

Joe Scalzo's

City of Speed and elsewhere

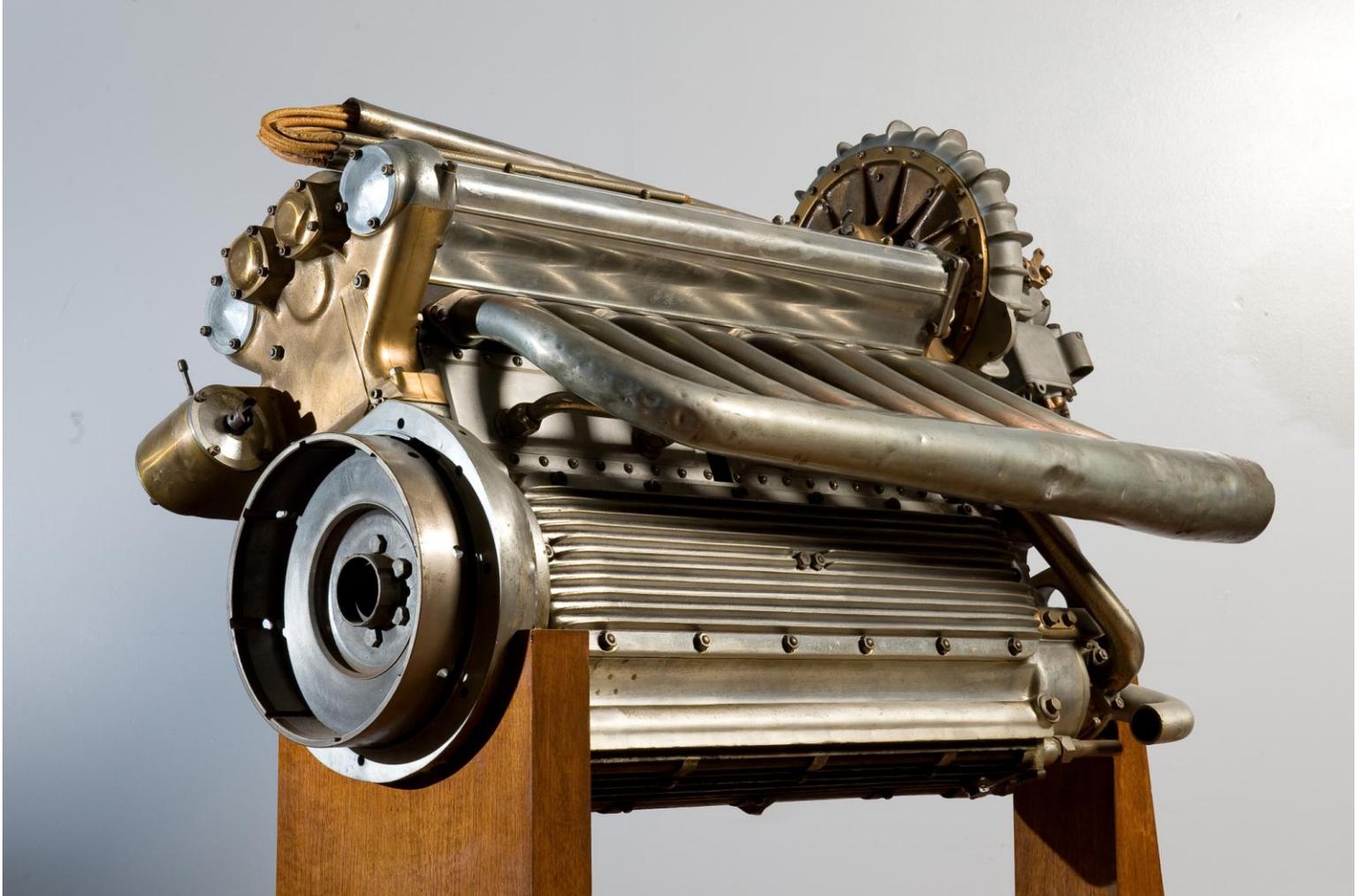
ZOOM

Better than anybody else, Russ Catlin wrote up the great Indy 500s of half a century ago. And on 1955's cold, cloudy, Memorial Day, sitting in the open press gallery five stories above the Speedway, Catlin was bracing himself, and getting ready to listen to all the Kurtis-Kraft, Kuzma, Lesovsky, and Watson roadsters, when the Brickyard's only engine was the mighty Meyer-Drake Offenhauser: "Closing our eyes we waited for the indescribable sound we've heard for so many years. A frightening sound not unlike a thousand freight trains rushing through a tunnel and ending with a crescendo like the tearing of thousand bed sheets. It was the full field of 33 pouring it on down the back straight, and then came the muted half murmur as the leaders hit the short straight. Time to open our eyes and watch them turn into the stretch. And then they came, McGrath, Bettenhausen, Vukovich - Zoom, zoom, zoom!"

Zoom! for the Meyer-Drake Offenhauser, yes, except that that wasn't the 500-pound, barrel-type crankcase, four-cylinder. 170 mph engine's real name at all; Miller was. Also that Harry Arminius Miller, Indy's fabulous genius-loser, viewed the engine with indifference. Even though it was the most famous and successful of all Millers – perhaps of any racing engine, ever – the Meyer-Drake Offy, was, to Miller's recklessly innovative mind, his most banal invention. Surely this was the reason why Miller, in the 1920s, didn't object publicly when Fred Offenhauser, his overworked and underpaid shop foreman, purchased it and put his own name on it. Then, in the 1940s, another new name –its third – was required when the Meyer-Drake consortium bought out Offenhauser. Much later still, in the 1970s, when, finally, it was on its last legs, it became the Drake.

Sound is vital to racing; Miller and Meyer-Drake Offenhauser sounds are among history's richest. They were the sounds all of us at the 1993 Monterey California Historical Automobile Races, were hoping to hear; and hear them we did, yet we were disappointed. None of the Millers made much sound. Monterey's Laguna Seca Raceway, after all, wasn't Atlantic City where, close to a century ago, Frank Lockhart's Miller lapped the boards at 148 mph; or the concrete Packard Proving Grounds where, the following year, Leon Duray almost topped 150; or the Goodyear Tire and Rubber testing track in Texas, where, in 1963, A.J. Foyt's Watson-Trevis roadster topped 200 mph.

