

PERFECT REPLICA of the 1962 Indianapolis 500 winner is only 12 in. long, 5.625 in. high to top of roll bar.

# CLASSIC IN MINIATURE

## The Perfectionist's Model is Perfection, Indeed

BY WAYNE THOMS

THERE ARE only a few people in the world with the patience to scratch-build a precise scale replica of an automobile. And, of those artist-craftsmen, there are fewer still with the skill to produce a model so outstanding that photos of the model can be confused with pictures of the actual car.

One of these men is Don Oreck, who is, by his own admission, "a perfectionist." If we call true perfection an impossible goal, we must say that his latest creation, a copy of the A. J. Watson-built Indianapolis roadster that Rodger Ward drove to victory in 1962, comes as close to perfection as any such effort can.

One doesn't achieve. Oreck's level of reproduction by hurrying through the job. A Los Angeles store equipment manufacturer who uses his spare time to build small cars, he started the Indianapolis model in September 1962 and finished it in June 1965, after some 3000 hours (his estimate) of labor.

In fact, by the time he completed the car it had become obsolete, replaced by the rear-engined types.

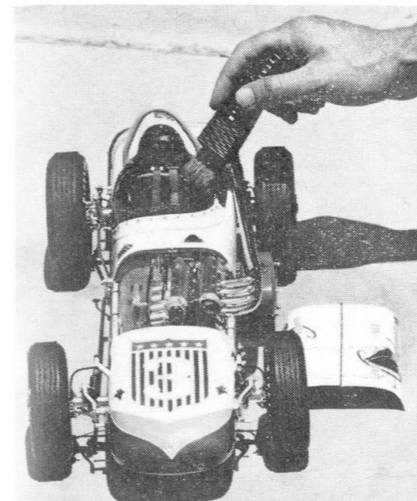
As models go, this one is not especially small. It's in 1/8 scale (1.5 in. to 1 ft.) which fixes its dimensions at: Wheelbase, 12 in.; overall length, 21.75 in.; width, 4.125 in.; height (to top of roll bar), 5.625 in.; front and rear tread, 6.344 in. and 6.25 in.; and wheel diameters front and rear, 3.625 in. and 4.188 in.

His scale choice is the subject of controversy among scratch-builders, many of whom maintain that working to smaller sizes, say 1/10 to 1/25, is more demanding. Oreck disagrees, saying that building to a larger scale requires the use of many more parts, all of which must be authentic on the outside and inside of the car. The smaller the car the more that may be overlooked without drawing criticism. Conversely, the larger the model the more details that must be complete, even in areas not readily seen. All internal parts must be sized correctly, which means that items such as body shells

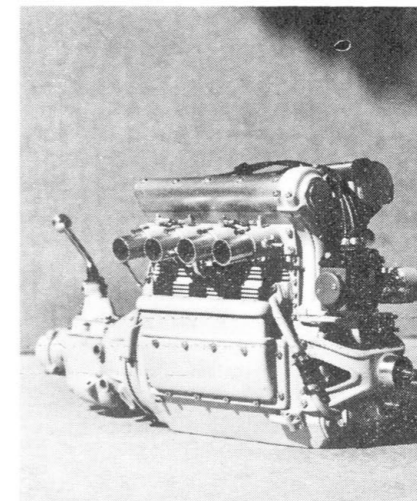
must be held to super-accurate scale to permit assembly. In other words, the model maker must work structurally throughout, considering internal support almost as did the original builder.

Oreck started his project by taking dozens of black and white and color detail photos of the actual automobile, then measuring every possible dimension. From this he prepared a set of working drawings. And, because the Meyer-Drake Offenhauser engine was to be a vital part of the car, he obtained a set of engine blueprints so that he could include every visible engine detail.

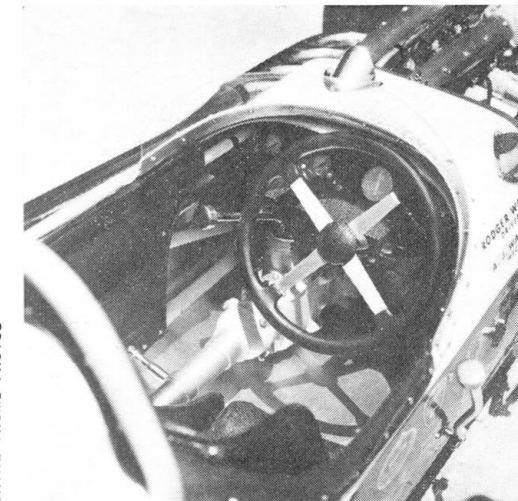
Then it was off to his workbench shop complete with a full assortment of precision handtools and a miniature lathe. Because Watson built the original car's nose and tail from fiberglass, Oreck decided to stay with the original materials. Before he finished solving the problem of contouring the body to scale, he had manufactured several parts around his wood frame. There was, he said, very little left of



HAND OF builder wielding brush gives scale to the finely detailed model.



OFFY ENGINE was created from original blueprints to give it its proper scale.



COCKPIT DETAIL is complete to instruments and pedals. Steering wheel has wood rim.

the original mat and resin shell. To produce correct fit, he ground material away from the inside, added to the outside, which resulted in a body that is remarkably uniform throughout. The rest of the body panels were shaped from aluminum.

