

Ed Winfield in the seat of his "Two Up and Two Down" race car. This Winfield-designed flathead Ford showed its heels to the overhead boys, including Frontenac and Miller at the Ascot Speedway in Los Angeles in January 1928. Arthur Chevrolet said, "I saw it but I still don't believe it!" Ed Tatc photo.

A Look at a Modern Day Genius ED WINFIELD

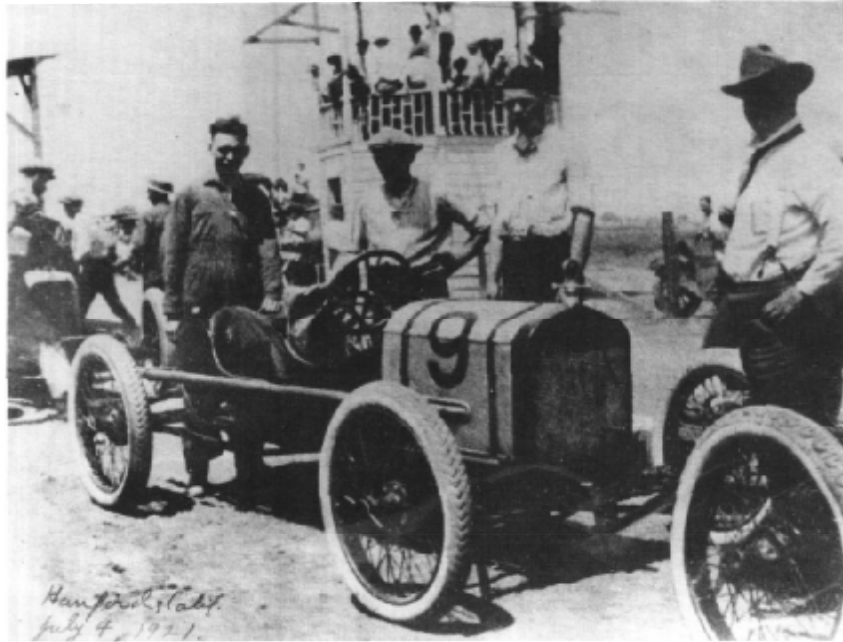
By H. C. EGSGAARD

Those of us who live in Southern California and like the speedy side of the Model T Ford have two major advantages over the rest of the nation. We have about 360 days of open cockpit driving weather each year and we have the facilities of probably the greatest mind that ever graced itself upon the Model T, Ed Winfield.

During my first encounter with Ed Winfield we were discussing the volumetric efficiency of a certain engine port design and I declared that the piston begins to suck the gas into then cylinder. I was quickly interrupted by Ed, who said, "the piston does not suck the gas in. It creates a hole for the outside pressure to

fill! Son, do you know how far away that pressure starts building up? About 250 miles out there, pointing to the sky. It was then that I kind of got the message that around Ed Winfield it might be wise to be a listener and keep my limited knowledge to myself! The longer I knew Ed Winfield, the more astute that decision became.

It is fascinating to contemplate how a mind such as Ed's came into being. He was a total and complete man in what he chose to do. He was a designer, an architect, pattern maker, metallurgist, machinist, research engineer, developer and salesman all wrapped up in one. He did it all. He had a psychic



Ed Winfield's first race car. Photographed at Hanford, California, July 4, 1921. Ed Tate photo.

presence of the here and now, and things that were going to happen. In driving a race car he knew precisely where he was and what was going to happen when it happened. Let's listen to a taped interview with Ed and learn what he had to say about 'knowing things.

Well, it was something like when I went east with Morrell in 1925. He was the president of the Winfield Carburetor Company. The Winfield Company paid me a salary and a royalty and I did own stock in the company, but he owned the control. We were heading to Indianapolis to put the first Winfield carburetors on the Indianapolis cars, and we had to be there in five days. That was on the old road. You left the pavement at Victorville (California) and you don't see it again until you reach Kansas City.

Well anyway we were in cross country back there somewhere and we had been driving all night this night and in that cross country back there there was no moonlight, no nothing, and dark as pitch. Bill Morrell was driving and Bill says, "I want you to get some sleep. You've been driving all the time. I said, "Hell, I don't think I'll be able to sleep with you driving. We were sailing along -- this Ford was hopped up a little -- it would do 66 to 68 mph on a level road, honest speed, and so it would cruise at GO pretty easy. We were sailing along there about 60 and black as ink and I was sitting there

looking into the darkness imagining all kinds of stuff you know, and I figured that if we hit something we're going to be hitting it pretty hard. As I kept looking into the darkness T said, "Bill, I wish you'd slow down. T imagined I could see something fluctuating there in the



Big Ed Winfield with his little brother, Bud. The picture is not dated but must be circa 1912-13.



Winfield's first car, now with disk wheels. Ed Tate photo.