The problem was that Laguna Seca lacked long straightaways to bring Miller revs to a boil, or to force Miller superchargers to break out into screams. And every Miller at Laguna had an impractical, oval track- style, gearbox. It was the same flaw that crippled the Packard Cable Special during Duray's European invasion in the 1929 summer. Among the most distinguished of all Harry Miller's racing cars, afterward it disappeared into Ettore Bugatti's factory in extreme northern France, at Molsheim. Almost 40 years later, the Packard Cable Special at last re-appeared at the Smithsonian's National Museum of American History, where



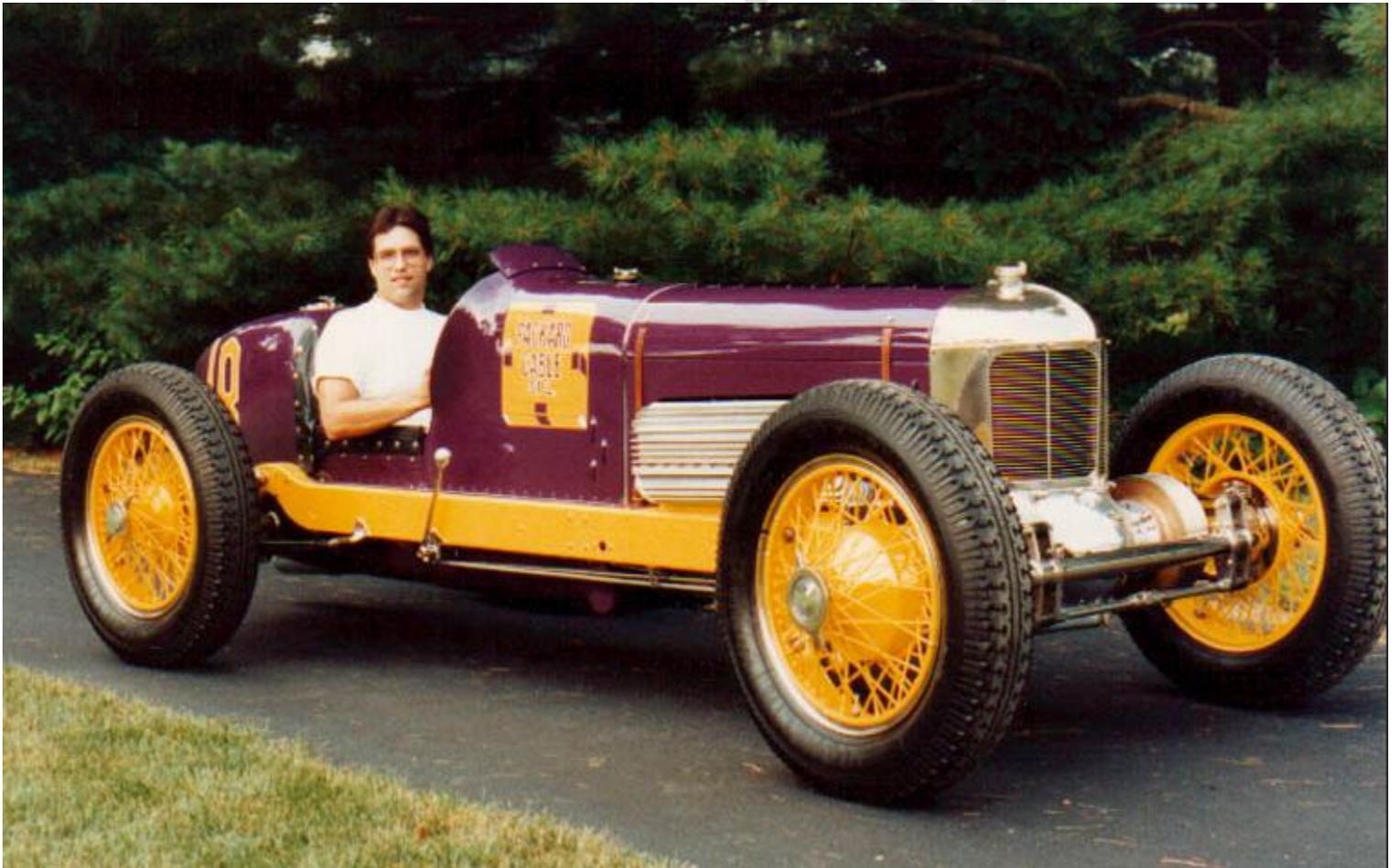
t was much-appreciated – far too late for Harry Miller.

For its revival at the Monterey Historics, the Packard Cable Special failed all over again. First the magneto refused to spark; and then, while under tow, its fragile gearbox again broke, presumably for the last time

Nobody can say how many full racing cars Miller manufactured during his creative spurt of 1921 through 1933; maybe half a hundred, perhaps as many as 60. Millers and their great rivals, the Duesenbergs, were weapons of choice when the American Automobile Association

sanctioned the dream circuit of U.S. racing, the one where Lockhart, Duray, Tommy Milton, and Joe Boyer, among many others, sped to glory or met violent death on the red bricks of Indy and the banked and looming board velodromes of Altoona, Atlantic City, Fresno, Beverly Hills, and all the rest of those shrines of timber.

Monterey's Pacific countryside was looking at its best, and so were all the Millers. Artifacts sustaining the soul of racing's Roaring Twenties society, they were on view for four full days, which was ample time to drink all of them in, to get drunk on the trademarks of Millerphilia: the exquisite steering systems, the lordly and finned front-wheel-drives, the beautifully-tapered springs, the fine tails, firewalls, and the flyweight hubs of hand-formed aluminum, the complicated supercharging, the simmering coats of lacquer. Gorgeous projectiles, all of them, and racing cars of such extremes only could have come to flower in the Roaring Twenties. No other decade was as wide-open, excessive, no-limit, and so full of extravagant spending and expense. All Millers are beautiful. But somebody had to pay for their beauty, and it was the community of racing: Harry Miller led the sport down a costly, ultimately ruinous road, because the Roaring Twenties ended in the Great Depression.



