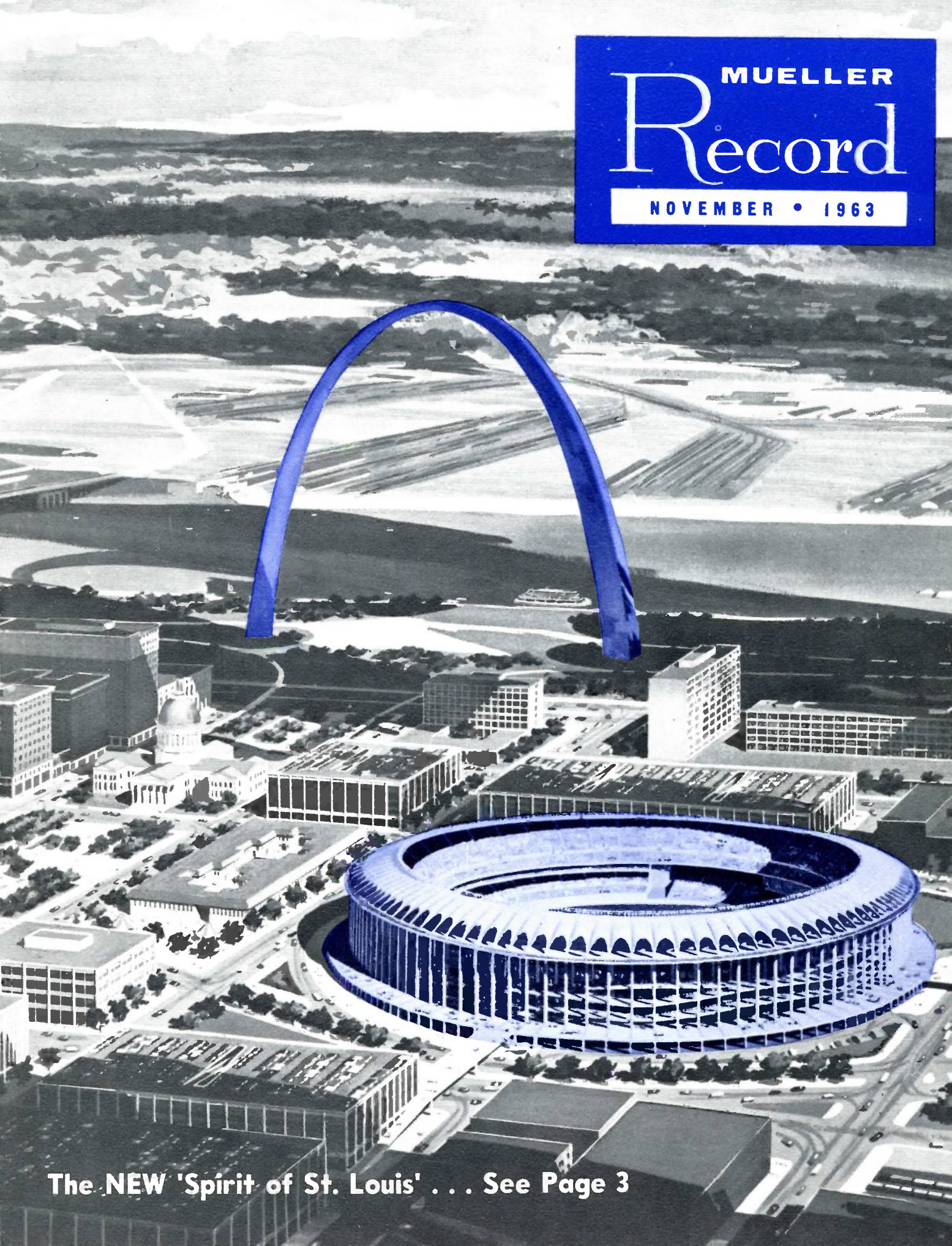
MUELLER Record

NOVEMBER • 1963



The NEW 'Spirit of St. Louis' . . . See Page 3

MUELLER RECORD

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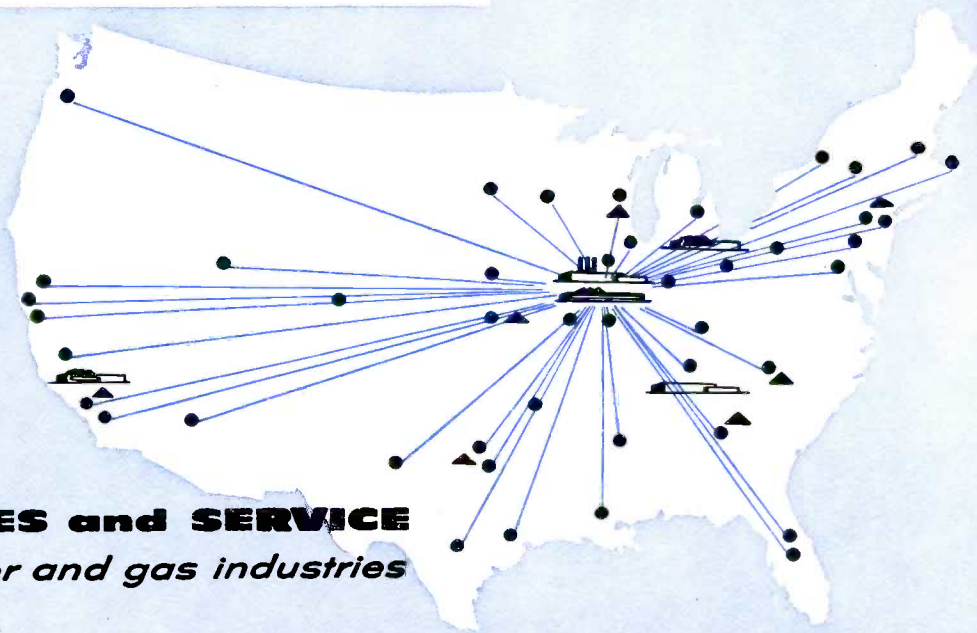
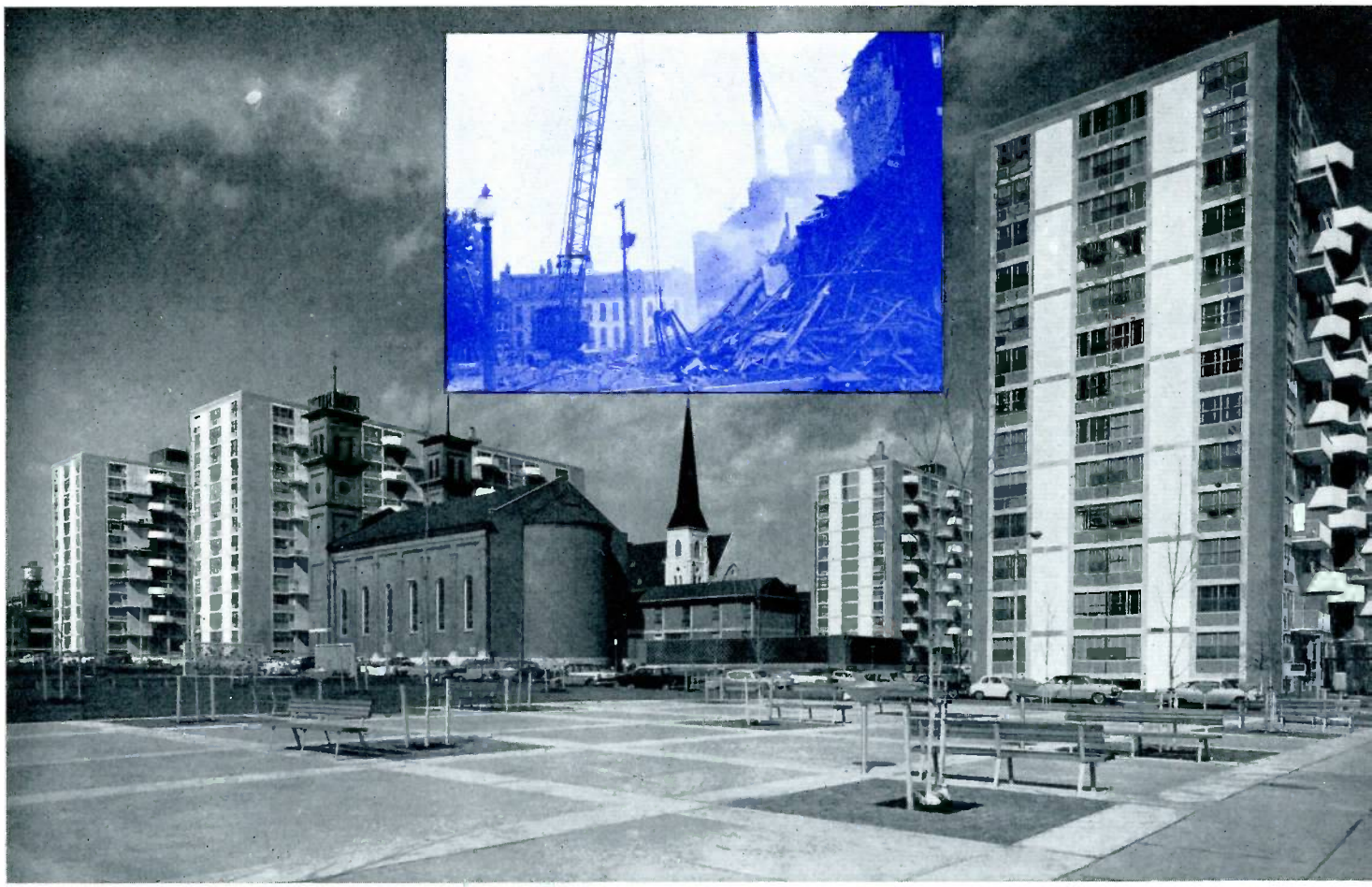