The frame, a geometric forest of tubing, body hangers and attaching points, was assembled from solid brass rod stock, the sizes selected to match appropriate scale size, and silver soldered together. Oreck prefers rod stock to tubing when bends are required; tubing has a nasty tendency to kink.

His copies of the Halibrand magnesium wheels are masterpieces; considering the work that went into them, they should be. He used a casting technique known as "lost wax" and it required him to: 1) Turn out a wheel in plexiglass (jeweler's wax would have been equally suitable); 2) make from this an accurate plaster mold; and 3) cast a set of perfect wax wheels. The wax wheels were taken to the Dick Ells Co., a Los Angeles firm that does specialty casting for sculptors and model builders. Ells completed the lost wax method by encasing the wheels in clay and pouring in molten aluminum, which vaporizes the wax.

The same casting company built and vulcanized the Firestone tires from Don's molds. He cut 3-pronged knock-

offs from bronze and . . . presto . . . an instant wheel assembly.

The diminutive engine and transmission assembly stands the closest scrutiny. Oreck isn't sure how many individual components he made, and he's not counting now, but there are plenty. His secret for fabricating the castings (after he made patterns) was the use of Devco aluminum, a putty-like substance that costs \$4 a pound, sets up in about two hours, can be machined and worked, and has the same finish quality of cast aluminum.

With a stack of completed engine parts, there remained the assembly problem, a snap if eyestrain isn't considered. To stay in scale with nuts and bolts, Oreck used common hobby sizes—1-72, 0-80 and 00-90. When they were too large, he turned to watchmaker hairspring stud screws, best described as flea-sized.

Oreck's detail work provides an insight into what separates a creative model from a good copy. His fuel-injection tubes, for example, were given a jeweler's sandblasting and then cadmium plated; the exhaust headers are brass castings, chromium plated; spark plugs, almost buried from view, were turned from aluminum, anodized and painted where necessary; and wiring is wire of the correct scale size (the wire removed, leaving the insu-

lation) carefully fitted to avoid sharp bends.

Suspension parts were machined from aluminum, with a few made of brass where solder joints were required. They were anodized to a peculiar light gold color, the same as on the original car when new.

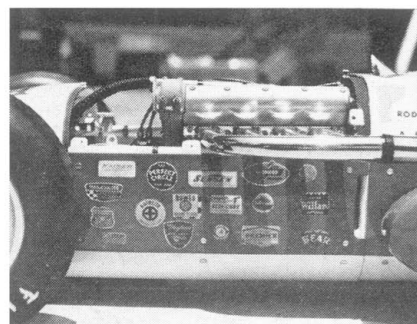
The true-to-life upholstery was simply a matter of finding extra-fine-grained leather, slicing it paper thin and backing it with foam rubber. On the dash, instruments are photos of the actual gauges printed to size and mounted under rims and glass covers.

His trade-name decals, without which no Indianapolis car would be able to run, are color photos printed to scale. He cut off the top layer of each picture, arranged them correctly and clear lacquered them in place, rubbing out several coats until they were flush with the body.

For the number shield and Mobil flying red horse emblems, Oreck had to learn a new skill—designing the emblems on a silk screen and making his own decals on blank decal material.

The car is so good that it assumes the proportions of a piece of pop art. Who knows? Don Oreck may have created a whole new field for art collectors and budding artists. And really now, aren't cars more exciting than sculptures of Campbell's soup cans? ■

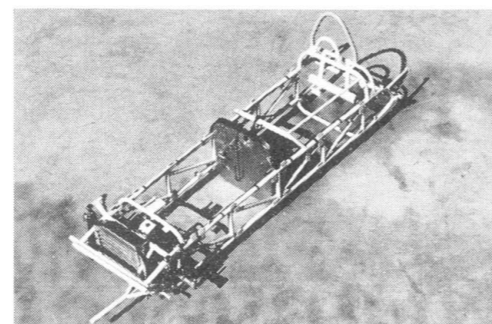
TRADE-NAME decals were photographed, printed to size, lacquered in place.



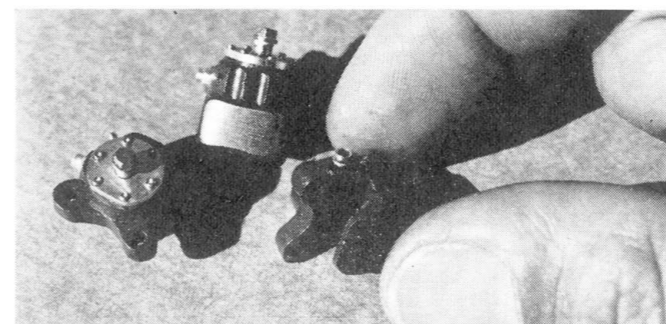
DON ORECK at work in his well-equipped miniature shop, which includes a lathe.



SPACE FRAME was built up of brass stock; here has most components in place.



FINENESS OF detail is revealed by these miniature disc brakes which were assembled from even smaller components.



REAL CAR looks just as good as the model! Rodger Ward is shown on his way to winning Indianapolis 500 in '62.

