automobile
Quarterly

CONTENTS

WILD THING! FERRARI GTB/4 IMPRESSIONS 116
MICHAEL LORRIMER

CISITALIA 124
STANLEY NOWAK

CISITALIA IN ART 138
FOUR PAINTINGS BY JOHN HANNA

ADAMS-FARWELL 144
YOU SEE IT AND YOU STILL DON'T BELIEVE IT
BEVERLY RAE KIMES

THE MERCURY RENAISSANCE 152

THE INCOMPARABLE MILTON 160
AL BLOEMKER
PAINTING BY PETER HELCK

RUXTON 178
A SUPERB AUTOMOBILE THAT NEVER HAD A CHANCE
JEFFREY L. GODSHALL

DO I REMEMBER THE RUXTON [illegible]
BOY, DO I REMEMBER THE RUXTON [illegible]
WILLIAM MUELLER REMINISCES

RUXTON: FIVE OF THE FIVE HU[illegible] 196
[illegible]OLIO

"GOLDIE" 206
DENNIS MAY

GOLDIE'S SECRET [illegible]ON—EX135 214
PAINTING BY TOM QUINN

TC—NOSTALGIC RAMBLINGS 216
DON VORDERMAN

NOTES AND PICTURE CREDITS 222

COLOPHON 224

The very first production Cisitalia: August, 1946.

Cisit

by Stanley Nowak

A Stirring Parable on how the Road to Hell can be paved with Good Intentions

On the afternoon of September 3, 1946, twenty-six cars faced the starter's flag for the beginning of the Coppa Brezzi. The sound of the starting engines could be heard from the boats on the River Po and by the picnickers in the surrounding park. It was the first closed circuit race to be held in Italy since World War II and was laid out on the tree-lined roads of Valentino Park in Turin. On the front of the grid were seven new Cisitalia D.46 1100 cc monoposto racing cars driven by Piero Taruffi, Raymond Sommer, Tazio Nuvolari, Franco Cortese, Louis Chiron, Clemente Biondetti and Piero Dusio. It was the first appearance of the new Cisitalia, Piero Dusio's brainchild and the culmination of his life-long dream—to create a winning racing car of his own concept.

The race itself was a high-speed parade of whistling Cisitalias. Nuvolari took the lead early on, despite being given the slowest car, giving his rivals lessons on how easily the Cisitalia could be thrown through the corners with studied abandon. Three 1100 cc Gordinis were there from Paris, but they were clearly outclassed.

On the second lap the crowd rose to its feet—Nuvolari appeared coming down the straight, at speed, holding aloft the steering wheel with his right hand for all to see and steering with his left fist clutching the end of the steering column! The Italian enthusiasts roared as their Mantuan hero struggled on for two more heroic laps before he finally pulled into the pits and retired, and in losing won the moral victory that was always his.

The official victory went to Piero Dusio, the president of Cisitalia Automobili S.p.A., closely followed by his friends, Franco Cortese and Louis Chiron, all driving identical Cisitalias. It was probably the most successful introduction of a new racing car in automotive history, and overnight the Cisitalia became the most talked-about car in Europe.

To those who knew Piero Dusio it was no surprise, as his life had been an unending series of successes that began in the early Thirties. A natural athlete, Dusio in his twenties was the star of the best soccer team in Turin—a sort of Italian Joe Namath. At the height of this career he badly injured his left knee, and the rich Mirsan brothers, who supported the Turin team, found for the popular Dusio a sales job with a Swiss-backed textile company. Dusio's first assignment was in Genoa where he replaced the local representative; in one week he had written as much business as had previously been obtained in a year. Immediately, Dusio was called back to Turin and put in charge of sales for all of Italy at a salary of 250,000 lire a month—a fantastic income for the Thirties.

Dusio now began racing in sports car and monoposto events throughout Italy. He was a very able driver and among his successes was a sixth in the 1936 Italian Grand Prix in a Maserati, and fourth overall in the 1938 Mille Miglia in an Alfa Romeo 8C 2300. Dusio had also formed the Scuderia Torino which allowed

Piero Dusio

ralia

Giovanni Savonuzzi

him to sponsor other great drivers, and in 1938 Taruffi drove their Type 308 Alfa Romeo at Nürburgring and Berne.

Dusio's ever-rising fortunes gave him the means to pursue his hobbies, and his extracurricular priorities were clearly established: fast cars and fast women, in no particular order. By the time the "real" war broke out Dusio had established a reputation as a wealthy, aggressive, hard-working playboy. Among the top drivers of the time he was accepted as one of the best of the "amateurs," and his burning ambition was to win the great Italian races in a car of his own making.

Dusio's success knew no bounds, and by 1939 he had formed a conglomerate consisting of his own textile company, a bank, several hotels and a sporting goods company that he called Cisitalia—for Consorzio Industriale Sportivo Italia. Characteristically, Dusio had grand plans for Cisitalia, and as war broke out they were producing sports clothing, tennis rackets and bicycles. The Cisitalia bicycles, by the way, carried the brand name "Beltrame." As Mussolini actively joined Hitler in pursuing his war aims, the emphasis shifted and Dusio obtained an exclusive contract to supply all uniforms for the Italian Army and subsequently sold textiles to the Germans. The first shipment was an entire trainload which was en route when the Wermacht collapsed. Thinking quickly, Dusio intercepted the train at Verona and appropriated the entire load.

In a large villa outside Turin much of Dusio's spare time was devoted to formulating postwar racing plans. In 1944, with typical foresight, Dusio invited a brilliant young Fiat engineer, Dr. Dante Giacosa, to consult with him on the design of a new postwar racing car. (Today Dr. Giacosa is director of engineering at Fiat.)

With bombs falling almost daily on Turin, Dusio installed young Giacosa in a heated room in his villa (Giacosa's own home had been destroyed), and work began on the concept of an inexpensive monoposto racing car which could be put into production as quickly as possible after peace was declared. As most of the Italian industrial areas had been heavily bombed, Giacosa suggested a simple "boy's racer" based on standard Fiat components, and Dusio agreed.

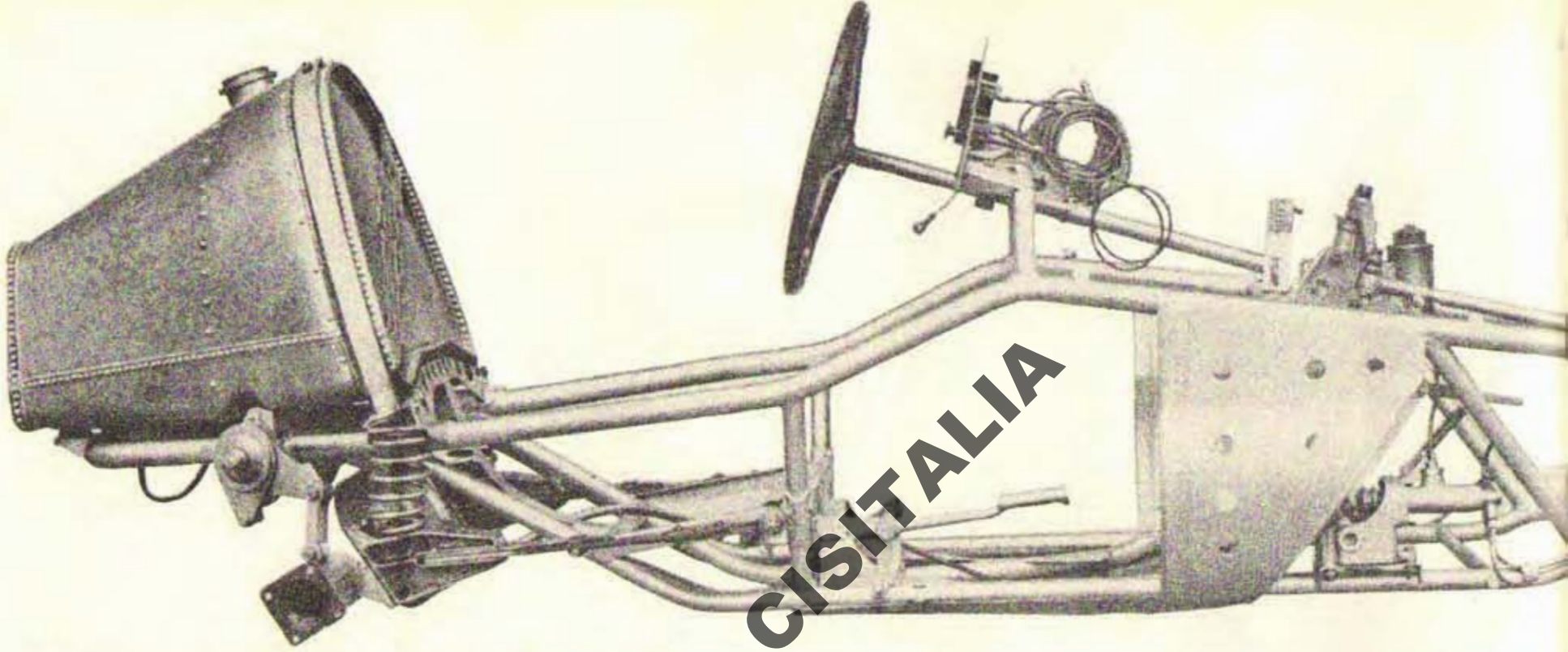
The first of Giacosa's designs was for a single seater based on the Fiat 500 chassis and front suspension and a Fiat 1100 engine and gearbox. Giacosa also began sketching ideas for a two-seater sports-racing car based on the same components. To lower the drive line, he planned a transfer case in front of the differential housing with an alternate design to take the lowered drive shaft up from below and behind the differential by means of large angled bevel gears. Both the overall design and the lowered drive line were the subjects of Italian patents issued early in 1945.