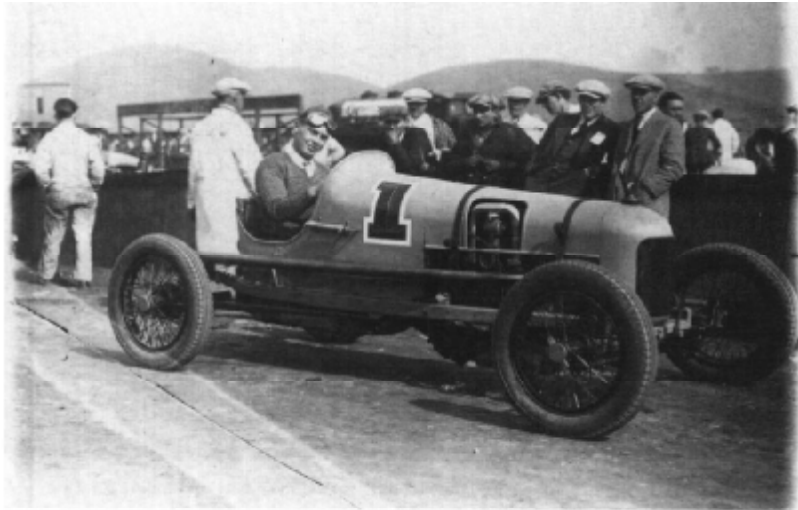


Ed Winfield's second car, "Kant Skore. Ed Tate photo.

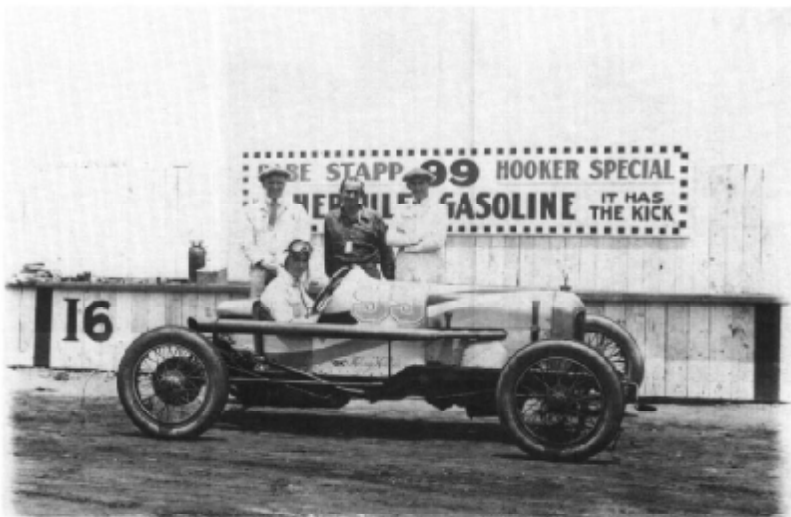
dark. "It won't hurt of slow down, Bill, because I think I can see something. If you slow down it certainly won't be anything lost. So he slowed down, slowed right down, and slammed the brakes on and we stopped about as far as from here to that door from a slow-moving freight train, moving about 35 miles an hour. You couldn't see the caboose light or the engine light (because) it was so far away. And so now there you are. That's an example. I don't know what it is but that kind of doings has saved my life quite a few times. Not only that once. So there's something peculiar, you see. It is strange how it works, but another second and it would have been too late.

Certainly one of the better old car tours on the West Coast would have been the Annual Winfield Weekend Tour to Las Vegas when we used to visit Ed Winfield and celebrate his birthday, and, now dedicate the Tour to his memory. This is a tour where many of the hotties show up to pay tribute to the man Ed Winfield, and all pay a religious respect for the tour's number one rule: you can not make the tour without a Winfield carburetor on your car. About 99-1/2% are Fords but occasionally one of the other breeds makes the run with us but they can't always keep up with the pack.

Of course, most of the 'pack' have brought their tape recorders along to make tapes that are played again and again at the Ford gatherings. They arc



Winfield's flathead racer. Photo at Ascot, dated February 6, 1927. Courtesy Babe Stapp.



Babe Stapp in the Hooker Special which featured a Model T based Miller engine. About 1924. Photo courtesy Babe Stapp.

technical, historical, and humorous.

A walk through his shop in the back yard is every bit as interesting as listening to him talk. The first thing you notice is the Landis camshaft grinder that Ed did all his production cam grinding on. More interesting, however, is the old homemade cam grinder that he made when he was 18 years old, which was more flexible and more appropriate for accomplishing the experimental work for which he was world renowned. A casual glance at the mail on the desk in the shop would show current correspondence from the top race car mechanics all over the nation. The letters would invariably begin with, "Dear Ed: I'm having a problem with...." or "Dear Ed: could you tell

me how...." or "Dear Ed: the cam is working just fine and...."

One of the more interesting episodes in Ed's life in recent times was the Ford Motor Company's getting back into racing in 1962. They had contracted with Collin Chapman in England to build a rear engine chassis for a Ford engine, to be run at the Indianapolis Speedway 500-mile race. Collin Chapman owned the Lotus factory in England and at that time was winning, along with his driver Jimmy Clark, many of the World Road Racing championships. The Ford engineers were trying to get "x" amount of horsepower out of an aluminum-blocked, four camshaft, V-8 they had been building. In desperation,



Ed Winfield in his "Kant Skor" car, leading in a Culver City 100-miler. Ed Tate photo.



Ed Winfield leading in the Pacific Coast Championship race at Ascot in 1927. He won the race.