A typical scene in St. Louis today is the inset which shows demolition of slums and sub-standard housing. These areas are giving way to such modern developments as the Plaza Square Apartments which are pictured above. The apartments are the result of vigorous cooperation between city, civic and business leaders in the area. Some 70 citizens and businesses raised more than two million dollars in private capital and subscribed more than 13 million dollars in loans to build them in downtown St. Louis.

The New "Spirit of St. Louis" Soars

Laclede Gas Plays Role of Active Citizen As Well As That Of Modern Utility

(THE COVER shows a sketch of the Gateway Arch and the new stadium.)

Snapped out of lethargy by fear of strangulation by congestion and blight, businessmen, civic leaders and individuals around the country have begun renewal campaigns which are putting new life and new living in many of our major cities.

One such city being revived is St. Louis, Missouri. The future of St. Louis started drifting downstream when the steamboat stopped navigating the Mississippi, but today the city is in the midst of one of the most ambitious rebuilding programs recorded.

Nowhere in the 200-year history of this city will be found anything to compare with the current and planned building activity program, estimated to total about $1,500,000,000.

This vast expenditure will go for improvements which will lift the face and revitalize the arteries of a city which has been known for things other than its baseball team and breweries.

Instead of a blighted riverfront, you will soon be able to see the nation's tallest monument surrounded by a park.

Instead of decaying downtown buildings and businesses, you will be able to see new motels and an $89,000,000 downtown stadium complex.

Instead of hundreds of acres of tenement houses and slums, you can find areas which have been cleared and are now under redevelopment.

Instead of narrow, out-dated streets and roads, you can find modern expressways and highways.

Many St. Louisans scoff at the terms "New St. Louis" or "St.

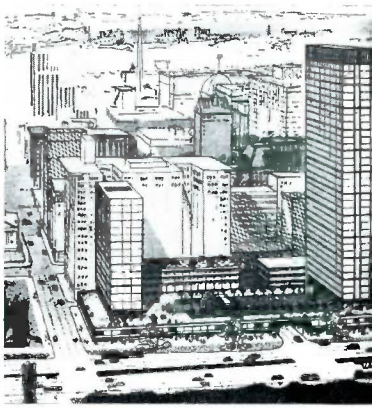
Louis—Showcase of the '60's". They have heard talk of a new profile for the city for as long as 25 years, but it takes no native to feel and see the momentum that is moving St. Louis.

The cost of this revitalization program is expensive for many who are touched by this new "Spirit of St. Louis."

Laclede Gas Company of St. Louis is playing an important role in the redevelopment of St. Louis, just as gas companies all over the country are extending service, relocating lines, expanding capacities to meet increased needs.

A review of costs of relocating gas mains in St. Louis at the requests of state, federal and municipal governments gives a concise picture of changes taking place in St. Louis and also gives an idea of some of the cost to the utility involved in a redevelopment program.

In 1950 the cost of main reloca-



As the Bel Air East motel (center, background) nears completion, workmen are preparing the site for the construction of the Mansion House apartment building project. At right in the center can be seen an architect's sketch of the 40 million dollar project. This area is in downtown St. Louis and only a few blocks from the site of the new stadium. Below, workmen weld a gas line which is being relocated for one of these projects.

tions by Laclede was about $700. In 1957, two years after a major bond issue was passed which got the renewal program moving in high gear, the cost to Laclede rose to $206,600 and this year it is anticipated that it will exceed more than a half-million dollars.

H. Reid Derrick, President of Laclede, said, "Importance of planned civic growth to the future of cities like St. Louis and the utilities that serve them can hardly be overstated. For the past 10 years Laclede has been required to spend ever-increasing sums of money to make way for new expressways, new housing and industrial developments, and other civic and governmental projects. But we feel the cost which we have had to bear will be more than justified, eventually, by the increased vitality of the metropolitan community.

"In areas and activities too numerous to mention, Laclede has sought to encourage what we term the NEW 'Spirit of St. Louis.' We are happy to be an active partner in what is happening to change the face of the city for the better."

Aside from its primary job of furnishing natural gas to about 400,000 customers in St. Louis and St. Louis County and absorbing the costs of changes brought on by the rebuilding of the city, Laclede Gas has added its support by contributing to city programs in other ways.

The most spectacular program in which Laclede is participating is the 30-million-dollar Jefferson National Expansion Memorial which is the site for the nation's tallest monument.

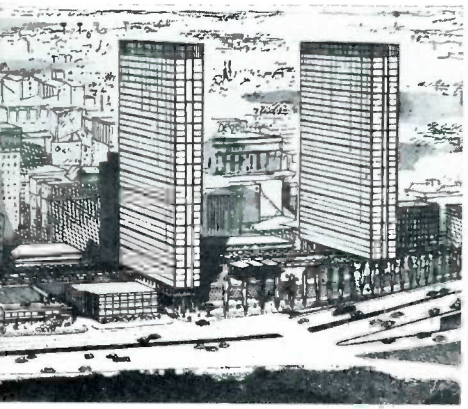
This monument will be known as the Gateway Arch, commemorating the opening of the West after the Louisiana Purchase. Completion of the 630-foot steel Arch, which will cost approximately 12 million dollars, is expected early in 1965. This will coincide with the 1964-65 celebration of the 200th anniversary of the founding of St. Louis.

The massive legs are now extending skyward and work is proceeding on an 80-acre tree-shaded park which will finally solve St. Louis' perennial waterfront problem.

The Arch will symbolize St. Louis' role as the Gateway to the West. An underground visitors center beneath the Arch will contain an elaborate Museum of Westward Expansion. This will tell, in more than 200 displays, the century-long story of the explorers, trappers, prospectors, ranchers and sodbusters who rolled the frontier back from the Mississippi.

The Arch, which is 75 feet taller than the Washington Monument, will be visible for 30 miles. An observation platform near the apex of the arch, reached by trains traveling inside the hollow legs, will overlook the city from a height equivalent to that of a 63-story building.

Laclede is now participating in the filming of two programs which will be presented on St. Louis television under sponsorship of the



The legs of the Gateway Arch can be seen rising along the banks of the Mississippi.

This gigantic, 465-acre land clearance program at Mill Creek Valley ridded the city of it No. 1 eyesore and opened a new industrial park for development which is expected to attract $200,000,000 in new investments in the next 10 years.

gas company. One, being done in cooperation with the American Iron and Steel Institute, will show the step-by-step erection of the Arch. The other, in cooperation with the U. S. Park Service, will present St. Louis as the historic gateway to westward expansion. The latter film will be shown regularly in the Arch's underground museum.

These TV "specials" are but two of a continuing series sponsored by Laclede which deals with the St. Louis community—its history, color and facilities. This is another way in which Laclede is boosting the community which it serves.

Within cheering distance of the Arch, ground is being cleared for the Civic Center Busch Memorial Stadium. The 50,000-seat Stadium is the main feature of the first phase of the 89-million dollar improvement program of the Civic Center Redevelopment Corporation.

A 28-square block area in downtown St. Louis is to be cleared for this project which will also include a 400-room motel, a dining and entertainment area and multi-level parking structures to accommodate 7,400 cars.

The project is financed with private capital, except for six million dollars in St. Louis City bonds to provide the streets, street lights and other public utility improvements in the area. Thirty-seven prominent civic leaders serve on the Board of Directors and Advisory Board. There are about 300 stockholders at present who have contributed 20 million dollars in equity funds to launch this campaign.

