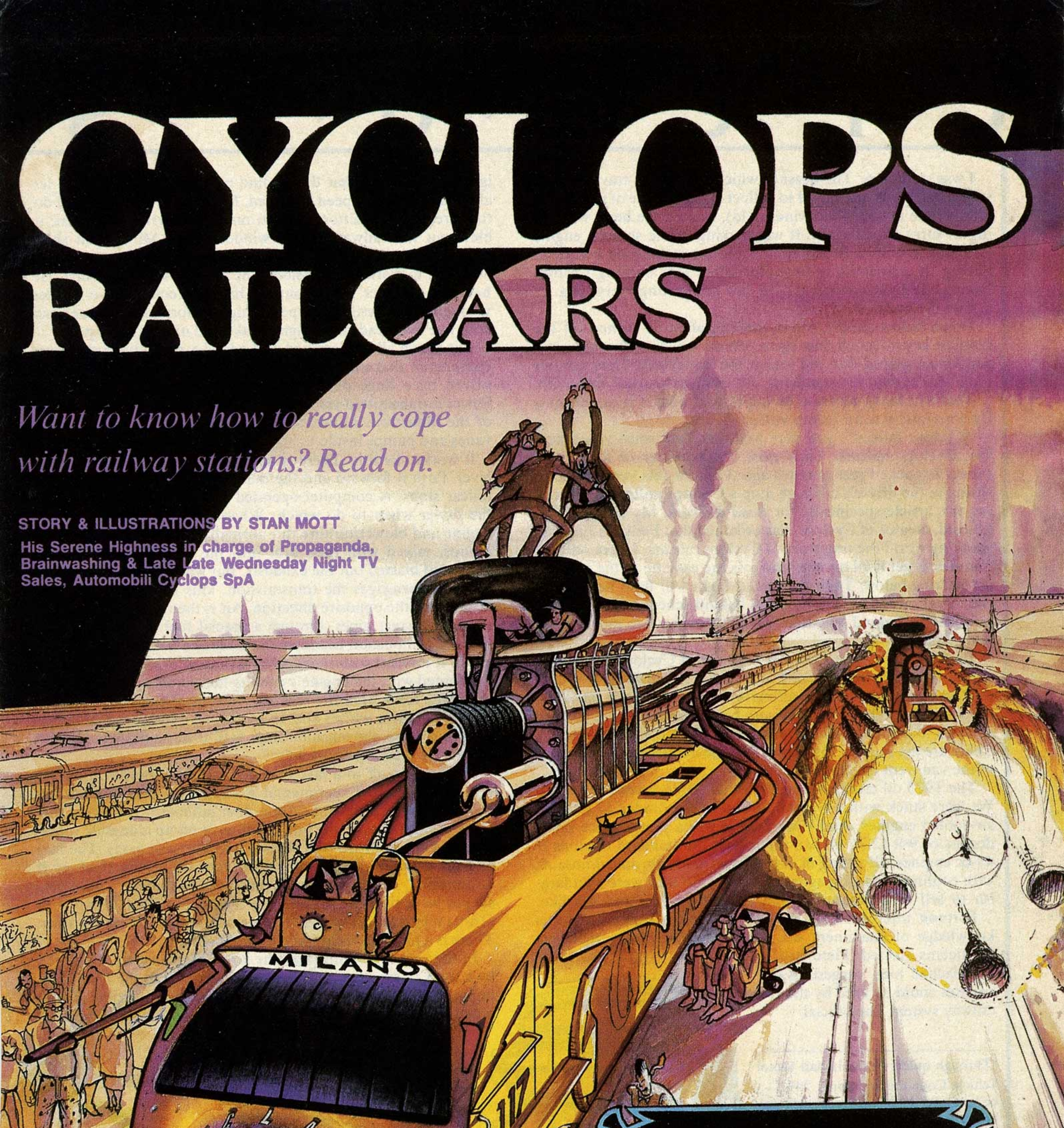
# CYCLOPS RAILCARS

*Want to know how to really cope with railway stations? Read on.*

**STORY & ILLUSTRATIONS BY STAN MOTT**

**His Serene Highness in charge of Propaganda, Brainwashing & Late Late Wednesday Night TV Sales, Automobili Cyclops SpA**