The design gained greatly in sophistication when Giacosa was shown through Dusio's bicycle factory and found, to his delight, large stocks of chrome-molybdenum tubing of various diameters. By good fortune, Giacosa was familiar with aircraft tubular frame design, as he had previously been engaged in aircraft engine work for Fiat. He fully understood the weight-saving benefits of this type of construction. And so, from the back of a bicycle factory came the first successful racing car employing a tubular space frame.

These frames were gas welded and then normalized by heating in a large oven. Fiat cooperated by making their facilities available, although at times the frames were normalized by artistic use of a locally applied torch in such a way that no distortion resulted.

By this time the Germans had been pushed up into northern Italy, and Dr. Giacosa relates the following anecdote: "In the same place, right next to my room, I arranged to have three drawing boards and this is the set-up where the single-seater was nested. I made a 1:5 scale plasticine model to define body lines. This model was ruined some time later during a sudden raid by the German police. One of them struck and flattened the model out of sheer spite."

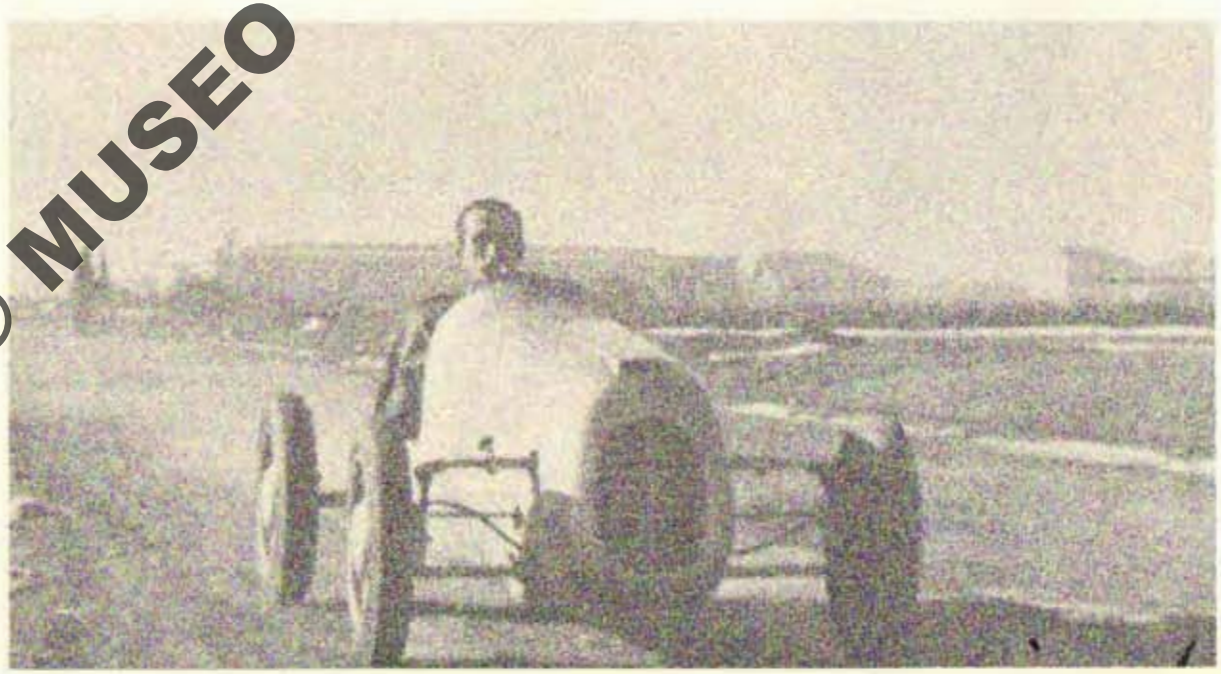
Powerplant development had not been forgotten and Giacosa was hard at work on developing the lightly stressed 32 hp Fiat 1100 engine into a reliable, highly-tuned racing unit. The 1100 cc Cisitalia engine has been described again and again as nothing more than a modified Fiat 1100. In point of fact, the only part of the engine that was strictly Fiat was the block itself, and even this was greatly modified by Cisitalia. The overall aim was to produce an engine that would reliably develop over 60 hp (DIN) at 5500 rpm and this

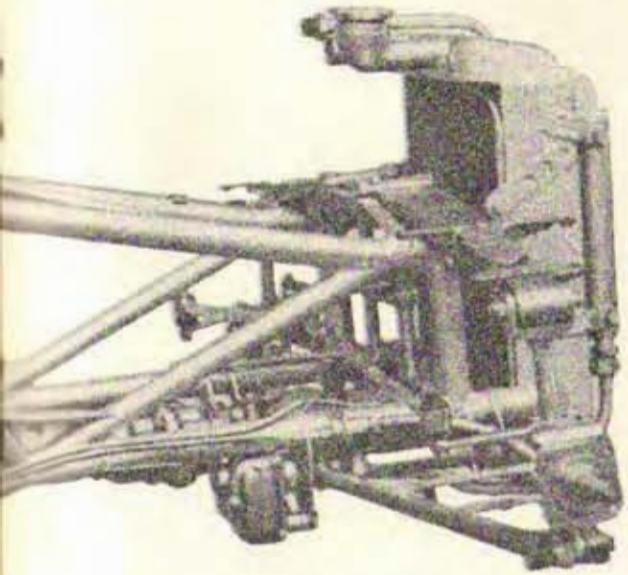


could only be achieved by redesigning almost every part of the engine and its accessories. The Cisitalia factory had the machine tools to allow them to make almost every part themselves.

Giacosa specified a compression ratio of 9.8 to 1, using a special cylinder head allowing for larger valves, double valve springs and drilled aluminum valve spring retainers á la racing motorcycle practice.

A fully counter-balanced crankshaft, machined from a solid billet, was specified, incorporating three main bearings with increased width and diameter. Special connecting rods machined from solid stock and fully polished to mirror finish were designed, and again the bearing diameters and widths were increased to handle the higher rpm. To lower the overall height of the engine, Giacosa called for a finned, shallow, aluminum dry sump with double the normal oil capacity carried in a "million rivet" oil tank in the cowl. The front of the engine was redesigned to eliminate the fan belt so the water pump was now gear driven. To assist in cooling, an oil radiator was fitted and tied in with the dry sump system by use of the normal oil pump and a scavenge pump to return the oil to the cowl tank. The water and oil radiators were of special lightweight construction and were mounted in front of the Fiat 500-type transverse leaf springs. A special lightweight flywheel was designed and used in conjunction with a





Above: The D.46 chassis. Left: The first prototype D.46 monoposto showing Fiat 500 wheels and suspension. Right: The D.46 in the Cisitalia factory assembly area.

modified, strengthened Fiat 1100 clutch.

The drilled brake drums were bi-metallic and used Fiat 1100 shoes and hardware. On the prototype car Fiat 500 bolt-on disc wheels were used, but these were quickly replaced by Borrani knock-off wire wheels with alloy rims.

The transmission and suspension were ingenious and Dr. Giacosa describes them well: "The transmission deserves special mention. I thought that a transmission allowing quick gearshifts, without taking the hands off the steering wheel, would have made possible higher average speeds in race circuits with lots of bends. Therefore, I developed a transmission controlled from the clutch pedal. A small lever under the steering wheel served to preselect first gear. A first kick on the clutch pedal upshifted into second, and second kick into third. Subsequently, each kick on the pedal would downshift into second or back into third. To pass into first, a preselection was needed by the lever under the steering wheel before kicking down which rapidly shifted into bottom gear. This transmission had the lone speck of providing three speeds only, but was extremely simple.

