

**Your friend will enjoy this. Pass it along. Steps. U. S. A. is “Home of auto.” over 27,000,000 here ... [1937].**

America's Oldest Gas Car.

DURYEAS Second built In 1892–1893 NOW IN NATIONAL MUSEUM, WASHINGTON, D. C.

Over two years before any other American gasoline car.

Duryea's 1st, 1891–2, was exactly same design but less power. No other pioneer duplicated his 1st car.

THE CHICAGO WINNER

“It was t world's first real auto.”

It combined for the first time all modern essentials.

Duryea's 3rd, begun Oct, 1893, won America's 1st contest, \$2000. Chicago Nov 28, 1895. No other American gas car cud start. Snow was too deep.

1897 The Belgian Winner

2 Belgian stock cars, this type, beat Europe's best—except a special racer, in Belgium, 1899.

Designed mostly by J F Duryea, Supt, Duryea Motor Wagon Co, set up in mid-1896, it started t 2-cyl opposed, 4-cycl engines, ized later by Stevens-Duryea & most others. It had lever-float-feed carburetor & set throttl with accelerator. Finisht in winter of 1896–7, it went abroad & did much to guide Europe. Fabrique Nat'l de Arms du Guerre, Liege, took a license.

1898 Eagle Rock Hill-Climb Cup Winner, 1901

See '99 mate in N. Y. Museum of Science & Ind'y & a later one in Edison Inst, Dearborn. Cup at Wash'n.

With speed far beyond safety on t usual roads, Duryea cars ceast to enter races. Bilt for servis, this 3-cyl Duryea with unit planetary transmission on engin shaft, led by 10 yrs, t world's best seller. In t N. Y.—Boston Endurance Run, it laught at everything. Panhard, Stanley & others, with every entrant that wud speed, wer trimmed with ease. Henry Sturmeay, British pioneer, knew autos. He took a license &

won many contests abroad with them. Vertical tiller,—“Joy-stick” control central, let either hand steer, throtl, change speed.

T '98 car drew a 2-wheel, 6-seat trailr in deep mud & up steep hills. Sold & ized but didn't “catch-on”. They ar here now. Do weight, power & roads explain?

Chicago Fair adv'ts, '90–1, led Duryea to seek capital & send these cuts & facts to many papers.

He oft conferd with O. Chanute, as t Wrights, 10 yrs later. They knew D's work.

See! Tractor screw, doubl rudder, landing wheel. A footpusht guy warpt a wing in banking. Handls wer fixt to plane. Saddl swung sideways to steer & move weight in; fore-aft to tht rudder. “Practical”? A B?ssi pedald plane recently flew  $\frac{5}{8}$  mi. on 1st hop.

Who had these BASICS of FLIGHT so early? Duryea, hoping to patent, did not show best forms.

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### Gift Charles E. Duryea June 17, 1937

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79/596 copy 1 of 2

See Republican, Sp'd, Mass, 13 Jn, '91 & 17 Ap, '92; Th Wheel, N. Y. 6 My, '92; Aeronautics, N. Y. '94: English Mechanic, 17 Ag, '94; Cassier's, Sp, '94: Proceedings of Aero Congress, Chicago, '93; Ev'g Star, Wash'n, D. C. etc. Others wrote & stopt; Duryea persisted. Who so much? Gliders now prove his plan. He told of engins & cud build light, as 2 or 3, '98 design, proved years after by flying planes. In '92–3 he begged to help Prof. Langley who refused & lost out. He needed t “school”. See cut. T anchor balloon offerd safe practice.

### Flight School. Safe

Boats also. Frank's oppozd '96 engin in seat of 20' hull, set Sp'd records as Chas' 3-cyl in 18'x4½', '99 hull beat Peoria's best, \$2000, 33', hot-tube Daimler. First auto-engind boats

Most “firsts” had boat or shop engins. Duryea (& De Dion) bilt for cars. T light (hollow crank-pins & shaft) simpl design, advanst spark, throttl'd spray-carburetor, etc., gave speeds far above Daimler's. they led to wonder speeds.

