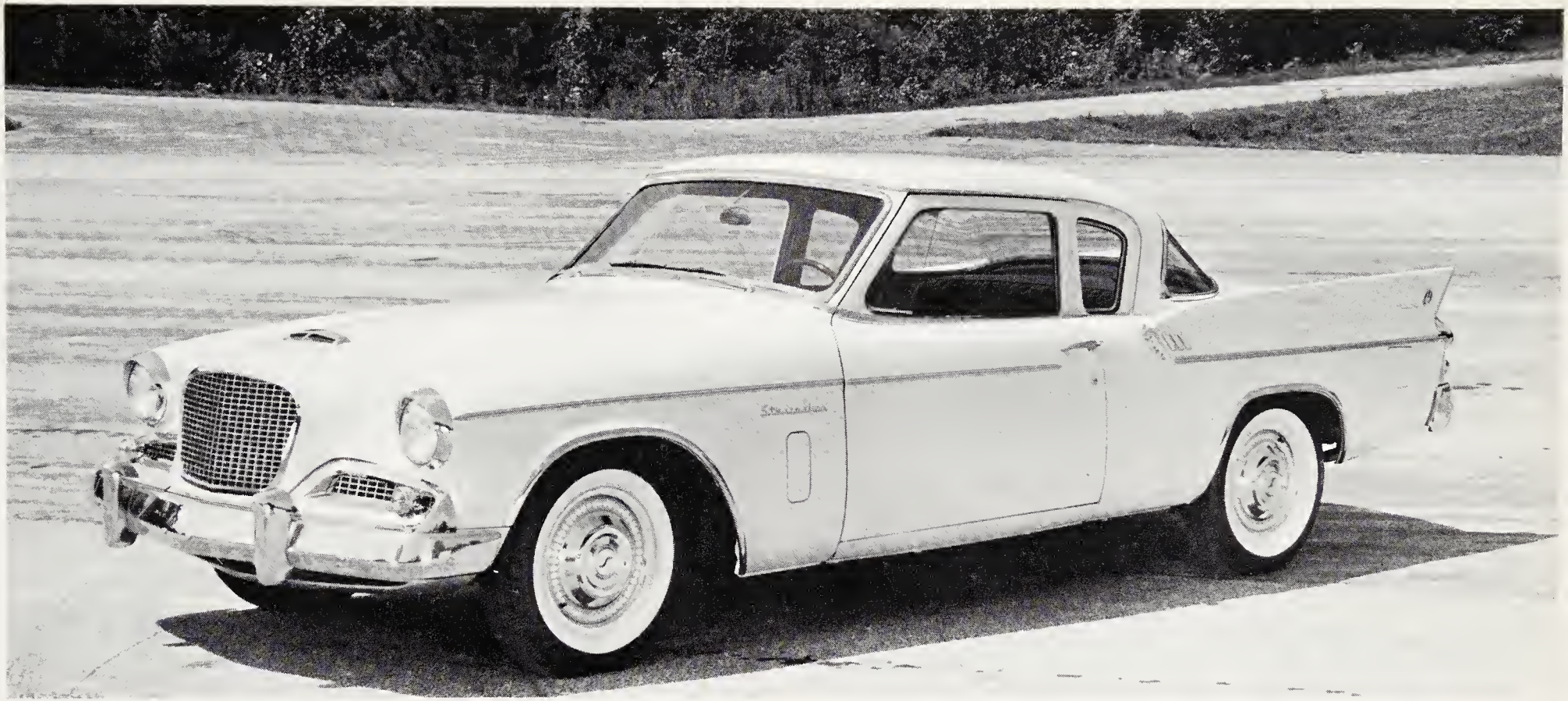
To an old-time friend at South Bend, Harold Churchill was a changed man in 1959: "He's more self-assured, more confident of his own opinions on business and corporate affairs." Church was turning fifty-six in July 1959, but his education hadn't really been complete until then. For the past four years, he had watched Nance and then Hurley struggle with ideas that were unworkable. He had seen the better idea, he had seized on it, and it had worked.

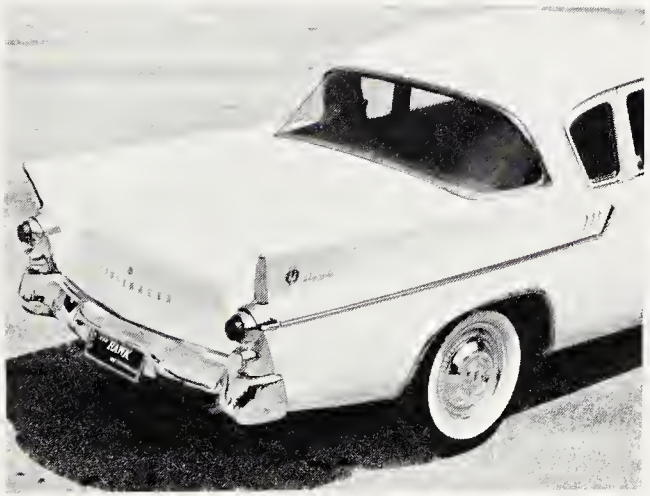
Neither did Churchill fear the new compacts arriving from GM, Ford and Chrysler to do battle with the Rambler and Lark in 1960. "They will have six-cylinder compact cars, but we have an eight," he said. While admitting the faults of the Lark—the six was underpowered, but steps were being taken to fix this—he looked forward confidently to its continued success. If anything, Churchill told *Time*, Big Three compacts would *help* Studebaker, by increasing public interest in smaller cars. Not only did the Lark have a V-8 to offer but it was roomier than anything Detroit was building and it came in a wider variety of models. For 1960, the Studebaker Lark line was amplified with the addition of a convertible and a four-door station wagon.

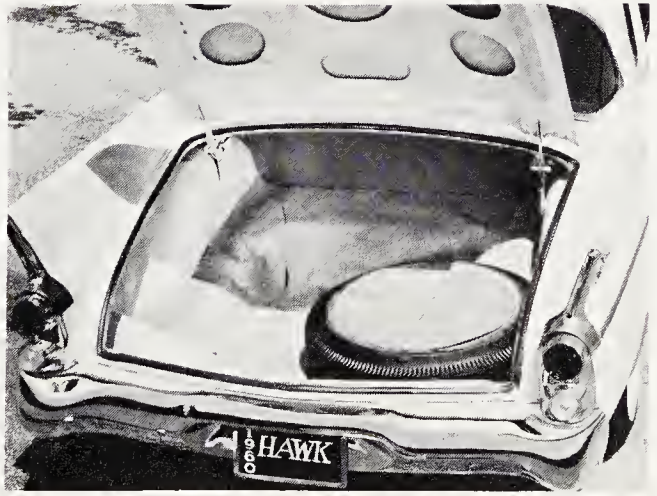
Series Model (passengers)	Price	W.B.(in.)	Wt.(lb)
60S Lark VI			
DeLuxe sedan (6)	$2,046	108½	2,592
DeLuxe 2dr sedan (6)	1,976	108½	2,588
DeLuxe 4dr wagon (6)	2,441	113	2,792
DeLuxe 2dr wagon (6)	2,366	113	2,763
Regal sedan (6)	2,196	108½	2,619
Regal hardtop (6)	2,296	108½	2,697
Regal convertible (6)	2,621	108½	2,961
Regal 4dr wagon (6)	2,591	113	2,836
60V Lark VIII			
DeLuxe sedan (6)	$2,181	108½	2,941
DeLuxe 2dr sedan (6)	2,111	108½	2,921
DeLuxe 4dr wagon (6)	2,576	113	3,161
DeLuxe 2dr wagon (6)	2,501	113	3,138
Regal sedan (6)	2,331	108½	2,966
Regal hardtop (6)	2,431	108½	3,033
Regal convertible (6)	2,756	108½	3,315
Regal 4dr wagon (6)	2,726	113	3,183
60S, 60V Hawk			
coupe, six-cyl* (5)	$n.a.	120½	2,862
coupe, eight-cyl (5)	2,650	120½	3,207

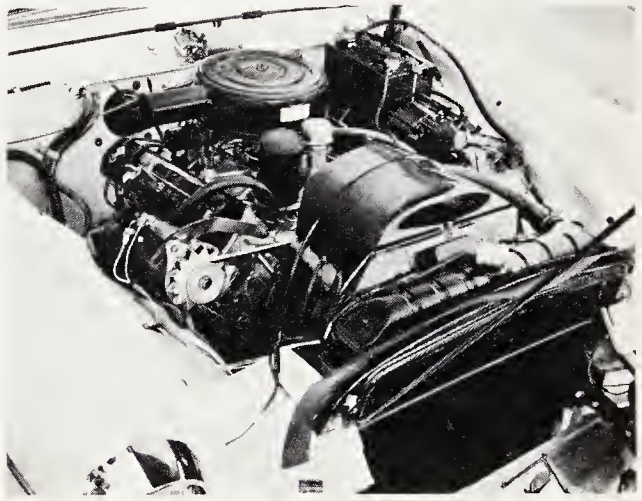
*export only

The Lark for 1960 looked almost identical to the 1959 version. There was a new grille and side grilles; the Lark emblem, on a red background, was centered in it instead of asymmetrically mounted. There was little to make the cars recognizable as '60's, save what was done for the Auto Manufacturers Association (which at that time insisted on some exterior change for identification purposes). The policy of no-change was not

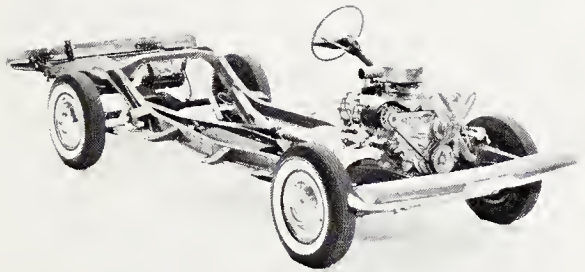








The 1960 Hawk came as V-8 only, retained sporty lines.



Left, sturdy chassis for '60 Lark convertible and the neat Lark Regal convertible for 1960 on the right.

happenstance, for Studebaker could have afforded a facelift after 1959's good sales. But Harold Churchill felt the Lark was perfect—that it should never change. "He fancied it a kind of American Volkswagen," Duncan McRae remembers, "and as such, he felt it would go on forever. I had commissioned two clays for facelift studies, and when he saw them he told me they wouldn't be necessary. I saw little need for my services if that was going to be the situation, so I left and joined Ford." McRae was replaced as chief of styling by Randy Faurot, who later did create a more different Lark for 1961 and 1962, and competed with Brooks Stevens for the 1963-64 facelift. Churchill finally changed his policy, realizing that in the new car-conscious sixties, even a design as good as the Lark couldn't last forever. Hesitation over facelifting cost the company about one year in updating Lark styling.

The new Lark models, the convertible and four-door wagon, accounted for over 25,000 sales in 1960, so their presence was not insignificant. The wagon with four doors handily outsold the wagon with two, by an eighteen-to-five margin. Both cars offered considerable payload space, though the four-doors naturally provided more accessibility:

	Two-door	Four-door
Maximum cargo length	92 in.	92 in.
Length with seats / tailgate up	66 in.	66 in.
Rear opening width x height	45 x 31 in.	45 x 31 in.
Hiproom front / rear	59.5/57.0 in.	59.5/58.5 in.
Legroom front / rear	55.5/53.3 in.	54.5/54.8 in.

A touch of class was added by the pert and pretty Lark convertible, available as either six or V-8. "Here at last is the means to enjoy the Lark's marvelous maneuverability and stable agility while reveling in the delight of refreshing breezes and warm sunshine . . . This is a perfect blending of happy handling, scintillating styling, queenly comfort and a wonderful way to enjoy the weather," said Studebaker-Packard. "At last" was a strange way to proclaim the new Lark convertible. Maybe the ads referred to a *Studebaker* convertible, in which case they had a point. The last one had been offered in distant 1952. In 1960, however, Studebaker was the only firm offering a topless compact.

Motor Trend tested a Lark convertible in June 1960—a fully loaded car with automatic transmission, the 195 hp V-8, power steering and brakes, reclining seats, adjustable headrests, radio and heater, bumper guards, whitewalls and wheel discs—priced at a lofty $3,500. They called it "a veritable jewel box compact convertible, that goes . . . We thrashed the Lark V-8 pretty good during our cross country road tests, slamming the little car into tight corners, taking advantage of the maneuverability of its short 108½-inch wheelbase, powering out by holding it in 2nd gear . . . and generally driving at or over the maximum speed limits." Surprising themselves, the editors recorded an overall mileage of 14.5 mpg and estimated that 18 mpg was possible with normal use. The 195 hp convertible scaled 0-60 in only 14.9 seconds, but it should be noted that this was the heaviest model, close to 400 pounds more than the V-8 four-door sedan. It was a stiff little rig, too, thanks to an extra-thick X-member and built-in sheet-metal box sections to provide torsional rigidity. As Otto Klausmeyer has pointed out, there was never any technological problem to building a Studebaker convertible, only a question of how well it would sell.

Also coming in for approval in 1960 Larks were changes to the engines. The V-8's combustion chamber was modified to reduce high compression rumble and allow

quieter running. (To further induce smoothness there were new motor and transmission mounts, made of long-lasting, oil-resistant synthetic butyl—each with its own rebound rate tailored to the appropriate engine-gearbox combination.) The manifold and automatic choke cam were altered to shorten warm-up time and reduce the fast-idle period after cold starts. The L-head six received a new cylinder head and carburetor, to help provide better fuel mileage. Both engines received new air cleaners that made less noise in operation.

Among other improvements, Flight-O-Matic benefited from a new torque converter, designed to reduce slippage. Gasoline pedals were adjusted to a more comfortable position, and rear seat legroom in all models was increased by redesigning the front seat.

The Hawk continued as a single-model series, but for 1960 the designation 'Silver' was dropped. The eagle emblem had a red instead of black background for instant identification, and three hash marks were placed at the leading edge of the tailfins. Six-cylinder Hawks were restricted to the export market, while the domestic model went back up to the 289 cid V-8, with its 210 hp in standard tune and 225 hp four-barrel, dual exhaust option. The '60 Hawks also offered a heavy-duty manual transmission, larger radiator, bigger clutch and finned brake drums. They were available with all the Lark accessories, including reclining seats and headrests; appointments were given a facelift, with a new line of fabrics and pleated vinyls for the interior. Like the Lark, the Hawk was benefiting from Churchill's policy of changing only for improvement, and not merely for the sake of change. The 1960 Hawk was, in this light, the best Hawk yet—refined, roadable, probably quicker than any of its forebears save the supercharged 1957-58's.

Still, the sporty Studebaker was much downgraded in deference to the high-selling Lark. The first production 1960 Hawks did not come off the line until February, to permit "diversion of all available steel to Lark building. A similar delay was imposed on the truck line." By that month, V-8 Lark deliveries had increased to forty-three percent of total output, compared to 23.5 percent the year before; the 1960 model year closed with 57,562 V-8 Larks built, against only 32,334 in 1959.

Unfortunately, this was the only increase for any 1960 model over 1959. Sales of the sixes—with Big Three compacts now in the field—dropped nearly thirty percent, to just over 70,000. Due partly to their delay in production, Hawks were down to only 7,394 units for the year, or about half the 1959 figure. More alarmingly, Studebaker-Packard's profit was cut to only $708,850, despite the fact that its sales remained over the $300 million mark. The summer slump, normal to auto manufacturers, did not end when fall brought the new models—calendar year production sank to 105,902. Studebaker-Packard dropped back to eleventh place in the industry, with Cadillac going by again. By October, as many Wall Street pundits had predicted, Harold Churchill—man of the year in 1959—was quietly shunted aside. For the time being, he was still president. But the board chairmanship, and the position of chief executive officer, went to Clarence Francis, retired president and chairman of General Foods.

Here we come to another watershed in the long decline of Studebaker. But this is one which has been particularly misrepresented, most notoriously by a sports car magazine in 1970. Chairman Francis, that article stated, relieved Churchill as president. Wrong. Churchill remained president until December, when both he and Francis stepped down. The board wanted to get out of automobiles, that same article continues. Wrong again. The board would have liked nothing better than to sell Larks and Hawks

Lark wagons also came as two-door model in 1960.

profitably. But Studebaker-Packard stood to lose a bundle in tax credits unless it used them up through diversification.

The 1955 tax loss credit was $30 million, the 1956 credit was a whopping $43 million. These monies and subsequent sums from 1957 and 1958 could be applied from profits, without IRS penalty, to the acquisition of more profitable firms—but only within the five-year time limit. Thus Studebaker-Packard must use its $30 million by 1960, its $43 million by 1961. And so far it wasn't.

Sonnabend had either been less than successful convincing profitmakers to merge, or Studebaker-Packard was too conservative in accepting those he did. Sonnabend himself said it was the latter. One way or the other, his committee was able to take on only small companies at a very slow pace. Thus the tax credits threatened to expire before they could benefit the corporation. Francis had been a Studebaker director for only about two years, but his General Foods tenure had provided diversification know-how. With the acquisitions lagging, Francis finally decided to take a hand himself.

A. M. Sonnabend was not present at the board meeting which elected Francis. *Business Week* said he believed that the tax loss credit "should be the primary motivation in looking for acquisitions—of any profitmaking company, even a gymnasium chain." But Francis, and most other directors, felt Studebaker-Packard should only acquire companies to which it could contribute. In Francis' view, continued *Business Week*, "the tax loss is not Studebaker-Packard's only asset . . . it is also strong in design and manufacturing."

Francis has been quoted as admitting his lack of qualifications for the position by saying, "No sane board would choose a seventy-two-year-old chief executive." But that quote was after-the-fact. At the time, he felt he was highly qualified. "I looked at Robert

The 1961 Lark VIII Regal four-door wagon.

Moses and Herbert Hoover, their ages, the work they were doing, and I decided I could do it too," he reported on his election. He claimed he was strongly committed to the automobile business. It was "basic," Francis said, to the company's success; it would help, not hinder, any merger negotiations. It had to be improved for 1961, and made really solid for the 1962 model year.

The only thing automotive that Francis deemed nonessential was the Churchill presidency. Immediately upon Francis's election, Churchill was assigned a variety of engineering and manufacturing projects, and given little say in day-to-day planning or decision-making. Francis soon admitted he was looking for a new president and chairman—to replace both him and Churchill. But contrary to hoary rumor and long-held misconceptions, Francis does not appear to have been looking for someone to take Studebaker-Packard out of the auto business.

The last phases of Studebaker's long, proud history seem to have come in two-year cycles, each capped by a period of crisis and doubt. There was the crisis of 1954, solved by the Packard merger; the crisis of 1956, solved by Curtiss-Wright; the crisis of 1958, solved by Churchill's Lark; the crisis of 1960, solved by the intervention of Clarence Francis. The latter didn't much appeal to those thousands of men, from janitors to vice presidents, who wished Harold Churchill well. On the other hand, at least this board didn't wait three years to do something about declining sales.

Into this latest atmosphere of depression marched the 1961 Larks, the cars with 'performability'—a word D'Arcy Advertising concocted to define "a highly integrated system of components adding up to performance possibilities never before achieved in a compact car." With the Larks came the little-changed 1961 Studebaker Hawk, traveling along again for the ride. It was to be a disappointing year for both.

Series Model (passengers)	Price	W.B.(in.)	Wt.(lbs)
61S Lark VI			
DeLuxe sedan (6)	$1,935	108½	2,665
DeLuxe 2dr sedan (6)	2,005	108½	2,661
DeLuxe 4dr wagon (6)	2,370	113	2,865
DeLuxe 2dr wagon (6)	2,290	113	2,836
Regal sedan (6)	2,155	108½	2,692
Regal hardtop(6)	2,243	108½	2,770
Regal convertible (6)	2,554	108½	3,034
Regal 4dr wagon (6)	2,520	113	2,836
61V Lark VIII			
DeLuxe sedan (6)	$2,140	108½	2,941
DeLuxe 2dr sedan (6)	2,070	108½	2,921
DeLuxe 4dr wagon (6)	2,505	113	3,183
DeLuxe 2dr wagon (6)	2,425	113	3,112
Regal sedan (6)	2,290	108½	2,956
Regal hardtop (6)	3,034	108½	2,378
Regal convertible (6)	2,689	108½	3,315
Regal 4dr wagon (6)	2,655	113	3,183
Cruiser sedan (6)	2,458	113	3,001
61S, 61V Hawk			
coupe, six-cyl*	$n.a.	120½	2,860
coupe, eight-cyl	2,650	120½	3,205

*export only

Harking back to the old Land Cruiser theme—a Studebaker sedan on a longer wheelbase—was the new Lark Cruiser on the wagon chassis, the most luxurious Lark to date. Fitted out with rich upholstery, it offered five inches more legroom and four-inch-wider rear doors. It was available optionally with the larger 289 Hawk V-8, with either 210 hp or 225 hp powerpack. Aside from the Cruiser's arrival, there were more detail changes on the '61's than the '60's. Randy Faurot was able to flatten and therefore lower the roofline, lower the rear deck by an inch, drop the cowl/hood two inches. Though he could do little to the side paneling without spending unthinkable amounts of tooling money, Faurot raised the bright molding above the body waistline, adding to factual decreases in height by making the sides appear lower. Detail changes included a simpler grille, with an offset Lark emblem on a black background; dual head lamps over oblong parking lights on Regals and Cruisers; 'dipped' bumpers front and rear. Wheel cover 'slots' were painted black instead of silver, and taillight housings received a small opening for side visibility.

Lark retained the 259 cid V-8 with 180 or 195 hp, but more important was the new six-cylinder engine, which finally caught up to the times with overhead valve configuration. Churchill had directed Gene Hardig to commence the ohv project in 1959, both realizing that the L-head was old and Lark sixes underpowered. The Skybolt Six developed 112 hp at 4500 rpm with 8.5:1 compression, but its displacement, bore

and stroke were exactly the same as before: 169.2 cid, 3.0 by 4.0 inches. Costs prevented an all-new engine, so Hardig had contrived to keep the old block. The only old feature retained, however, was the valve doors in the block sides. These were useful in the event of valve lifter work, which could be done without removing the cylinder head.

The Skybolt Six needed larger valves, but the old three-inch bore really wasn't big enough for them. To get around the problem, engineers staggered the valve positions and created a kidney-shaped combustion chamber which, on regular fuel, reduced detonation to a low level. The only other route would have been a longer cylinder head, which would have meant a massive retooling project.

The Skybolt also featured a long-ramp and low (valve train) acceleration camshaft (like 259-289 V-8's), which allowed lighter valve springs and gave slower wear than more rapidly opening-closing cams. Fuel economy stood to benefit by the low-profile cam, and this was vital to the sale of economy cars, especially with Lark six cylinder sales lagging. A high-capacity oil pump provided greater oil flow than the L-head; a fully counterweighted crankshaft gave better engine balance and reduced vibration. The manifold was all-new, a ram-type with larger passages in the head and carburetor throat, allowing more air flow to the engine and improving power. Skybolts had always used timing gears instead of a timing chain, which engineers said were more positive in adjustment. Finally, there was a new, larger clutch of 9⅛-inch diameter, compared to an eight-inch diameter on the L-head.

All 1961 Studebakers received the recirculating ball-type steering gear, a caster change from -2.5 degrees to zero, and precision-ground upper A-arm bushings. These improvements reduced steering effort, gave more positive steering response, and enhanced directional stability and recovery on turns. Power steering was available on sixes for the first time, with just 3½ turns lock-to-lock. The master cylinder was moved under the hood for easier access, and California models were fitted with forced crankcase ventilation.

Last of the finned birds, the 1961 Studebaker Hawk.

1961 Lark VI Regal hardtop.

1961 Lark VIII Regal convertible.

Unfortunately, the Skybolt was not one of Studebaker's best engines. In the field, it soon began to develop cracks between the valve seats, an expensive warranty item for which no practical cure was ever really found. Cost-forced adaptation of the old-fashioned block, and the design shortcuts this required, guaranteed a degree of patchwork engineering. And the whole project suffered from lack of time for research

and development. Though the ohv six was certainly more powerful, it was no better and oft-times worse than the L-head in economy. Typical miles-per-gallon ranges in most road tests were eighteen to twenty-one, which was little better than the stripped, full-size sixes of Ford, Chevrolet and Plymouth.

The 1961 Studebaker Hawk was a brighter product. Though outwardly little different for 1961—a color flash on the rear fenders was its chief identifying trait—it offered as an option the four-speed floor-shift transmission by Warner Gear, same as the Corvette. This really made the Hawk a grand tourer in the European tradition, providing tremendous flexibility for engine braking and passing through four close ratios. Though a long-legged 3.07 rear axle and a stump-pulling 3.54 were optional, most four-speeds came with the standard 3.31. As such, the gear multiplication stacked up as follows:

Gear	Ratio	Step	Overall	Mph/1000 rpm
1st	2.20	–	7.28	11.1
2nd	1.66	33%	5.49	14.7
3rd	1.31	27%	4.33	18.7
4th	1.00	31%	3.31	24.4
Rev	2.26	–	7.48	-10.8

The Hawk's ratios were markedly different from the drag-racer ratios of Chevrolet and Pontiac sporty cars, and with its short valve timing, the 289 was versatile at any speed. "It will push the car beyond 50 mph in first gear, yet accelerate smoothly from below 15 mph in fourth," noted *Motor Trend*. "It is an engine that reacts briskly to frequent shifting, but does not demand it. In other words, the Hawk tolerates a variety of driving moods."

According to *Car and Driver*, the 225 hp four-speed Hawk would "throttle down to a near idle in fourth and still pull away to over 110 mph in an inexorable whoosh." *Car and Driver* reported it a bit of a handful on bumpy corners, but "around smoothly paved curves the Hawk fairly zoomed . . . Cruising at 70, 75, 80 or just about any speed you dare choose is effortless. Cross wind effects are negligible and cockpit ventilation is good without the car becoming a cave of winds."

Compared to Hawks of the past, the four-speed '61 stacked up very well indeed. Performance differed from car to car, even between 210 and 225 hp versions, but a general approximation is offered by the following figures:

	210 horsepower		225 horsepower	
	Road & Track	*Motor Trend*	*Car and Driver*	*Motor Life*
0-30, secs	3.8	4.5	3.5	4.2
0-60, secs	10.2	10.6	10.1	11.4
¼ mi, secs	17.3	–	17.7	17.6
¼ mi, mph	76.0	–	78.0	77.0
top speed, mph	115	–	115	120
economy, mpg	14-18	13-17	14-21	14-17

Studebaker-Packard published kudos for the Hawk by every connoisseur who bought one, from Lucius Beebe to James Mason (all of whom curiously managed to get one of the first low serial numbers). But it was well deserved. For yet another year, the old Loewy coupe had been made better than it was the year before. In addition to the four-speed option, 1961 saw Hawks receive carefully contoured, deep-padded bucket seats in vinyl or cloth, perhaps the final touch needed for real gran turismo status. Even *Car and Driver*—who rarely praised Studebaker—had to admit that the '61 version "should lure buyers who want both space and sport—made in the U.S.A. . . . It's still not too late for the Hawk to fulfill its stated role as 'the first American car in the true G.T. tradition . . .' As it stands it's extremely capable—and strong competition for the new bucket-seated upstarts in its field."

Alas, Studebaker was competition for nobody in 1961. Despite its high qualifications, the Hawk did no better than before. In fact its sales were down slightly, to 3,536 units for the model year. More seriously, the six-cylinder Lark fell off fifty percent to 41,035 units; the Lark eight over fifty percent to only 25,934. Studebaker-Packard did manage a $2.5 million profit on sales close to $300 million (underlining the results of Churchill's cost-cutting), but in calendar year production it dropped to a mere 78,664. Passed by Chrysler, South Bend now ranked twelfth in industry production. It would never rise higher than that again.

There were—as usual—a lot of reasons for this latest decline. Back in the early Lark days Churchill had sold Studebaker franchises to established Big Three dealers, who had nothing comparable on their floors. With the advent of Big Three compacts, such dealers naturally handed back their franchises and merrily took to selling Valiants, Falcons and Corvairs—to an established clientele which had previously bought Belvederes, Galaxies and Bel Airs. There were product deficiences, too: The cars weren't different enough in styling to pass as anything really new; the Skybolt Six was a disappointment in fuel economy and a service headache. Wrote labor commentator B. J. Widick in *The Nation*: ". . . the future of Studebaker depends much more on increasing sales than on its cost-cutting campaign; if the Larks don't sell, paying men $1 an hour won't keep the company in business . . ." Notwithstanding the labor bias of that comment and that publication, the point was well and truly taken. With its labor contract due to expire in 1961, Studebaker would face redoubled strife with the union if it offered more wage cuts as its ticket to survival.

To Clarence Francis and the Studebaker-Packard board, the future was as chilling in late 1960 as it had been in late 1958—and this time there was no miracle product to pull them out of trouble. Despite Churchill's hopes that its many models and V-8 engine would keep the Lark competitive, his compact was having a rough time with its Big Three rivals. Neither had the Lark threat to Rambler materialized: The Kenosha product had gone from strength to strength, with 400,000 sales in 1959 and close to half a million in 1960, by which year Rambler ranked third in the industry behind Ford and Chevrolet. That the Lark was probably a better car than comparable Ramblers, and roomier than the Detroit compacts, was beside the point. Studebaker dealers were too few and too weak; Studebaker-Packard's reputation as a loser was hurting its sales among people who blanched at the thought of owning an orphan car.

With such a situation it is no surprise that Clarence Francis pushed hard on diversification. He also quickened his search for a new president/chairman—a man not of the industry, who might view the company's problems with a fresh eye. The board meeting of December 28, 1960, was the pinnacle of decision. Harold Churchill, already stripped of de facto operating control, now lost his de jure presidency. Under protest, he took voluntary retirement and a consultancy, which Studebaker-Packard never

1961 Lark VIII Cruiser.

exercised. It was a sad departure for the man who lived and breathed automobiles, who had set forth so steadfastly on the road to recovery two years before.

Abraham Sonnabend showed up at the December board meeting, having cancelled a trip to Europe to be there. He came armed with figures supporting his policy of massive diversification, and press releases announcing his appointment as Francis' successor. But Clarence Francis had his own plans a-brewing, and they didn't include Sonnabend. For the last three months, with the help of the Beyden executive talent agency, he had scoured the ranks of business leaders earning more than $25,000 a year. He had just returned from a visit to Los Angeles, where he'd toured McCulloch, the successful power equipment manufacturer. And he had his man, at $125,000 a year, about double Harold Churchill's salary.

A month later, the new board chairman and president of Studebaker arrived in South Bend to a frenzy of welcome. Once again, the crisis had been averted by a last ditch miracle—or so everyone hoped. This time the miracle was not a car but a man, a six-foot-four-inch dynamo who looked like a movie star and talked again about a ten-percent market share. South Bend loved that. And, for a time, they loved Sherwood Harry Egbert.

CHAPTER 8

Sherwood in the Forest

HIS FRIENDS AT McCulloch predicted what Studebaker-Packard could expect from Sherwood H. Egbert. "He's the most aggressive person I've ever met," one said. "He operates on a one-gear ratio—full speed ahead." Another, who described him as "Mr. Go-Go-Go," warned, "The people at Studebaker had better get used to living with a cyclone."

They soon did. "It didn't take me long to see that the Lark is a damn good car that has been underestimated," Egbert told reporters in early 1961. That decided, he went after rebuilding the rest of the company.

Egbert was a bug about cleanliness. "You can stand there in ragged clothes—there's nothing wrong with that," he said. "But you can have them pressed, and you can be clean . . . If we're going to stay in business, let's look like it." The factory buildings hadn't been painted within anyone's memory; he convinced a wary union force to work on the walls on its own time, using 25,000 gallons of leftover orange, white and green car paint. The bright, clean look was a morale-booster; some proud employees even brought their families over (for the first time ever) to see it.

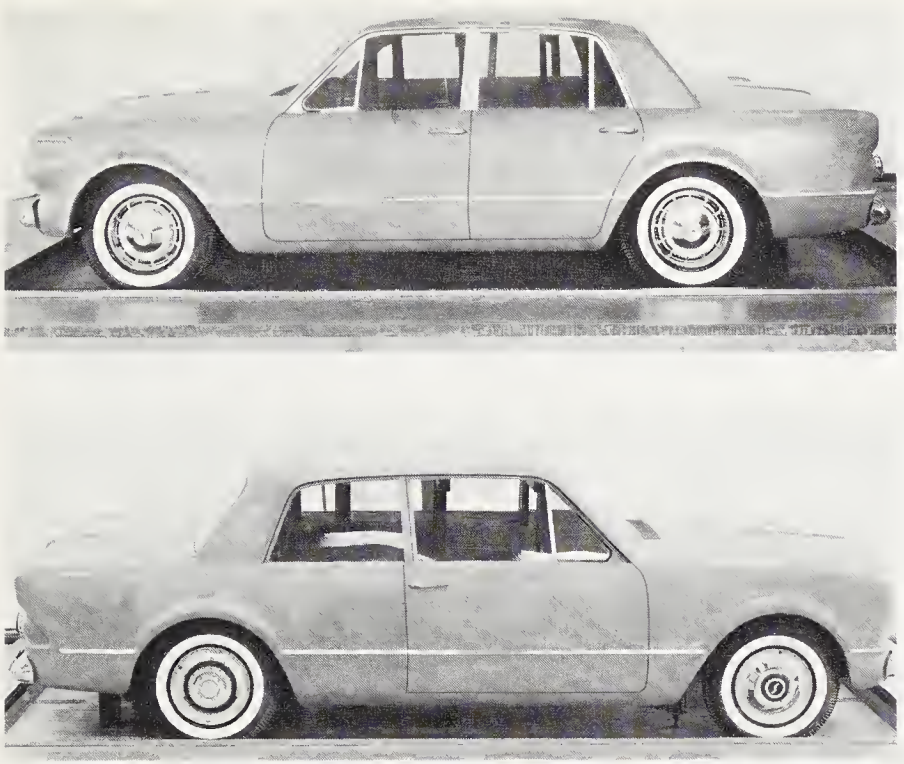
The new president soon had his foremen wearing white coveralls. Their desks or work stations had to be cleaned up at the end of each business day or production line shift. Egbert prowled around in the wee hours of the morning, to be sure his orders were carried out, leaving crisp notes at people's desks when he discovered inadequate housekeeping. Brazenly, he issued memos to female employees about "trying to look more like women," even restricting them from smoking except during lunch or coffee breaks, and then only in the women's lounge. "Well," one of the ladies said with a smile to an inquiring South Bend reporter, "they told us he was in the Marine Corps."

'Studebaker's cyclone,' who arrived officially on February 1, 1961, took the old company and shook it by its thoroughly deserving scruff. He was like no other president anyone remembered. "Everybody called Harold Churchill 'Church,' " recalls Ed Reynolds, "but not Sherwood Egbert. He was always *Mr.* Egbert." Well, that's the way it should have been. Still, Egbert tried to get on a wavelength with workers by touring the plants constantly, poking into everything from washrooms to scrap piles. "At first the men wouldn't look up when I passed," he said. "Now they smile at me. One group told me I was the first president who met with them in forty-one years. We have a lot of mutual respect." Respect developed from little things, like the time Egbert spotted an old sign near the 'executive' elevators, directing 'employees' to use the stairs. None had for years, but the sign still remained. "I called MacMillan [C. M. MacMillan, vice president for industrial relations] at five after eight in the morning and told him to get that thing off there immediately. He said he'd get a carpenter on it. I said don't wait for a carpenter, do it yourself. It was off in fifteen minutes."

Six months after arriving in South Bend, Sherwood Egbert was installed with his family in the upper floor of the old Proving Ground clubhouse, which he had completely renovated. Detractors liked to say he lived like a king there, though it was noticed that the ground floor was reserved for conferences and dealer meetings. To commute between the Proving Ground and the downtown factory, he'd select a Lark or Hawk from the line at random—making himself unpopular with the Indiana State Police because he drove at scorching speeds. "How can you be in business without knowing the product?" Egbert retorted. (In fact, though, Egbert's personal car was a Mercedes-Benz.)

Studebaker-Packard's new boss had always placed major emphasis on knowing the product, getting out in the field, and delving into every aspect of whatever he was involved in. He even occasionally piloted the company plane himself. His personality most resembled GM's dynamic Edward N. Cole; it was the first and only time a Cole-type had headed Studebaker, and he kept 'em hopping.

The hand-built GT Hawk production prototype.



Four-door and two-door 1962 Lark proposals by Randy Faurot's stylists.

Sherwood Egbert himself had been hopping all his life. He came up the hard way. Born in 1920, to a pool hall and barbershop owner in Easton, Washington, he was working by age twelve to help his family eke out a poor existence. When his father opened a dance hall and cafe, it burned down and the Egberts had to live in tents. "We had to rough it for two winters," Sherwood recalled in a *Business Week* interview. "I stole coal from Northern Pacific railroad cars, and we ate plenty of stale bread with that old purple mold coming through." Two years after starting part-time work with a construction gang he'd conned them into letting him drive a truck. "Dad told them to put me back on pick and shovel," he said. "He knew I was getting too big for my britches. But I made nearly $5,000 before I was sixteen."

Hard work never prevented Egbert from winning fourteen varsity letters in high school. He and a classmate, nicknamed the lonesome twosome, toured the state in the process of winning the track and field championship, which culminated in athletic scholarships to Washington State University. There young Sherwood studied engineering, continued his sports career, and considered becoming a major league pitcher. But he dropped out of school after two years to join the Five Companies, which had combined to build the Grand Coulee Dam. In 1940, hearing they needed an engineer, he'd applied despite lack of a degree, and did so well he worked his way up to assistant chief engineer. Later he joined Boeing Aircraft, where he studied more engineering in order to "talk a mechanic's language." In 1942 he entered the Marine Corps: Egbert was sent to the South Pacific as an air transport officer, and took flying lessons so he could learn what the pilots were up against. His 250 hours of training were all taken at night—a feat he considered a sort of informal record.

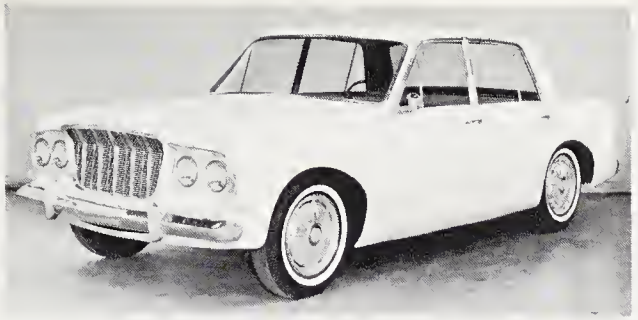
The McCulloch Corporation was a tiny company housed in Quonset huts at the Los Angeles airport when Egbert joined it as assistant production manager in 1946. McCulloch built chainsaws and Scott-Atwater outboard motors, and, as usual, Egbert tried every model. He even took outboards down the raging Colorado River at the Grand Canyon. McCulloch was doing $70 million worth of business a year, with Egbert executive vice president, when he was spotted by Studebaker. And his first announcement as president suggested this assignment was just one to be tackled in his traditional way: "We're in this business to stay."

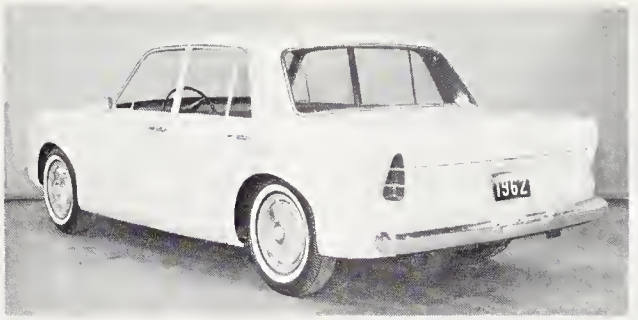
Superficial résumés of the Egbert presidency occasionally suggest that this nonauto man couldn't see the forest for the trees. Sherwood was in the forest at Studebaker-Packard all right, but he also had a fairly good grasp of the way out. There's a fondly cherished notion, in Detroit especially, that men from other industries can never succeed in the car business. On the face of it, this seems depressingly true. Success has attended the reigns of career automobile people, like Sloan and Curtice at General Motors, Breech and Iacocca at Ford, Keller and Colbert at Chrysler, Mason and Romney at American Motors. It has never seemed to follow from the arrival of outsiders—like Nance at Packard, Kaiser at Kaiser-Frazer, or Egbert at Studebaker. But to a large extent the problems faced by Studebaker were not merely automotive in scope—and an automobile man had already tried and failed to save it. One *could* say that Nance and Egbert were last-ditch appointees—a 'reaching outside' by their companies when all the insiders had failed. Perhaps the fact that outsiders are called on only *in extremis* is the reason why they are never successful in the automobile business.

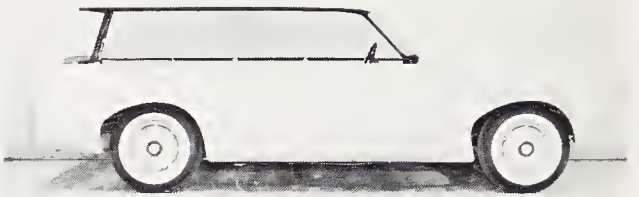
The problems Sherwood Egbert faced as president included the huge tax write-off, and the desire by the board to make it pay by buying profitable diversified industries. On January 1, 1961, $15 million of Studebaker-Packard's tax loss credits expired unused, leaving the company with $94 million still unexpired. Slowness in using those credits was what had brought Egbert in and ushered Churchill out; insistence by the board on using them only to acquire hard-goods companies was what had driven out Sonnabend. The latter, who resigned as director and consultant shortly after Egbert's appointment, felt Studebaker-Packard was now headed for "permanent hard times." The only thing that could have saved it, he said, was massive diversification. But the company was already grossing about $100 million in sales from acquired subsidiaries producing garden tractors, floor polishers, generators and plastic compounds—or about one-fourth of its total business. Egbert's job was to increase that share to a half—and in this he would be successful by the end of 1962.

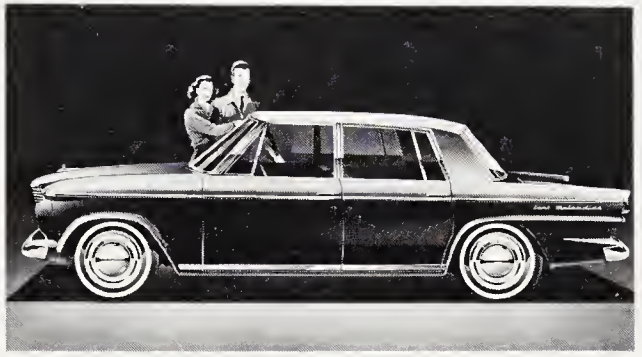
Another source of business was government defense contracts, and Egbert soon had a new vice president in Washington to look for them. "Everybody else is shooting for the moon, but there is a need for rifles, cooking equipment, clothes, anti-submarine devices," he said. "We're checking the areas that have been overlooked." The president reported in late 1961 that Defense Department officials had given him verbal assurance of $30-40 million worth of contracts by the end of the year.