"The rear axle was derived from the 'Topolino' layout. The level final drive gearset was combined with a pair of spur gears so located as to lower the propellor shaft. Axle ratio could be very easily changed. The Fiat-Topolino transverse leaf spring front suspension was used. At the rear, instead, suspension was provided by coil springs and two longitudinal arms, anchored to the axle at one end and hinged at the front on frame-mounted articulations. At first, these longitudinal arms were rigid but later they became flexible. A third triangular arm, hinged on the differential housing, was connected by a ball joint and spring system to the frame. With this system, suspension flexibility varied, during axle movement, according to a pre-set amount. This type of suspension was very light and simple."

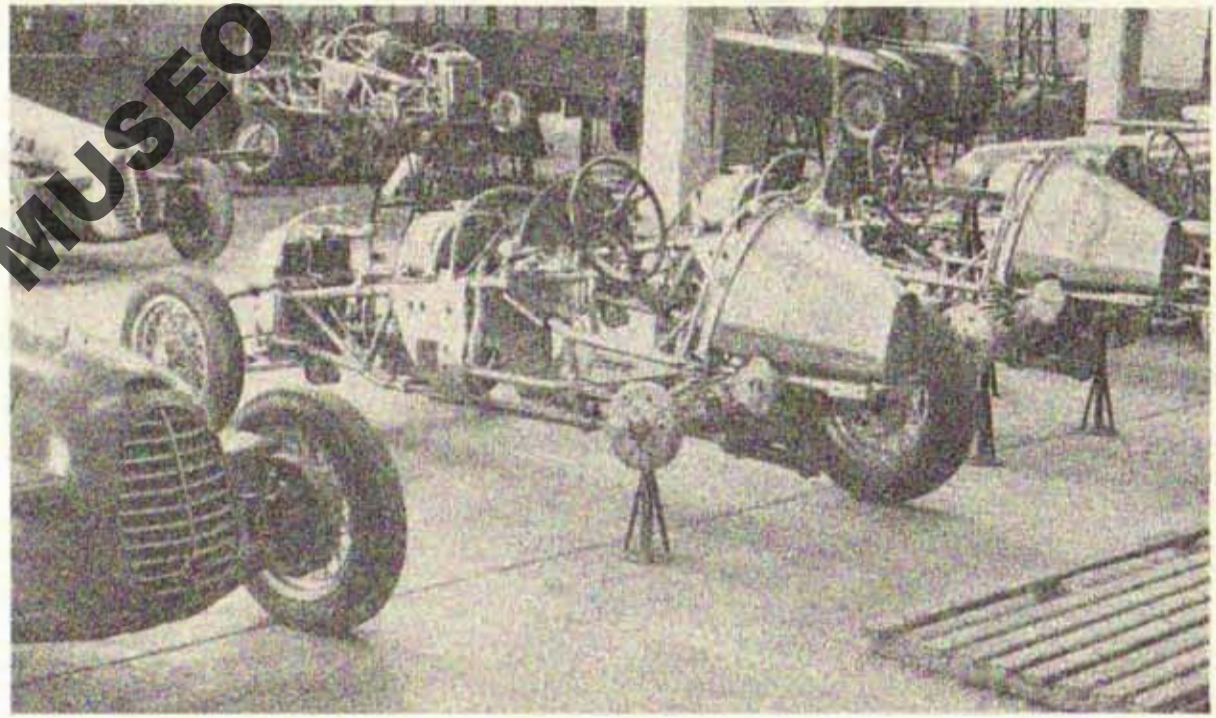
All of this work had been done on a "moonlighting" basis, as Dr. Giacosa and the other engineers and draftsmen were working full-time at Fiat. By the summer of 1945, the prototype was under construction, and Giacosa's work at Fiat precluded the possibility of devoting as much time to the project as was obviously required. At this point Dusio was looking for a full-time "Chief Engineer."

Sig. Ferretti of Fiat knew of Dusio's requirements and suggested Dr. Giovanni Savonuzzi, who was at that time managing Fiat's experimental aircraft engine department. Savonuzzi craved a change but would have preferred another part of the Fiat organization. Nevertheless he agreed to discuss the possibilities. With his usual gusto, Dusio waved away any doubts Savonuzzi might have had about joining a young unknown organization; he offered Savonuzzi ten times what he was earning at Fiat and to clinch the deal, threw in a guaranteed bonus and the use of a company car.

In August, 1945, the brilliant Savonuzzi joined Cisitalia on a full-time basis and immediately set about designing and equipping a tool room, engine test room and prototype shop. With loving care and exceptional ability, he succeeded in completing this work ahead of schedule, and the first prototype monoposto car was ready by the spring of 1946. At the same time, the Cisitalia factory was producing a line of automotive repair tools which generated the income to support the racing car development.

The "sorting out" work now began on a crash basis, and Piero Taruffi was engaged as racing manager and test driver. Hard work by Savonuzzi and Taruffi brought about many detail changes. For example, they found that the rear suspension was far too stiff, and the original trailing arms were replaced by quarter-elliptic springs.

A monoposto production line was laid down in the factory, and by the end of August seven cars were ready. The overwhelming win at Valentino Park established Cisitalia's reputation and orders for the new cars began to pour in. Raymond DeSauge was the first private owner, and succeeded in finishing fourth over-



all in the Grand Prix of Penya Rhyn at Barcelona in October, 1946. Two cars were delivered to Harry Schell and his brother Phillipe and another went to the legendary Hans Stuck for hill climbing in Germany and Switzerland. Robert Manzon and Roger Loyer of France each purchased Cisitalias, and Italian buyers soon included Franco Cortese and Enrico Minetti.

At the factory, Dusio forged ahead with new projects and his Swiss financial backers agreed to proceed with a plan to take a large team of cars on a world tour to be driven by the best Italian and local drivers available. In addition, Dusio asked Giacosa, still working for him on a consulting basis, and Savonuzzi to develop the design for a two-seater sports-racing car—a type which would find a much wider market.

Development of the D.46 monoposto continued, and a final modification was made to the front of the engine to allow for a vertically mounted gear driven magneto to allow more accurate timing and a hotter spark.

The world tour did materialize, but it fizzled out on its first stop in Egypt. An all-Cisitalia race was held on Gezira Island, Cairo, on March 9th, 1947, and twenty-two of the little monopostos raced in two heats and a final runoff before a disappointing crowd of only 6,000 Egyptians. The racing was wheel to wheel all the way and the final results showed Cortese as the overall winner, closely followed by a very stylish beginner, Alberto Ascari. From all reports, it was a most exciting contest, but a financial disaster. The "world tour" was cancelled.

The sports car project was proceeding apace, and Giacosa came up with tubular frame designs similar to the monoposto, but widened enough to enclose two people. At this point Dusio asked various coachbuilders in Torino to submit designs for his new car. The results were very disappointing, and it was decided that

the intense, mercurial Savonuzzi should try his hand at designing the new car.

Here Savonuzzi's great talent as an automotive stylist became apparent, and he quickly produced a scale model of a streamlined coupé with full-width sides, sloping hood and prominent fins on the rear fenders, thus establishing several styling devices that would later revolutionize the shape of the postwar automobile.

Savonuzzi took complete advantage of the low engine placement made possible by the dry sump system and by being able to locate the driver and passenger within the tubular frame structure. This resulted in a two-door coupé with a height of only four feet, one and a quarter inches.

Dusio owned a 1946 Buick at the time, and he suggested to Savonuzzi that he also work out a design based on "a low, wide version of the Buick." This design was similar to the finned coupé, but without fins and with a flatter back. An open roadster was also laid out retaining the distinctive rear fins but reduced to more conservative proportions.

The first two-seater chassis finished was quickly sent to Carrozzeria Colli, and a coupé body was hurriedly made and delivered to give the factory a "mule" to try out.