Duryea shund publicity until he saw t 2 pitiful exhibits at Chicago. After t Spg'd Union story, Sep. 16, '93 he showd freely. Saw a market must be made, taught use & care. T 3 races & Barnum's Circus began t 1st; his Query Column in Auto Trade Jour'l, 15 yrs, helpt t 2nd. Real pioneering

Many attest his wonder leading. See findings of Dr. Clune, History Prof, Sp'd schools, Sp'd C of C: Pynchon 1927 Medal: shop records: witnesses U. S. Nat'l Museum group; prizes & his 1892 memo book.

Never proud—he knows much he failed to do—he was forced to this defense by many claiming “First”, not earned. They are mostly gone. Did their lying pay?

“If such a leader, why not in big production?” Easy. Too far ahead of Capital. See today. Billions for relief & pauperizing. Millions would set new industries to seeking workers. The 1907 panic forced Duryea to begin making autos on \$2000. Turned it 18 times a year. Good as \$36,000 a year doled. Why neglect such men & things. They are mines of wealth. Are we sane? Health hint. Cities today have few flies. Why? Autos.

See! The Panhard curse “Engine first & women worst” is due to go. Duryea showed engine rear & free wheels, Boston, 1914.

**“Duryea gave us the float-level spray carburetor. It adapted the gas-engine to auto use.” L. S. Clarke of Autocar Co.**

“Not nations, not armies, have advanced the race; but here & there, in the course of the ages, a man has stood up & cast his shadow over the world.”—Chapin.

#### A GENERAL PICTURE

Many assume Europe gave us the auto. Wrong. Here are facts. Homer, about Solomon's time, 1000 B. C., wrote of 3-wheelers. Heron, 3rd century B. C., showed a steam turbine.—“Pneumatica”. Verbiest in China, 1665, made small steamer.—“Astronomia Eur'ca.” Cugnot, in France, a crude steam gun-limber. Soon wrecked. 1770. After 1825, England had a wave of steam busses & outlawed them. Cayley, 1808, made a hot-air engine. In a 2-cyl auto in 1837. Steam led to traction engine & R. R. Hot air to shop gas-engine. Both were mostly made in Europe. Give her full credit. But liquid fuel engines for boats, autos, planes, farms, are American.

Davenport, of Vt., made rotary armature, '36, & electric trolley. Morey, 1826, made first liquid fuel engine with carburetor. Page, Perry, Storm, Drake, Brayton, developed other essentials. All American, with petroleum, rubber & Goodyear vulcanization. Duryea assembled them; being 1st to use air tires on autos & a sprayer which permitted throttling, in engines made for autos.

The Civil War started us manufacturing & building cities. The Centennial, 1876, marked the advent of the bicycle for city use & the cheap buggy for the country family. First time in history. The Chicago Fair made another step. Its advertising, 1890–91, started inventors everywhere at auto work. It gave the “crazy cranks” recognition.

By 1894, France had a race on good roads. In 1895, U. S. did, in deep snow. In 1895, Britain followed. These proved U. S. supremacy & Duryea the leader.

It's a strong picture. For 10 yrs Duryea stood in front, making, proving, showing, 6 leaders—all gasoline driven. His vision was right; grit endless, publicity unequalled. But he made no money. Few real pioneers do. Too far ahead. Real leaders travel alone.

The rich Americans refused gasoline. “Electric or none.” Foolish, they turned to steam in late '98. A decade was wasted, 1900 gave the curved dash Olds & a 3rd time U S led the world. Oddly, though leading in number & profit, the Olds Co dropped the small car & Ford became the wonder quantity & money maker of the world. Britain started air tires but U S makers made auto sizes in '94. U. S. was rich enough to buy buggies in the '70s, for personal use. This century all have taken the auto. Can the world follow? Yes. Duryea waits with proved, simpler, better cars. Merely big is vulgar; monsters clog streets. The average load—under 2—urges more small cars instead.