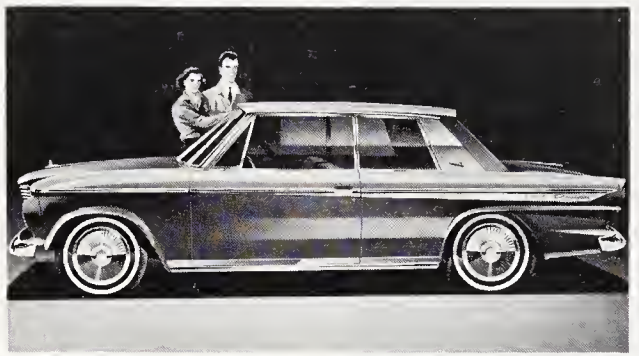
Back home in Indiana, Sherwood Egbert turned toward the product and its promotion. Studebaker advertising "stank," he said, and he gave D'Arcy two weeks to











Sedan and wagon clay models on the shorter wheelbase which were rejected by Egbert management.

Early renderings by Brooks Stevens present his ideas for reskinning Lark at minimal expense. Note use of Daytona name.

come up with an all-new pitch. The result was the "Hate Yourself" campaign, in which customers were told they'd hate themselves if they bought any compact before trying the Lark. Sales improved, and D'Arcy realized a new hand was holding the whip. The agency got busy with advance plans for similarly imaginative sales programs in the future.

The same kind of presidential impatience permeated executive staff meetings, imbuing Studebaker-Packard vice presidents with vigor they didn't know they had. Egbert made few initial changes in the company's thin upper management: Frank Suslavich (from Plymouth-Valiant) became general sales manager for automobiles and Nello Lamberti (from McCulloch) became head of industrial engineering. The men closest to Egbert were old-liners—Vice President MacMillan at industrial relations, Melvin Milligan (secretary and general counsel) and Byers Burlingame (vice president and controller). But new and old alike realized changes could come, especially when Egbert rankled over management indecisiveness. At one meeting he asked a vice president, "When are you going to make that decision?" He got a stream of positive maybes, but finally the man said, "Tomorrow morning." Replied Egbert "All right, you get your guys together and you make that decision. It's your decision and you make it." He was really talking, one observer thought, to everyone in the room.

Yet even the best advertising and gung-ho managers couldn't sell cars without dealers. There, Egbert realized, Studebaker-Packard was especially vulnerable. Before his first month was out, he'd set up a flying schedule to visit 1,300 of the company's 2,200 dealers (down from 2,600 in 1959, mainly due to Big Three defectors from among those dualled that year). The itinerary was frantic. "One day he held meetings in Washington at breakfast, in Atlanta at lunch, and in Tampa at dinner," *Fortune* said. "The pattern repeated almost daily. Everywhere he went, Egbert found fears for the company's future, fears that the Lark might become an orphan." To one and all he repeated his pledge to keep the company in the car business—but too many dealers had heard all that before. "Don't talk—produce," they told him. Studebaker-Packard actually fought an antitrust suit against Chrysler, which was accused of forcing its dealers to drop Lark franchises as a prerequisite for receiving Valiant franchises.

Of the 2,200 remaining dealers, Egbert expressed agreeable surprise "at the amount and depth of their loyalty," but was appalled by their salesmanship. "I told some guys—who didn't know me—that I wanted to buy a Lark, but maybe it wouldn't be big enough for me to get into. It took me half a dozen visits like that before one guy showed me how easy it is to get into a Lark."

Egbert asked dealers for their comments about the product, and even invited some back to South Bend for conferences. He got a lot of suggestions. They liked the Lark's durability, solid engineering and cavernous interior, appreciated its relatively low 'make-ready' cost—the amount of 'detailing' required on cars arriving from the factory.

1962 Lark DeLuxe two-door sedan.

1962 Lark Regal station wagon.

1962 Lark Regal convertible.

But they were nearly unanimous in condemning its stubby appearance, and lack of styling change since 1959. Egbert, a strong field man, believed in paying attention. In mid-March 1961, he scrapped the near-complete 1962 design program and went off in another direction.

The original '62's, ready for tooling by that time, had been conceived by Harold Churchill, engineered by Gene Hardig and designed by Randy Faurot. While the Lark would have continued its 108-inch wheelbase, it was to have been accompanied by Churchill's newest idea, born in the days of heady Lark sales: a one-hundred-inch wheelbase four-door sedan, powered by a water-cooled, horizontally opposed four—a true American Volkswagen.

Otto Klausmeyer, who discussed the project with Church, remembers that the engine would have displaced 140 cubic inches—about 50 cid less than Pontiac's 1961 Tempest. Mounted at the front and water-cooled, it would be a traditional South Bend design—but to save machining costs both the crankcase and block would be cast in one unit. At 2.3 liters this wasn't a small four, and would have provided a fair modicum of performance—which Churchill considered essential in a car with nearly as much weight and interior room as the Lark.

After the departure of Duncan McRae, Randy Faurot's stylists were reunited with engineering, albeit as a separate division. This allowed considerable styling-engineering liaison, which was essential to the new car's development (Churchill wanted maximum body panel interchangeability between the one hundred- and 108-inch wheelbase cars). Faurot assigned Ted Pietsch and Bob Doehler to the detail styling, and they came up with a boxy but practical shape, its doors and roof interchangeable with the proposed '62 Lark. Again, there was minimal overhang front and rear. "There were also flush C-posts," Ted Pietsch comments, "a feature no one else had until many years later. Our engineers killed the idea because they felt it would be difficult to make a convertible. We had one planned, along with a pillarless station wagon. Randy gave Bob and myself pretty much a free hand on this project, which unfortunately didn't get off the ground even though some $4 million had been put into it."

What happened to the Faurot designs was a cyclone named Sherwood Egbert. The new president soon convinced himself that this program was all wrong. The dealers were asking for precisely the opposite—a longer, not a shorter Lark. Egbert also questioned the potential market for the smaller car, and with good reason. The only domestic contender in the one-hundred-inch wheelbase class was the Rambler American; though the latter was running up about 100,000 sales a year at that time, it was noticed that the Big Three had kept their compacts up around a 110-inch wheelbase. Egbert doubted a Studebaker subcompact's ability to make a dent in a market then dominated by the American cars

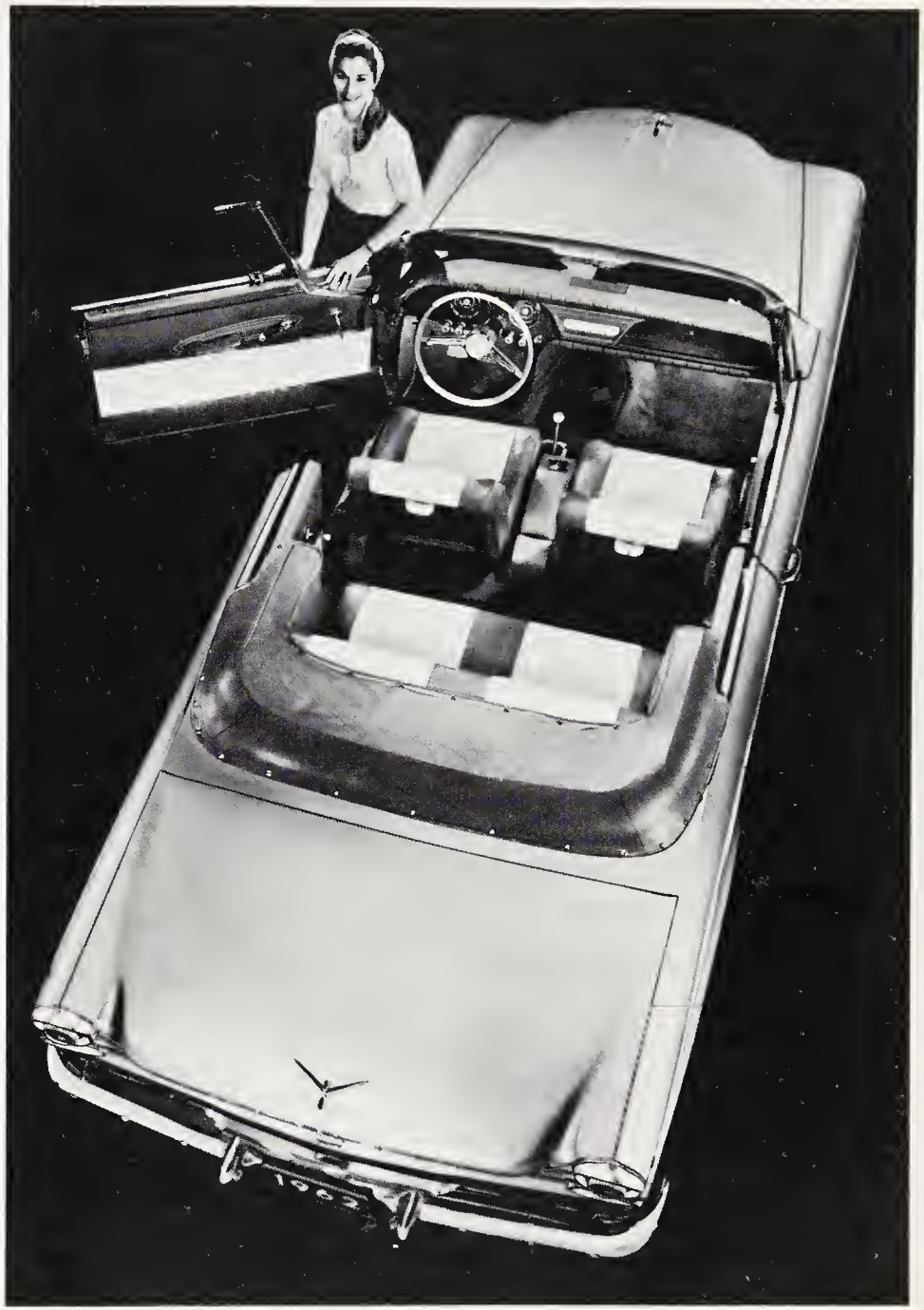
and imports such as VW and Renault. In the limited amount of market surveying he did, all signs pointed away from this area and towards more luxurious, sporty compacts. It was the first time in recent memory that any Studebaker president had considered looking at the market, instead of his private desires. It was a good thing this one did. The Rambler American started tapering off in sales after 1960, while the imports, after momentary wavering, filled the gap. Concurrent successes of bucket-seated, stick-shifting sporty compacts like the Corvair Monza and Falcon Futura suggested that a similar Lark was the preferable way to go.

But Egbert wanted a new approach to South Bend styling, and shunned the resources of Faurot's studio, heavily dominated as it was by the engineers. Instead he turned to his old friend Brooks Stevens, the Milwaukee industrial designer. "Sherwood and I had known each other for years at McCulloch, as they were a client of mine," Brooks says. "When Sherwood went to South Bend I urged him to get himself a five-year contract and to use the time to save the company. He called me after he arrived and wanted me to come down. He knew about the Brazilian Aero-Willys 2600 facelift we'd designed without serious tooling changes from the old Aero, and thought a similar transformation could be brought about on the Lark and Hawk.

"On the face of it, the job was impossible. We had $7 million for tooling both cars—normally about enough to tool a Plymouth door handle! We also had only six months before 1962 introduction time. But Sherwood wasn't an automobile man," Brooks says with a smile. "He didn't *know* it was impossible." The 1962 Lark and Hawk accordingly appeared on schedule.

Series Model (passengers)	Price	W.B.(in.)	Wt.(lbs)
62S Lark six			
DeLuxe sedan (6)	$2,040	113	2,760
DeLuxe 2dr sedan (6)	1,935	109	2,655
DeLuxe 4dr wagon (6)	2,405	113	2,845
Regal sedan (6)	2,190	113	2,770
Regal 4dr wagon (6)	2,555	113	2,875
Regal hardtop (6)	2,218	109	2,765
Regal convertible (6)	2,589	109	3,075
Daytona hardtop (6)	2,308	109	2,765
Daytona convertible (6)	2,679	109	3,075
62V Lark eight			
DeLuxe sedan (6)	$2,175	113	3,015
DeLuxe 2dr sedan (6)	2,070	109	2,925
DeLuxe 4dr wagon (6)	2,540	113	3,115
Regal sedan (6)	2,325	113	3,025
Regal 4dr wagon (6)	2,690	113	3,145
Regal hardtop (6)	2,353	109	3,015
Regal convertible (6)	2,724	109	3,305
Daytona hardtop (6)	2,443	109	3,015
Daytona convertible (6)	2,814	109	3,305
Cruiser sedan (6)	2,493	113	3,030
62S, 62V Gran Turismo Hawk			
hardtop, six-cyl.* (5)	$n.a.	120½	2,985
hardtop, eight-cyl. (5)	3,095	120½	3,230

*export only



Sporty Daytona convertible offered bucket seats, floor shift.

Brooks Stevens in his masterful creation, the '62 GT Hawk.

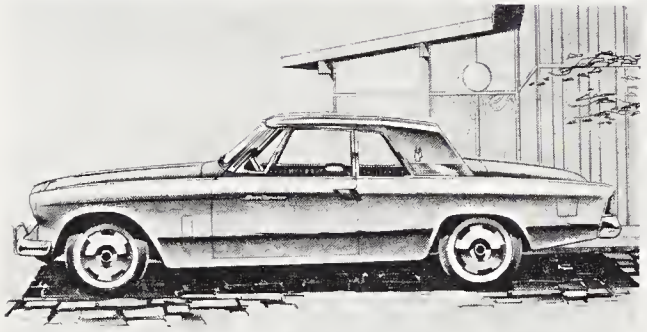
Stevens completed steel prototype in mere weeks.

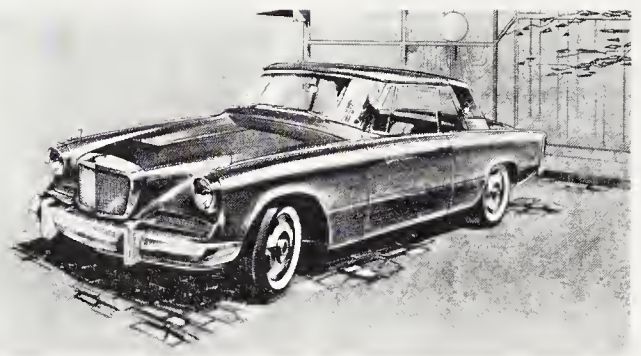
The Lark by Stevens—created with at least tacit cooperation from Randy Faurot—was a much longer car than before. Four-door models were mounted on the 113-inch wagon wheelbase; the shorter wheelbase was extended to 109-inches, for two-doors. Stevens added elongated rear quarters with 'character lines' and big, round taillights; these helped give the four-doors fourteen more inches of overall length and the two-doors ten. Winguard bumper extensions, standard on the V-8 Cruiser, were offered, along with new vertical bumper guards. Stevens applied a bolder, Mercedes-like grille with stand-up hood ornament, and all models had bright new interiors. The line was led by a luxuriously upholstered, sporty series called the Lark Daytona.

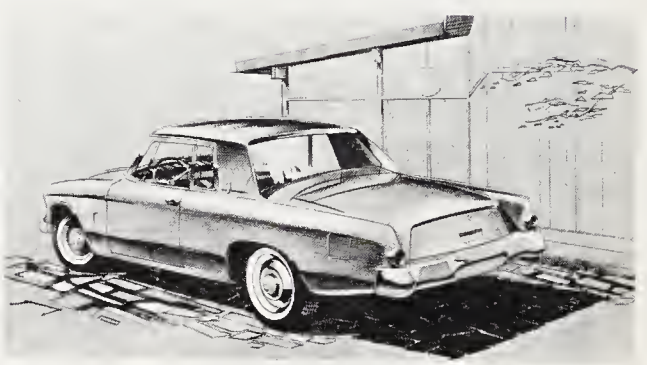
Offered with V-8 or six, as two-door hardtop or convertible, Daytona was the ultimate 1962 Lark. Aiming to please the enthusiastic driver, this sporty model featured individually contoured bucket-like seats (with recline option), a front 'tween-seats console and (on hardtops) a sliding sunroof option. Like other restyled '62 Larks, it had an instrument panel of walnut grain, and sparse instrumentation (oil/amps warning lights, no tachometer) grouped at left under an oval steering wheel. Pile carpet covered the Daytona's floor, vinyl its door panels and hardtop headliner. This was the first year for four-speed Larks, which placed the gear lever amidships on the floor, where the enthusiast expected it to be. Normally, Lark V-8's were the 259.2 cid variety, but the 289 was optional on Cruiser and Daytona, and one could specify either the normal 210 hp or power-pack 225 hp variety. The ohv six continued at 112 hp, with no significant modifications.

The inimitable Tom McCahill tried a Daytona for *Mechanix Illustrated* (at Daytona Beach, of course), and was mostly satisfied: "I hadn't driven this yo-yo more than a half-dozen times before I got the distinct impression that a lot of old Packard men had something to do with gluing this rig together. It was as stiff as a cement topcoat . . . the pricetag on this deluxe bucket seems a little strong at $3,850. [But] remember that this was loaded like a Brooklyn trapper who had just caught a mastodon. Price without options is $2,443. It had [everything, including] a big 225 horsepower engine." In acceleration tests McCahill ran 0-60 in just over eleven seconds, close to 110 mph along the Florida sand. "The Daytona Lark is one of the most interesting American cars we have tested this year," he concluded. "It is faced with a barge-load of competition and the deluxe Daytona particularly is priced right at the level where the choice is as wild as choir practice in O'Toole's saloon. If you're in the market for a top-grade big compact, I suggest strolling down to your local friendly Studebaker-Packard dealer for a closer look."

The Gran Turismo Hawk, "ardently acclaimed in Italy itself," was Brooks Stevens' secondary performance for Sherwood Egbert, but it brought the wildest applause from a jaded automotive press. Most of them didn't even think it was coming—rumor was rife that it would be dropped—and to see the crisp, new, finless GT rise Phoenix-like out of the tired old coupe models was a genuine surprise. "If the amount of interest generated







Final production, right, was amazingly close to original design rendering, left, dated May 5, 1961.

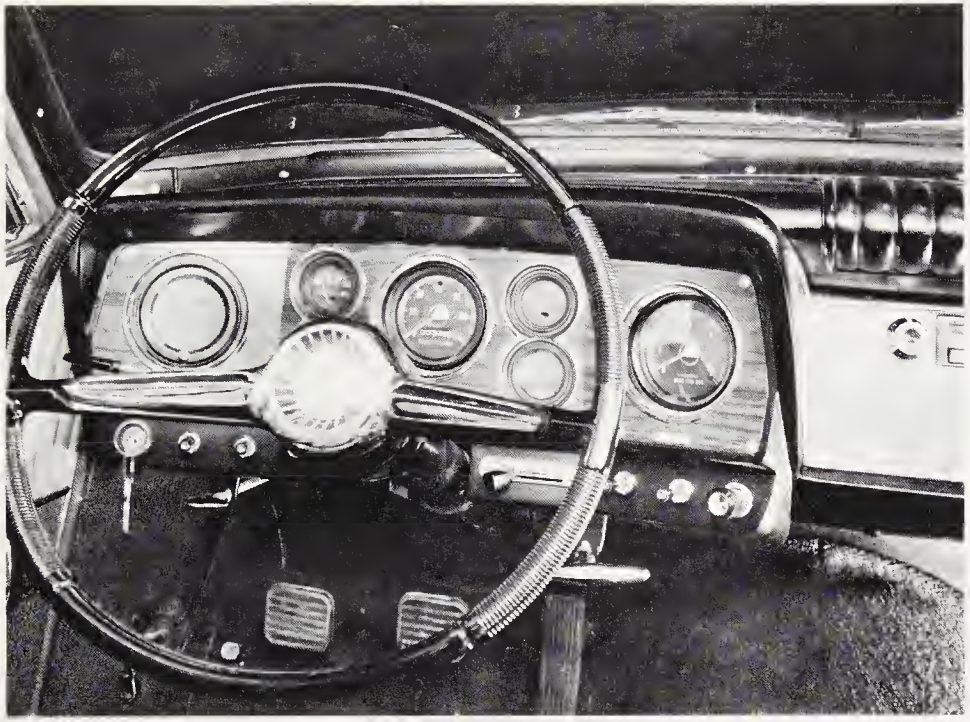
Preliminary design sketches explored various treatments. Stevens contemplated use of Hawk Monaco nameplate.

in and around the Los Angeles area by our test car is any indication of what Studebaker-Packard can expect throughout the rest of the country, then we'd say that their new Gran Turismo Hawk is definitely in," reported *Motor Trend*.

Stevens had first submitted drawings for the GT (using the name Hawk Monaco) in April, and the end result was very close to his initial proposals. "I built the first hand-made car in Milwaukee in June," Stevens said, " and we had it in front of dealers in September." Though Stevens' budget was miniscule, he was given certain liberties. He was allowed, for example, to hack off the aged tailfins, and completely revise the roof/greenhouse. Egbert was adamant about the latter—the car must have true four-passenger capacity, via more rear seat headroom. Otto Klausmeyer has kiddingly suggested that "we just rolled in a Thunderbird to take the roof templates." While Stevens admits that the T-bird was an influence, he feels that "the 'earmuff' crease was unique. I had a helluva time explaining why it was there. My answer was that it gave us a dealer-level two-toning line that would look like a coupe de ville. I wanted dealers to put a satin finish on it (as my renderings suggested). In 1964 we did use it this way, but we used vinyl."

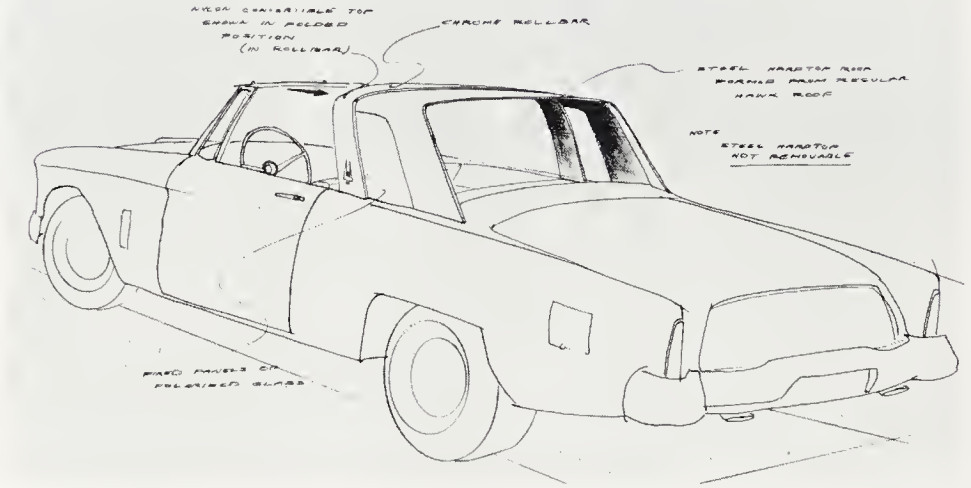
Another popular aspect of the roof was in reality a cost-saving device: the inset rear window. This gave the GT a crisp appearance, while simultaneously avoiding the expense of a more curvaceous backlight. Stevens also proposed a folding section of the roof ahead of the 'earmuff'—on the Lark as well as the Hawk. The rear portion would remain fixed, and gain a section of polarized glass for extra visibility. But the expense implicit in such a design prevented its going into production.

Below the beltline, Stevens trimmed off nearly all the 1961 Hawk's tinsel. New integrated taillights were built, ultimately incorporating back-up lights (which had first been slated for the deck lid). Bright metal came off the sides, though a stainless steel ribbed rocker was placed under the door in sketches, and in production ran the length of the wheelbase. Because engineers said fender-top joints might be a problem, Stevens cleverly covered this area with a thin stainless capping, which ran right back to the rear fender, like concurrent Lincoln Continentals.



The innovative, aircraft-inspired GT instrument panel placed dials on three panels angled toward driver.

White Hawk and similar Black Hawk showcars predicted 1963 design.



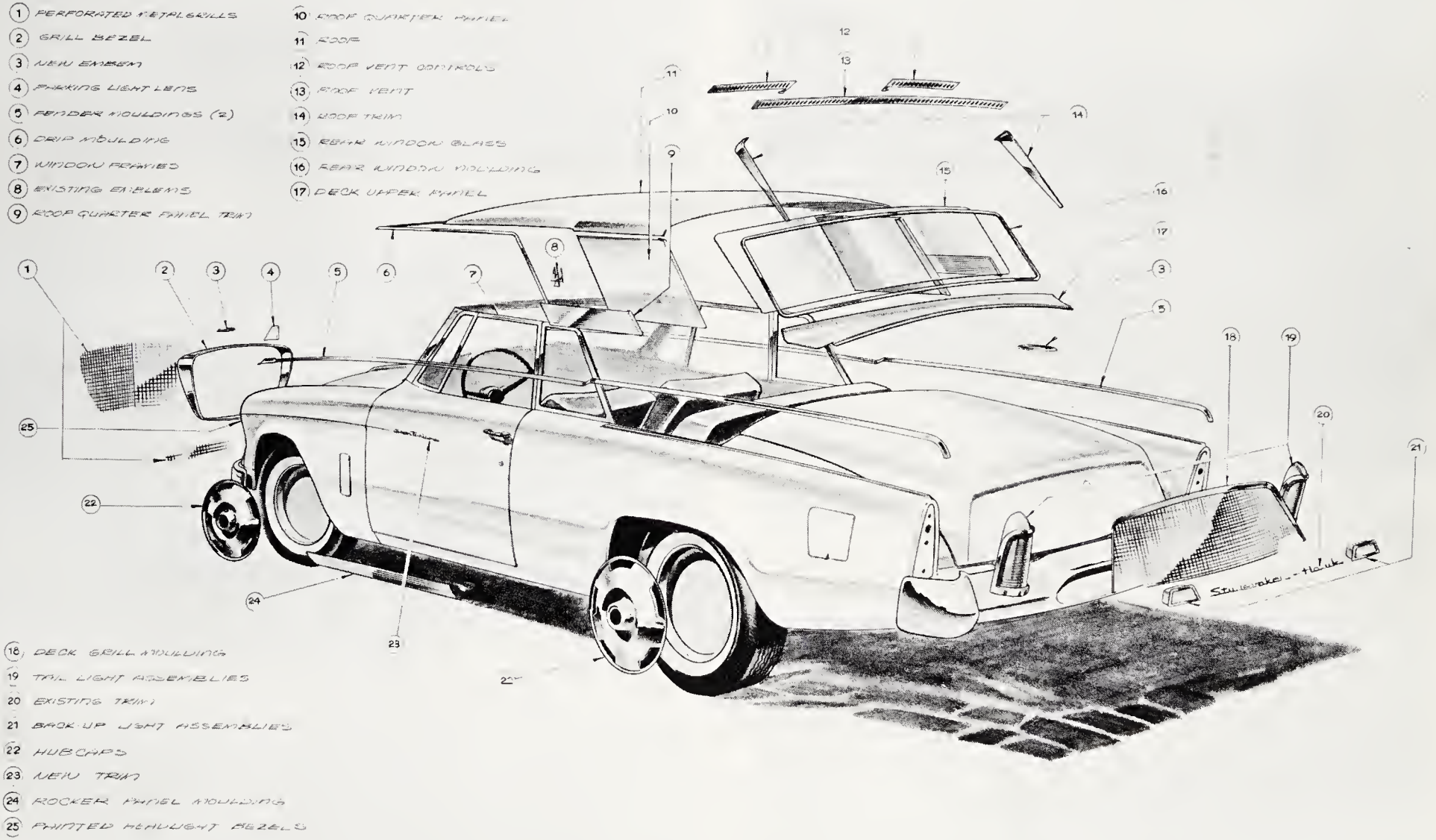
Stevens further proposed 'demi-convertible' GT for '63.

The front end was ultra-clean. Stevens specified painted headlamp rims instead of chromed units. He didn't get them, because leftover chrome rims were in large supply, but painted rims did arrive for 1963. He asked for and received a more 'classic' radiator grille, featuring a heavy chrome band, giving the radiator a more 'genuine' look. The grille was stamped, however, instead of die-cast as before. (Several modern-day owners have reinstalled the die-cast grille, which is interchangeable.) Stevens eliminated the earlier chromed hood scoop and grille mesh in the side openings. A variety of sporty wheel covers were proposed, but these were passed over for the stampings already in production to save on costs. At the rear, Stevens used a fake grille, "mainly to hide the old ribbed deck lid pattern and help make the car look new."

"There were a lot of unique ideas to the Gran Turismo that we're pretty proud of," Brooks Stevens told this writer. "The dash was a real achievement, with a three-plane instrument panel angling the gauges toward the driver. From the instruments to the right we put in perforated metal, to give the illusion and psychological effect of airiness, and repeated the theme in the door panels. This also conveniently hid the radio speaker. None of these features were used by any competitor at the time, though the three-plane dash came into vogue later at Ford and GM, and many doors are carpeted high today."

The perforated theme was continued in the headliner, using white vinyl set off by stainless ribs, imitating convertible bows. GT seats were bucket-shaped with inserts of cloth or ribbed vinyl (the latter outstandingly fragile) at the discretion of the buyer. As in the Lark, a recline mechanism was optional. The 210 hp 289 V-8 was standard, with the 225 hp optional on domestic models, though some export markets received six-cylinder GT's. Other options included Borg-Warner four-speed; three-speed column shift (with or without overdrive); air conditioning; power windows, steering and brakes; and the usual assortment of minor accessories.

NEW DESIGN ELEMENTS



Graphic composite of the GT's body components.

Another Stevens original, the Wagonaire (Brooks also designed that Evinrude outboard.)

The landau idea applied to the Lark series.

Enthusiastic *Motor Trend* called the Gran Turismo Hawk a "willing and able car definitely in the tradition of the high-speed tourers of Europe." With the standard 210 hp version, they recorded 0-60 in 11.7 seconds using a 5500 rpm redline for their four-speed car, and estimated a top speed of about 101 mph. *Car Life*, with a 225 hp model, recorded 11.4 seconds to 60 and a 103 mph top speed, though the evidence is that the 225 was possibly 10 mph faster than this, especially with the optional 3.07:1 rear axle in the automatic transmission version. (Interestingly, the four-speed's only optional back axle was a lower 3.73:1; standard was 3.31:1.)

As the long-time owner of a 1962 GT, the writer can only add his unqualified approval of this outstanding Studebaker. Our 210 hp with automatic returned similar performance, and handled curves with an agility atypical of domestic cars in 1962. Only on washboard surfaces did the GT shake a little, due to the flexible frame. Its only fault over 40,000 happy miles was an uncanny propensity to rust—they never did eliminate the water-catching inside front fender wells. We bought it originally because we couldn't afford a Mark II Continental—a car that compares roughly with it in concept if not in size—but when we did find a Mark II we sold it almost immediately. The Continental was as pretty as the GT, but it couldn't get out of its own way; compared to the Hawk's its interior was bland and lifeless.

The GT Hawk reached only 9,335 units in 1962, its best year. This was hardly enough to affect things at South Bend—barely more Hawks than had been sold annually since 1957. A brilliant automobile, the GT was a sales flop. And that was a shame—one of many shames in the postwar Studebaker story.

Up in the executive offices, Sherwood Egbert wasn't ready to say he'd lost. Increasing diversification—Studebaker-Packard negotiated with the Schaefer and Jacobsen manufacturing companies and Trans International Airways in 1962, expanded the Gravely tractor business and began making Onan generators in Northern Ireland—had increased overall sales volume to $365 million. The corporation netted $2.5 million profit for the year (helped by the sale of Gering Products for $5.6 million). But this represented an overall net, and the car division actually lost money. The 86,794 units produced for the calendar year was only a few thousand short of the 90,000 Egbert had projected in January, however, and represented a ten-percent increase over 1961.

The car business would have been better had the union not walked out on January 1, in a strike which lasted six weeks. "The main issues separating the parties," noted the board minutes for January 25, "include computation of vacation pay, compensation for employees in 7-day operations, shift premiums, and the 15 minutes less clean-up time. [Egbert] explained each man-minute is worth six cents without regard to the absorption of overhead." (Studebaker-Packard had long considered its allowance of thirty-nine minutes for relief and wash-up time costly and uncompetitive, when compared to twenty-five minutes in the Detroit industry.)

1963 Lark Regal two-door sedan.

1963 Lark Cruiser four-door sedan.

1963 Lark Daytona with Skytop Sunroof option.

Possibly because of the good industrial relations Egbert had established since his takeover a year before, this third authorized strike in the history of Studebaker was not a truly bitter affair, though it did lasting damage. Pickets permitted supervisory personnel to pass through their lines to take over jobs regularly performed by the union; management offered an annual improvement factor raise of 2½ percent or a minimum of six cents an hour (with 1½ cents withheld to offset higher pension costs) and a one cent an hour cost-of-living increase. The UAW indicated willingness to give Studebaker-Packard a 'below-pattern settlement' to help overcome the automotive losses of 1961. Most of the terms offered by management were accepted in February, but not before the stoppage had reduced Studebaker-Packard market penetration from 1.5 percent to a disastrous 0.8 percent. For the first quarter, the strike largely contributed to a loss of $2.2 million.

The wiry Egbert bounced back from his labor showdown by declaring that he had only begun to fight. He promised "a new look of quality" for the products and an eventual three percent of the market, a large defense division based on "110 years of Studebaker engineering experience"; a broad-based international division with the goal of converting overseas mail-order business to overseas manufacturing—and more diversification. He had by now replaced many aging top managers with younger men of his own choosing, and worked the cash balance up to $50 million, against $21 million a year before.

Despite the optimism of Studebaker-Packard's president, most analysts remained pessimistic over the company's long-range outlook. "Financially, Studebaker-Packard is bound to partial immobility through lack of cash. Manufacturing suffers from an old, old plant and some outdated machinery," wrote *Business Week*. "About 25% of the country is still unrepresented by Studebaker-Packard showrooms. And the company doesn't have the kind of money needed for large-scale plant modernization. It's hard to compete in today's world without the newest forms of mechanization."

One outmoded aspect that Egbert *could* eliminate easily was the name Packard. He so moved in the board meeting of March 9, 1962. "While at one time Packard had been a great name, it is presently associated by the public with a defunct company and this is hurting the Corporation," read the minutes. "Mr. MacMillan stated that while he

Experimental Lark powered by diesel did not see volume production.

approved the President's recommendation it was with a feeling of regret that he observed the passing of Packard as a corporate name." Studebaker-Packard Corporation duly ceased to exist after the annual meeting of April 26, 1962, when the board recommendation was approved by stockholders.

The passing of Packard was mourned by automobile magazines and enthusiasts throughout the country. Though the last Packard cars had been built fully five years before, there had always been the hope that someday, in more prosperous times, Studebaker-Packard would bring back the big, luxurious cars that had been an American standard for decades. Even the March board meeting had noted, "We do not intend to abandon Packard as a trademark, but only to remove it from the Corporate name." At that time there was talk of naming the new sports coupe being designed by Raymond Loewy a Packard, or even a Pierce-Arrow—another defunct name to which Studebaker-Packard still had title. But by May the board was referring to this car as the Avanti, and the last chance to call an automobile a Packard had passed.

The Avanti, together with the Loewy prototypes for a related series of Studebaker sedans, is the subject of the next chapter. The latter's place in the 1963 lineup, disappointingly, did not affect the overall situation.

Series Model (passengers)	Price	W.B.(in.)	Wt.(lbs)
63S Lark six			
Standard sedan (6)	$2,040	113	2,775
Standard 2dr sedan (6)	1,935	109	2,650
Standard 4dr wagon (6)	2,430	113	3,285
Regal sedan (6)	2,160	113	2,790
Regal 2dr sedan (6)	2,055	109	2,665
Regal 4dr wagon (6)	2,550	113	3,200
Custom sedan (6)	2,285	113	2,800
Custom 2dr sedan (6)	2,180	109	2,680
Daytona 4dr wagon (6)	2,700	113	3,245
Daytona hardtop (6)	2,308	109	2,795
Daytona convertible (6)	2,679	109	3,045
63V Lark eight			
Standard sedan (6)	$2,175	113	2,985
Standard 2dr sedan (6)	2,070	109	2,910
Standard 4dr wagon (6)	2,565	113	3,435
Regal sedan (6)	2,295	113	3,000
Regal 2dr sedan (6)	2,190	109	2,925
Regal 4dr wagon (6)	2,685	113	3,450
Custom sedan (6)	2,420	113	3,010
Custom 2dr sedan (6)	2,315	109	2,940
Daytona 4dr wagon (6)	2,835	113	3,490
Daytona hardtop (6)	2,443	109	3,035
Daytona convertible (6)	2,814	109	3,265
Cruiser sedan	2,595	113	3,065
63S, 63V Gran Turismo Hawk			
hardtop, six-cyl.* (5)	$ n.a.	120½	3,045
hardtop, eight-cyl. (5)	3,095	120½	3,280
63R Avanti			
sport coupe (4)	$4,445	109	3,140

*export model

For his 1963 act with the Lark, Brooks Stevens continued the process of dynamic modernization. The greenhouse was totally revised—made squarer, to give more visibility—and ultra-thin upper door frames were used on sedans and wagons. The lines were made sleeker by straight-through body moldings, though the latter were deleted from the mid-year Standard models selling for around $2,000. The grille featured more horizontal and vertical checkerboard bars, while the deck was redesigned with circular medallions, taillights with radiating bars and new bright moldings on the more expensive lines.

On the inside, Stevens took a trick from one of his advance prototypes with the 'vanity,' a flush, folding compartment which opened like a small secretary and included

1963 Lark Daytona convertible.

Stevens' interior ideas included novel vanity.

Police options were applied to a few V-8-powered Larks.

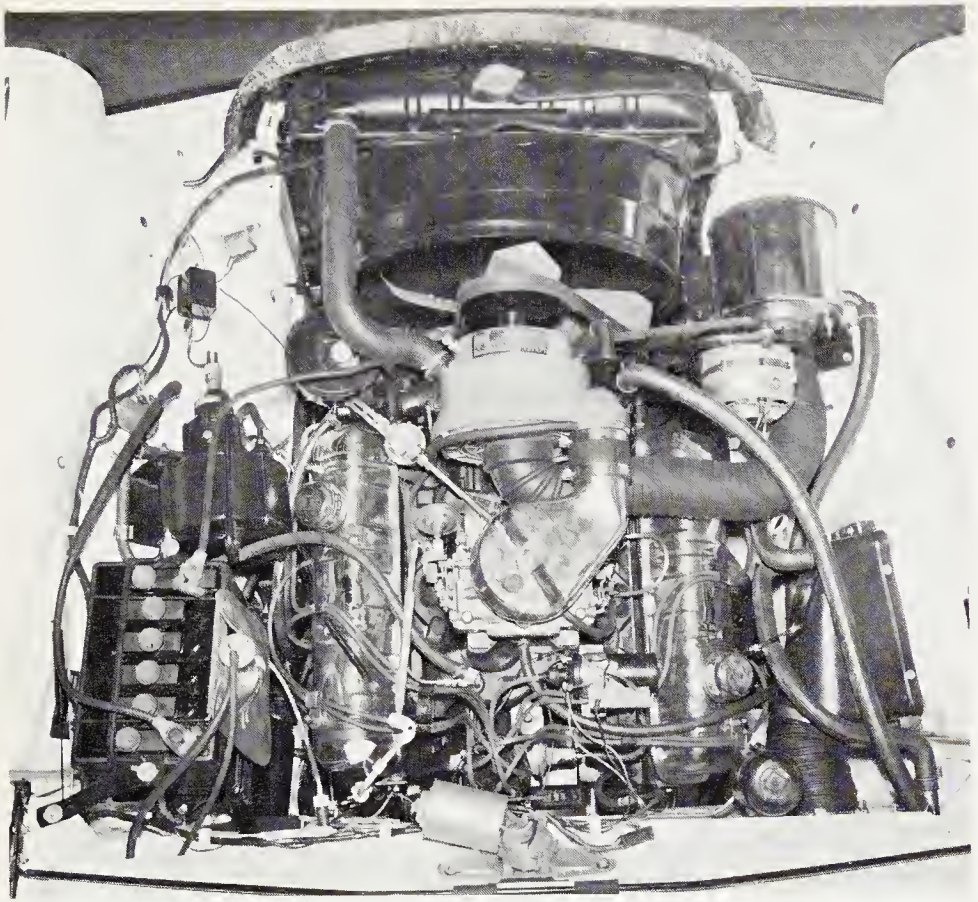
spaces for maps, tissues, coins, drinking cups and assorted glovebox miscellany. Underneath its padded cover was a pop-up makeup mirror. It was a very clever gadget, adapted with minimal cost, which has never been quite duplicated on any other automobile. Also new to the interior for 1963 was a full set of needle gauges and rocker-type control switches. In accord with government safety regulations, front seat belts were fitted on all models commencing February 19, and all 1963's used amber instead of clear parking light lenses.

Brooks Stevens' biggest innovation for the '63's was his Wagonaire series of sliding-roof station wagons—again taken from his 1964 prototype—available in Standard, Regal and Daytona trim. The rear half of the Wagonaire roof slid forward into the front half, admitting tall objects like trees and bushes. Wagonaire was the only type of Studebaker wagon in early 1963, though fixed roof options were offered at mid-year for $100 less. The reason was not simply to lower price—the Wagonaire suffered from serious water leaks, and production was slowed while corrective measures were applied, never fully solving the problem. But the Wagonaire was undoubtedly a clever idea—the first real advance in station wagon design since the old woodie carry-all became a civilized estate car in the late forties. Had its builder been any other than Studebaker, with enough money and time for research and development, the Wagonaire feature would probably be with us yet.

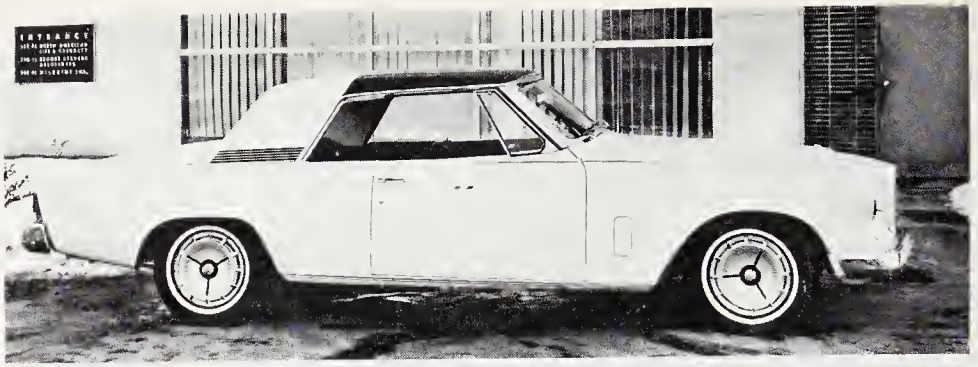
GT Hawk modifications for 1963 were minor. The grille received a checkerboard pattern similar to the Lark's, side openings were closed up with fake grilles, and round amber parking lights were installed. Inside, the dash was fully woodgrained, and much-improved pleated vinyl seats replaced the poor-wearing ribbed vinyl variety. Suggesting its continental flair, the GT for '63 featured small red, white and blue tricolors on doors and grille; the rear deck overlay was reversed, giving it less the appearance of a rear grille and more the look of a decoration.

