Henry's Tin Lizzie

(The Magnificent Model T)

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WHEN Henry Ford started making the Model T, he did not intend to destroy the rural community but once he got underway he called the tune and Americans followed him at speeds up to forty miles an hour. Cheap, mass-produced automobiles and good roads, the first leading to the second, spelled the beginning of a new era in American life and neither the farm nor the city would ever be the same again. It began shortly after the turn of the century when the people took over the toll roads and the Model T, which Ford called his "Universal Car." Others quickly dubbed it the "Tin Lizzie" or the "Flivver," and still others laid unprintable obscenities upon its humble form, but all would agree that it started a revolution (Pamphlet).

The automobile originated in Europe but it soon became American by adoption primarily because Henry Ford transformed it from a toy for the few to a convenience–even necessity–for the many. From this flowed social and economic consequences of incalculable magnitude (Rae, 1). Ford succeeded because he set out to build a car for the mass market, then turned his attention to cutting costs. Low price was only one of the characteristics required in an auto for use by the general public in 1909. It had to be durable, easy to operate, economical to maintain, and simple to repair (Rae, 59). The Model T fit this description to a "T." Ford's genius, which made him the nation's wealthiest man by 1922, rested on two main ideas (Wik, 7).

First, taking a cue from the meat packing industry, he developed the moving assembly line, which led to prodigious feats of production. In Ford's plant, auto assembly time decreased from twelve hours and twenty-eight minutes to three minutes (Rae, 60).In 1909, the first full year of production, the 10,607 units led all other makes (Smith, 40). By 1914 the

"T" accounted for 45 per cent of all car sales and by 1920 half the cars in the world were Model T's (Rae, 62). In 1924, Ford was making two-thirds of all automobiles sold and, needless to say, all of them were Model T's (Sorensen, 62). It was not until 1927, the last year that the Model T was produced, that another car's sales topped it (Smith, 101). In all, from October 31, 1908, when the "T" was ready for full production, until May 26, 1927, the last date the Model T was produced, 15,007,033 rolled off the assembly line (Sorensen, 31). Ford's efficient mass production littered the American scene with the angular, awkward, rough riding, but affordable, auto in numbers that were not exceeded by any one make until the Volkswagen Beetle surpassed them eighty years later. It inaugurated such a revolution that by 1980 one person in six was directly connected with the automobile industry (Owen, 92).

Second, once the Model T was on the line only Ford could have made the decision to give up all other models and concentrate on the "T" year after year, with only the most minor changes from time to time (Rae, 60). This stubborn refusal to change was Ford's primary contribution to the physical aspect of the Model T. While Ford built his first car largely by hand in 1896 (Clymer, 142), he was not personally responsible for designing the "T". Joseph Galamb, a Ford engineer, was its principal mechanical designer (Rae, 60). However, the car clearly reflected Ford's essential dream of a car for the masses, particularly farmers. Ford was a farmer at heart and the production of the "T" coincided fortuitously with a rise of some fifty-two per cent in the farm price index from 1900 to 1910 (Wik, 21). Farmers loved the car and the demand exceeded the supply from the first. Ford encouraged this love by steadily lowering the price from $950 in 1909 to $260 for the cheapest runabout in 1925. The Model T steadily replaced the horse in spite of the innate rural conservatism reflected in the following story:

> A country woman and her small son were driving to town when a clanking flivver bore down upon them. Their horse was badly frightened and began to prance, whereupon the old lady leaped down and

> waved wildly to the flivver driver screaming at the top of her voice. The driver stopped his Ford and offered to help the horse past. "That's all right," said the boy, who remained in the carriage, "I can manage the horse. You just lead Maw past." (Clymer, 11).

Numerous accounts may be found of horses frightened by these strange vehicles. Ford's Model T was the first car for most families, but it never pretended to have any "status." It was too plain, too rough, and too ugly for that. However by keeping it that way year after year, Ford succeeded beyond his own wildest expectations in providing an affordable, simple, and durable substitute for the horse in numbers of a hitherto undreamed magnitude. As late as 1949, there were still more than 200,000 Model T's registered in the United States (Clymer, 103).

