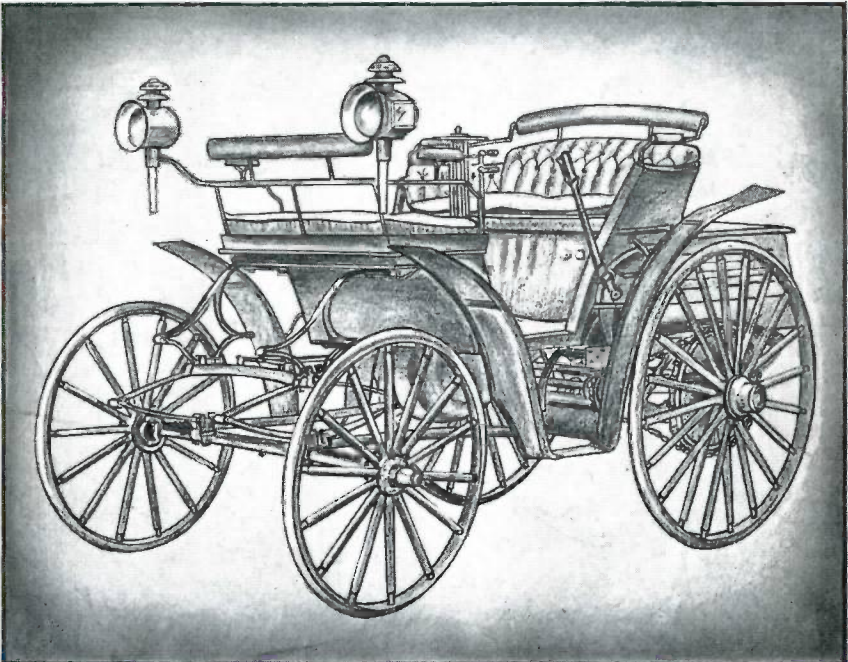


MUELLER RECORD

PUBLISHED AT DECATUR, ILLINOIS



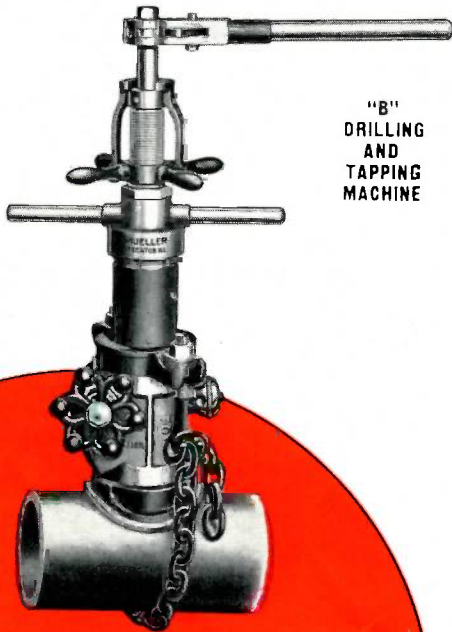
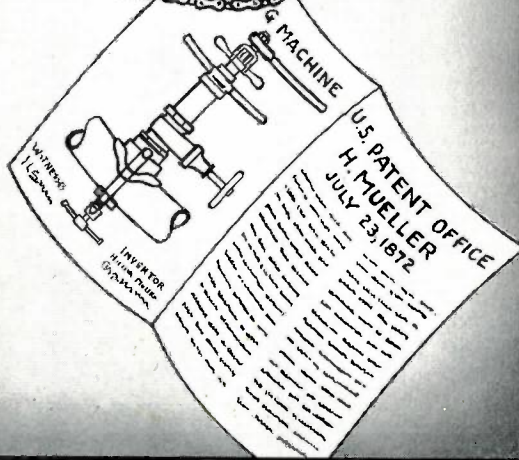
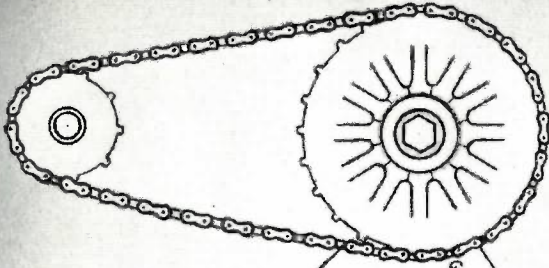
50 YEARS AGO



AMERICA'S FIRST AUTO RACE



NOVEMBER, 1945



"B"
DRILLING
AND
TAPPING
MACHINE

Similarities

Like the endless Drive Chain on the Mueller Gas Wagon, Hieronymus Mueller's Water Main Tapping Machine of 1872 has been an endless success through its long chain of years. Few changes have been necessary since the patent papers were taken out in 1872 on this particular machine. The Mueller Co. has developed a complete line of machines large and small to meet the needs of present day demands.

MUELLER CO.

**DECATUR
ILLINOIS**

<p style="text-align: center;">OFFICERS</p> <p>WILLIAM E. MUELLER President and Treasurer</p> <p>LUCIEN W. MUELLER Vice-President in Charge of Administrative and Sales Engineering</p> <p>J. W. SIMPSON Vice-President in Charge of Sales</p> <p>O. C. KEIL Secretary</p> <p>R. H. MUELLER Chief Engineer</p>	<p>MUELLER RECORD</p> <p>PUBLISHED AT DECATUR, ILLINOIS BY MUELLER CO.</p> <p>Plumbing, Water and Gas Brass Goods 88th Year in Business</p>	<p>MAIN FACTORY AND OFFICE Decatur, Illinois</p> <p>PACIFIC COAST FACTORY Los Angeles, Calif.</p> <p>COLUMBIAN IRON WORKS (Hydrant and Valve Division) Chattanooga, Tenn.</p> <p>CANADIAN FACTORY MUELLER, LTD. Sarnia, Ontario</p> <p>BRANCHES New York, San Francisco</p>
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Vol. XXXIII

NOVEMBER 1945

No. 311

Golden Jubilee Celebration . .

. . First Automobile Race Held In America

The Golden Jubilee Celebration of America's first automobile race is being celebrated in November by Chicago culminating with a parade Thanksgiving Day. The route over which the race was run began at what is now the Museum of Science and Industry, Jackson Park.

Major Lenox R. Lohr, president of the Museum, is formulating plans for special commemorative exhibits of fifty years of automotive progress, and the reenactment of the Thanksgiving Day race.

Six cars started the fifty-five mile course from Jackson Park to Evanston. Four were gasoline and two were electrics. Ten hours later, two finished the race. The car owned and entered by Hieronymus Mueller, founder of the present day Mueller Co., finished second and was awarded a prize of \$1500. The first prize went to a car entered by the Duryea Motor Wagon Co. of Springfield, Massachusetts. There was only about twenty-four minutes difference in the actual running time of the two cars.

From more than 200 rare vintage automobiles owned by the Museum, Major Lohr proposes to select six of the high-wheeled "one-lungers" to represent the six cars which entered the Thanksgiving Day race in 1895. To build up the show it is planned to escort the contestants with a convoy of about thirty other cars representative of the various eras of car development up to the new 1946 models. The third section of the parade will be made up of cars of unusual historical significance.