Initially, Larks came with the usual 169.2 cid six or 259 cid V-8. Hawks used the 289 V-8, which was soon offered on Larks as an option. Then, at mid-year, came the hottest performing Studebakers in decades—the Super Lark and Super Hawk. They were powered, depending on your choice, by a specially tuned R1 289 V-8 with 240 horsepower—or a mighty R2 with close to 300 hp, courtesy of a Paxton centrifugal supercharger.

Paxton Products, which had spun off Robert McCulloch's company (the same one that brought forth Sherwood Egbert), was acquired by Studebaker as part of its diversification program, together with its enthusiastic vice president, Andy Granatelli. The board meeting of March 9, 1962, approved the purchase as a way to grab a quick performance advantage. Said Byers Burlingame, "It would cost from $12 to $16 million to produce a new engine and would take two years . . . substantial improvement can be



Supercharged R-series V-8 in a '64 Gran Turismo.



1963 GT as modified by Brooks Stevens.

The 1963 Super Hawk moves through Bonneville traps at better than 140 mph with R2 engine.

made in the performance image of our present engine by the addition of a supercharger, and the only commercially available supercharger is that manufactured by Paxton Products." Studebaker bought Paxton for $275,000, of which $125,000 was in common stock. Egbert told the board the acquisition was "very important as a means of improving the Corporation's performance image and, furthermore, will be evidence of our permanent plans in the automobile industry."

With the R1 engine, the Super Lark/Hawk package cost $371.70; with the R2 the tag was $210 more. There were further R-series engines (for which see the next chapter), but these were the only two applied in quantity to Lark or Hawk. They seemed adequate. At Bonneville with Granatelli and a long-legged rear axle ratio, an R2 Super Lark did 132.04 mph, while a similarly equipped Super Hawk made 140.23.

The R1 Jet Thrust engine was standard on the Avanti, and the only R-type on which air conditioning could be specified. It included three-quarter-race high lift cam, heavy-duty valves and crankshaft bearings, dual breaker distributor and viscous drive fan with power saving control. It breathed through a four-barrel carburetor and straight-through dual exhausts; transistorized ignition and headers were made available in 1964. Its compression ratio was a towering 10.25:1. The R2 Paxton-blown unit had all the R1's features plus a sealed carb, but lower compression heads gave it a 9:1 ratio. All Super packages included power-assisted Dunlop-licensed Bendix front disc brakes (these were optional on all Studebakers from 1963), front/rear heavy-duty shocks and springs, rear-axle radius rods, rear sway bar, Twin-Traction, four-ply tires, tachometer, manifold pressure gauge, 160 mph speedometer and special exterior identification—a red and blue disc bisected by a Studebaker 'S,' with the 'R' designation in chrome. In 1964, the lower fender also contained a medallion in Avanti red-white-blue, reading Avanti Powered (R1) or Avanti Supercharged (R2).

Motor Trend tested an R2 Super Hawk which, with the optional equipment, listed for $4,515.71, well over its $3,095 base price. The editors concluded that the expense was warranted: "The kick provided by the supercharger is especially noticeable when cruising about 75 mph when the throttle is floored. From this point up to flat-out top

1963 Gran Turismo Hawk.

speed, the rate of acceleration feels almost constant—very strong . . . the R2 can safely be taken up to 6000 rpm for shift points . . . The engine wound up very quickly and willingly." Their acceleration time (with the automatic transmission version) was remarkable: 0-30 mph in 3.5 seconds, 0-60 in 8.5 seconds. The car recorded 118 mph top speed—but bear in mind this particular Hawk had a 3.73:1 rear axle ratio. The Super Hawk, *Motor Trend* concluded, was "a very satisfying car to drive on all points. We still rate it, personally, as being the last of the real he-man automobiles." Studebaker had done it again—another great car from the canny wizards of Indiana.

And back in South Bend, business was worse than ever.

After the January-February strike, 1962 had picked up slightly—market penetration went back up to 1.2 percent. But in the first eight months of 1963, sales tumbled again, dipping below one percent. "While every other automaker was rolling to fat and happy records," wrote *Time*, "Studebaker's sales through August dropped to fewer than 44,000 cars, and the company—whose automotive division has operated in the red for eight of the past nine years—lost $7,500,000 in 1963's first half. Clearly, 1964 will be Studebaker's do-or-die year."

They had said that all before—in 1954, in 1956, in 1958, in 1960. A lot of people, loyal to the marque, figured it was just another false alarm. But in point of fact all those other years had seen only temporary preventive therapy; the future had finally caught up. To make a profit, Studebaker needed to build about 120,000 cars. This was well above 1.5 percent of the anticipated 1964 market. To sell, those cars needed new styling. They also had to blunt the challenge of present, or coming, second-generation compacts: Chevy II, Fairlane, Dodge Dart, the new Ramblers. In stark reality, and one's personal good wishes aside, Studebaker Corporation was facing the end of the road. This time it was for certain.

In June 1963, Clarence Francis resigned as chairman of the board. (It was then that he made his famous comment about no sane board wanting a seventy-two-year old chairman.) Randolph Guthrie, a long-time director, was appointed to take his place. In the fall came another ominous development: Sherwood Egbert was desperately ill. He had cancer—but beyond that he had worked himself to a frazzle. By November he had taken indefinite leave. Guthrie said he hoped Egbert would soon be back—but he never returned. Shortly Guthrie announced that Byers Burlingame was the new president.

The brief tenure of Sherwood Harry Egbert had ended. The long tenure of the wagonmakers from South Bend was not to be long in following.

CHAPTER 9

The Avanti Adventure

FROM THE STANDPOINT of its corporate impact, the Avanti was a non-car. Fewer than 5,000 were built, against Sherwood Egbert's projection of 20,000 for 1963 and more for 1964. The car itself was the subject of debate at Studebaker—and it is still not uniformly adored by certain ex-managers. What we can say about it, however, can be said unequivocally: It was one of the most interesting cars of the sixties. It made enthusiasts who normally yawned at the mention of Studebaker notice that company for the first time in a decade. It fostered styling ideas for a whole new generation of Loewy-designed cars—although management would have had to choose between them and the Brooks Stevens proposals (see next chapter) had Studebaker survived.

Raymond Loewy had been six years absent from South Bend when Sherwood Egbert telephoned him in January 1961. Egbert had not yet officially become president, but he wondered if Loewy would consider a project for the company. Loewy said he might. In the meantime, he sent some documents concerning his earlier Studebaker designs to Egbert: "I do not keep files in my home in Palm Springs, but I found a few clippings and photographs which you may find interesting." This letter, dated February 2, 1961, is the first written reference to what became the Studebaker Avanti.

Five weeks later, on March 9, Loewy received another call from Sherwood Egbert. Said Raymond Loewy, "He wanted to talk to me about a new sports car. He said, 'Raymond, I want you to do it at once . . . and it must be an absolute knockout. The finished mockup—the clay model—must be finished in six weeks. Can you do it?' 'Yes,' I said, 'providing you let me do it the way I want to and give me complete freedom of action. I want the authorization to do it,my way, far from South Bend. I want to work it out in Palm Springs where I have my winter home . . . I want to be free from interference and especially free from well-meant suggestions. We'll save time and will do a better job.' " According to Loewy, Egbert bought this stipulation without a murmur. "Okay, Raymond," he said, "go ahead and keep in touch. Good luck to you."*

Accounts of the Avanti design after the car was released were often accompanied by the suggestion that Egbert had sketched the first lines of the car during one of his airplane trips. This tale is discounted by Loewy (as well as Brooks Stevens, who was simultaneously consulted). Egbert himself testified that he did not personally sketch any designs when he told *Fortune*: "Around March 22 I made some phone calls and I bought $6.25 worth of magazines. I got some drawings made and that was the start of the [Avanti]." Egbert thus placed a later date on his communication with Loewy, but extant correspondence shows that the two were in touch much earlier. It's possible, of course, that Egbert had an artist put down some ideas, but the car that resulted was strictly Raymond Loewy's concept. Egbert may have been referring to Loewy's own sketches, which were probably in his hands by March 22.

"I had decided on a design concept almost immediately after Egbert's first communication," Mr. Loewy tells us. "It was an evolution of my thinking in three earlier experimental cars, the Lancia Loraymo, Loewy-BMW and Loewy-Jaguar. All three featured large, convex backlights uninterrupted by a pillar, and the Loraymo exhibited a fuselage similar to what I had in mind for Studebaker. It had a 'coke bottle' shape in plan view, designed for optimum aerodynamics.

"The Avanti experience I rank with Skylab and my Soviet Union contract [for design of Russian cars] as the most wonderful events of my career. With Avanti, I had the benefit of assistance from three extraordinary guys: Tom Kellogg, Bob Andrews and John

*Some Loewy quotes are from an interview with Loewy by Asa Hall and Lou Carini, used with permission.

Sherwood Egbert and the Studebaker Avanti.

600 Panorama Road —

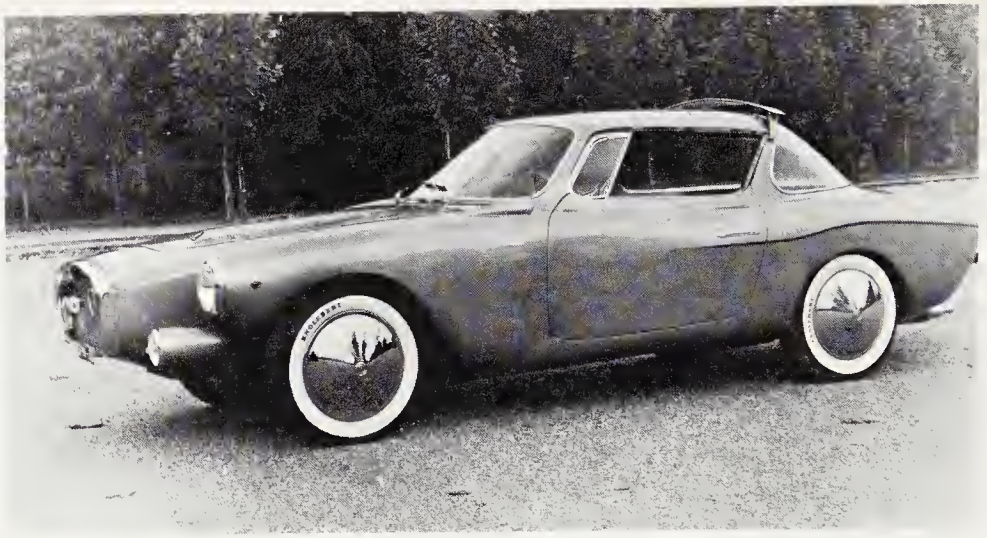
Dear mr. Egbert:

I do not keep files in my home in Palm Springs, but I found a few clippings and photographs which you may find interesting.

Best regards.

Feb. 2nd 61
Palm Springs - Cal

Initial correspondence led to the Avanti exercise.



Loewy told Egbert of how he de-finned '59 Cadillac . . .

. . . and of his advanced ideas in the 1960 Lancia Loraymo.

Ebstein." Andrews had worked with Art Kibiger under Frank Spring at Hudson, helping develop the revolutionary Step-down Hudson of 1948. Kellogg was a young sketch artist known for his ability to translate imaginative design ideas to paper. Ebstein, as Avanti project coordinator, was a vice president of the Raymond Loewy-William Snaith Company in New York. All of them were soft-spoken, dedicated designers who loved automobiles. Bill Mitchell himself couldn't have assembled a better team, and even if he did it took him a generation to do so. That Loewy was able to put together such a concentration of talent within a week is a lasting tribute to him and his organization.

Loewy continues: "I rented an air-cooled, furnished, small ranch house in the middle of the desert, at some distance from Palm Springs. The fellows arrived with 200 pounds of modeling clay, modeling tools, drafting materials and swimming trunks on

March nineteenth." Loewy clamped on a security blanket that would have done justice to the CIA.

"It was like a cloak and dagger movie," Bob Andrews told the writer. "We had no idea what was up except that it was terribly secret and we'd have to develop the thing within an untypically short time. Once we got there R.L. closed us up tight. He wouldn't even let us out for a night on the town. He disconnected the telephone, stopped all the clocks and banned wives and girl friends. We worked sixteen hours a day every day for weeks. It was so grueling that I took to fooling around, walking up behind Tom making loud heel clicks in imitation of The Boss. He'd drop his butt or coffee and bend down over the drafting board, and I'd walk up behind him and whisper obscenities in his ears. He'd groan and chew me out. It was the tomfoolery that kept us all from going balmy."

In the ten days between his go-ahead and the crew's arrival, Raymond Loewy busied himself with design criteria. "I sketched my concept on large panels . . . When they arrived, the car was well defined. The target was clear. In large black letters on the panels were the key points of my theme." Some of the legends read, 'Coke- shaped [body form] a must!' . . . 'Wedgy silhouette' . . . 'Off-center gunsight panel on the hood' . . . 'Use scoop—no grille.'

As the sketches here attest, certain features were dropped while others were emphasized or retained. A more conventional, glassy superstructure, with narrow C-posts tapering back along the backlight corners, was replaced by a broadly wrapped backlight and a beefy, forward-mounted C-pillar. A rollbar was present in the original B-pillar, but when that was minimized it was shifted back to the C-pillar. Loewy felt a rollbar would add enough stiffness to allow the roof panels ahead of it to be removable, but the engineers and cost analysts disagreed, and take-out panels did not appear in production.

The front end graduated from conventional bumper-grille combinations to a smooth, sharply drooping wedge with air scoop underneath: Loewy shunned the idea of a grille as the world knew it, believing it archaic and cliché-ridden. His first one-eighth-scale model did contain a small grille atop the wedge, "Like a receding hairline," as *Industrial Design* put it. Loewy rejoiced when Gene Hardig later said it wouldn't be necessary, as engineers had designed a new Avanti radiator.

Loewy also suggested dual headlights, as several of his sketches indicated, but they were eliminated in production—he thinks for reasons of cost. "It wasn't anything to do with styling," he said, "and I think dual headlights would have looked good." (They would have also evolved nicely into today's rectangular quartz-halogens.)

The rear end, an upswept ducktail with wrapped taillights and a thin bumper, was implicit in most of the Loewy sketches, and changed only in detail—the deck was raised to provide extra luggage space. The coke-bottle fuselage was featured in all design sketches, though much work was done on the wheel opening 're-entry' curves, to look like those followed by space objects re-entering earth's atmosphere—from Loewy's NASA experience. These were elongated and cut slightly forward at the bottom, instead of following a plain round shape. They gave the car a much more rakish look. The wheel openings were also flared at the tops in the first scale model, like the later Olds Toronado, but the flares were ultimately deleted. "I have mixed feelings about them," Raymond Loewy says. "From the rear view they provided visual stability and I think they look good. At the time we felt they interfered with our prime directive, which was purity of line. We felt they weren't necessary." Personally, the writer agrees. The Avanti was a

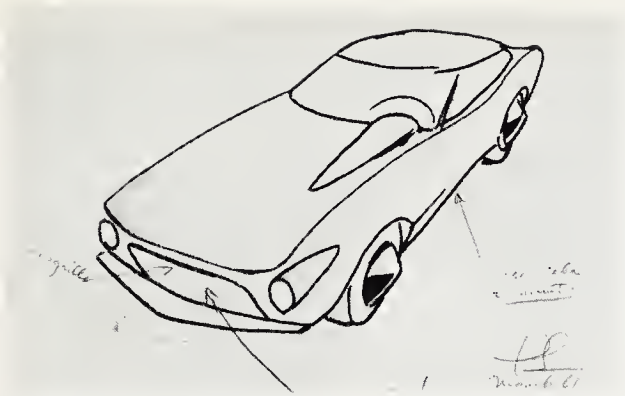
At Palm Springs: Kellogg, Loewy, Andrews, Ebstein.

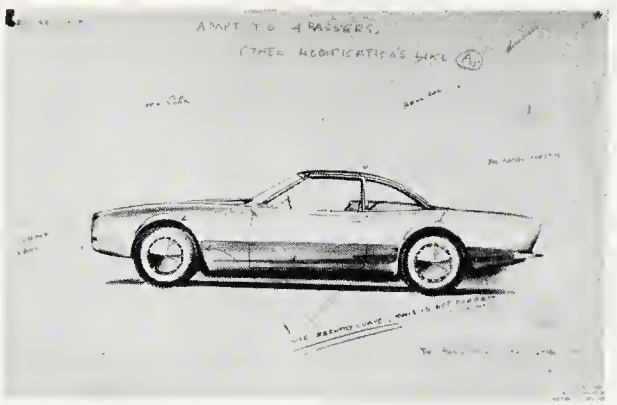
strong visual statement in its basic shape, and didn't need any fancy stuff to help put it over.

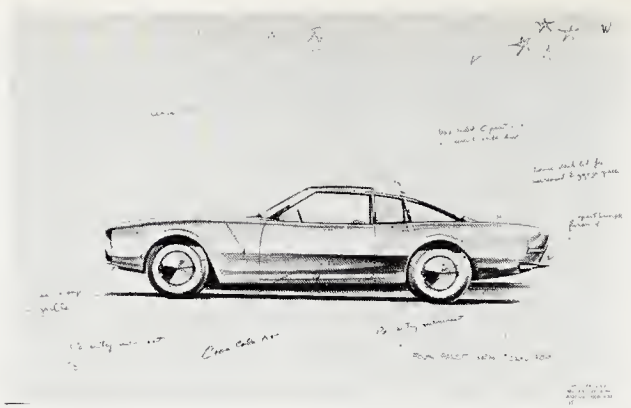
A design element that stuck was the asymmetrical hump on the hood, which stemmed from Loewy's BMW and Loraymo exercises. "It was exactly in the axis of the steering wheel column and straight," Loewy said, "If you were on a straight highway standing at the steering wheel, that panel was oriented forward where the roadway would blend with the horizon, parallel to the centerline of the chassis frame. It made car and driver integral, like the gunsight of a gun. I had this on my BMW—I found that after driving awhile, it oriented my senses to the road." Aside from normal hood slope, it also oriented vision downward: Loewy induced a noticeable front-end rake to the Avanti which contributed to its aggressive, ground-hugging, hungry appearance.

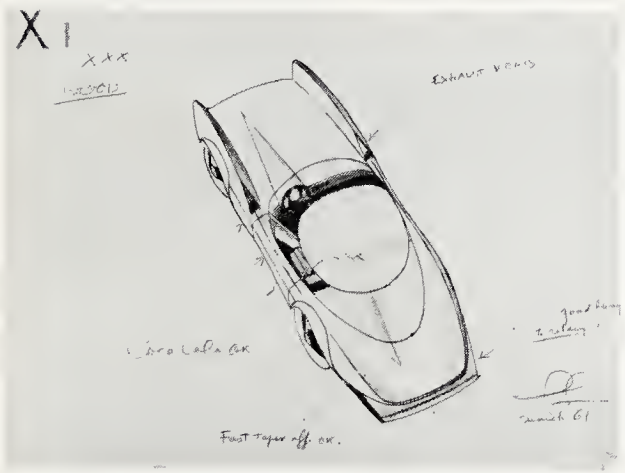
Care was also taken with interior design, where Loewy pushed hard for four-seater capacity. "Egbert wanted a two-passenger car, but not very strongly," he said. "I know that Gene [Hardig] and I felt that four-passenger was better and we fought Egbert. We had a violent fight about sun visors too. He did not want any—none at all! Finally Gene and I squeezed in these narrow ones. The Avanti's are skimpy, far too short; they should be twice that big. I had them changed in my Avanti in Europe for wider ones. I never understood Egbert's phobia about sun visors."

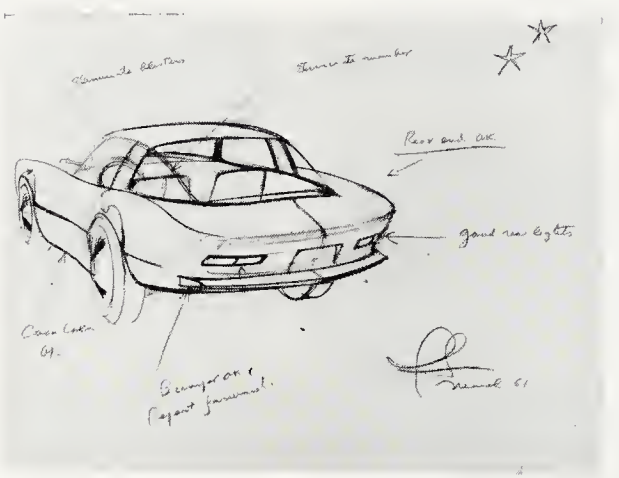
Elements of note in the Avanti interior were aircraft-inspired overhead light controls mounted above the center of the windshield, with rocker switches. Reviews on this

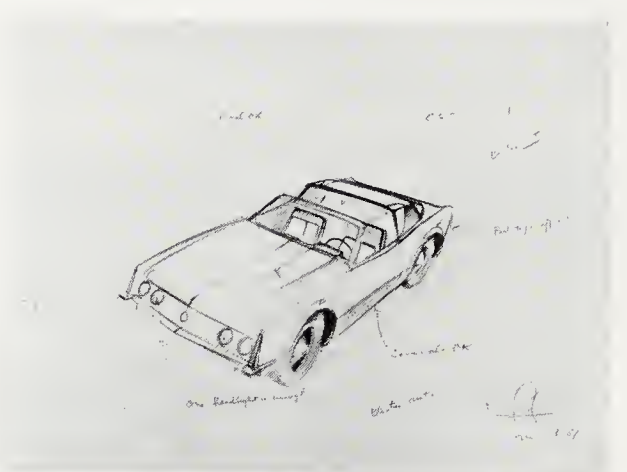












Initial design parameters pinned to Palm Springs walls.

The Avanti emerges in these sketches by Loewy and company.

Loewy idea were mixed, some commentators praising its originality, others saying it was difference for difference's sake. Actually it was inspired by R.L.'s desire for a clean, mostly padded 'safety dash'—it moved a lot of switches out of the way. The rest were grouped with the gauges (a full set, including rev counter and manifold pressure/vacuum gauge) in a three-plane panel set directly in front of the steering wheel, or what Loewy calls the "driver station." A console carried minor controls for heating and ventilation plus the shift lever, with the radio built into the dash above. Aircraft influence was again apparent in instrument lighting, which was red instead of white or green—a color Egbert had picked, easy to read and glare-free. (Interestingly, the writer most recently encountered this lighting feature on the new BMW 633 CSi. . . .)

It is fascinating to review the existing sketches to see how, inexorably, the criteria were achieved. Early concepts of clumsy pod-type head lamp housings, grille openings, and unnecessary steel members in the backlight were all gradually eliminated. Even a Loewy-favored item, cowl-mounted exhaust ports, was dropped. The result was a new and original shape, which one either loved or hated. *Road & Track* summed up the negative view by saying, "great liberties have been taken merely to achieve the effect—the styling is contrived, straining for visual impact to the exclusion of utility, or efficiency, or grace." But they did admit that it was "mercifully free of excrescent ornamentation," and "not a copy of anything." The majority of critics, from man-on-the-street to fellow industrial designers, felt Loewy had come up with one of the more important automotive shapes. There was bulk, yes—but there was also airiness and wonderful visibility. The lack of conventionalities like grille, fender flairs, heavy glass bracing and oversize bumpers was refreshing, even in the new age of clean styling that was the early sixties.

About a week atter they'd begun work, the Loewy team was ready with a one-eighth-scale clay model—actually half a model, placed against a mirror to add full dimension and save time. Loewy and Ebstein hopped a plane for South Bend, where the half-model was approved by Egbert, and reviewed with more deliberation by Hardig.

The latter voiced concern about the extreme dip up front, so Loewy returned to Palm Springs. He flew back again on April 2 with a complete, revised model, plus Tom Kellogg's sketches of the interior. By this time engineers had laid out a full-sized clay buck and a seating buck for the interior work. Egbert assigned Randy Faurot's stylists (principally Bob Doehler) to handle the modeling of the full-size clay.

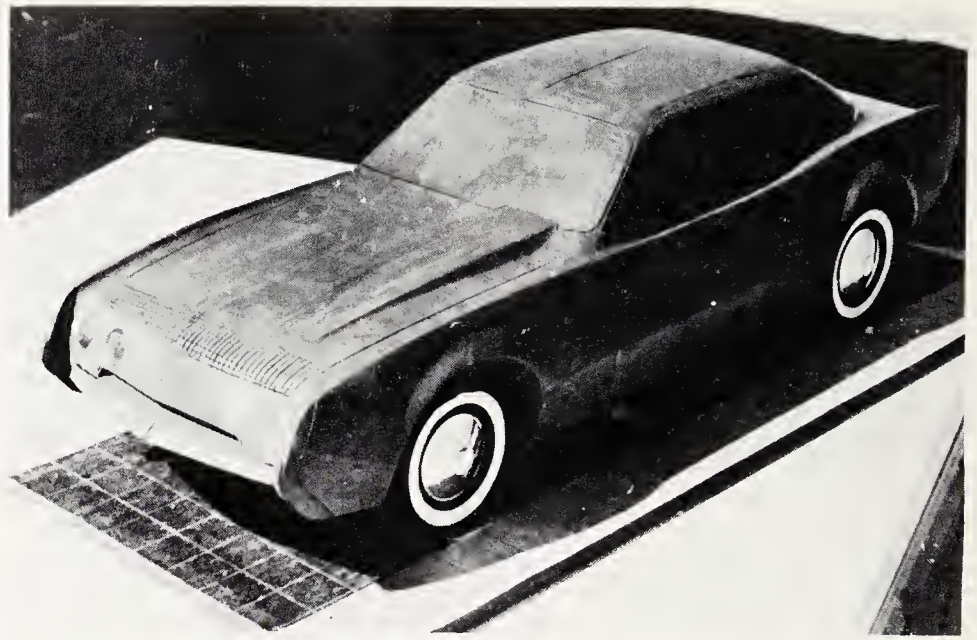
First known as the Q or X model, the car was christened Avanti (the Italian word for forward) by May. The word was suggested, along with others, by D'Arcy. As mentioned earlier, the names Packard and Pierce-Arrow were considered and rejected—too anachronistic, probably. Loewy did retain a thirties flavor with his 1932 Hupp-inspired Avanti script, incorporating an arrow in the lettering.

The first production compromise Loewy faced was the chassis frame. There was no money to design a special one, and the best bet was the heavily-reinforced 109-inch-wheelbase Lark convertible's. But this proved too long in the back and too short in the front. The rear end was tackled by Ebstein, who had the frame cut off behind the leaf springs—it still extended slightly, disrupting the 'tucked-under' look of the rear end and necessitating little boxes in the pan for the spring shackles. The front end was considered short by management, not Loewy, but management prevailed and the fenders were extended.

Exhaustive research by collector Fred K. Fox has unearthed more detail styling changes. Two big ones included altering the windshield rake to permit taller individuals to get in without hitting their heads (Egbert conked his on the seating buck and insisted on this modification); and more emphasis on the coke-bottle shape, by lowering the top of the wheel openings. Doehler also came up with a new-looking wheel cover that cost little: the old Starliner cap with concave center, in which additional stamping and paint gave the pleasing appearance of a light-alloy wheel. (Some designers—not Loewy—had wanted wire wheels but base price considerations precluded their use.) Fred Fox also lists these detail changes, which occurred during the spring of 1961:

1. Splitting taillight-backup lights with the edge of the trunk, which would have interfered with a single lens.
2. Removal of vertical springing bumpers and extension of fixed bumpers around the sides at front.
3. Mounting of parking lights in leading edges of fenders which were given square instead of pointed shape.

By April 27—barely five weeks since the project had begun in California—the clay was complete, including tinfoiling (to imitate brightwork), and body templates were being taken. Bob Doehler was now attending to interior design, working with Kellogg's renderings. Vacuum-formed Royalite interior panels were eliminated due to cost, being replaced by padded, sewn vinyl sections. Cost considerations also eliminated one-sweep front-to-rear armrests, which met smoothly at the door openings. Product planners considered the proposed open space behind the rear seat unacceptable, so a fiberboard panel was laid horizontally behind the rear seat, with an access door to allow longer-armed passengers to dip into the trunk. A simple two-spoke steering wheel designed by Milt Antonick had little horn bars in the spokes instead of a horn ring. As for the seat design, if it looks like you've seen it before, you probably have—Bob Doehler took it from the Alfa Romeo Giulietta, except that Avanti's seats were thinner to provide added rear kneeroom. The gas tank filler pipe intruded into the rear cockpit due to its high mounting position on the C-pillar, but Andrews has related that they left it there—

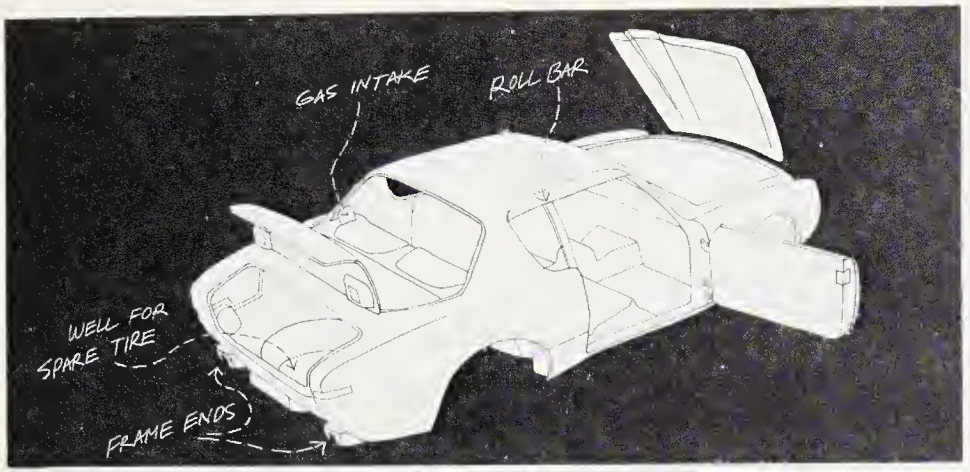


The first quarter-scale model, with superstructure firmed up. Gene Hardig later said upper grillework was unnecessary.

covered with vinyl—because it looked "very aircraft." Most of the interior was locked up by September, but the inside rearview mirror was continually shifted around, even after the release date. On the dash it was too low, on the windshield header it was too high. Production Avantis had it glued to the windshield, which was all right except that it was on the small side. Perhaps a convex mirror would have given more rearward visibility.

The decision to make the Avanti out of glass-reinforced plastic (GRP) was not Loewy's (though Loewy approved), and was not really made until the full-size clay was completed at the end of April. Gene Hardig opted for GRP because there was no time in Egbert's schedule for the normal tooling process implicit in a steel body. Here Egbert's inexperience told: He wanted all the fiberglass work to be done at the Studebaker plant, to hold down production costs. Otto Klausmeyer recalls that he helped discourage this idea by telling Egbert the plant "would look like the inside of a flour mill." The president was persuaded by Gene Hardig to farm the job out to Molded Fiberglass Products, Inc., in Ashtabula, Ohio—which already produced GRP bodies for the Corvette.

Hardig worked considerable modification on the Lark convertible frame. New front/rear sway bars and rear radius rods were adapted. The gas tank was placed with an airplane engineer's appreciation of safety factors, ahead of the trunk and behind the rear seat, where it was protected from collision. This was not a new technique—Bristol Cars in England had practiced it with their Chrysler-powered bolides for some time—but it was certainly new and innovative in America. In this age of fuel tank fires in slap-dash



Drawing showing some of the many (129) GRP body parts.

The first South Bend fiberglass body, circa February 1963. Standing at car's right: B. H. Huff, F. L. Cudney and E. M. Nash of Engineering. Pointing at car's left: John Pasalich, manager, final line. Behind Pasalich: F. C. Drake, C. R. Capsey, Frank Kuzmich, E. J. Hardig, Jr., and Don Whitmer of Engineering.

rigs like Ford Pintos, South Bend deserves credit for pointing the right way to go a decade and a half back.

Other Avanti features encouraging high-speed safety were 'safety cone' door locks made by Daimler-Benz, Dunlop-licensed caliper disc brakes built by Bendix, and the Loewy rollbar, which Hardig felt necessary to provide body stiffness as well as roll-over protection. The latter was never in doubt: Avantis and Avanti II's have been rolled, on purpose and accidentally, for fifteen years without one ever suffering significant damage to the passenger compartment. The discs were adapted for use on Avantis (and other 1963 Studebakers as options) by John Winge of Bendix. They were the first caliper discs in regular domestic production, and the third instance of disc brakes in recent American automotive history. Unlike Crosley's spot discs of 1949-52, they were immune to damage from road salts and grime, unlike Chrysler's twin discs of 1949-54, they were not unduly expensive. As such they can be considered the direct progenitors of domestic car disc brakes as they are known today. Independent rear suspension with inboard mounted discs would have been the ultimate touch, but cost again interfered and engineers settled for conventional beam axle with finned brake drums, which provided parking brake drag at minimal expense.

The Avanti was going to have to go as well as look good, and considerable effort to that end was made by Gene Hardig. His raw material, of course, was the old 289 V-8, and what he did with it was remarkable. The standard R1 Jet-Thrust Avanti engine was given a three-quarter race high-lift cam, heavy-duty valves and crankshaft bearings, dual breaker distributor, viscous fan drive, four-barrel carburetor and dual exhausts. Scoffers claim Egbert specified the "loudest mufflers that could get past the law," and used their properties sonorously on hell-bent trips to and from the plant. Studebaker claimed they made for less back pressure and longer life. Both were right; they fitted the concept of the car. Studebaker didn't announce the Avanti's brake horsepower, preferring to remain smugly secretive about it, like Rolls-Royce. Estimates put it at about 240 bhp.

Andy Granatelli and Paxton Products Division provided the supercharger for the R2 engine, described in the last chapter: R2's developed between 285 and 290 bhp, or just about one horsepower per cubic inch. But Granatelli didn't stop here! He developed three still more potent engines, the R3, R4 and R5. Only the R3 was seen in production, on nine 1964 Avantis. (There was also one R3 Lark and one R4 Lark.) All three engines were bored to 304.5 cubic inches (3.62 × 3.62), had transistorized ignition and exhaust headers (soon offered as options on the R1 and R2). The R3 had 9.6:1 compression with four-barrel carb and supercharger, and developed at least 335 horsepower. The unblown R4 used two four-barrels and an astonishing 12.1 compression ratio, good for 280 hp. The R5 was strictly experimental—a 304.5 cid unit with special grind cam to Paxton specifications and magneto ignition. Its induction system had *two* Paxton blowers, one feeding each cylinder bank, with a Bendix fuel injection system initially developed for the V-8 Novi Indianapolis engines. It used a dry-sump oiling system with oil reservoir and cooler, was redlined at 7000 rpm and developed approximately 575 horsepower. It must have been a terror—and it showed just how much performance was there to be had in the Studebaker V-8, if someone had the imagination—and the money. This was,

incidentally, the kind of Avanti Raymond Loewy liked best: "Granatelli and I agreed on everything, and we became friends."

The R3 was not strictly part of 1963 Avanti production—we will return to it shortly—but it was the engine powering Andy Granatelli's Avanti when he broke twenty-nine stock car speed records at Bonneville in early 1962. Granatelli was faster than anyone had ever been in an American stock car under officially timed conditions. "Had the 10-mi. circular course on the famous lake bed been suitable for sustained high-speed running, he almost certainly would have set new records for American stock cars just as long as the car continued to run," said *Road & Track*.

Granatelli's crew consisted of eight (mainly relatives), with three Avantis, loads of equipment from South Bend and Paxton, and D'Arcy's team of PR photographers. His runs were co-sponsored by Champion spark plugs, Firestone tires and Mobil gasoline. Timing was by the U.S. Auto Club, using FIA-recognized methods.

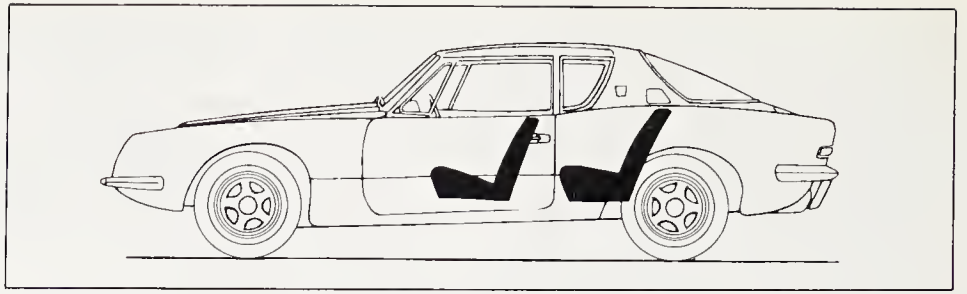
The R3's 335-plus horses (R3 horsepower was probably higher—up to 400 hp—but 335 was the figure Studebaker, when pressed, gave out) seemed little to attack a passel of American stock records (Mickey Thompson had set several with a Pontiac estimated as developing up to 425 hp), but the Avanti had certain advantages: a 21.1-square-foot frontal area (compared with 25.7 for Pontiac) and a wind-cheating shape from the cowl back. In spite of the fact that wind tunnel testing was not part of Raymond Loewy's design work, the Avanti's drag coefficient was estimated in "the high 0.30s" by Jim Crow of *Road & Track*, compared to 0.53 for the Pontiac. Crow noted the importance of streamlining at a time when it was not widely appreciated: "Over 20 years ago 'Goldie' Gardner demonstrated in his Magic [M.G.] Midget that 'good' aerodynamic shape could be propelled at better than 100 mph by less than 40 bhp, while a 'bad' shape would not exceed 70 mph." Crow's approval was duplicated by Loewy's friends at Porsche. Examining an Avanti in Stuttgart, Porsche engineers found it notably free of air friction noise at high speed, and were amazed when Loewy told them he'd designed it without a wind tunnel.

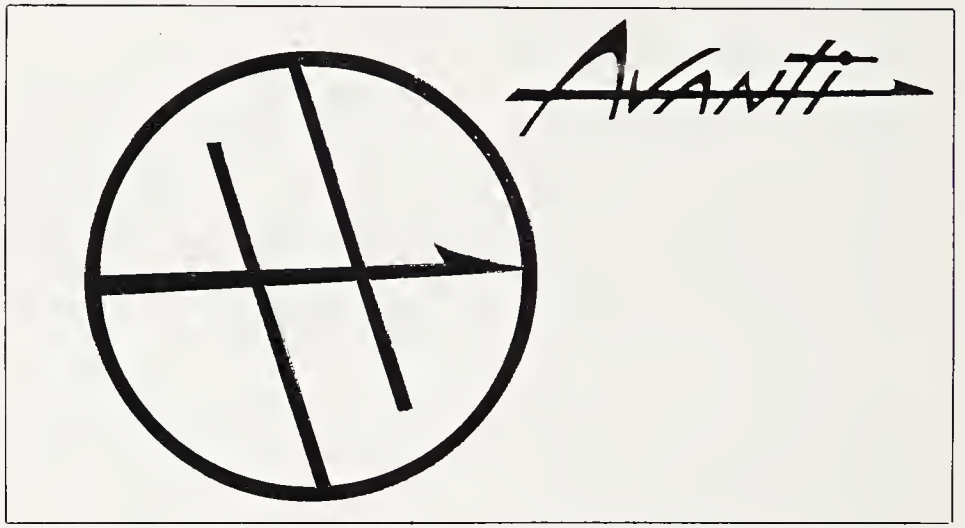
Granatelli's effort was, on any scale, outstanding. His records, set in the American and National Closed Car divisions for both Class C-stock (183-305 cid) and the Unlimited Class, were as follows:

Standing start:	
5 kilometers	126.31
5 miles	139.69
10 kilometers	142.80
10 miles	151.66

Flying start (American Class):	
1 kilometer	168.24
1 mile	168.15
5 kilometers	167.86
5 miles	167.82
10 kilometers	167.40
10 miles	163.90

"Whether what the Avanti did at Bonneville has any predictive power for the design of future American cars is hard to say," concluded Crow. "The average American motorist . . . seldom has the opportunity to use the higher all-out speeds that would be possible with better aerodynamics." Crow couldn't know, of course, the nature of the fuel shortage to come some ten years later; today aerodynamics has reached the proportions of mass science in Detroit. Even then, though, NASCAR had put a 427-cubic-inch ceiling on stock-car-racing engine classes. "It would seem," said Crow, "that improved aerodynamics could become increasingly important."