What was this vehicle like? To begin with, it was black. From 1914 to 1926, this was the only color available (Ford Times, 40). In fact, Ford's 1916 catalog read, "No option given on color, tires, or equipment" (Clymer, 35). It had less than 5,000 parts, forty-three per cent of which sold for fifteen cents or less (Wik, 35) compared to more than 12,000 parts in a modern automobile, most of which require a bank loan to acquire (Evolution). The Model T was a simple working machine and that was its entire secret. It was shipped to dealers knocked down in order to cut costs. A competent mechanic could assemble two in a day. In fact, in Spartenburg South Carolina, four mechanics disassembled a Model T and re-assembled it in a newspaper office in less than two hours (Wik, 38). Its engine, the most famous ever manufactured in the United States, had four cylinders with a three and three-quarter inch bore and a four inch stroke. The engine, together with the transmission, weighed 400 pounds and developed twenty horsepower (Wik, 73). This would cause the car to hurdle through space at a top speed of forty-five miles an hour for a brief period. Downhill. Maybe. Until the radiator boiled out. It was most comfortable at thirty-five miles an hour and developed its greatest torque at 23 mph. Fifteen hundred revolutions per minute was an effective limit for the engine (Clymer, 107). The gasoline was delivered by gravity, the oil was circulated by splash, and the

water by what Ford called "the thermosyphon" system (Clymer, 17). Ford believed in making maximum use of the basic, and free, laws of physics. There was no instrument panel and no instruments until an ammeter was added. There never was any speedometer, or any need of one. As one owner claimed and others verified, at five miles an hour the fenders rattled; at ten miles an hour his teeth rattled; and at fifteen miles an hour the radiator boiled over.

The Model T was designed to be repaired by the average driver. The only tools needed were a screwdriver, a monkey wrench, hammer, and pliers (Wik, 35). This car created intimate personal ties which cannot be duplicated or even imagined today. The owner was, of necessity, in fairly constant mechanical involvement with its mysterious inner workings. He had to be. For instance, there was the engine timer, which fit low on the front of the engine and was driven by a gear on the end of the crankshaft. Lee Strout and E.B. White, in their 1936 eulogy to the Model T, *Farewell, My Lovely,* described the mystical connection between owner and machine, and I quote:

> Whatever the driver learned of his motor, he learned not through instruments but through sudden developments. I remember that the timer was one of the vital organs about which there was ample doctrine. When everything else had been checked, you "had a look" at the timer. I have had a timer apart on a sick Ford many times, but I never really knew what I was up to–I was just showing off before God. There were as many schools of thought as there were timers. Some people, when things went wrong, just clinched their teeth and gave the timer a smart crack with a wrench. Other people opened it up and blew on it. There was a school that held that the timer needed large amounts of oil; they fixed it by frequent baptism. And there was a school that was positive it was meant to run dry as a bone; these people were continually taking it off and wiping it. I remember once spitting into a timer; not in anger, but in a spirit of research. You see, the Model T driver moved in the realm of metaphysics. He believed his car could be hexed (Wik, 72).

The Model T started with a crank. The electric starter became an option in 1919, but the "T" remained available without a starter through 1925 (Clymer, 128). Because of the peculiarities of the bands on the planetary transmission, the car had a definite and distressing tendency to advance the instant the engine caught. It had no transmission like the modern car, but it was geared much like a three-speed bicycle and if the bands were adjusted too loose, it didn't work, while if they were too tight it wouldn't stay still. One writer wrote, "I can still feel my old Ford nuzzling me at the curb" (Wik, 69). The starting drill was complex by today's standards. Come to think of it, it was complex by any standards but it was consistent and easily learned. You retarded the spark lever on the left of the steering column. Hopefully, this would make it easier to start and keep the engine from kicking and breaking your arm with the crank. Then you gave the gas lever, on the right side of the steering column, about three notches. You made sure the brake/neutral lever on the left of the driver's seat was pulled back. Then you went to the front of the car and cranked with the right hand while pulling the choke lever with the left. You then prayed to God it would start and then, if it did, that it would not run you down. Cold weather starts required additional attention to detail. The main thing was to jack up one of the rear wheels. You could also pour boiling water in the radiator, light a fire under the oil pan and, as a last resort, squirt a drop or two of ether into the manifold (Clymer, 18). Once started, the engine was steady as a rock. The spark and gas levers were adjusted for speed and, on the early Model T's, you could "lean up" the gas mixture by turning a knob extending through the cowl on the right- hand side (Clymer, 28). In this way, you could get between twenty-five and thirty miles per gallon, though twenty was more normal. If gas was unavailable and the engine was hot, it would run about as well on coal oil (Clymer, 34).