THERE I WAS, falling fast, like a stone down a long tunnel. Blazing white lines raced past me. Drops of icy water pummeled my face. I was weightless, euphoric. Suddenly, horrendous g-forces sat on my chest. I thought of the transformation scene in *2001*. Would I live? Die? Evolve? A red light flashed. I pulled a lever. There was an explosion of heat and light, and more g-forces! And then . . . ➳

STAN MOTT

# C · Y · C · L · O · P · S

I was stationary. The beast in which I had been traveling had stopped dead. While I tried to collect myself (some of which was all over the inside of the windshield), I noted the beast was trying to surge ahead again. It was making exotic sounds; engine booming low, drive belts slapping, blower sucking air, hot metal ticking. It was emitting beautiful odors too: burning Castrol, baking oil, the sweetness of road dust permeating everything.

I set the brakes hard.

Down below people where dashing about. I turned off the ignition key. A hatch flew open behind me. Five distinguished gentlemen leaped out and scaled the machinery. They got out tools and started an argument. All systems seemed to be Go.

That is a fairly accurate description of how it is to deliver a Cyclops railcar to an Italian village.

"Cyclops railcar?" you may well ask. And since you asked, yes, Cyclops railcars. They exist. As a matter of fact, these events happened just minutes ago. I am, at this very moment, sitting in the driver's cab high atop a Cyclops railcar and dictating this article specifically for *Road & Track*. My leader, Piero Martini, creator of Cyclops, has ordained that I tell the English-speaking world the true story of Cyclops railcars. I have only 27 minutes to get it all on tape and toss the cassette to the messenger waiting below. Then the Green Light will flash here in the cab. That means we are properly behind schedule, or, in Italy, on schedule behind schedule. We will then have to move out of here—fast.

The story of Cyclops railcars began with Cyclops' incredible win at the 1967 Indianapolis 500 (R&T, July 1967). Not only did Cyclops IIs become the ultimate model for all Indy race cars, but also the Cyclops *Tagliafalciata* racing *van* became a favorite with, as Martini colorfully calls them, "The Gasoline Alleys." These are the Indy racing teams. Soon thereafter export versions of the van went into full production.

The 1973 oil crunch stopped all that. Orders were cancelled. We were stuck with a warehouse full of 1-cylinder 17,049-cc* air-cooled engines. And I must say it was a pretty weird sight; dozens of 9-ft (2.76-m) tall replicas of the standard Cyclops II 49-cc engines, all sitting in rows like so many chrome dinosaurs with cooling fins and spaghetti exhausts. So they were a bit largish to sell off to manufacturers of Winnebagos and the like.

Fortune interceded by way of an Italian bureaucrat. His knowledge of machinery was limited to the variety that gets politicians elected. Piero had approached him, suggesting the engines could be used by the Italian railway system. The official ignorantly offered that they would not even *move* a railcar, let alone drive one at speed. Enraged, Martini declared, "I shall do the Great Master Ettore Bugatti one better! His first railcar, it blew out the railway station windowpanes. Mine, hah! shall blow away the *station!!!*"

He set to work with passion. The engines were done first. He had the cylinder bored out so big you could drive Sprites through it. He designed a special high performance engine head with five overhead cams, eight intake and nine exhaust ports.

But above all he designed and added a revolutionary blower compressor that tripled as an *exhaust turbine* and *air brake*. It is driven by a huge pulley forward of the engine's crankshaft. Power is transmitted via 10 large belts to another pulley forward of the monstrous blower/turbine. This turns a series of secret vanes and pumps inside.