All the cars to participate have been put in running condition, but in spite of the new paint they show they belonged to a former age. They make us realize how great are the changes in automobiles that have taken place from then to now, and how farsighted were those venturesome men who dared dispense with horses.

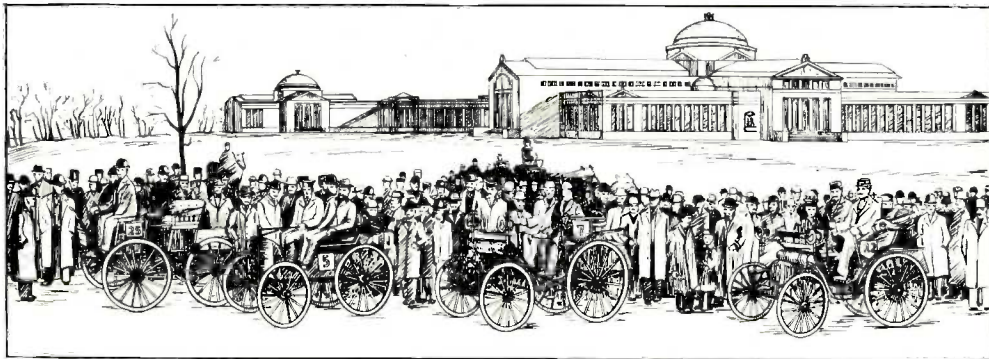
The growth of the automobile industry is typical of what can be accomplished by American enterprise functioning in a free economy.

The first automobile was not taken seriously, except by a few men of vision, but it is doubtful if even they could foresee a multi-billion dollar industry furnishing employment to more people than any other industry in the United States. The early development was not in scientific research laboratories, but by men of strong individuality. One result is that complete data was not always preserved and improvements were on a day to day basis. There have always been some differences of opinion surrounding certain aspects of research and development work before the automobile became a commercial product.

Every effort to give credit where credit is due has been made in the preparation of this booklet and much research has been done for that purpose. Much of the material depends on the recollection of individuals, but it is believed that the result is a fair and unbiased account of a development that has affected, in some degree, everyone now living.

1895 Horseless Carriage Races

◆ *Consolation Race on November 2. Official Race November 28*



Line-up of Contestants Thanksgiving Day, 1895

November 28 is an epochal event in the history of the Mueller Co. Fifty years ago that day the Mueller-Benz car won the second prize of \$1500 in the first automobile race held in America. As we think of auto racing today, this event was not a race, but officially it was the first test of speed and endurance of self-propelled vehicles in America.

The race was sponsored by H. H. Kohlsatt, owner and editor of the Chicago Times-Herald, a widely read newspaper of that day. The Times-Herald gathered the idea from a similar race held in France, from Paris to Bordeaux. Five thousand dollars and a gold medal were offered as prizes to the winners. The original plan was to start the race in Milwaukee and end it in Chicago. This idea was given up, however, when investigation disclosed the roads north of Waukegan were not sufficiently improved to permit the cars to get through.

As a result an alternative course was selected from Chicago to Waukegan and back, a distance of 92 miles, with a time limit of 13 hours. Mr. Kohlsatt planned the event for July 4, but it was soon evident such a race could not be successful on such short notice. It was postponed until Labor Day, and then to November 2. Although about 90 entries

had been made, only two cars were ready to run at that date.

Prior to the race the judges called Hieronymus Mueller, and his son, Oscar, who was to drive the Mueller entry, into a conference and asked their cooperation in postponing the race until Thanksgiving. They suggested instead, a preliminary race with a consolation prize of \$500. Mr. Hieronymus Mueller is quoted as having replied: "I don't think we can object to this, as we wish to cooperate, and if we do object the judges will proceed just as they have planned." Consequently, Mr. Mueller agreed to the proposition.

Accordingly, the consolation race was held on November 2 with only two entries.

1. A single cylinder gas motored car imported from Mannheim, Germany, by Hieronymus Mueller. This was manufactured by Benz, a European pioneer motor manufacturer who had won prizes in European races.

2. A two-cylinder gas motored machine entered by the Duryea Motor Wagon Co. of Springfield, Massachusetts, which ran, according to the description then published, "On four wheels with pneumatic tires and ball bearings. Speeds were controlled by a

proper arrangement of gears, cones, and levers.”

In the so-called “consolation” contest, cars were lined up not far from the present southwestern entrance of the Museum of Science and Industry, which had been the Fine Arts Building of the Columbian Exposition of 1893. The start was made at 7:30 A. M. It was a bright fall day, warm and with a blue haze in the sky; real Indian summer weather. The two cars chugged west on the Midway, through the park system, and on to Milwaukee avenue.

The umpire kept a close check on, among other things, “Time delays” en route. Here is the time out for the Mueller-Benz car as reported:

- By sparking machine—5½ minutes
- Loss of tire—7 minutes,
- Adjusting tire second time—3½ minutes
- Sparking machine trouble—2½ minutes
- Taking water—4 minutes
- Lost road by fault of bicycle guides—4 minutes
- Taking supplies at Waukegan—7 minutes
- Taking supplies at Winnetka—5 minutes
- Loss at grade crossings—7½ minutes
- Total loss of time—46 minutes

Both vehicles made good starts and it bid fair to be quite a race, when a farmer driving a team became so frightened upon seeing the Duryea vehicle coming to meet him in the road, that he turned to the left instead of the right, and forced Duryea into the ditch. This put the Duryea out of business for that day, and the Mueller car finished the course. In winning the race the Mueller-Benz consumed 5½ gallons of gasoline and crossed the finishing line just 8 hours and 44 minutes after its take off.

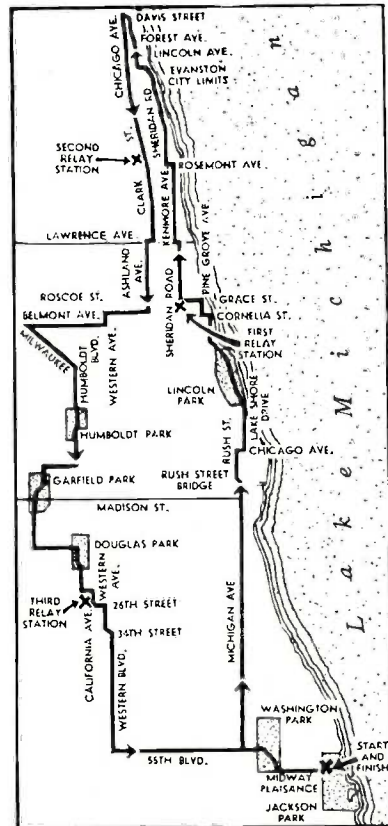
Before the race, Mr. Hieronymus Mueller and sons, Oscar and Fred, went over the route and distributed tanks of gas and cakes of ice at different points along the course. When stops were made at these supply stations for fuel the day of the contest, chunks of broken ice were put in a receptacle on the motor to cool the engine.

Mueller-Benz Car Second

With the official race postponed until Thanksgiving Day, November 28, the interest in the contest waxed higher. The official course was from Jackson Park to Evanston and return, a distance of approximately 55 miles. It was hoped that “twenty or thirty” cars might be on hand. But three days before the race a heavy sleet storm set in, followed by snow. Thanksgiving Day dawned with “several inches of snow” on the ground.