The foot controls consisted of three pedals, which operated braking bands on the two-speed planetary transmission. The left pedal, half-depressed, put the transmission in neutral; fully depressed, it caused the Model T to grind away in low gear and, when released, it put her in high. The middle

pedal, when depressed, provided a reverse gear and the right pedal was the brake. The lever on the driver's left activated the emergency rear wheel brakes and simultaneously caused the left pedal to put the transmission into neutral. The "T" never had front wheel brakes. There were those who maintained it never had any workable brakes of any kind. One farmer simply chained a log under his Model T in such a way that pulling the brake lever would release the log and possibly drag the machine to a stop. The lever did not interfere with the ingress and egress through the door on the driver's side since, at least until 1926, there was none (Clymer, 108). The sheet metal was just crimped to make it look like there might be a door there.

The Ford weighed from 1380 to 1875 pounds, depending on the model. In 1920, most still had canvas tops and high-pressure, narrow thirty inch tires (Owen, 92). It had a 56- inch standard tread and a 100- inch wheelbase. It would turn in a twenty-eight foot circle (Clymer, 109). The familiar square brass radiator was replaced in 1916 because of war shortages. After 1915, the car came with electric lights powered by a magneto in the flywheel. I can remember salvaging some of the magnets to use as toys. The lights worked fine as long as the engine was running fast, but as soon as the engine slowed down the lights dimmed alarmingly. Most drivers had to keep her in low gear at night in order to have enough power to see.

A Model T was a versatile machine. Farmers used them to haul pigs, goats, calves, and occasionally even a horse. A tourist saw a girl herding cattle in one in Wyoming and in Cheyenne he saw a man mowing his yard with a Model T. By affixing a small pulley to the rear wheel and jacking it off the ground, you had a twenty horsepower engine that could, and did, grind feed or sausage, pump water, saw wood, shell corn, turn grindstones and wash clothes (Wik, 30-32). Several companies even sold tractor wheels which attached to the rear to convert it to field work. Some said the "T" could do anything but talk or climb a tree and, at times, it would try these activities.

Lest you begin to feel that the Model T was the perfect answer to a

maiden's prayer–and it could serve as the setting for even that–we should take a look at some of the complaints owners voiced. Without exception, every human being who ever owned one felt it could be improved and, furthermore, knew how to do it. Its prestige was so low that the Lawson Company even sold a streamlined hood for $17 to, as they advertised, "disguise the Ford"(Clymer, 148). There was a postcard craze featuring Fords, and the mottoes give some idea of the general criticisms:

> Dog: They used to tie tin cans to my tail. Now they tie Fords.
> Birds: Cheap! Cheap! Cheap!
> Goat: I ate a Ford and it's still running.
> Soldier: War is hell and so is riding in a Ford.
> Girl: In a woman, beauty is only skin deep; in a Ford, only tin deep.
> (Wik, 48).

As for specific complaints other than that it was light, small, and cheap, we can glean the following from the correspondence that flowed into the company office:

The tires were difficult to change and the high-pressure tires lasted only about 5,000 miles at best. Ford did change some items, and in order to deal with this problem he added de-mountable rims in 1920, and by its last production year it had wire wheels and balloon tires. Henry resisted change but occasionally it did occur. When asked why he was so adamant in staying with the same basic car, he replied with some logic, "Why change when we can't make enough as it is?" and Ford's secretary had a stock reply to owner's helpful suggestions: "We are not interested" (Clymer, 109).