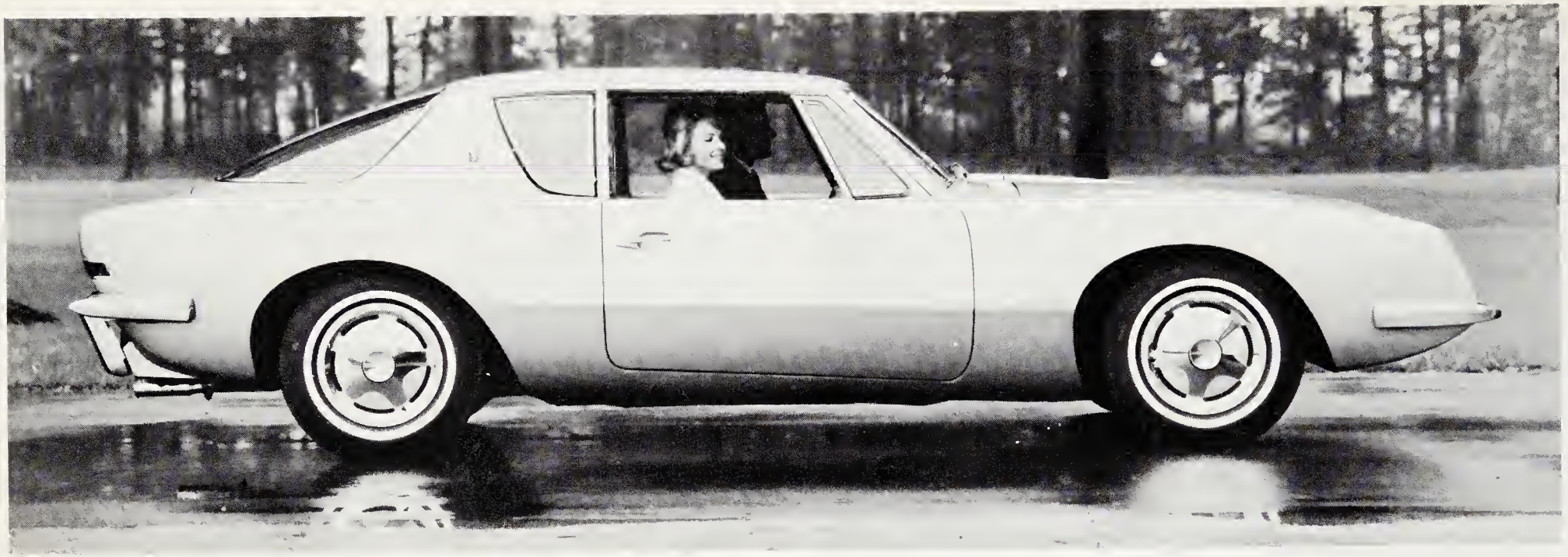


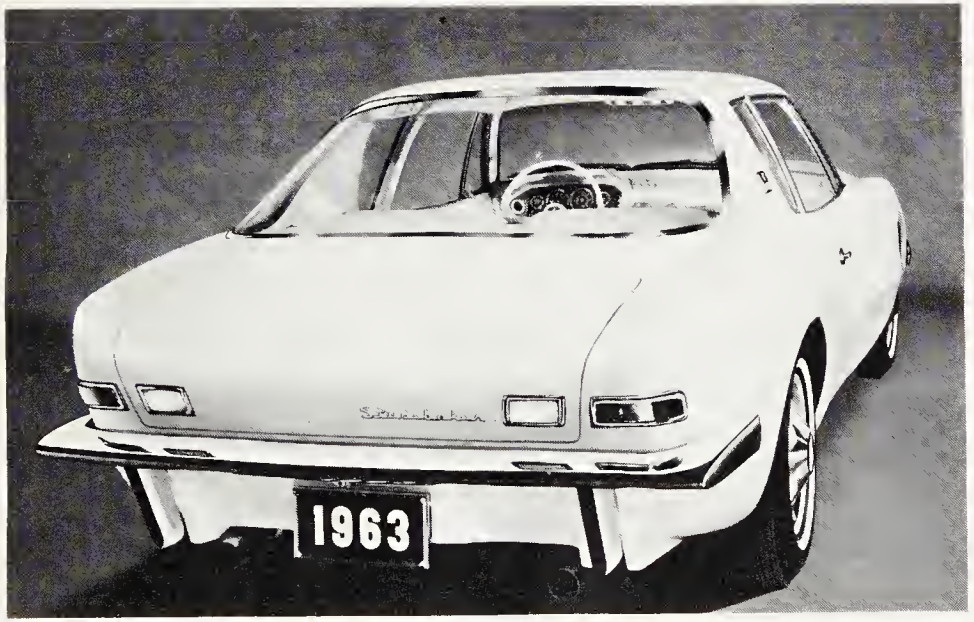


Seats were placed well back for optimum weight distribution.

Avanti script derived by Loewy from his 1932 Hupmobile.

Nor was this the last Avanti appearance at the salt flats. To announce the 1964 models, Egbert sent a dozen different Studebakers from a Commander six to an R5 Avanti back to Utah in mid-October 1963—going along himself, though he was feeling poorly. The president managed to average 168 mph for his own personal flying mile, almost as much as Granatelli in 1963. Bill Burke established an E-supercharged class record in a Paxton-blown 259 cid Avanti with Weber cam, oversize valves and Schiefer clutch/flywheel. Burke had added his own header design and an interior roll cage, plus Firestone Bonneville tires on eighteen-inch Halibrand magnesium wheels at the rear. The combination was good for a record 147.36 mph. Later Burke moved to the D-production class with an unsupercharged 305 cid Avanti, recording 150.25 mph—a third of a second short of the record. As for Andy Granatelli, he drove an R3 to 170.78





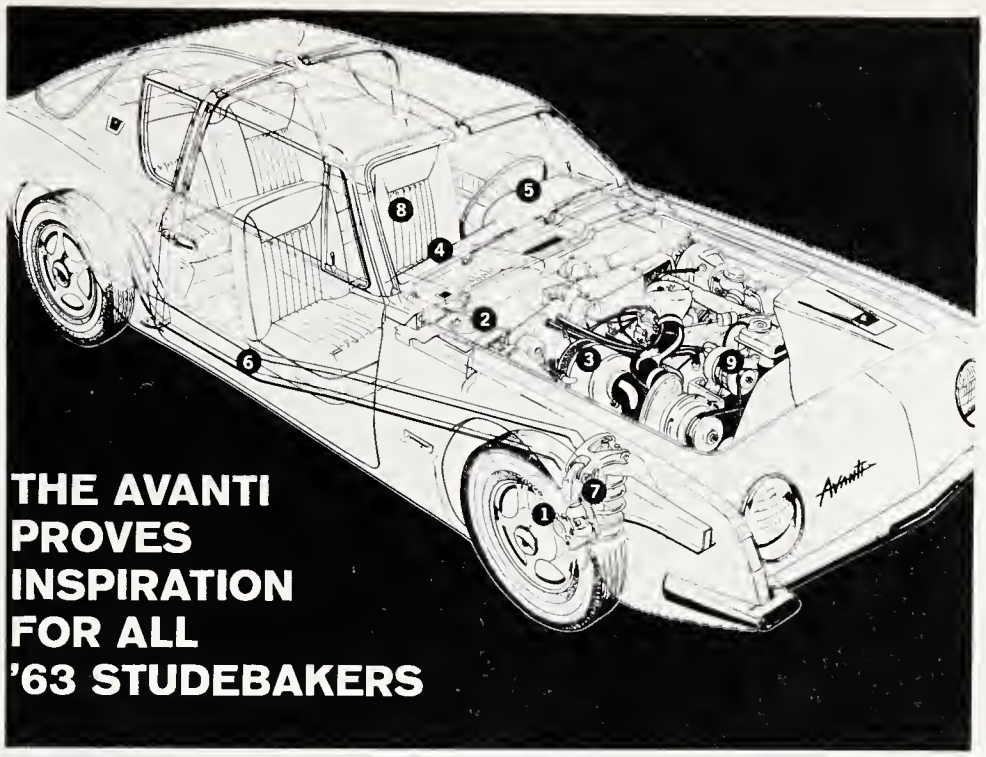
The final product, a car to be proud of.

Smooth rear contours still look ultra-modern today.

mph, which was a record—and broke five other Class C marks in the process. Altogether, these twelve cars smashed seventy-two different USAC records in six classes—a stellar achievement.

All of this record breaking tends to obscure what the production Avantis were like. A *Motor Trend* road test of a basic R1 model showed 0-60 in 10.7 seconds, the standing-start quarter mile in 17.5 seconds at 78 mph, and a top speed of 115 mph—figures considered conservative by most Studebaker enthusiasts. *Road & Track*, in an R2, was disappointed with a top speed of 117 mph—though this was with the 4.09:1 rear axle ratio which was at the same time jinking them up to sixty in only 7.3 seconds. And *Car and Driver*'s R2 was about a second faster than that. *Road & Track* was the most dubious magazine when it came to Avantis. They called it "a car for the driving sport (as opposed to the sporting driver)," but they did praise its good handling, first-rate brakes and "absolutely the best seats we have sat in for many a day." It was a reasonable reaction to expect from people who'd learned to doubt the sporting abilities of domestic iron, yet the analysis was a fair one. In street form the Avanti was what it was designed to be—a civilized, high-speed grand touring car, not a dual-purpose race-and-ride sports car.

Unfortunately, the production of the Avanti developed into a minor disaster. Molded Fiberglass Products had contracted to deliver finished and painted bodies to the South Bend plant, to be dropped onto the modified convertible chassis and line-finished by Studebaker. But Molded Fiberglass Products had designed its molds without due consideration for the expansion/contraction properties of curing fiberglass. The first one hundred-odd bodies were hopelessly botched, Otto Klausmeyer remembers: "It was

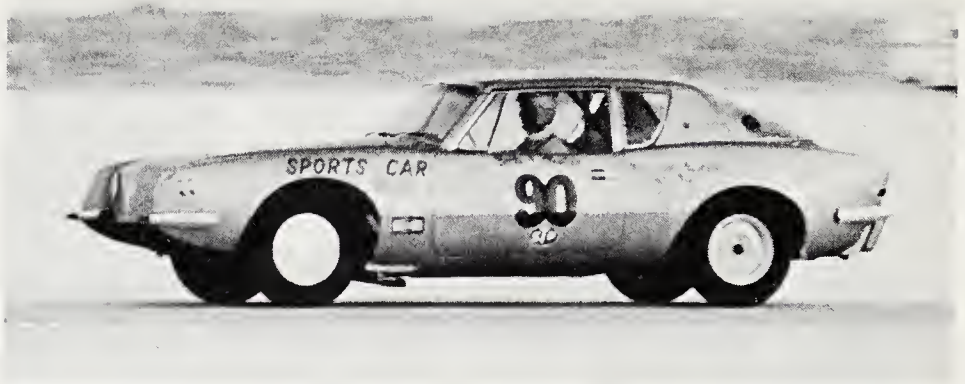


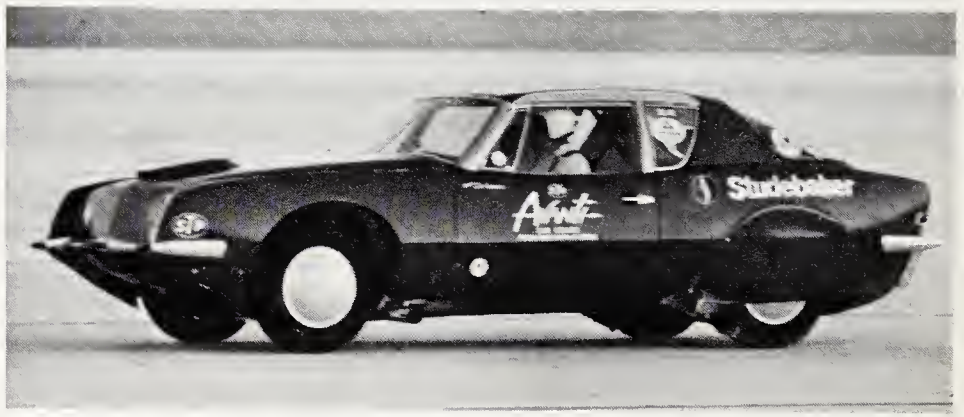
catastrophic. The doors wouldn't close, the hoods were out of line, the fender contours were mismatched. When we tried to drop the rear window into position, it fell through the hole! We had to construct elaborate jigs to measure and compensate for the discrepancies, and rush them to Ashtabula—which amazingly wasn't using any jigs at all! Meanwhile, we bought a batch of power saws to cut up and refit all the early bodies." Sigmund Gegax, a production engineer, was loaned by Studebaker to Molded Fiberglass Products to coordinate and direct the Ashtabula assembly work.

Why was Molded Fiberglass, which had built Corvette bodies since 1953, suddenly so bereft of technology? Studebaker partisans occasionally suggest collusion with General Motors, to thwart Studebaker's sales effort—a fanciful idea indeed. The answer is that Molded Fiberglass Products was *not* bereft, nor did they lack enthusiasm for the project. (It even commissioned surveys of Avanti owners, to learn their feelings about the car after purchase.) The reason for the debacle was Egbert's crash program to get the Avanti into production.

An Avanti prototype was shown at auto shows in early 1962, and a cobbled-up prototype was 'Honorary Pace Car' at Indianapolis the following Memorial Day. With such early public appearances, Egbert was forced to rush production to maintain momentum and public interest. Ashtabula certainly knew it was gambling by constructing bodies without jigs, but it probably had no choice if it was to meet its assigned schedule. And it lost the gamble.

In the executive committee meeting of September 7, 1962, Clarence Francis announced that Avanti production was still behind schedule—by about three months.





Numbers indicate disc brakes (1), choice of transmissions (2), Jet-Thrust engine (3), illuminated vanity (4), full instrumentation (5), full frame construction (6), coils-and-wishbones front suspension (7), bucket seats (8) and alternator (9).

Slightly modified for optimum streamlining, Avantis smashed 29 stock car speed records at Bonneville. The dark car was fitted with the incredible R5 Due Cento engine, with twin Paxton blowers, one feeding each cylinder bank, and developed about 575 hp.

"Because of the heavy demand for this new car," read the minutes, "it is recommended that a production line with a planned capacity of 25 bodies a day be established in our South Bend plant. Current production is approximately 10 cars a day and [Molded Fiberglass Products] does not anticipate being able to deliver more than 25 per day in the foreseeable future . . . a combined production of 50 per day will be needed to meet demand . . . there will be a saving of $20 per body in freight costs with assembly at South Bend." After discussion, the committee approved spending $600,000 for a South Bend production line.

Unfortunately again, demand for Avantis was nowhere near as high as these minutes predicted. A mere 3,834 of 1963 models, and 809 of 1964's, were produced. Apologists blamed the production delays for the debacle, saying Avanti customers turned to Corvettes and Thunderbirds as a result. But some ex-South Bend managers

New radiator grille appeared in August 1963 with square-bezel head lamps, but some round-head-lamp models were also fitted with the grille.

Other late changes to Avanti included wood-panel effects and solid-color vinyl trim, wood-grained steering wheel.

disagree, notably Otto Klausmeyer, who calls this explanation "the *big* lie . . . One would think that [historians] could come up with a newer alibi than this one. It was the same one used by the Dodge sales manager in 1916, when he said the production line could not supply his demands the first week of production. Dodge told him, 'A goddamned *salesman* is a guy who can *always* sell something he doesn't have.'

"The painful truth," Otto continues, "was that although we had very serious body difficulties, they were soon overcome and unsold Avantis were all over the shop and in dealer's hands. This car was probably the poorest selling new job that Studebaker ever built, and the sales records prove it. The verdict of the public was conclusive and quite unmistakable. They didn't want any part of it. It was a greater sales 'dog' than the Edsel. Several months after the dealers were loaded, I saw a used car ad in the *Chicago Tribune*: 'For Sale, South Bend's famous anteater, the Avanti.' " Klausmeyer calls the car "the world's first, droop-snoot, duck-back sport car," and speaks of it only with bitterness. More than a few ex-dealers echo his complaint. The Avanti was, they said, not what the public wanted—or at least, the sort of public Studebaker was attracting.

Despite slow sales, the company was able to make numerous detail changes to the Avanti, beginning as early as July 1962. Officially, the car was "not designated by model year, but incorporates changes whenever appropriate." The only determination of 1963 or 1964 dating was the registration date—which divides the 809 1964's in our production figures. A rule of thumb, though not exactly accurate, is the square-bezel head lamps, which appeared along with most detail changes in August 1963. But Studebaker's first announcement indicated these were optional, and some cars with round headlights were actually registered as '64's. A list of the most important changes is included in the appendices. August alterations significantly included a new grille for the radiator scoop (negating some of Loewy's original thinking), chrome drip moldings above the doors, restyled parking lights, smooth vinyl upholstery standard, instead of smooth or perforated at buyer's option. All Avantis were, incidentally, very fully equipped. The list of standard equipment included 40 amp generator, three ashtrays, back-up lights, 60 amp-hour battery, chrome engine parts, heater-defroster, clock, center console, internal trunk and hood releases, courtesy and trunk lamps, padded sun visors, tinted glass and two-speed—later variable speed—electric wipers.

All nine R3 Avantis were listed as 64's, and were built beginning October 17, 1963, with serial number R 5089. George D. Krem, who traced their history for the Studebaker Drivers Club, notes that all had AM radios, Firestone 500 nylon tires and either power steering or the optional quick-steering manual box (with 16:1 steering ratio). One car had black tires and the adjustable steering wheel, while the rest had whitewalls and conventional steering column. Three even had electric window lifts. According to a dealer letter dated June 1963, the R3 option listed at $1,031 and included the following items not found in R1 or R2 cars: forged alloy pistons, heavy-duty connecting rods

magnafluxed crankshaft, extra-clearance bearings, high-lift cam, extra-capacity oil pan and heavy-duty oil pump, 304.5 cid engine, machined and hand-finished cylinder heads with oversized ports and valves, special manifold including exhaust headers, transistorized ignition, fresh-air supercharger inlets, pressurized carburetor air box, extra crankcase ventilation, 8000 rpm tachometer, heavy-duty suspension and heavy-duty clutch, and fourteen-inch high-output fan. A higher-speed crankshaft pulley was included for high altitude use only. R3's came with either power-shift automatic or four-speed manual as the required transmission. The engine was offered with no warranty "because of the highly specialized conditions of its use." Mr. Krem constructed this chart of comparisons on the R3 Avanti:

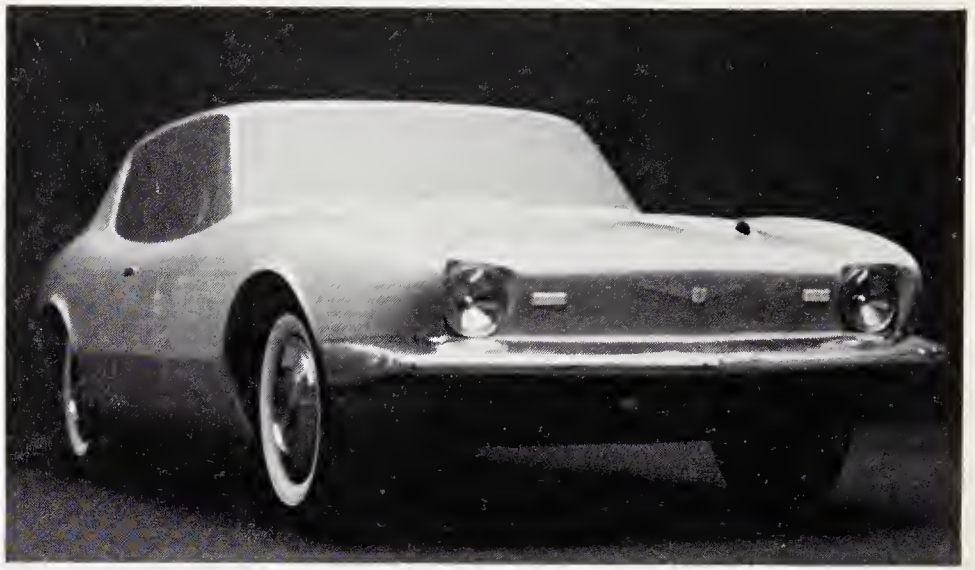
Serial #	Color	Transmission	Axle Ratio
R 5089	turquoise	4-speed	4.55
R 5237	black	4-speed	4.55
R 5394	white	4-speed	3.73
R 5532	turquoise	4-speed	4.09
R 5546	gold	4-speed	4.09
R 5593	grey	automatic	4.09
R 5625	black	automatic	n.a.
R 5642	white	automatic	n.a.
R 5643	white	automatic	n.a.

Mention should be made also of four engineering prototypes not included in the 4,643 production cars. These Avantis bore the special numbers EX-2944 through EX-2947, but their serial numbers begin at R 5650, suggesting that the numbers after R 5643 (the last production Avanti) were skipped, or that other prototypes were built. Certainly there were others, because EX-2942 is known and is an Avanti. Little is known about any; all were built with the four-speed transmission and viscous fan drive, and very thoroughly equipped, though no extant records state exactly what they were used for, or what their purpose was.

There was little about the Avanti that Raymond Loewy didn't like, and little that he would change today. At the time, *Industrial Design* quoted him as hoping for "still less chrome, a more sharply sloping front end and shorter front fenders." To Asa Hall and Lou Carini, Loewy expressed dislike for the spring shackle boxes under the rear bumper. "And I regretted having to put a license plate in front—or in back for that matter. On my own car the latter is slanted so that it's practically not there. If a cop stops me I say, 'Oh, it must have bent.' "

As everyone remotely interested in cars knows, the Avanti jigs and dies were purchased from Studebaker by South Bend dealer Nate Altman, and Avanti II production goes on to this day in one of the old factory buildings. Nate died a few years ago, and his brother Arnold now heads Avanti Motors. No more than 300 Avanti II's a year have been turned out—the waiting list is a long one. Unlike a horde of VW-powered replicars with which it is often unfortunately lumped, the Altman product is not a replica of anything. It's the old Avanti—sans the original's distinctive front end rake—with a potent Chevrolet V-8 engine, custom-designed to each buyer's specification. It is unchanged in styling, except for those features necessary to pass federal crash and safety standards—which it does with ease.

We come at last to the Avanti-based prototype sedans, a notchback and a fastback, built under Raymond Loewy's direction by Pichon-Parat in Paris—Loewy's answer to

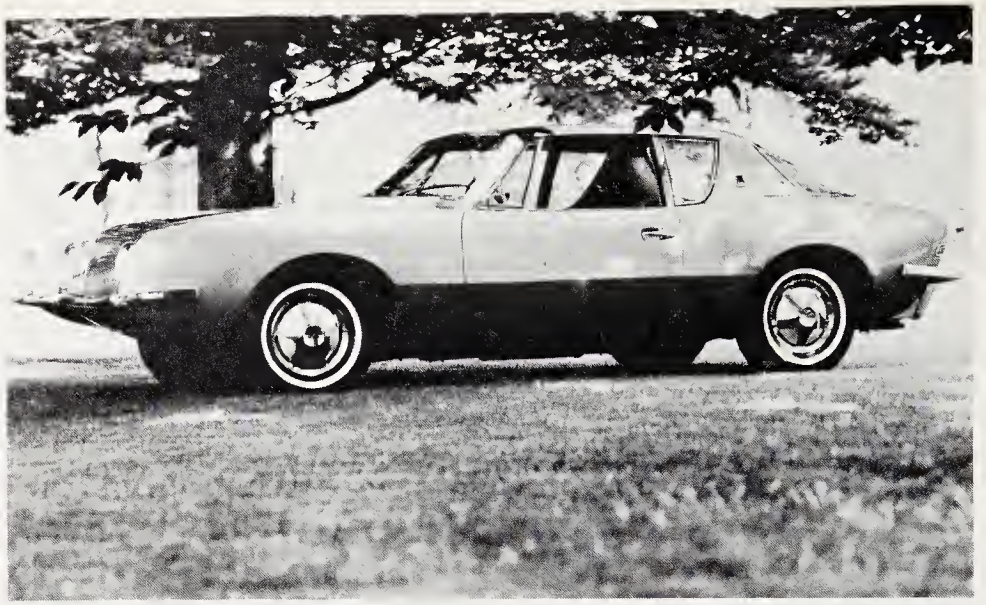


Loewy built this Avanti-inspired full-size passenger car (two-door style on one side, four-door on the other) as possible spin-off, but company fortunes had sunk too low for it to be of any use. Both notchback and fastback sedan derivations were prepared by Pichon-Parat, in Paris.

Stevens' ideas for the next generation of 'standard' Studebakers. These cars were shown to management in the spring of 1963, but the declining fortunes of the company prevented them from being seriously considered for production. Lithe, handsome cars, they provided excellent space utilization and good visibility, much as did their progenitor. They still exist in South Bend, and examination shows they were well finished, with complete interiors (except for mock dashboard instruments), upholstered in cloth reminiscent of the more luxurious Citroëns. Both have engines and presumably run. One is on display with other Studebaker vehicles at the Century Center in South Bend.

These prototypes were featured in enthusiast magazines several times, one of which hailed them as the cars which "could have saved Studebaker." Short-sighted directors failed to appreciate them, the magazine writer argued—and they arrived too late. Had they been finished sooner, they would have provided salvation. Such statements are fanciful and manifestly untrue: By 1963 there was nothing that could have saved Studebaker. "I will agree on one point," says Otto Klausmeyer, who has a painfully unerring sense of practicality. "The fastback prototype should have been built instead of the Avanti. Avanti prototypes were built in the Studebaker body engineering proto shop in a matter of months, not years—these cars could have been, too. Yet the Avanti was in production, and had been abundantly rejected by the public, before the sedan

Revived as the Avanti II by Nate Altman (right), Raymond Loewy's unique automobile remains in production today, under Nate's brother Arnold (left).



Avanti II is more level than its forebear, a stance not appealing to many enthusiasts. The 1968 model is shown.

prototypes were finished. What was the reason for this, and for all the romantic cloak-and-dagger Parisian hocus-pocus?

"If the sedans were ready to display to directors earlier, and deliberately withheld, top management stands accused of gross mismanagement for having delayed a success while the entire outfit was going down the drain. But if they were ready for the 1964 model year, top management stands accused of foot-dragging to pet the Avanti. In either case, stripped of all the schmaltz and romantic mock heroics, it proves my contention. The sedan prototypes were shown to the directors for the 1964 model, after it became clear to all, even Egbert, that the Avanti as a sales tool would hardly pay out its own investment*—much less become a corporation-saver. The directors would not approve the sedans because they feared the Avanti influence would be the kiss of death, *not* because they were a bunch of provincial sod-busters, as most articles about these cars imply."

Otto knows a lot about the industry in South Bend, and there's a lot of truth in what he says. We writers sometimes tend to romanticize stillborn prototypes issued by dying companies. Enthused by their looks or performance potential, we're tempted to represent them as the cars that 'could have saved' their company. The Avanti-based prototypes could not have saved Studebaker—it was far too late for that. And the Avanti itself was a sales failure. That too is in the record books.

But a degree of exception can be added. The Avanti was never expected to be a big seller. Rather, it was intended to inspire publicity, and hence sales, for the regular passenger cars that were Studebaker's bread and butter. That it failed in this mission may be due to its being a Studebaker—instead of, say, a Chevrolet.

Small companies can lead, but only in certain small areas. The Rambler led in economy—but it was in all other respects a resolutely ordinary automobile. In recent decades, to launch a car as completely alien to the mainstream as the Avanti, it has been necessary to be Very Big. Not even Ford, for example, was willing recently to be first to downsize its standard-sized sedans. It took mighty General Motors to risk shaving hundreds of pounds and dozens of inches off the family chariots Americans had been driving for a generation. To the surprise of nobody, GM succeeded. But suppose it had tried that with only 1.5 percent of the market, and seventy percent dealer coverage?

To take an earlier example, in 1959 Chevrolet Division launched an ugly, befinned monstrosity of a car which lost Chevy some sales—but still sold a million and a half copies. Studebaker could not have gotten away with that car, nor could it with the Avanti, which was the opposite design extreme. But had Avanti been introduced by Chevy, as the new Corvette—and then been followed a year later by sedan derivatives named Chevelles—who can doubt that GM would have met with success?

In the last two decades, momentum has become a critical factor in the auto business. Companies like GM have the momentum—the customer loyalty, the huge dealer network—to get away with almost anything, good or bad. Studebaker didn't. Deciding to build an Avanti would have been little risk for GM. But it's easy to make the one hundredth straight right decision, after the first ninety-nine.

*Estimates put Avanti project costs at about $3.5 million. Some compromises, like the chassis-shortening, deletion of removable roof panels, use of round headlights, were probably due to spending limits clamped on by Egbert after the costs reached $3 million.

The car and its creators, 1962.

CHAPTER 10

The Final Days

MONDAY, DECEMBER 9, 1963, was a perfect day for a funeral in South Bend. A bitter wind from the north whipped freezing drizzle into stinging spray, as the shift reported to work at seven in the morning—the same time, the same place that people had come to work for the last 111 years. The plant's flags ominously flew at half-mast, though the reason had nothing to do with the fortunes of the company: President John F. Kennedy had been assassinated in Dallas two weeks before.

Inside, production cranked up as usual, albeit on a very reduced scale. But it was warm inside, cars and trucks were rolling, and Monday wouldn't last forever. To ninety-nine percent of the 7,000-person work force, it was just another gloomy midwestern morning, to be borne as all the others had, for Christmas wasn't far away.

But Christmas never came.

Down on the truck assembly line around ten o'clock, chief union steward Earl Townsend was approached by a truck driver—one of those who traditionally picked up news early. "Studebaker's shutting down the plant for good!" the driver told him breathlessly. Townsend didn't believe it. He consulted with the men on the line; none of them had heard the rumor. One labeled it "another dirty management trick to scare us." Townsend picked up a phone and dialed the office of UAW Local Number Five. Busy. He called again, and again. It remained busy. As the shift broke for lunch, nobody really knew if the shocking story was true. It was noticed that a few old-timers made for the company credit union. They were going to withdraw their lives' savings.

By 1 p.m., the rumor was so rife that management decided to make it official. It was expected now, but it was still a jolt. The afternoon edition of the *South Bend Tribune* bannered, "AUTO OUTPUT TO END HERE. Studebaker Will Assemble Cars in Canada." The shock waves reverberated over telephone and telegraph lines from South Bend across the land. Surprisingly, they had a positive effect on Wall Street: Studebaker Corporation stock gained instead of lost. Financial men had decided it was a good thing. "We were being bled to death in South Bend," said Chairman Guthrie. Sales had been rotten in '63, Byers Burlingame added, because "everybody thought we were going out of business."

Until 'Black Monday,' only a few upper managers and union leaders were aware that shutdown was imminent. The former had known it was probable since early November, when Sherwood Egbert called four of them out to his Proving Ground home: Burlingame, Clifford MacMillan of Industrial Relations, Nello Lamberti of Automotive Operations, and counsel Melvin Milligan. "Burlingame, MacMillan and Milligan were men [Egbert] had openly condemned as inadequate second-raters when he joined the company," wrote *Michiana* magazine. "They knew his opinion and reacted accordingly to him. In recent months, however, a degree of grudging respect had grown up between the young outsider and the oldline executives. Now Egbert was seeking their help."

What Egbert said, we know already: He was still suffering from cancer, facing another hospital stay after two operations earlier in the year. His dreams for salvation were a shambles: The Avanti had failed, the Gran Turismo Hawk had failed, the rebodied Larks had failed; there was no director interest in replacing any of them. They would all have to make the best of it, Egbert said resignedly. His four lieutenants agreed to try.

On November 10, Egbert entered Boston's Leahy Clinic for another operation. The next day the board appointed Byers A. Burlingame president. "It was a post Byers didn't want," said one of his associates. "But there was no one else."

Unlike Churchill the engineer, or Egbert the promoter, Burlingame was a financier. He'd started as a bookkeeper at Packard in 1925, had moved to Studebaker with the Packard purchase in 1954. He was financial vice president when Studebaker hit the

The R3 Super Lark at 130-plus mph at Bonneville, late 1963.

Halogen or glass-covered head lamps figured in 1964 plans, but ultimately conventional sealed beam lamps were fitted.

Stevens considered two sedan forms for 1964, one with drop-off rear roofline, which he discarded.

Many rear-end design proposals were ultimately too radical for the tooling budget at hand.

rocks in early 1963; his rise since then had been meteoric. Even before Egbert's formal resignation, Burlingame had instituted severe cost-cuts: spending had to be reduced to draw even with income. Nearly $10 million had been lost in the first three quarters. The fourth quarter would be worse.

Late on November 14, after the stock market had closed, Burlingame announced a "temporary halt" in production for a week "to adjust to current sales." Studebaker was then working only a four-day week, with an eighty-six day inventory of 1964 cars (compared to twenty-six days average for the rest of the industry) and over 3,000 leftover 1963's still unshipped. Production resumed on the twenty-first, but Burlingame wasn't there. He'd flown to New York for some quiet, earnest meetings with his board and its creditors.

Byers Burlingame has been described as "the undertaker for Studebaker cars," a title he deserves no more than Sherwood Egbert. He was a financial man—but he was also a car man. He tried until December to save South Bend's automobile, meeting nonstop with New York banks, insurance companies and representatives of the United Auto Workers. MacMillan, who returned from those meetings on December 7, said, "The final decision really had not been made at that hour, because there always was the possibility of a last-minute miracle. But I was quite sure what [the decision] would be."

On Sunday, December 8, Burlingame flew home, to a meeting with leaders of South Bend Local Number Five. The close was inevitable, he told them sadly. There was no more money, no more confidence. South Bend was a white elephant. Production would continue in the Hamilton, Ontario, plant, where he estimated the automotive division could break even on greatly reduced volume, maybe 20,000 cars a year. He didn't say so, but labor costs were also cheaper there, by about fifteen percent.

December 9 wasn't the last day of car production at South Bend—it went on, skeleton fashion, through the twentieth, more to run off spare parts than to produce finished cars. Then it ground to a halt. The last car off the line carried a message scrawled on its windshield by a worker with a sense of irony: Merry Christmas.

Up north in Hamilton, Ontario, workers took the news with mixed emotions. For several years they'd prided themselves on turning out a Studebaker superior to South Bend's. The extra time they spent on a slower moving line resulted, they said, in improved detail finish, and local knowledge about rustproofing was far more developed than in Indiana—Canadian cars were so much better in this respect that South Bend hands often came up to see how it was done. Gordon A. Grundy, president of Studebaker-Canada, was confident production could go on indefinitely. The 320,000-square-foot factory was only twenty years old, having been constructed during the war as a munitions plant.

Until the one-third drop in Canadian tariffs in 1936, Hamilton production had always been profitable, and had contributed in a modest way to Studebaker's post-receivership recovery in 1935. After the war, under Grundy's direction, the new plant was acquired for $500,000, and set up to produce cars with minimum required Canadian content at competitive prices, while importing essential components like engines and transmissions from the United States. Car production resumed in 1948, and had its best year in 1950 when 13,473 cars and 1,823 trucks were built. Truck production had ended in 1955, and Grundy believed that with line reorganization the 20,000 unit figure was within his plant's abilities. Located on the St. Lawrence Seaway fifty-seven miles from Buffalo, Hamilton was ideally situated for overseas as well as U.S. shipments. By 1963, favorable currency exchange rates and duty drawback on U.S. components in exported cars made it possible to sell Hamilton vehicles in the States at the same prices that were in effect before the closure of South Bend.

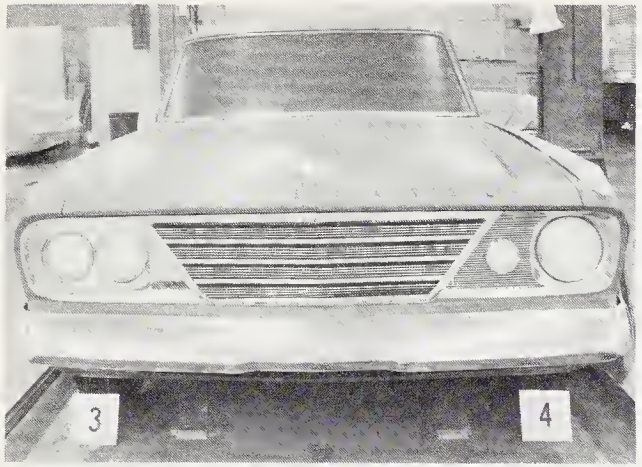
The line of 1964 Studebakers that had been announced by Sherwood Egbert just a few months earlier accordingly continued, with certain exceptions: Avantis and Hawks were dropped (no Avantis and only 360 GT's had been built there for 1963, none of these for 1964), along with the low-priced Challenger and the entire line of trucks. The list below includes these cars, since they were part of the original 1964 lineup.

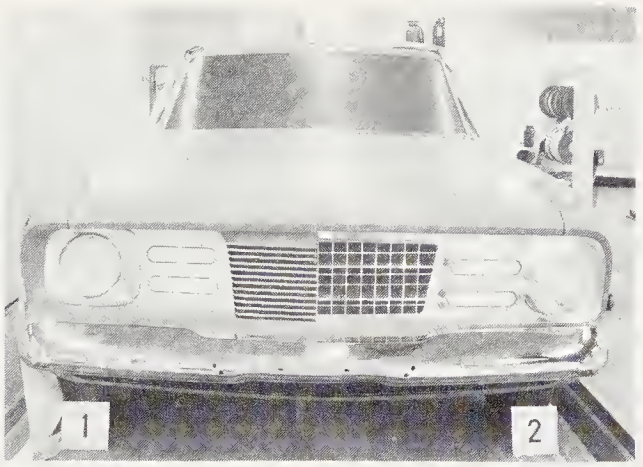
Series Model (passengers)	Price	W.B.(in.)	Wt.(lbs)
64S Six			
Challenger sedan(6)	$2,048	113	2,780
Challenger 2dr sedan (6)	1,943	109	2,660
Challenger 4dr wagon (6)	2,438	113	3,230
Commander sedan (6)	2,168	113	2,815
Commander 2dr sedan (6)	2,063	109	2,695
Commander Special 2dr (6)	2,193	109	2,725
Commander 4dr wagon (6)	2,558	113	3,265
Daytona sedan (6)	2,318	113	2,790
Daytona convertible (6)	2,670	109	3,040
Daytona 4dr wagon (6)	2,708	113	3,240
64V Eight			
Challenger sedan (6)	$2,183	113	3,010
Challenger 2dr sedan (6)	2,078	109	2,910
Challenger 4dr wagon (6)	2,573	113	3,480
Commander sedan (6)	2,303	113	3,045
Commander 2dr sedan (6)	2,198	109	2,945
Commander Special 2dr (6)	2,328	109	2,975
Daytona sedan (6)	2,453	113	3,055
Daytona hardtop (6)	2,451	109	3,060
Daytona convertible (6)	2,805	109	3,320
Daytona 4dr wagon (6)	2,843	113	3,555
Cruiser sedan (6)	2,603	113	3,120
64S, 64V Gran Turismo Hawk			
coupe, six-cyl* (5)	$n. a.	120½	3,045
coupe, eight-cyl (5)	2,966	120½	3,280
64R Avanti			
coupe (4)	$4,445	109	3,195

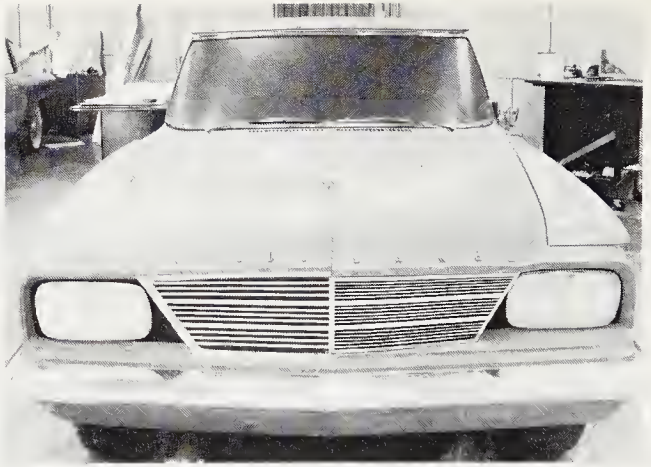
*Export models only.

Persisting with his landau theme, Stevens created this special Town Sedan to illustrate the idea for '64.

1964 R1-powered police special was wolf in sheep's clothing!







A variety of workouts for the '64 grille, from which the production shape emerged.

1964 Commander, cleanly styled and low-priced.

The '64 cars Studebaker initially advertised as "Different by Design" were probably not different enough. Less than 50,000 of this model year sold, including only 1,767 GT Hawks and 809 Avantis produced in South Bend. But the sedans were certainly the highest refinement of the original, thanks to Brooks Stevens.

Stevens says he had only $7.5 million to facelift the 1964 Lark and Hawk, but he used it carefully. The sedans were all new from the cowl forward, with lower hood and fenders sharply uplifted at the outer edges, a neat trapezoidal grille and stand-up S-in-circle hood ornament. Daytonas and Cruisers had dual head lamps while cheaper models used single lamps. Stevens made few changes in the mid-section; the roof he revised again, adding simulated convertible top bows. But at the rear he grafted on a pointed panel off the top of the deck, containing arrow-shaped nacelles in its extremities for taillights and back-up lights. This section was left plain on inexpensive models, trimmed brightly on Daytonas and Cruisers. Notably, the Lark nomenclature was mainly eclipsed by the above-listed model names. Stevens says, "I convinced management to de-emphasize the Lark term which had its own connotations, just as I finally got Roy Chapin to dump Rambler for AMC cars, when we were involved with them on the Hornet and Gremlin."

As recently as 1977 these '64's were in the news briefly, when Brooks Stevens published some interesting overlays comparing them to the downsized GM cars and Mercedes. They fit almost exactly. "When all the hullabaloo came forth on the scaled-down GM models, I remembered Egbert's valiant crusade for sanity in size relative to the 1964 line," he told the writer. "At a time when the Big Three were eighty-five inches wide on the outside and sixty-one inches on the inside, with twenty feet of length (for an average load of 1.5 people), we were 'hawking' 113-inch wheelbases, seventy-five inches of width on the outside and 62.5 inches of seat width. Our comparisons with modern downsized cars were astounding." The overlays made *Automotive News*, where the industry looked, sniffed, and went on downsizing . . .

The short-lived, stripped Challenger line built only in South Bend took the place of the 1963 Lark Standards, and managed to hold their around-$2,000 price for the six-cylinder sedans. It was the only *new* name for this model year, though all Challengers were built in 1963. It offered a price leader with most of the mechanical features and all of the roominess of more expensive models, including engines; the only item lacking was a tandem master cylinder, which could be ordered as an option. (A number of options were available.) Like all sedans, Challengers could be had with the various hot engines up to the R3, which must have made them sleepers indeed. *Motor Trend* tested

an R3 sedan (Commander), getting 7.3 seconds for the 0-60 sprint and an impressive 90 mph standing start quarter mile, which was accomplished in 15.8 seconds.

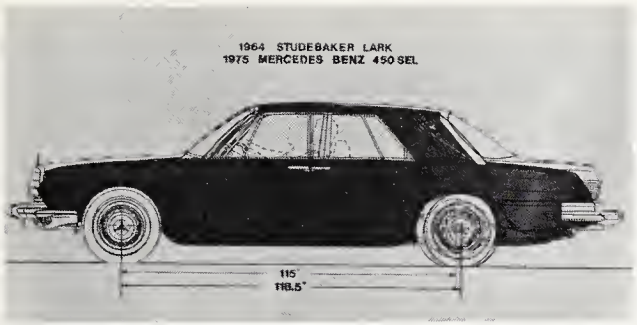
While dropping the Challenger for the last half of 1964 production, Hamilton did phase in one new model, the Commander two-door Special. This was an attempt to upgrade the now-lowest-priced model with a better interior, using Daytona trim and other sports options at a modest increase in price. There was no comparable Daytona two-door sedan, but since the Daytona hardtop was only $100 higher in price, the viability of the Commander Special is questionable. No vast sales resulted from its appearance.

