

MUELLER Record

NOVEMBER • 1964



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Joe Penne
Editor

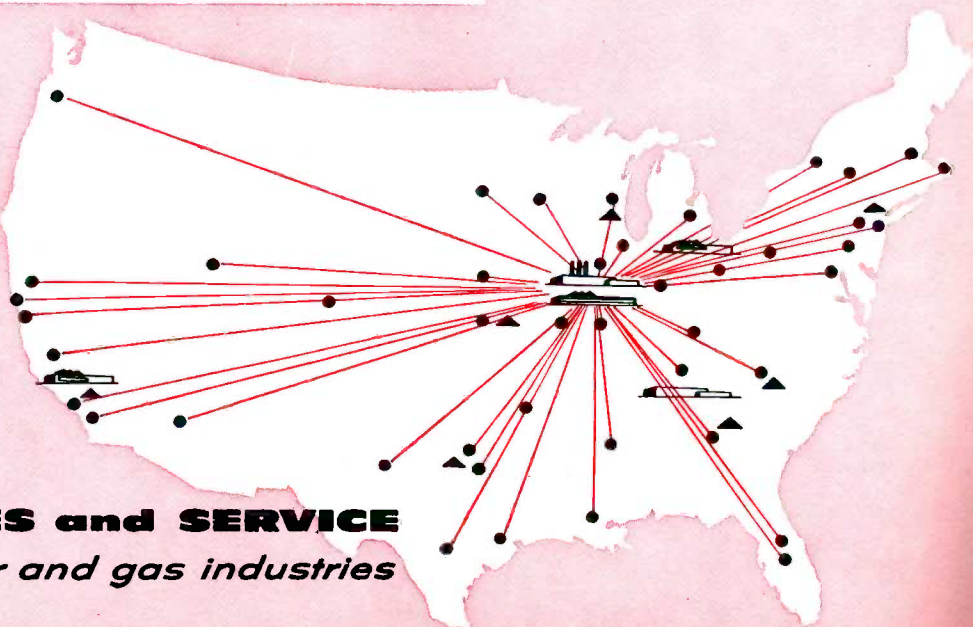
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Contents

- 3 **A PACKAGE IS MORE THAN JUST A CONTAINER.** tells about
Mueller Co.'s packaging program.
- 7 **THE RETURN OF THE SQUARE.** longs for the re-emergence of
the qualities of the residents of Squaresville:
honesty, thrift and loyalty.
- 10 **RELOCATIONS WITHOUT INTERRUPTIONS.** describes Mueller
equipment at work.
- 13 **RESEARCH FOR TOMORROW'S GROWTH.** outlines some of the
latest studies in uses of gas and related equipment.
- 14 **SHE THINKS LIKE A MAN.** briefly delves into the busy life
of Peoples Gas System's Purchasing Agent.
- 15 **BLUE FLAME WHISPERS.** news briefs.
- 16 **50-YEAR RECORD SPEAKS FOR ITSELF AND TONY YONKER.** tells
of retirement of Decatur Sales Office Manager.
- 18 **STRICTLY OFF THE RECORD.** is to be taken lightly.
- 19 **MUELLER PRODUCTS**

OUR COVER shows the neat stacks of Mueller Co. products made possible by a standardized packaging program.



Since 1857

Quality Products for the
Waterworks and Gas
Industries

MUELLER[®] SALES and SERVICE
...serving the water and gas industries

Margaret Mead, the noted anthropologist, has seriously maintained that American youngsters get a significant part of their education early in the morning. No, not by reading their school books—but by reading the information on cereal boxes.

Sound far-fetched? In the fantastic world of modern packaging, anything can happen.

For instance, don't regard yourself as an average American unless you used up to 676 folding boxes last year. For according to those people who keep track of such things, the average American used 113 glass containers, 236 tin cans, 676 folding boxes, and more than 2,000 paper bags to carry on routine living. It took more than a billion pounds of plastic to package the food and products produced in this country—from lettuce, to Autoperf tees, to heavy industrial machinery.

The hotly-competitive U.S. packaging industry added another \$500 million to its gross volume in 1963 to become a \$14 billion industry, it is estimated.

Last year, industry and individual consumers pushed, cut, pulled, popped, ripped, punched, unwound, bit and tore their way through 10 million tons of containerboard; over 7 million tons of glass for containers; around 5.5 million tons of steel for cans; more than 3 million

tons of boxboard; about 2.3 million tons of paper for bags and sacks; some 650,000 tons of plastic resins, and 131,000 tons of aluminum for foil alone, not counting increased tonnage for aluminum in cans and lids.

During recent months, Mueller Co. and its customers have been among those who have increased their use of packaging materials. Customer acceptance and convenience have pushed Mueller's packaging program along to the point where today about 90 per cent of Mueller products are pre-packed in cartons.

The impact of packaging was first felt at Mueller about 10 years ago when the company began pre-packaging a few gas products. This program expanded rapidly until nearly 400 different kinds and shapes of cartons were used for gas products.

Today, however,—thanks to scientific package standardization studies, as few as 27 differently-sized cartons are used to package some 4,000 different catalog items ranging in size from a ¼-inch brass gas stop to a 130-pound, eight inch line stopper fitting.

For our young breakfast food eaters mentioned earlier, the package serves to entertain and to educate as well as to contain the cereal.

For the users of Mueller products, the packaging program means an end to the assorted sizes and shapes of cartons, wirebound boxes, and barrels which taxed the strength of the hardest shipping clerks and warehousemen.