Similarly, championship racing in the Roaring Twenties was young, and Indy and the rest of the Speedways still hadn't experienced the hellish havoc sowed by unrestricted spending. The "Golden Age", as Millerites still describe the Roaring Twenties, led to the lean Depression Thirties, which brought on that mean decade's agonizing "Junkyard Formula."

Harry Miller clearly was mad - mad in the racing sense. Mad enough to expose himself to racing drivers, the destroyers of racing cars; mad enough to be at the mercy of the American Automobile Association, which drafted the restrictive rules emasculating his works of genius. And certainly it was madness for Miller to choose only the finest, most costly materials in racing cars almost guaranteed to some day be wrecked. Miller, in fact, surely missed the big point about racing: the primary thing isn't perfect technique or beautiful equipment, but winning. Yet Miller is celebrated exactly for being so compulsive - overpoweringly compulsive. Anybody worth his salt is obsessed with something, and Miller's successes were as huge as his failures. It was his good fortune to have disciples so devoted they were prepared to die for him, and, in the financial sense, die the best of them did.

A large-boned gentleman with a stocky Germanic name - Mueller was the ancestral surname - Harry Miller had nervous eyes, a fixed smile, and a thin mustache in the style of a popular band leader. He always dressed to kill in expensive gray suits with a flower in the button hole, and wore a neck tie even while at home. He was as elegant as his racing cars. Obsession and elegance, unfortunately, does not always make life easier. Harry Miller died broke and forgotten.



In his peak seasons, Miller operated out of Southern California. Los Angeles, during the Roaring Twenties, was held to be either 1) paradise for many of the world's most out-of-step, and fascinating, creatures, or, less charitably, 2) home to more "sanctified cranks" than any comparable U.S. city. Miller's Indy 500 racing car salon was one of two. The second was run by the Duesenbergs, Fred and Augie, who worked out of sleepy Indianapolis. And in all the annals of the Brickyard, Millers and Duesenbergs fought one of the fiercest feuds, and it ended almost in a draw, three wins to four, in favor of Miller.

Miller and the pair of Duesenbergs were much alike, meaning that when it came to brilliant ideas they were blessed, but when it came to funding those brilliant ideas they struggled and rarely succeeded. Miller's angels included Eddie Hearne, Cliff Durant, Mike ("Umbrella Mike") Boyle, and Peter Kreis. Hearn enjoyed the limitless income of a Hearne family gold mine; Durant was the sibling of the buccaneer off Wall Street who founded

General Motors; Boyle was the slippery shark of a union boss; and Kreis had so much money he never told anybody where it all came from.

The Duesenbergs, too, had savior, dashing Joe Boyer, and he was the best in the world - while he lived. The millionaire breakneck of the Burroughs Adding Machine clan, Boyer first penetrated the Indy 500 the year he paid \$27,000 to the Chevrolet twins to join their team. But Fred and Augie Duesenberg subsequently lured Boyer away and trained him to be their attack stalker, the driver they could turn to when all seemed lost. This happened in the 500 of 1924. Every enemy Miller was dead, and, save for the one being raced ploddingly by Duesenberg's third-stringer Slim Corrum, victory was going to the Studebaker of Earl Cooper. So Fred and Augie replaced Corrum with Boyer and set Boyer on Cooper. Boyer's Dusie devoured Cooper's Stude and won what was the fastest 500 ever. But just a little while later, pushing the throttle hard as ever, on one of the east coast's big board theatre's, Boyer crashed and was killed

Miller, even during his lifetime, was ridiculed roundly as a terrible businessman; and, exactly like the Duesenbergs, his counterpart artists-without-portfolios, his business schooling ended in the elementary grades. He was born in western Wisconsin, in the hamlet on Menomonie, where a lot of immigrating Germans ended up, including Miller's father. The old man brought strange tales from the homeland of a mixed life as a failed priest, a painter, and a linguist; in Menomonie, however, he married a simple Canadian woman, and settled down.

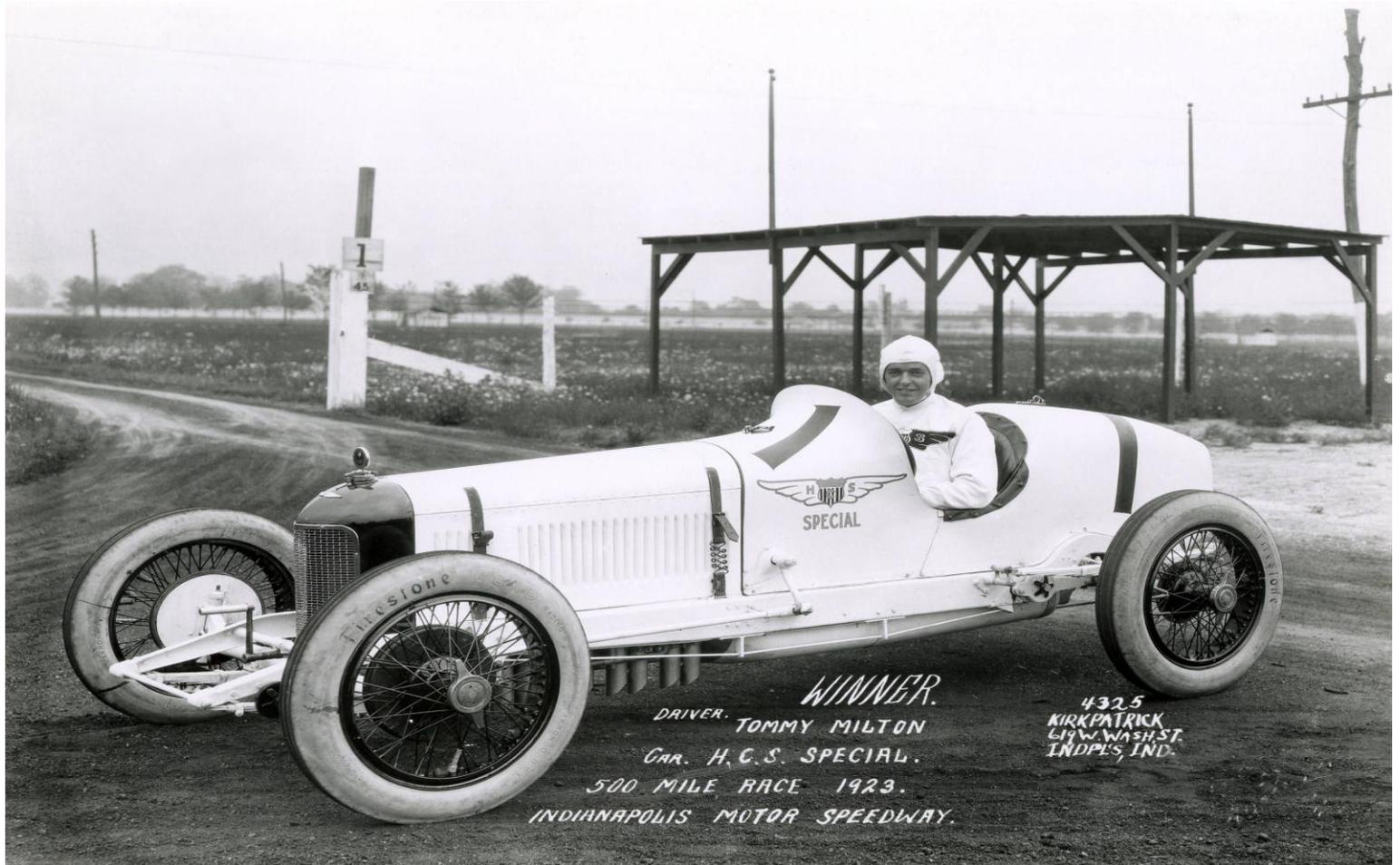
But young Harry was too restless to settle down and, while still very young, ran away from home : following several wandering treks back and forth across the continent, he got in on the birth of the 20th Century, the beginning of the automobile industry, the invention of car-racing, and the establishing of Henry Ford, whose No. 999 was one of the first racing cars, and Barney Oldfield, who probably was racing's earliest folk hero. Miller knew both of them, and even constructed Oldfield's innovative streamliner, the Golden Submarine. But his attempted collaboration with the Duesenbergs on an airplane became a great folly.