The racers were appalled, but the committee insisted there be no more postponements. On the eve of the day for the race it seemed likely there would be eleven starters, but snow, ice, and other hazards began the elimination before the starting hour arrived. Out of the sixty entries only six vehicles appeared at Jackson Park and Midway Plaisance to start the race. They were:

(Continued next page)



Map of the race route.

(Continued from page 3)

- # 5—Duryea Motor Wagon Co., Springfield, Mass.—gasoline
- # 7—De la Vergne Refrigerating Machine Co., New York—gasoline
- #18—Morris and Salem, Philadelphia—electric
- #19—H. Mueller Mfg. Co., Decatur, Illinois—gasoline
- #22—R. H. Macy Co., New York—gasoline
- #25—Sturgis Electric Motorcycle, Chicago

Haynes and Apperson of Kokomo, Indiana, had a car on the south side all set to go. En route to Jackson Park, they made a sharp turn at Indiana Avenue and 38th Street to avoid a street car; the forward wheel of the motorcycle was smashed, compelling them to give up the idea of racing.

The line-up at the starting time, again only a short distance from the present Museum of Science and Industry, saw what the papers described as "an immense crowd, that had to be controlled by the police thronging all approaches." One story said the contestants had a difficult time getting through the mob.

The Mueller-Benz car had trouble with the new belts which had been installed the day before, and did not get started until one hour and eleven minutes after the Duryea took off.

At 8:55 A. M. Judge Kimball, watch in hand, uttered the word "Go" and the Duryea passed quickly into the crowd which opened and closed as it rushed on.

The De la Vergne machine started at 8:56 A. M.; the Macy at 8:59; the Sturges at 9:01; the Morris and Salem at 9:02; and the Mueller at 10:06.

The De la Vergne machine, which had made a good showing in the Paris-Bordeaux race over good roads, was unable to get sufficient traction to push through the snow, and the driver gave up the race after encountering snow drifts in Washington Park.

The Macy machine, which seemed ill-fated, ran into a series of accidents. It "slid" on the steel rails of a street car line at Adams street and Michigan and crashed into the rear end of a horse car. The gearing was damaged somewhat, but the motorcycle apparently was not in

bad shape. The rear "dashboard" of the horse car was badly damaged.

By the time the Mueller-Benz machine reached Lincoln Park its pneumatic tires were wrapped with twine to keep them from spinning and one of the operatives was sanding the belt to keep it from slipping. As this machine passed the water tower on Michigan Avenue Oscar Mueller called to the crowd:

"We are just an hour and sixteen minutes out of Jackson Park."

The distance covered had been nine miles! The spectators applauded.

The Sturges electric reached the north end of Lincoln Park but had to quit. Its batteries had given out.

The Morris and Salem electric machine, in which Hiram P. Maxim, inventor and mechanical engineer, rode as umpire, ran smoothly. New batteries were put in at 10:27 and again at 12:02. These weighed about 150 pounds each and the change required five minutes each time. The owners had no expectations of finishing the race, but merely wished to prove that their machines were practical for normal distance driving even under adverse circumstances. After traveling ten or twelve miles the driver turned around in Lincoln Park.

Newspaper accounts of the race north of Lincoln Park told of the Macy machine "steaming" north along Sheridan Drive, and the Duryea entry "bowling" along. These two machines were "neck and neck" on Davis street in Evanston. Coming back through Rogers Park the Macy machine hit a hack and bent the steering gear until it was almost useless. It managed to reach the "relay station" at Clark street and Devon, where it stopped for an hour and twenty minutes for repairs.

At this time the Mueller-Benz machine was trailing, having made several stops to oil and fix the clutch which had been bent by the rough roads.

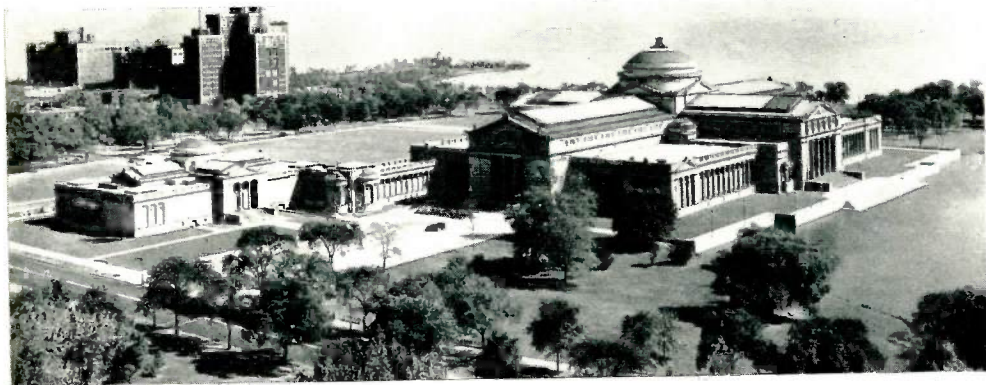
The Mueller machine was driven by Oscar Mueller, son of the owner, with Charles G. Reid in the car as observer, and Charles B. King as umpire. Quoting from Mr. King:

"After leaving the second relay station we began to feel the effects of the strain. Oscar Mueller had not been able

(Continued on Page 14)

Museum of Science and Industry

● *Starting and Finishing Point of First Auto Races in America*



The official start of the 1895 Thanksgiving Day race was made from the front of the Museum of Science and Industry pictured above. The 1945 Thanksgiving Day reenactment will start from the same place.

The Museum, founded by Julius Rosenwald, occupies the reconstructed Fine Arts Building of the World's Columbian Exposition of 1893. This structure is considered one of the finest examples of classic architecture in the United States. Extending 1,146 feet in wooded Jackson Park, Chicago, on the shores of Lake Michigan, it provides a total floor area of approximately 14 acres.

During the month of August, 1945, there were 155,000 visitors to the Museum. Week ends usually run between twenty and twenty-five thousand.

Exhibits of scientific and industrial progress, many of them in full operation, are arranged by subject into sections, as "fuels and metals." Each section is grouped into sequences, often tracing an idea from its invention to its mass production.

It is the Museum's purpose to picture the experimental beginnings and the fully developed processes which fill the needs of a modern civilization, and to show how these represent our American Way of Life. Under a single roof, hundreds of great historic experiments are

reenacted and, beside their portrayal, whirl and throb the wheels and pistons, the gears and levers made possible by them.

Of especial interest just at this time is the automobile exhibit. There is on display more than 200 rare automobiles, ranging from the early carriage type to the present day models.

During the month of November the Museum is featuring some especial exhibits which show the succession of changes made in the automobile, not only in body types but in the various mechanisms. Manufacturers of cars and mechanisms are participating, and there will be special lectures and demonstrations.

These exhibits will present to students and visitors the realization not only of the evolution of the automobile, but of the revolutionary changes that have resulted in our ways of living.

"What did your wife say when you drove past the traffic cop?"