There is scarcely any major economic activity in which movement of material and products is not a substantial portion of the task. The steel mill, the department store, lumber yard, factory and utility have a common interest in attaining efficient methods of moving things. Materials handling, probably the most universal physical activity of mankind, is thus a common denominator in our economic life.

Yet, strangely enough, it has been almost the last function in industry to be systematically and aggressively mechanized since the launching of the industrial revolution. The nation's industries have concentrated on the techniques of making things, and have given rel-

Sealed cartons move down this conveyor to where they are taken off and carefully stacked on pallets. From this point the pallets are taken to the warehouse area to await shipment. The machine for sealing the cartons is at the right in the background.



A Package Is More Than Just A Container

atively little attention to the methods for handling them.

If a package is properly designed and constructed, it serves a three-fold purpose. Primarily, it must protect the product, but while doing this, it must be convenient to use and reveal at a glance its contents.

To accomplish these points, it has taken research, outside assistance, experience, and patience.

The first thing undertaken in the continuing program was to redesign the marking on the package so that it was quickly identified, attractive and consistent with the image of quality and service. The clean, uncluttered appearance of the company's present cartons is the result of hours of design work by artists in the advertising and sales promotion department following discussions and meetings with various divisions.

In addition to the new markings on the carton, a new label was designed that not only gives the product number, quantity, and size, but more importantly, contains a small drawing or picture of the product that is contained inside. About one-half million labels are used annually to properly identify Mueller cartons.

Prior to the introduction of standardization in the packaging program, a survey team from Mueller interviewed a number of customers and asked what they wanted in the way of packaging. One of the things the interviewers attempted to determine, was what number of pieces would be most convenient in each carton. The comments received, along with studies of buying habits of customers made by a special committee, pointed strongly to the fact that the high volume

items were purchased usually in multiples of five.

Equipped with this information, Mueller Packaging Engineer Fred Campbell began working with design engineers from producers of paperboard and cartons. Taking advantage of the experience and testing facilities available from the carton manufacturers, the tedious process of determining carton size, strength and weight got underway.

Trying to fit thousands of diverse products in varying quantities, into a minimum of standard cartons requires about the same ingenuity and persistence as that of an international traveler stuck with only a small bag—eventually he may find a way to pack everything he needs, but there is no room left for extras!

Rigid crush and strength tests were run on the latest electronic



This driver easily wheels a hand truck into his trailer truck where the compact cartons can be stowed and handled with speed. In contrast with the standardized cartons, is this assortment of sizes and types of containers (above) that often got filled to the point where a longshoreman would groan if he had to move one. Barrels, (right) were expensive heavy and unwieldy, but much in use for many years.

equipment available. These modern methods were in strong contrast to the early unscientific tests which found an employee cramming a carton full of one product, sealing it and then dropping it down the elevator shaft or off a loading dock to see if the carton would bounce or burst.

Since an attempt is made to fill every carton completely, packing arrangements were worked out, and photographs were made of the layout for each product so that the packer on the assembly line would be able to duplicate each carton.

In addition to the standardization packaging program, new equipment was built or purchased to assure that the customer would get his product in the best condition and in the most convenient manner possible.

Protecting threads by dipping

them in plastic has been a packing method in use for some time at Mueller Co., but recently, a process was introduced which encases a tee and its accompanying parts in plastic.

This plastic jacket, or "skin" packaging, not only protects the parts from dampness and abuse, but it also keeps all the necessary parts together until they are ready for use. Furthermore, it eliminates the need to disassemble some parts prior to installation.

The units are then packed in cartons, sealed, placed on pallets in a prescribed arrangement and taken to the warehouse to await shipment.

In the Ground Key Division a unique machine, built especially for Mueller Co., seals each carton. This case sealer adjusts itself automatically for the varied-sized car-

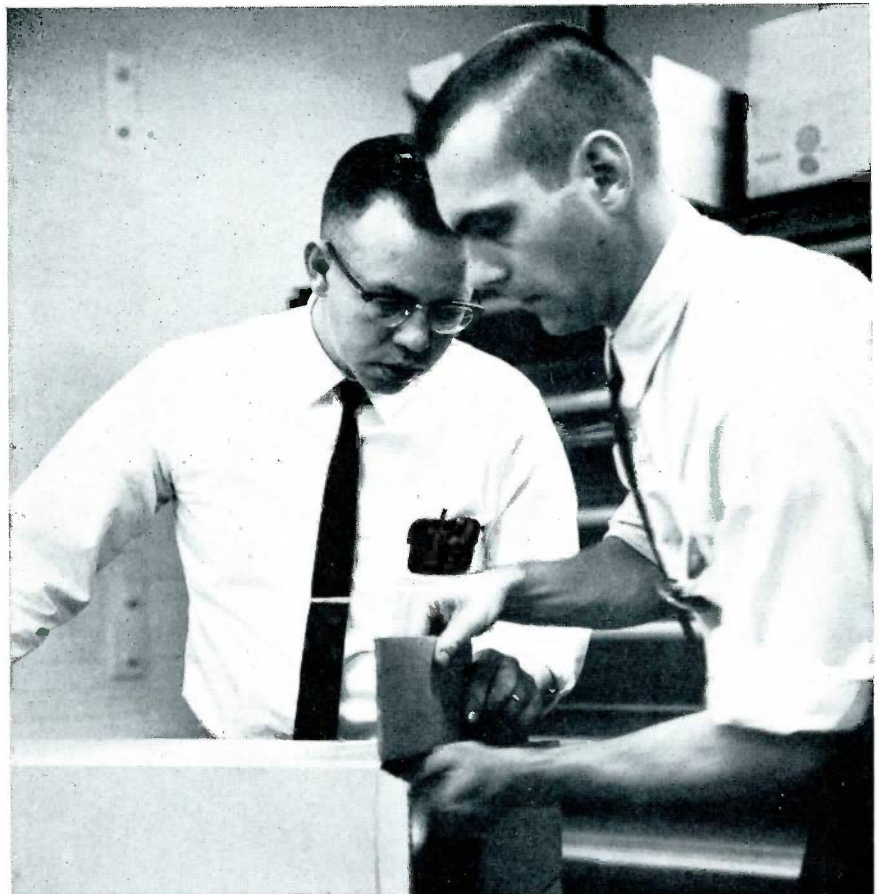
tons which come off the packing line, seals the tops, flips them over, seals the bottoms and pushes them out the opposite end for palletizing.