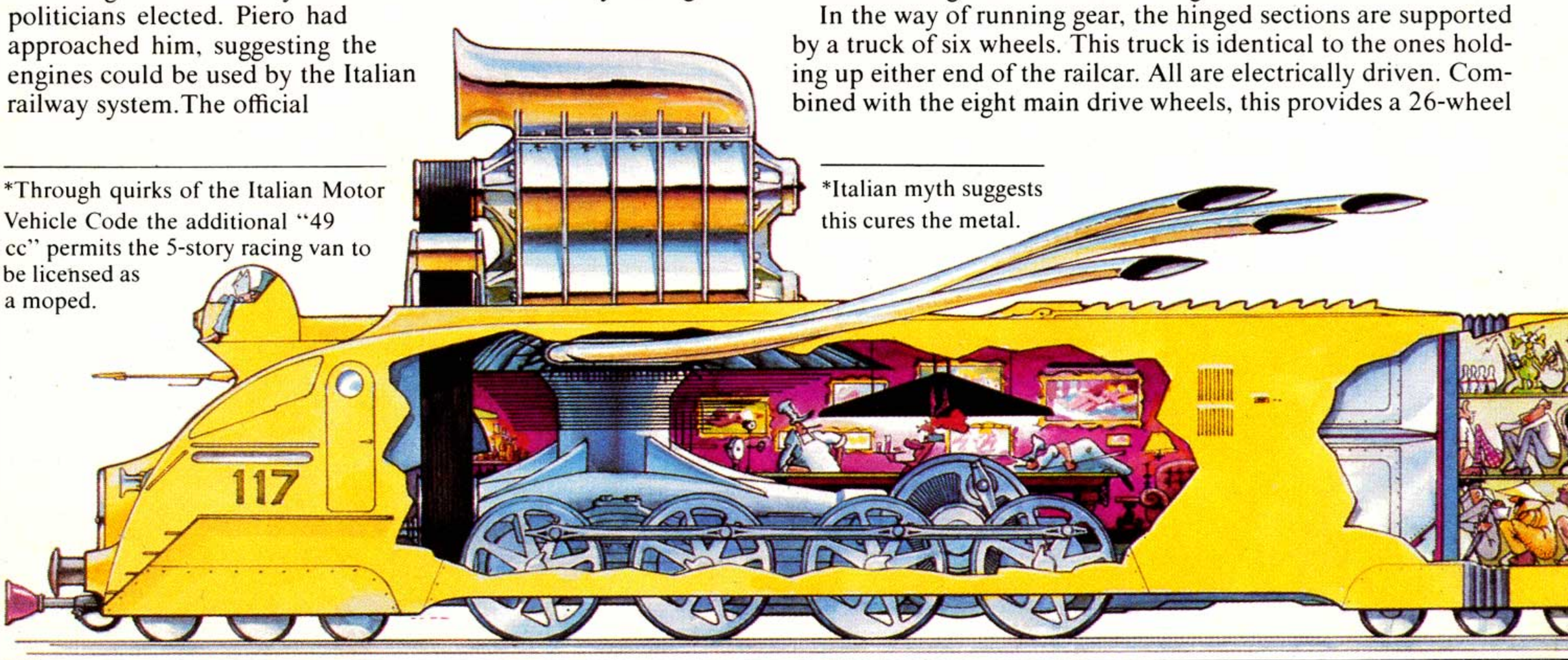
It works like this: There is one control in the driver's cab, a lever. Push it forward and the railcar goes. Pull it back and the railcar stops. A computer-operated Green and Red Light tells the driver when to do which. When the lever is forward, the engine and blower/turbine run normally; air is sucked in by the pumps, mixed with fuel, sent into the combustion chamber, fired, and blasted out the exhausts. But when the lever is pulled back, it disengages the transmission, kills the engine—only to restart it in the opposite direction. Air is then sucked in through red-hot exhaust pipes, through a special fuel injection system, into the combustion chamber, fired, blasted into the turbine and out of it forward with the force of a Pratt & Whitney jet engine. Combined with the engine's cooling fans—now sucking air in at hurricane force from the rear and blasting it out front—and the eight main drive wheels and 18 auxiliaries all engaged and spinning in reverse, the machine stops fast. It starts fast too. Zero to 60 in 2.01 seconds, either way.

Martini got off to a fast start designing the railcar body. He had his CinZano Experimental Racing Sign Design team develop an exotic ultralight carbon-fiber billboard. Following true Cyclopsian tradition, the billboards were set up alongside roads, ripped down at night* and shaped into the basic body. The fore and aft ends are simply blown-up versions of the Cyclops II automobile, headlight and windshield included. These two shapes were simply connected by a 52.5-m (170-ft) long, 5-m (16-ft) high and 3.1-m (10-ft) wide box section of carbon fiber. There is a hinge in the middle for tight corners.