Laclede Gas Company has given its support by financially aiding this cause and by having its president on the Board of Directors for the private corporation. Robert W. Otto, former Chairman of the Board of Laclede Gas, is also on the Board.

The nearly circular stadium is built on two decks and will cover an area of about 12 acres. Office buildings and commercial facilities in later stages of the stadium complex will result in direct renewal of a blighted area of 31 city blocks, approximately 80 acres in downtown St. Louis. Completion of the stadium for occupancy by the St. Louis baseball and football Cardinals is due in 1965. Two parking garages are expected to be ready for use next year.

The golden glow of 101 gas lights can be seen in St. Louis' romantic and picturesque Gaslight Square.

Immediately overlooking the Arch is another major project. The 40 - million - dollar Mansion House Project by Lewis E. Kitchen of Kansas City, involves the erection of three 28-story buildings with 1700 luxury apartments, an office building, three smaller commercial buildings and a 400-room motel.

A block away is a 2½-million dollar motel, Bel Air East, which is nearing completion. This 17-story building has about 250 rooms.

It has been estimated that by 1970 about 10 per cent of the St. Louis area will be rebuilt.

Nearly 700 acres of land are involved in two major projects which will have an estimated ultimate investment of $300,000,000.

Called the largest urban renewal program undertaken in the United States, the Mill Creek project covers 450 acres just west of downtown, formerly the site of St. Louis' most dismal slums. Eventually this area, which has now been cleared, will contain new housing for 2,500 families, a modern industrial area, and commercial, public and educational buildings. Work in this area will continue until about 1970, when investments should total about $200,000,000.

It was in 1955 that the voters of St. Louis approved their biggest bond issue in history—110 million dollars. About 10 million of this figure was for urban renewal and

This modern operating center at Shrewsbury is indicative of the progressiveness of Laclede Gas as it serves about 400,000 customers in St. Louis and St. Louis County.

with this promise of public support the Mill Creek project got underway.

The 1955 bond issue provided for basic community improvements and the area scheduled for rehabilitation contained 15,000 customers of Laclede.

This meant that thousands of services had to be disconnected, meters removed, mains relocated and ultimately new lines installed. Since much of the area will switch from home services to industrial users, new high pressure systems have to be installed.

There is very little service line or main salvaged since it costs more to reclaim the pipe than to install new line. As one company spokesman put it, the cost is the company's investment in the future of St. Louis.

The second large land clearance project is the 225-acre Kosciusko Industrial Park, occupying a long, narrow strip just south of the Downtown Sports Stadium site. Located on another of St. Louis' plentiful erstwhile slums—this one a mixture of decrepit residential and commercial structures—promised an excellent location for additional land for nearby local industry. Eventually this project is expected to attract about $100,000,000 in new investments.

Naturally, those persons displaced by the renewal program had to be furnished with adequate housing, lest an outbreak of slums crops up in another location. A vast public housing program has been completed. Elsewhere, middle-income apartments and luxury apartments have sprung up in many parts of the city.

While St. Louis is in the midst of a modernization program, there is one section of the city which is striving to retain the color and flavor of the 1920's. This popular attraction, known as Gaslight Square, boasts some of St. Louis' most popular night spots and dining rooms.

The Dixieland bands, checked tablecloths and singing waiters have appeal for St. Louisians as well as tourists.

Laclede Gas Company also had a hand in the recent development of this two-block area as Laclede workmen recently finished installing 101 gas lights in this area where professional men double as band members and housewives work as waitresses.

As St. Louis begins to pick itself out of its doldrums, Laclede Gas is prepared to meet the anticipated needs of a community which is rapidly getting its second wind.

Laclede's Engineering Department recently finished a distribu-

tion map which projects the distribution need for the company in 1980. Laclede was first to use an analog network analyzer for pre-planning distribution pressures and equipment locations. This planning will allow Laclede to continue serving its 400,000 customers in the same modern, efficient manner it has for many years.

Laclede Gas Company, named for the founder of St. Louis, Pierre LaClede Liquist,, was founded in 1837 as the St. Louis Gas Light Company. It is the oldest gas company west of the Mississippi. Twenty years later Laclede and another company were organized. In 1889 these three companies and another founded in 1880 were merged as the Laclede Gas Light Company.

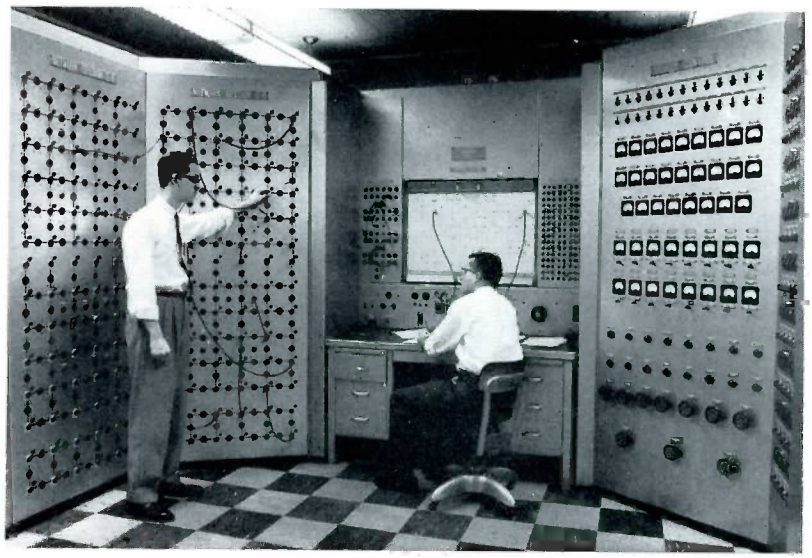
St. Louis was the seventh city in the United States to have a gas plant with transmission and distribution facilities. As the city grew, so grew the facilities of Laclede. In 1950, even after the St. Louis County Gas Company had been acquired, Laclede's service area totalled only 120 square miles. At the end of 1961, it included 256 square miles.

Following the changeover to straight natural gas in 1949, Laclede could not meet maximum needs during the winter so Laclede came to the conclusion that underground storage was the only solution. Laclede's underground facilities will have an ultimate working capacity of 40-billion cubic feet.

While Laclede's sales have doubled in the past 10 years, (821,000,000 therms in 1962) the company has increased its natural gas supply by about 70 per cent. Part of this additional supply was available through the use of propane. In 1952, Laclede began taking propane for peak-shaving. This proved so successful that equipment is now being installed to use more than 51-million gallons of propane per heating season, making Laclede one of the country's largest utility users of propane.

In 1950 the company's gross plant investment was $74,000,000. Near the end of 1962 it was more than $161,000,000. The employment figure of 2,400 is about 400 over 1950. The total miles of main has also increased from 2,261 to 3,500.

So the story goes, showing growth and progress for this modern company. The community of St. Louis knows that Laclede Gas Company will continue its primary job of providing up-to-date, adequate gas service, but St. Louisans also know that the company is willing and ready to lend its support for the betterment of the community as every good citizen in St. Louis is striving to do today.



Complex electronic brains help Laclede determine today's and tomorrow's construction needs. This analyzer solves problems of system expansion in hours which formerly took weeks or months.

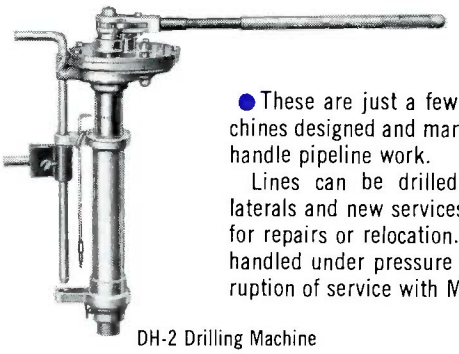
For the past six years, thousands of St. Louisans have been enjoying outdoor band concerts which have been sponsored by Laclede Gas as part of the company's program to be a leading corporate citizen in the community as well as the progressive and dependable supplier of gas.

WITH MUELLER® NO-BLO®

MACHINES

CH-6
Drilling Machine

Unit No. 3SW-500 Line Stopping Equipment

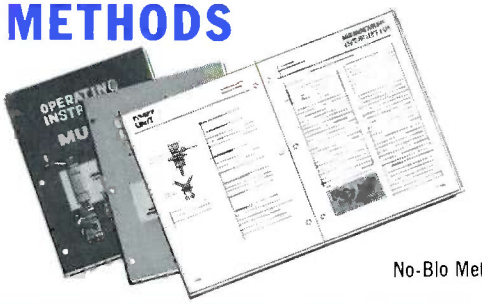


DH-2 Drilling Machine

●These are just a few of the large selection of machines designed and manufactured by Mueller to safely handle pipeline work.