Loaded pallets are then taken to racks in the warehouse where they are stored awaiting shipment. As the orders come through, an order picker assembles the cartons for each order and they are checked and addressed.

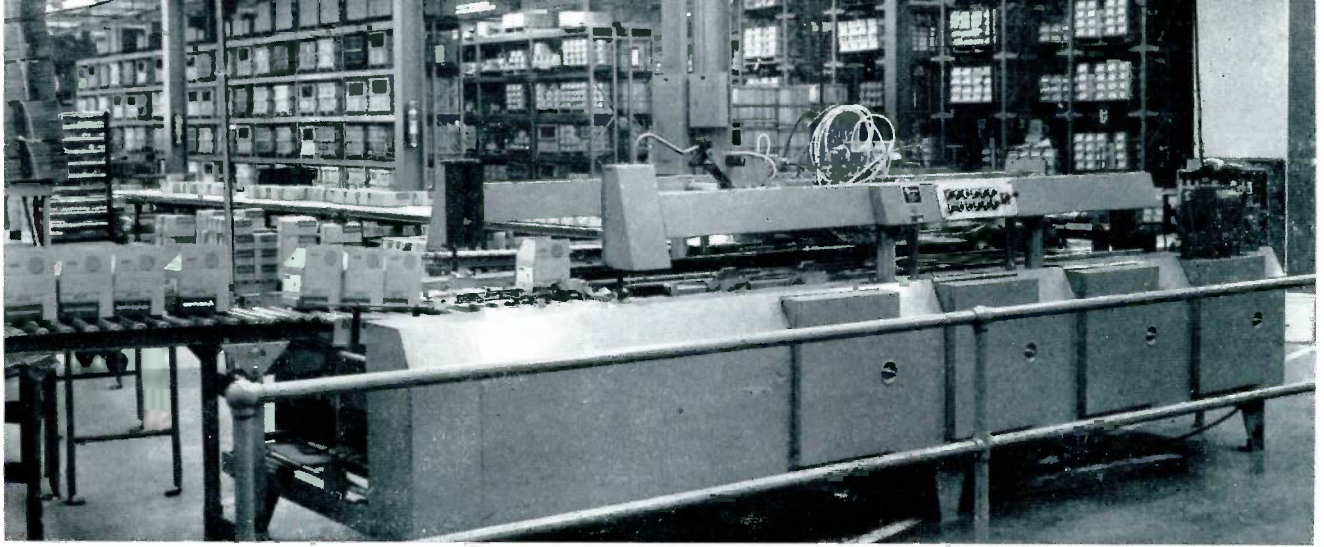
Instead of having dozens or hundreds of loose pieces assembled for one order and then packed in barrels or crates until it takes three men to move the order, the individual cartons are stacked neatly together and easily handled.

As the cartons are received by the utility or jobber they can be stowed compactly and shelved until they are needed.

The latest innovation aimed at carton convenience is a paperboard



Mueller Co. Packaging Engineer Fred Campbell (left) and George White, Design Engineer for Container Corporation of America, check a carton for a Mueller product. Campbell works fulltime designing, testing and checking the packaging program at Mueller.