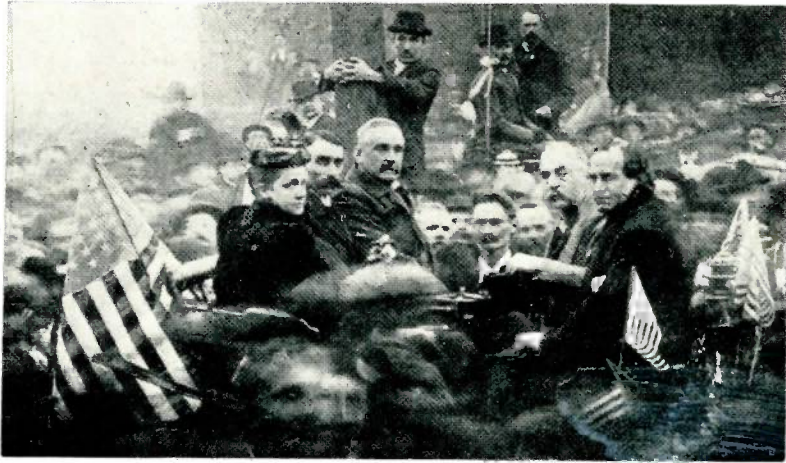
"Nothing," said Mr. Chuggins. "The occasion was one of those valued incidents in life when Henrietta permits me to do most of the talking."

First Driver: "Is this Main street?"

Second Driver: "Yes."

First Driver: "Well, would you mind letting me have a little more of it?"

Bryan's First Auto Ride . .



William Jennings Bryan was the first presidential candidate to ever ride in an automobile. Furthermore, Mr. Bryan's first ride was in the Mueller car on October 22, 1896. It happened in Decatur when the "silver tongued orator" was touring the country on his presidential campaign.

Bryan came through Indiana and reached Decatur on the old P. D. & E. about 2 P. M. The Mueller car met him and conveyed the Bryan party from the railroad station to Central Park where he was to address the great throng gathered there.

The picture taken on that occasion shows Mr. Bryan and Hieronymus Mueller on the front seat, with Oscar B. Mueller standing at the side. The rear seat was occupied by Mrs. Bryan, Mr. Bryan's secretary, and Mr. M. C. Irish of Decatur.

An early account of Bryan Day in Decatur states that Central Park was packed, Water Street was choked, and the side streets filled with massed thousands. There must have been 50,000 people in town that day with most of them massed in the park where Bryan expected to make his speech. So dense was the crowd that it was impossible to reach the speaker's stand and as the car neared the Park, Bryan motioned Mr. Mueller to stop where he was. Mr. Bryan had long since learned never to trust

himself in crowds. The frenzied admiration and hero worship made that literally unsafe.

Bryan rose, facing eastward over Central Park, and calmly faced the crowd. Stretching out his hand for silence, the cheering crowd quieted and Bryan, undisturbed by the thrill and excitement of the massed thousands, poured out his golden oratory. Each word was distinct and clear, and his voice carried across Central Park, although it was obvious that he was hoarse from the terrific strain of the campaign and was not speaking with the flute-like voice so natural to him.

When he finished the roars of the crowd again arose, and the automobile moved on to Lincoln Square where he spoke to another crowd packed in that place, and then back down Water Street, past the stand in Central Park, over to North Main Street, and back to the railroad station. The crowd was so dense that it was difficult for the car to get through, but in a way this was a blessing in disguise. At times the motor, not yet perfected to smooth and slow running, stopped entirely. This proved no real handicap, because enthusiastic boys, now prominent local citizens of today, pushed the car. What was lacking in the way of automotive power was

(Continued on page 11)

Oscar Mueller Racing Pilot



Oscar Mueller

Charles B. King

Oscar B. Mueller's name will always be associated with early automobile history. As the youngest of the six sons of Hieronymus Mueller, he took a deep interest in his father's imported car, and until 1900 much of his time was devoted to the improvement and development of the car. There were a number of patents issued in his name, the general principle of which is still being used today.

Oscar was in fact one of the first speed kings of America, because he drove the Mueller car in both the November 2 and November 28 races. By bringing the Mueller entry in first in the so-called "consolation race", he became the leader of that long line of racing pilots—Mulford, Burman, Oldfield, Tetzlaff, DePalma. Other and later racers have gone faster and farther, but Oscar's cash prize of \$500 made him the first crowned speed king of the first automobile race in America.

He also had the distinction of serving as chauffeur for the famous first automobile ride of William Jennings Bryan in 1896.

Oscar Mueller died April 24, 1941, having retired in 1936. He loved outdoor life and his chief hobby was fishing.

Charles B. King

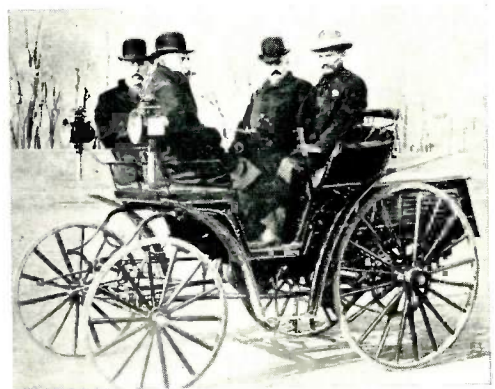
Charles B. King was the umpire assigned to the Mueller entry in the November 28 race. Mr. King, will participate in the race to be rerun Thanks-

giving Day 1945 under the sponsorship of the Museum of Science and Industry in Chicago. The event will fittingly mark the 50th anniversary of the first practical demonstration of self-propelled machines.

The purpose of the umpire in each car was to keep an exact record of the performance, time lost en route, handicaps encountered. Mr. King's account of his observations that day, stated:

"It was necessary to push the car many miles. All took turns at this. Overcome by exertion and exposure C. G. Reid succumbed after 35 miles and was lifted out of the car. Oscar Mueller, the driver, became unconscious about an hour before the finish and King then drove the remaining distance, and across the finish line for second place, holding the unconscious driver, who was then taken to the hospital. The prize was \$1500. King was offered half of this amount by the owner of the car, Hieronymus Mueller, but declined it. He was later presented with a gold medal by the H. Mueller Mfg. Co."

Mr. King did a lot of work on the early cars, built several and has a number of patents issued to him for improvements. His life has been devoted to engineering and inventing many products including the pneumatic hammer and steel brake beams for railroad cars.



The original Mueller-Benz car as it appeared in 1895, when it was awarded the \$500 prize in the consolation race on November 2, and the \$1500 prize for finishing second in the November 28 race. It is also the same car which attracted so much attention at the Illinois State Fair and in Indianapolis.

Our War Time Achievements . .



Representatives of Employees Display the "E" Award Pennant—Left to right: Adolph Mueller, Ernest Potts, Ethel Dixon, Faye Turner, Elizabeth Bratcher, Richard Dannewitz, Col. James L. Keasler.

The same pioneering spirit which activated Hieronymus Mueller's interest in the horseless carriage, has persisted and influenced the growth of the Mueller Co. to its present day. We have always spent a great deal of money and maintained an experienced and progressive staff of engineers to do research and development work for the water and gas industries.

Because of this policy, we had available the essential ingredients so badly needed to carry out experimental work for the War Department. When war was known to be inevitable, Mueller Co. offered its services, and the same pioneering spirit exemplified our conversion to war work. The facilities and adaptability of our engineering force caused the War Department, in its urgent need, to assign us projects requiring considerable engineering skill.