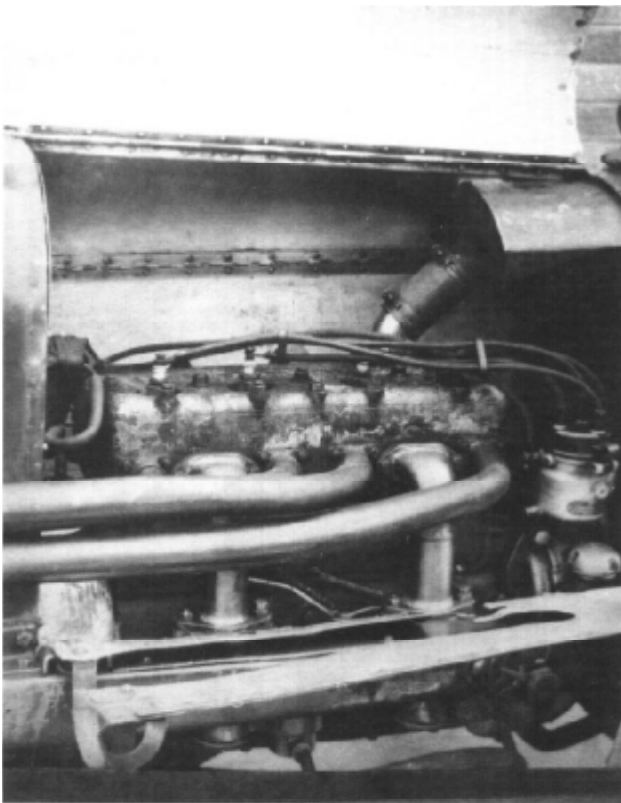


Winfield leading the Hooker Special (on the outside yet!) at Ascot in the 1928 race. Ed Tate photo.

not being able to get the desired performance out of their new engine, they entered the 1962 race with a Fairlane, stock-block push rod engine in the Lotus chassis. Finally, apparently in desperation, the engineers at Ford called the Great Mind at Las Vegas, Ed Winfield, and explained their problem with the four-cammer. Ed asked if there was a way they could bring one of the engines out to Las Vegas so that he could have a look at it. Ford flew an engine, along with two of the engineers on the project, to Las Vegas, for Ed to have his look. He barely glanced at the engine when he said, "My God men, can't you get some bigger valves in that thing! "Why, he said, "they had intake-valves in that thing big enough to choke a whale, ha, ha, ha. Ed redesigned the intake ports for them and reduced the intake valve to about half the original size, and the engines began to perform as expected.

Probably the most dramatic and sensational car that ever set its wheels on the Indianapolis Speedway was the NOVI Special. It was the product of a Harry Miller dream. It was engineered by the renown Miller draftsman, Leo Goosen, and then reengineered with minor changes and built by Ed Winfield. And, Oh, what a machine it was! It was a supercharged, double overhead camshaft V-8 of 180 cubic inch displacement. It had a two-inch stroke with a 180-degree crankshaft that spun on three main bearings all day long at 8000 rpm, and fired like a four-banger. The drama that this combination caused at the Speedway is indescribable. Thousands upon thousands of dedicated NOVI fans, including your writer, made the annual pilgrimage to the Speedway just to hear the NOVI run! The sound was electrifying and when the NOVI would pass on a trial run it was not uncommon to see spectators look up to see if the roof was still on the grandstand! The howl of that engine at speed was nothing short of awesome!

Ed and his brother Bud mounted the engine in one of the front-wheel-drive Miller Fords that had run at the Speedway in 1935, and entered it in the 1941 Speedway Classic. With Ralph Hepburn driving in practice, the Winfields noticed that blue smoke was coming out of what looked like the engine compartment at speed down the straightaways. It looked like a probable oil leak onto the exhaust manifold so they flagged Ralph in for an inspection. After a thorough once-over, they could find nothing wrong so Ralph was sent out for more driving and experience with the car's handling characteristics. Again down the home stretch at speed the NOVI was giving out a blue smoke somewhere around the front end of the car, and again Ed and Bud flagged him in again for a closer look. This time it got the fine needle inspection, and still nothing unusual appeared to be wrong with the car. So back on the track it went. The scenario was repeated. This time, however, Ralph complained that the car got a little squirrely at top speed, and a good look at the tires answered the problem of the blue smoke. The NOVI had been



Engine of Winfield's "Kant Skore" car. Ed Tate photo.

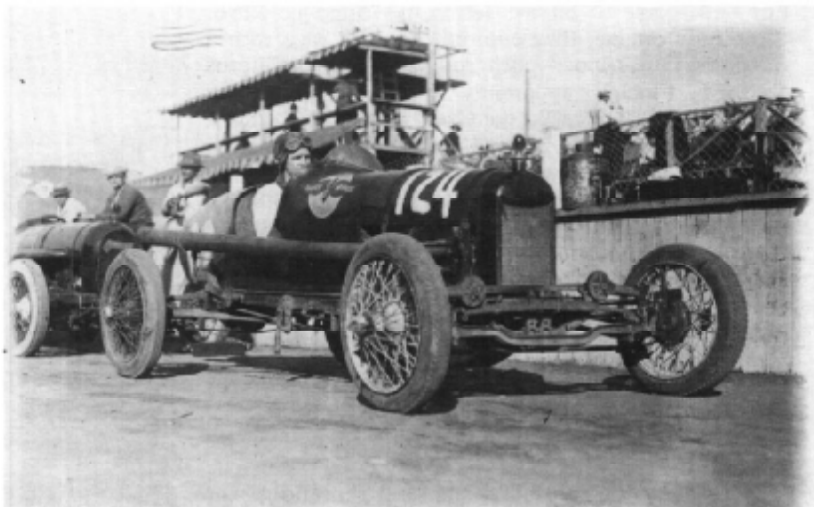
spinning the wheels and breaking loose when the blower came into full effectiveness!