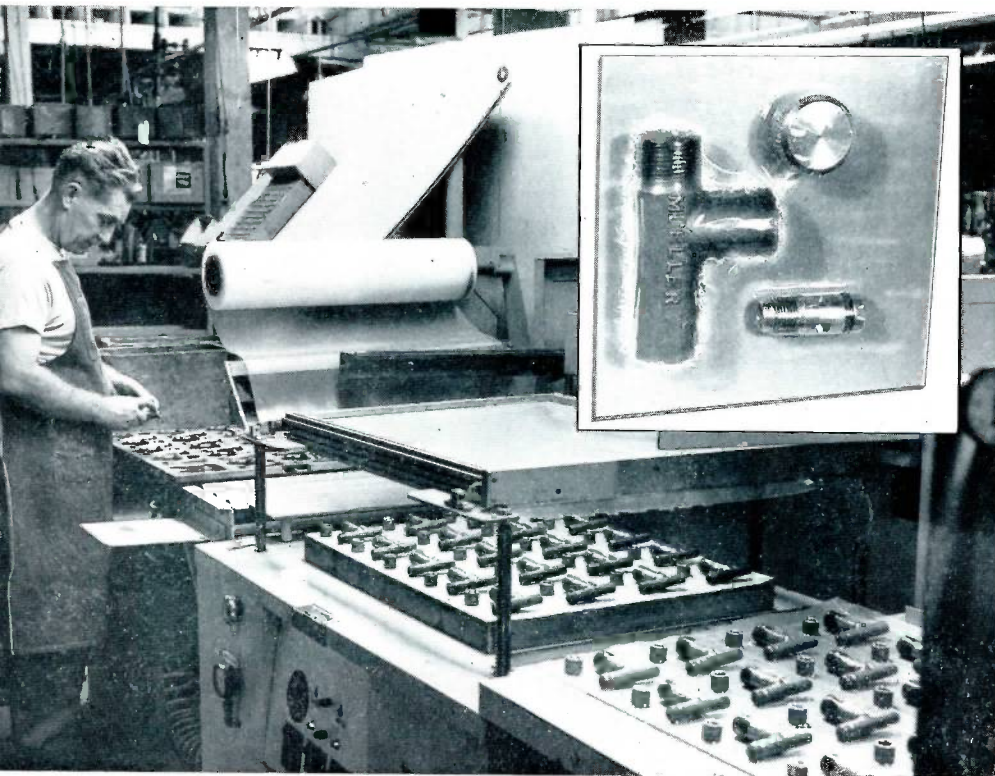


This carton sealer was built for Mueller Co. and believed to be the only one of its kind. It automatically adjusts for varying sizes of cartons and seals the tops and bottoms.

container with handles that holds an assortment of Adams Pipe Repair Clamps. This carton contains a number of the most popular sizes of clamps and makes it quick and simple for a repairman to be fully equipped to meet many emergencies. A wrench is even included in one style of package.

Although Mueller Co. will always continue to improve its packaging program and will strive to introduce more convenient handling methods for its customers, it will never forget that the *contents* of the cartons are still the most important consideration.

This skin packaging machine encases a tee, its cap and gas pluse in plastic and mounts them as a single, complete unit which is easy to handle and well-protected. Using a jig (left) the workman places the individual parts on a sheet of paper board which is rolled onto the machine. A sheet of heated plastic is then drawn around the board and parts. They are then cut apart, making the neat package shown in the inset.



The neat package above (on the right) is a new carton designed to hold an assortment of Adams Repair Clamps. Holding the kit is Sharon McClain of the Decatur Sales Office.

(Reprinted with permission from
Public Relations Journal, February, 1964)

Back in the days before the phrase "Going to His Eternal Rest" meant getting a job with the government, Mark Twain was scheduled to make a talk. Noticing that his lecture was poorly billed, he stepped into a store and said:

"Good Evening, friend — any entertainment here tonight to help a stranger while away his evening?"

The storekeeper straightened up, wiped his hands and said: "I expect there's going to be a lecture. I've been selling eggs all day."

There have been quite a few changes made since that day. Although the price of eggs may prohibit their use as indoor guided missiles, we have become so well to do as a nation that we have a guilt complex about it. Conformity is sweeping the country. And, while more and more people want to get seats in the grandstand, fewer and fewer want to sweat it out down on the field. More and more youngsters who come in looking for jobs are asking, "What can you do for me?" rather than, "What can I do for you?" They want to discuss the extras they're going to get rather than the extras they're going to give. They want to know how cool it is going to be in summer—and how warm in winter. And how safe at all times of the year. And when they go to work, they hasten to hide their light in the security of a committee, where there is safety in numbers. The progress may be slow and the glory may be small, but the work is steady. Their eyes are on the clock rather than on the calendar. The Coffee Break is more important than the Big Break.

More and more girls are more interested in filing their nails than in filing what needs to be filed. The other day I overheard two girls in an elevator; one said to the other, "Heavens, no, don't learn shorthand. If you can't take dictation, you won't have to stay after 5 p.m."

We have always had our share of freeloaders in this country. As Channing Pollock once said, every generation produces its squad of moderns who march with peashooters against Gibraltar. But only in the past quarter century, it seems to me, has non-involvement become an accepted way of life. When we were poor, we *had* to sweat it out. We couldn't afford detachment from the life and fate of our country—and one of the great dangers of affluence is that it permits such detachment.

I'm going to mention quite a bit about a six-letter word. Why six letters? Because modern literature has snapped up all the four- and five-letter words as its own. So I am going to start on six-letter words: the word is "square"—S Q U A R E.

Back in Mark Twain's day, it was one of the finest words in our language, among the top ten on any lexicographer's hit parade. You gave a man a square deal if you were honest. You gave him a square meal when he was hungry. You stood foursquare for the right, as you saw it, and square against everything else. When you got out of debt, you were square with the world. (And that was when you could look your fellow man square in the eye.)

Then a lot of strange characters got hold of this honest, wholesome word, bent it all out of shape and

The Return of the SQUARE

gave it back to our children. Convicts gave it the first twist. To them a "square" was an inmate who would not conform to the convict code. From the prisons it was flashed across the country on the marijuana circuit of the bopsters and hipsters. Now everyone knows what a square is. He is the man who never learned to get away with it. A Joe who volunteers when he doesn't have to. A guy who gets his kicks from trying to do something better than anyone else. A boob who gets so lost in his work that he has to be reminded to go home. A guy who doesn't have to stop at a bar on his way to the train at night because he's all fired up and full of juice already. A character who doesn't have to spend his evenings puttering in a basement workshop and his weekends scraping the bottom of a boat because he's putting all that elbow grease and steam into doing a satisfying job on the job he's getting paid to do. A fellow who laughs with his belly instead of his upper lip. A slob who still gets all choked up when the band plays "America the Beautiful." A square — strictly from Squaresville.

His tribe isn't thriving too well in the current climate. He doesn't fit too neatly into the current group of angle players, corner cutters, sharpshooters and goofoffs. He doesn't believe in opening all the packages before Christmas. He doesn't want to fly now and pay later. He's burdened down with old-fashioned ideas of honesty, loyalty, courage and thrift. He may already be on his way to extinction.

He and the rest of us are living in a country today that is quite different from the one that we were taught to love.