First we were delegated the 37MM shot, of which the army was in extreme need. Our company was given the "go ahead" about December 1, 1941, and we were in production by February 1942. This was an exceptional achievement.

The next step was the development of

the 57MM, for which no specifications were available. This project was completed and the plant put in full production on a smooth operating basis, when again we were called upon in an emergency to change our production line to the urgently needed 155MM. That job was completed in a satisfactory manner, as were the previous ones.

The pioneering spirit and accomplishments of the Mueller Co. were officially recognized by the Army when they presented us the following awards:

July 15, 1942—Army Award for Meritorious Production by the Chicago Ordnance District.

May 27, 1943—Army-Navy "E" Production Award.

May 5, 1945—Star Award to our Army-Navy "E" pennant.

Our engineers learned a great many things during the war which can and are now being applied to the Mueller products. The effect will be to pass on to the plumbing, water, gas, and sewerage industries this accumulated knowledge in more serviceable and better products for those industries.

★ ★ Mueller Men and Women In Service=504 ★ ★

FOUR AUTOMOBILE PATENTS

Principle Covered by 1897 Patents Still in Use

Among some of the interesting records which have been retained in the files pertaining to the early automobile, are four patents which had been granted to Hieronymus Mueller and two of his sons, Philip and Oscar.

The patent on the "make and break" circuit is practically the same as used in modern cars. These four patents were:

U. S. Patent No. 582,539 Granted to Hieronymus Mueller May 11, 1897

This patent covered the earliest design of several features of the modern automobile, viz:

1. The variable speed transmission.
2. Steering gear and body suspension.
3. Water cooling radiator.

Although belts were used in the transmission, direct pull on steering rods, and a tubular frame for the radiator, the

principles used in this early vehicle were the same as in present day autos.

U. S. Patent No. 583,500 Granted to Hieronymus Mueller June 1, 1897

This patent covered an improvement on the variable speed transmission in which a friction disc was used. In modern cars a friction clutch is used in combination with shifting gears.

U. S. Patent No. 582,540 Granted to Oscar Mueller May 11, 1897

This patent covered the earliest form of spark plug which is identical in principle with the spark plugs used in modern cars.

U. S. Patent No. 587,747 Granted to Philip Mueller August 10, 1897

This patent is the original patent on the "make and break" circuit used in the distributors of modern cars.

A study of the evolution of the automobile brings to light many queer things. The earliest models were equipped with a whip-socket. A French model actually ran on mothballs, achieving three miles to the pound of moth repellants. Its chief drawback was the fumes which came from its exhaust.



ARMY AWARD FOR MERITORIOUS PRODUCTION

The first Army award received by Mueller Co. employees for Meritorious Production, July 15, 1942. At the left is Adolph Mueller, Chairman of the Board (now deceased) and to the right Brigadier-General D. Armstrong

FIRST HORSELESS CARRIAGE IN TENNESSEE

The Centennial Exposition, commemorating the admission of the State of Tennessee into the Union in 1796, was held in Davidson County, Nashville, May 1 through October 31, 1897.

October 28 was John W. Thomas Day. Mr. Thomas was president of the Centennial as well as president of the Nashville, Chattanooga, and St. Louis Railroad, whose headquarters were in Nashville. The late George Reyer, then head of the waterworks of Nashville, and a friend of the Mueller family, arranged that the Mueller-Benz horseless carriage be in the parade that day.

"The Nashville American" of October 28 in describing the parade in honor of John W. Thomas Sr., carried an account on page 1 which read:

IN HORSELESS CARRIAGE

President J. W. Thomas Will Ride In A Novel Rig Today

"One of the very interesting features of the parade today will be the horseless carriage in which President Thomas will ride. The carriage arrived in the city yesterday afternoon, being packed in a box car attached to a passenger train, so that it would reach the city in time for the parade. The carriage was in charge of Fred B. Mueller of the H. Mueller Mfg. Co. of Decatur, Illinois. The motor carriage belongs to this firm and was kindly donated for the occasion.

"Vice-President Harahan of the Illinois Central Road, was very much interested and hurried the carriage to Nashville in order that it might prove a unique feature in the John W. Thomas parade. He ordered the freight car attached to a passenger train, which was contrary to the general rule of the road, but he was willing to do almost anything to aid in the celebration in honor of his esteemed friend, Major J. W. Thomas."

On October 29, 1897, the "Nashville American" again mentioned the horseless carriage in connection with the parade, but it gave scant attention in comparison to the space devoted to the "gay carriages, prancing ponies, bicycle riders, etc." This is understandable since Nashville is located in the famed blue grass district famous for its fine horses.

"The parade was well started out Broad Street, when in front of the Nashville, Chattanooga and St. Louis Railroad there came the sound of turning wheels and escaping steam. Many standing in the immediate neighborhood had not noticed the curious carriage that stood before the door of the building. It was a horseless carriage, decorated with chrysanthemums and American Beauty roses, until it looked like a bed of flowers. In the vehicle were President and Mrs. Thomas, both smiling at the crowd about them.

"Mr. Thomas sat upon the rear seat with Oscar Mueller, who operated the vehicle, and Mrs. Thomas occupied the front seat. The unusual carriage created much comment along the march; the very great majority of those who looked at it having never seen this invention before. It was decidedly a pleasant feature."

FLOYD V. JOHNSON RECALLS EARLY EXPERIENCES WITH MUELLER-BENZ CAR

Floyd V. Johnson, salesman with the Mueller Co. since 1911, who has spent most of those years travelling in Tennessee and Kentucky, was a resident of Decatur in his boyhood days. His recollection of the disposition of the original car are later than those of anyone else we have been able to locate in our search for information. He writes:

"After the death of Mr. Hieronymus Mueller, the carriage was sold or turned over to some of the mechanics who had worked with Mr. Mueller in his experiments to perfect the auto, particularly the carburetor. In the winter of 1902-1903 the carriage, less the motor, was in a vacant lot next door to where we lived in the 1200 block West Green Street, Decatur. The motor was used to operate a grist mill and was still running satisfactorily in 1912.

"I remember the afternoons spent playing in this carriage, until I jumped from one of the high seats, caught my chin on a clothes line, and nearly broke my neck. We were never allowed to play in the Mueller-Benz car again, and it was my belief that my mother caused the carriage to be removed from that location."

Army Interested In First Race

President Cleveland Appointed Supervisor

The Times-Herald, sponsor of the first horseless carriage race, was far and clear visioned as were also the few dauntless manufacturers such as Hieronymus Mueller, who had been giving much thought and time to the machine before 1895. After the announcement of the race was made, Mr. Kohlsatt, the Times-Herald editor, was deluged with inventors soliciting help. Most of these were without financial means, and Mr. Kohlsatt appealed to President Grover Cleveland to have the War Department take charge of the experiments and race. His argument was based on the belief that the greatest use of the motor wagon would be for army and commercial trucks. The motor vehicles of World War II, ranging from the small peeps to the huge General Pershing tanks have proved this theory.