The NOVI never won Indianapolis, much to the disappointment of most of the racing fraternity. It broke wheels, axles, and transmissions. It cracked oil and gas lines. It had magneto failure and was plagued from the start with bad luck. But it never went out of the biggest speed classic in the world with engine failure. Certainly a tribute to the hands and craftsmanship of Ed and Bud Winfield. Today, with the upswing of the antique race car hobby, it is not uncommon to hear a voice ask somewhere in a group, "hey buddy, did you ever hear a NOVI run?"

ED WINFIELD

Ed Winfield went to work in a blacksmith shop when he was seven years old, and at the age of 12 he had completed his formal education, the eighth grade. That was quite commonplace during that era, but what was not commonplace was Ed, after graduation, stripping the body off the family's 1910 Model T to make it go faster one Sunday afternoon when the rest of the family was away on the Pacific Electric visiting friends.

At sixteen he was into his next major project, a 1914 one-cylinder motorcycle. With a hand grinder he changed the overlap duration of the lobes of the camshaft, hand-filed 20-thousandths off the head,



Former Barber Warnock Indy car, now called the "Brady Special." Fred Frame driving. Photo courtesy Babe Stapp.



Ed and Fred Frame with Frame's 1932 Indy Winning car, which used four Winfield carburetors. Every car that qualified and ran at the Indianapolis 500 from 1927 to 1937 was equipped with Winfield carburetors.

opened the intake ports considerably and, "I could climb any mountain around here in high gear -- and those were all dirt roads!

World War I had just rung down its curtain, and young men with destiny in their hearts were able to focus on a direction. Ed took a job sweeping floors with the great Harry Miller in Los Angeles. Harry had been making carburetors and engines for the war effort and was now again back at making carburetors, engines and cars for the racing fraternity. This was the perfect job for young Ed. Here he was able to listen to the dreams of whom many regard as the greatest racing car genius the world has ever seen. In the drafting room he was able to watch Leo Goosen put those ideas down on paper, and in the shop he was able to watch the great Fred Offenhauser make those ideas and drawings into machines like the world had never seen before. And, oh, what dreams they were!

While working off and on for the next four years for Miller, Ed was achieving considerable success on his own building carburetors, altering camshafts, souping up Model T's, and winning at the newly established ASCOT Speedway. Success begets success and soon young Ed was making parts for other car owners and helping them win races. He became deeply intrigued with the technology of the racing car: tire pressure, wheel stiffness, balance, steering and differential ratios, oil and fuel locations and pressurizers, and so on. He was continually experimenting with different Model T engine concepts, valve timing, spark leads, fuels and all the many things that make a racing car go just a little bit faster. "Why," Ed said:

The first time I went down to Banning to race all those fellows down there wanted me to adjust their carburetors. They were running my



Recent photo of the late Ed Winfield with his Two Up and Two Down engine. Ed Tate photo.

carburetors, you know. I went around and adjusted most of their carburetors and some of them came over and said their cars were running better. That was a pretty dusty track, you know, down there. That's why I had to get away from that barrel throttle I had on the first carburetors. The dust and dirt would get in those barrels and they'd get jammed up. That barrel concept is still a good one; if you can keep it clean it's really the best.

Now down there in Banning I went out and turned a couple of hot ones and got the feel of the track. After I had it pretty well figured out I came in and set the tire pressure on all four of my tires. They were all different. That was the first time I raced there. That was April 10, 1921.

The track was pretty rough you know and I just had some little padding in my car. I didn't think that was a good idea. I walked into town and there was a blacksmith shop that had some old cars out in back. I went there and found a seat with the heavy springs in it and the leather was real good, and I got it for two dollars. You know it fit tight in my car just right. Boy, it was just the right thing on that track!

Anyway, we got the green flag and I left those hooligans behind. You know the trouble with those hooligans was they thought I fixed

their carburetors so I could win. Ha, ha, ha! Can you imagine that? I offered to trade any of them my carburetor for theirs and we would race, and I told them I'd beat them anyhow. Well I traded carburetors with Eddie Myers. That's Louie Myers' brother, you know, and I still beat them! Eddie, you know, had a pretty good car. It was the *Redlands Special*.

There are quite a few missing links in the history of the two-cam Miller head conversions for the Model T. We'll mention what we know about it because later on in this tale it will be involved in a great race against Ed Winfield.

There was the *Hooker Special* that the late, great Babe Strapp drove to many wins; there was the *Shultz Special* that ran out of San Diego; and there was the *Sloan Special* that the late, great Sig Haugdahl drove at many state fair races in the Middle West. The Hooker car is in the Lindley Bothwell collection (Cover of *The Vintage Ford*, Vol. 6, No. 4). The *Shultz Special* is in the Carl Schmidt collection in Stockton, California, and the *Sloan* car is in the Middle West.

If one is familiar with the Miller engines, the Miller influence on the Model T Miller is unmistakable. Yet while all the engineering drawings and blueprints are pretty well intact on everything that came out of the Miller shops, there is no evidence in print of anything for the Model T ever coming out of those shops. Even Leo Goosen, the master engineer and draftsman that put all of Harry Miller's dreams down in engineered form, did not remember drawing anything for the T.

Carl Rogers of Indianapolis, race car driver, builder and racing parts dealer, had this to say:

I had the dealership here for Green Engineering speed parts and then I bought out the Craig Hunt Manufacturing. That was in 1925. I had heard about the Model T Miller car that was winning many races over in Illinois and further West, that Sig Haugdahl was driving. He was driving for Alex Sloan. Sloan ran all those big fair races in the Middle West, you know. I went over to Joliet and saw Sloan and the car. Sloan said he had the car built in California by Curly Wetherroth. It was a real beauty, so I took the train to California to see about getting the Miller distributorship for the central U.S. Do you know what Harry Miller said to me? "I'm not going to make any more of those heads for the Ford. Those Ford guys don't have any money anyway! And that ended our discussion about a dealership.