We have come quite a way since Theodore Roosevelt told us: "Far better it is to dare mighty things, to win glorious triumphs, even through checkered by failure, then to take rank with those poor spirits who neither enjoy much nor suffer much, because they live in the gray twilight that knows not victory nor defeat."

What has happened to us, I think is that we have changed from an exporting country to an importing country.

I do not mean that we have let the world drain all of our gold away, although that is bad enough. I do not mean any imbalance of trade — threatening as that may be. I mean that we have been importing instead of exporting ideas.

The United States of America was once the greatest exporter of ideas the world had ever known. We created and sold abroad the idea of individual dignity, responsibility and freedom. We created and sold the idea of government of the people, by the people and for the people — an idea that is still being bought today. We exported the idea of freedom of worship; the idea of unfettered press; the idea that those who are taxed should be represented.

It is hard to find a basic idea that America has exported since you and I were young. We have, I think, bought in the bazaars of Asia Minor the idea that an honest man is either a fool or a liar. From our most mortal enemy we have bought the idea of a strong government for weak people. We have bought abroad the ideas of "Let Jack Do It," of "What's in It for Me?" — and the gesture of the neatly shrugged shoulder.

The other day I was told by a friend that his young son came home from his progressive school proudly exhibiting a book that he had won for excellence in natural history.

"However did you do that?" the delighted father tested.

THREE LEGGED OSTRICH

"The teacher," answered the son, "asked how many legs an ostrich has and I said *three!*"

"But an ostrich has only two legs," the father protested.

"I know," said the boy. "But I came closest. All the other kids said four."

This may be funny. But it is not funny that today our colleges are loaded with youngsters who are hardly prepared for high school—kids who cannot do simple arithmetic and who cannot spell simple words. This, too, was an import — the idea that the dull discipline of the three R's was disturbing to little Johnny's ego. We got really scientific and went to work on the poor little kid and his Id with the result that today hardly any school that really is a school is without a class in remedial reading. It would save considerable money if the class were held in the highest level of our teachers' colleges and were called "Remedial Thinking."

Our museums today are exhibiting on their walls paintings by people who never learned to paint. It used to be a sort of joke that you could not tell which was the top and which was the bottom.

Non-books are being thrown together and sold by non-writers who never bothered to learn how to write. Murky poems are being ground out by scraggly poets who sing them to their friends because they are unreadable. Here, for example, is one deathless line: "O man, thee is onion-constructed in hot gabardine."

Life magazine describes our beatnik geniuses as "fruit flies . . . some of the hairiest, scrawniest and most discontented specimens of all time, who not only refuse to sample the seeping juices of American plenty and American advance but scrape their feelers in discordant scorn of any and all who do."

Some of their output is worse than trash; some of it goes beyond making fun of Mom and Dad and marriage and automatic dishwashers and Suburbia.

Always tearing down these days. Never building up. Always knocking. Belittling. Down-grading. A sneer rather than a grin. A mocking laugh rather than a belly laugh. Poking fun at other people rather than at ourselves.

What, by the way, ever happened to laughter? Once we were a laughing nation. We laughed easily and deeply. The corn may have been as high as an elephant's eye — but we laughed, and it was good for us. We laughed at Lincoln, Mark Twain, Artemus Ward, Mr. Dooley, and Petroleum V. Nashby. Later we laughed at the gentle humor of such columnists as Don Marquis, F.P.A. and H. I. Phillips. We laughed at Will Rogers because he made us laugh at ourselves. Remember the sly, dry way he spun that rope and those yarns and got off those wonderful quips of his about life in general and politics in particular?

We laughed at Robert Benchley. Remember when a magazine sent him on an assignment to Venice and he wired back, "Streets full of water, Please advise.?"

Today I think there is one true comic on the stage, and one real humorist writing a column. I am talking about Bob Hope and Art Buchwald. Others are cynical, sly and bitter. We laugh when we are told that everyone but squares knows that Mr. A or Mr. B is funny, but we don't know why we are laughing.

We refer to our humor as sick, sick and it is, is, is. Mother used to get cards on Mother's Day expressing in some way the fact that she was loved and wanted. Now if she is lucky she gets a card that shows "Whistler's Mother" flat on her back and a caption that says, "You're not the only one who's off her rocker." Otherwise, she may get a card that says, "Want to lose 15 ugly pounds? Then cut off your head."

Mort Sahl, to me, represents the cackling of despair. Even Bob Newhart, clean-cut and buttoned-down as he is, cannot resist the temptation to give a hot-foot now and then to our national idols.

I claim we need those idols. I am not going to be amused by a skit in which Lincoln's publicity man tells him "Write it on envelopes, Abe," or "Why don't you take it easy tonight, Abe, and take in a show?"

Laughter today is stored in Hollywood in cans, just as the gold was once stored at Fort Knox. It is taken out as needed and pasted onto television films. The laugh track tips us off to when things are funny.

I want to laugh when I am amused. I want to decide what I think is funny. This, I suppose, will mark me as a square. If it does, I will be in pretty good company. For this country was discovered, put together, fought for and saved by squares. It is easy to prove that Nathan Hale, Patrick Henry, Paul Revere, George Washington, Benjamin Franklin and almost anyone else you care to include among our national heroes were squares — by simply thinking what each might have said had he not been square.

Nathan Hale: Me spy on those British! Are you trying to be funny? Do you know what they do with the spies they catch? I'll give you a news flash, chum. They *hang* them.

Paul Revere: What do you mean—me ride through every Middlesex village and town? And in the middle of the night yet. Why pick on me? Am I the only man in Boston with a horse?