President Cleveland instructed General Nelson A. Miles, Commander U.S.A. to take charge, and he in turn appointed General Wesley Merritt. General Merritt chose Henry Timken, a carriage manufacturer, and Professor John P. Barrett, head of the Electricity Department of Chicago, to act as judges with him. Assistant judges were Leland L. Summers and John Lundy, civil engineers; Col. M. J. Ludington, U.S. Army; Dr. Allan Hornsby, and C. F. Kimball, carriage manufacturer of Chicago.

After the race had been passed to the army, it became quite naturally a highly technical supervised event, under rules most exacting for the period of time under which development had been hurriedly undertaken.

The army board called for power and duty tests of these primitive machines, classified as follows:

- Speed in feet per minute
- Pull exerted in pounds
- Horse power exerted at rim of wheel
- Horse power consumed in mechanism
- Total horse power developed in cylinder
- Mechanical efficiency

- Gasoline—pounds consumed per hour
- Gasoline—pounds consumed per horse power hour at rim of wheel
- Foot pounds at rim of wheel per pound of gasoline
- Cost per horse power hour, rim of wheel, cents
- Efficiency: $\frac{\text{H. P. Output}}{\text{H. P. Input}}$
- Heaviest pull exerted—pounds

There were other tables of requirements such as "Details and dimensions of motor vehicles," wheel resistance, tests, etc.

Judges who examined the Mueller machine immediately after the race reported that it had stood the trip in a "magnificent manner."

It was the opinion of the judges, however, that not one of the six contestants lived up to the rules. The achievements attained and the records set that day, were more momentous than the violation of the rules, and awards were made accordingly. The big thing that developed on November 28, 1895 was the fact that a gasoline powered vehicle had made an average speed of $7\frac{1}{2}$ miles per hour, time for necessary stops being deducted. From that day on America rapidly became motor conscious.

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supplied by the strong arms of the young followers.

The first Bryan campaign was the most critical and hottest since the Lincoln-Douglas election of 1860, and Bryan's visit to Decatur, his ride in the Mueller car, are all memorial landmarks in the history of Decatur. Bryan referred to this first automobile ride in his book "The First Battle."

An enlargement of the picture shown hangs on the walls of the Bryan Shrine at Salem, Illinois.

Founder of Mueller Co.

● AND PIONEER IN DEVELOPMENT OF "HORSELESS CARRIAGE"

Hieronymus Mueller established the Mueller business in Decatur, September 7, 1857. Between that date and the present there is a story of growth and development, due to his initial effort, his dogged perseverance and his mechanical ingenuity.

He began as a gunsmith, but at the time of his death, March 1, 1900, he had gained national recognition and standing as a manufacturer of quality products for the water, plumbing, and gas industries.

Had Mr. Mueller's capabilities and ambition been limited to his own trade, he would never have achieved the distinction he did as a pioneer in developing the "horseless carriage". Mechanics with him were on a broader plane. Thorough understanding of the basic principles made their application to any line a simple matter, resulting in his gradual entry into new fields. Pieces of meaningless steel in his hands were fashioned into graceful and useful forms.

While self-propelled vehicles were still generally regarded as impractical dreams of crank inventors, Mr. Mueller had been giving much thought to them. In 1891 or 1892 he first began his plans of a self-propelled machine. He worked on various ideas and learned what he could about what was being done in other countries. Becoming dissatisfied with the progress he was making, he imported in April, 1895, what he understood was the best car made in Europe, the Benz wagon, manufactured in Mannheim, Germany.

When the car was received it had two speeds forward, no backing arrange-

ment. This Mr. Mueller changed to three speeds ahead and one for backing. The valves and the mechanism for operating them were completely changed. A spark plug was devised and patented. Also a new system of water cooling the engine. A new and smaller carburetor was perfected. Up to that time there was no method of adjusting the spark on a gas engine. Such an arrangement was made by H. Mueller, and while it was necessary at first to adjust the spark by getting out of the car, later it was improved

upon so that the spark could be adjusted from the driver's seat.

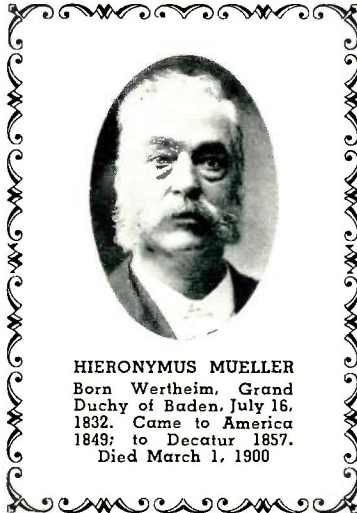
Oscar Mueller, many years later in commenting upon the changes made in the early car, said that to the best of his recollection the Mueller car was the first to make use of a radiator in an attempt to eliminate the difficulties of the engine overheating.

Hyatt Roller Bearings were used on the wheels; the muffler was improved so that nearly all noises from the explosions in the cylinder

were eliminated; the solid tires were changed to pneumatic. In fact, the car was completely rebuilt.

After rebuilding practically all the parts for the Benz car, Mr. Mueller started to build four complete automobiles. The first two were single cylinder approximately four to five horse power each. The next two were double cylinders of about 8 to 10 horsepower each. The last car built had a speed of from 21 to 24 miles per hour. While working on these cars in 1900 a gasoline explosion burned Mr. Mueller so badly that he died a few days later.

(Continued on page 14)



Early Tours To Illinois and Indiana...

When one of the early car owners decided to take a trip of a length that would now be considered only a few hours spin, he felt he was adventuring into the great unknown. And indeed it was almost that. A guide book was a valuable addition, but there were few guide books in 1895 and 1896. The roads were unmarked, and sometimes it was only by exercising the imagination that the routes over which the cars traveled could be called roads. When it rained they were mudholes, and often were nothing more than narrow wagon tracks. Hills were a real obstacle, and wind was a factor with which to reckon.

In September 1895 Hieronymus Mueller and his son, Oscar, attended the Illinois State Fair at Springfield, a distance of 40 miles from Decatur. This was doubtless the first auto tour in Illinois, and the record set was not too satisfactory. They left Decatur at 10:30 A. M. and arrived in Springfield at 6:30 P. M. Returning the trip was made in six hours, but the conditions for travel were more favorable. The car was one of the main attractions at the Fair, as crowds gathered around it to wonder and speculate on the miracle of a carriage moving under its own power.

Indiana

In May, 1896, Fred Mueller, Oscar Mueller, and C. T. Hildebrandt, all of Decatur drove the motor carriage to Indianapolis for the 16th annual convention of the American Water Works Association.

The first day the party covered 94 miles, which was very good because they made brief calls at each town through which they passed, distributing circulars calling attention to the carriage which they then planned to begin manufacturing, and other goods exhibited at the convention.

A letter written by the Muellers regarding this trip tells us:

"As we had advertised our trip before the run we were always met by bicycle riders who conducted us into the next town, and upon nearing the towns bug-

gies and wagons joined in the procession.

"Our reception at Danville was greatest of all. Bicycle riders began meeting us 20 miles from the city, and at every turn in the road more joined us. There were people in buggies, wagons, on horseback, on bicycles, and some who had no other means of following ran until out of breath, only to be replaced by others. Fully 5,000 people were following or on the main street leading into the city. They were wild with enthusiasm and hailed the carriage with delight. After supper we gave short rides to about 25 of Danville's leading citizens."