### **Your friend will enjoy this. Pass it along.**

STEPS U. S. A. is “Home of the auto.” Over 27 000,000 here.

The causes of this ownership led to its coming.

Honor this roll. They led to the present engine.

Samuel Morey, U. S. Pat. 1 Apr, 1826; Brit. 5402 of '26. 2 cylinders, 180° cranks, poppet valves, carburetor, water-cool. some comp'n. Electric spark, also used by Franklin 1749. Full size replica at N. Y. Museum of Science & Industry.

C. G. Page, M. D.; jump coil 1838, years before Ruhmkorff.

Thos. Davenport, rotary armature electric motor, 1837. Showed small electric trolley at New York & London.

S. Perry, May '44, 3597; Oct '46, 4800; Brit. 9972 of '43. air & water cooled. Self start. Tube ignition.

W. M. Storm, Feb. '51, 7922. Jump spark, dynamo, compression before ignition. Wher was Otto?

A. Drake, M D, Apr '55, 12715; Began 1835. Sci. Am. Nov. '55. Brit 562 of '55. "Best" "Same as Lenoir's." Showd engin at Am. Inst. Fair, 1855. "For locomotive use."

G. B. Brayton, begun '53. 6 U S pats; Brit 432 of '72, 2209 of '74, Eng'g, Feb. '77; Sci. Am. May, '76, p. 339. Did he force Otto to improve? His street car of early 1873, was 1st gasolene engined rig known. Pre-Diesel.

H. K. Shanck began 1883-4. 376,212. Duryea folloed him.

But theze wer sporadics. Chicago Fair made REAL start. Advertized for auto exhibits, 1890-91. Gave lackt prestige.

**For comparison.** Duryea, a schoolboy, began '76, Lernd botter-battery defects. Cnoze gasolene, spark fired, in '86. Began continous auto work Aug 1891. Sales in '96.

C. B. King, begun '93, tested Jun '94, rebilt "after 1895. Cyocr, wheels, boat engin, tube frame.

R. E. Olds, Steam '88 & '92. Gas begun '94, ran '96. After 1900 became 1st in number & pront. Small car.

Alex Winton, begun '95, test Sep '96. Sale Apr '98.

H. Ford. Began quadricycl from drawg's Am. Mach't Nov 95 & Jan '96. Tested '96, tuned '97. 2nd began Dec '96.

Some others made attempts '92 & later but quit.

Some claim earner dates without proof. Duryea has it. U S taught Europe. No early U S maker copied Europe.

U. S. had cheap fuel—turpentine & gasolene—long distances & scarce labor. These demand power. So t liquid fuel, spark fired, throttl'd engin came. Duryea masterd it, t 1st in t world designed & bilt especially for autos.

N. B. T Duryea Bros wer farm boys, Chas, 8 yrs older, choze mechanic work & became skild in wood & metal. He twice led Frank from t farm & pusht him rapidly from shop to shop. When other work

called Chas from t auto, he hired Frank, who saw no auto future, to take his place, for more pay. He served wel & later bilt t Stevens Duryeas, 2nd to none to 1915. Illness stopt him. Chas stil works.

## The AUTO'S BIRTH

"Who made t first?" Custom crowns him who did it so early, we, & publicly that others folloed. "Father, leader & pioneer" imply this. By such test Chas. E. Duryea is "Father of t Am. Auto Industry." His products led. He bilt t 1st Am. gasolene vehicl; begun Aug. 1891, tested 19 Apr, '92; tuned that summer & done by Sep, '92. No crude job this. Duryea does better. He studied it years. His thesis, 1882, predicted "humming of flying-machines over all lands & Europe a half-day's journey." Can prophecy be closer? He trained for this. Selected t gasolene spark fired engin in '86; was a licensed engineer & consultant on a steam car in '88, an admitted expert.