By 1920, Miller was running his own house of carburetion but, more importantly, was just starting to collect early racing's great minds. Among the brainiest yet most difficult of all Miller's early allies was Tommy Milton. More skeptical of Miller than anyone else. Milton, In one of his many cutting statements, claimed that Harry Miller "could not construct a mouse trap without someone's help." What help Miller had was choice. Included were Fred Offenhauser, dutiful shop foreman, later to be the Miller shop's hero and savior; Ed Winfield, dynamic mastermind of camshaft design, who used to duel the formulae of Einstein; Emil Deidt, grumpy but brilliant aluminum bender and shaper; Leo Goossen, painfully shy and perilously fragile recovering TB patient who was the Indy 500's most creative draftsman.

And Tommy Milton. Long before ever meeting Miller, Milton earned his bones as a great racing driver on the dirt tracks; on Elgin's lethal highways; had set the Land Speed Record; won Indy's 500; and accomplished all this despite having vision only in one eye. But, like many partial invalids, Milton compensated by exercising a frightening will, and, along with everything else, mastered engineering, chemistry, and the English language, which he used for a weapon. A bearer of monumental and unending grudges, his most powerful one was against the Duesenbergs and Jimmy Murphy, the French Grand Prix-winning luminary, later killed, who had been Milton's protégé, who Milton complained had double-crossed him.

So Milton had turned the tables on the Duesenbergs and Murphy by going over to Harry Miller, whom he commissioned to construct and put his name on the truly terrific Indy 500 engine which became the prototype all future Millers: eight little cylinders packed in neat row; technology pilfered off Peugeot, Ballot, the hottest French marques, and even Duesenberg; funding courtesy of Ford and Durant; salesmanship delivered by Oldfield.

A quartet of Millers showed up for Indy's 1923 500, and, to Tommy Milton's fury, a member of the four was Jimmy Murphy's. It qualified quickest, dominated for 380 of Indy's 500 miles, and won the sweepstakes by five miles. Milton's own house Miller came apart and couldn't finish at all. Milton, however, soon managed to win another 500, to go with his first one, but the victory didn't mollify him: for years and years afterward he continued groaning about how fate had turned on him - and how his own engine had rewarded Murphy, his bitterest foe.



Following the Murphy and Milton victories, racing teams in the Indy 500 couldn't get enough of the new Millers - everybody seemed to be purchasing one - and, suddenly, the old Speedway had a new trademark sound that was to echo and reverberate throughout most of the century. This great irony was not lost on embittered Tommy Milton, who, to the end of his successful but unhappy life was resentfully proclaiming "I am the man who made Harry Miller!" Miller, of course, never accepted, or endorsed Milton's opinions. In any case, Milton was wrong.

It was the city of Los Angeles which made Harry Miller and all his Miller racing cars.

Roaring Twenties L.A. was the great watering hole for the afore-mentioned radical enlightened. Prophets worked alongside chiropractors, palm readers freely exchanged views with nudists, and the village was overflowing with food faddists, fakirs, swamis, and faith healers. A lot of them were pretty good. Miller, having earlier concluded he was clairvoyant, and in touch with the spirit world ("I don't build racing cars on my own," he was quoted. "Somebody is telling me what to do.") simply taped into the prevailing culture.

Additionally, he became an ornithologist, breeding ducks, chicken, and quail. A passion for the smaller quadrupeds – dogs and foxes, possum and deer – was followed by a deepening interest in the largest ones, along with a macabre sense of humor: Miller, it seemed, once had set a pair of African lions – defanged – on a saloon filled with soaks. Then he began bringing chimpanzees and wild Rhesus monkeys into the racing shop with him. A beautiful Brazilian parrot had the run of the place but, mainly, the big bird liked to sit at Leo Goosen's shoulder, silently observing the little draftsman marking up his blueprints.

Miller engines were earning lots of money, so Miller purchased an estate in Malibu, the quirky little colony of artists just across Santa Monica Canyon from Los Angeles. It quickly turned into a compound for the wild beasts of the animal kingdom and those of racing; soirees hosted by Miller for the Indy 500 crowd were famous.