Lines can be drilled under pressure to connect laterals and new services. Sections can be stopped off for repairs or relocation. Each operation can be safely handled under pressure without loss of fluid or interruption of service with Mueller machines.

METHODS



No-Blo Method Instructions

●Detailed procedures for safely drilling large or small lines, stopping-off lines, adding new laterals or branch connections have been carefully developed by Mueller.

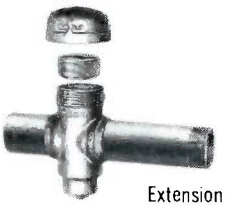
Complete operating instructions for each Mueller No-Blo Method machine, operation and application are available.

PRODUCTS

Line Stopper Fitting

Save-A-Valve Drilling Nipples

Service Tees



Extension Stopper Fittings

●Connecting laterals, extending lines, and stopping-off lines for relocation or repairs are just a few of the operations that can be accomplished with the wide selection of Mueller No-Blo products.

Each has been designed to exacting engineering specifications and manufactured to rigid quality and performance standards. Together, Mueller No-Blo fittings and equipment provide a solution to many fluid and gas piping control problems.

YOU CAN CONNECT LATERALS, BRANCHES, AND EXTEND LINES SAFELY UNDER PRESSURE WITHOUT LOSS OF FLUID OR INTERRUPTION OF FLOW

● *For complete information on Mueller No-Blo machines, methods and products, contact your* MUELLER REPRESENTATIVE *or write direct . . .*

MUELLER CO.

DECATUR, ILL.

Factories at: Decatur, Chattanooga, Los Angeles
In Canada: Mueller, Limited; Sarnia, Ontario

A workman for Hood Construction Company of Boise, Idaho is poised to catch a coupon which was just cut from a 12-inch main near Spokane, Wash.

Relocations: A Constant Problem

Mueller Machines Assist on Highway Job

New highway construction, widening of existing roads and the general renewing of the nation's highway system have been causing problems for gas companies all over the nation.

Another situation where Mueller Company products aided a main relocation brought about by a highway program, took place recently in the Spokane Division of The Washington Water Power Company, Spokane, Washington.

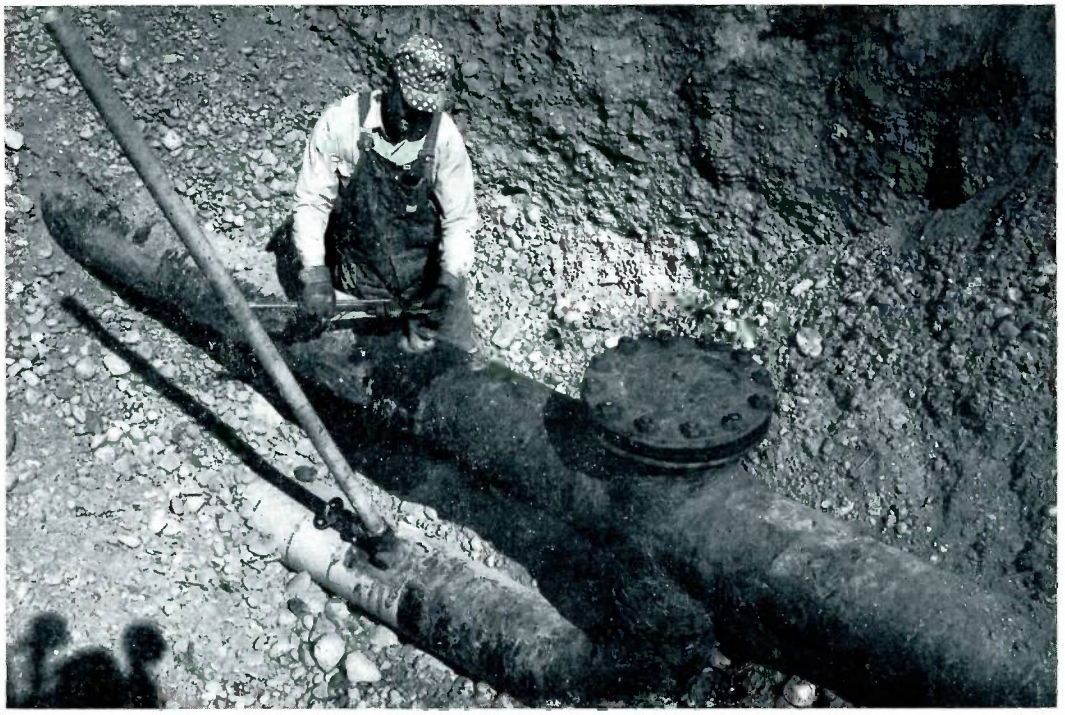
The widening of a highway from two lanes to four lanes necessitated the moving of about 3,500 feet of 12-inch main, which provided gas to the Spokane Valley, Spokane Industrial Park, Kaiser Aluminum Company rolling mills, Ideal Cement Company, Inland Paper Company and 8,000 residential consumers. Due to this service load, the flow of gas could not be interrupted during the change-over.

No by-pass line was necessary since the new line was put into service as soon as the drilling and line stopping operations got underway. The new line tied in with the old line through the bottom of the Mueller line stopper fittings.

After the Mueller line stoppers were inserted and expanded and the flow diverted through the new line, workmen were able to cut and cap the old line.

The line normally operates at 150 PSI, and according to Frank Ceserani, Chief Gas Engineer of The Washington Water Power Company, there was no preceptible drop in pressure during the change-over.

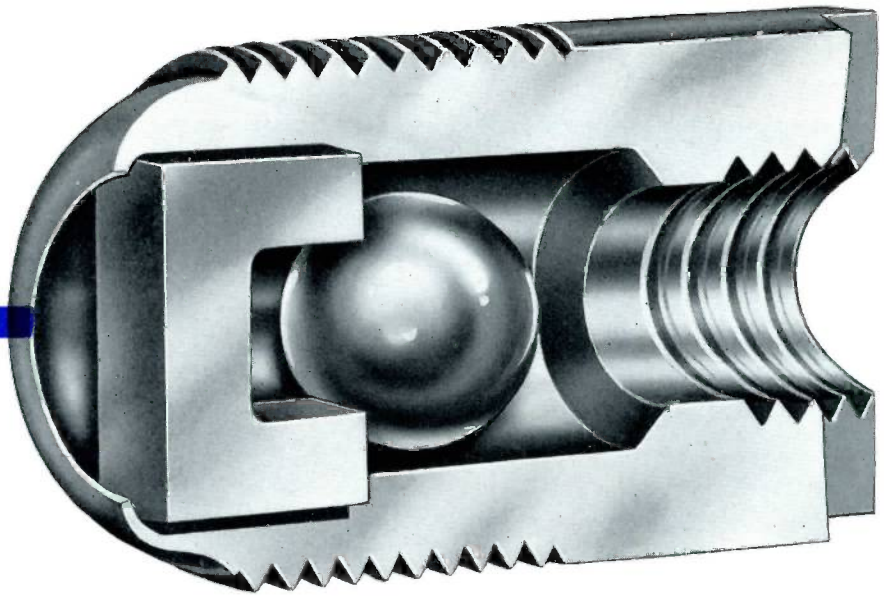
Hood Construction Company of Boise, Idaho, furnished the Mueller equipment and did the stopping. L. G. Massart Plumbing and Heating Company did the welding and fitting work.



A portion of the 3500 feet of relocated line can be seen coming out of the bottom of the Mueller line stopper fitting. A workman for the L. G. Massart Natural Gas Construction Co. of Spokane finishes up the job in the photo at the left.

Watching the Mueller C1-36 drilling machine make its cut are, from left, Warren Crawford, Mueller's Western Section Manager; D. E. Stein, District Engineer for Washington State Highway Dept.; Walt Arnett, Mueller Sales Representative in the area; Elmer Young, Chief Inspector, and F. L. Ceserani, Chief Gas Engineer, both of the Washington Water Power Company. Walt Arnett, with his hand on the throttle (right photo), talks to Wendell Satre, Manager of Construction for the Washington Water Power Company.

This sectioned drawing of a Gas-Phuse (right) can be seen installed in this Autosafe Curb Valve Tee (below).



Mueller Gas-Phuse®

Engineering Know-How Plus Simple Items Equal Safety Device

A magnet and a steel ball, two of the most elementary devices available, have been put to work by Mueller engineers in the "Gas-Phuse"® which provides a new safety device for the gas industry.

The magnet and steel alloy ball incorporated in a precision machined body and installed in an Autosafe® tee automatically prevents hazardous blowing of gas in ruptured service lines.