Patrick Henry: Sure, I'm for liberty. First, last and always. But we've got to be a little realistic. We're a pretty small outfit. If we start pushing the British around someone is going to get hurt.

George Washington: Gentlemen, I am honored. But I do wish you would try someone else. Let's say General Gates. I'm just getting things organized at Mount Vernon. You might say I had already served my time. Against the French, you know.

Benjamin Franklin: What we really need as Ambassador to France is a young man. I'm 70 years old! It's time a new generation took over.

It is perhaps a significant fact that what such men actually did say has been quietly sneaked out of our schoolbooks. *This Week* magazine made a survey recently of school history books issued before 1920, compared with those issued since. Nathan Hale said, "I regret that I have but one life to give for my country," in all of the old texts and in only one of the new texts.

Patrick Henry said, "Give me liberty or give me death" in 12 out of 14 earlier texts and in only two of 45 recent ones.

But John Paul Jones set the record. He said, "I have not yet begun to fight," in nine of the old books and in none of the new ones.

When Dwight D. Eisenhower was President he appointed a Committee on National Goals to decide where we were all going. Perhaps a first step should be a commission on national heritage to make sure that some of us at least remember where we have been.

Arnold Toynbee, the historian, says that of 21 notable civilizations, 19 perished not from external conquest but from the evaporation of belief within.

Today, our country still has a choice. I believe it has already begun to make that choice. I believe it is going back to its old beliefs in such things as ideas, pride, patriotism, loyalty, devotion and even hard work.

We are great believers in statistics in this country—and while the things that really count can never be measured even by the most advanced computers—sheer head-counting seems to indicate that people are beginning to struggle for better things.

Twenty years ago, half of us belonged to churches. Today 64 per cent of us do. It is perfectly possible that the churches are full and the people are empty — but the statistics are on our side.

Sales of classical records have jumped 78 per cent in the last three years. Advertising, perhaps, but the statistics are on our side.

Millions of people are visiting museums, millions more than a decade ago.

We spent over a billion dollars on books last year, and people are taking 670 million volumes out of our public libraries each year.

There are 50 per cent more symphony orchestras than there were ten years ago. Expenditures on all cultural activities have increased 70 per cent in the past ten years — to a total of more than 3,000,000,000 dollars.

You might point out to me that 3,000,000,000 dollars spent for culture, stacked up against 50,000,000,000 spent for war still isn't much. You will have to admit that there is a definite movement — and in the right direction.

Since the turn of the century, the percentage of our population that has graduated from high school is up ten times. The percentage that has gone to college is up seven times. The percentage in higher education who is trying to get higher marks is encouragingly greater than it used to be. There are indications that the day when it's smart to be smart is finally at hand.

But the greatest thing that has happened, of course, is that our nation has a whole new set of heroes—named Glenn and Grissom and Shepard—and Carpenter, Cooper and Schirra.

The forces of conformity are still strong. Too many of us are still sitting it out instead of sweating it out. Too many of us haven't got the guts to stand up straight and dare to be square because the opposite of square is round and being round is much simpler. Responsibilities and problems roll off easily. We can just roll down the path, without any bumps, being careful to stay in the middle because that's where the most comfortable ruts are.

SHORT CUTS TO NOWHERE

Too many of us know the short cuts, and too few know or care where the path leads. Too few of us dare to leave the path because the path is always the easy way, the way most people go. But there is no path to the future, no path to greatness, no path to progress.

How shall we fight for personal independence? How shall we avoid the group poop, the vortex of mediocrity, the great nothing of cynical sophistication?

May I suggest that we all join the S.O.S.? The Society of Squares. It doesn't even exist but it could. Not a left-wing organization. Not a right-wing organization. Just an organization with wings!

We might have to go underground for a while to avoid being trampled to death by the coast-to-coast rat-packs of cynical saboteurs and the canned-wit commandos whose devotion is to destruction.

But we would come out.

We might even have a secret handshake consisting mainly of grabbing the other guy's hand as though you meant it and looking him in the eye.

We would be for participation and against sitting life out, for simplicity and against sophistication, for laughter and against sniggering, for America and against her enemies, for the direct and against the devious, for the honest way against the short, for a well-done job and against the goof-off, for education and against the pretense of learning, for building and against tearing down, for the boys and girls who excel and against the international bedroom athletes.

We have, at least, the satisfaction of knowing that our problem is not new.

When Benjamin Franklin was told that the war for independence was over, he said, "Say rather the war of the revolution, the war for independence has yet to be fought." And today—181 years later—the war for independence has still to be fought.

Relocations Without Interruptions

From Idaho to Carolina

Across the country, states and cities are being tied more closely together by the spreading network of interstate highways.

The convenience of this new system has been sought for years, but as the work continues it often

means inconveniences for gas companies. Many times another network, the natural gas pipeline system and distribution lines which interconnect the gas fields of Texas and Louisiana with the rest of the country, must be moved.

Mueller Co. equipment and machines recently were involved in two projects related to highway construction in distant parts of the United States.

One took place on a busy city street in Shelby, North Carolina, and another job site was in rugged country in Eastern Idaho. Both projects were similar in that the pipelines had to be relocated without interrupting the flow of gas to the industries and communities on the lines.

The objective was the same, but some of the Mueller equipment was different because of the pressures and pipe sizes.

(Eastern Idaho)

A rather difficult relocation was completed by Intermountain Gas Company of Boise, Idaho on a 10-inch high pressure lateral line serving three communities in Eastern Idaho with approximately 7,200 customers, including several large industrial loads.

This project involved installing 1,200 feet of new pipe along a 20-foot cliff with 500 feet of the line being laid in solid rock.