Your writer's opinion: I suppose after the *Hooker Miller* had run second to the *Winfield Flathead* for all during the mid-twenties, it would have dampened the enthusiasm for Miller to make any more parts for the Model T.

Ed Winfield:

Some of those old cars would go pretty fast. That four cylinder National would do 75 mph. I fixed one up so it would go over 80. That's the

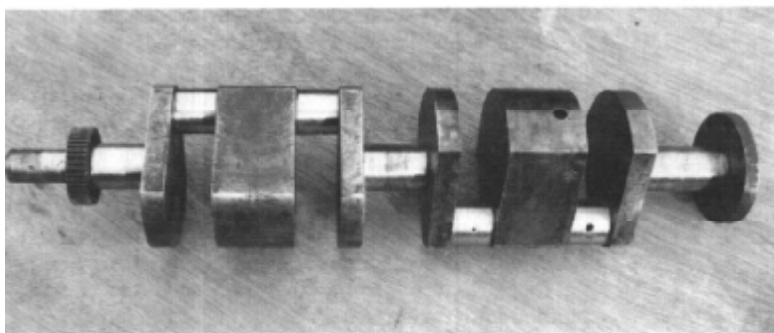
one that was trying to follow me into Bakersfield. (This was) My first one (car) with bucket seats on. I was running wide open coming down off the Grape Vine into Bakersfield. He told me he was running wide open and this cop on a motorcycle, a Harley-Davidson, could do about 80 and he saw us go by. Well, I was ahead in the race car and I don't know how fast I was going. I had let it out a little bit for about a mile or so and I must have been going about 130 mph; I would say I was going 130 without exaggerating anything, and I slowed down a little, about half throttle, coasting into Bakersfield, when the National and the cop caught up with me. He said, "what the hell is in that thing? I've been trying to catch up with you for twenty miles and you left me way behind. I didn't start catching up until you started to slow down. I said I wasn't trying

to push it, I just let it out for a couple of minutes and then I shut off; I've been driving with half throttle for quite some time. "My God, he said, "that is a going rig! And he knew I was going to the races so he didn't give me a ticket or anything. He was a pretty good guy. He said, "Hold it down from here on in.

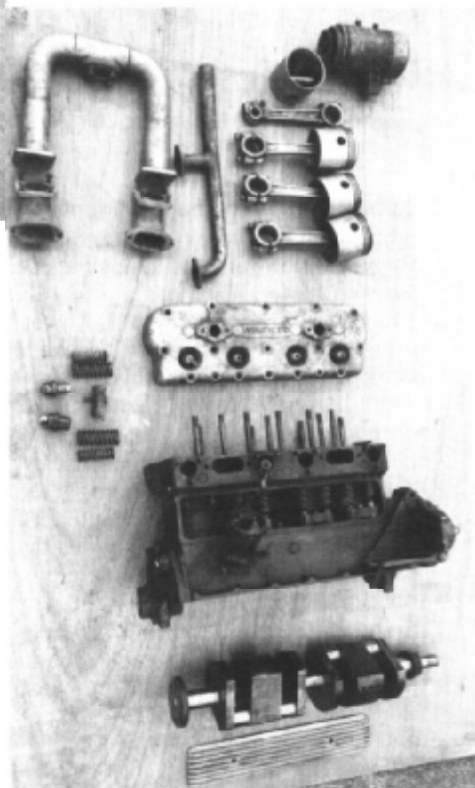
Question: Is that the time you got the big gas mileage going to Bakersfield? The astronomical mileage on your T going to Bakersfield? "I was trying to think. Let me see. Yes, this was the time -- I think this was the time.

Question: What kind of mileage did you get? "44 miles to the gallon. Were you using your own carburetor?

Yes, I never had any other carburetor on my own car. I made the first Winfield carburetor for my motorcycle. Let's see... now that was... ah... December 1917. That was for my



All conventional four cylinder engines have "two up and two down" crankshafts but the journals are arranged to have the two center journals 'up' when the two end journals are 'down'. The Winfield engine was so named because it was designed to have the two front journals 'up' when the two rear ones were 'down'. Normally, a T engine has a firing order of 1-2-4-3, and with the two-port setup of the T engine, the number one cylinder gets a full charge of fuel but the number two gets starved, since it breathes just after number one from the same port. Likewise with numbers 4 and 3. By changing the crankshaft and camshaft design on the Winfield engine, the firing order is 1-3-2-4, and each cylinder gets a full charge of fuel, which contributed greatly to the efficiency of the engine. While changing the firing order to improve the efficiency of an engine was probably no great development, coming up with a system to balance this configuration still has a number of balancing shop operators talking to themselves! Winfield said "it had a little vibration. (Editor's note: Separate manifolds would accomplish the same objective, but the T engine has just one intake port for each pair of cylinders. While the ports might have been split with some form of dam, this would have reduced the port area, somewhat nullifying the effectiveness. Another solution to the problem tried was in reversing the engine's rotational direction, which now would make the former exhaust ports now intake ports (and vice-versa), but this created other problems.)