When a line is ruptured and gas flow becomes excessive, the Gas-Phuse automatically shuts off the service line flow at the main until repairs are made and the service line pressure restored. Hazardous situations caused by blowing of gas are eliminated, and loss of main pressure due to multiple service line ruptures is prevented.

Under normal conditions, the magnet retains the ball in the open position. The gas, flowing through the Gas-Phuse, passes around the ball. When a service line rupture occurs and the flow exceeds the predetermined rate, the excess flow forces the ball away from the magnet and onto the seat, shutting off the flow.

Once repairs have been made, an allowable, predetermined leakage through the Gas-Phuse re-pressurizes the service line, balancing the pressure forces on the ball. The pull of the magnet automatically returns the ball to the magnet and to the set position.

Three sizes of Gas-Phuses have been developed. These three sizes cover the normal range of service requirements. Each phuse is sized according to the normal flow capacity at the minimum operating pressure.

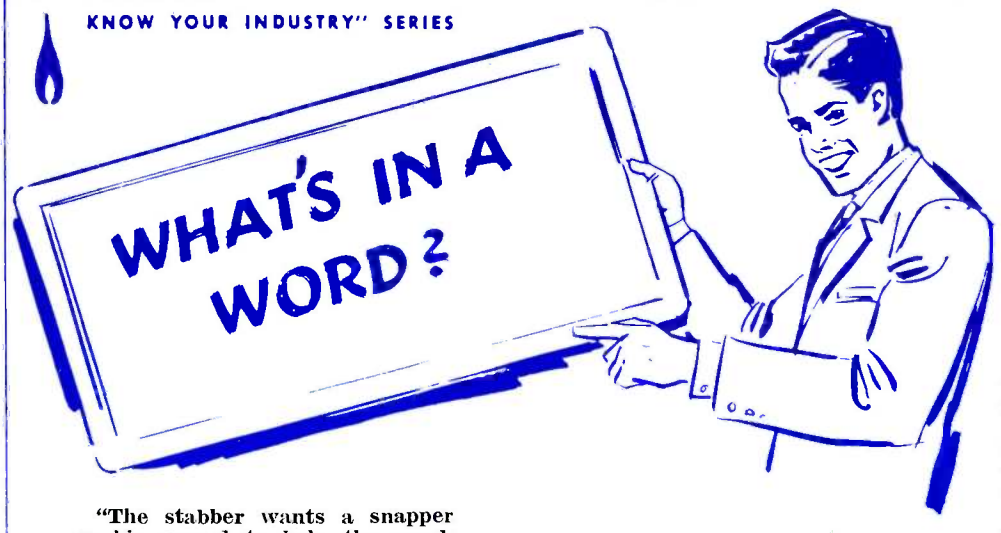
Autosafe products are provided to fit various needs. Main-to-service connections are easily made under pressure without blowing of gas or interruption of flow. Simply weld an Autosafe Service Tee to main, connect service line and drill main. The combination Gas-Phuse and completion plug in the service tee is easily inserted with the drilling machine and inserting tool. The combination Gas-Phuse and valve stem in the curb valve tee is easily inserted with the proper drilling machine and inserting tools. Both can be easily removed with the proper extracting tool at a later date if a change in phuse size is necessary.

Main-to-service connections on plastic pipes are also easily made under pressure with Mueller Autosafe Plastic Tees. The Gas-Phuse is factory installed in the tee outlet.

Steel to plastic pipe connections with Gas-Phuse protection are made easily with the Autosafe Transition Fitting. The Gas-Phuse can be inserted into the spud with only a screwdriver.

KNOW YOUR INDUSTRY" SERIES

WHAT'S IN A WORD?



"The stabber wants a snapper on his spread to help the spark idiot."

Murder, fish sandwich filler, arsonist? What's it all about?

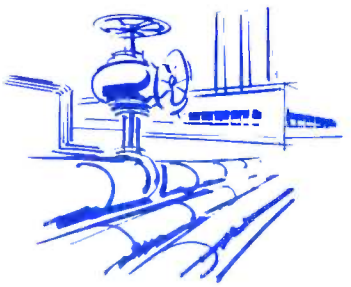
Gobbledygook to most but to a veteran pipeliner, the message would come out something like this:

"The strawboss wants a handyman to work with his crew and help the welder."

To many people the jargon of economics is as bewildering as pipeline talk. Yet, economic terms are very much part of our daily lives.

Take **CAPITAL INVESTMENT.** Buying a machine to wash clothes is a capital investment. Such an investment in time- and labor-saving equipment makes it possible for a family to do better work with less effort.

The same is true of business. Out of each dollar earned, a portion is invested in machinery, tools and facilities for exactly the same reason—greater output, better work and savings of time. The capital investments we make as individuals are multiplied thousands of times over by business. Without its investment we'd have no tools to do our jobs— and probably no jobs.



PLANT INVESTMENT is a weighty term that has nothing to do with trees, flowers or greenhouses. It simply means the amount of money an individual or company has spent on tools, equipment and buildings to do a job.

The gas industry has a plant investment of $24.7 billion. That's the cost of pipelines, compressor stations, typewriters and the hundreds of things gas companies use to produce and deliver natural gas. Unlike the family, the gas business exists only because many thousands of people have invested their money. Thus, the gas industry must earn enough money not only to pay operating costs but also to provide dividends to investors.

DEPRECIATION is the economist's way of saying things wear out. A car, for instance. It doesn't go suddenly. Every day it wears out a little bit more. Finally, it must be replaced.

Business faces the same problem year in and year out. Everything used to transmit and distribute natural gas wears out. Gas companies—like all well-managed businesses—plan ahead. Each year they set aside a portion of their earnings to purchase replacements.

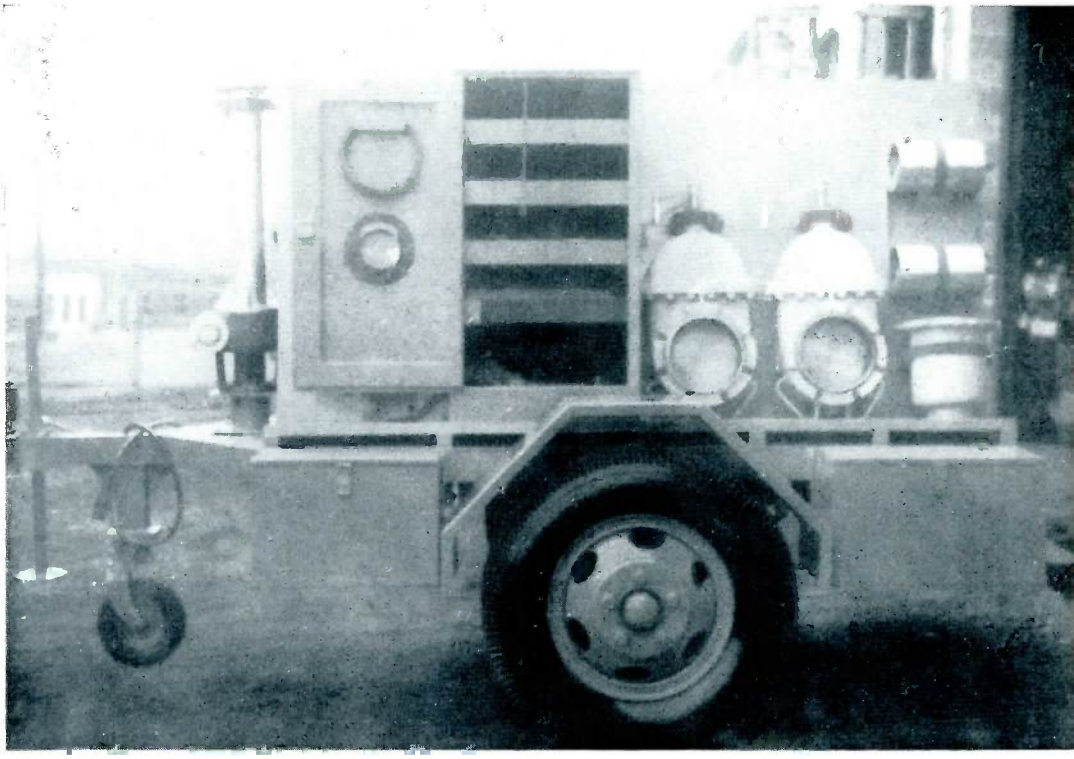
If the car owner did the same thing, he would accumulate the original cost of the automobile by the time it fully depreciated. However, inflation makes prices go up. For this reason, he would probably have to borrow from other savings or finance the car and pay for it from future earnings.

This rule applies to the gas company as well. Nowadays—due to inflation—it must dig deeper into earnings or borrow to replace equipment and tools.