By 1926, Indy's racing tide was turning against Miller, and his losses were mounting. Duesenberg, his nemesis, had gone to the huge expense of incorporating supercharging and front-wheel-drive and had, in succession, defeated all Millers in two Indy 500s. What Miller required was a savior, and, almost on cue, one arrived.

He was Frank Lockhart, who, in the manner of Milton, was a mechanical genius and brilliant racing driver. Deftly steering one of Miller's own new, front-drives, Lockhart, a rookie at the Brickyard, ran away with Indy's rain-soaked 500 of 1926, winning by two laps. Harry Miller's fortunes seemed restored, at least temporarily. But Miller soon was having difficulties with Lockhart. Riding high following his big score on Memorial Day, Lockhart embarked on a new rampage across the board bowls, torching Atlantic City at 148 mph, and, still searching for new speed worlds to conquer, decided to go after the biggest one of all, the Land Speed Record.

Lockhart, however, began hot-rodding his Miller's supercharger, an act of sacrilege which so enraged Miller that he had Lockhart thrown out of Harry A. Miller, the house of Miller. Untroubled, Lockhart continued his campaign for the LSR. Much like Miller himself, he had the gift of attracting devoted and diehard soul-mates, and followers, and next paid a visit on Duesenberg, where he made the brothers mad by carrying off two of the best Duesenberg artisans. But Lockhart still needed money, so he hit up financially-straitened Stutz Motor Company for sponsorship cash, and actually got a little.

By then it was early 1928, and the big debut of Lockhart's Stutz Blackhawk - a double-engine Miller, constructed by Duesenberg brains and bankrolled by Stutz - almost was at hand.

LSR streamliners ordinarily were as gargantuan as locomotives, but Lockhart's Stutz was tiny. It didn't matter. Whether gargantuan or tiny, streamliners in the LSR always were exploding their rubber. Lockhart's Stutz suffered a string of such explosions, with the penultimate occurring in the safety of a laboratory. But Lockhart's last, and fatal, rubber detonation occurred along the Daytona Beach surf-front, where he was exceeding 200 mph, and in the middle of defeating the LSR.



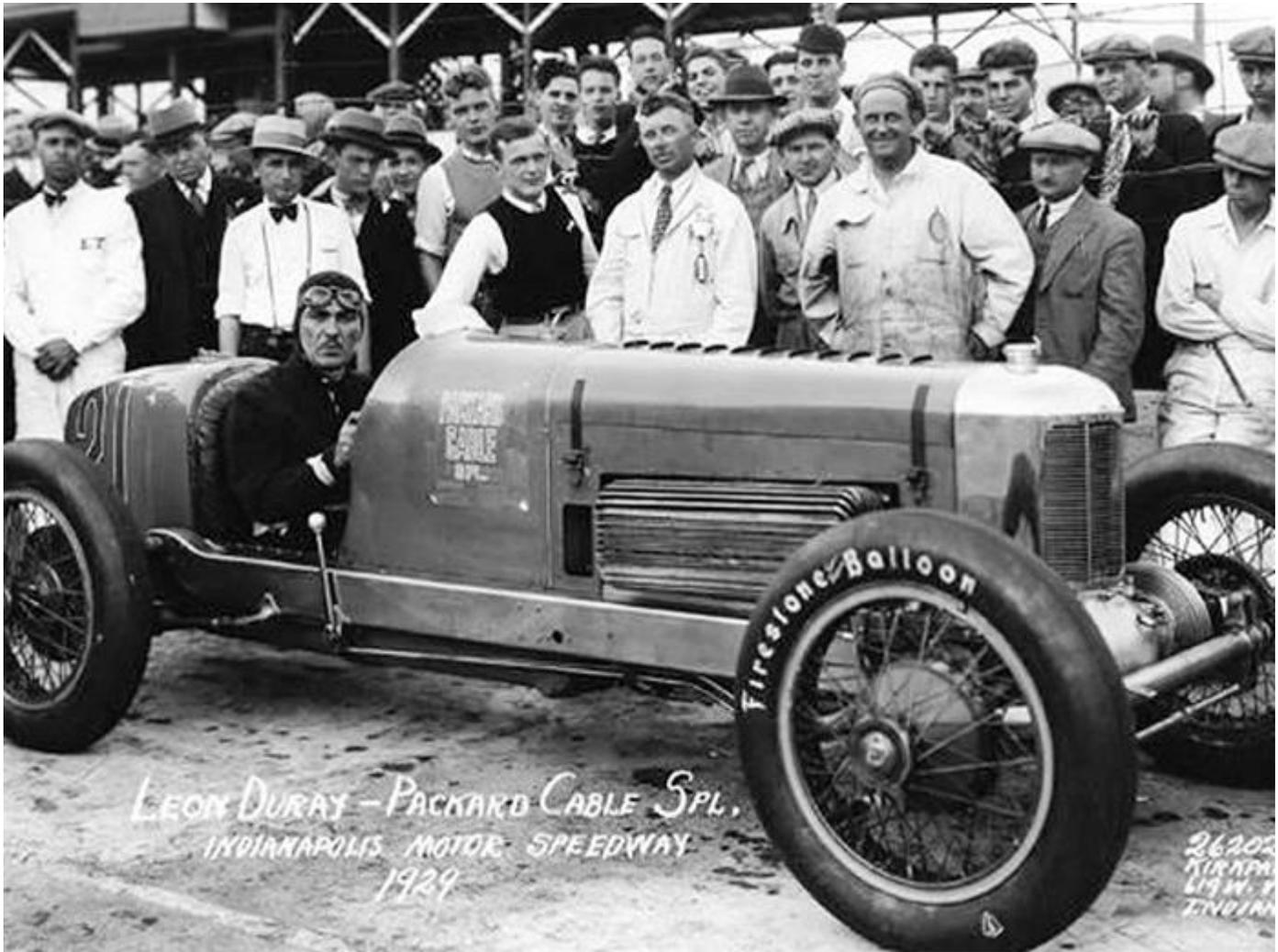
Nineteen Twenty Eight was the end of Frank Lockhart, but it was the renewal of the Indy 500 reign for Harry Miller, whose Millers, back on top again as racing's most phenomenal and powerful marque, dominated the 500. The winning driver was Louie Meyer - later a Millerphile vital to the Miller legend – who still is the only Indy 500 champion with six toes on his throttle foot.