The disassembled "Two Up & Two Down" engine. This is the engine that beat the overhauls in 1928! Ed Tate photo.

motorcycle. I made my first carburetor for an automobile for my first race car. Let s see now... that was in 1920. Yes, it was in 1920. Yes, I made that when I built my first racing car. That was the *Poverty Looking Special*, a two bucket seat job. I had a carburetor man help me with the design. We had some of his ideas incorporated in the design. His name was Harry A. Brooks. He worked for Harry Miller also. He was quite a bit older than I was. We had some of his ideas and some of my ideas in that first one. That was up at the race in San Luis Obispo. That was the trouble, you see. His ideas and my ideas didn t mix very good. That s why I had so much trouble with that first one. We couldn t get along and so he went back to Harry.

Question: What do you know about the Barber Warnock car, Ed? "I don t think I know anything about that. The Barber Warnock car, Ed! Babe Strapp told me that Jack Peticord and Tex McCarver brought the car out here from Indianapolis and sold it to Dewitt Brady, the Ford dealer in Culver City. It was the car that placed fifth at Indianapolis in 1923.

Oh, oh! You mean the Brady *Special* that Fred Frame drove for Brady. Oh sure, I remember the car. It had the Fronty head on it. Sure, it came out here in the mid-twenties. I think it was about 1924 when it came out here. Oh yes, Brady put the front wheel brakes on the car. He was trying to sell those things -- those four wheel brakes for the Ford. That was the car that had the roller cam in it that I made. Sam and I made those blocks with the roller cam in them. It was Sam s idea. We made the blocks with the roller cams in them for \$185. We made four of them. Oliver Siberell got one; Fred Lewellen got one; Brady got one, and of course I made the first one for myself. I don t know who paid for the one Brady got. Fred gave Sam the money for it but you know Fred never had any money. I m sure Brady paid for the cam. But I never saw any of the money. Sam kept it all. Fred handed the money to Sam and the money disappeared. I never saw any of it. And that s how we went different directions. He was pretty irresponsible; he thought he was a good business man but he wasn t a business man at all. What he really needed was a guardian. Yes, it was Fred that asked me to make the cam but I think that Brady paid for it. That s the way it was.

I knew Fred Frame before he ever drove a racing car. I met Fred at Whitey Womack s garage over in Flintridge. Fred was a chauffeur for someone in Pasadena and he brought the Mercer 22-70 over to Whitey s garage. The Mercer was a 1915 22-70 so it must have been 1916 when I met Fred. Yes, it was 1916.

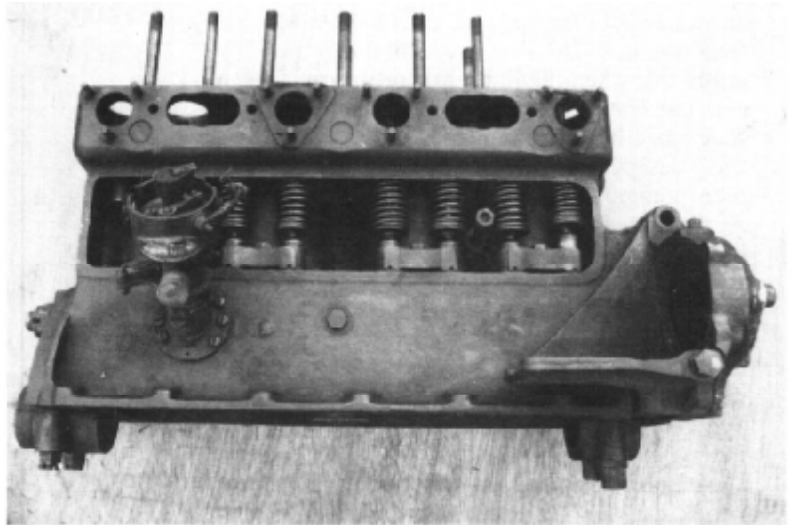


The intake manifold and adaptors used on the "Two Up & Two Down" engine. Ed Tate photo.

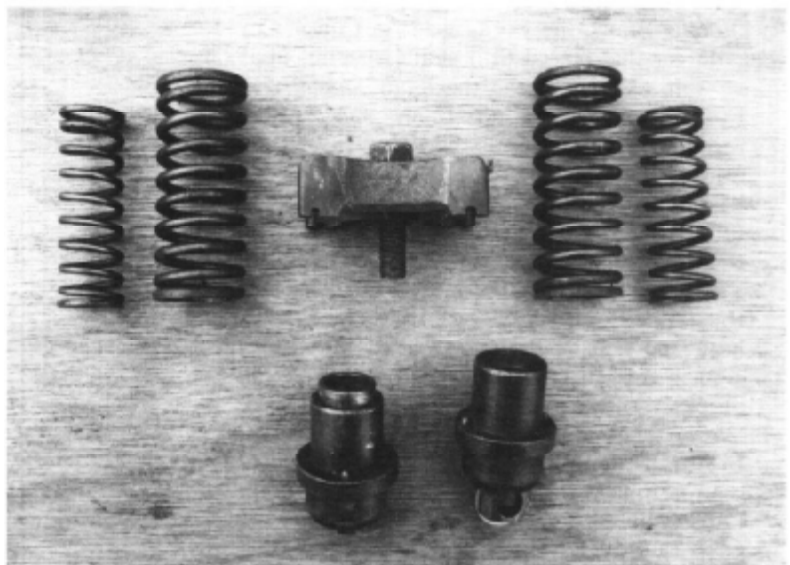


Close up of the cam lobe and distributor drive gears of the "Two Up & Two Down" Winfield engine.