OBSOLESCENCE is a textbook word to describe last year's hemline, the double breasted suit and the raccoon coat. Like the washboard that probably had many a good scrub left in it, some things are discarded because they have been replaced with better equipment or simply went out of style. The attic of your home will produce dozens of other examples.

The gas industry provides a vital service to the community—and must keep its facilities modern and efficient. Thus the gas company often finds itself putting things in the "attic" before they are worn out.

These are but a few of the common economics terms we hear daily which greatly influence our lives and jobs. And perhaps you'll agree that, like pipelines, it isn't the word that counts. It's the idea it represents.



This handy gas operations trailer built for Hartford Electric Light Co. carries all the necessary tools and equipment needed for a line stopping job.

Hartford, Conn.

Operations Trailer Accommodates Line Stopping Equipment

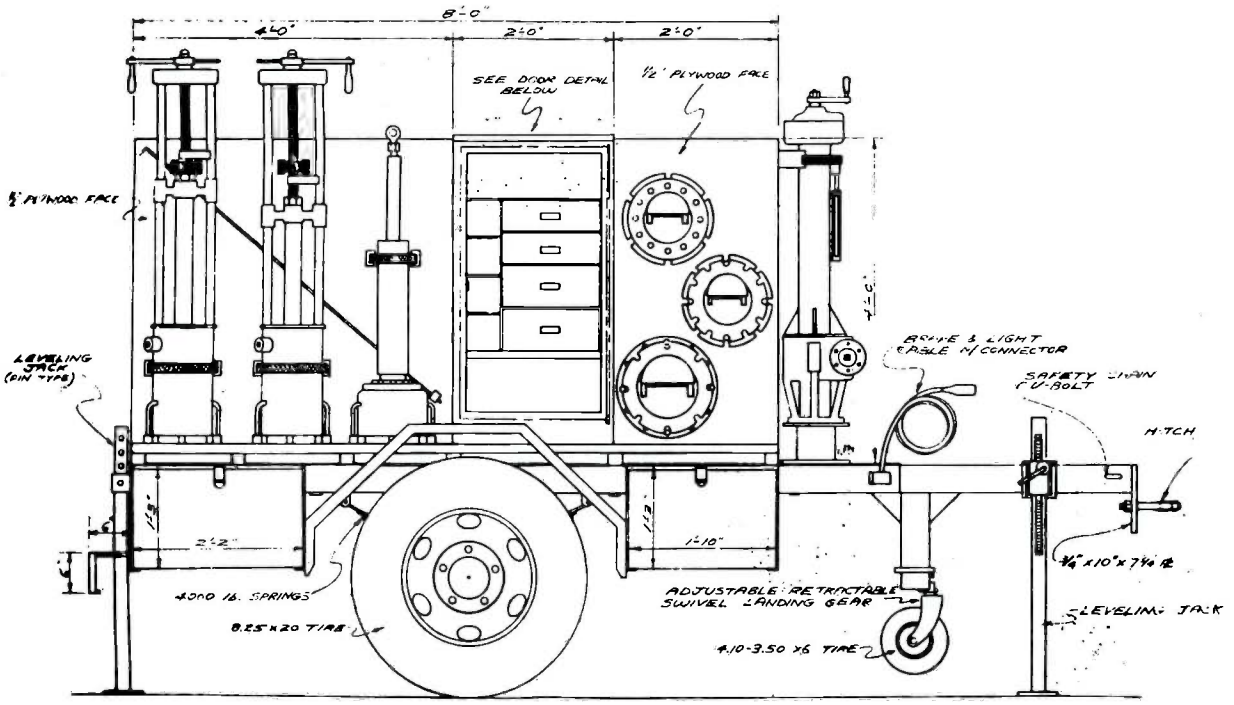
The Hartford Electric Light Co. of Hartford, Conn. sends along its ideas for a gas operations tool trailer.

The eight-foot trailer, built for easy handling and quick availability for the Mueller 3-SW Line Stopping units and equipment, is constructed primarily of plywood on a welded channel iron frame.

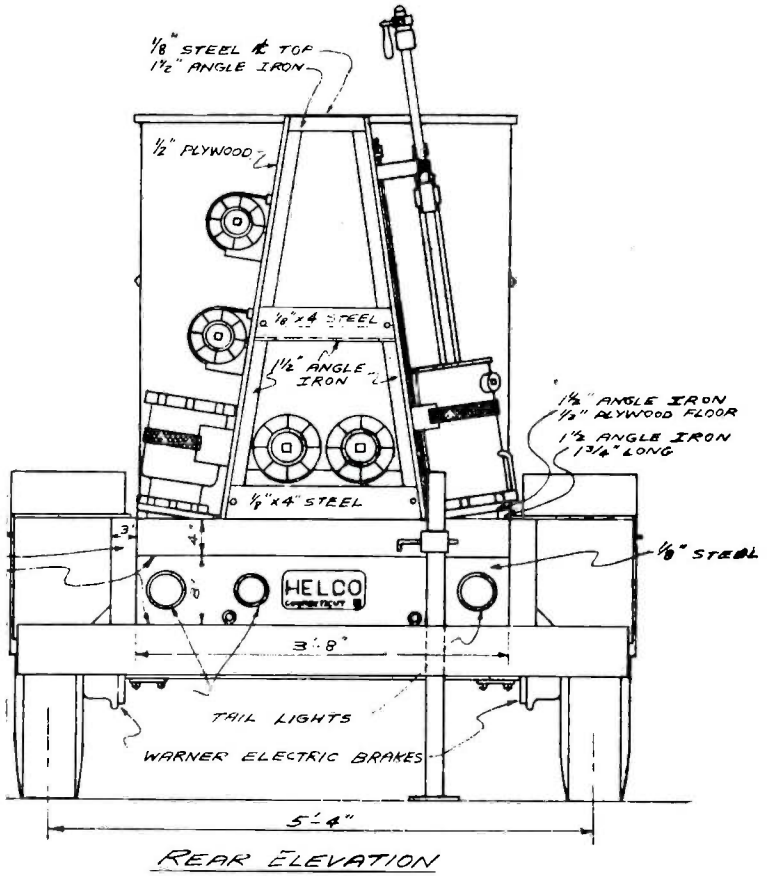
Two steel boxes on each side below the floor level are petitioned for cutters and tools. Two larger cabinets with drawers are mounted on the floor of the trailer. The steel boxes have wood lined bottoms.

The floor of the trailer is of 3/16″ steel and covered with ½-inch plywood. The sides for mounting the equipment are of ½-inch marine plywood. One side is arranged to accommodate the stopping machines, completion equipment and necessary fittings and adapters. The other side is arranged for stowage of gate valves, stoppers and more adapters. The drilling machine is mounted on the front.

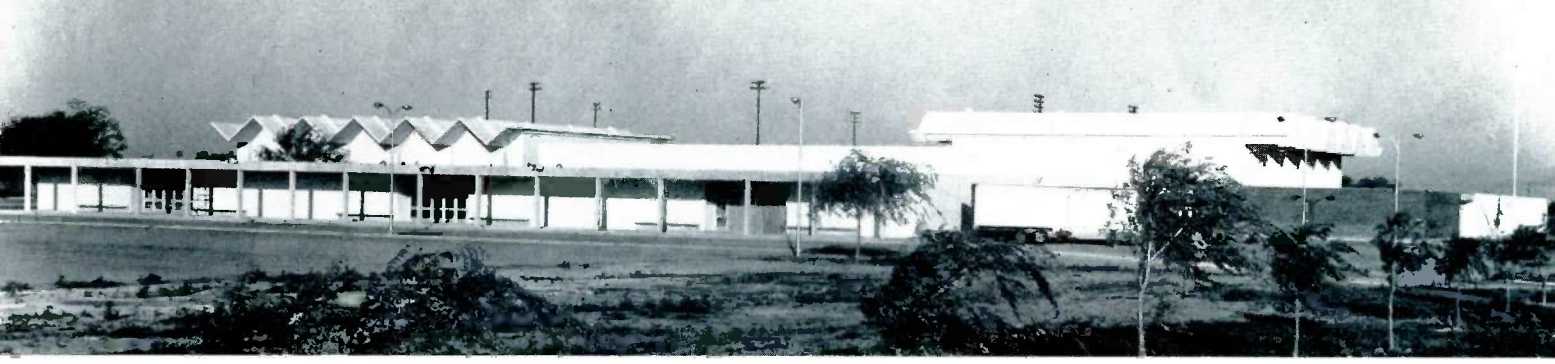
Leveling jacks are mounted on both ends. In transit, a canvass tarpaulin protects the equipment. The trucks which are available to tow this unit are each equipped with an Auto Crane which makes for ease in handling the equipment.