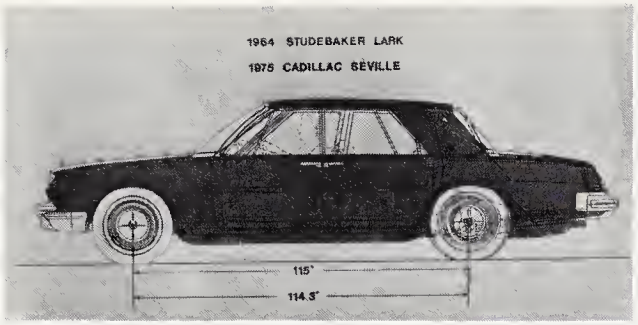
Incidentally, the Lark also made just as nice a car when 'upsized,' as Illin, the distributor for Haifa, Israel, demonstrated in April of 1964. For Illin's president, the company customized a 1964 Cruiser six with heavy-duty brakes and automatic transmission, lengthening it twenty-five inches by cutting the frame and adding box members for strengthening, then cutting off the top and creating an enormous convertible. The doors were center-opening to a steel pillar, which disappeared when the top went down. It was a good job, suggesting that Stevens' excellent styling was suitable for a much wider variety of vehicles.

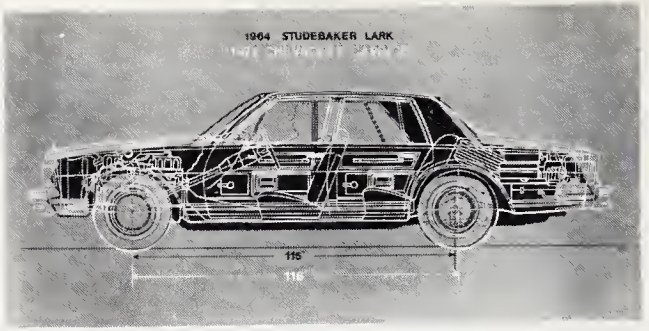
Brooks Stevens' changes to the 1964 Gran Turismo Hawk were minimal. On the outside, he finally achieved his landau look with an optional vinyl topping for the forward section of the roof. At the rear, he eliminated the deck overlay by retooling the age-old lid, giving it a smooth, less-contrived appearance. The GT gained more glitter, including chrome taillight housings, the S-in-circle hood ornament and a Hawk emblem in brushed metal panel for the grille. Inside, 1964 saw the three-plane instrument panel

1964 Daytona R1 two-door hardtop.

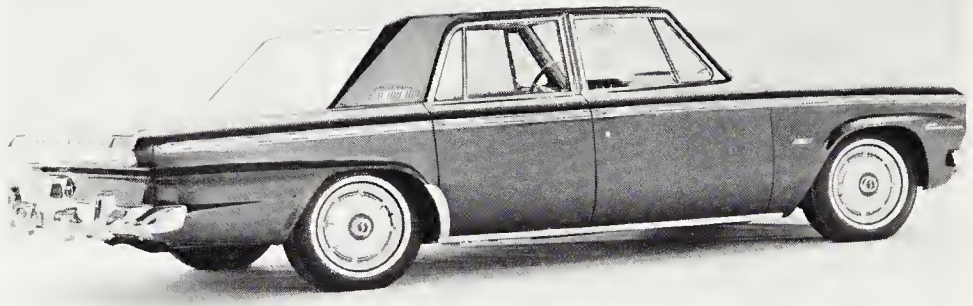
1964 Daytona V-8 four-door sedan.







Eye-opening comparisons of 1964 Lark with Mercedes 450SEL, Cadillac Seville and Chevrolet Caprice, by Brooks Stevens.



1964 Daytona convertible.

1964 Cruiser four-door sedan.

go from woodgrain to matte black finish. Aside from details, these were the main GT changes; Stevens had projected a dramatic, cowl-forward facelift for 1965, which would have meant a wider grille, flat hood and mid-height bumper. But there were no GT's in 1965, so the idea never flowered. The same old stuff was said about the GT by the magazines in 1964 as in 1962-63. It was a good, comfortable high-speed cruiser with appealing features, like a half-dozen instruments, luxury appointments and neat styling. One tester squeezed out 0-60 in 6.7 seconds with a Hawk R2, did 0-90 in just 13.8 seconds, and estimated a top speed of 150-plus, which may have been optimistic. At the same time this car, which was still priced less than $4,000, was returning up to sixteen miles per gallon—fair testimony.

Although Brooks Stevens may be proud of what he and Gene Hardig accomplished on a shoestring for 1964, those cars are nothing compared to what Stevens really had in mind, and therein lies an interesting tale. "As soon as Sherwood Egbert called me in to facelift the '62's, our studios got to work on projections for the all-new (or at least new-looking) Studebaker for 1964, 1965 and 1966," Stevens says. "By degrees, each more radical than its predecessor, these cars would have replaced the Lark—falling at the Cruiser end, the big end of the intermediates. The wheelbase would have been 116 inches. We planned to continue the 289 V-8; though it was old, it was a good engine and with a blower it went like hell. We put it into the chassis, mounted further back for better weight distribution, and prepared three prototypes . . . a wagon, sedan and hardtop coupe. Each model had two different sides representing standard and deluxe versions."

Stevens put his ideas on paper—"I had to plan on holding every inner panel from the Lark," he says—and Egbert liked what he saw, requesting steel prototypes. But all he could liberate for them was $50,000! Stevens immediately discounted building them in the States, and flew to Turin. The money wasn't enough for Bertone or Pininfarina either. "So I started scouting around and ended up at a place called Sibona-Bassano. I walked in—there was laundry on a line and chickens running around—and took these two little guys out and fixed them up with Camparis. We got good prices out of them—$16,500 per car, an incredibly low figure."

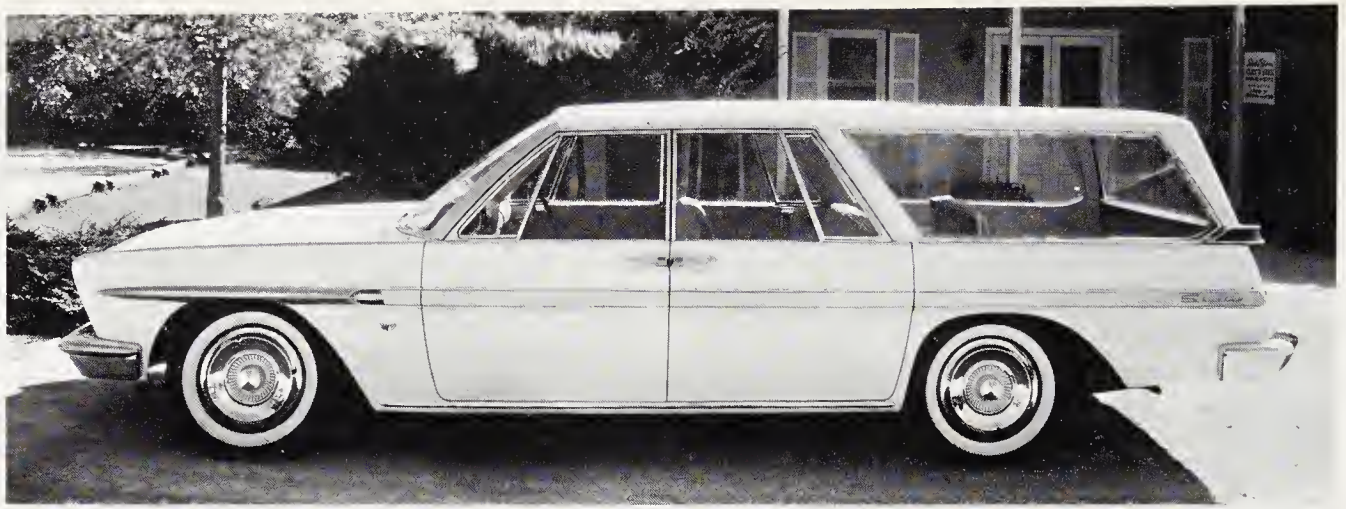
Stevens sent Sibona-Bassano drawings and quarter-scale models, crossed his fingers and waited. When the three prototypes were ready, he brought Sherwood Egbert to Turin. "They were magnificent, jewel-like creations," Stevens says. "Sherwood was very excited and I think we had a logical program."

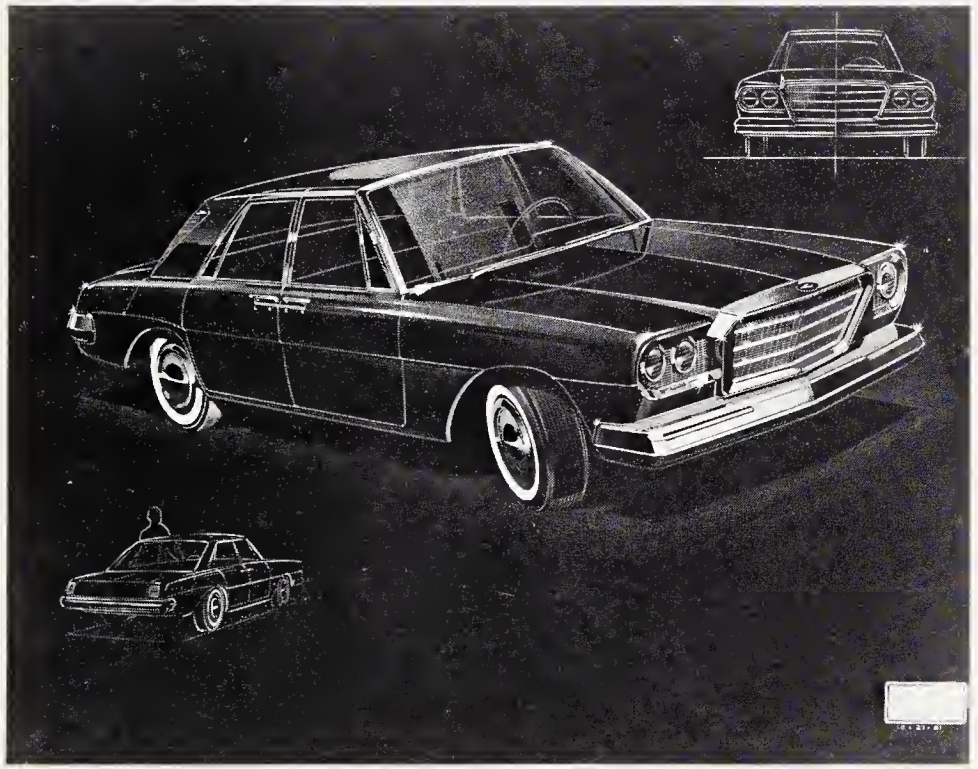
The 1964 proposal was a wagon, with the already-extant Wagonaire sliding roof. At the front, its grille was a modernized version of the '63 Lark's, but its hoodline was extremely low and flat. Like previous Larks, its bumpers were interchangeable front and rear. The interior represented an evolution from the 1963 Lark, with a three-plane instrument panel; the area around the gauges lit up when the door was opened. The doors were very thin, in the best European manner, and the hood was one piece of metal down to the side trim—when raised, it provided tremendous accessibility. The doors of the wagon were diagonally interchangeable.

1964 Gran Turismo Hawk R2.

The '64 GT at Bonneville, late 1963.

The 1965 proposal, yet more radical, was the 1964 car in sedan form, with added features including recessed grille and Cibie headlights. Doors—again diagonally switchable to save on tooling—cut into the roof to improve entry and exit, though experiments showed this was unnecessary and the feature was dropped from production plans. The '65 idea car also featured the unique one-piece hood/upper-fender idea, but being a sedan it had the same design at the rear. On the inside, its dash resembled the '64 but was ultra-modern, and looked like a computer. Beautifully designed, it sat bolt





The first of Stevens' three restyle proposals, originally set for the 1964 Studebaker line.

Stevens' 1965 proposal was originally drawn in 1961.

upright, with plain white-on-black needle instruments squarely facing the driver; safety padding (hiding a vanity case) ran from the instruments all the way across the dash.

The radio and clock controls were unique. "I made them look like add-on accessories, rather than adding some drab-looking block-off panel if this equipment were not installed on the car," Stevens said. "You turned on the radio by depressing the bubble, selecting stations by turning it." The clock rotated similarly, to face either the driver or the passenger. The modern steering wheel, which Stevens called a "polo mallet," had the ability to incorporate a then-novel tilt device, which was singular in 1962 when the car was built.

The most exotic Stevens proposition was the 1966-67 model, which Stevens named Sceptre. In hardtop guise, he hoped it would replace the Hawk. Had it done so, Sceptre would have been as stridently progressive as the Gran Turismo was back in 1962. Though not outlandishly different in shape, it was low, sleek and dramatically novel. Up front were wraparound parking lights leading to a full-width single head lamp designed by Sylvania, "which provides superior highway illumination with less glare into oncoming drivers' eyes." Likewise the one-piece taillight—this was much easier on the eyes than the multi-bulb concoctions of such current makes as Thunderbird. Another novel lighting technique was a small red telltale bulb in the front sidelight, which was easily visible from the rear three-quarter. The C-pillars were not steel but blue polarized glass, allowing passengers to see out but passers-by to receive the impression of a normal steel panel—a clever idea Stevens had been pushing since his convertible-landau models for the 1962 Lark and Hawk.

Not too unconventional on the outside, the Sceptre was positively rocketship-modern on the inside. All the instruments now gained the bubble treatment of the 1965 model, each bubble tilting according to driver's preference. A center console contained the gearshift and most control knobs, but it was angled toward the driver for easy reach. As before, the hood and deck lids broke far down on the fenders for maximum access, and the heavily padded dash hid a moveable vanity and rally table, displaying only a small digital clock when buttoned up. Sceptre was fitted with four beautifully up-

Full-size 1965 model compared with '62 by the designer.

Stevens facelift for contemplated 1965 GT Hawk.

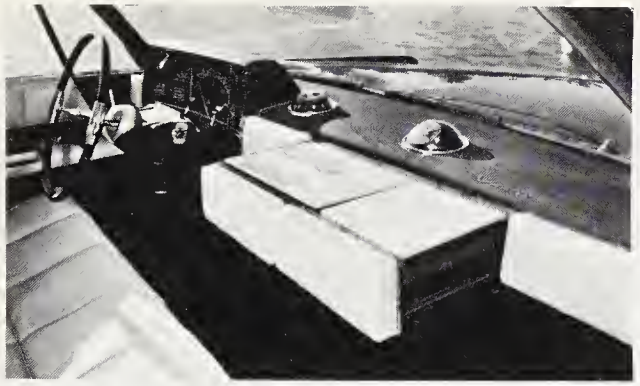
holstered seats; it was as good looking on the inside as it was on the outside.

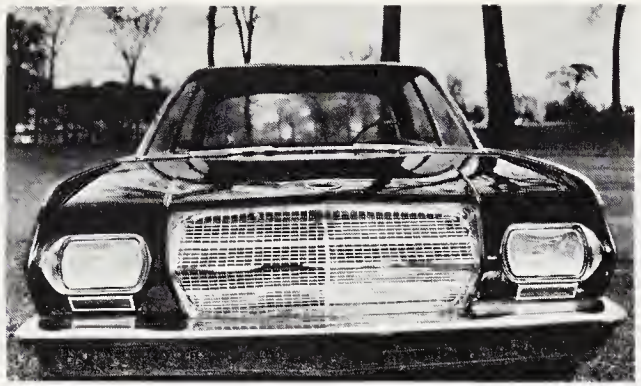
Fortunately, Brooks Stevens rescued all three of these novel prototypes, and they may be examined closely in his museum at Mequon, Wisconsin. Having sat in all three—longest in the Sceptre—the author has no doubt that these would have been exciting, saleable cars. But they wouldn't have saved Studebaker. As we said last chapter, nothing would have by 1963.

Well into '63, Brooks Stevens concludes, "I could see the money we would need to finance this 1964-67 program starting to dwindle, and around that time a bell rang and we were suddenly told we'd just have to reskin the existing Lark again . . . Of course you never dared stop. So we kept going on the prototypes even then. They weren't permanently shelved until late 1963 [with the advent of Burlingame and the cost cuts]. Gene Hardig was working his heart out as well as everybody else. We would secretly work in back rooms, probably beyond practicality, hoping that we'd still have a chance to do a job. It's too bad we didn't make it."

Gordon Grundy and the Canadians didn't admit it, but the demise of Stevens' prototypes in November 1963 spelled the eventual end of the Hamilton operation as well. Without any advance plans for new models, Hamilton was condemned to producing old designs only as long as it could sell them—which, as it turned out, wasn't long. The 1965's went bravely forward, though, with some model rationalization and the addition of one new model—a Cruiser six.

Series Model (passengers)	Price	W.B.(in.)	Wt.(lbs)
C-1 Six			
Commander sedan (6)	$2,230	113	2,815
Commander 2dr sedan (6)	2,125	109	2,695
Commander 4dr wagon (6)	2,620	113	3,265
Cruiser sedan (6)	2,470	113	2,820
C-5 Eight			
Commander sedan (6)	$2,370	113	2,995
Commander 2dr sedan (6)	2,265	109	2,895
Commander 4dr wagon (6)	2,760	113	3,465
Daytona Sport 2dr sedan (6)	2,565	109	2,970
Daytona 4dr wagon (6)	2,890	113	3,505
Cruiser sedan (6)	2,610	113	3,070





Views of the Stevens' 1965 model. Note raised computer-style instrument panel, 'polo mallet' steering wheel, crash-padded vanity, accessory compass and clock, recessed door handle, interchangeable body parts.

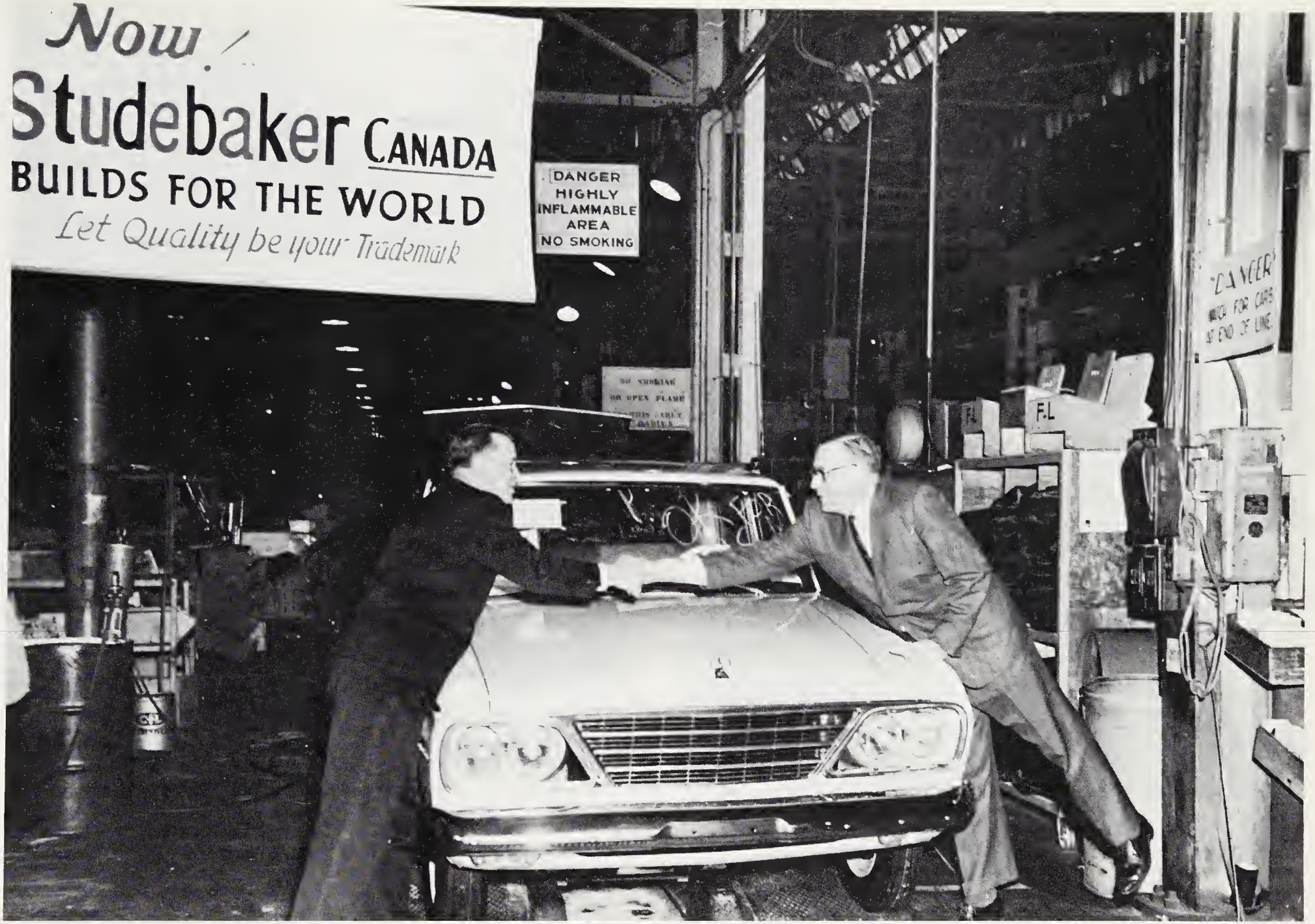
1965 Daytona two-door.

1965 Cruiser.

We can give credit to Hamilton for trying. Faced with no change, they decided to run this minus into a plus; thus the continued use of a 1964 slogan: "The Common-Sense Cars . . . [which do not] need yearly styling changes. The money saved is passed on to you, in added comfort and quality, and in continuing engineering improvements. And, because Studebaker styling won't become obsolete, your car will look new year after year. See your dealer. Now!"

Actually, the '65's *had* changed—under the skin. With South Bend gone, the 289 V-8 went with it, and Hamilton was forced to look elsewhere for engines. These turned out to be Chevrolet's 194-cubic-inch six, and 283-cubic-inch V-8, renamed Skybolt Six and Thunderbolt V-8 for the occasion. Both were good, solid engines, the 283 one of the finest small-displacement V-8's ever put together by the American industry. It produced 195 horsepower at 4800 rpm (down 15 hp from the 289) and came with none of the exotic Granatelli goodies that had so impressively added to the 289's performance in the past. The six offered a power increase from the unlamented Studebaker engine it replaced: 120 instead of 112 horsepower, with 8.5:1 compression and a single barrel Rochester carburetor. But GM didn't give these engines away, nor did it ship them from its Buffalo, New York, plant, as Studebaker-Canada asked. Buffalo engines could have been purchased for less than from the St. Catharines, Ontario, plant, which GM insisted be used. (The 1965 sixes soon became 140 hp 230s, as were all 1966s.)

The decision to move to Canada paid off from the standpoint of the entire corporation. Without the drag of the South Bend automotive division, Studebaker made more money than it had in five years. Excepting the Lark's great year of 1959, the $8 million profit on $262 million sales was the largest piece of take-home pay the company had earned since 1952. Corporately, 1964 marked a turning of the corner. In 1965, though sales dropped to less than $200 million, Studebaker made over $10 million profit; in 1966, with just $173 million sales, the profit rose to $16.5 million. The



The first '65 shipped for sale in the U.S. Gordon A. Grundy, left, shakes hands with W. A. Moeser, director of Hamilton manufacturing.

Details of the Sceptre prototype. Note side lighting, cut-down hood/deck assemblies, low frontal profile, flush side contours, 'slide rule' speedometer and adjustable instrument pods, chrome-mylar upholstery, transverse taillights.

Stevens' exotic Sceptre, the 1966 proposal, with head lamps of Sylvania single-tube design. This hardtop would have been successor to the GT Hawks.

A 1965 Studebaker wagon displayed at the New York Auto Show, with 800-pound camper coach mounted. Overload springs compensated for weight. Camper provided six-foot headroom.

company shortly merged with Worthington Corporation, and is today headquartered in New York, where it controls an empire of hardgoods firms including Wagner Electric, Onan, STP, Turbodyne and Clarke-Gravely. Studebaker-Worthington Corporation employs some 30,000 people—more than South Bend employed in its best days—and its net sales are a billion dollars a year. Byers A. Burlingame, the man Hoosiers called the undertaker, ultimately earned most of the plaudits. Before retiring in 1967, he'd pressed home diversification and ended the earnings slide. At his death in 1970, he was hailed as the man who rebuilt Studebaker.

Sherwood Harry Egbert was hailed by nobody, and his death in 1969, at age forty-eight, was the final act of his tragic last years. "It is rather interesting to sit in some circles and listen to 'Egbert's friends' condemn him now that he has been defanged," one loyal associate wrote in 1965. "The sad thing is that they condemn him for

1966 Wagonaire with 283 cid Chevy V-8 engine.

1966 Commander two-door sedan.

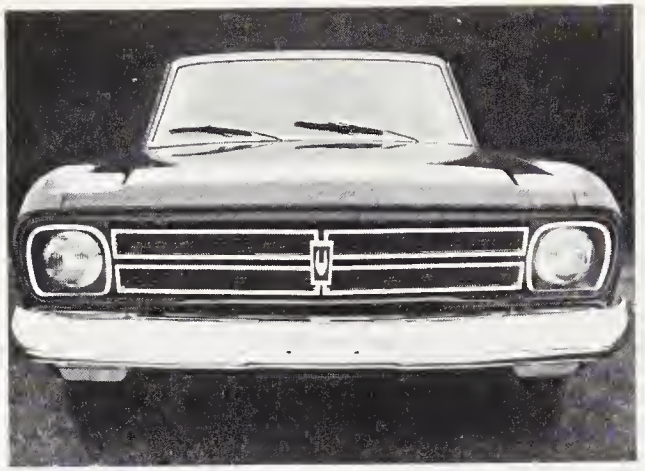
1966 Daytona sports sedan.

everything but the true reason, in my opinion, for which he does deserve criticism—the crime of surrounding himself with these 'friends' who were little more than flunkeys. In my opinion, had Egbert the foresight to draw on the specialized and imaginative minds available to him, we almost surely would have written a different type of Studebaker history." Maybe so—more likely not. But one thing is certain: Few men had the imagination and drive that Sherwood Harry Egbert brought Studebaker in its final days, and our automotive heritage is the richer for his contributions to it.

The closure of South Bend put 7,000 people out of work, deprived the city of a $50 million annual payroll and raised its unemployment to 9.1 percent—from only 2.1 percent in October 1963. But the town that spawned Notre Dame and Knute Rockne had a football hero's vision of itself, and it refused to shut down and die. "This is not Studebaker, Indiana, it is South Bend, Indiana," said businessman Paul Gilbert, part of a committee set up to tap all available sources of rescue. This South Bend did, soliciting help from the federal government to small businesses, and even from other Indiana cities. President Lyndon Johnson paid an early 1964 visit, and authorized massive increases in federal aid from Manpower and Development & Training funds ($4 million), the Labor Department, and the Small Business Administration. Unemployment subsided to 8.1 percent in February 1964; by the end of the year it was down to 5.9 percent. About 500 ex-Studebaker people left town, most of them in upper management, and by 1966 only 361 former employees were still on relief.

Today, despite the derelict condition of much of the old plant, South Bend is a vibrant, prosperous community, vastly less dependent on a single industry than it was in the old days. "In retrospect," one civic leader has stated, "Studebaker's shutdown was probably the best thing that happened. We learned to live without it." Yet South Bend has never forgotten its automotive heritage, and at its modern Century Center are displayed a fine collection of vehicles giving testimony to the bearded pioneers Henry and Clem, who settled down to build a mighty industry in the middle of the nineteenth century.

On schedule for announcement time, Gordon Grundy's Hamilton factory released the 1966 Studebakers, last of the breed. They used the same old bodies, of course, but had detail styling changes by a Detroit firm of industrial designers—Marcks, Hazelquist,



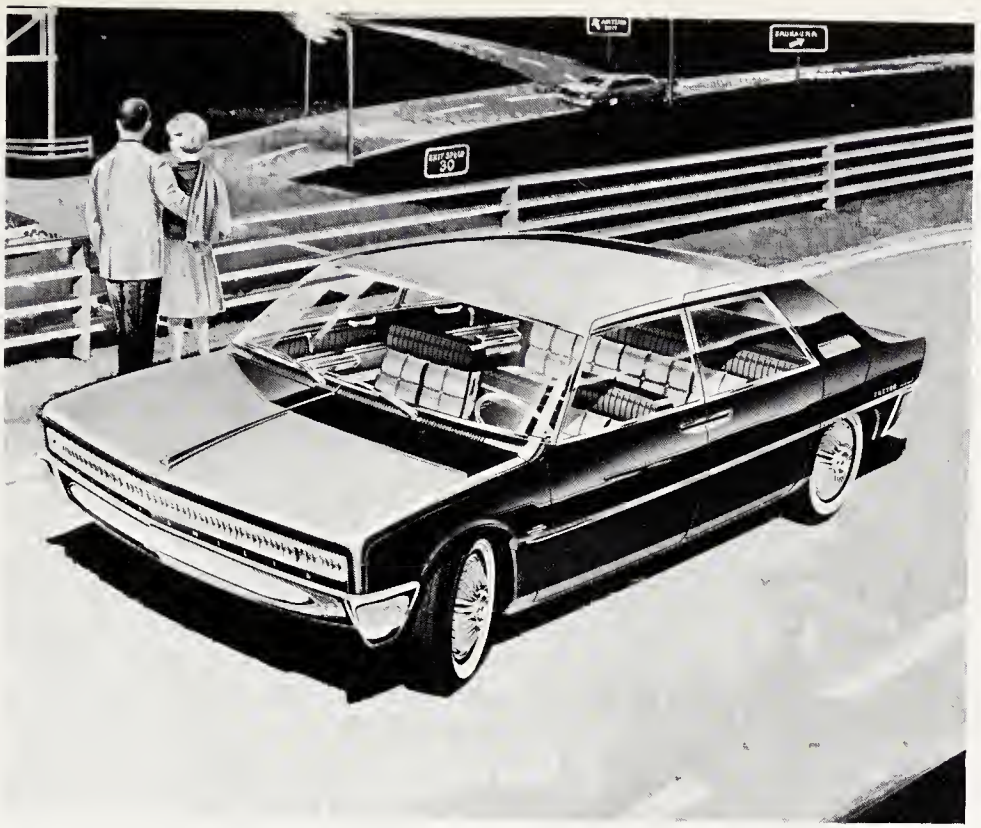
Details of the 1966 Studebakers: tailored off-white vinyl upholstery, complete instrumentation, flow-through ventilation via rear extractors over taillights.

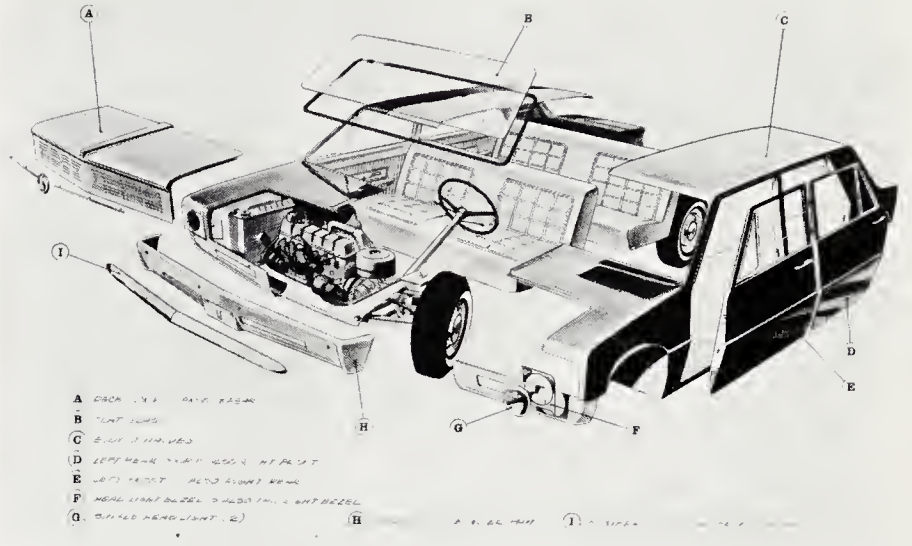
1966 Cruiser sedan. Bright metal outlined the '66's floating grille panels.

Powers, Inc. All-new front-end styling included single multi-beam head lamps to replace the quad units, a new grille with four rectangular panels and the old Hawk medallion in the center, body side molding repositioned at rub-rail level, a new rear panel with ventilation extractors directly above the tail lamps, which were where the back-up lights were in 1965. (The latter were faired into the lower part of the rear fenders.) 'Refresh-aire' was the name given to this flow-through ventilation system—showrooms attached streamers to the extractor vents, which blew around when the prospect shut a door.

Series Model (passengers)	Price	W.B.(in.)	Wt.(lbs)
Six			
Commander sedan (6)	$2,165	113	2,815
Commander 2dr sedan (6)	2,060	109	2,695
Wagonaire 4dr wagon (6)	2,555	113	3,246
Daytona 2dr sedan (6)	2,405	109	2,755
Cruiser sedan (6)	2,405	113	2,815
Eight			
Commander sedan(6)	$2,305	113	2,991
Commander 2dr sedan (6)	2,200	109	2,891
Wagonaire 4dr wagon (6)	2,695	113	3,501
Daytona 2dr sedan (6)	2,500	109	3,006
Cruiser sedan (6)	2,545	113	3,066

Split-back reclining front seats and transistorized ignition were made standard on Daytonas. Automatic transmission, power steering and disc brakes remained Studebaker options. Daytonas continued to offer vinyl covered roofs, and a rear seat center armrest was standard on the Daytona and Cruiser. Hamilton was pushing safety in 1966, with dual padded sun visors, non-glare windshield wiper arms, dual master cylinder, fully padded instrument panel, two-speed electric wipers with washers, parking brake warning light, flanged rear axle shafts, safety door latches and front/rear seatbelts all standard. The cars also featured aluminized rustproofing, which was probably the most





Brooks Stevens' plan for a last-ditch effort, the compact Studebaker with interchangeable body panels, is still a fine idea today. Will someone ever wise up?

Stevens' design called for following components: (a) deck/hood, (b) flat glass, (c) body halves, (d) left rear/right front door, (e) right rear/left front door, (f) head/tail light bezel, (g) single dual headlights, (h) fiberglass bumper pan and (i) front/rear bumper. The savings would have been enormous.

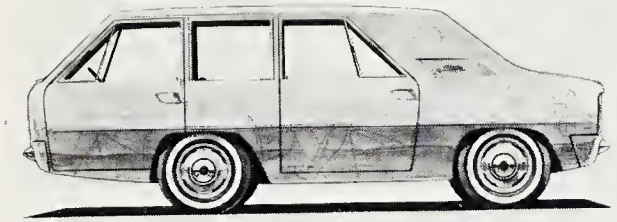
refined antirust treatment a Studebaker had ever received—it should have been adopted in South Bend about thirty years before.

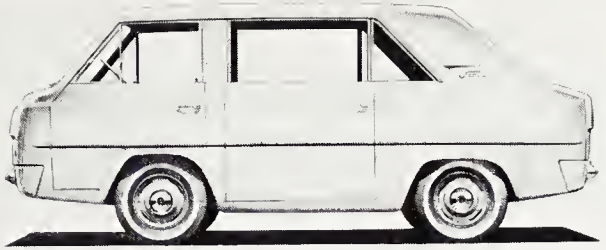
Hamilton had advance plans for 1967 too: a single rectangle for the grille, revised side trim and a few interior modifications. But the total cost of all these would have been only $250,000, and you don't get much for that. Despite Gordon Grundy's insistence that the cars would go on, there was no possible way they could. There was no significant research and development, no new model styling, no engineering staff. "I was the last man out of Engineering after Hardig retired," Ed Reynolds told this writer, "and I stayed only to close everything out. There was no engineering department at Hamilton, and no one from South Bend moved there. It was never intended to continue permanently. The move was to use up some of the material and parts on the shelves, and dealer franchises called for repurchase of all cars and parts should we stop building cars. So we kept building cars—at least to use up what parts stock we had. Engineering was shut down, so they bought the Chevy engine for 1965 and 1966." Neither did Hamilton ever meet its targeted 20,000 units a year, though it came close: 19,748 cars in 1964; 18,588 in 1965. For 1966, though, only 2,045 were built before the line shut down. Model year production for 1965 and 1966 was 19,435 and 8,947, respectively.

Grundy saw the end coming and tried to keep wheels rolling by negotiating for North American distributorship, and possible future assembly, of Datsuns. But that idea came to naught. Datsun talked a lot, but no concrete agreement seemed forthcoming. In frustration, the board directed Grundy to try Toyota, but the latter wasn't interested and Datsun never followed up. Grundy said going to Toyota scared Datsun off, but it has been noted since that the Japanese do a lot of talking about North America assembly—and go right on building cars in Japan.

It is worth mentioning that the Avanti and Hawk *might* have been built in Hamilton, for the decision not to do so was not firm until *after* South Bend closed. The one market survey Hamilton ever conducted was handled by the University of Arkansas. Some of its findings are worthy of reflection:

"It is reasonable to assume that Avanti and Hawk owners tend to be in the higher income groups. Although we have not been able to exactly determine the difference in the degrees of acceptance among Hawk or Avanti owners in comparison with that among owners of the Lark, from customer comments we would tend to believe that we have a strong acceptance for these Avantis and Hawks among the high income groups. It might be that a considerable or very important part of our acceptance among high income groups is directly traceable to the acceptance of these two prestige cars. If this is true, the product acceptance among high income owners will tend to drop considerably if only the Lark is made. This would reduce the [favorable-unfavorable surveyed reaction





Furthering concept, Stevens placed engine in rear and also created small utility vehicles. These three sketches were coordinated with Charles E. Sorensen.

Slightly more elaborate, but entirely possible, was Wagonaire-type small station wagon with center-opening doors, sliding roof.

to Studebaker products] 10.6 to 1 ratio. To the extent that a prestige car improves the customer image for the whole line, dropping both the Hawk and the Avanti may also tend to diminish customer acceptance among the middle and low income groups. The company needs additional definite information on the acceptance of the Lark model itself." (We must forgive the University for using the word Lark, which had been de-emphasized—though it is perhaps significant that the public still called it that two years after Studebaker tried to forget the name.)

When it came to building Studebaker cars, the last fellow to quit was Brooks Stevens. In December 1963, just after the South Bend closure had been announced, the Milwaukee designer met in Florida with 'Cast Iron Charlie' Sorensen, the former Ford and Willys-Overland executive, then an energetic eighty-two years old. Stevens had another glimmer—but he realized he'd have to work fast to sell it to the board before the whole automotive division collapsed. "I had no illusions that Hamilton, Ontario, was permanent," Stevens says.

The Stevens idea was a revolutionary small car—the recurring dream of an American Volkswagen. Packing tremendous interior space into the standard Lark 113-inch wheelbase, Stevens had sketched a subcompact four-door sedan with ultra-interchangeability: trunk for deck, door for door (diagonally), bumper for bumper, headlight housing for taillight housing, windshield for backlight, window glass for window glass. Sorensen suggested a unit body made (uh-oh) of fiberglass, for quick assembly. Miraculously, Stevens planned the whole car using only ten pieces of the stuff. Measuring a mere 166 inches, it was about the length of a Volkswagen, yet the long wheelbase would have provided excellent ride as well as room. The engineering was also unique: front-wheel drive, with transverse-mounted Studebaker ohv six—the same configuration Alec Issigonis had come up with for the revolutionary British Motor Corporation Mini, and the now accepted design for all subcompacts.

Stevens asked Sorensen for his estimates on costs, and 'Cast Iron Charlie' came up with a mind-boggling figure: pricing-out every component, he figured the car would cost $585, and could be sold for $1,085. Stevens was esctatic. His vivid creativity soon put to paper designs for a rear-engine micro-bus, using many sedan body components on a tiny eighty-five-inch wheelbase—eleven inches shorter than VW's. Then he returned to the sedan, planning a rear engine for it as well. The Stevens-Sorensen session took exactly one day: December 12, 1963. Stevens caught a plane for Milwaukee and put his draftsmen to work finalizing the design proposals.

Sorensen, meanwhile, invented a small, simple production line for creating the bodies: a carrier holding four half-body molds, drawing them to stations for a fiberglass

gel coat, outside matting, reinforcing matting and bake oven curing. Sorensen's wonder-machine turned, twisted, raised and lowered the processing bodies, eventually bringing each complete unit back to its starting point for removal. The whole idea was on paper by February 24. It called for only three pairs of machines for the full-scale operation.

"I had tremendous hope for this idea," Stevens told the writer. "Closing South Bend was such a nightmare to me . . . I could think of nothing but saving it for the automobile built there for over a century. I took the project to the board at the end of February, and they were quite interested. Unfortunately, the financial backers had just breathed a sigh of relief after dumping automobiles at last. There was no way any money was going to be made available for anything on wheels. I quit in disgust. I guess it was too late. It was certainly the wrong time to try." The Stevens-Sorensen minicar thus went into history—as the last advance design for Studebaker.

We come at last to the reasons Studebaker failed as a manufacturer of automobiles—most of which we've already touched on, all of which deserve a summation. Let's dispense immediately with subjective notions: that GM drove Studebaker out of business, that Ford stole its dealers, that the financiers said no to worthy models. Like every other independent that expired after World War II, Studebaker passed away by its own hand. The stage was set by certain factors beyond its control, but the act was committed by Studebaker and no one else.

This was the first prewar company to offer a brand-new car after the war, and with that sort of start it was assumed that nothing could head it. Unfortunately, what Studebaker offered was in no way related to its success. After the war it could have put wheels on sleds and sold them in equal quantity. It could even be theorized that an all-new car in 1947 was unnecessary, that the exotic Loewy styling should have been reserved for 1949, when the big manufacturers restyled. The 1947 styling was different, true. That was an age when it was important to look different from the competition. But it was not necessary.

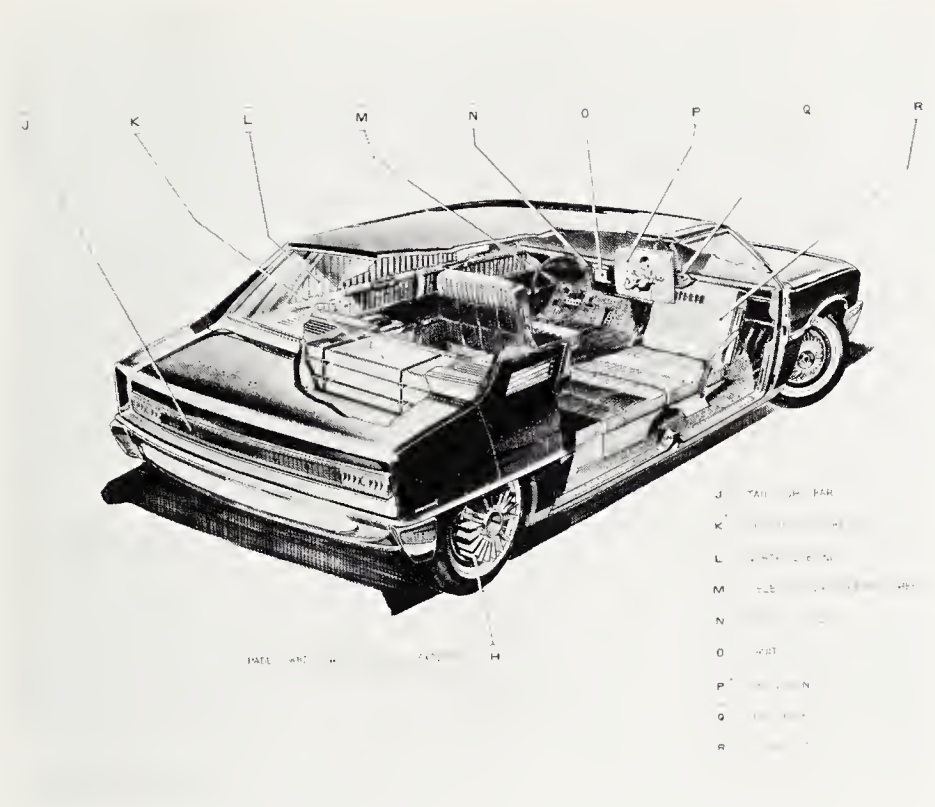
Studebaker's management, like its counterparts at Hudson, Packard, Kaiser-Frazer and Crosley, generally failed to understand the changing nature of the automobile industry and plan accordingly. Only George Mason of Nash, that far-seeing amalgamator, could envision the need for combining with Hudson, Packard and Studebaker, long before any of those companies even considered the notion.