Next day the remaining 96 miles to Indianapolis were covered, with the mud roads as bad as they could be, but the gravel roads in fine condition.

"About 10 miles from Crawfordsville we came to a creek where the bridge had washed away. A horse and buggy had just forded the stream, and noticing where the water struck the buggy, the driver turned on full speed, went down the grade, and struck the water with full power. We went through the stream and up the other bank so quickly that the water and sand fairly flew.

"During the entire trip our motor worked perfectly, and the practicability of our motor carriage is an assured fact, having covered the entire distance of 190 miles with a cost of less than \$1.50. There were three passengers during the entire trip, and most of the time we had five. Horses could readily pass us on the road, but they could not keep pace with us for any great distance."

In 1934, Mr. Edward C. Leible who had then completed 60 years of continuous service as cashier and assistant treasurer of the Indianapolis Water Company, recalled that he had his first automobile ride in the Mueller car at that time—a distance of three blocks. "Needless to say," Mr. Leible commented, "the Mueller horseless wagon was the sensation of the convention."

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The plans which he had made for a factory devoted to the manufacture of automobiles were dropped by the six sons, who concentrated on producing quality products, serving the needs of the water, plumbing and gas industries.

(Continued from page 4)

to get any breakfast and the three of us had only a sandwich apiece for lunch. After about 35 miles had been covered Reid changed his place on the motorcycle for one on a cutter. Oscar Mueller seemed to go to pieces quickly after that. When we reached Halsted and 56th Streets he lost consciousness. I seized the lever and guided the wagon south to 63rd Street, then to State Street on to 61st Street over to Washington Avenue, and from there down the Midway Plaisance to the finishing point. During the trip we took on board six gallons of gasoline, six pails of ice, and three pails of snow."

The snow and ice were used to keep the motor from overheating. In both the preliminary race and the Thanksgiving Day race ice was one of the most necessary requirements for the continued operation of the motor.

The Macy machine gave out completely at 6:15 P. M. An explanation was that "the cylinder opened so that it would not carburate." Mechanics worked on it until 11:30 P. M., but could not make it run. The next day the machine was repaired and continued to finish the 55 mile course.

It was just 7:18 P. M. when J. Frank Duryea drove his car across the starting line, total time 10 hours and 23 minutes. Not fifty people saw the last stages of the finish.

At 8:53 P. M. John Lundy, one of the judges, held the watch as the Mueller car crossed the line, second in the race with a time of 10 hours and 47 minutes. Considering the lateness of the hour at which she started, this was only twenty-four minutes after the Duryea. Her journey through the parks and boulevards was lonely and unnoticed. An occasional enthusiast might be found at some point who had waited all afternoon and evening for the sight, but these were few. The gayeties of the evening

had called away the large and jolly crowds of the morning. Only the officials of the race and reporters saw the end of the great battle against the snow, slush, and tremendous odds.

The judges took from November 28 to December 5 to "study the reports and consider the data" before declaring the winner. Decisions were:

1. An award of \$2,000 to the Duryea Motor Wagon Co. of Springfield, Massachusetts, for best performance in the road race, for range of speed and pull, with compactness of design.
2. An award of \$1,500 to H. Mueller Mfg. Co. of Decatur, Illinois, for performance in the road race, for range of speed and pull, with compactness of design.
3. An award of \$500 to R. H. Macy and Co. for showing made in the race.
4. An award of \$500 to the Sturges Electric Motorcycle for showing made in the race.
5. An award of a gold medal to the Morris and Salem Electrobat for best showing made in the official tests for safety, ease of control, absence of noise, vibration, heat or odor, cleanliness and general excellence of design and workmanship.

The judges reported that every contestant had violated some vital rule, and so had no valid claim for consideration as prize winners. But, they added, "the remarkable run made by Mueller and Duryea compelled substantial recognition." It was pointed out that the contest was for "promoting and stimulating the invention, development, perfection, and general adoption of motor vehicles or motorcycles." It was decided that the test took precedence over the rules.

Every entrant in that historic race, whether they finished or just faced the starter, deserved full measure of credit—they were the trail blazers, sign posts of a few venturesome manufacturers who, backed by courage and clear vision, realized what the future held in store for perfect speed, comfort, and pleasure in automobiles, such as nearly all Americans now enjoy every day in the year.

Later Model Mueller Auto



The car pictured above is one of the later models built by Hieronymus Mueller. Seated in the front seat are his son, Adolph Mueller, and Christy Goshert, who was a bookkeeper for Hieronymus Mueller. In the rear seat, Anton Schuerman and Toddy Vest, while standing are Jake Voelcker and Fred Reab, all employes who worked with Mr. Mueller.

At the time this car appeared on the streets of Decatur, "horseless carriages" were still enough of an oddity to cause the local citizens to stop and watch with unceasing amazement because they actually ran. Many people had a decided antipathy to this new invention. This was especially true of people who drove horses that were easily frightened, for while the driver of a new automobile might be able to control his machine, he had no power over the horses he met.

Many of the early motorists were very thoughtful of the lives of others and would stop their machines until a team got by them, or if the team seemed to be frightened one member of the party in the car would lead the horses down

the road until past the sound and sight of the car.

Many new regulations were hastily enacted. Almost everywhere motorists were expected to stop at the request of a horse driver. San Rafael, California, compelled all cars to stop when within 300 feet of a horse, according to a report of some of the unusual legislation passed to make motoring safe.

PACER'S RECORD NOT THREATENED

As Oscar Mueller drove the Mueller-Benz entry in the November 2, 1895 race to the starting point, he was ordered off the boulevard by a south park policeman. Forced to take a round about route, he was late reporting to the officials. There was much skepticism among the crowd as to whether the car would actually run, and to prove it, Mr. Mueller drove the car around the Washington park track. Here the summer before Joe Patchen, famous pacer, had defeated John R. Gentry in 2:05¼. The Mueller-Benz didn't even threaten the record—its time was 4½ minutes for the mile.

1896 STATEMENT OF H. MUELLER MFG. CO.

At the 16th Annual American Water Works Convention held in Indianapolis, Indiana, May 26-28, 1896, the H. Mueller Mfg. Co. presented its visitors with a printed pamphlet describing and explaining in detail the historic first Mueller car. This interesting and authentic statement concerning the early car, is reprinted here:

"It seems to be the general impression that our carriage is strictly a Benz carriage. Therefore, for the benefit of others and due credit to ourselves, we wish to make a statement to the effect that H. Mueller imported a Benz motor carriage about April, 1895, this being the first practical motor carriage in America. We had full instructions for operating the carriage and used every advantage in our power, but were unable to make it give satisfaction. It often stopped without the slightest cause, its speed was limited to about 10 miles per hour at best, and it mounted slight grades with difficulty.

"As we had a well-equipped machine shop at our disposal, we commenced to experiment and to improve the carriage, and had it prepared in time to take its chances with all others in the Chicago Times-Herald race of November 2, 1895. By previous reports it will be seen to have covered a distance of 92 miles in 8 hours and 44 minutes. It seems impossible that the few alterations made should make such a remarkable change in the power and working of the motor, considering the distance covered, and that only $5\frac{1}{8}$ gallons of gasoline were used during the entire trip.