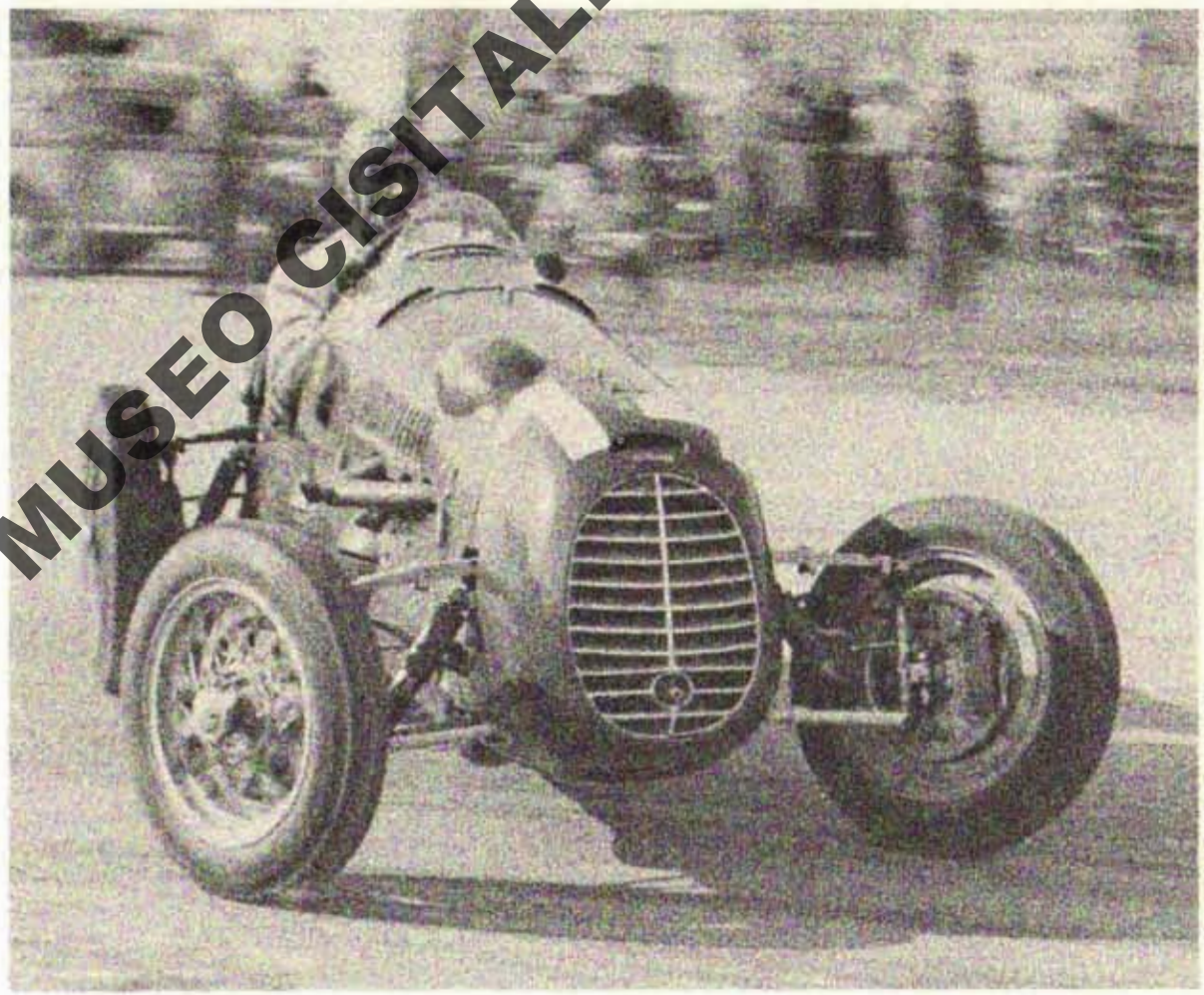
The next chassis was entrusted to Alfredo Vignale, the former foreman at Carrozzeria Stabilimenti Farina. The body which Vignale produced was a sensational refinement of Savonuzzi's design, and it launched Vignale on a career of his own as the head of Carrozzeria Vignale, one of the great Italian coachbuilders of the 1950's. The front grille was a small ellipse with curved horizontal slats following the curves of the body sections. The windshield was of two pieces of sharply V'd glass, and a boundary layer control spoiler was mounted horizontally across the rear of the roof to decrease turbulence and direct the air flow over the tail of the car. The fins were dramatically large and appeared to be functional so as to stabilize the car at high speed. On the sides were two portholes which General Motors spotted and quickly adopted for the 1948 Buick. Dusio was so pleased that he took Vignale aside and handed him a bonus of 100,000 lire.

A third chassis was given to Garelli, who produced the first finned roadster, the "Nuvolari" roadster, as it was later to be known. The fins were too fat and two more roadsters were entrusted to Stabilimenti Farina, whose crisper lines provided the definitive version of this model.

Early in 1947 the sixth two-seater chassis was given to Carrozzeria Pinin Farina, but the startling result was not to be seen until September.

All of this work was to insure that as many cars as possible would be ready for the first postwar Mille Miglia, which would begin June 21, 1947. An all-out effort was made as it was rightly felt that a dramatic victory in the Mille Miglia was the quickest way to commercial success.

The engines for the first five cars were carefully

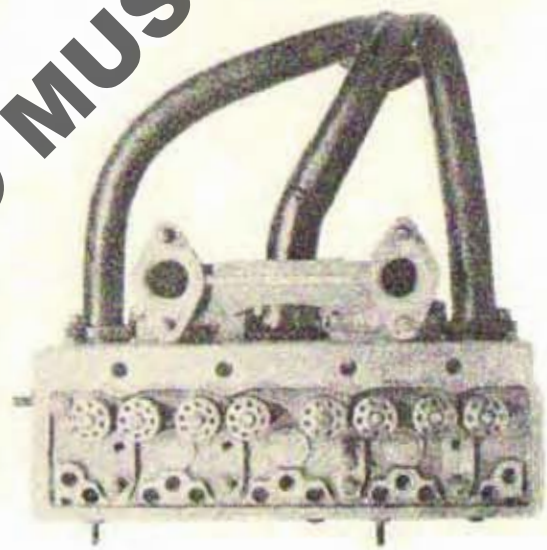


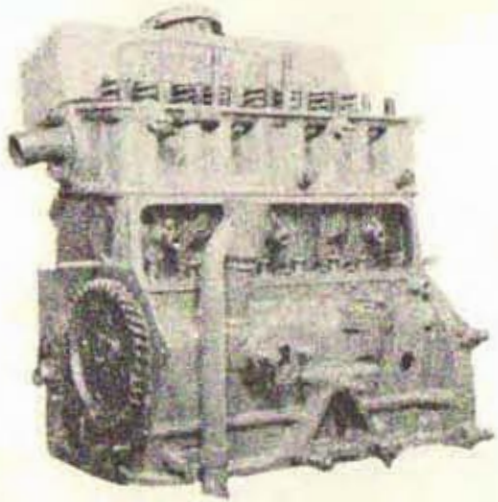
Left: Before the Coppa Brezzi, 1946. Above: Savonuzzi and Cortese after the race. Right: Bonetto at the 1948 Circuit of Mantua, casually on his way to a victory.

tested on the factory dynamometer, and various combinations of cylinder heads, compression ratios, carburetor settings and camshafts were tried to give a range of horsepower readings. On June 19th a chart was drawn up detailing all the relevant performance figures for each car and, not surprisingly, the one with the best power-to-weight ratio was assigned to Dusio. The c with the worst power-to-weight ratio was given to Nu lari, and this was excused by the fact that he was sick man and probably wouldn't even reach Rome. Savonuzzi delivered the car to Nuvolari at his sanatorium at Lake Garda. When Nuvolari arrived at the start in Brescia he reported, "The car is lousy—but it doesn't make any difference to me. I'll be first!"

Practice on the Mille Miglia circuit was lengthy and methodical, with all the drivers under strict orders to drive flat out only when no other cars were in sight. While testing one of the cars, Savonuzzi slowed to let a competitor by, only to discover it was Salamano, Fiat's chief test driver, in one of their new 1100S aerodynamic coupés.

Cisitalia was ready! Dusio drove one of the "Nuvo-





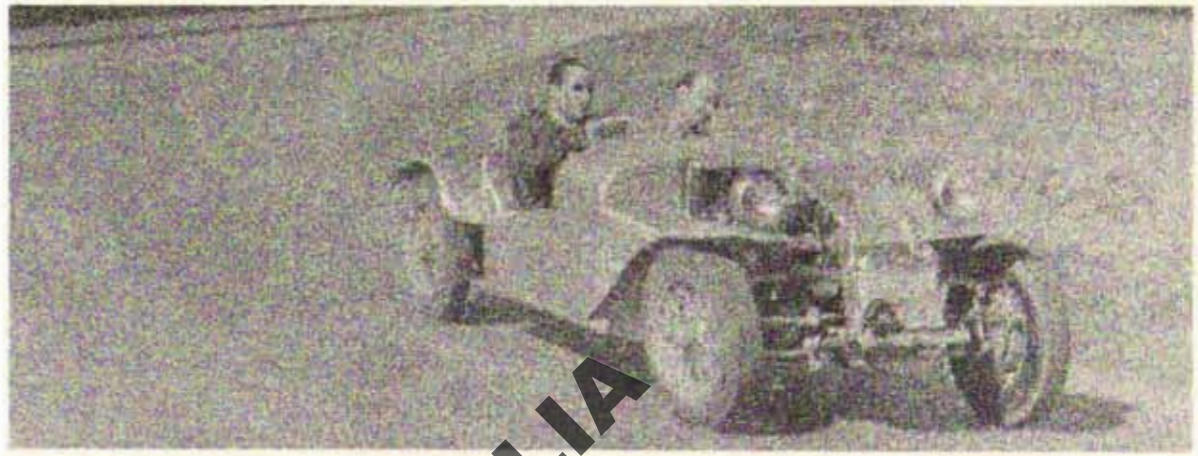
lari" roadsters with a special engine developing 62 hp at 5500 rpm. Bernabei drove the "Mule" coupé, Taruffi the high-finned Vignale-built "Mille Miglia" coupé, Minetti another "Nuvolari" roadster, and Nuvolari his namesake roadster, on paper the slowest of the bunch.