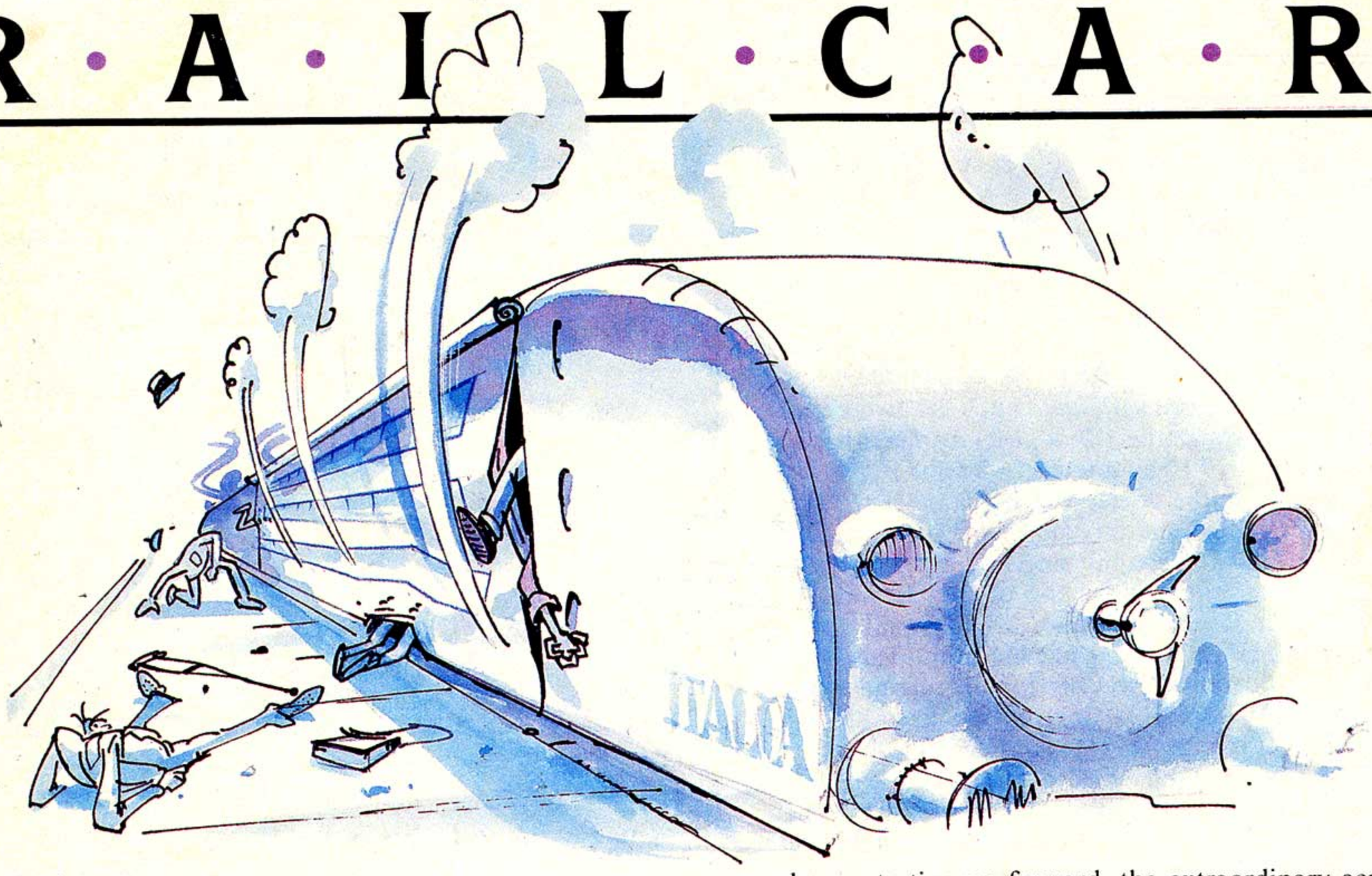
In the way of running gear, the hinged sections are supported by a truck of six wheels. This truck is identical to the ones holding up either end of the railcar. All are electrically driven. Combined with the eight main drive wheels, this provides a 26-wheel

*Through quirks of the Italian Motor Vehicle Code the additional "49 cc" permits the 5-story racing van to be licensed as a moped.

*Italian myth suggests this cures the metal.



# R·A·I·L·C·A·R·S




drive/brake system.

The suspension throughout looks on first sight like a large version of the standard Cyclops Rainbow Arch™, the same as found on the Cyclops II automobile. Not so. A closer look reveals a second, 50-percent smaller Rainbow Arch™ spring inverted and fixed centrally atop the middle of the three axles. It rides on little wheels at either end that roll on the undersides of the main spring. The axle of the small spring rides up and down in a vertical slot to fix fore and aft movement.