"After the race almost the entire construction of the motor was changed, retaining the same cylinder and valves, but operating them differently. When this carriage was again taken to Chicago for the second Times-Herald race it was called the Benz-Mueller Motor Carriage, giving Benz the credit of the generator. If we had had time before this race we could have built a new carriage, with a few exceptions like it, without any infringements on the Benz motor.

"In connection with this we wish to say that as far as we can learn about

the building of motors in general there is not a builder at the present day working entirely upon his own ideas, and, therefore, we expect as much credit for our motor as if it had been strictly an American motor carriage.

"We are now making a strictly American motor carriage, which will carry four persons, both seats facing forward, and will have a double cylinder motor. These cylinders can be used together or separately, and the steering apparatus will exhibit some new features. The wheels will be fitted with pneumatic tires. We expect to be able to manufacture these in the near future."

PRIZE AWARDED FOR BEST NAME

"Motorcycle" Chosen as Official Designation

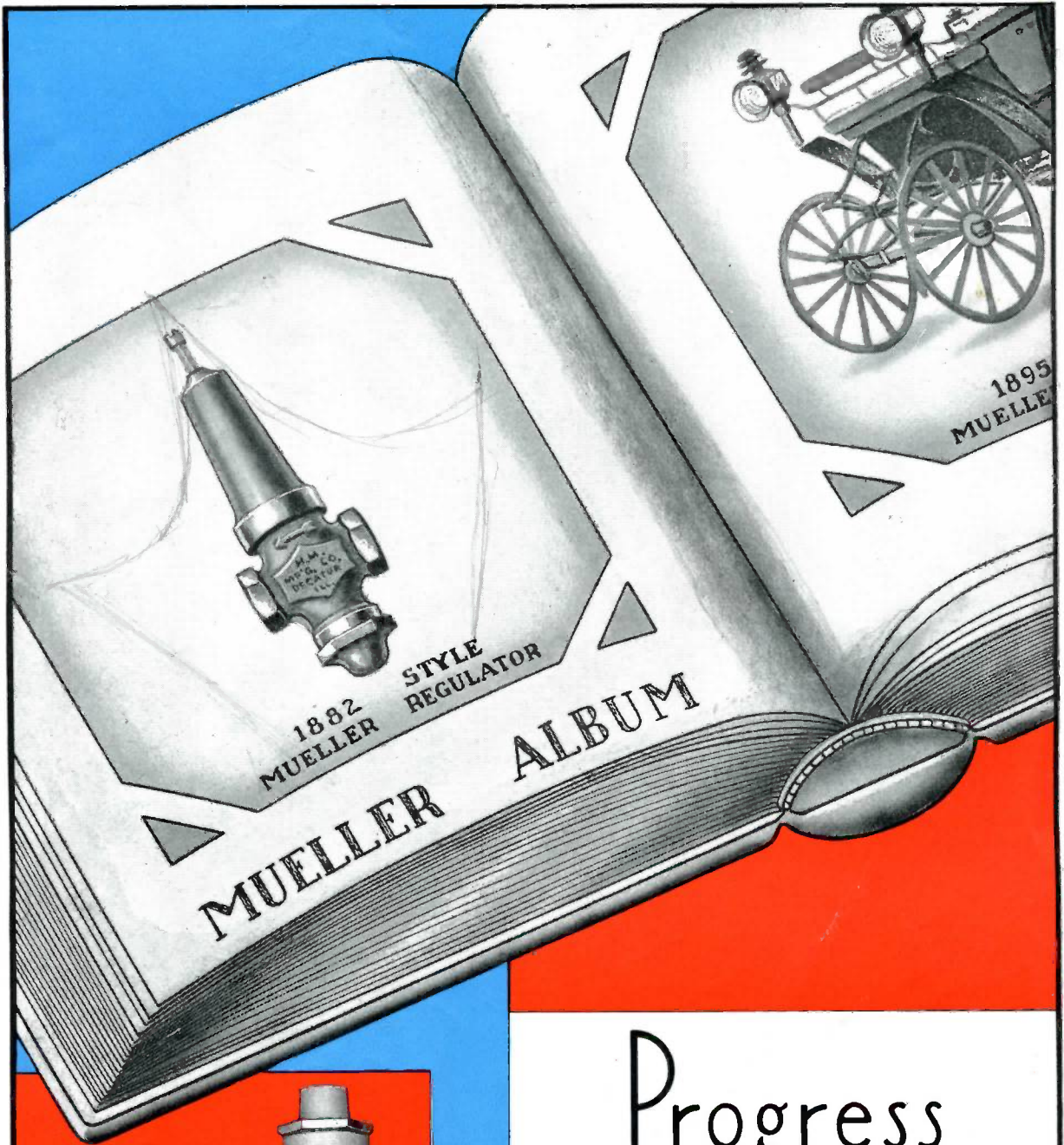
As a part of the promotion of interest in the first race, the Times-Herald offered a \$500 prize for the best name suggested for the horseless vehicle. The American people did not take kindly to the names that were imported with the early machines. They wanted something American. "Automobile" had a strange sound, and at first it was not accepted.

"Horseless carriage," "Motor wagon," "Benzine buggy," "Polycycle," "Petrocar," "Autofiacre", "Auto Gondola", and "Road Locomotive" were some of the most commonly used. The \$500 prize was awarded to G. H. Shaver of New York for the name "Motorcycle", but there was no way to get the public to adopt its use. There is no record of when the word "Automobile" first became the favorite. It seems to have been one of those decisions made by Johnny Q. Public without regard to prizes awarded or decisions made by the experts.

Andy was busy with a spade in the mud beside his car when a passing stranger hailed him.

"Stuck in the mud?"

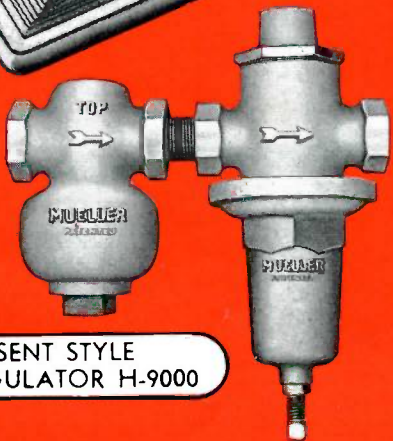
"Oh, no," replied Andy, cheerfully, "my engine died here and I'm digging a grave for it."



MUELLER ALBUM

1882 MUELLER STYLE REGULATOR

1899 MUELLER



PRESENT STYLE REGULATOR H-9000

Progress

Hieronimus Mueller invented the water pressure regulator in 1882. Through the many improvements incorporated in the MUELLER Regulators since they were introduced to the trade great progress has been made. Today, MUELLER Regulators are recognized as outstanding for the control of pressures in water, steam, oil, air, and gas lines.



MUELLER CO.
DECATUR 70, ILL.





Our Achievements

of World War 2
were Reflected
Unknowingly in the
Headlight Lenses
of the Mueller Gas
Wagon of 1895.

- U. S. Army Production Award
July 15, 1942
- Army-Navy E Production Award
May 27, 1943
- Army-Navy E Star Award
July, 1945

MUELLER CO.

DECATUR ILLINOIS **FOUNDED 1857**