Cisitalia finished the race second, third and fourth overall behind Biondetti's big Alfa and ahead of the forty-eight other finishers. But the moral victory was again to Nuvolari for his incendiary driving into second place bespeaking his inhuman determination. The story of Nuvolari's incredible drive far overshadowed Biondetti's win. After all, Tazio had led in Rome by eight minutes and only his mechanic's bungling had robbed him of outright victory. The car had ceased running in heavy rain and Nuvolari's mechanic, Carena, had incorrectly diagnosed the trouble as bad valves. The real trouble was a swamped distributor. It took Carena twenty minutes to locate the problem and cure it. By this time Biondetti regained the lead and Nuvolari arrived in Brescia seventeen minutes behind. Nuvolari was lifted bodily from the car by Savonuzzi and carried to a hotel to a waiting doctor and much needed rest. The courageous Mantuan had driven for over sixteen and one-half hours with no relief to give Cisitalia their greatest triumph.

It was certainly Dusio's day, and to top it off Bernabei's fantastic "mule" coupé averaged 96 mph for one hour and twenty-five minutes on the final autostrada stage into Brescia—the fastest time of *any* car in the race.

Development and production of the sports cars now took first priority and the little monoposto cars suffered accordingly, although in all thirty-one of the little racers were built and sold. Despite this, no official factory team was consistently supported and Taruffi's efforts were largely unofficial, and unsuccessful. Gordini devoted the entire resources of his small atelier to further developing his 1100 cc monoposto cars and with the support of the Simca factory he swept through 1947 with victory after victory.

Flushed by his phenomenal run of success, Dusio again raised his sights and at Taruffi's suggestion began to examine the possibilities of building a Cisitalia Formula I Grand Prix car. Taruffi recommended the services of an Italian engineer, Ing. Giannini, who had designed a highly successful four-cylinder supercharged motorcycle engine for the CNA "Rondine." Savonuzzi suggested contacting some of the German engineers who designed the winning Grand Prix cars of the late 1930's. He lived to regret it, as Dusio seized upon this idea. Soon afterward, the ubiquitous Count Lurani informed him that he had been contacted by Ferry Porsche, the son of the legendary Dr. Ferdinand Porsche, who



Left above: Two Squadra Aburth Cisitalias at Mantua in 1948. Left: Optional high performance head and engine as fitted to either monoposto or Mille Miglia cars. Right above: Savonuzzi and photographer Millanta testing the chassis of first Cisitalia two-seater. Right: The same car, completed, in the 1947 Mille Miglia race.

advised him that the Porsche design team was looking for work and that help was needed to obtain his father's release from the French occupation authorities. Meetings were held with Ferry Porsche and it transpired that his design staff had on their drawing boards the plans for a 1½-litre supercharged Grand Prix car. This was "Project T.360," a direct development of his father's pre-war Auto Union Grand Prix cars. The specifications of this project were beyond Dusio's wildest dreams: a dohc 1½-litre supercharged twelve-cylinder flat opposed engine mounted in the rear with a target rating of 450 hp at 10,000 rpm with full roller bearings throughout on a built-up Hirth crankshaft, a provision for either two-wheel or four-wheel drive, a five-speed transaxle, and a multitube space frame. This had to be the ultimate Grand Prix car, and with Dr. Porsche and his design team available to make it all a reality how could it fail to be a winner? Dusio immediately obtained the release of Dr. Porsche from the French, using the influence of Raymond Sommer and Charles Faroux, by paying bail of 1,000,000 francs. Dr. Porsche returned to his design office in Gmund to lead his team of engineers and draftsmen. The principal design work was carried out by Ing. Rabe and Dr. Eberan von Eberhorst, who was later established in Turin as liaison officer to prepare the small Cisitalia works for the ambitious work ahead. Ing. Hruschka and Carlo Abarth represented Porsche in Turin.

Sports car chassis production proceeded at an ever-increasing pace. Two more high-finned "Mille Miglia" coupés were built (one of these cars was recently discovered in Argentina) and at least six more Nuvolari roadsters were turned out by Stabilimenti Farina (three of these historic cars exist today in the United States).

Pinin Farina worked carefully to complete the final version of their Cisitalia coupé. The result set a whole new standard for automotive styling and established a new school of Italian design. The car was first shown to the public in September, 1946, at the Villa d'Este Gold Cup Show, held in the gardens of the Villa d'Olmo in Como. It won first prize overall. In October, 1947, it was shown at the Paris automobile show and was a brilliant success. World-wide publicity followed and in fact the first issues of *Road & Track* were filled with photographs of the Cisitalia Pinin Farina coupé. Throughout the world automotive magazines pointed to the Cisitalia as the sports car of the future and Dusio's order book rapidly filled.

The Cisitalia Pinin Farina Coupé received its supreme accolade in 1951 when New York's Museum of Modern Art chose it for its excellence as a work of art. With seven other cars it was exhibited in the museum and the catalogue for this exhibit eloquently described the Cisitalia:

"The Cisitalia's body is slipped over its chassis like a dust jacket over a book. Modeled by swellings and depressions, the surface of this seemingly one-piece metal jacket is made to incorporate those elements which, in the Mercedes (1930 SS Tourer), are superimposed on the body.

"The openings Farina cuts into the jacket provide some of the most skillfully contrived details of automobile design. The grille opening is a modified cross section of the hood, which thus resembles the cut end of a cigar, while the rolled edge of the opening itself helps to suggest that the grille is part of a continuous structural framework beneath the metal surface. Because the sloping hood lies below the two front fenders it suggests low, fast power (sic). This hood treatment has the additional merit of making the wheels seem larger, (an illusion reinforced by the high, tight curves of the openings which skirt them) and because they are dominant elements in the design Farina has made them appear to project outside the body by decorating them with slotted, chromium plated discs, as if they were bright roulette wheels.

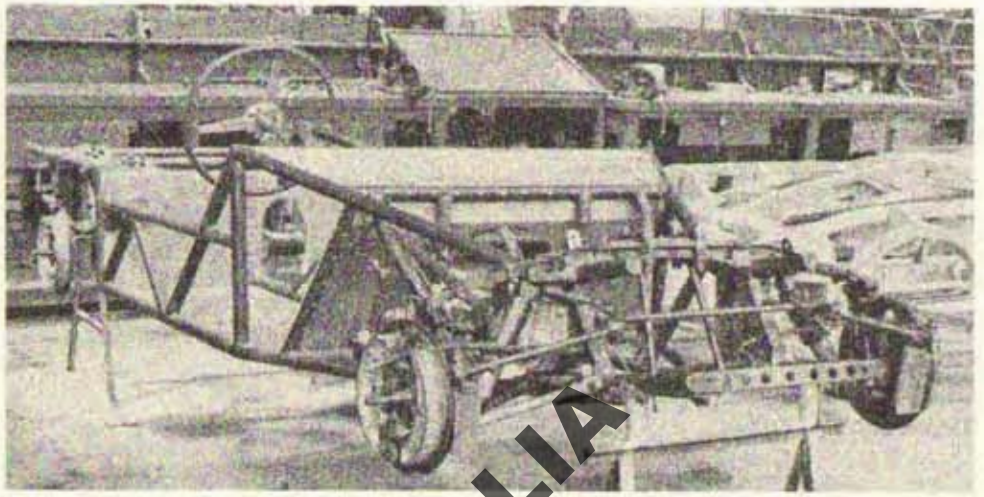
"To maintain the sculptural unity of the entire shape its surfaces are never joined with sharp edges, but are instead wrapped around and blunted. The door is minimized to prevent it from contradicting the appearance of a taut metal skin. Vertical contrast, necessary for an illusion of length, is supplied instead by the clearly modeled rear fender. The side window is given pronounced forward direction by one sharp corner pointing toward the front wheels, and the roof and window seem to unfurl from this point, flowing back like a pattern of air currents in a slipstream.