This simple yet ingenious suspension system provides an extraordinarily safe and smooth ride for any 6-, 12-, 18- and so on wheeled vehicle. It transfers forward and lateral movement of one wheel to the others, which act as dampers. For example: As the front wheel hits a bump or hole it raises or lowers the frontal arch of the main spring. This in turn transfers more or less pressure to the front or rear ride wheels of the small spring. This then transfers a minute bit of action or reaction to the middle spring wheel. This subtle transference of action and reaction here and there combined with the counter effect of the opposite wheel provide a wonderfully smooth and safe ride.

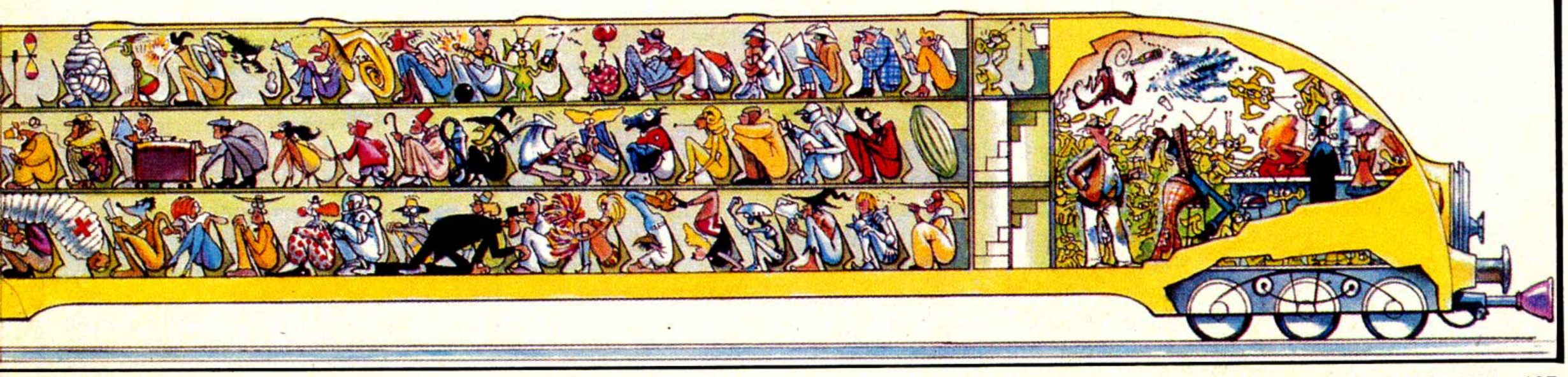
It also has excellent "rail holding" qualities. This permits the railcar to corner as if it were on "asphalt highways."

In way of features, details and other space-filling devices, we have, starting up forward, the extraordinary aerodynamic suction hitch, or *Stagnaio's Auitante*. When two Cyclops railcars come together for hitching, the two *Stagnaio's Auitantes* gently close together forming a suction, assisted by two powerful vacuum systems. This secures them together very much like, well, visualize two giant Plumber's Helpers kissing passionately after having been separated for a *long* time, and you got it. The advantages of this new hitch in way of esthetics, security and shock absorbing characteristics are obvious.

But the hitch has another function: It is an aerodynamic aid. When a singular *Stagnaio's Auitante* is exposed forward to winds at high speed, the open rubber end expands until a designed stretch point is reached.

Thereafter, a strange aerodynamic phenomenon occurs. The trapped air inside compresses until it actually builds up an "invisible air cone." Any aerodynamic specialist who has tested concave nose cones at speeds of Mach 1 and over will tell you the same thing.

Anyway, the front and rear ends of the railcar, having basically the shapes of the Cyclops II, cannot be aerodynamically improved upon. Therefore, the purpose of the *Stagnaio's Auitante* is to aerodynamically sheath air *into* the railcar's engine air intake, which is the vaned Cyclops "windshield." Yes, I ➟



# C·Y·C·L·O·P·S RAILCARS

know, it doesn't at all seem likely just *looking* at the thing. But that is how it works. And I have seen the data. Any loose air meandering over that bounces off the driver's cab and is devoured by the blower/turbine.

On either side of the *Stagnaio's Aiutante* hitch are two enormous round bumpers. The gigantic 1.2-m (4-ft) diameter headlight has an effective range of 10 kilometers (6.2 miles).