A much flashier Miller proponent from the 1920s and 1930s was a Detroit taxicab jockey and counterfeit Frenchman called Leon Duray, a.k.a. "George Stewart." This Stewart's life had changed the day he was hacking cabs around the Motor City and drove a fare to the city's dirt track. The fare's name was J. Alexander Sloan, and he was the infamous mountebank impresario, who, via shameless razzle-dazzle, ballyhooed racing's unknowns into big names. Offering Stewart the chair of a racing car and liking what he saw, Sloan rechristened him M.

Leon Duray, dashing Gallic champion and decorated hero from the Great War. Duray became Sloan's fastest pupil, but remained with him only long enough to earn \$15,000 –suitable cash to pay for one of Miller's supercharged, front-wheel drives, the Packard Cable Special, which he entered in the Indy 500. And then he let fly.

For five 500s in a row, Duray parked on Indy's front row, establishing a ten-mile speed record lasting nine years, which remains the Brickyard longevity mark; seeking something else to do, he next hurtled - at a fearsome 148 mph - around Packard's big testing bowl . Then, just to guarantee that his Miller was going to be noticed, Duray turned the Packard Cable into a circus wagon – a carnie trick he'd learned from his creator Sloan – painting its coachwork purple, and the frame, wheels, and numbers gaudy yellow.

Purchasing a second Miller, one painted jet black, Duray. in 1929, took off on a series of carpetbagging raids across the European continent. First he hit Italy's great road circuit of Monza, and then traveled to France, where he set spectacular speed records at. Montlhery. But after breaking the gearboxes of both Millers, he sold them to M. Bugatti, who proceeded to filch the Miller design and employ it on his own racing cars. A few years afterward, returning to Europe on another ill-advised carpetbagging raid a few years afterward, Duray had his risks continue at Monza. Penniless after his starting money was withheld, he was forced sail back to America in steerage.



Upon returning home, Duray was appalled to discover that Harry A. Miller was going broke, automobile racing was going broke, and America was going broke. The Wall Street Crash, and the poverty of the Great Depression, forced Indy car's 1929 national tournament to be cut to the Indy 500, and a bare handful of three other rans; by 1938, Indy was only one of two matches left.

Matters were made doubly miserable by the new "Junkyard Formula," as it was aptly ridiculed. Ill-concocted to help 1930s' racing survive the Great Depression's dire times, and to force the bankrupt Harry Miller and the brothers Duesenbergs, to curb their over-spending, instead it ruined everything. Gone – banished to oblivion – were all the Millers and Duesenbergs. Taking their places - all defanged and widened to accommodate the deadly new riding-mechanic specifications - were ponderous, passenger-car-based eyesores of such gruesome ugliness that they insulted everything that the no-limit Roaring Twenties had represented.

They were leviathans, and, as yet another ridiculous twist, had even brought back to life riding mechanics, a species that had gone out of fashion with flag pole-sitting. With their heavy and unreliable motors, and narrow rubber, Junkyard Formula monsters were grotesquely unsafe, taking out eight ranking drivers in just eight 500s, but doing an even worse job on their wretched riding mechanics, wiping out nine.



Now Harry Miller truly was up against it. Creditors were lining up at his door and he couldn't pay them because he'd been abandoned by Hearne, Durant, Boyle, and Kreis – all his rich patrons. Somehow, in spite of the Junkyard Formula that he hated, Miller had to find a way keep Harry A. Miller open for business. But his defiant reaction to 1930s demands for lower costs was to construct a ruinously expensive, overly-sophisticated Miller 16-cylinder. Nobody could afford it, so it failed.

By 1933, the worst year of the Great Depression, the Harry A. Miller works was totally out of money. Leaving Fred Offenhauser, his clear-thinking shop foreman, and all the rest of his disciples in financial ruin, and himself in remorseful tears, Miller closed down. Lore has it that he abandoned ship so fast that he even neglected to take the shop parrot along with him.

But Fred Offenhauser somehow had the financial means to buy out Miller, gather up what little was left of Harry A. Miller, and try to continue. The only engine he had was a simplistic model of four polished cylinders, a set of overhead camshafts, and 32 perfectly-matched intake and exhaust valves that Miller had denounced it as one of his lesser designs.

But Miller underestimated himself. Resurrected, cautiously re-developed, and re-named by Offenhauser, Miller's little four-banger subsequently turned into the greatest – almost the only – Indy 500 power-plant of the 1930s, 1940s, 1950s, and 1960s. As for Fred Offenhauser,



he was the opposite of Harry Miller, being neither genius nor daring innovator. He was simply a small, scared businessman struggling to get both his new engine and the Indy 500 itself, through the Great Depression.

But not everybody at Indy welcomed the new Offenhauser – including Harry Miller, who, ever since fleeing Los Angeles, had been living like a hermit in Detroit, where he'd been able to maintain close relations with his old patron Henry Ford. Miller never lost his appetite for the great and grandiose performance, and so, with Ford Motor Company's generous funding, he arrived at the 1935 500 with an ambitious team of five V8 flatheads.