Mason was the most prominent clear-thinker among independent managers, but there were others, more junior, who felt the same way. "I was young and I was brash," says Hickman Price, Jr., former export vice president of Kaiser-Frazer, "and I had a whole lot of ideas. One of them was that in the automobile business—although this had not been proven at that stage at all—the big ones got bigger and the little ones went out of business. My influence, such as it was, was that no we can't [do things on the old small scale], it won't work. We may have a period of three or four years—I remember putting 1950 as the terminal date—in which we can sell everything we can make, and hopefully we can price the things at a level where we can make a good profit. But that isn't going to be enough because it isn't enough volume and it isn't enough business really, in this industry. That was Hudson's experience ultimately, and Studebaker's; I was sure it would happen to us. Actually it happened to us earlier than it did to Hudson and Studebaker, and for different reasons."

Additional design rendering of the ultra-interchangeable molded vehicle bears Lark identification. "I wanted it so bad I tried everything," Stevens muses.

Many of their general problems the independents shared, beginning with their miniscule size compared with the Big Three. Studebaker, for example, ranked about seventy-fifth among American corporations, which wasn't small. But GM ranked first, Ford third, Chrysler fifth—and all three of them had an annual gross larger than a lot of European countries. "We made more money than France last year," a GM executive once joked.

Such size differential meant a considerable difference in unit cost. It cost Studebaker as much to buy a page of advertising, for example, as it did one of the Big Three—but that ad which might have cost South Bend ten cents per car could cost the Big Three maker a penny a car. Likewise it cost Studebaker just as much to design a new car as Ford—and probably more, because Ford bought so many services from its own subsidiaries. A business writer once said that Ford and GM "make so much money selling themselves component parts alone that it's impossible for them to have a really bad year." That may be an exaggeration, but consider GM's subsidiaries: Delco, Saginaw, Hydra-Matic, Frigidaire—the list is endless. Studebaker had no such heap of friendly allies. Everything it needed, from tooling by Budd to instruments by Stewart-Warner, it had to buy.



A more recent rendering from the Stevens studios dubs the vehicle Auto-Familia, and applies lessons learned at Studebaker: headlight bar, extensive padding, broad interior vistas, interchangeable body panels, full-width taillight, even reclining lounge-seat and television.

The size differential was reflected down the line, in dealerships and outlying assembly plants (although Studebaker had a fairly broad-based collection of the latter). The Big Three had assembly plants everywhere—on the East Coast GM had four or five of them alone—and could ship knocked-down cars from Detroit to all of them. This vastly reduced shipping costs from plant to marketplace. And the route led to a huge dealer network covering one hundred percent of the country—GM, as we've noted, had some 14,000 dealers at a time when Studebaker had 2,600. It was also noticed by many analysts that the Big Three had *better* dealers, made more loyal by a consistent record of success, dependent on the parent company to a degree far greater than independent dealers. The latter were all too often auxiliary businesses. Selling cars was something to do when the garage trade was slow. These had little of the merchandising know-how needed to sustain sales when customers were scarce.

Occasionally, when fireworks flew between Big Three competitors, the independents were the companies to suffer. When Henry Ford II declared a production war on GM in 1953, and GM fought back, it coincided with the critical acceptance period of the new Studebaker line. The result was a drastic cut into Studebaker sales: Production dropped over 100,000 units between 1953 and 1954. Henry Ford II did not set out to murder Studebaker, and once or twice since he's said he regretted his '53 blitz. But he dealt South Bend a crippling blow. Studebaker dealers were not able to discount at the rate of Ford or GM dealers, and with the latter dumping record numbers of cars at agencies in an effort to outdo each other, price competition was rampant. Later, when rumors spread of Studebaker's coming demise, Big Three distributors went on 'dealer raids' to pick up the better outlets. It was all very natural in the dog-eat-cat world that is the auto business.

Though the federal government sympathized with the plight of South Bend, and aided the city when Studebaker closed, it was also a major culprit in the company's problems. Well-intentioned but often irresponsible, the feds made life miserable for small manufacturers in the late forties and fifties by setting prices and production quotas, and limiting credit purchases to eighteen months. The latter regulation came down in January 1949, when the Big Three had entered their first postwar models and the independents most needed momentum. Thirty-five thousand retail dealers appealed to Congress to abolish this limit which, they said, "was destroying the ability of middle-income families to buy cars and threatening the current rate of high employment." Granted, the credit limit hurt all dealers—but it hurt independent ones more because their volume was so much smaller. The Federal Reserve finally did lift the limit, but not until damage was done.

Washington also proved troublesome with its defense contracts, which seemed like a good way to make an extra dollar but were replete with uncertainty. As James Nance once stated, "In anything less than a shootin' war the defense money is controlled by the politicians. They can turn the spigot on and off." They did, and regularly. The Korean War ended, to everyone's relief, in 1953—and Studebaker lost defense work (failure to anticipate this was obviously South Bend's fault). On other occasions, contracts failed to materialize that had been solemnly promised: several of Curtiss-Wright's, several of Sherwood Egbert's. Many failed to come through because defense budgets were slashed by Congress long after the tentative agreements had been made with the manufacturer.

The Defense Department was also a terrible customer on the work it did order. Typically, it would make thousands of alterations in specifications for products, a habit huge multinationals like GM were geared to handle, but one which drove Studebaker's understaffed engineering department to distraction.

These, then, are the discouraging circumstances which confronted every independent after World War II. Let us turn now to the ones which confronted Studebaker in particular, through its own management decisions. Let us assume, as many do, that Studebaker entered World War II healthy, and came out in at least as good condition as any independent auto manufacturer. The 1939 Champion had rescued the car business; 'cost-plus' wartime contracts were lucrative. Enter management mistake number one, a big one: Studebaker didn't plow sufficient wartime profits back into the business.

Certainly management spent a lot to build the 1947 models. But what did it do to modernize and improve the plant? Very little. Instead it paid out fat dividends to

shareholders, rich bonuses to managers, and signed the most lavish contracts in the industry with its thoroughly spoiled union local. Unlike all other auto companies, Studebaker refused to take a strike to get labor costs back in line after the war. All this added up to titanic overhead, which only became apparent in 1954 when Packard discovered that it would take 282,000 cars to make South Bend break even. For these reasons it is hard to blame the unions for greediness and obstructionism. They were being offered these deals—why should they refuse? To the local's credit, its members several times voted themselves pay cuts to help the company in dire times. But the reason the pay scales were so high to begin with was because management had wanted them to be.

Lack of plant investment was a major cause of Studebaker's problems years after V-J Day. *Car and Driver*, in an otherwise superficial analysis of why Studebaker failed, hit this point squarely by quoting Frederic Donner, chairman of General Motors, who was asked in 1958 whether his company was trying to drive the independents out of business. "And when did you stop beating your wife?" Donner answered sardonically. "If you are thinking of Studebaker-Packard, did you ever stop to wonder what they did with the profits of the lush war years? If they reinvested them in the business? We didn't drive them to their present condition. They drove themselves there."

Another problem of Studebaker management was the character of that management itself—old, conservative, unwilling to consider new ideas. Paul Hoffman was an innovator, but after 1948 his government involvement prevented him from exercising more influence. Harold Vance, who then controlled the company, never groomed a successor and lived with a handful of vice presidents, few of whom had any experience anywhere but at Studebaker.

Stale, unimaginative, cautious leadership cost Studebaker much between 1949 and 1955, riding complacently on successes in the seller's market, believing record sales would last forever. It failed to facelift the cars for 1949, when South Bend was facing an across-the-boards redesign by the Big Three. Later it pointed to good 1949 sales and said this bore out its decision. Not at all: Studebaker could have sold many more cars had they been made to look newer for 1949.

In 1950, Vance refused to sell Studebaker's excellent automatic to Ford, again basing his decision on current sales volume. By 1955 Studebaker couldn't sustain enough sales to make the transmission viable for the vendor to produce, and by then Ford had its own automatic. Vance and Hoffman overlooked the potential of the Volkswagen and Porsche-Studebaker, too, though it is hard to condemn them too severely here—a lot of other people overlooked the VW. More serious was Vance's delay in issuing a Studebaker two-door hardtop—he waited until 1952, and his company was the last one to offer this important new body style.

The miscalculations and fiascos of 1953 have already been documented. The lack of understanding of market conditions, the failure to appreciate public impact of the coupes and resultant underproduction, were blunders which can only be laid at the door of management—again. Ironically, all management seems to have done at the time of the 1954 sales debacle was blame Raymond Loewy's advanced styling for Studebaker's problems. "I remember so well the management talking about European styling ruining Studebaker," says designer Ted Pietsch. "When Mr. Loewy and his staff designed the beautiful 1953-54 coupes their goal was to create the best looking automobile they could. The low sloping hood and fast-angled windshield were the natural outcome of a design made to slip through the air with the least resistance. Geography had nothing to do with it. And the public responded favorably! I do not include the sedans in this assessment—they were as unexciting as the coupes were dramatic."

A fault for which we may blame certain engineers was the quality of the early 1953 cars. "It was the worst I have ever seen in all my years," Pietsch continues. "I remember walking into a Studebaker showroom and seeing a hardtop with the righthand door standing open. I attempted to close the door and quickly found why it was open—it was impossible to close! When you *could* close a hardtop door it sounded like a tin can. The hoods had a gap above the front bumper sometimes three-quarters of an inch wide. The C-pillar had an unfinished metal joint about halfway up (later leaded in). All this is no exaggeration."

The cars also rusted, as everybody who has owned one knows. Despite the fact that moisture-trap fenders first appeared in 1947, they were still present twenty years later. Such a basic failure in research and development does not necessarily point to the engineers, but to the people setting those engineers' priorities.

There were several individual product blunders of varying importance, especially after business got bad in the middle fifties. In 1955 Studebaker spent a lot of money for mid-year wraparound windshields, instead of instituting a spring price cut to spark sales. Around the same time, management hesitated so long over whether to restyle or facelift the 1956 that the job finally had to be farmed out to Vince Gardner to get it done on time. More hesitation occurred in 1957 model planning (though this may have been due mainly to the on-again, off-again financing negotiations), and more again in 1960—failing to make the '60 or '61 Larks really different contributed to their old-hat image compared to the compacts being launched by the Big Three. Sherwood Egbert recognized this ingrained indecision at his board meetings—to his vice presidents' discomfort. The problem seemed to be that he was the first president who did, and by then it was too late.

Product failures of the later years included the hastily designed, unsuccessful overhead valve six; merchandising failures significantly included the 1956-58 broad-line approach and the 1959 Lark franchises handed out to Big Three dealers. Management must have known the latter would be worthless once the Valiant, Falcon and Corvair appeared—and they were. The Avanti and the GT Hawk were also failures, but possibly not in and of themselves. Rather, nobody was willing to consider a Studebaker of any kind by that time in history.

The problem of public reluctance to buy a car about to become an orphan was real and serious after Kaiser, Willys, Nash, Packard and Hudson had departed almost simultaneously in the fifties. As mentioned earlier, the history of automotive merchandising since that time has largely been one of momentum, either positive or negative. Studebaker's downhill slide after 1959 gathered negative momentum like a snowball rolling down a winter hillside. By 1963 the vast majority of the public couldn't believe that the Avanti was anything more than a temporary obsession. The few who did, visited showrooms and saw it next to the Lark—which by comparison was short, dumpy and unexciting. Here enters Otto Klausmeyer's theory that the Avanti-based sedan should have come out before (or simultaneously with?) the sports coupe. If that had happened, bread-and-butter sedan buyers would have had a product that instantly

Ron Meyer in *Turning Wheels*, publication of the Studebaker Drivers Club.

identified with the glamorous Avanti. This might have made a difference, but if so we shall never know. Alas, there was barely enough money to build the Avanti, let alone the sedans.

Reflecting on the postwar history of Studebaker, the unbiased observer has to conclude that the corporation deserved what it received. And not because of the general problems faced by all independents—American Motors showed it was possible to circumvent them, at least for a time—but because *in the face of those problems* management did exactly the wrong things. If, in 1950, executives had decided to put Studebaker out of the car business within the next fifteen years, they could hardly have gone about it in a more efficient way.

It's too bad Studebaker had to die.

Appendix I
Studebaker Trucks: The Postwar Years

by Fred K. Fox

IF ONE CRITICALLY analyzed nineteenth century Studebaker history, one would begin to wonder why Studebaker wasn't a twentieth century truck company that produced cars as a sideline instead of an automobile company that eventually got into the truck business. In the latter part of the nineteenth century, Studebaker was a leading producer of horsedrawn wagons. The modern truck can trace its ancestry directly to horsedrawn wagons which, outside of rail and waterway transportation, were the prime movers of trade before the turn of the century. Studebaker's complete line of wagons included log, milk, ice, coal, sprinkler, garbage and grocery wagons, just to list a few. Of course, the best known of all was their line of farm wagons, famous for their red running gear, green box and the company's name boldly printed on as many as three sides of the box. One example of how this practice of boldly proclaiming the manufacturer's name has carried through to today can be seen on the pickup truck tailgate.

To understand how Studebaker dominated the wagon business, here is an excerpt from a 1902 Studebaker farm wagon sales folder: "More material seasoned and in process of seasoning is carried in our lumber yards than will be found in the combined lumber stacks of any five wagon factories in the world." But, in eighteen years this tremendous wagon business dwindled to a trickle, and Studebaker realized that it was time to halt production. In 1920, just one year after it produced its last buggy, Studebaker built its last horsedrawn wagon. Motorized trucks had taken over from the horse, and Studebaker was caught short without a replacement for its wagon business. How did this come about?

Studebaker's initial move into motorized vehicle production started with its carriage factory. The first electric and gasoline cars sold by Studebaker had their chassis supplied by outside firms while Studebaker's carriage works produced the bodies. Some Studebaker electric trucks were produced between 1902 and 1913, but the sales were insignificant and J. M. Studebaker honestly didn't see much future for the electric truck business. The Studebaker-Garford gasoline cars of 1904-11 were mainly designed for the carriage trade and very few were built as commercial vehicles.

Between 1914 and 1917 Studebaker produced a few ½-, ¾- and one-ton commercial vehicles. They consisted mainly of closed panel deliveries, open express deliveries and small buses, all based essentially on automobile chassis. However, truck sales remained miniscule and limited mainly to cities where the roads were good enough to accommodate them. Rural areas, where the Studebaker name was best known, still did not have roads capable of handling heavy motorized vehicles.

Between late 1917 and early 1926, Studebaker produced no commercial vehicles. (A few outside firms, such as Cantrell of Huntington, New York, sold a limited number of commercial bodies that could be fitted on Studebaker car chassis.) This was a critical period in the history of emerging truck companies and Studebaker was not even in the ball game. GMC, International, Ford, Mack and Reo, to name just a few, made great strides during this period. Rural roads were being improved and farmers were quickly switching from wagons to trucks. One of Studebaker management's greatest errors at this time was its failure to expand into the commercial field. Their good name in rural areas was as sound as gold and, with their tremendous dealer network, they could have outsold all competitors just as they had been doing with horsedrawn wagons for decades. It is interesting that motorized commercial vehicle production was halted at Studebaker the same year the last Studebaker brother died. Unlike the Studebaker brothers, President Albert Erskine was not attracted to the potential of rural truck sales.

In 1926 Studebaker again entered the commercial field with inter-city buses powered by Studebaker's large 354-cubic-inch Big Six engine, and by 1927 they were producing delivery vehicles based on the Dictator chassis. A year later, Studebaker purchased Pierce-Arrow, and not long afterwards SPA (Studebaker Pierce-Arrow) Truck Corporation was founded. Erskine, in an attempt to outrun the Depression, came out with a whole line of light commercial vehicles, but today we would not classify any of them as pickups, a truck style that proved very successful for other companies. Again Erskine was ignoring the rural trade.

Studebaker finally came out with a line of heavy-duty trucks in 1930; up to three-ton models by 1932. The year 1932 also saw Erskine making a move to purchase the White Motor Company, a large truck producer. In better times, this would have set Studebaker up to be a major truck manufacturer, but White backed out and in March 1933 Studebaker went into receivership. Both White and Pierce-Arrow were thus lost, Pierce-Arrow having been sold at a loss. Commercial production was reduced to just the heavy-duty (1½- to three-ton) models. Sales peaked at 3,495 units in 1931 and dropped to 1,697 in 1934.

A few milestones were still ahead for Studebaker trucks before the outbreak of World War II. In 1936 they introduced their cab-over Metro series, later called Cab-Forward models. They were built in addition to the Standard models from 1936 through 1940. Waukesha and later Hercules engines were used in the largest models of both cab types. In 1937, Studebaker introduced their greatest prewar truck design, the Coupe-Express pickup. With a contoured box and front-end styling like the current year Studebaker car, they were forerunners of the stylish Chevrolet El Camino and Ford Ranchero pickups. The 1937 model had a straight front axle, but the 1938 and 1939 models featured Studebaker's independent 'planar' front suspension. At the end of the

1945 M15-28 Special Heavy Duty one-ton stake body.

1939 model year, the Coupe-Express was dropped, and again Studebaker was without a ½-ton pickup truck. In 1940 the Coupe-Express was replaced with the Coupe Delivery—a Champion coupe with a removable delivery box in the trunk.

In 1941 they streamlined their offerings and came out with an all-new line of good-looking trucks called the M series, from ½-ton pickups to 1½-ton models. Designed under the direction of Raymond Loewy, all were powered by Studebaker engines and featured the same basic cab design. The ½-ton model was again called the Coupe Express (the hyphen was deleted), but it was considerably more utilitarian than the original 1937-39 version. Cab styling of the M series took many design features from the 1941 Champion cars including dashes, steering wheels, side windows and numerous trim items. The Coupe Express (M5) and the one-ton Standard Truck (M15) were powered by the 170-cubic-inch, eighty horsepower, L-head six-cylinder Champion engine, while the Heavy-Duty Truck (M16) was powered by the 226-cubic-inch, ninety-four horsepower, L-head six-cylinder Commander engine. The larger two-, 2½-and three-ton models of 1940 were dropped (a few K models were built post-1940, but not for regular production), but this was no great loss since Studebaker's sales potential was in the medium-sized truck field. All models were available in either deluxe or standard trim. The Coupe Express went back to an I-beam section front axle, but retained the three-speed transmission with optional overdrive. A four-speed transmission was standard on the 1½-and one-ton models and optional on the Coupe Express. Fenders on the Coupe Express were identical front and rear on each side. The deluxe Coupe Express sold for only $689 and, for a little extra, white sidewall tires were available. Studebaker's directors had made a wise move. Sales of 1941 models were almost five times what they were in 1940.

Most all 1941 and 1942 one-ton and 1½-ton models featured cast spoke wheels with hub caps, while the Coupe Express used pressed steel wheels and wheelcovers. The 1942 models continued with no changes, but it was not long until war demands made it necessary to drop the deluxe trim option and go to painted trim on all models. By early 1942, all civilian truck production was brought to a halt.

Prior to Pearl Harbor, Studebaker produced a number of trucks for the allied forces in Europe. The French Army purchased several hundred 1939 K30 three-ton trucks. The K30 was powered by the giant 383-cubic-inch, 102-horsepower Hercules WXC3 six-cylinder engine. These trucks had standard civilian production cabs, hoods and fenders. Many of them were captured by the Germans and used by the Wehrmacht during the rest of the war. Also, the Chinese government purchased some Studebaker truck chassis, which they equipped with Chinese-built cabs and beds for use on the Burma Road.

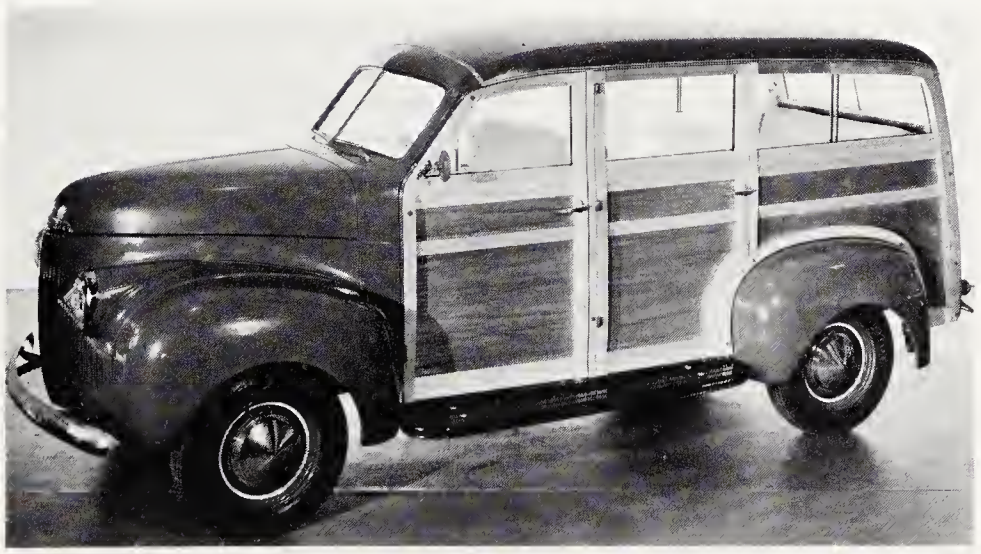
Early in 1941 Studebaker assembled a number of pilot model military trucks for the U.S. War Department. Contracts were quickly awarded and production of 6×4 and 6×6 models got under way. These 2½-ton Studebaker army trucks were powered by Hercules JXD, 320-cubic-inch, eighty-seven-horsepower, six-cylinder engines. The JXD engine had been used by Studebaker on its civilian 2½-ton models from 1937 to 1940. Although a few open-cab models were assembled, most of the military trucks used a slightly altered M series cab combined with standard-looking military hood and fenders. The M series cab with its noticeably slanting windshield made Studebaker army trucks easy to identify. By the end of 1941, Studebaker had produced 4,724 army trucks while they still continued to produce civilian trucks. Once all civilian truck production was brought to a halt, military truck production was increased to about 4,000 trucks per month.

By the end of the war, Studebaker had produced 197,678 military trucks—of which over half were shipped via lend-lease to Russia to be used by the Red army. The abundance and popularity of Studebaker trucks in Russia led to the word Studebaker becoming synonymous with the word truck among Russian truck drivers. A number of these trucks are still in use in Russia today.

Studebaker's other major contribution to the war effort was the Weasel M29 tracked personnel and cargo carrier. Designed originally for use in snow, it was later adapted for use in sand, and in 1943 a modified version, the M29C, was developed as an amphibian for use in water as well as on land. The Weasel was designed by Studebaker engineers and powered by the Studebaker Champion engine. It would do 36 mph on land and 4 mph in the water. By the end of the war, Studebaker had built 15,124 of these unique and versatile tracked vehicles.

Before the close of the war, the need for civilian trucks was becoming critical so, in the late spring of 1945, the government authorized Studebaker to build a limited number of M series vehicles. The Commander engine could not quickly be put back into production so they were limited to producing the one-ton M15 which was powered by the Champion engine. M series army truck cabs were also quickly adaptable to the M15. Because of the urgency of the situation, the military-type swing windshield, with its overhead wipers, was used on the 1945 M15—unique to this model and year of M series truck. Front fenders, grille and hood were like the prewar civilian standard trim models.

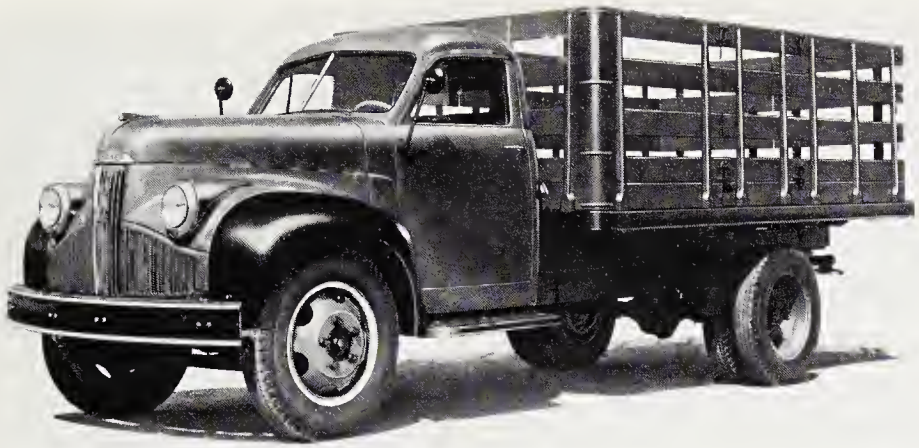
1946 M17-52 fire truck exported to Saudi Arabia.



1946 M5 truck with wagon body by Mifflinburg (Pennsylvania).

Steel disc wheels with five vent holes were used. In contrast to the various body colors, most of these trucks had black fenders, a feature that carried into many 1946-48 models. All told, about 4,000 1945 M15 one-ton trucks were built. (Certain production figures indicate that 703 of the 4,000 postwar M15's were built in 1946, but the M series parts catalog lists them all as being 1945 models.)

With the closing of the war in 1945, Studebaker began the process of converting back to civilian production. Strikes in the plants of parts suppliers delayed quantity production until after the beginning of the new year. Management was quite aware that it was a sellers' market, so only plain, painted-trim models were offered. The basic prewar ½-, one- and 1½-ton models were reintroduced. All one- and 1½-ton models now used steel disc wheels with vent holes and no hub caps. The 1946 one-ton model was known as the M15A so that it could be distinguished from the swing-windshield 1945 M15. Eventually the demand for a heavier-duty truck resulted in the production of a beefed-up



1948 M16-52 rack body.

M16 being built for export. This new two-ton model was known as the M17. During 1946, 43, 196* trucks were built. This figure broke all previous records and actually was larger than the total prewar civilian truck production between 1930 and 1942. The military truck contracts had taught Studebaker how to gear up to quantity truck production. This knowledge combined with the tremendous postwar demand made the directors quite aware of the benefits to be gained by becoming aggressive in the truck market.

M series trucks continued in 1947 with little change. Actually the demand was so great that for a period of time the only colors available on one- and 1½-ton models were green or red, with or without black fenders. This austerity slowly gave way, and chrome and stainless steel trim started to come back. By mid-1947 a chrome hood ornament, like those used on prewar deluxe models, was available. Also at this time, a much heavier, two-tone painted bumper replaced the chrome bumper on M17, M16 and 128-inch wheelbase M15A models. Production in 1947 rose to 67,811 units, again a record.

The M series models were continued into the early part of 1948 with no significant changes. The ½-ton M5 was still called the Coupe Express, although the word pickup (then spelled pick-up) was coming into common usage. Giving engines names was very popular in the industry and Studebaker was right in there with the Econ-o-miser 170 six and the Hy-Mileage 226 six.

In 1948 two very important moves were made by Studebaker's truck division. One was the introduction of the all-new 2R series '49er truck line, and the second was the move to a one million square-foot truck plant on the southern edge of South Bend. Designer Bob Bourke came up with a remarkably advanced truck design. It had simple flowing lines, a clean double-wall pickup box of unique styling and no exterior running boards. The dash was much simpler than the M series and featured a glovebox door and instrument housing of the same shape and color (brown – the rest of the dash except for the brown maplight hood and ash tray were the same color as the exterior body color). Placed between the instrument housing and the glovebox were two symmetric control centers for the optional radio and Climatizer heater. A door-activated courtesy/maplight was standard equipment. Except for color, the instruments were the same as those used in the M series, but their access was greatly changed. The instruments were now placed right in the firewall so that any repairs could be made by lifting the hood instead of working in cramped quarters in the cab under the dash. This feature was strongly promoted under the banner of "lift-the-hood accessibility." The backs of the instruments protruding through the firewall made them, however, more susceptible to dust, moisture and mice, but the system saved many hours in repair time and was retained on the C cab models until production came to an end. The cardboard inside door panels of the 1948 M series were replaced by metal, although the cardboard headliner was retained. The glass area was increased twenty-three percent over that of the M series. The grille on all models was a combination of body color and Tusk Ivory. The standard hood ornament was taken from the 1948-49 Champion car and the ½-ton 2R5 pickup hub caps came from the 1947-49 Commander and Land Cruiser. The Studebaker name was featured on the front and sides of the hood and on the tailgate of pickups. Bumpers on the smaller models were either chrome or Tusk Ivory while larger models had Tusk Ivory painted bumpers only. Front fenders on the larger models were slightly flared at the wheel openings.

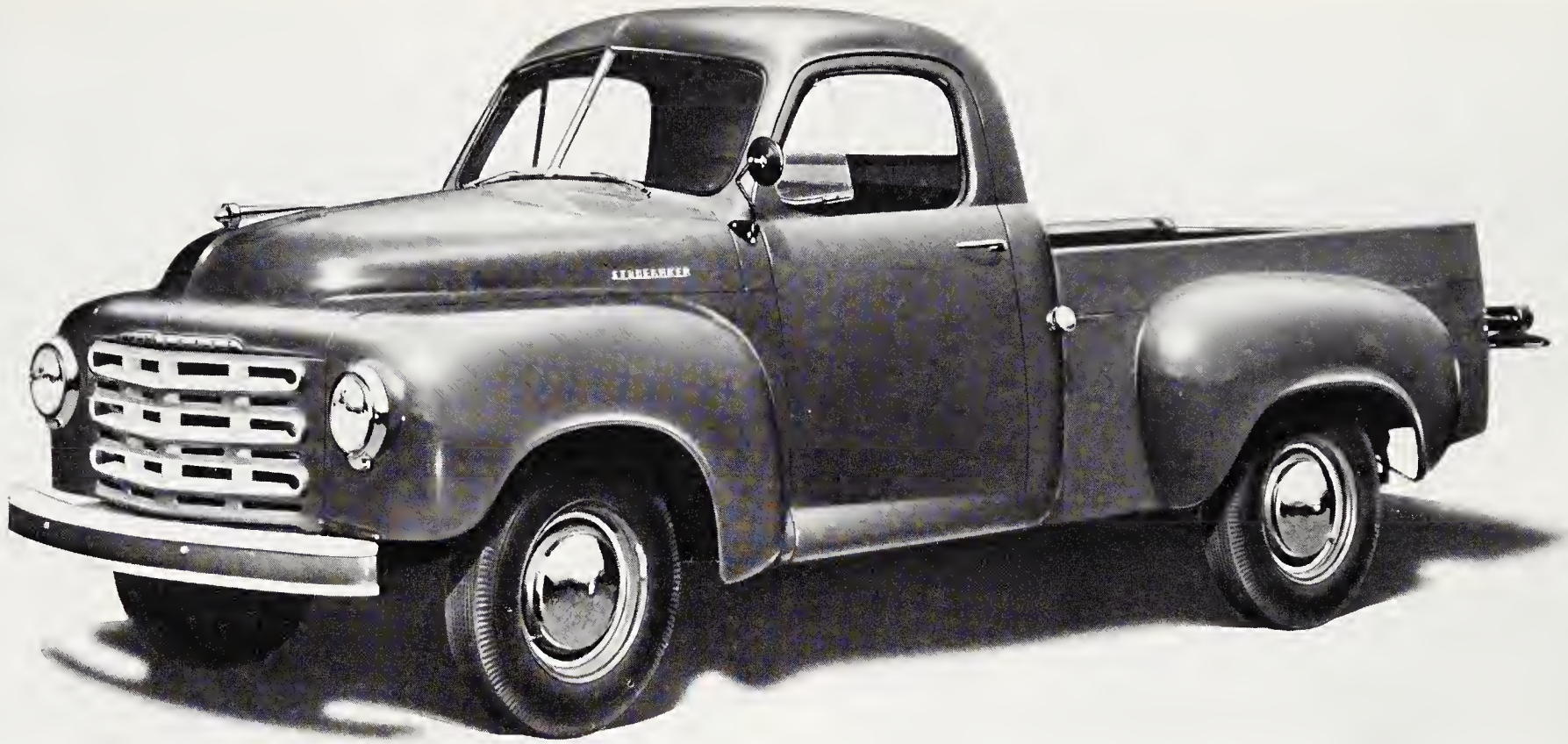
Mechanical changes were few, with the same engines and transmissions being used as those in the M series. Standard variable ratio steering and optional overdrive, two-speed differential and Hill-Holder were still available. The location of the gas tank between the left frame rail and the driveshaft was quite safe and eliminated the noise associated with tanks placed within the cab behind the seat. Chief truck engineer during the development of the 2R series was Russell E. MacKenzie.

All-new for the 2R series was the ¾-ton 2R10 model. Like the ½-ton 2R5 and one-ton 2R15, it was powered by the 170-cubic-inch engine. The two-ton model (2R17) was now available for domestic sales and it, along with the 1½-ton 2R16, was powered by the 226-cubic-inch engine. Wheelbases ranged from 112 inches on the 2R5 to an optional 195 on the 2R16/17. The ½-ton model was no longer known as the Coupe Express.

With the all-new 2R series came an all-new plant. During World War II Studebaker built close to sixty-four thousand Wright Cyclone engines in a new government-owned assembly plant in South Bend on Chippewa Avenue. In November 1947, Studebaker agreed to buy the plant from the government and in February 1948 the sale was consummated. For $3,592,000 Studebaker bought a modern, air-conditioned, one-story facility with twenty-two acres of floor space. All truck production, except for engine manufacturing, was moved to the new plant during the interim between the end of M series production and the start of 2R series production in the spring of 1948. Even though the switch resulted in some lost time, 1948 again set a new record for civilian truck production, with a total of 67,982 units assembled. Of this total, about forty-nine thousand were the new 2R series models. The year 1948 marked the high water mark in Studebaker truck production. Never again would they produce so many civilian trucks in one year.

Running changes instead of model year changes were the norm for the 2R series. Shortly after production started, the painted bumpers became two-tone like the grille.

*Unless otherwise noted, all production figures are for the calendar year. Some sources give figures that vary slightly from the ones given.



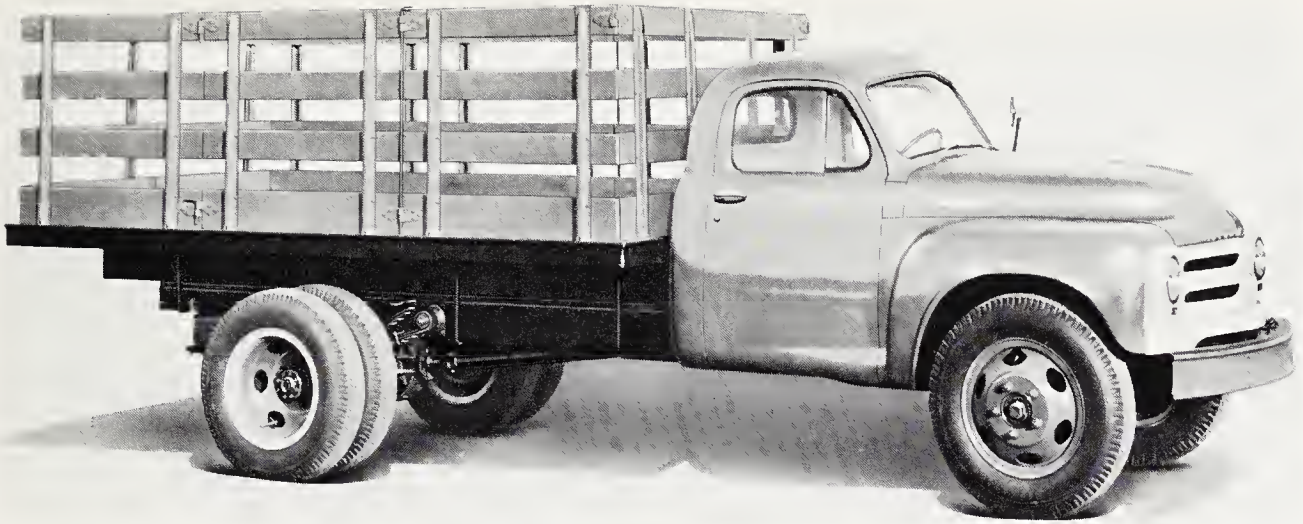
The half-ton model 2R5 pickup for 1949 through 1953.

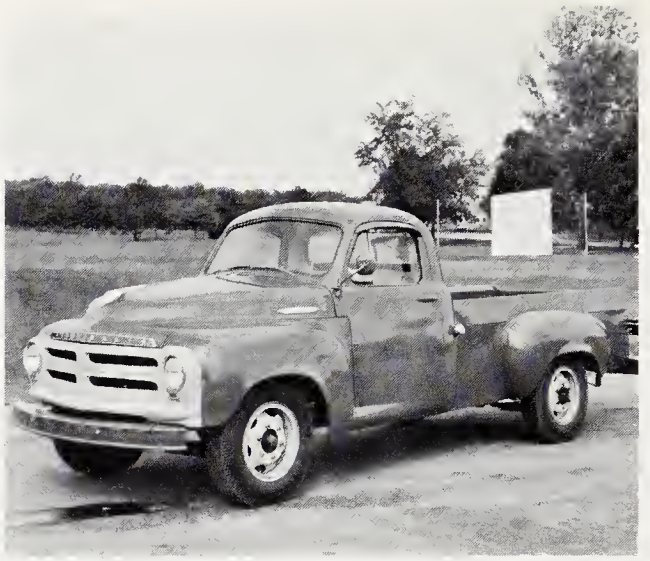
Early in 1949 the stroke of the Commander engine was increased from 4⅜ to 4¾ inches, thus giving the engine 245.6 cubic inches. The new engine was called the Power-Plus and was rated at an even 100 horsepower. To indicate the engine change, the 2R16 and 2R17 models were changed to the 2R16A and 2R17A models. Production for 1949 was down a little to 63,473 units.

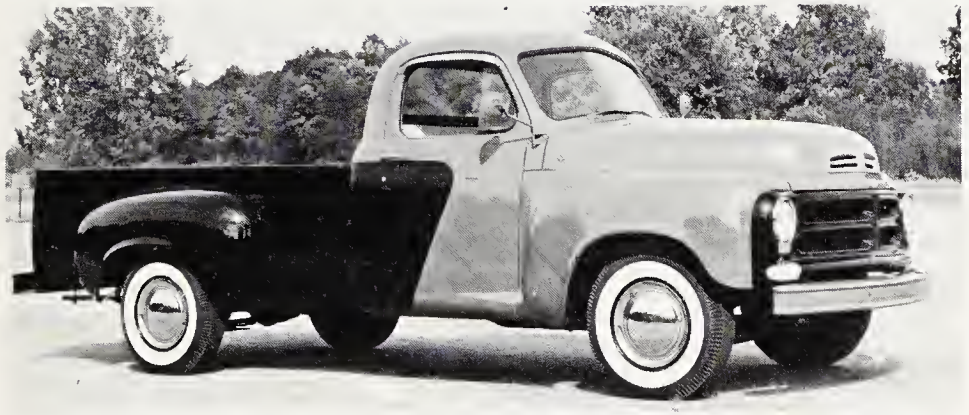
A few minor changes were made in 1950. The horsepower of the 170 Econ-o-miser was raised from eighty to eighty-five and that of the 245 Power-Plus was raised to 102. For the first time since 1941 the horn button was given a new design. In late 1949 Studebaker built a special Desert Explorer 2R5 pickup for Aramco (the Arabian American Oil Co.) for use in Saudi Arabia. It featured many heavy-duty items including 9.00×13 tires and a Power-Plus engine. Both of these features were later adapted for regular production, the engine option in 1951 and the thirteen inch tires as an export option in 1954. The invasion of South Korea in June 1950 had its effect on truck production—Studebaker received a contract for 4,000 2½-ton 6×6 military trucks. Actual production of military trucks commenced in January 1951. Total civilian truck production for 1950 was down to 50,323 units.

Nineteen fifty-one saw the introduction of three new 2R series models. The 245 engine was now made available in all models. Resulting from this move was the 2R6 ½-ton, the 2R11 ¾-ton and the 2R14 one-ton. In 1951 Studebaker introduced its new OHV V-8 engine, but except for some experimental and export models, it was not used in any 2R series trucks. About the only other change made in 1951 was the adoption as standard equipment of a sliding, lever-operated seat adjustment mechanism. Civilian truck production was up a little to 51,814 units for 1951.

The 1952 2R series trucks were introduced on November 15, 1951, with no significant changes. A few more colors were added, giving a total of seven. Korean War military truck contracts totaled some $470 million by September 1952. That summer Studebaker was producing over 1,500 2½-ton 6×6 military trucks per month. Unlike the World War II army trucks, Korean vehicles used standard square military cabs. There was no simple way to tell them from models built by other manufacturers. The trucks were designed by Reo and powered by Reo engines. Studebaker's job was just to act as an assembly plant. Civilian production for 1952 made a good increase to 58,873 units.







Left, 1954 3R17-155 two-ton stake body; right, 1955 E10-122 three-quarter-ton pickup.

1956 2E7-122 half-ton pickup.

Fortunately, the Chippewa Avenue plant was large enough to handle both civilian and military truck production.

Studebaker's most successful series of trucks saw its final year of production in 1953. Again, changes were mainly limited to different color offerings. During this time the Cantrell Company produced a number of four-door 'woody' station wagon bodies that could be mounted on 2R5, 2R6 and 2R11 windshield cowl chassis. They were for export sales only and could hold from eight to ten passengers depending on the model. Contracts for military trucks were completed in August 1953. The civilian truck market was now becoming a buyers' market and Studebaker was caught without anything new to offer. Sales dropped markedly to 32,012 units in 1953. A facelift and the adoption of the V-8 engine in 1952 or 1953 would have helped. After its initial postwar thrust, Studebaker was again moving too slowly. All told, over 270,000 2R series trucks were built. In comparison, the final ten years of Studebaker truck production would not even equal half that figure, but the number of models offered would become almost overwhelming.