Due to the solid lava rock in the area. It was not feasible to relocate the pipe out of the area of the new highway interchange, and because of the bends required in getting off the rock cliff, casing was out of the question. Therefore, the highway department directed the gas company to install, adjacent to the existing line, a heavier wall pipe with a double thickness of coating in the area where the pipe line was on the proposed highway right-of-way.

Due to the line being the sole source of gas to three communities, the flow could not be interrupted. Also, the load on the line required that approximately 325 pounds of pressure had to be maintained in the line to assure adequate gas at the end of the 40-mile run.

To do the job, Mueller high pressure line stopper fittings, line stopping machines and drilling machines were used by Hood Corp., Gas Contractors of Boise, Idaho. The bottoms of the fittings were cut off and a 90 degree ell welded on each fitting, into which the new line tied.

For three weeks, the contractor carefully blasted rock from under and beside the existing line to



Checking progress on a line stopping job in Eastern Idaho are, from left: Jack Fouts, welder, Hood Corp.; Scott Busselle, Asst. Operation Manager, Intermountain Gas Co.; Charles Chesney, Operation Supervisor, Pocatello Division of Intermountain Gas; Mueller Sales Representative Walt Arnett; Ben Morache, Construction Supervisor from Intermountain Gas; Bob McAlister, Hood Corp. Foreman, and Lloyd Little, Operation Supervisor, Idaho Falls Division, Intermountain Gas. The new line can be seen coming out of the bottom of the fitting.



Ben Morache and Charles Chesney of Intermountain Gas; Walt Arnett of Mueller Co. and Bob McAlister of Hood Corp., pause during drilling operations.



Gas Measurement Engineer Jerry McCormick checks a gate valve which will have a line stopper fitting bolted to it later. Below, the Mueller gate valve can be seen with the drilling machine attached.

make room for the new, heavier pipe. After the new line was in and pressure tested, work was begun to switch over to the new main.

The Mueller C1-36 drilling machine made the cuts, the No. 4-SW line stopping machines were used, and while the gas flow was diverted into the new line through the bottoms of the fittings the old pipe was cut and weld caps installed on the stub ends.

The stoppers were withdrawn, the completion plugs inserted and the caps bolted down, only 11 hours after the pressure test was removed.

According to Robert Lund, Chief Engineer for Intermountain Gas Co., the smoothness of the job could be credited only "to the well-trained contractor's personnel and the equipment used for cutting and stopping off the old line."



(Shelby, N.C.)

"A natural gas pipe was replaced along Dixon Boulevard Monday, but the customers it serviced probably were unaware of it because the flow of the fuel never stopped," says the lead paragraph in a story in the SHELBY DAILY STAR, Shelby, N.C.

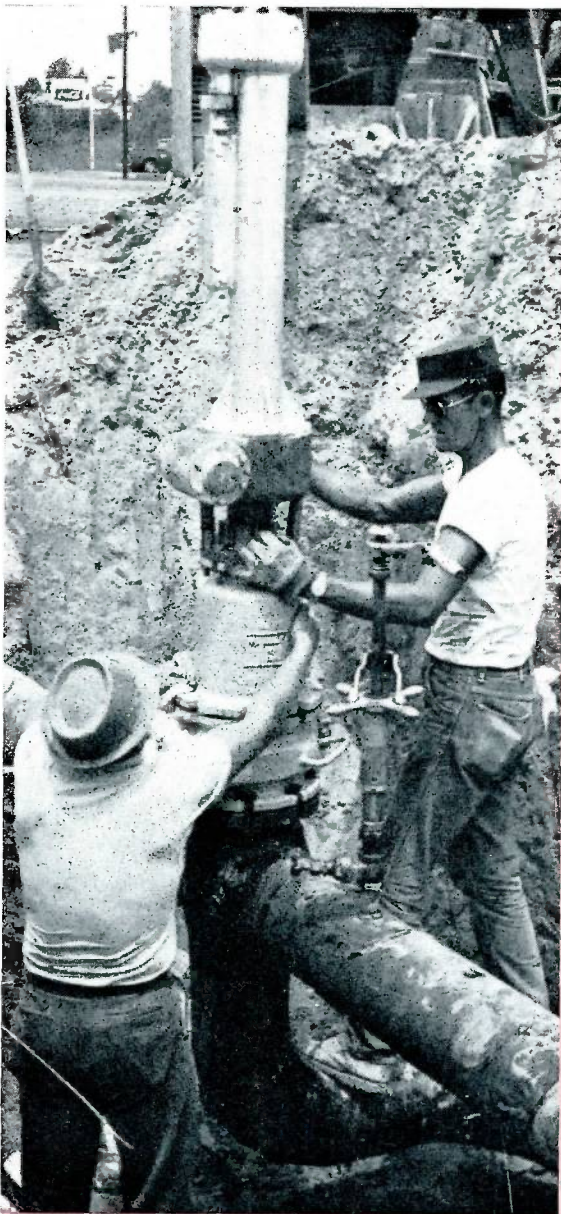
These customers, including Pittsburgh Plate Glass Co.'s Carolina plant, didn't have their pilot lights go out or weren't left without dryers or stoves because Mueller machines and equipment were available to do the job.

The Shelby work, done by C. N. Flag and Co., Inc., of Charlotte, N.C., involved lowering about 1,500 feet of eight-inch main to allow grading of a new highway.

Mueller equipment used on the job included: C1-36 drilling machine, No. 3-SW line stopping units and line stopping fittings which permitted the new pipe to be welded to the bottoms of the fittings.