These drawings show a side view and a rear view (below) of the trailer.



REAR ELEVATION



Texas School

Gas Provides Total Energy

A NEW air conditioned, windowless high school for 2,400 pupils, opened this year in McAllen, Texas, is attracting nationwide attention.

The school, incorporating up-to-date construction and educational features, is the first in the country to use a gas turbine, similar to the aircraft jet engine, for all energy requirements.

Gas turbine shaft power provides all the school's electrical needs while turbine exhaust heat, normally wasted in simple turbine operation, produces steam for winter heating and hot water. During warmer weather, the steam is used as an energy source to power an absorption chiller machine for air conditioning.

The system, fueled by natural gas, is known as a gas total energy package.

The total energy package, in combination with modern compact school design techniques, was considered by McAllen school officials to be the most economical means of attaining maximum comfort in an up-to-date education plant. Total cost of the school was $2,846,043.

Designed by Zeb Rike, McAllen architect, the school contains 53 regular classrooms, 12 science labs, four homemaking rooms, one large shop, two large study halls, a library, band and chorus rooms separated by 11 acoustically treated practice rooms. Also a 1,300-seat auditorium, a gymnasium with a regulation basketball court and two practice courts, dressing rooms, a 600-seat cafeteria, and all gas kitchen. An administration area has two reception areas, nine offices, conference and faculty work rooms and lounges.

Each classroom is equipped with a television outlet originating in a control room. Planners of the school agreed that television could play a significant role in the curriculum of the future.

Classroom size can easily be modified for future use of team teaching techniques since classroom partitions are non-load bearing. This is possible through the school's compact design. Another feature of this design is the reduction in time lost during class changes.

An economical feature of the compact design is the savings in construction costs. Mr. Rike estimated that if the school had been planned under conventional school building techniques, 1,216 feet of additional exterior wall would have been needed.

Since the compact school is windowless, year round air conditioning is a must. Numerous studies have shown the air conditioned environment is the ideal learning situation. In addition, lack of windows eliminates outside distraction and eye strain associated with adjusting the eye to differences in room lighting and sunlight intensities.

Further studies have also shown that the compact air conditioned school, because of lower construction costs, can be built for the same or less cost as a conventional non-air conditioned school.

A 1961 gas industry study showed further savings could be realized in utility costs if a single energy source, natural gas, were used to supply the school's total electrical, heating, and cooling needs.

The new McAllen High School was built on this premise. The school's energy package was designed by Dana Price, Houston, Texas, consulting engineer. The heart of the plant is an 1,100 horsepower industrial gas turbine which drives a 60 cycle generator for conventional power needs and an 840 cycle generator for the school's high frequency fluorescent lighting system. The turbine, a high speed machine, is especially adaptable to the generation of high frequency power.

With the high frequency lighting, the school uses 24 per cent fewer fluorescent lamps than would be required to produce the same illumination with conventional 60 cycle power, according to Mr. Price.

The 800° F. turbine exhaust gases are fed to an adjacent exhaust heat recovery boiler which produces steam. The boiler also acts as an exhaust silencer. Turbine intake noise is silenced through special sound attenuation equipment. An identical turbine-generator-boiler package is installed as standby equipment.

An auxiliary boiler supplements turbine produced steam during heavy demands. The steam produces hot water in a heat exchanger for heating and domestic uses. In warm weather the steam is fed to an absorption machine which produces 44° water. The hot or chilled water is piped to central air handling equipment which cleans and heats or cools outside air and returned classroom air. The conditioned air is ducted to each room where individual controls hold temperatures at 75 degrees and 50 per cent relative humidity.

The turbines, generators, boilers and absorption machine are located in an isolated machine room separated from the main building by a 12-inch fire wall with a four hour rating.

Blue Flame Whispers

Southern California Gas Company is the only Western-headquartered firm to be honored for developing one of the top 10 public relations programs in the country last year.

The award was announced recently by PUBLIC RELATIONS NEWS, a national trade publication.

General Motors, Air France and Western Union were among the other recipients.

Entitled "Developing a Prize-Winning Customer Relations Program," Southern California Gas Company overcame a customer misunderstanding on why bills jumped sharply during cold winter months.

The program started with an intensive educational drive, beginning just prior to the arrival of cold weather and ending after gas bills fell back to their springtime norm.

The forms of communication called into use were such things as films, company publications and bill stuffers.

To judge the effectiveness of the program: the 1961-62 winter, with 43 per cent more cold days than the previous year, produced 11 per cent fewer complaints.

These figures are significant when you consider Southern California Gas Company's service area of 197 communities and more than one and three-quarter million customers.

It is also important to note that the firm realized the importance of its own employees in the program. An intensive internal campaign was waged to keep employees fully informed and prepared to handle customer complaints with simple, direct and satisfactory answers.

The over-all program also received the top award in the American Gas Association's sixth annual PR Achievement Award contest.

Ed Parkes Elected President Of American Gas Association

Ed Parkes, president of United Gas Corp., Shreveport, La., has been elected president of the AGA.

Mr. Parkes was named to a one-year term at the 45th annual convention of the national trade association of the gas industry, which met recently in Los Angeles in a joint session with the Pacific Coast Gas Association.

Marvin Chander, President of Northern Illinois Gas Co., Aurora, Ill., had been nominee for president. On the advice of his physician, Mr. Chander has declined to accept the office of president. He was renamed first vice-president.

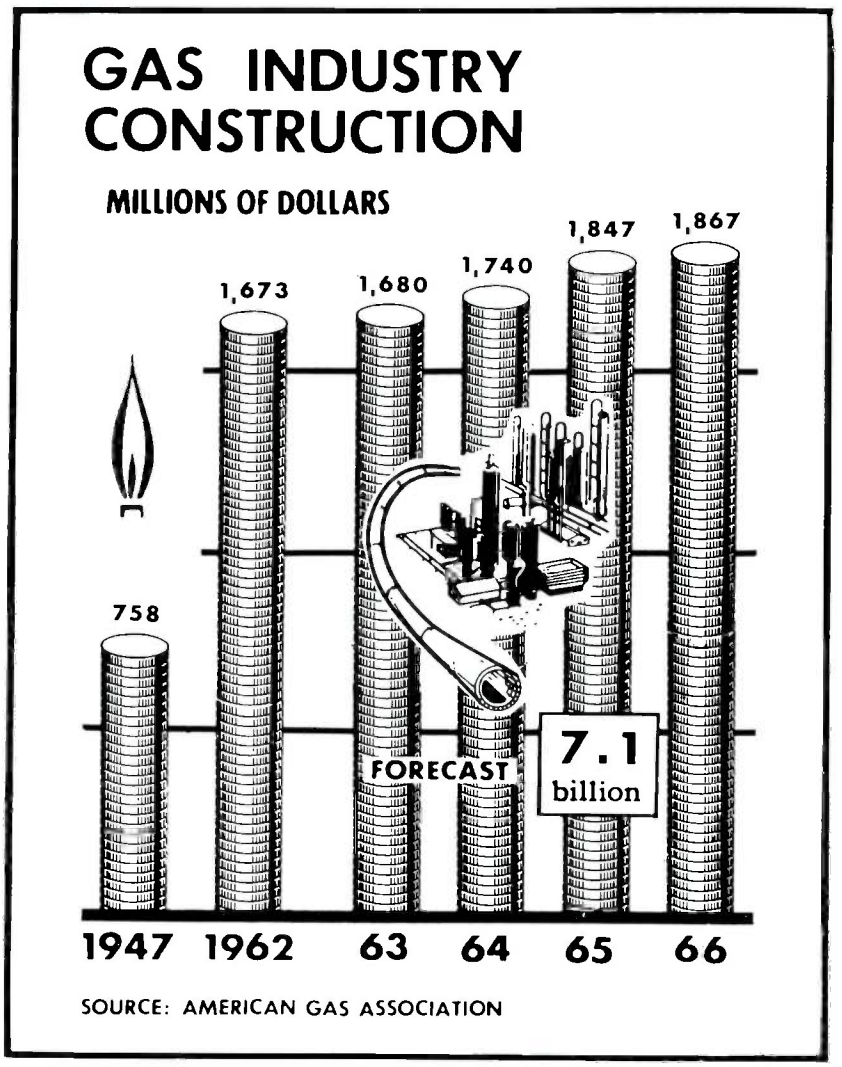
Mr. Parkes succeeds John E. Heyke, Jr., President of The Brooklyn Union Gas Co., Brooklyn, N. Y., who will continue on the Board.