Behind the air intake are the ducted cooling fans for the engine. They are also driven off the forward end of the engine's crankshaft. They pump air past the engine's cooling fins, through the engine room and out the top of the aft end. Of course, when the engine is run in reverse, the fans pull air in through the rear openings and blast it out the front. This does tend to make things occasionally breezy for the engine-room occupants. But for good reason: Martini wants to keep his top company executives on their toes.

Executives? Engine room? Well, there *is* definitely an engine, along with a rather massive transmission and electric motor, in the room. Otherwise it is a luxurious executive lounge complete with pool table, red satin-covered walls, fine art paintings, tasteful lighting, leather lounge chairs, lavish bar, deep pile rug, library, videoscreens, stock market teletype and other amenities. Ex-Crazy Horse Parisian showgirls add to the atmosphere by struttin' their stuff and serving drinks and tidbits.

This is where we Cyclops top executives repose when we are not up top in the driver's cab playing choo choo. The whole thing is Martini's idea to prevent us from aging and "burning out" by providing a scientific combination of luxury and repose with sparseness and action. Playing pool in 4-g acceleration in hurricane force winds *will* keep you on your toes. But that is Piero's way, and it seems to work. My longtime friend and fellow Cyclops executive, Trebor Crunchcog, spent three weeks in the cab. Shortly thereafter he married a French beauty queen and now herds longhorns in Texas and heads up the Cyclops Satellite Division Co at Houston.

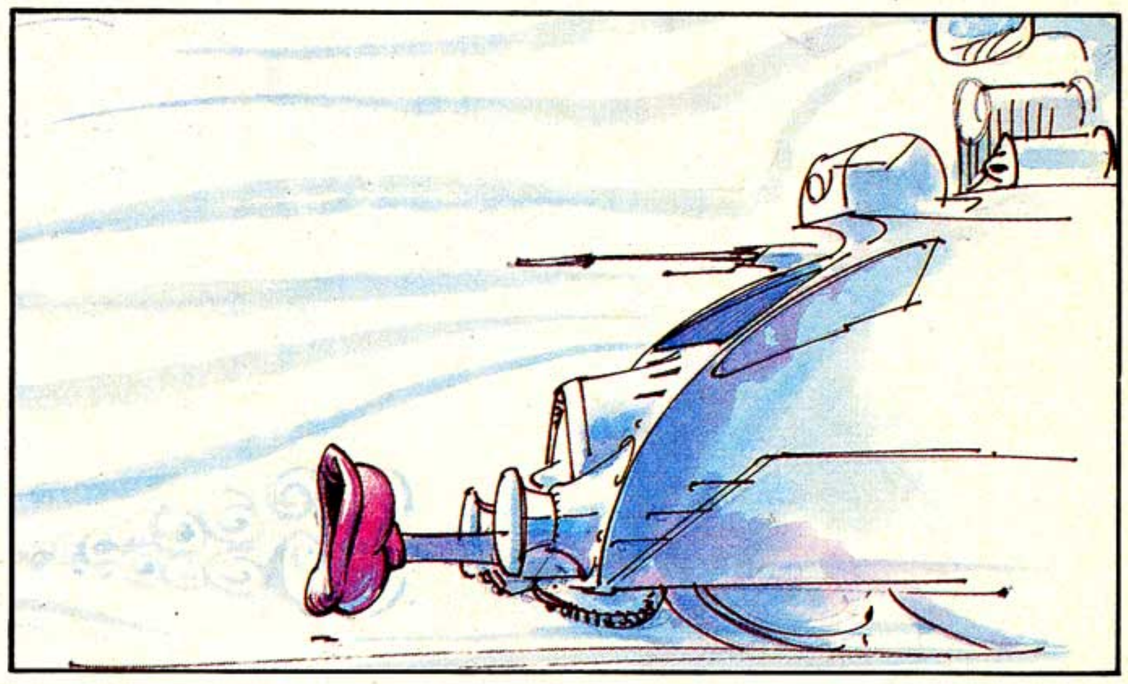
Behind the executive engine room are the fuel tanks, firewall and body hinge. Further aft is the passenger compartment.