"Perhaps the most subtle device in the Cisitalia's design is a slight shift in its horizontal axis. The back of the car, particularly the fender, is lifted at an angle rising from the strict horizontal base line which gives stability to the design. Thus both ends of the car gain an extraordinary tension, as though its metal skin did

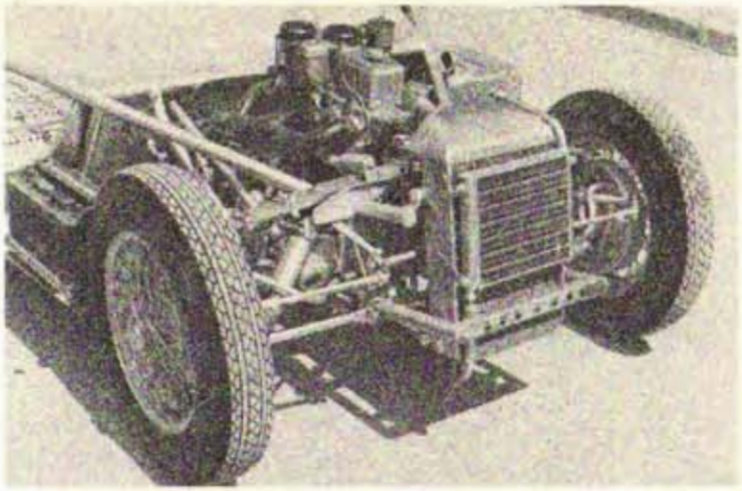
Left: The Mille Miglia coupé at the factory. Right: Taruffi in the car before start of 1948 Mille Miglia.

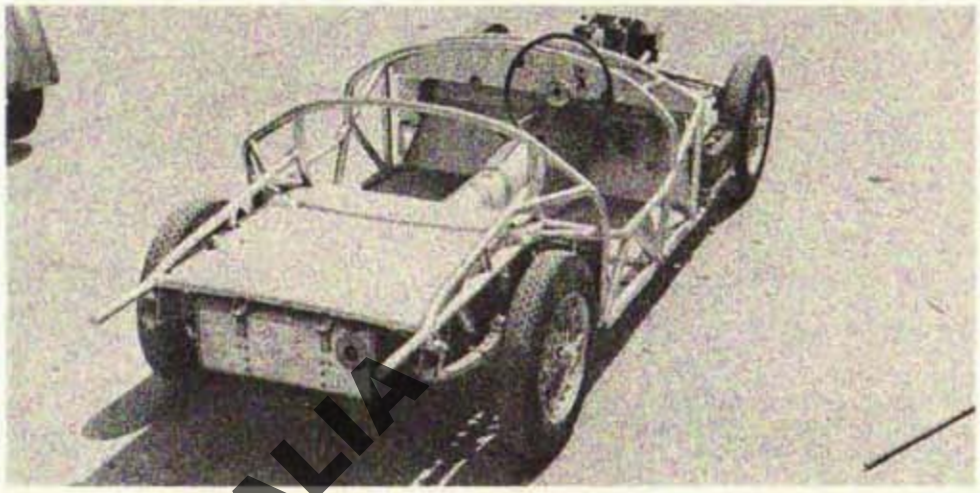
not quite fit over the framework and had to be stretched into place. This accounts, in part, for that quality of animation which makes the Cisitalia seem larger than it is."

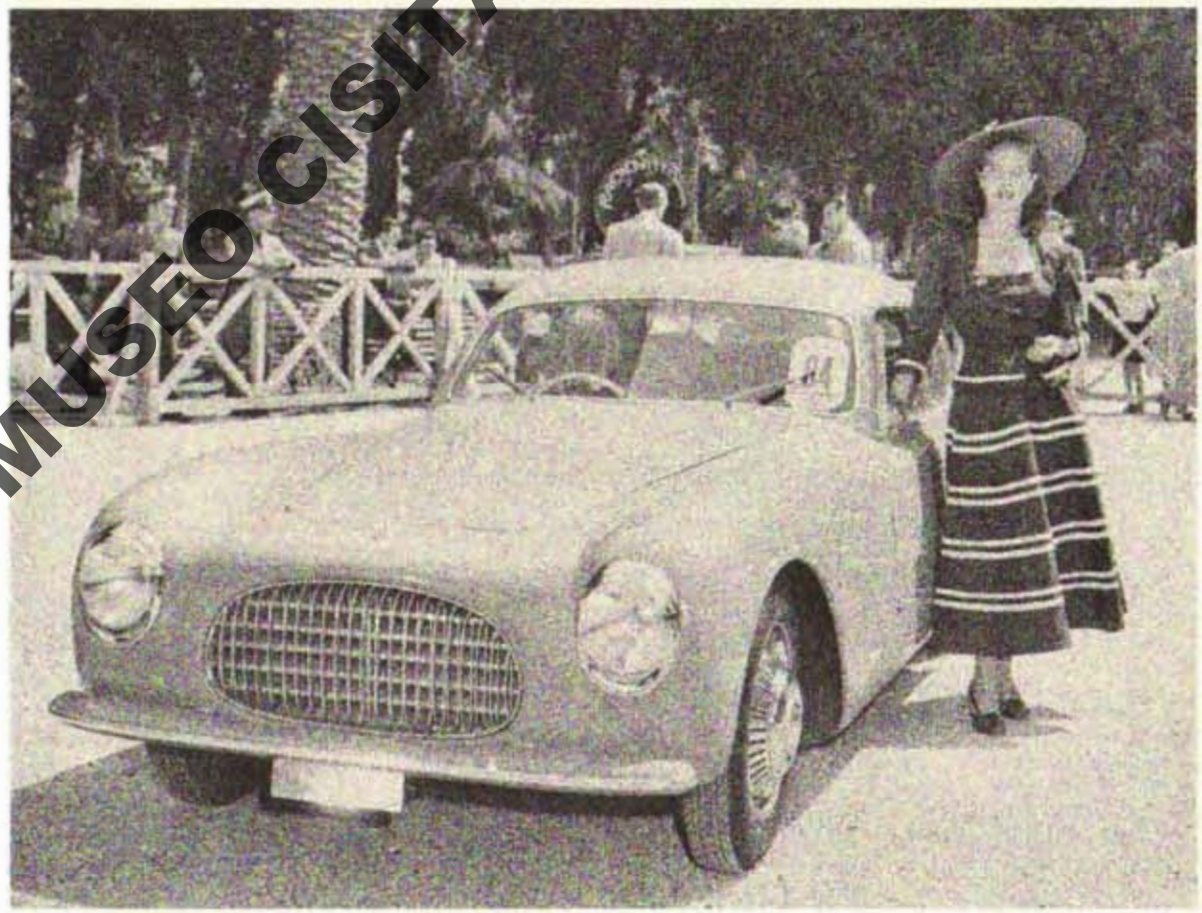
A backlog soon developed. Pinin Farina could not meet the demand. To compound the problem, Pinin Farina also built a convertible version of their coupé and production of this model now had to be entrusted to Stabilimenti Farina. As Pinin Farina and Stabilimenti Farina were located only a few blocks from each other and as their owners were related, they occasionally shifted production of Cisitalias from one to the other by simply rolling the wooden bucks, used to shape the body panels, from one plant to the other. Thus, it is



Above, right to left: Special lightweight chassis for Dusio's 1947 Mille Miglia car; the 1947 1100 Spyder Speciale viewed fore and aft. Below: Nuvolari on his way to a second overall in the 1947 Mille Miglia; the Concours-winning and pacesetting Pinin Farina coupé.







possible to find Cisitalia coupés or convertibles with either coachbuilder's name on them. They were commonly confused and "coachwork by Farina" could refer to the work of either one of them.

Preparations for the Grand Prix car continued and Dr. von Eberhorst's study of the Cisitalia facilities led to devastating recommendations. Being accustomed to the unlimited resources of Auto Union, von Eberhorst requested the building of sophisticated machine tools so that all parts of the new Grand Prix car could be manufactured by Cisitalia. Despite an original estimate by Porsche of 20,000,000 lire for the entire project, the cost had already reached 30,000,000 and work on the car itself had not even begun! Dusio had already ceased production of automotive tools, a good bread and butter line, to make room for the Grand Prix car tooling. It was a dreadful mistake.

Savonuzzi called a meeting with Dusio and advised him that disaster loomed ahead as all indications pointed to an expenditure of 100,000,000 lire just to get one Grand Prix car to the starting line. Savonuzzi pointed out that the company could not possibly generate enough income to support the Grand Prix car project. Dusio was adamant. The Grand Prix car would be built. Dusio would find a way. Savonuzzi resigned—it was October, 1947.

After a visit by Ferry Porsche and Ing. Rabe, the cooperation with Porsche deepened and Ing. Hruschka was appointed as chief engineer to replace Savonuzzi. Carlo Abarth was retained as racing manager. Both Hruschka and Abarth were closely associated with Porsche and were representing that company in Turin when they first met Dusio. Production of the little D.46 monoposto ceased and the commercial emphasis was on increasing production of the sports car line which now consisted of the Pinin Farina coupé and the Stabilimenti Farina convertible. The Mille Miglia coupés and roadsters were also abandoned.