He bilt t 1st cycl seen by him, t 1st ladies cycl, t 1st hammock cycl saddl, t 1st open base clincher tire wider than its rim, t 1st puncture seal liquid, t 1st gasolene engins in t world solely for auto use and was the 1st to fit them to boats. He saw how to bild for flight as 2 or more of his '97—8 design engins proved in planes 10 yrs later. In buggy & cycl work he knew lightness, knuckled axls, steerings, differentials, brakes, transmissions & gasolene engins. This throneness made his 1st so good that t 2nd, with same body & front was identical except more power. What other pioneer duplicated his 1st? He publisht, 1891—4. monoplane pictures & flight facts. Plane makers pronounce them practical. His 2nd auto, America's oldest, is in Nat'l Museum, Wash'n, D. C, gift of I M Uppercu of N Y Cy, a permanent monument to Duryea's lead.

These cars showed an auto market far above horse-outfits at prices merited by superior servis; so his brother Frank, hired Apr, '92, began t "Chicago Winner" Oct, '93, t world's 1st real auto. Finisht '94—5, t 1st on air tires, it gave fine servis that summer, won America's 1st contest, Chicago, Nov 28, '95, 1st prize \$2000, in 18" of snow crusted enuf to bear men & sleighs. Of 80-odd entries only 6 cud start,—3 foren, 2 electrics & Duryea. Only 1 other finisht, an Am-rebuilt Benz. "pusht many miles." Duryea led t world. 2 foren concerns took licenses to make Duryea cars.

That fall 13 cars wer begun, advertising & fliers used, some sales, America's first, made in summer of '96. Some agents, a N Y Cy salesroom at 1784 Brdwy, a car daily heading Barnum's parade (& twice in t rings) with acres of bill-boards heralding t new vehicl for weeks in advance, brought it before America's millions & sowed t seeds of t present greatest industry. 4 Duryeas took all prizes, \$3000 at N Y Cy, May 30, '96; 3 times t cars shown by others at Providence, R I, Sep, '96; 2 winners by 70 min. in 52 miles, at London, Eng, Nov 14, '96, gold medal for beating Europe's best, wer futher triumphs. No other approcht this wonderful record in a decade when every one KNEW "Electricity is t thing." Duryea led. He is THE great reason why we use gas cars today. In t 4 great contests mentioned with

160 entries there was no other U. S. pioneer. Carriage Monthly, Sep '96, p 188, said "Duryea Co has rightfully earned its reward & stands today foremost in manufacture of motor vehicles." 3 times Duryea beat the foreners, once on foreign soil—a record that stood 26 yrs. Proofs of the abuy if asked. Other records on both sides were made 5 or more yrs later. A full decade of wonderful leadership, seldom seen.

The 1st patent to a U S pioneer auto mf'r was Duryea's.

June 11, 1895. It showed a real auto. It taught the world. Pat'd abroad also.

### **The New York Winner 1895**

More than a dozen of these in 1896. Four won America's second contest, \$3000, New York, May 30, 1896. No other American maker ran. Duryea's only could climb the hills. One with Barnum's Circus "sold" gasoline to many

Who were the others who claim "first"?

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### **The London-Brighton Winner** went abroad & did much to guide Europe. 1896

2 of these 1897 Duryeas won 1st British contest, gold medal, London to Brighton, Eng., Nov 14, 1896; by 70 min. in 52 miles. The best French racers with drivers were there. For 26 years all others failed to beat the best foreign cars on Europe's soil. See medals & cup. U. S. Museum.

Five Duryea Bros. U. S. Patents June, 1895, to August, 1897, all antedate the earliest patent to any other early American auto manufacturer. Cheap, they taught the world.

By product, performance, publicity, patents, Duryea

Chas E Duryea, Phila, Pa. (3528 N. 18th)