Guy W. Wadsworth, Jr., President of Southern Counties Gas Co., Los Angeles, was elected second vice-president. Charles H. Mann, Treasurer of The Columbia Gas System, Inc., New York, was re-elected treasurer.

$598 Million Spent In 6 Months For Construction

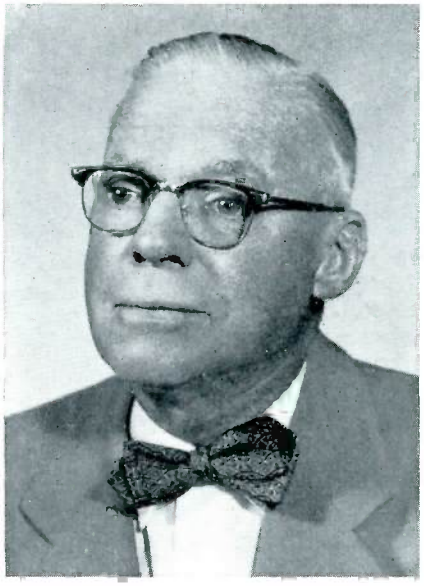
The gas industry spent $598 million on construction during the first six months of 1963, according to the AGA. This is one million more than last year during the same period.

A total exceeding $1.7 billion will be spent during 1963 to expand and improve the facilities of the nation's sixth largest industry, according to forecasts. This would bring the gross plant worth of the industry to $26.4 billion.



Robert H. Mueller Dies

Grandson of Mueller Founder Was Active in Company for 43 Years



ROBERT H. MUELLER

Mueller Co. regrets to announce the death of Robert H. Mueller, 78, former Chief Engineer and former member of the Board of Directors of Mueller Co.

Mr. Mueller, grandson of Hieronymus Mueller, founder of the company, was in poor health for many months and has not been active in the company since 1950. He died Oct. 21 in St. Mary's Hospital.

He was characterized as an unpretentious man who never gave serious thought to the impressions he left. "He did what he felt was right and honest, and lived his life quietly and without fuss," a close associate said.

In 1901 he started working at Mueller Co. in the Polishing Department at five cents an hour. He quit in 1903 to attend Millikin University and returned on a permanent basis in 1907. Following various terms in the accounting, billing and sales departments, he went to Sarnia, Ont. in 1913 to set up machinery and to help open Mueller's Canadian plant.

He returned to Decatur the following year and was named foreman of the Regulator Department. When the U. S. entered World War I, he headed the company's munitions plant.

He became Chief Engineer and Board member in 1922—two position which he held until just prior to his retirement. He was responsible for the development of many Mueller products and designed and built a number of machines which were necessary for specific requirements of the company.

Among his various hobbies and sports were gardening, candy making, golfing, hunting, small boat making and trap shooting.

Mr. Mueller leaves his wife, Louise; two brothers, Frank H., of Decatur, Mueller Vice President for Engineering, and Clarence, of Mount Vernon, Ill., and two sisters, Mrs. Clara Mueller Kaiser and Mrs. Leda Mueller Brownback, both of Sarasota, Fla.

A brother, Lucien (Duke), and a sister, Mrs. Phyllis Cozad, preceded him in death.

He was born June 20, 1885, the son of Philip and Mary Shorb Mueller.

New Financial Position to Harlan White

HARLAN A. WHITE

Harlan A. White, Mueller Co.'s Manager of Manufacturing, has been promoted to General Controller for the company, according to an announcement by Lyle R. Huff, Mueller Co. Treasurer.

In the newly-created position, White will be responsible for the general accounting control functions of the entire U.S. and Canadian organizations, and will spend a considerable portion of his time on special projects.

White joined Mueller Co. in 1955 as Assistant to the Administrative Vice President. Three years later he was named Assistant Works Manager and in 1961 he was named Manager of Manufacturing.

Following his graduation with a B.S. degree in Accounting from the University of Illinois in 1947, he joined the Decatur public accounting firm of Gauger & Diehl. White received his certificate as a certified public accountant in 1948 and was a partner in Gauger & Diehl when he joined Mueller Co.

Billy Dill Dies

Billy Dill, Mueller Co.'s first sales representative, died September 23, 1963 in a Los Angeles, California hospital. He was 92 years old. He had been a patient in the hospital only a short time.

William Nelson Dill, native of Decatur, joined Mueller Co. in 1891, at the age of 20. During the next 50 years he handled such duties as purchasing agent, bookkeeper, salesman and general manager of the Los Angeles factory.

Funeral services and burial were held in Los Angeles.

Strictly *Off the Record*

Mabel: "My father is a model man. He doesn't drink. He does not smoke. He never runs around with other women. He doesn't even go to shows. In fact, he has no vices. And he's going to celebrate his 80th birthday tomorrow."

Bill: "How?"

* * *

French guide (showing places of interest)—"It was in this room that General DeGaulle received his first commission."

American salesman—"How much was it?"

* * *

A tourist approached a New York native on Broadway and asked, "Could you tell me how to get to Carnegie Hall?"

"Practice!" answered the New Yorker.

* * *

The four-year-old came home crying every night because one child kept picking at him. After this went on for some time, the father decided to do something about it.

He took his son aside, showed him how to make a fist, and told him the next time the student bothered him to swing hard.

The next day the four-year-old boy came running into the house jubilantly.

"Daddy!" he yelled happily. "I did it. I did it. I hit her!"

* * *

Modern girls adore spinning wheels—four of them, and a spare!

* * *

The hunting party was hopelessly lost and the hunters turned angrily to their guide.

"I thought you said you were the best guide in Maine," one of them snapped.

"I am," protested the guide, "but I think we're in Canada now."

* * *

What do they call it when you're stung by a bee and bitten by a mosquito—both at the same time? Sting along with itch.

Nowadays the car is just a status symbol—all it really does is to enable you to let it stand in a traffic jam while empty trains go by.

* * *

Discovering at the last minute that he had forgotten to invite the elderly parishioner to the garden party, the minister hastily telephoned her.

"It's too late," she curtly answered. "I've already prayed for rain."

* * *

A teacher asked her class to name some of the benefits of the automotive age.

There was a silence and then one boy spoke up: "Well, it stopped horse stealing."

* * *

A rooming house landlord received a phone call from the mother of a college freshman. "Please keep an eye on Albert for me," begged the mother. "See that he gets plenty of sleep and doesn't drink or run around too much."

"You see," she added in an apprehensive tone, "This is the first time he's been away from home—except for two years in the Marines."

* * *

Near the end of the question and answer period of an oil company's annual stockholders' meeting, one of the ladies present raised her hand. "Mr. Chairman," she ventured timidly, "one thing has always bothered me ever since I bought stock in this company. When you build a new gas station on a street corner, how do you know you'll find oil there?"

* * *

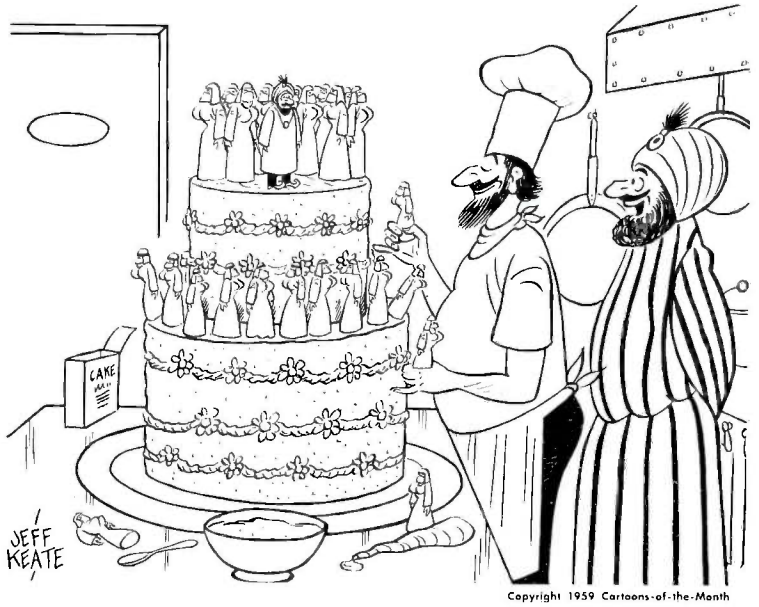
Los Angeles is represented by two teams—the Dodgers and the Angels. And with the traffic out there, you're either one or the other.

* * *

A woman traveling by train was talking with a man in the next seat. She told him she had spent some time with her married daughter in San Jose, Calif.

"You pronounced that wrong," the man said. "In California it is pronounced San Hosay. All the J's are pronounced as H's. When were you there?"

"In Hune and Huly," the woman replied.



"Ah, Hassim! The Sultan will love his wedding cake!"

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