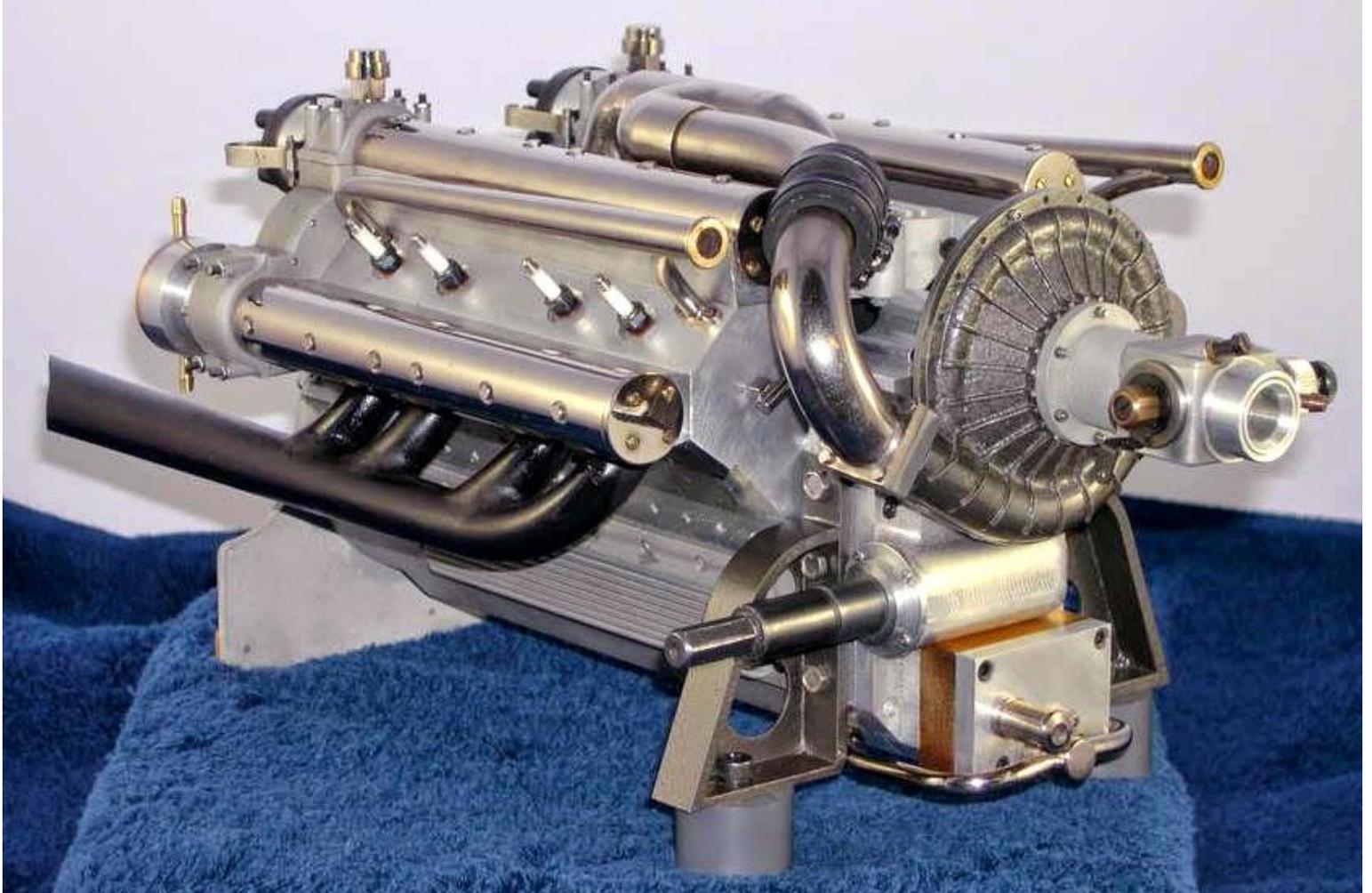
Though just as innovative and gorgeous as expected, all five failed with steering problems. Three 500s later, Miller discovered a new bank – Gulf Oil - and showed up at Indy with more flawed racing cars. They won him widespread criticism, the first taste of total unpopularity he had ever known. Broke, he retreated back to Detroit where he died, still disgraced, in 1943.

In addition to Miller, two more of the 500's most powerful players, Art Sparks and Bud Winfield, devoted their careers to knocking off the Offy. Neither succeeded, but, between them, they brought forth a remarkable, but hexed, pair of racing cars.

Sparks, another Los Angeles player, with a brain some compared to Miller's, exhausted his last cent – he even mortgaged his home – finishing his Big Six and his Little Six, both of which went so fast that they erased Leon Duray's long-standing record lap – and so intimidated Indy that rules immediately arrived which castrated them; nonetheless, a Little Six won 1946's 500.

Winfield, younger brother of Ed, the dueler of Einstein, hired Leo Goosen to blueprint his Novi -- a set of Offys, shaped in a V, hooked to a common crankshaft, with a mighty supercharger whose roaring, tearaway, battle scream was like a fire siren. This Novi, with double the horsepower of an Offy, killed two drivers, burned a third, and so terrified a fourth that he spent the rest of his career trying to discredit Winfield's hellish creation.

The Indy 500 paused four years to accommodate the Second World War, resuming in 1946. But Fred Offenhauser, engine supplier to the 500 for better than a decade, finally was worn out. Despite the successes of his Indy 500, sprint car and midget buzzbomb racing engines, he had earned no fortune. So he urged the retired three-time 500 champion Louie (six-toed) Meyer, and his partner Dale Drake, to buy him out.



They did, but their Meyer-Drake Offenhauser seemed at the end of its dominating reign at last. Several decades old, and infirm, it barely developed 250-horsepower, and few dared rev an Offy beyond 4,800 rpm, because that's when black blood would begin spraying all over the bricks; not for nothing were Indy's racing cars of the 1940s front-drives – they required assistance while plowing their ways through all that accumulating surface oil.

And there was yet another problem. The late Winfield's hexed Novi, with its enormous speed advantage, still was on the loose. Exotic fuels had to be burned to stop it from overheating; and any driver of a Meyer-Drake chasing the Novi, and inhaling the toxic

chemicals, was a likely visitor to cloud cuckoo-land. Yet the Novi still petrified Offy customers. And because the only way to get ahead of a Novi was to wait for the big engine to blow up; or for its Firestones to blow out; or to move ahead of the big beast while it was in the pits having its rubber and fuel loads refurbished, prudent Offy teams did the only thing they could think of. Which was to say they started carrying enormous cargos of alcohol mixed with volatile gasoline, pacing themselves to complete the 500 miles with one or no pit stops.

This was making Indy a dull spectacle to watch, but revitalization was on the way, and, as usual, it was coming straight out of Harry Miller Los Angeles. Clay Smith, Jack McGrath, Manual Ayulo, Jim Travers and Frank Coon, Stu Hilborn, and a few other wild-hair brains were a brilliant band of speed-boat racers, hot-rodders, dry-lakes boys, inspired Offy buzzbomb hot-dogs off Gilmore Stadium, and fuel-injection pioneers.