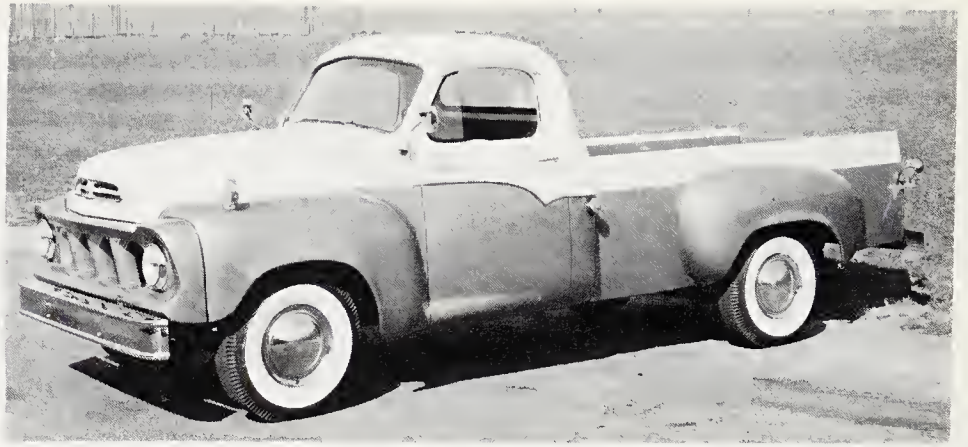
The new 3R series introduced for 1954 featured a number of significant changes and additions. The biggest exterior changes were a new one-piece curved windshield and a new grille. The headlights, although situated in about the same position, were now a part of the grille instead of set into the fenders, with the parking lights set below and apart from the headlights. The bumper was painted a solid body color and ½-ton models had new smooth hub caps. Side hood Studebaker name plates were all-new and the hood ornament became an option. On the interior there was a new instrument cluster and matching glovebox door. The instruments were now round and the speedometer only read to 90 mph instead of 100 mph. The V-8 powered 3R28 1½-ton and 3R38 two-ton were added to the model lineup. The 232-cubic-inch V-8 was rated at 127 horsepower. The A suffix was removed from the 16 and 17 models. A four-speed syncromesh transmission was introduced as standard equipment on the two-ton models and optional on all others. But the facelift and V-8 engine came too late; sales again took a big slump to only 15,608 units for 1954—twenty-five percent of what they were five years earlier.

By 1955, yearly model changes had become a part of Studebaker's truck business. The new line was called the E series and it consisted of a greatly altered model selection. The 245 Power-Plus engined models and the Econ-o-miser 6, one-ton and E15 were now limited to special order and export sales. Three new V-8 models were added: ½-ton E7, ¾-ton E12 and one-ton E13. The engine used in these models was the new short-stroke 224-cubic-inch, 140 horsepower Econ-o-miser V-8. The E28 and E38 were now powered by the 259-cubic-inch, 156 horsepower (175 horsepower with four-barrel carb) Power-Plus V-8. The Champion Econ-o-miser 6 was increased to 185 cubic inches

and ninety-two horsepower. An automatic transmission was now optional on the ½-ton (E7) and the ¾-ton (E12) V-8's. For the larger 1½-ton (E28) and two-ton (E38) models an optional five-speed overdrive transmission was added. Exterior changes included new door handles, headlight rings that included the parking lights, V-8 side hood ornaments, wide Studebaker name plate on the front and a new hood ornament ('8' on V-8 models and an 'S' on six-cylinder models). A much larger rear window greatly improved rear visibility. In a constant attempt to give an old design a new look, the stylists added door sun visors; first on the one-ton and larger models, but later standard on all models. Inside the cab a new instrument panel crash pad was added, again standard at first only on the larger models, it was also later made standard on all models. For the industry, 1955 was an outstanding year, but for Studebaker it brought only slight sales increases. The truck division increased sales by about 4,000 to a total of 19,793.

In an effort to give their truck line a new image, all 1956 2E trucks were called Transtars (a name later picked up by International). Although there still was no new cab design, many changes were made to give the 1956 models a new look. A rounder hood with no hood ornament, and a horizontal opening in the front with the Studebaker name plate helped give the front end a heavier look. The Studebaker name was gone from the hood's side and the Transtar name appeared on the doors. Optional two-tone paint jobs (first introduced on 1955½ pickups) and deluxe cabs freshened the styling. Accessory full-disc wheelcovers and white sidewall tires on the ½-ton models helped make them competitive with fancier Ford, Chevrolet and Dodge models. Other changes included the use of a plain horn button, separate spear-pointed parking lights, and a twelve-volt electrical system which included key starting. Prior to this, standard shift models had been started by a button under the clutch pedal. Packard's Twin Traction limited slip differential was made an option on ½-ton models. Engine names were also changed for 1956. The 185 and 245 sixes were now called Work Star (earlier: Job Star) engines, the 224 V-8 (dropped from the Commander car in mid-1955, but kept in the truck lineup) was called the Route Star and the 259 V-8, the Power Star. Initially no new models were added and four models (10, 15, 16 and 17) were dropped from the export market. Again, as in 1955, the old Commander 245 six was available only on special order or for export sales, although later in the year models 6, 11 and 14 became domestically available. Even with the new Transtar line, sales sadly dipped to only 15,222 units in the 1956 calendar year.

The 1957 3E Transtar models looked considerably different with their brawny new grille. Designed by Robert Doehler, it was constructed of fiberglass and featured three large vertical bars. Combined with a larger bumper on the smaller models, the new frontal design helped update the nine-year-old styling. Two-tone paint separations with paint trim divider strips on the doors, fender mounted parking lights, Deluxe name plates and chromed door visors on the Deluxe models rounded off the new exterior styling. Models 17, 16 and 10 were again available for special order and export sales. The 224 V-8 was dropped and the 259 was now standard on ½-ton (3E7), ¾-ton (3E12), one-ton (3E13) and 1½-ton (3E28) models. A heavy-duty version of the 259 was used in the two-ton (3E38) and was optional in the smaller models. The heavy-duty 259 was introduced in 1955 on the E38. A new heavy-duty 289-cubic-inch V-8, 182 horsepower (192 hp with four-barrel), Torque Star engine was standard on the new 3E40 two-ton heavy-duty Transtar. The 259 was now rated at 170 horsepower (178 with four-barrel) and the 245 was up to 106 horsepower. Power steering was now optional on one-ton



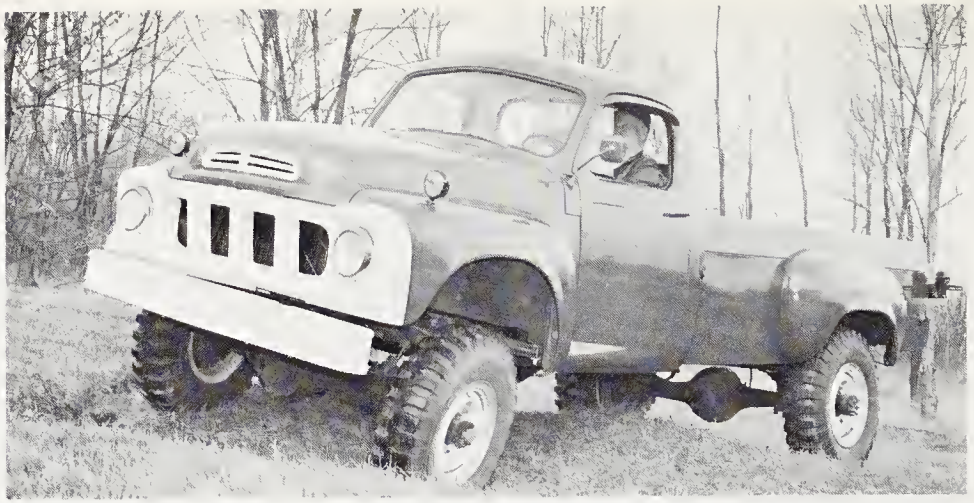
1957 3E7-122 half-ton pickup

and larger models. The old four-speed non-synchromesh transmission was gone and, in addition to the Warner synchromesh four-speed, a heavy-duty New Process synchromesh four-speed was available. The automatic transmission was now optional on all V-8 models up to one-ton, and power brakes were optional on all models. The dash was greatly simplified with the deletion of the radio and heater moldings from the center and the conversion of the oil pressure gauge and ammeter to warning lights. The remaining two gauges (fuel and temperature) and the speedometer were still round, but designed differently. The speedometer again read to 100 mph. Models equipped with the 289 engine did get a centrally located oil pressure gauge. When ordered, the Climatizer controls were set in the lower center of the dash. Oddly enough, the new dash had no place for a radio, so when one was ordered it was hung under the dash and the ash tray was moved under the glovebox.

During this time Studebaker stylist Duncan McRae came up with some nice renderings of Ranchero-type Studebaker pickups, but except for being pictured in *Motor Trend*, nothing came out of the study. Also, a full-sized Transtar cab-over truck was built, but again nothing resulted from it. There was just not enough money to create any new designs, especially in the truck line, where sales continued to drop at alarming rates. In 1957 only 13,642 trucks were built. Luckily, late in the year Studebaker was able to get a new subcontract for 5,037 2½-ton 6×6 military trucks, much like those built during the Korean War.

Bringing out new series numbers each year had not improved sales, so in 1958 the 3E series was retained. Instead of making any visual changes, two important new lines were added. The first was a series of four-wheel-drive Transtar models ranging from ½ to one ton and powered by either the 245 six or 259 V-8. A suffix 'D' was added to models 6, 7, 11, 12, 13 and 14 to distinguish whether or not they were equipped with four-wheel drive. The four-wheel-drive unit was built by Napco and featured a four-speed synchromesh transmission and two-speed transfer case. Some special four-wheel-drive Studebaker trucks were built prior to 1958. A factory picture even exists of a 1958 four-wheel-drive pickup with the name Packard on the front of the hood!

1958 Scotsman half-ton pickup.



1958 3E14-131 one-ton four-wheel-drive pickup at Proving Ground.

The second addition to the 1958 line was the Scotsman ½-ton, 3E1, 185-powered pickup. The limited success of the 1957½ and 1958 Scotsman car prompted Studebaker to come out with an economical Scotsman pickup. At $1,595, it was the lowest-priced pickup sold in America. The Scotsman brought back the 1949-53 2R series grille and headlight rings. The grille was painted the body color and only had a center vertical bar instead of the three vertical bars used on the 2R models. Headlight rings, which included the parking lights, were painted instead of chromed. The spare wheel (the spare tire was extra) was mounted to the inside front wall of the pickup box. The dash had no crash pad or glovebox door. Wheelcovers were painted and the smaller old-style bumper was used. In the recession year of 1958 not even the new models could help, and sales dropped to a new low of 10,563 units. Another military subcontract, this time for 5,031 6×6's, was obtained during 1958.

The new 4E series was introduced in 1959 and a total of twenty-two different models were available, nine of which were export and special order only.* The Scotsman ½-ton line was expanded to include the 245 six (4E3) and the 259 V-8(4E2). The four-wheel-drive lineup was now made up of eight models, the 3D, 7D, 11D, 12D, 13D, 14D, 2D and 6D. The last two were for export and special order only. Two-ton models 17 and 38 were dropped. Models 5, 6, 13, 14, 16 and 28 were limited to export and special order. The remaining export model was the 4E40B which was a two-ton heavy-duty model that could be had with wheelbases up to 212 inches! The Transtar name was dropped and all the non-Scotsman models were called Deluxe series trucks. Only four Deluxe series single-axle-drive trucks (7, 11, 12 and 40) were built for the domestic market. For the first time in postwar history there were no single-axle-drive one- or 1½-ton domestic models. The Scotsman series lost its decals and got an 'S' on the front of the hood and Studebaker script on the doors. It also got a glovebox door, but no crash pad. The Deluxe series models looked for the most part like the 3E Transtars. Minor changes included moving the parking lights into the fiberglass grille, dropping the Transtar and optional Deluxe names from the doors and replacing them with the Studebaker script.

All V-8 domestic models except the Scotsman 4E2 used the 289. The Scotsman six, like the six used in the Lark, was reduced to 170 cubic inches, but the horsepower rating only went down to ninety (a loss of just two horsepower). Studebaker's oldest engine, the 245 six, was increased to 118 horsepower. This was quite a change from when it was first brought out in 1932 with only sixty-six horsepower! The 259 V-8 was up to 180 horsepower with a two-barrel carb and the 289 was now rated at 210 horsepower (225 with four-barrel). Twin Traction was now also available on ¾-ton models. Regular cabs still only had a key lock on the passenger door. Though Studebaker pickups now seemed small compared to the competition, they continued to offer the widest clear-floor area of any pickup box built. Studebaker still did not have a flush-sided box with interior wheel wells.

Experimental work by Studebaker and outside firms continued. At least one diesel truck and a mobile home transport were built in 1959. Both types would later go into regular production. Even though 1959 Lark sales were outstanding and showroom traffic was good, truck sales were almost identical to 1958 with only 10,779 units built. Many problems existed, including an eleven-year-old design and car salesmen who knew little about selling trucks. Studebaker signed up many Big Three dealers in 1959, but most of them were only interested in selling the Lark. Certain established Studebaker dealers in rural areas sold almost as many trucks as cars, but they were few and far between. A third

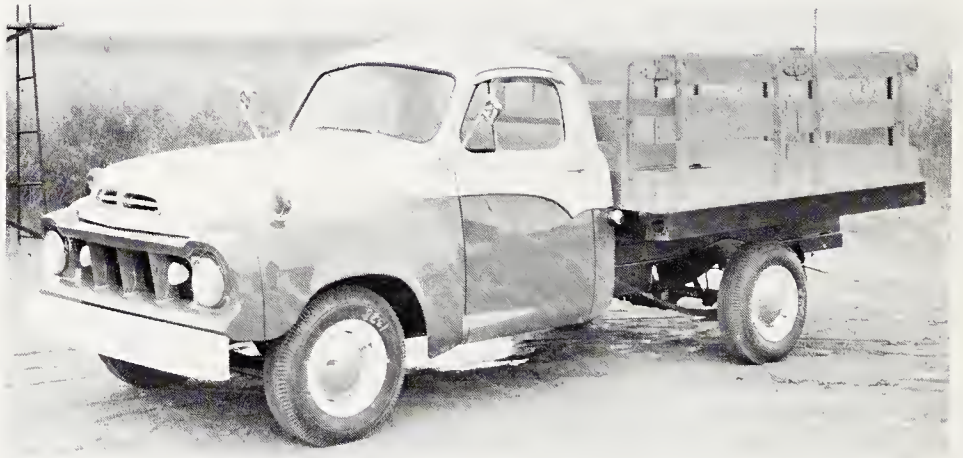
*Sources vary as to which models and engine options were available for the 4E series. Facts listed are the most common, although changes and additions were evidently made during the year.

post-Korean subcontract for 5,000 military trucks was received in 1959—one third of Studebaker's truck production was now for the military!

Steel strikes forced Studebaker to hold off the introduction of the 1960 5E series until well into 1960. The management decided to use what steel it had for the fast-selling Lark. The delay was worth it, for in January 1960, at the Chicago Auto Show, Studebaker unveiled an all-new model: the Champ. Available in either ½- or ¾-ton form, the Champ used Lark front fenders, hood, windshields, doors, dashes and steering wheels. In the front the headlight rings and vent grilles were like the Lark, but the radiator grille was much bolder with only four horizontal bars. Models with Deluxe trim had chrome grilles and stainless steel hub caps (even on ¾-ton models) while standard models came with these items painted. An optional sliding rear window was available. This was a nice feature for models equipped with campers. The pickup box was almost identical to that introduced way back in mid-1948! Dealers did not receive Champs to sell until March. The ½-ton was available with the 170 six (5E5), 245 six (5E6) and 259 or optional 289 V-8 (5E7). The ¾-ton came with the 245 six (5E11) or the 259, and also an optional 289 (5E12). Early Champs had the Studebaker script on the doors, but this was soon replaced by the Champ script. No two-tone Champs were available. The Transtar name was returned to the one-ton and larger models. Exterior styling remained the same as in 1959, except for the return of the Transtar name on the doors. The Scotsman series and the ½-ton and ¾-ton Deluxe series models were dropped. The four-wheel-drive was now available only as a one-ton model with either the 259 V-8 (5E13D) or 245 six (5E14D). All models that came standard with the 259 V-8 could be had with the 289. Except for the 5E40B, no export-only models were built. Single-axle-drive Transtars were the 5E13 (V-8) and 5E14 (245 six) one-ton, the 5E28 (V-8) and 5E16 (245 six) 1½-ton and the 5E40 (289 HD V-8) two-ton heavy-duty model. The Transtar instrument cluster was returned to the full instrumentation and 90 mph speedometer styling of 1954-56. The Transtar cab was known as the C cab while the Champ cab was known as the T cab! Nothing like causing a little confusion.

Outside firms had many times supplied special bodies for Studebaker truck chassis, but in 1960 Studebaker introduced their own closed delivery van. The body was still built by an outside company, but it was promoted by Studebaker and featured a Lark grille and a Studebaker name plate from the front of a 1955 truck hood. Very few of these rare vans were sold. For the first time since 1955, truck sales took a significant turn for the better with 12,314 units being sold. Considering that few Champs were delivered before April, this was an encouraging improvement. The Champ was competitive pricewise, and in the ½-ton form it had from 370 to 700 pounds more payload capacity than any other standard-box ½-ton pickup built. Although the Champ used many Lark components, it looked more like a truck than the Ranchero or El Camino and it had a solid truck chassis, but it still was much more compact looking than the regular pickups from Ford, Chevrolet, GMC, Dodge, Jeep or International. Studebaker's military truck contracts were completed during 1960.

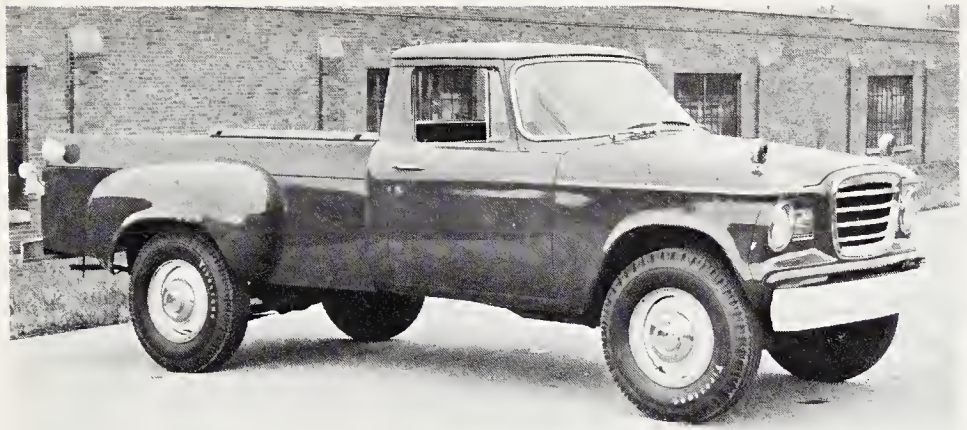
For 1961 a complete streamlining of the truck line was carried out. The old 245 and L-head 170 engine were gone; in their place was the new 170 overhead valve six-cylinder engine. This new OHV six was an engineering modification of the old Champion L-head six, and with 110 horsepower, in truck form, it was quite peppy. Later it was sadly learned that it had a bad tendency toward cracked valve seats. Except for oil leaks, this was Studebaker's first engine problem since the soft camshafts on the first



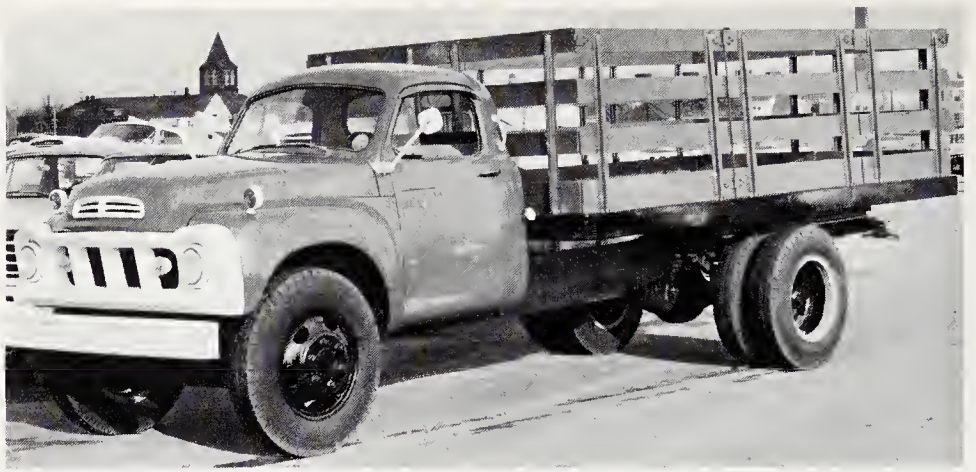
1959 4E half-ton Scotsman pickup.

1959 4E7-112 half-ton V-8 rack body.

V-8's in 1951. The Champ was available with either the new six or the V-8. The ¾-ton Champ with the six was known as the 6E10. This was the first time the 10 was available to the domestic market since 1955. The Transtar four-wheel-drive was now down to just the V-8 one-ton (6E13D). Regular Transtars were available with only V-8's in either one-ton, 1½-ton or two-ton heavy-duty form. As in 1960, both Champ and Transtar models were available with either deluxe or standard trim. The deluxe Champ, like the 1961 Larks, had its fender trim strip moved slightly above the fender contour line. Front vent grilles were exactly like the triple bar type used on 1959 Larks, whereas the 1960 Champs had the same mesh type used on 1960 Larks. Finally, in January, the Champ got a new optional wide Spaceside pickup box. Except for the Studebaker tailgate and a few simple alterations, it was the same box as Dodge had used for several years. Although



1960 Champ three-quarter-ton pickup. (Early or prototype)



1961 Transtar 6E40-171 stake body.

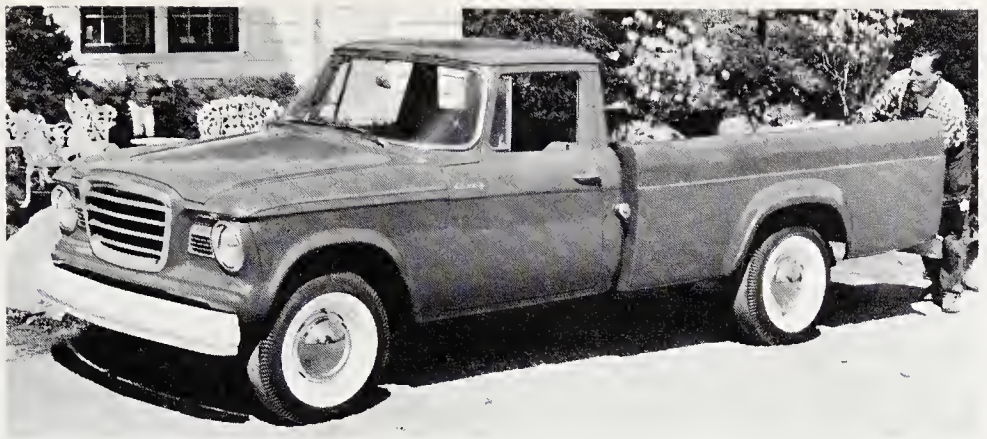
only single wall in construction, the new box gave Studebaker a complete line of ½-ton and ¾-ton pickups.

New military truck contracts were received in 1961. The Chippewa Avenue plant, which had been sold to Curtiss-Wright as part of a management agreement and because of low truck production and no military contracts, was reacquired in December 1961 for $7½ million. The plant was mainly purchased because Studebaker-Packard was told that they would receive a very large government contract for track-laying vehicles. This contract never materialized and Studebaker was again stuck with a facility that was much larger than they needed. The resulting $27 million 1961 contract was only for 5,030 2½-ton 6×6 trucks for Army Ordnance. This contract was to be completed in the fall of 1962 and other truck contracts were expected. Interestingly, the new military trucks were equipped with multifuel engines designed to operate on gasoline, diesel, kerosene or jet fuel. All major parts were supplied by outside firms. Civilian truck sales dipped sharply to 7,642 units for 1961. Lark sales dropped about the same percentage from 1960 to 1961, and this is mainly what hurt the truck sales. The 1961 Studebaker salesman's Fact Book was very clear on this point. It showed a Lark convertible with six customers standing around it and a big arrow pointing to one of the customers and saying, "This man is a truck prospect!" The book explained that "one out of every six persons who come to look at your passenger cars is a truck user . . ." Studebaker needed something to get people into the showrooms. It was coming!

In June of 1961, Studebaker introduced its new line of diesel 1½-ton and two-ton (7E35) and two-ton heavy-duty (7E45) trucks. Although listed in early literature as 6E, 1961 models, they were actually all registered as 7E, 1962 models. Both versions were powered by the four-cylinder General Motors Detroit 4-53 two-cycle diesel engine. Rated at 130 horsepower, these tough diesel engines were good for over 200,000 miles of use before any major repairs were needed. Introduced during the late 1950's, the 53 series represented a whole line of diesel engines with various numbers of cylinders, but with each cylinder having a displacement of fifty-three cubic inches. Studebaker had considered the use of this engine as far back as 1959, and by 1961 had decided that there was a sales potential for medium-weight diesel trucks. On the outside they looked like the gas-powered Transtars, but to give them an identity of their own they were called Diesels instead of Transtars. The word Diesel was put on the fiberglass grille and on the doors along with the Studebaker script. A whole range of New Process and Clark transmissions were available on the Diesels. The Champ and Transtar lineup was the same as 1961 except that the Transtar 7E28 could be had as either a 1½-ton or two-ton. Transtars, as well as the new Diesel, continued to be available with two-tone combinations. The Deluxe Champ, like the 1960 model, again had its front fender trim strip located on the fender contour line. Champ six-cylinder models were now available with automatic transmissions. The Avanti, which was first shown to the public in April 1962, was not available for showroom sales until late in the year, but it, along with the new Gran Turismo Hawk, created a lot of interest in Studebaker products. Lark, Hawk and truck production all increased during 1962. Truck sales were up to 14,283 units, making it the best year since 1956. This was accomplished even though the UAW struck Studebaker for thirty-eight days commencing on January 1, 1962. Diesel sales sadly were not up to expectations. The 1962 model year production for Diesels was less than 500, the vast majority of which were the larger 7E45 models. This seemed to indicate that truck buyers were just not ready to purchase smaller diesel trucks. During 1962 Studebaker received two more military contracts—for 2,821 trucks to be produced by April 1963 and for 4,192 additional units with delivery in June 1964.

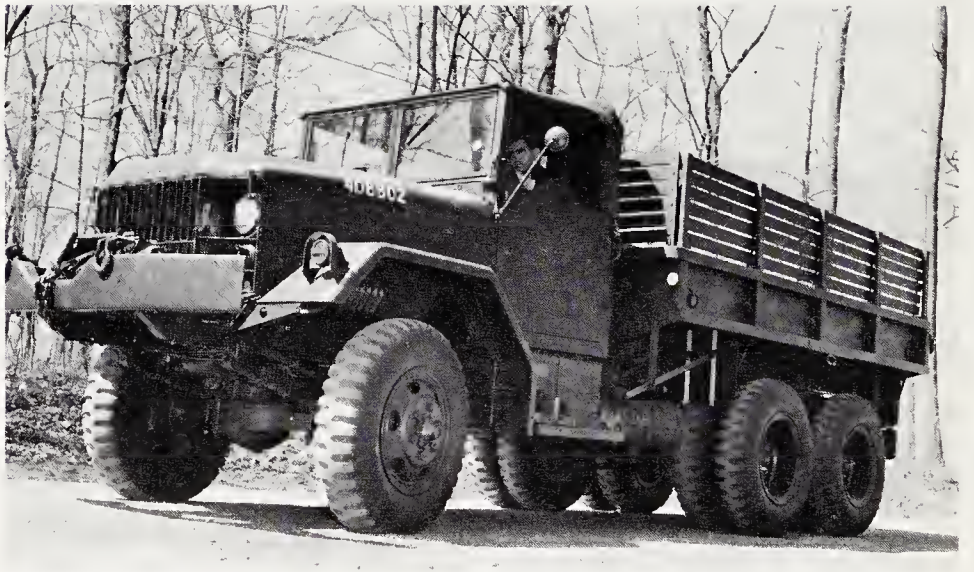
Studebaker's new 1963 8E series saw some interesting new additions. The Diesel line was expanded to include a one-ton (8E15) and 1½-ton (8E25). Both models were powered by a three-cylinder version of the GM diesel 53 series rated at ninety-seven horsepower. Although it was a pioneering idea, the production of such small diesel trucks in 1963 had little chance of success. As has been said about Studebaker so often, they were just too far ahead of their times, and in this case the saying was absolutely correct. Possibly because of their sales agreement with Mercedes-Benz, Studebaker had a strong interest in diesel vehicles. Several Perkins diesel-powered Larks were produced and a dealer in Michigan put a Mercedes-Benz 180-D diesel engine in a Scotsman taxicab with good results.

The next new truck feature was the new 96" B.B.C. cab option on 1½-ton and larger Transtars and Diesels. To reduce bumper to back of cab distance to only



ninety-six inches required a major facelift on the front end. The fiberglass grille was removed and the new square grille and hood were made flush with the front edge of the fenders. Headlights were set into the fenders like the 2R series and Scotsman, but very flat headlight trim rings were used. The hood was held down with two simple front-mounted, spring-activated, exterior hood latches. The next new product for 1963 was the Mobile Home Transporter. Available either as a Transtar 8E28AX or Diesel 8E35AX, this specialized vehicle with an optional expandable frame conversion allowed the same truck to be set up with more than one wheelbase. Although not an offered production model, another interesting truck was built in 1963. It was an 8E15 (one-ton, three-cylinder diesel) with a special four-door crew cab. For the Spaceside Champ, Studebaker provided to its dealers a camper called the Conestoga. The Champ also got the swing pedals that were introduced on the Lark in 1961. Air conditioning was added as an option on Champs. No new regular Transtar or Champ models were added in 1963 and the only four-wheel-drive model available was still the one-ton V-8 (8E13D). During the previous few years a continually expanding line of heavy-duty truck accessories was being made available. In 1963 a partial list included radiator shutters, outside running boards, Level Ride Bostrom driver's seat, vertical exhausts, step tanks and large outside mirrors.

Studebaker's president, Sherwood Egbert, was pushing hard to give Studebaker a big-truck image. Big trucks might be impressive, but probably Studebaker's most interesting 1963/64 commercial vehicle was its small postal vehicle. In the latter part of 1963, Studebaker received a contract for $9 million to build 4,238 special postal delivery vans. Called the Zip-Van, they featured a Transtar instrument cluster, Champ steering column and wheel, automatic transmission and power from a 170-cubic-inch six-cylinder Champ engine. The almost square body sat on an eighty-five-inch wheelbase and the front-end styling was dominated by a giant windshield and Champ-adapted radiator grille. The body was built by Met-Pro, Inc. of Lansdale, Pennsylvania. The placement of a Studebaker emblem on the front and Studebaker script on the right side identified the proud old company that assembled it. This model 8E5-FC had the distinction of being, as we shall see, the last model Studebaker truck built and also the last new truck design. The Zip-Van name fell right in with the U.S. Post Office Department's new ZIP-code system. Production for the 1963 calendar year totaled 13,117



1961 Champ 6E-122 wide-box pickup.

1962 7E45E-131 Diesel tractor powered by four-cylinder Detroit Diesel engine.

Studebaker-assembled 6×6 military truck from the 1960's.

1963 8E45E-155 Diesel tractor with after-market sleeper cab.

units, a figure which included Zip-Van production and all the regular 1964 model year trucks produced. Not a great year, but certainly not a disaster when compared to the previous ten years.

In the late summer of 1963, the 1964 models were introduced. Because of Studebaker's uncertain future and problems the previous year with leftover 7E models having to be reserialed as 8E's (a problem anticipated again), the company decided to stick with the 8E series for another year. Model lineups remained the same and no major cab styling changes were made. Some of the last Champs assembled did have the name Studebaker written along the bottom of the grille. The last factory-advertised special-bodied Studebaker truck made for civilian use was the 1964 Service-Champ. Evidently influenced by the Avanti, it was promoted as being "America's first ½ and ¾-ton service truck with bodies of enduring fiberglass!" Available in two different styles, the Service-Champ was designed to be used by repair and service workers who needed to keep their tools under cover. In addition to the regular Champ transmission offerings, the Service-Champ could be ordered with a five-speed transmission; prior to this it was only available on 7 and 12 models on special order.

On December 9, 1963, Studebaker announced that they would stop producing vehicles in the United States and concentrate their car production in Canada. With this change came the demise of the Hawk, Avanti and Studebaker trucks. The last civilian truck was assembled on December 27, 1963 (seven days after the last domestic South Bend car was built). For the record, the last truck built was an 8E28, V-8 powered, Mobile Home Transporter. It, like Studebaker's first 1852 wagon, was sold in Indiana. A few Zip-Vans were produced after this.

On March 3, 1964, the U.S. Army approved the transfer of an $81 million truck contract from the Studebaker Corporation to the Kaiser Jeep Corporation. Kaiser purchased from Studebaker its complete defense products unit in South Bend. Studebaker's days as a truck producer were over. When Newman and Altman purchased the rights to build the Avanti, they also obtained the truck rights, but nothing has ever resulted from this association. As has been mentioned, the Transtar name was picked up by International and today the popularity of small diesel trucks is increasing rapidly. The Champ pickup left a void in the small truck field that has not yet been filled.

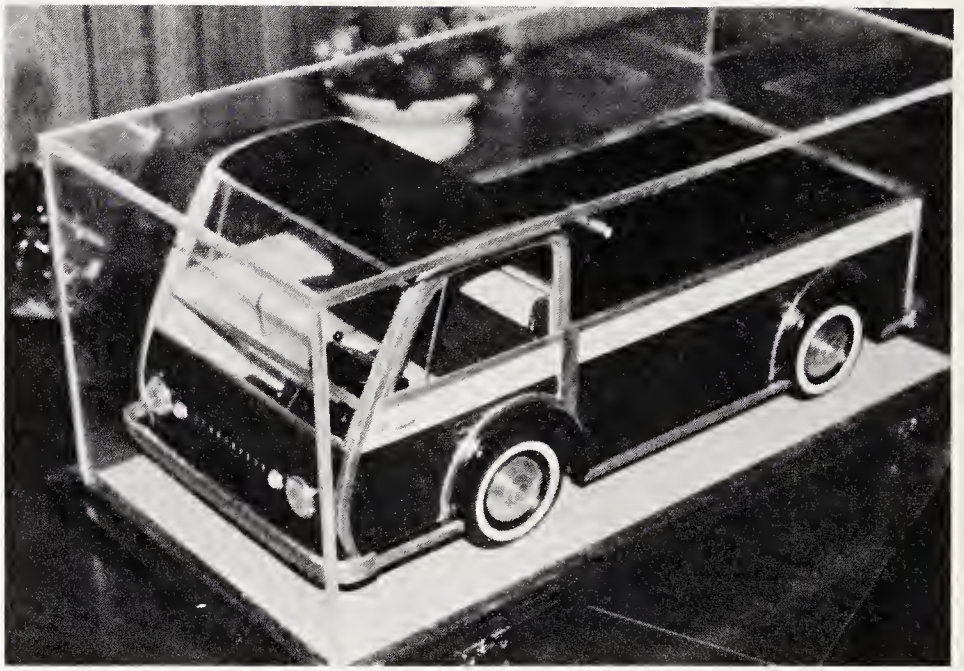
Why did Studebaker trucks fail? Since Studebaker truck production was always just a sideline to its car production, the health of the truck division always depended on the health of Studebaker's car division. Although the same basic cab design was kept for too many years, the main sales problem was not the product, but the name on the tailgate. The same product with the Ford, Dodge or Chevrolet logo would have sold quite well. Of course, Studebaker made a number of bad decisions through the years, but they had to make a lot of good ones to survive as long as they did. The major mistake, as far as truck sales are concerned, was made in the teens when they did not push boldly in the truck market before they quit the horsedrawn wagon business. Had they done this, they might have come out of the Depression as a major truck producer that built cars as a sideline.

For the most part, technical truck jargon has not been emphasized in this presentation, but a few pertinent comments should be made. The tonnage identification used by truck producers in the United States is just a rating system and is not the limit of the load capacity of a certain truck. For instance, a 1½-ton truck will itself have a net weight of considerably more than 3,000 pounds and it will also carry a payload of much more than this amount. Except for small trucks with pickup boxes, most Studebaker trucks were sold as cab and chassis or cowl forward and chassis combinations. Studebaker did provide platform and stake beds, but most buyers obtained their bodies from outside firms. Studebaker maintained a list of recommended bus, van, tank, flat-bed, etc. builders whom they or their dealers had dealt with. For example, the

Superior Coach Company of Lima, Ohio, built a fair number of school bus bodies that they mounted on Studebaker chassis cowl forward combinations, and the Montpelier Manufacturing Company of Montpelier, Ohio, sold a number of Urban Panel Deliveries that they built onto Studebaker truck chassis. A few Studebaker owners set their trucks up as tractors with fifth wheels (also a factory option on some models) and used them to pull semitrailers for long-haul work. A good percentage of 7E45 and 8E45 Diesels were used this way. A few were even equipped with sleepers. For Studebaker truck enthusiasts, probably the grandest Studebaker big truck was a 96" B.B.C. 8E45E extra-heavy-duty Diesel tractor featuring a heavy-duty Clark five-speed running through a two-speed rear axle, equipped with all the major accessories and pulling a semitrailer reefer loaded with prime rib from Albuquerque and heading to St. Louis on Route 66!

The various postwar Studebaker models were identified by a series of model numbers. The numbering system got its start in 1937 with the introduction of the J series. At that time it was established with the tonnage in mind and thus was easy to understand. The J5 (5 for .5) was a ½-ton, J15 (15 for 1.5) was a 1½-ton, and so on. This sensible method was continued until the end of the 1940 model year.

In 1941 the system became confusing when the M series was introduced. The M5 remained a ½-ton model, but the M15 became a one-ton and the M16 a 1½-ton. Why the one-ton was not called an M10 and the 1½-ton an M15 is hard to understand.



1963 Zip Van for Post Office. (Radiator cap is pre-production.)

1963 8E15-155 one-ton six-passenger crew cab, powered by three-cylinder Detroit Diesel engine. Truck used a five-speed New Process overdrive transmission. Cab was modified by Armbruster & Co., Fort Smith, Arkansas, for Studebaker. This rare truck is owned by Asa E. Hall.

Quarter-scale model of the last proposed Studebaker truck, a cab-forward design from 1963-64. Model is now owned by Asa E. Hall.

After World War II, the M17 was introduced as a two-ton. The 2R series introduced the new ¾-ton model 10. So in 1949 there were the following models:

5—½-ton
10—¾-ton
15—one-ton
16—1½-ton
17—two-ton

In 1951 when the 245 Commander engine was made available in the ½, ¾ and one-ton models, the following models were added:

6—½-ton with Commander engine
11—¾-ton with Commander engine
14—one-ton with Commander engine

By 1955 the V-8 engine was available in all tonnages. The models with V-8's were the following:

7—½-ton
12—¾-ton
13—one-ton
28—1½-ton
38—two-ton

In 1957 the model 40 two-ton heavy-duty truck was added to the above V-8 list.

When the four-wheel-drive models were introduced in 1958, the suffix D was added to those models available with four-wheel drive. Also in 1958, the Scotsman ½-ton was introduced as model 1. In 1959 the Scotsman series was expanded to include the 245 six and the 259 V-8. The Scotsman series was as follows:

1—½-ton Scotsman with 170 six (185 cu. in. in 1958)
2—½-ton Scotsman with 259 V-8
3—½-ton Scotsman with 245 six

The last models introduced were the new Diesels of 1962 and 1963. They were as follows:

15—one-ton three-cylinder
25—1½-ton three-cylinder
35—1½/two-ton four-cylinder
45—two-ton heavy-duty four-cylinder

The model 15 Diesel used the same model number as the model 15 Champion-powered one-ton, but this created little trouble since the last domestic model 15 gas-powered truck was built in 1954 (an export version existed until 1955).

Although somewhat confusing, all of these numbers can be grouped into an understandable table.

½-ton models 1 to 7 (no 4)
¾-ton models 10 to 12
One-ton models 13 to 15
1½-ton models 16, 25, 28, 35
Two-ton models 17, 28HD, 35HD, 38
Two-ton heavy-duty models 40 and 45

Note: The model 35 and certain years of the model 28 were available as either 1½- or two-ton models depending on equipment. Also all Diesels were double digit models with the last digit being a 5 (15, 25, 35, 45).

Studebaker model numbers were given on the serial number plates, but never on the outside of the trucks. The only names Studebaker ever put on the outside of their postwar trucks were Transtar, Deluxe, Scotsman, Champ, Diesel and, of course, Studebaker.

Appendix II
Studebaker Sales, Profit & Loss, Net Worth, 1940-1966

YEAR	SALES	NET PROFITS (- LOSS)	NET WORTH
Studebaker Corporation			
1940	$84,164,224	$2,124,628	$23,759,315
1941	115,700,333	2,486,397	26,245,711
1942	221,420,582	2,048,278	28,294,932
1943	364,191,211	2,835,427	31,585,803
1944	415,745,646	4,038,116	35,368,716
1945	212,833,295	3,277,008	40,857,835
1946	141,564,321	948,808	40,629,641
1947	267,998,838	9,127,103	47,991,140
1948	383,644,524	19,114,972	63,574,788
1949	473,119,000	27,563,876	85,252,832
1950	477,066,365	22,506,829	99,872,345
1951	503,308,866	12,623,130	105,431,937
1952	585,313,447	14,291,789	112,805,257
1953	594,249,552	2,687,973	108,460,360
Studebaker-Packard Corporation			
1954	222,305,553	-26,178,315	148,633,282
1955	480,006,110	-29,705,093	118,928,189
1956	303,038,430	-43,800,000	15,609,932
1957	213,203,741	-11,135,108	4,474,824
1958	180,657,592	-13,390,937	60,436,203
1959	387,372,375	28,544,338	89,597,187
1960	323,226,663	708,850	98,954,095
1961	298,475,738	2,535,724	103,666,498
1962	365,452,692	2,561,794	117,801,346
Studebaker Corporation			
1963	403,314,089	-16,900,000	36,725,039
1964	261,755,634	8,064,934	46,107,677
1965	192,737,690	10,700,868	52,629,618
1966	172,887,418	16,465,156	75,425,099

Appendix III
Studebaker Production

A) PRODUCTION BY CALENDAR YEAR, 1940-1966

Figures indicate total passenger car production for twelve-month periods. Note: 1945 figure is from industry reports, but must be other than passenger cars, as production didn't start until early 1946. It is included so as not to affect the total count. 1957 figure includes Packard.