Ferry Porsche returned to Gmund intrigued by Dusio's concept of creating a sports car based on production car components. By July, 1948, a Porsche car based on modified Volkswagen parts had been built.

On January 1, 1948, the new Grand Prix formula went into effect. Formula I remained the same: 1½ litres supercharged or 4½ litres unsupercharged; the new Formula II was 500 cc supercharged or 2 litres unsupercharged. The Cisitalia D.46 monoposto was thus classified out of existence, although a few places were gained in Formula II events by increasing the engine size to 1200 cc. It was astonishing that a car with such a disadvantage could even be competitive.

Cisitalia's new racing manager, Carlo Abarth, had little to manage, and on the side he began to develop special Cisitalia cycle-fendered sports-racing cars and 1200 cc Formula II cars for his wealthy friend Guido Scagliarini under the banner of Squadra Abarth. Several cycle-fendered cars were built with Porsche-designed VW-type front suspension units, but their most successful cars used the normal Cisitalia layout.

As Savonuzzi had predicted, the continued pursuit of Grand Prix glories began to drain even Dusio's resources and the difficulties encountered in producing enough sports cars only aggravated the situation. As a last-ditch attempt to obtain fresh financing, the Grand Prix car was exhibited at the Turin auto show in February of 1949, and much publicity was made when Dusio prevailed on Nuvolari to pose in the car dressed in his traditional racing togs. It was the last public appearance of the car in Italy. It was also the last time Nuvolari would sit in a Grand Prix car. Dusio's incredible run of luck was at an end. By the summer of 1949 the company was bankrupt.

In the United States, Max Hoffman represented Cisitalia from his new showroom at Park Avenue and 59th Street, and a few coupés were sold at $6800 each. Later Fergus Motors brought in a few more cars and Joe Fergus sold a convertible to Henry Ford II out of their Southampton, Long Island, showroom. A few more used Cisitalias were imported and sold by Tony Pompeo, but it was all a case of too little and too late.

Dusio salvaged what he could by selling most of the assets of Cisitalia to a group in Argentina called Autoar, and the one completed (but not running) Porsche Grand Prix car was shipped to Argentina. The other parts, more than enough to make one more Grand Prix car, found their way into the hands of Count Lurani and were recently sold to an American collector who is now having the second GP car constructed in Italy.

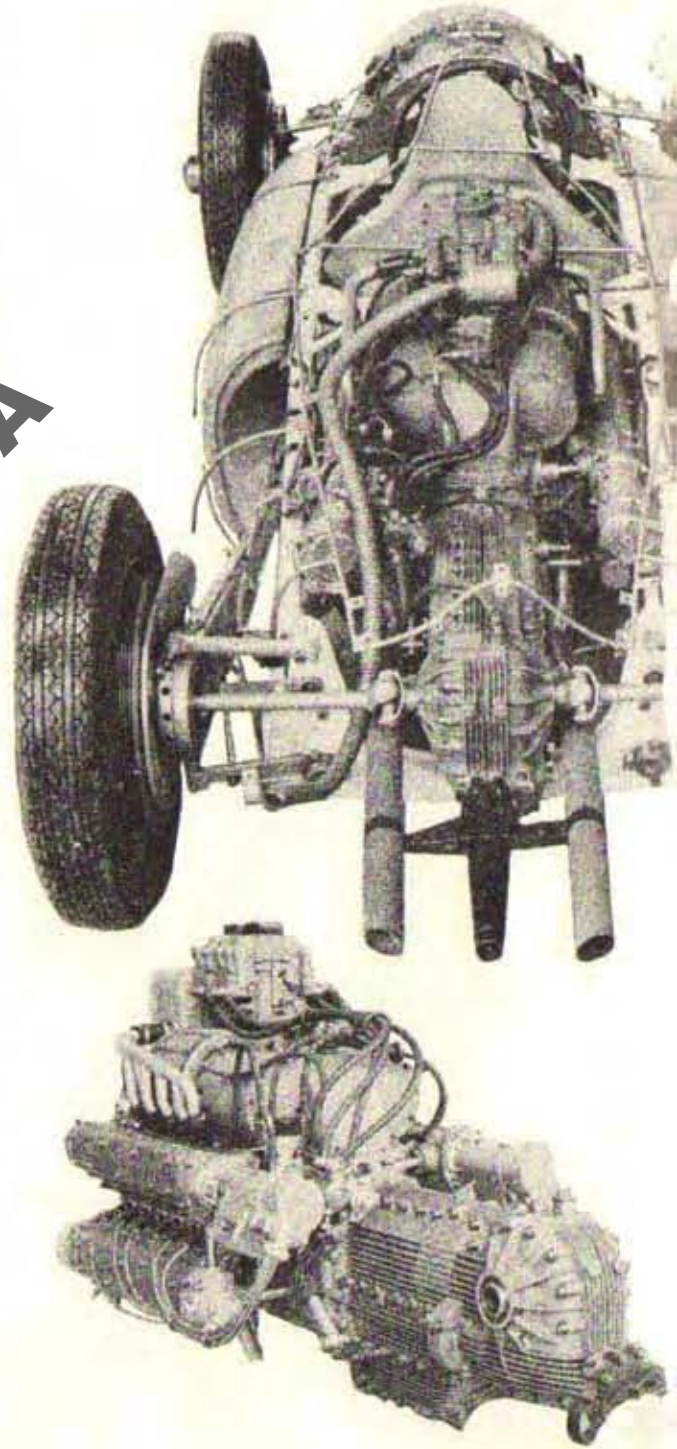
Dusio joined Autoar in Argentina but his racing days were over and the great victories of Cisitalia were ended. Autoar concentrated on making trucks. During 1952 and 1953 they managed to get the Grand Prix car running on several different occasions, but they were beset with mechanical troubles and no notable results were obtained.

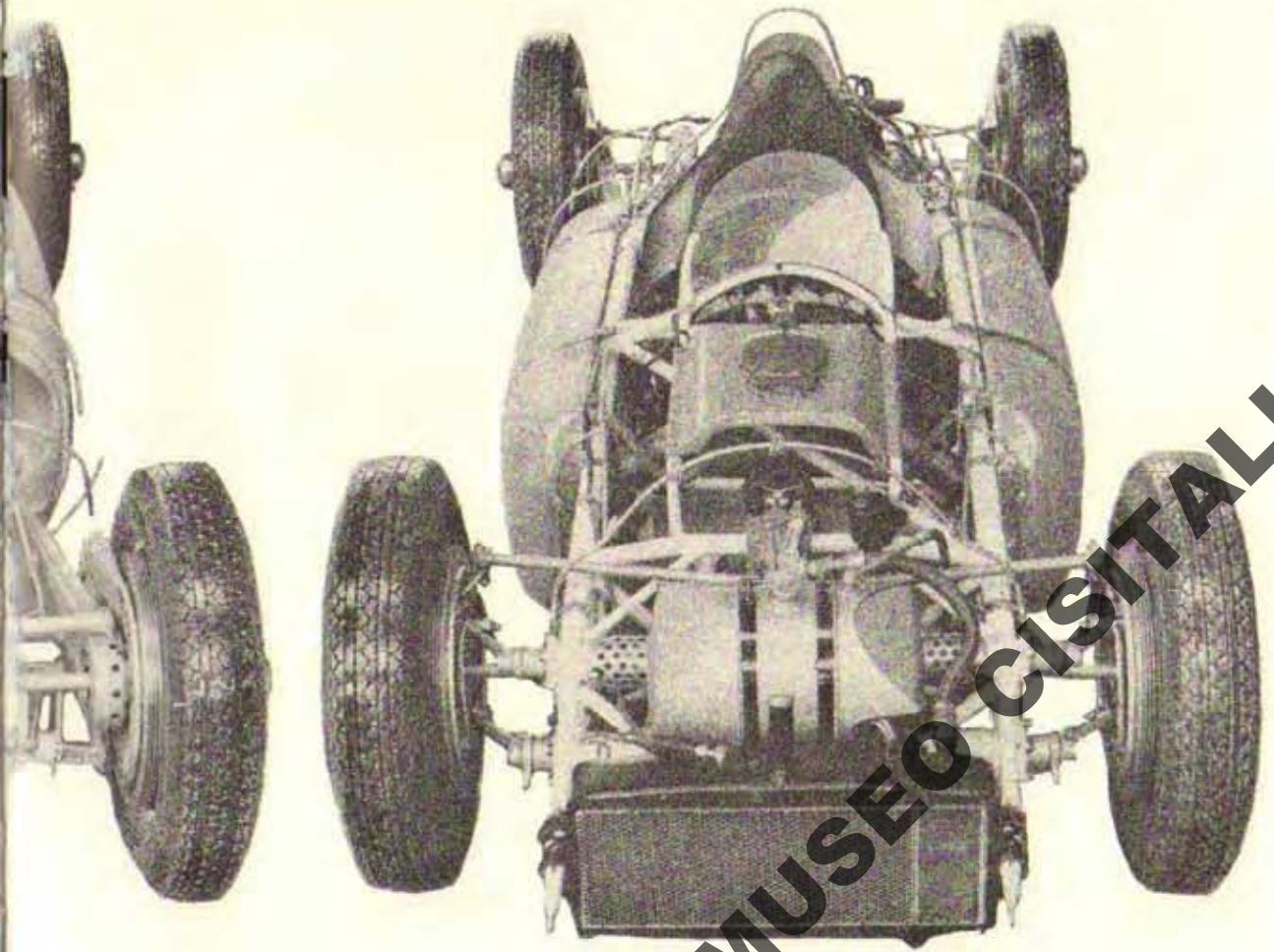
In Italy, Cisitalia was reconstituted under the direction of Dusio's son, Carlo, and various kinds of cars continued to be made with the Cisitalia name on them. Several attractive prototype cars were built in 1953 for Henry Ford II using American Ford engines, but the large order from Ford never materialized.