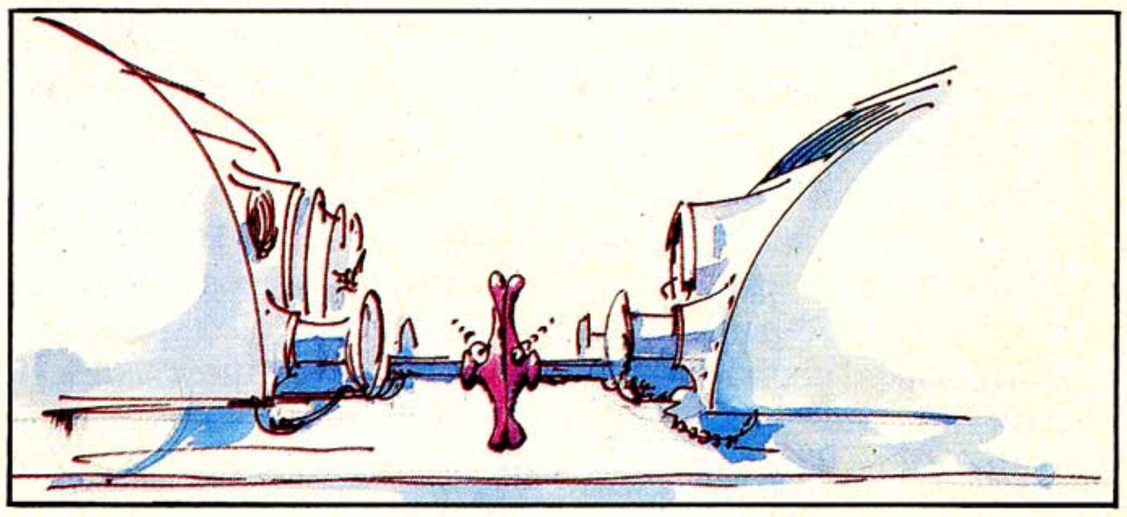
In it Our Leader was able to comfortably fit 360 passengers in the same space as would fit 60 in a normal railcar. This was done simply by installing 360 seats out of Cyclops IIs, on three levels, thus providing the passengers with the same luxurious head and knee room as found in these practical automobiles. (The fetal position, incidentally, is also one of the world's safest as countless billions of former fetuses will readily tell you.) As can be seen in the diagram on this page, the seating arrangements can accommodate an extremely wide variety of beings from all walks of life.

Entry/exit to the passenger compartment is simplicity itself. The walls are spring-loaded and whip up and down like old window shades when released. This allows every passenger a fair chance at grabbing the best seat first and of being the first off the railcar. This entry and exit system has proven to be extremely popular throughout Italy.

Further aft and behind a partition are six Cyclopsian conveniences in a row. Nearby are two spiral staircases leading down to a spacious bar wherein travelers may partake of beverages.

Behind everything and outside are two large round taillights, two bumpers and a *Stagnaio's Auitante*. Centered artistically in all this are two sporty 2.4-m (7-ft 8-in.) main drive wheels with knockoffs. These serve to hold the back of the railcar down.





Upon completion of the prototype Cyclops railcar, it was taken out to the Cyclops Proving Grounds in Milfordino, Italy. Martini had railway tracks laid the full distance around the high speed track and speed loop. Close alongside one particularly long straightaway an ornate Stalinesque railway station was built. He invited the bureaucrat who made the remark about the Cyclops *Tagliafalciata* engine to have some refreshments with his toadies inside during the test run. Martini himself drove the railcar. He almost melted the wheels taking off.

I am not at liberty to say *how* fast the railcar was moving when it vaporized the station. But suffice it to say more rational bureaucrats approved the machine for production and service—providing none would be driven past railway stations faster than 89 km/h (55 mph). Martini agreed, unless, of course, they were behind schedule. As a result, no Cyclops railcar has ever been run on schedule.

Including the one in which I am now sitting dictating this story. Hmmm. Down below, the usual mob of angry passengers has formed on the railway platform. They are pointing at their watches, and shouting and shaking their fists at me. A lad has just thrown a *gelati*. It hit the cab. I guess I had better wrap this up. I just signaled to the execs up top pretending to be diddling with the blower/turbine to come on down. They are inside the hatch now. As soon as . . .

YOW! There goes the green light!

The mob has run for the passenger compartment. They know the signs. There go the doors. Sure hope everybody got inside. I am hitting the throttle—now! The engine is building revs. Hey, fellow! Catch this cassette recorder. Copy from "There I was, falling faaaaaaaaaaasssssssssssst . . . . . "