The gas tank, holding ten gallons, was under the driver's seat. It had no gauge and no reserve. The driver had to dismount and take up his seat cushion in order to check or add to the tank. A stick or ruler served handily for this purpose. When going up a steep hill, the gravity feed would tend to fail, necessitating backing up the hill. Not until 1925 was the tank moved to a more convenient place behind the dashboard.

The false left front door remained an illusion until 1926.

On bad roads, many complained that they had to travel long distances

with the left foot pedal held down in order to keep the car in low gear.

The splash oil distribution system, operated by little spoon-like projections on the end of the connecting rods, would sometimes allow the front crankshaft bearing to go dry on an uphill pull. Another problem with the oil was the absence of a dipstick. The "T" had two petcocks. If oil didn't come out of the top one, but came out of the bottom one, you were still all right. If it didn't come out of either, you were in trouble. The petcocks were located underneath the car and that was a problem, but not as serious as it would be today since the car had a healthy eight and a half inches of ground clearance. There was neither oil pressure gauge nor need for one.

There were no windshield wipers until 1926 and even then they were operated by hand and on the driver's side only. The driver was expected to stick his head out to get his bearings in inclement weather.

The heater, when there was one, simply conveyed heat from the manifold by convection if not conviction. It was said that the Model T was ten degrees colder than the Arctic in the Winter and ten degrees hotter than Hell in the Summer.

There were no bumpers, and the brakes were on the back wheel only, where they were principally ornamental.

The nasal "beep" of the horn embarrassed some. It was a feeble squeak described as somewhat like a catarrhal duck calling to its mate.

The radiator cap frequently vibrated loose and was forever lost. It could be replaced, if one was fastidious enough to bother at all, by a burlap-wrapped corncob.

The radiators were too small and there was no water pump. The radiator boiled over if speeds were consistently over 35 miles per hour.

And so the complaints marched into the factory about as fast as the Model T's rolled out. For those who felt they could improve the "T", and that included everyone who ever owned or rode in one, suppliers other than Ford offered over 5,000 accessory gadgets, from patented anti-rattlers to rear view mirrors (Clymer, 12).

Ford, faced with the loss of first place in sales to Chevrolet in 1927,

closed down the assembly line, furloughed the workers, and re-tooled to produce the Model A in 1927. The last Model T's had wire wheels, battery ignition, bumpers, a choice of colors, windshield wipers, a starter, balloon tires, and all sorts of new amenities, but it was too late. The public could no longer be satisfied with the tall, ungainly and hard-riding Tin Lizzie.

Model T dealers in Hopkinsville and their locations were:
1910 - Will Forbes, 12th and Virginia;
1911 - Cayce-Jones Motor Co.,Virginia between 11th and 12th. Lucien Cayce and Tom C. Jones;
1913 - Ideal Motor Co., East side of North Main between 4th and 5th. Charlie Lewis;
1915 - Jones Motor Co., Bethel, then East 7th, and finally South Main between 11th and 12th. Tubal M. and B.E. Jones;
1925 - Hopkinsville Motor Co., 10th and Virginia. W.T. and Jack Tandy. They were replaced by Barnes Motor Co. in 1932.

In June, 1920, Hopkinsville's first service station opened at 12th and Main Streets. It was owned by Cy Williamson and J. Walter Maddux. They sold Indian Gasoline at seventeen cents a gallon, Havoline Oil, and Fiske Tires (Turner Notes). That same year the automobile laws and regulations of Hopkinsville required an annual city license, parking at a forty-five degree angle downtown, and speed limits of 15 miles an hour in the business district, 20 miles an hour in residential areas, and 30 miles an hour in the county. Drivers had to be 14 years old and, unless they were 16, accompanied by an adult (Automobile Laws, etc.). By 1925, cars were thick enough for the city to acquire its first traffic signals (Turner Notes).

One self-appointed expert claimed he could tell any make of car by the sound of its engine. He was duly blindfolded and proceeded to correctly identify an Overland and a Studebaker. About that time, a truck dumped a load of coal in a nearby alley. "Ford!," cried the hapless expert (Clymer, 174). As one fellow said to another when asked if he heard the last Ford story, "I hope so."

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