In 1958 Michelotti produced drawings for a daring new Cisitalia coupé but despite serious interest in America not even a prototype was built. By 1965 the only "Cisitalia" available was a special bodied version of the Fiat 600. How the mighty are fallen. . . .

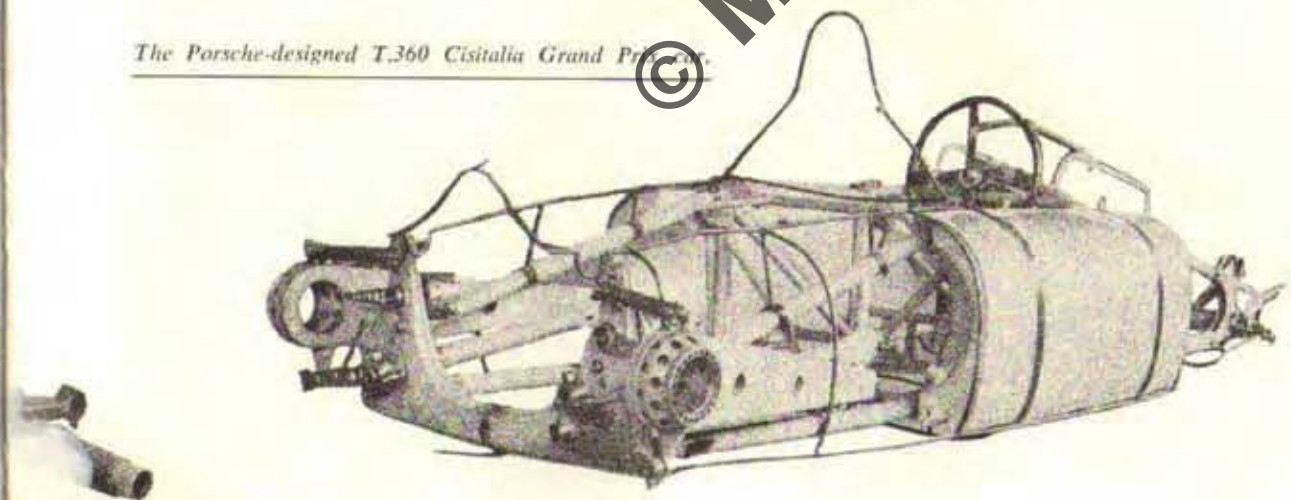
The story of Cisitalia is a sad one: success after success, overexpansion, over-commitment and failure. A story that is repeated by numberless small companies year after year. But Cisitalia is not forgotten and its place in the history of the automobile is secure. Dusio, Giacosa and Savonuzzi can be proud of their achievements—the fastest speed in the Mille Miglia from a 65 hp two-seater sports car, the first all new postwar racing car, the first use of a tubular space frame in a racing car, perhaps the most exotic Grand Prix car ever built, and a clear and unmistakable revolution in automotive styling.

That's a pretty impressive record for a failure. ✥





The Porsche-designed T.360 Cisitalia Grand Prix car.



CISITALIA SPECIFICATIONS

D.46 MONOPOSTO

Type: single-seat racing car.
Engine: four-cylinder water cooled, 68x75 mm, 1089 cc, 9.8:1 compression ratio, 65 hp @ 5800 rpm; special aluminum cylinder head; single Zenith 36 VIF/C carburetor; lubrication through double pump, dry sump and oil radiator; ignition by gear-driven magneto; cooling by gear-driven water pump and special lightweight radiator.
Clutch: single plate, dry, operating on special lightweight flywheel.
Transmission: three-speed forward and reverse with clutch pedal selection of second and third. Ratios: first 6.5:1, second 4.9:1, third 3.63:1, with alternate final drive ratios available.
Chassis frame: gas-welded chrome-molybdenum steel tubing.
Front suspension: independent by transverse leaf spring and A-arms, hydraulic shock absorbers.
Rear suspension: live axle, coil springs, quarter-elliptic springs and friction shock absorbers, axle located by rear central spring-loaded bracket.
Brakes: hydraulic with ten-inch bi-metallic (aluminum and steel) drums.
Wheels: fifteen-inch Borrani knock-off carrying 4.00x15 Pirelli tires at front, 5.00x15 at rear.
Dimensions: wheelbase 6 feet 6¾ inches; track, front 4 feet, rear 3 feet 8½ inches; curb weight 812 pounds.

BIPOSTO

Type: two-seater sports cars: Mille Miglia coupé and roadster, Farina coupé and convertible.
Engine: same as monoposto, except that three stages of tune were offered: Sport, 7.5:1 compression ratio, 50 hp @ 5500 rpm; Sport Special, 9.5:1 compression ratio, 60 hp @ 5500 rpm; Mille Miglia, 9.8:1 compression ratio, 65 hp @ 5800 rpm. Also, ignition was by Marelli distributor and coil and gear-driven generator.
Clutch: same as monoposto.
Transmission: manual floor shift with four speeds forward and reverse, synchromesh on third and fourth. Ratios: first 15.2:1, second 9.1:1, third 6.0:1, fourth 4.1:1, with alternate ratios available.
Chassis frame: same type of construction as monoposto.
Front suspension: independent by transverse leaf springs and A-arms, telescopic shock absorbers.
Rear suspension: live axle, long semi-elliptic springs with four telescopic shock absorbers, two on each side.
Brakes: same as monoposto.
Wheels: fifteen-inch Borrani knock-off carrying 5.00x15 Pirelli tires on all wheels.
Dimensions: wheelbase 7 feet 10½ inches; track, front 4 feet 1½ inches, rear 4 feet 1 3/16 inches; overall length 12 feet 6 inches; curb weight 1820 pounds.

T.360 GRAND PRIX

Type: Formula I monoposto
Engine: twelve-cylinder horizontally-opposed water cooled, 56x51 mm, 1492 cc, theoretical horsepower 450 @ 10,000 rpm, maximum achieved 280 hp @ 8000 rpm; two valves per cylinder at 90°; double overhead camshafts; split aluminum crankcase; wet cylinder liners; detachable aluminum cylinder heads; Hirth-type built-up crankshaft running in seven main roller bearings, roller bearing rod bearings; two single-stage vane-type centric superchargers; ignition by magneto and one spark plug per cylinder.
Clutch: multi-plate (7½-inch) racing type.
Transmission: five-speed transaxle.
Four wheel drive: drive for the rear wheels taken through the clutch to the transaxle main shaft which powered the ZF differential at the rear; drive to the front carried by a shaft into a gear case at the front of the car engaged or disengaged by a dog clutch operated by a lever on the steering column. At both front and rear, power was transmitted to the wheels by articulated shafts from inboard constant velocity joints.
Chassis frame: fully triangulated space frame of gas-welded small-diameter chrome-molybdenum steel tubing.
Front suspension: Porsche-type trailing arms acting on transverse torsion bars.
Rear suspension: independent by a system of radius arms across the rear and from the hubs forward to the frame, utilizing torsion bars and hydraulic dampers.
Brakes: hydraulic with two master cylinders and four leading shoes operating in each fourteen-inch drum.
Wheels: seventeen-inch Borrani knock-off carrying 5.50x17 Pirelli tires with provision for alternate sizes at the rear—6.00x18 or 7.00x19.
Dimensions: wheelbase 8 feet 6½ inches; track, front 4 feet 3 inches, rear 4 feet 2 inches; curb weight 1320 pounds.