Year	Production	Industry Rank
1940	117,091	8
1941	119,325	9
1942	9,285	8
1945	651	13
1946	77,567	10
1947	123,642	10
1948	164,753	9
1949	228,402	8
1950	268,099	9
1951	222,000	9
1952	161,520	9
1953	186,484	9
1954	85,252	11
1955	112,392	13
1956	82,402	13
1957	72,889	13
1958	56,869	11
1959	153,823	10
1960	105,902	11
1961	78,664	12
1962	86,974	12
1963	67,918	12
1964	19,748	14
1965	18,588	13
1966	2,045	15

B) TRUCK PRODUCTION BY MODEL YEAR, 1946-1962

Figures for 1946 and 1947 are also totals for model year truck production. Totals compiled by Asa E. Hall.

Year	Production
1946	43,196
1947	67,811
1948	67,981
1949	64,973
1950	52,146
1951	44,714
1952	40,299
1953	22,923
1954	12,003
1955	27,119
1956	20,218
1957	11,185
1958	7,085
1959	7,737
1960	8,294
1961	7,641
1962	8,742

C) CAR PRODUCTION BY MODEL YEAR, 1946-1966

Factory records of model year production appear in two forms—by body type, and by model. Unfortunately, though they are very close, the two sets of figures rarely agree. The figures here are from both lists. Production by body style is broken down into vehicles for the American, Canadian and export (crated knocked-down) markets, the latter including Mexico. Production by model is presented with maximum breakdowns available. For their assistance in compiling this table the author thanks Richard Quinn, Asa Hall, Fred Fox, George Hamlin and Sasco Inc.

YEAR — PRODUCTION BY BODY STYLE

	Body (passengers)	Domestic	Canada	Export	Total
1946	Sedan, 4dr (5)	8,541	488	1,496	10,525
	Sedan, 2dr (5)	4,468	233	299	5,000
	Coupe (5)	1,236	0	49	1,285
	Coupe (3)	2,140	176	149	2,465
		16,385	897	1,993	19,275

PRODUCTION BY MODEL

Model	Production
Champion	19,275
	19,275

YEAR	PRODUCTION BY BODY STYLE					PRODUCTION BY MODEL	
	Body (passengers)	Domestic	Canada	Export	Total	Model	Production
1947	Sedan, 4dr (6)	74,965	3,997	12,539	91,501	Champion	105,097
	Sedan, 2dr (6)	24,089	1,319	856	26,264	Commander	56,399
	Coupe (5)	27,786	976	1,268	30,030	Chassis	2
	Coupe (3)	9,148	485	314	9,947		161,498
	Convertible (5)	3,306	167	281	3,754		
	Chassis	2	0	0	2		
		139,296	6,944	15,258	161,498		
1948	Sedan, 4dr (6)	95,630	3,275	13,339	112,244	Champion	99,282
	Sedan, 2dr (6)	21,761	115	899	22,775	Commander	85,711
	Coupe (5)	27,492	74	1,356	28,922		184,993
	Coupe (3)	4,470	12	125	4,607		
	Convertible (5)	16,716	13	1,249	17,978		
		166,069	3,489	16,968	186,526		
1949	Sedan, 4dr (6)	67,072	4,370	3,695	75,137	Champion	85,604
	Sedan, 2dr (6)	17,258	905	166	18,329	Commander	43,694
	Coupe (5)	23,367	934	435	24,736	Chassis	2
	Coupe (3)	2,334	0	26	2,360		129,300
	Convertible (5)	8,404	9	324	8,737		
	Chassis	0	0	2	2		
		118,435	6,218	4,648	129,303		
1950	Sedan, 4dr (6)	152,082	10,405	5,820	168,307	Champion	270,604
	Sedan, 2dr (6)	91,287	2,315	198	93,800	Commander	72,562
	Coupe (5)	61,431	2,431	473	64,335		343,166
	Coupe (3)	4,457	1	35	4,493		
	Convertible (5)	11,627	28	1,574	13,229		
		320,884	15,180	8,100	344,164		
1951	Sedan, 4dr (6)	142,786	9,530	7,662	159,978	Champion	144,286
	Sedan, 2dr (6)	48,252	1,658	238	50,148	Commander	124,280
	Coupe (5)	43,400	2,140	617	46,157		268,566
	Coupe (3)	3,730	0	34	3,764		
	Convertible (5)	8,027	63	422	8,512		
		246,195	13,391	8,973	268,559		
1952	Sedan, 4dr (6)	90,792	8,154	4,714	103,660	Champion	101,390
	Sedan, 2dr (6)	28,621	1,498	238	30,357	Commander	84,849
	Hardtop, 2dr (6)	24,686	682	1,279	26,647		186,239
	Coupe (5)	20,552	1,290	423	22,265		
	Convertible (5)	3,011	63	216	3,290		
		167,662	11,687	6,870	186,219		

YEAR	PRODUCTION BY BODY STYLE				
	Body (passengers)	Domestic	Canada	Export	Total
1953	Sedan, 4dr (6)	63,615	5,712	4,746	74,073
	Sedan, 2dr (6)	15,575	1,118	193	16,886
	Hardtop, 2dr (6)	29,713	749	1,832	32,294
	Coupe (5)	42,673	2,207	1,466	46,346
		151,576	9,786	8,237	169,599
1954	Sedan, 4dr (6)	26,243	3,298	3,842	33,383
	Sedan, 2dr (6)	8,564	555	135	9,254
	Hardtop, 2dr (6)	7,642	364	1,336	9,342
	Coupe (5)	15,608	1,342	1,236	18,186
	Wagon, 2dr (6)	10,651	217	906	11,774
		68,708	5,776	7,455	81,939
1955	Sedan, 4dr (6)	57,391	5,369	6,047	68,807
	Sedan, 2dr (6)	17,430	1,199	85	18,714
	Hardtop, 2dr (6)	7,845	291	1,036	9,172
	Coupe (5)	20,813	1,386	1,035	23,234
	Speedster, 2dr (6)	2,119	15	81	2,215
	Wagon, 2dr (6)	10,735	88	862	11,685
		116,333	8,348	9,146	133,827
1956	Sedan, 4dr (6)	34,019	5,849	4,829	44,697
	Sedan, 2dr (6)	12,981	1,431	86	14,498
	Hardtop, 2dr (6)	2,682	123	805	3,610
	Coupe (5)	9,240	1,091	1,153	11,484
	Hawk (5)	3,779	51	241	4,071
	Wagon, 2dr (6)	6,542	132	367	7,041
		69,243	8,677	7,481	85,401
1957	Sedan, 4dr (6)	26,887	3,882	3,312	34,081
	Sedan, 2dr (6)	9,421	679	52	10,152
	Coupe (5)	12,458	1,303	1,189	14,958
	Hardtop, 2dr (6)	0	152	216	368
	Hawk (5)	4,131	42	183	4,356
	Wag, 4dr (6)	5,142	57	358	5,557
	Wagon, 2dr (6)	5,062	47	157	5,266
		63,101	6,162	5,467	74,738
1958	Sedan, 4dr (6)	18,850	2,358	3,235	24,443
	Sedan, 2dr (6)	6,473	686	28	7,187
	Coupe (5)	6,023	534	737	7,294
	Hardtop, 2dr (6)	3,009	260	577	3,846
	Hawk hardtop (5)	756	0	122	878
	Wagon, 4dr (6)	2,330	0	95	2,425
	Wagon, 2dr (6)	7,318	200	239	7,757
		44,759	4,038	5,033	53,830

PRODUCTION BY MODEL

Model	Production
Champion	93,807
Commander	76,092
	169,899
Champion	51,431
Commander	30,499
	81,930
Champion	50,368
Commander	58,792
President	24,666
	133,826
Champion	28,918*
Commander	30,654*
President	18,209
Sky Hawk	3,610
Golden Hawk	4,071
	85,462

*11,484 Flight/Power Hawks Included

Scotsman/Champion	
Commander	
President	
Silver Hawk	15,318
Golden Hawk	4,356

Scotsman	20,870
Champion DeLuxe	10,325
Commander	12,249
President	10,442
	53,886*

*Includes
7,350 Silver Hawks
878 Golden Hawks

YEAR	PRODUCTION BY BODY STYLE Body (passengers)	Domestic	Canada	Export	Total
1959	Sedan, 4dr (6)	48,459	3,829	3,120	55,408
	Sedan, 2dr (6)	31,336	1,783	690	33,809
	Coupe (5)	6,649	592	547	7,788
	Hardtop, 2dr (6)	14,235	330	506	15,071
	Wagon, 2dr (6)	25,474	824	411	26,709
	Chassis/taxi*	3	0	78	81
	for export	126,156	7,358	5,352	138,866
1960	Sedan, 4dr (6)	48,382	3,483	3,081	54,946
	Sedan, 2dr (6)	30,453	1,697	557	32,707
	Coupe (5)	3,719	220	568	4,507
	Hardtop, 2dr (6)	6,867	160	367	7,394
	Wagon, 4dr (6)	17,902	602	293	18,797
	Wagon, 2dr (6)	4,833	258	140	5,231
	Convertible (6)	8,306	0	265	8,571
	Chassis/taxi*	3	0	64	67
	*for export	120,465	6,420	5,335	132,220
1961	Sedan, 4dr (6)	28,670	3,265	3,650	35,585
	Sedan, 2dr (6)	13,275	1,124	175	14,574
	Coupe (5)	3,117	223	589	3,929
	Hardtop, 2dr (6)	3,211	108	217	3,536
	Wagon, 4dr (6)	6,552	432	245	7,229
	Wagon, 2dr (6)	2,166	148	73	2,387
	Convertible (6)	1,898	0	83	1,981
	Taxicab (6)	815	0	515	1,330
	Chassis	9	0	0	9
		59,713	5,300	5,547	70,560
1962	Sedan, 4dr (6)	41,894	4,645	3,422	49,961
	Sedan, 2dr (6)	17,636	1,434	126	19,196
	Hardtop, 2dr (6)	7,888	410	182	8,480
	Hawk hardtop (5)	7,842	546	947	9,335
	Wagon, 4dr (6)	9,687	565	270	10,522
	Convertible (6)	2,599	0	82	2,681
	Taxicab	1,772	56	384	2,212
		89,318	7,656	5,413	102,387

Model	Production
Lark 6	98,744
Lark V-8	32,334
Silver Hawk 6	2,417
Silver Hawk V-8	5,371
	138,866
Lark 6	70,153
Lark V-8	57,562
Hawk 6*	568
Hawk V-8	3,939
	132,222
*export only	
Lark VI	41,035
Lark VIII	25,934
Hawk 6*	589
Hawk V-8	3,340
	70,898
*export only	
Lark VI	54,397
Lark VIII	38,607
GT Hawk 6*	947
GT Hawk V-8	8,388
	102,339
*export only	

YEAR	PRODUCTION BY BODY STYLE				
1963	Sedan, 4dr (6)	30,795	4,166	5,152	40,113
	Sedan, 2dr (6)	15,726	1,473	202	17,401
	Hardtop, 2dr (6)	3,259	374	130	3,763
	Hawk hardtop (5)	3,649	360	625	4,634
	Wagon, 4dr (6)	10,487	1,076	352	11,915
	Convertible (6)	773	206	36	1,015
	Taxicab (6)	1,121	45	4	1,170
	Avanti (4)	3,744	0	90	3,834
	Chassis	1	0	0	1
		69,555	7,700	6,591	83,846
1964	Sedan, 4dr (6)	20,046	4,933	2,310	27,289
	Sedan, 2dr (6)	6,685	1,544	86	8,315
	Hardtop, 2dr (6)	2,032	357	25	2,414
	Hawk hardtop (5)	1,484	0	283	1,767
	Wagon, 4dr (6)	4,421	630	112	5,163
	Convertible (6)	484	206	13	703
	Taxicab (6)	450	0	5	455
	Avanti (4)	795	0	14	809
		36,397	7,670	2,848	46,915
1965	Sedan, 4dr (6)	6,854	3,234	151	10,239
	Sedan, 2dr (6)	3,038	2,148	2,186	7,372
	Wagon, 4dr (6)	1,340	464	20	1,824
		11,232	5,846	2,357	19,435
1966	Sedan, 4dr (6)	4,255	1,367	64	5,686
	Sedan, 2dr (6)	1,615	696	10	2,321
	Wagon, 4dr (6)	735	196	9	940
		6,605	2,259	83	8,947

Appendix IV
Studebaker Condensed Specifications, 1946-1966

1946
Champion 5G. Engine: L-head six, bore and stroke 3.00 × 4.00 inches, displacement 169.6 cubic inches, 80 bhp at 4000 rpm. Transmission: three-speed manual with overdrive option. Rear axle ratio: 4.10:1, 4.56:1 with overdrive. Wheelbase: 110 inches. Tires: 5.50 × 16 inches.

1947
Champion 6G. Rear axle ratio: 4.10:1 or 4.56:1. Wheelbase: 112 inches. Tires: 5.50 × 15 inches. Other specifications as for Champion 5G.
Commander 14A. Engine: L-head six, bore and stroke 3.31 × 4.38 inches, displacement 226.2 cubic inches, 94 bhp at 4000 rpm. Transmission: three-speed manual with overdrive option. Rear axle ratio: 4.10.1 or 4.56:1. Wheelbase: 119 inches, 123 inches on Land Cruiser. Tires: 6.50 × 15 inches.

1948
Champion 7G. Specifications as for Champion 6G.
Commander 15A. Specifications as for Commander 14A.

1949
Champion 8G. Tires: 6.40 × 15 inches. Other specifications as for Champion 7G.
Commander 16A. Engine: bore and stroke 3.31 × 4.75 inches, displacement 245.6 cubic inches, 100 bhp at 3400 rpm. Other specifications as for Commander 15A.

1950
Champion 9G. Engine: 85 bhp at 4000 rpm. Transmission: three-speed manual with overdrive option or automatic transmission. Rear axle ratios: 4.10:1, 4.56:1 with overdrive, 3.54:1 with automatic. Wheelbase: 113 inches. Other specifications as for Champion 8G.
Commander 17A. Engine: 102 bhp at 3200 rpm. Transmission: three-speed manual with overdrive option or automatic transmission. Rear axle ratios: 4.10:1, 4.56:1 with overdrive, 3.54:1 with automatic. Wheelbase: 120 inches, 124 inches on Land Cruiser. Other specifications as for Commander 16A.

1951
Champion 10G. Wheelbase: 115 inches. Other specifications as for Champion 9G.
Commander H. Engine: overhead valve V-8, bore and stroke 3.38 × 3.25 inches, displacement 232.6 cubic inches, 120 bhp at 4000 rpm. Transmission: three-speed manual with overdrive option or automatic transmission. Rear axle ratios: 4.10:1, 4.56:1 with overdrive, 3.54:1 with automatic. Wheelbase: 115 inches, 119 inches on Land Cruiser. Tires: 7.10 × 15 inches.

1952
Champion 12G. Rear axle ratios: 4.10:1 (4.56:1 optional); 4.56:1 (4.10:1 optional) with overdrive; 4.10:1 with automatic. Other specifications as for Champion 10G.
Commander 3H. Rear axle ratios: 4.10:1 (4.56:1 optional); 4.56:1 (4.10:1 optional) with overdrive; 3.54:1 with automatic. Other specifications as for Commander H.

1953
Champion 14G. Rear axle ratios: 4.10:1; 4.56:1 (4.10:1 optional) with overdrive; 4.10:1 (3.54:1 optional) with automatic. Wheelbase: 116.5 inches on sedans, 120.5 inches on coupes and hardtops. Other specifications as for Champion 12G.
Commander 4H. Wheelbase: 116.5 inches on sedans, 120.5 inches on coupes and hardtops. Other specifications as for Commander 2H.

1954
Champion 15G. Specifications as for Champion 14G.
Commander 5H. Rear axle ratios: 4.10:1; 4.27:1 with overdrive; 3.54:1 with automatic. Optional ratios available. Other specifications as for Commander 4H.

1955
Champion 16G6. Engine: L-head six, bore and stroke 3.00 × 4.38, displacement 185.6 cubic inches, 101 bhp at 4000 rpm. Transmission: three-speed manual with overdrive option or automatic transmission. Rear axle ratios: 4.10:1; 4.56:1 with overdrive; 3.54:1 with automatic. Wheelbase: 116.5 inches on sedans, 120.5 inches on coupes and hardtops. Tires: 6.40 × 15 inches, 6.70 × 15 inches on station wagons.
Commander 16G8. Engine: overhead valve V-8, bore and stroke 3.56 × 2.81 inches, displacement 224.3 cubic inches, 140 bhp at 4500 rpm. Transmission: three-speed manual with overdrive option or automatic transmission. Rear axle ratios: 4.10:1, 4.56:1 with overdrive. 3.54:1 with automatic. Other specifications as for Champion 16G6.
President 6H. Engine: overhead valve V-8, bore and stroke 3.56 × 3.25 inches, displacement 259.2 cubic inches, 175 bhp at 4500 rpm (Speedster 185 bhp at 4500 rpm). Rear axle ratios: 3.92:1; 4.27:1 with overdrive, 3.54:1 with automatic, other ratios available. Wheelbase: 120.5 inches. Tires: 7.10 × 15 inches.

1956
Series 56G. (Champion, Flight Hawk, Station Wagon.) Specifications as for Champion 16G.
Series 56B. (Commander, Power Hawk, Station Wagon.) Engine: overhead valve V-8, bore and stroke 3.56 × 3.25 inches, displacement 259.2 cubic inches, 170 bhp at 4500 rpm (optional 185 bhp at 4500 rpm). Rear axle ratios: 3.54:1; 3.92:1 with overdrive, 3.31:1 with automatic. Tires: 6.70 × 15 inches. Other specifications as for Commander 16G.
Series 56H. (President, Sky Hawk, Station Wagon.) Engine: overhead valve V-8, bore and stroke 3.56 × 3.63 inches, displacement 289 cubic inches, 195 bhp at 4500 rpm (President Classic and Sky Hawk 210 bhp at 4500 rpm). Power kit optional. Rear axle ratios: 3.54:1; 3.92 with overdrive (Classic 4.09:1), 3.31:1 with automatic. Wheelbase: 116.5 inches, Classic and Sky Hawk 120.5 inches. Tires: 6.70 × 15 inches, Classic 7.10 × 15 inches.
Series 56J. (Golden Hawk.) Engine: overhead valve V-8, bore and stroke 4.00 × 3.50, displacement 352 cubic inches, 275 bhp at 4600 rpm. Transmission: three-speed manual with overdrive option or Ultramatic transmission. Rear axle ratios: 3.92:1, 3.07:1 with Ultramatic. Wheelbase: 120.5 inches. Tires: 7.10 × 15 inches.

1957
Series 57G. (Scotsman, Champion, Station Wagon, Silver Hawk.) Specifications as for Series 56G.
Series 57B. (Commander, Station Wagon.) Engine: 180 bhp at 4500 rpm (195 bhp at 4500 rpm optional). Other specifications as for Series 56B.
Series 57H. (President, Station Wagon, Silver Hawk, Golden Hawk.) Engine: 210 bhp at 4500 rpm, 225 bhp at 4500 rpm standard on President Classic, optional on Station

Wagon and Silver Hawk; 275 bhp at 4800 rpm (supercharged) standard on Golden Hawk. Other Specifications as for Series 56H except additional rear axle ratios available.

1958

Series 58G. (Scotsman, Champion, Silver Hawk.) Rear axle ratios: Scotsman 3.54:1, 4.10:1 with overdrive; Scotsman wagon 4.10:1, 4.54:1 with overdrive; Champion and Silver Hawk 4.10:1, 4.56:1 with overdrive; all automatics 3.54:1. Other specifications as for Series 57G.

Series 58B. (Commander, Station Wagon.) Rear axle ratios: 3.54:1; 3.73:1 with overdrive, 3.31:1 with automatic. Wheelbase: 116.5 inches. Tires: 7.50 × 14 inches. Other specifications as for Series 57B.

Series 58H. (President, Silver Hawk, Golden Hawk.) No Station Wagon. Specifications as for Series 57H.

1959

Series 59S. (Lark VI, Silver Hawk 6.) Engine: L-head six, bore and stroke 3.00 × 4.00 inches, displacement 169.6 cubic inches, 90 bhp at 4000 rpm. Transmission: three-speed with overdrive option or automatic transmission. Rear axle ratios: standard 3.54:1, 3.73:1 on Regal and wagons, 4.10:1 on Hawk; overdrive 3.54:1, 4.10:1 on Regals, 4.27:1 on Hawk and wagons; automatic 3.54:1. Wheelbase: 108.5 inches, 113 inches on wagons, 120.5 inches on Hawk. Tires: 5.90 × 15 inches, 6.40 × 15 inches on Hawk.

Series 59V. (Lark VIII, Silver Hawk 8.) Engine: overhead valve V-8, bore and stroke 3.56 × 3.25 inches, displacement 259.2 cubic inches, 180 bhp at 4500 rpm, 195 bhp at 4500 rpm optional. Transmission: three-speed with overdrive option or automatic transmission. Rear axle ratios: standard 3.31:1, 3.54:1 on Hawk; overdrive 3.54:1, 3.73:1 on Hawk; automatic 3.31:1. Other ratios available. Wheelbase: 108.5 inches, 113 inches on wagons, 120.5 inches on Hawk. Tires: 6.40 × 15 inches, 6.70 × 15 inches on Hawk.

1960

Series 60S. (Lark VI.) Hawk 6 dropped for domestic market. Tires: 5.90 × 15 inches, 6.40 × 15 inches on convertible. Other specifications as for Series 59S.

Series 60V. (Lark VIII, Hawk.) Tires: 6.40 × 15, 6.70 × 15 on convertible. Other specifications as for Series 59V.

1961

Series 61S. (Lark VI.) Engine: overhead valve six, bore and stroke 3.00 × 4.00 inches, displacement 169.6 cubic inches, 112 bhp at 4500 rpm. Wheelbase: 108.5 inches, wagons and Cruiser 113 inches. Tires: 6.00 × 15 inches, 6.50 × 15 inches on convertible, 6.70 × 15 inches on Cruiser. Other specifications as for Series 60S.

Series 61V. (Lark VIII, Hawk.) Engine: 259.2 cubic inch V-8 (180 or 195 bhp) on Lark, 289 cubic inch V-8 (210 bhp) on Hawk. Transmission: three-speed manual with overdrive option and automatic transmission; four-speed manual transmission optional on Hawk. Wheelbase: 108.5 inches, 113 inches on wagons and Cruiser, 120.5 inches on Hawk. Tires: 6.50 × 15 inches, 6.70 × 15 inches on Cruiser, convertible and Hawk. Other specifications as for Series 60V.

1962

Series 62S. (Lark VI.) Rear axle ratios: standard 3.73:1 and 4.10:1 (3.31:1 optional); overdrive 4.10:1 and 4.56:1 (3.73:1 optional); automatic 3.73:1 (4.10:1 optional). Wheelbase: 113 inches, 109 inches on two-door models. Tires: 6.00 × 15 inches, 6.50 × 15 inches on Regal and Daytona convertible. Other specifications as for Series 61S.

Series 62V. (Lark VIII, GT Hawk.) Engine: 259.2-cubic-inch V-8 (180 and 195 bhp) on Lark, 289-cubic-inch V-8 (210 and 225 bhp) on GT Hawk, optional on Cruiser. Transmission: three-speed manual with overdrive option and automatic transmission; four-speed manual optional on GT Hawk, Daytona two-door hardtop and convertible. Rear axle ratios: standard 3.07:1 and 3.31:1 (3.73:1 optional); overdrive 3.31:1 and 3.73:1 (3.07:1 optional); automatic 3.07:1 and 3.31:1; four-speed 3.31:1 (3.73:1 optional). Wheelbase: 113 inches, 109 inches on two-door models, 120.5 inches on GT Hawk. Tires: 6.50 × 15 inches, 6.70 × 15 inches on Regal, Daytona convertible and GT Hawk. Other specifications as for Series 61V.

1963

Series 63S. (Lark six.) Specifications as for Series 62S.

Series 63V. (Lark V-8, GT Hawk.) Engine: 259.2 cid V-8; 289-cubic-inch V-8 standard on Cruiser and Hawk, optional on other models. Jet Thrust V-8's also available (see below). Transmission: automatic or four-speed on Jet Thrust engines, four-speed available all models. Other specifications as for Series 62V.

Series 63R. (Avanti.) Engine: Jet Thrust (R1) overhead valve V-8, bore and stroke 3.56 × 3.62 cubic inches, displacement 289 cubic inches, 240-plus bhp with ¾ race cam, heavy-duty valves and crankshaft bearings, dual breaker distributor, four-barrel carburetor and dual exhausts. Optional engines: R2, 289 cubic inches with 285 to 290 bhp, supercharged; R3, bore and stroke 3.65 × 3.62 inches, displacement 304.5 cubic inches, 335 bhp, supercharged; R4, 304.5 cubic inches with 280 horsepower, two four-barrel carburetors (unsupercharged). Experimental: R5, 304.5 cubic inches, special cam, magneto ignition, twin superchargers and fuel injection, 575 bhp at 7000 rpm. Transmission: automatic or four-speed manual. Rear axle ratios: 3.54:1 (3.31:1 and 3.73:1 optional). Wheelbase: 109 inches. Tires: 6.70 × 15 inches. Three-speed manual transmission available with R1 engine only.

1964

Series 64S. (Challenger, Commander, Daytona.) Rear axle ratios: standard 3.73:1, 4.10:1 on wagons (optional 4.10:1, 4.56:1 on wagons); overdrive 4.10:1, 4.56:1 on wagons (optional 4.56:1, 4.10:1 on wagons); automatic 3.73:1 (optional 4.10:1). Tires: 6.00 × 15 inches, 6.50 × 15 inches on wagons and Cruiser. Other specifications as for Series 63S.

Series 64V. (Challenger, Commander, Daytona, GT Hawk.) Rear axle ratios: 259 V-8, standard 3.07:1, 3.73:1 on convertible (optional 3.73:1); overdrive 3.73:1; automatic 3.07:1, 3.73:1 on convertible (optional 3.73:1). 289 V-8, standard 3.31:1 (optional 3.73:1); overdrive 3.73:1; automatic 3.31:1 (optional 3.73:1). Wagon ratios same as 289 V-8. Jet Thrust engines automatic 3.54:1 (optional 3.31:1 and 3.73:1); four-speed 3.54:1 (optional 3.31:1 and 3.73:1). Tires: 6.00 × 15 inches, 6.50 × 15 inches on convertible, 6.70 × 15 inches on GT Hawk. Other specifications as for Series 63V.

Series 64R. (Avanti.) Specifications as for Series 63R.

1965

Series C-1 Six. (Commander, Cruiser.) Engine: overhead valve six, bore and stroke 3.56 × 3.25, displacement 194 cubic inches, 120 bhp at 4400 rpm. Later 230 cid (3.88 × 3.25), 140 bhp at 4400 rpm. Transmission: three-speed manual with overdrive option, and automatic transmission. Rear axle ratios: 3.73:1, 4.10:1 on wagons. Wheelbase: 113 inches, 109 inches on two-door models. Tires: 7.35 × 15 inches.

Series C-5 V-8. (Commander, Daytona, Cruiser) Engine: overhead valve V-8, bore and stroke 3.88 × 3.00, displacement 283 cubic inches, 195 bhp at 4800 rpm. Transmission: three-speed manual with overdrive option, and automatic transmission. Rear axle ratios: 3.07:1, 3.31:1 on wagons, other ratios available. Wheelbase: 113 inches, 109 inches on two-door models. Tires: 7.35 × 15 inches.

1966

Series Six. (Commander, Daytona, Cruiser.) 230 cid. Specifications as for Series C-1.

Series V-8. (Commander, Daytona, Cruiser.) Specifications as for Series C-5.

Appendix V
Original 1957-1958 Product Program Plans & Alternatives

FOR 1957

- STUDEBAKER–
  Face lift for '57–style-wise
  Same models plus–
  4-DOOR HARD-TOP
  4-DOOR STATION WAGON
  Stepped-up horsepower by switching engines.
  Push-button shifting.
  New Sales feature of Air Levelizer (optional)
  Budgeted cost–$5,000,000.
  Scheduled Ann'c't October 1, 1956
- New Common Body Shell-$10,000,000.
- From this shell (with different outer-door panels) . . .
  New Packard line (limited models)
  PRICE RANGE–
  —Buick Roadmaster, Olds 98 and up
  —About same as Chrysler
  —Comparable to present line minus Clipper DeLuxe (lowest priced)
- Estimated Cost . . . $11,000,000. (Sheet metal and chassis)
- Scheduled Ann'c't December 1, 1956
  From common Body shell:
- New Clipper series (limited models)
  . . . Second line of cars for Packard Dealers . . .
  . . . targeted for a low medium and medium price class
  . . . different in appearance from Packard
  . . . same chassis, smaller engine
  . . .estimated cost–
  sheet metal $8,000,000
  . . . Scheduled Ann'c't Dec. 1, 1956

FOR 1958 MODELS

- New Studebaker . . .
  . . . off Common Shell $13,000,000
  . . . early announcement . . .
  (anytime from July on.)
- Facelift—Clipper $1,500,000
  (October 1957 Ann'c't)
- Facelift—Packard $1,500,000
  (October 1957 Ann'c't)

RECAP OF
TWO-YEAR PROGRAM

1957	
Facelift—Studebaker	$5,000,000
Basic body	10,000,000
New Clipper	8,000,000
New Packard (*incl. chassis*)	11,000,000
Total	$34,000,000
Budgeted	$35,000,000
1958	
New Studebaker	$13,000,000
Facelift—Clipper	1,500,000
Facelift—Packard	1,500,000
	$16,000,000

PROGRAM II

1957 MODELS	
Face-lift—Studebaker	$5,300,000
Big Packard (*Lincoln body*)	9,700,000
	$15,000,000

Dual Packard with Studebaker dealers
Est. Volume .....20,000 units
Not sufficient to sustain facilities and unit cost prohibitive.

PROGRAM III

1957	
Facelift—Studebaker	$5,300,000
Facelift—Packard	2,500,000
Facelift—Clipper	2,500,000
Total	$10,300,000
1958	
New Body Shell	$10,000,000
Studebaker Sheet Metal	13,000,000
New Clipper (*Use Studebaker Sheet Metal*)	3,000,000
New Packard	11,000,000
Total	$37,000,000
TWO YEAR TOTAL	$47,300,000

Questionable if Packard Dealer Organization can survive or would try to survive without new car, since present body is six years old.

PROGRAM IV

1957	
New Basic Body Shell	$10,000,000
New Studebaker (on above) (December 1956 Ann'c't)	13,000,000
Facelift—Clipper (October Ann'c't)	2,500,000
Facelift—Packard (October Ann'c't)	2,500,000
TOTAL	$28,000,000

Too late in Studebaker Announcement.
Too much money.

1958	
Face-lift Studebaker	$5,000,000
New Clipper on common shell	3,000,000
New Packard on common shell	8,500,000
TOTAL	$16,500,000

PROGRAM V

1957	
Facelift—Studebaker	$5,300,000
Facelift—Clipper (minor)	1,500,000
New Packard in "Lincoln" body (February or March Delivery)	9,700,000
Total	$16,500,000
1958	
Facelift—Packard (on "Lincoln" body)	$2,500,000
New body	10,000,000
New Studebaker	13,000,000
Clipper using Studebaker sheet metal	3,000,000
	$28,500,000

PROGRAM VI

1957	
Facelift—Studebaker	$5,300,000
Packard on "Lincoln" body	9,700,000
New Clipper . . .in Packard Chassis "Ford" 56 Body Sheet metal	8,000,000
Total	$23,000,000

Packard Clipper late-Feb. or March
Probable 1 year run in "Lincoln" body
Probable high unit cost in "Lincoln" body
New Studebaker off "Ford" 56 body

1958	
New Studebaker in "Ford" 56 body	$9,600,000
Facelift—Clipper (in "Ford" 56)	3,000,000
Facelift—Packard (in "Lincoln" body)	3,000,000
Total	$15,600,000

Above would be cheapest and best program if on "Ford" 57 body. Same cost if basic body shell.

PROGRAM VII

1957	
Facelift—Studebaker (October Introduction)	$5,300,000
New Body Shell	10,000,000
New Clipper (December Introduction)	8,000,000
Facelift—present Packard (October Introduction)	2,500,000
Total	$25,800,000

1958

New Studebaker (Early Introduction)	$13,000,000
Facelift—Clipper (Normal Introduction)	1,500,000
New Packard (Incl. Chassis—Early Introduction)	11,000,000
	$25,500,000

Gives cheaper Clipper to Packard dealer organization for 1957 . . . but very costly in total tooling and penalty of $100-150 in piece price cost over coming out with New Studebaker.

PROGRAM VIII

1957

Basic body	$10,000,000
New Packard . . .sheet metal & chassis 2 wheel bases December introduction	11,000,000
Facelift—present Clipper (October Introduction)	1,500,000
Facelift—Studebaker (October Introduction)	5,300,000
Total	$27,800,000

1958

New Studebaker . . .Basic Body Early Introduction	13,000,000
New Clipper . . .Maximum Interchangeability with Studebaker	3,000,000
Facelift—Packard	1,500,000
Total	$17,500,000

* All things considered VIII is best program.
* Gives early announcement with face-lift Studebaker for 1957 and New Studebaker early for 1958.
* Spreads operations for Studebaker Division.
* Gives early announcement on face-lift Clipper for Packard Dealers for '57 models to tide them over until new car in December.
* Provides new Clipper for Packard Dealer Organization early in 1957 ('58 model) at minimum cost with maximum interchangeability with Studebaker. Probably $100-$150 less cost.
* Would give much greater bite at market and price-class.

Appendix VI
Avanti Running Changes During 1962 and 1963

Studebaker viewed the Avanti as subject to detail change at any time, rather than receiving major alterations at the beginning of each model year. Contrary to popular belief, for example, Avantis with square head lamp bezels do not constitute the entire run of 1964 models, since some registered '64's have round head lamp bezels. The following list of significant Avanti changes by month was compiled by Fred K. Fox and published in *Special-Interest Autos* Number 32, January-February 1976. The author is grateful to *Special-Interest Autos* for permission to include it in this appendix.

July 1962: Improved rear window fastening.

September 1962: Revised rear shock absorbers.

October 1962: Baffled mufflers available.

March 1963: Light/heater switch plate redesigned and rain drip molding added.

May 1963: Optional interior offered with Tenite woodgrain panels, woodgrain steering wheel, all black upholstery and 'S'-in-oblong door panel ornaments.

June 1963: Tenite panels and woodgrain steering wheel phased in as standard equipment.

August 1963: Rear quarter window latch redesigned, stronger hinge added to console box lid, console heater/air control handles given round instead of flat knobs, rubber door sill plate redesigned, headlight bezels changed from round to square, parking lights restyled, grille added to radiator opening, hood support moved from left side to right, air intake grille added to left side of cowl (air duct to automatic transmissions on models without air conditioning), long battery replaced by standard shaped battery, valve lifter cover (center valley plate) painted instead of chromed, inside air intake openings given plastic grilles, solid color interiors (including black) standard, inside door panel 'S' emblems standard, rear window fastening again redesigned, pleated 'Regal' vinyl upholstery standard (previously optional), perforated Deluxe vinyl upholstery dropped, carpet option reduced to solid black only, fender plate changed to read "Supercharged Avanti" instead of "Supercharged."

September 1963: Electric window cable shield added to cable between body and door, manifold pressure gauge face redesigned, thicker padding added to bucket seat backs.

December 9, 1963: Factory announced that Avanti would be phased out of production. (Production actually ended in November.)

Appendix VII
Studebaker Automobile Showroom Sales Literature 1946-1966

Compiled by Fred K. Fox

The following is a list of all known domestic Studebaker automobile showroom sales literature printed after World War II. It does not include commercial or fleet literature, nor does it include mailers, road test reprints, car show brochures, post cards (except the 1957 Golden Hawk 400), accessory brochures, salesman's fact/data books, or color chip folders. The Golden Hawk 400 card is listed because it was the only item of sales literature printed that depicted this rare model. No newspaper supplements are included except for 1958 when no regular catalog was printed and newspaper supplements were used in their place. All dimensions are horizontal by vertical. Folders are measured in their closed position.

1946:
Folder, 8½ × 11½, Skyway Champion, color, 11-1-45
Folder, 11 × 8½, Skyway Champion, b&w, D-4-1-46

1947:
Folder, 8 × 3⅞, full-line, color, D-6-4-46
Folder, 8¾ × 8⅛, full-line, color, D7-6-46
Folder, 12 × 9, Land Cruiser, color, no form number

1948:
Folder, 13¼ × 8¾, full-line, color, D-38-11-47
Folder, 8⅜ × 4¼, full-line, color, D-39-11-47

1949:
Folder, 11-5/8 x 8½, full-line, color, D 66-1-49
Folder, 8½ × 3¾, full-line, color, D-67-1-49

1950:
Folded catalog, 11⅜ × 8⅜ (16¾), full-line, color, 8 p., D-84-8-49
Folded catalog, 8⅛ × 6(12), full-line, color, 8 p., D-88-8-49
Folder, 10¾ × 15, Champion, b&w, D-125-3-50

1951:
Catalog, 11½ × 9¼, full-line, color, 16 p., D130-11-50
Catalog, 11½ × 9¼, full-line, color, 16p., D130-REV, 5-51
Catalog, 10¾ × 15, full-line, b&w, 8p., D131-10-50

1952:
Catalog, 10¾ × 15, full-line, color, 8p., D156-12-51
Catalog, 10¾ × 15, full-line, color, 8p., D156-6-52
Catalog, 11¾ × 10¼, full-line, color, 16p., D157-2-52

1953:
Catalog, 10¼ × 14¾, full-line, color, 12p., D-180-1-53
Catalog, 10¼ × 14¾, full-line, color, 12p., D-187-2-53
Catalog, 10¼ × 14¾, full-line, color 12p., D-189-7-53
Catalog, 11⅛ × 11⅛, full-line, color 16p., D-181-7-53

1954:
Catalog, 10½ × 14½, full-line, color 12p., D-196-11-53
Catalog, 12¾ × 10¼, full-line, color, 20p., D-197-11-53

1955:
Catalog, 10¼ × 14½, full-line, color 12p., D 217-9-54
Catalog, 10¼ × 14½, full-line, color, 12p., D 221-1-55
Folder, 11 × 8½, Speedster, pink & b&w, no form number

1956:
Catalog, 12¼ × 8, full-line, color, 20p., no form number
Folder, 10 × 6, full-line, color, no form number
Catalog, 12¼ × 8, Hawks, color, 8p., no form number; also revised to show correct trim on Golden Hawk
Catalog, 12¼ × 8, Station wagons, color, 8p., no form number

1957:
Folder, 11 × 14, full-line, color, PD 1011
Catalog, 8¼ × 11½, sedans, color, 16p., PD 1012
Catalog, 8¼ × 11½, station wagons, color, 8p., PD 1013
Catalog, 8¼ × 11½, Hawks, color, 12p., PD 1014
Sheet, 11⅝ × 8⅛, Scotsman 2dr, color, PD 1083A
Sheet, 11⅝ × 8⅛, Scotsman 4dr, color, PD 1083B
Sheet, 11⅝ × 8⅛, Scotsman station wagon, color, PD 1083C
Card, 6¼ × 8½, Golden Hawk 400, color, no form number

1958:
Catalog, 10⅝ × 13¼, full-line, color, 16p., no form number
Catalog, 10¾ × 12⅞, full-line, color, 8p., no form number
Eleven different color sheets, 11⅝ × 8⅛:
- Scotsman 2dr, PD 8018
- Scotsman 4dr, PD 8019
- Champion 2dr, PD 8020
- Commander & Champion 4dr, PD 8021
- Commander hardtop, PD 8022
- President hardtop, PD 8023
- President 4dr, PD 8024
- Scotsman station wagon, PD 8027
- Provincial station wagon, PD 8028
- Silver Hawk, PD 8030
- Golden Hawk, PD 8031

Folder, 12¼ × 9¼, to hold above sheets, red & gold

1959:
Catalog, 12½ × 9½, full-line, color, 12p., PD 9012
Five different color sheets, 11 × 9¼
Lark 2dr, PD 9007
Lark 4dr, PD 9008
Lark hardtop, PD 9009
Silver Hawk, PD 9010
Lark station wagon, PD 9011
1960:
Catalog, 12¼ × 9¼, Lark, color, 16p., PD-6003
Folder, 9 × 6⅜, full-line, color, PD-6005
Sheet, 11 × 9¼, Hawk, color, PD6014
1961:
Folder, 9 × 6¼, full-line, color, PD-61-15
Catalog, 10¼ × 11¾, full-line, color, 24p., PD-61-16
1962:
Catalog, 11 × 8¼, Lark, color, 16p., PD-62-08
Catalog, 11 × 8¼, Lark, color, 16p., PD-62-08Rev
Folder, 7½ × 10¾, Lark, color, PD-62-09
Folder, 11 × 8¼, Gran Turismo Hawk, color, P.D. 62-10 and P.D. 62-10 Rev.
1963:
Folder, 9 × 6¼, full-line, color, PD63-13
Catalog, 11 × 8½, full-line, color, 20p., PD63-14
Folder, 8½ × 11, Standard models, brown & b&w, PD63-78
Catalog, 12⅛ × 8, Avanti, color, 12p., PD63-07
Folder, 9 × 6¼, Avanti, color, Printed in U.S.A., PD7272
Folder, 9 × 6¼, Avanti, color, Litho U.S.A., PD7272
Folder, 9 × 6¼, Avanti, color, PD7272 Revised 5-63
Folder, 3½ × 7⅞, Avanti, browntone, PD62-74
Folder, 3½ × 7⅞, Avanti, b&w, PD62-74 Revised 5-63
1964:
Folded catalog, 8¼(16½) × 11½, full-line, color, 20p., PD64-10
Catalog, 6½ × 4, full-line, color, 12p., P.D.-64-11
Catalog, 6½ × 4, full-line, color, b&w, 16p., PD64-55
Folder, 8½ × 11, Challenger, blue & b&w, PD64-78
1965:
Catalog, 8½ × 11, full-line, color, 12p., PD65-04
1966:
Two sheets (Not American-distributed)

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Studebaker 1946-1966

The Classic Postwar Years

Richard M. Langworth is an experienced automotive writer who also authored **Hudson 1946-1957: The Classic Postwar Years** and **Chrysler & Imperial 1946-1975: The Classic Postwar Years,** both published by Motorbooks International.

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ISBN 0-87938-733-5

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Publishers & Wholesalers

Printed in USA