All of them shared a love/hate relationship with the Meyer-Drake Offy's wildly undulating four cylinders, which they both loved and cursed. Several who were doing the cursing were wise to, because the Meyer-Drake Offy could, at any moment, turn rogue. Ayulo, renegade son of a South American diplomat, crashed and died in his Meyer-Drake, allegedly because he'd missed too much sleep preening it for the 500. McGrath, an advocate of the powers of nitro-methane, set a Brickyard lap mark of 143 mph, then had his Meyer-Drake flip and take him out on the Arizona State Fairgrounds in Phoenix. And Smith, considered the guru of the Meyer-Drake Offy, was struck down and killed in Illinois, in the signaling pits of Du Quoin, by yet another Meyer-Drake.

Yet the L.A. bunch accomplished what they set out to do: they made horsepower of the Meyer-Drake Offys skyrocket - compression ratios jump to 15-to-1 - rpm's soar beyond 6,000: Small wonder, then, that Russ Catlin, upon hearing 33 of them roaring ZOOM!, went into a fit of ecstasy. "An Offy is a heat pump!" declared the wizards from L.A. and so all them of them were.

Take what happened during the brutal 100-degree 500 of 1953: 25 of the starting field comprised tall, lean, dirt-trackers; eight were streamlined roadsters; 32 of the 33 were Meyer-Drake-powered; and each tortured its driver in a different way. Pilots of the dirt-trackers sat so high that they inhaled air the temperature of the Sahara. By comparison, with all that super-heated air accumulating in their vent-free cockpits, the eight roadsters roasted their drivers without mercy. Offys had become the strongest racing engines in the world, and all of them had refused to break. Many drivers had wished they had, because heat getting thrown off by all the Offys had helped bring on the hideous heat. Only a dozen of the starting

33 still were circulating at the finish – the Brickyard was almost empty of racing cars – and 16 or 17 different relief drivers had done duty.

Aside from the better than 300 other paved and dirt-track Indy car races that it captured, the Meyer-Drake Offenhauser won, between 1947 and 1946, 18 consecutive Indy 500, a record of success untouched by any other racing marque. Envious of so winning record, the scions of old Henry Ford decided, in 1963, to bring FoMoCo back to the Indianapolis in a major way. So, for the first time since the Harry Miller debacle of 1935, Ford was back at the Brickyard. Came that '63 Memorial Day, getting off to a fast start, a pair of its stock-blocks finished first and seventh; two months later, in Wisconsin, on the Milwaukee mile, the faster of the two Fords won a 200-mile race, beating all the Meyer-Drakes, Not long afterward, as Louie Meyer recalled it, Ford purchased a Meyer-Drake for its engineers to study and copy. And this became the four-cam Ford racing engine which, in 1965, broke the back of Meyer-Drake Offenhauser by finishing first, second, third, and fourth. Now Ford needed somebody to built, market and sell its four-cam, and it had two obvious candidates - Louie Meyer and



Dale Drake! Meyer accepted the assignment, but Drake wouldn't; he continued loving the Offy. Meyer, then, had the unlimited backing of a Fortune 500 Corporation, and all Drake had was his 40-year-old Meyer-Drake, and Leo Goossen – still active and brilliant after all the decades –and a skeleton crew. It was an uneven battle, but for the following ten Indy 500s, Meyer and Drake fought it out. Meyer won in 1966 and 1967; Drake in 1968; Meyer in 1969, 1970, 1971; and finally Drake, with Goossen's new tour-de-force turbocharged model, won five straight 500s, 1972, 1973, 1974, 1975, and 1976, which forced Ford to retreat back to Dearborn, just as it had in 1935.

The Indy 500, by then, was experiencing a splurge of unlimited spending not seen since the Roaring Twenties. The great Firestone and Goodyear tire war was in its seventh season, and both camps were continuing to subsidize their pet teams with generous rubber dollars making everything exorbitantly proficient. Fantastic sums were getting spent giving the almost half-century-old Offy violent turbocharging. Speeds skyrocketed – even the 200 mph barrier fell, and all serious Indy 500 teams started employing their very own Offy witch doctor. Los Angeles -- of course – again led the way, with All-American Racers down in Orange County employing the best witch doctor that Goodyear's budget could buy: a homesick Hawaiian named John Miller (no relation St. Harry) whose 1,000 horsepower ballistic qualifying bombs were Offy warheads, and so overstressed that All-American Racers had to kiss one goodbye after barely ten miles, four laps.

The devastating Indy 500 of 1973 brought on the collapse of turbocharging's ultra-high horsepower era. And what followed in the ruinous aftermath of that devastating 500 proved almost as severe as the Junkyard Formula of the 1930s: Firestone and Goodyear ceased fighting, and Indy teams were ordered to work overtime suppressing instead of increasing speed.

Meanwhile, the end of Meyer-Drake Offenhauser was messy. With the passing of its wisest minds – Drake and Goossen – the little company appeared to lose its way. Quality control slipped. Its hyper-expensive new V8 engine was vibrating parts onto the bricks. Denouncing it as a “cancer,” major teams like Vel's-Parnelli Jones took their business, and money, elsewhere. Going to the exorbitantly costly step of re-tooling the V8 Cosworth Grand Prix engine into an engine for the 500, VPJ and other Indy squads enjoyed successes.

Louie Meyer's talented son-in-law, George Bignotti, held on, but just when his Offys appeared to be catching up, another Indy rule change arrived to emasculate, forever, the Meyer-Drake Offenhauser. By radically reducing the boost in turbocharging, Indy caused the Meyer-Drake Offy to strangle itself. Bignotti ordered his mechanics to slap on black arm bands for mourning, and that—after three-quarters of a century -- was that.

But, in the startling opinion of Louie Meyer, it was about time that the Indy 500 was rid of the Offy. Denouncing what six decades worth of dependence on the Offy had done to Indy, Meyer had complained that the 500 had married itself to the internal-combustion motor to the neglect of chassis engineering and safety in general.

That's the way the three-time 500 champion was quoted, and, just because he was who he was he'd made an important point. Yet it's hard arguing against the Meyer-Drake Offenhauser to anybody like the Russ Catlin who ever stood on the edge of the Brickyard and heard 33 of them in stampede.

How to recapture that lost experience? I don't know. By re-reading Russ Catlin, I suppose. Zoom!

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