Anyway, Whitey had this 1910 Ford that he had taken the body and fenders off and he sat on the gas tank to run for parts. Fred liked to drive the 'bug because it was quick, and Whitey commissioned me to keep it in shape. Whitey wanted me to hop it up a little and I could use it to shag parts for Whitey with it. Fred and I found a couple of bucket seats for the bug and that, you know, was better than sitting on the gas tank. It got to be a good speedster. Well Fred Frame talked Whitey into letting him take the car out to Ascot to a special race for Model T s there, and the prize was a new Ford. As I remember it was the prized. And, ah, so Clyde (Whitey) let him have the car to run out there and it was the first race Fred ever drove on a race track. As it turned out it was the first race I ever rode in as a mechanic. Well, Fred didn t go out there with the intention that I ride with him. He would rather ride alone, but when he got there and found out that he had to have a mechanic, he said, "You be my mechanic. I said, "I can t be your mechanic. I m only 16. Let s see, this was in December; I had just turned 16. That would put it December 1917. And, ah, I said to Fred that the 3-A rules say that a riding mechanic has to be 21. "Ah, he said, "that don t make any difference. Go down there and sign up. Those dumb bastards don t know the difference down there. I said, "All right, I ll try it. I weighed 180 pounds and was over six feet tall, so I went down there and told them I wanted to sign up as a mechanic, and they gave me a blank to fill out. I filled it out and gave them the money, whatever it was -- three or four dollars -- and I was a registered 3-A mechanic. As far as I know, the only registered 16-year-old mechanic, ha, ha, ha, in existence.



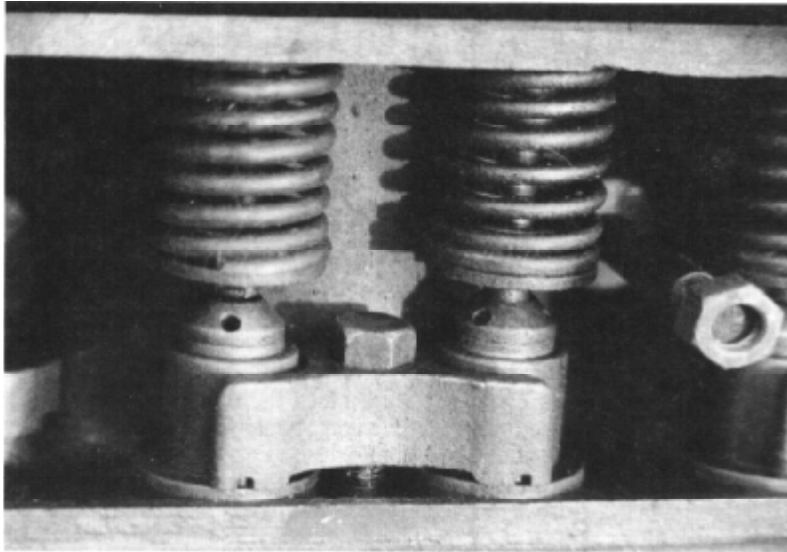
The 2-up & 2-down engine. Note the enlarged ports, and the use of studs instead of bolts to secure the cylinder head. Ed Tate photo.



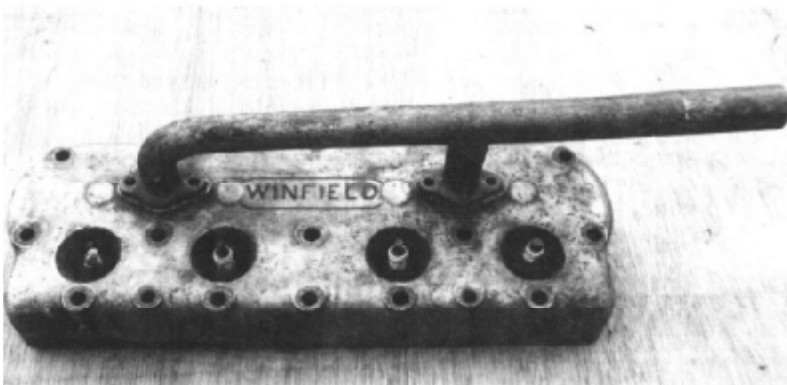
The roller tappets and valve springs for the Winfield 2-up & 2 down engine. Ed Tate photo.

So then I went back. I had an oil tank on this car, which was fashionable on race cars, you know. I had said to Fred, "What do we need an oil tank for this is only a five lap race, and we certainly don t need extra oil. But Fred insisted on it, so I put it on. Without my knowing it, he had filled it (the car) up with oil and we had to drive about 20 miles to Ascot -- that was the old original Ascot down on Slauson -- and by the

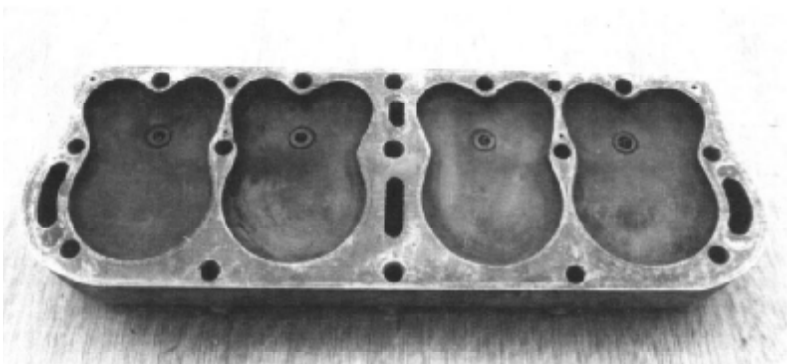
time we got there the bug was smoking an awful lot. I said to Fred, "My God, how much oil did you put in that tank? He said he had filled it up, and of course, that was too much and it fouled everything up. So Fred said, "Well if you think it s too much, drain it out there on the ground. I started to drain it right there on the track and old Pop Wagner saw me draining the old and came over and started to give me hell. He was a



Close-up of the roller tappets, guides and retainers of the Winfield engine. Ed Tate photo.



Winfield aluminum head for the Model T engine. Ed Tate photo.



strict old guy and I knew he was strict, and I never did anything to get on the wrong side of him or to irritate him if I could help it. I liked to stay on the good side of him. So Fred said get something to drain it in, and I said, "Hell, I've been looking for something to drain it in for half an hour. Time was wasting you know and pretty soon Wagner said to get that car up here on the starting line, and if you don't get up on the line with Wagner, you lose your place. Well, we pushed it up on the line and started, but it wouldn't go. It wouldn't go. It had too much oil. We could have won the race easy otherwise. I was kinda disgusted. We didn't need that tank on there anyway. Well, it was Fred Frame's first race. It was the first race that either of us was ever in. Of course you know that Fred went on to win at Indianapolis later on.

The Ascot race track where so many fierce battles had transpired between Ford racing cars was the object of vicious attacks by the local newspapers. Because quite a number of the pilots of these cars were getting killed (on the average of two every season), the newspapers took up the challenge, quite like the Women's Christian Temperance Movement to knock out the booze parlors of the Twenties, to put an end to auto racing. The promoters of Ascot, smelling the possible demise of their promotions, planned to have a Fourth of July race and Celebration that would out-shine anything that had ever been attempted before at Ascot. They decided to have a race for the *Fastest Ford in the World*. One of the choice pieces of advance publicity was Arthur Chevrolet's arrival in town. Chevrolet, the manufacturer of the Frontenac speed equipment for the Ford car, had been campaigning the factory Fronty, with the great Ralph Ormsby driving, throughout the U.S., and now, according to the pre-race publicity, (had) arrived in Los Angeles to accept the challenge. Arthur had stated unequivocally that he had come here to win. The little Barber Warnock car

got in on the pre-race publicity also as the little giant that had slain all the mighty foreign entries at the Indianapolis Motor Speedway. The billing stated that Dewitt Brady, its owner, had now mounted four wheel brakes because the car was now capable of going so fast down the straightaways that they needed improved braking to slow it down some for the corners. Needless to say that the Winfield flathead and the Hooker car got their share of the ballyhoo. Another choice piece of ballyhoo was a newspaper article about Winfield's not being able to attend the driver's meeting a few days prior to the race (see sidebar).

The day arrived for the race. It was scheduled to be a fifty lap sprint in conjunction with the 100-mile championship of the Western States Race. Art Chevrolet asked, "What's the matter, Ed, don't you think you can hold together for fifty laps?" Ed said, "Oh, I think I'll be there if you're there. I thought this was a race for the fastest Ford in the world, not an endurance race. Winfield won his point and the race was tempered down to 25 laps, or 12-1/2 miles.

Ed Winfield won. Art Chevrolet came over to Ed, looked at the Winfield flathead race car, scratched his head and said, "Well, I'm looking at it but I still don't believe it! The engine was Winfield's 'two up and two down one-of-a-kind' design.

Well you know there is another one of those two up and two down engines, don't you? I loaned those drawings to Art Sparks (developer of the first forged aluminum *Forgetrue* pistons) when he was in high school. He made that engine there in the shop at Glendale High School. He made the crank quite a bit heavier than mine because he made his own steel tube rods. They were much heavier than my aluminite rods. And I let him use my cam grinder to make his cam.

Question: Did he use your Landis grinder, Ed?

No. The Landis couldn't do the job on that design. He used the grinder that I built for that cam. He didn't want that much overlap so I redesigned the ramps for him, and Art built a very nice engine. Do you know Bud Pagliuso? He went to Glendale High with Art and he built a real nice speedster, and they put that engine in Pagliuso's car. It had a Miller nose on it. It was the best speedster in California at that time, a very pretty car.

WHY ED WAS ABSENT

(The following appeared in an unidentified Los Angeles newspaper in January 1928.)

"An interesting story was brought out at the driver's meeting at Ascot Monday night, where arrangements were being made for the 100-mile race for the championship of the western states Sunday, when it came to light that Big Ed Winfield had spent the night in the Glendale jail.

"Big Ed was entered in the sprint races last week and was on his way to the track when he heard a siren behind him. Not wishing to be delayed, he shoved the throttle to the floorboards but could not outdistance the officer, though the race went up Brand boulevard without any advantage to Winfield.

"A traffic jam ended the argument and Big Ed drove another race behind bars. He swears that next week he will walk to the track in order to start the 100-mile race.

And in a Glendale paper, with a date of January 21, 1928, this note:

"Eddie Winfield, famous automobile race driver who resides in La Canada, 'had his day in court' last Saturday, and as a result paid \$65 in good hard cash as fines assessed by Judge Charles R. Dyer.

"Winfield was found guilty on a charge of reckless driving and \$50 of the \$65 went to appease the law on this charge. According to the court records, Mr. Winfield was to have appeared in court on the Monday previous, but had failed to appear. This alleged oversight of his 'date with Judge Dyer' cost him a fine of \$15. Accompanying the fine on the reckless driving charge was a two day suspended sentence.



Right: Ed Winfield in his "Fastest Ford in the World" 2-Up & 2-Down flathead Model T Ford racer. Ed Tate photo.