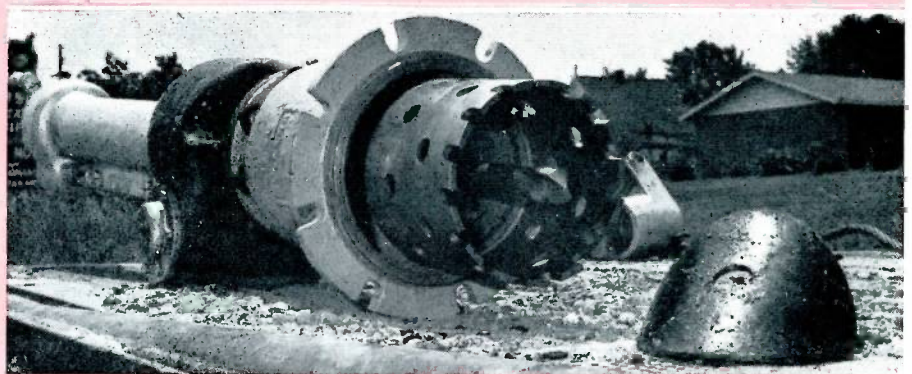
This type of fitting eliminates the need for a by-pass line, since the new, permanent line serves the same function as a by-pass. The flow of gas is diverted through the bottom of the fitting into the new line while the old line goes out of service. This allows workmen to cut the old pipe, cap it and remove the sections.

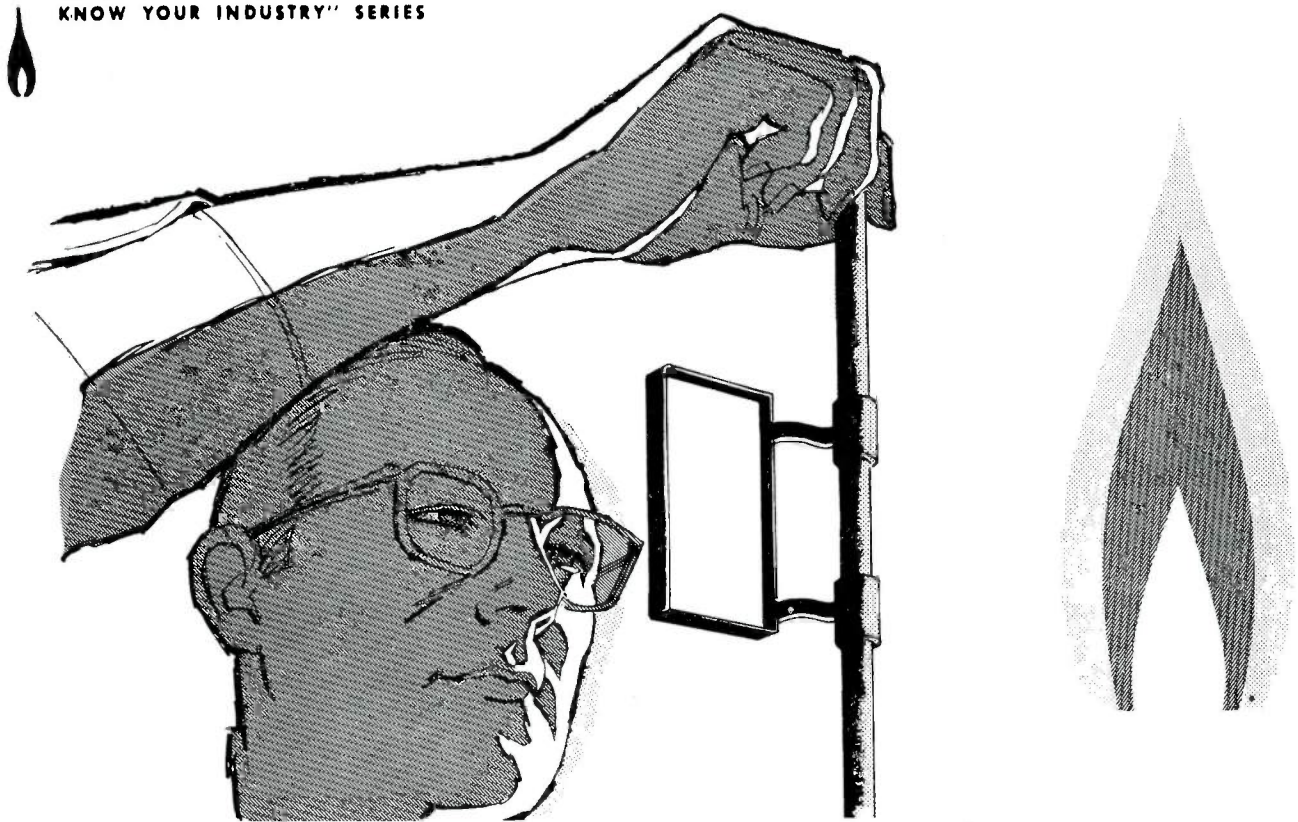
(Photos on Page 12)



Shelby Gas Superintendent Jim Milsaps checks over a gate valve and Mueller line stopping equipment which were used to relocate the gas main without interrupting service along the line. Below, is the Mueller C1-36 drilling machine, its shell cutter and a section that was cut from the pipe.

At Shelby, N. C., workmen attach a Mueller drilling machine and adapter to a gate valve preparatory to making a cut in an eight-inch line. The new, re-located main is shown coming out of the bottom of the line stopper fitting.





RESEARCH FOR TOMORROW'S GROWTH

From the theory of catalytic combustion to improving the grates that support pans on a gas range, gas industry research is forging ahead.

Hundreds of projects are under way. Some will bear fruit tomorrow or next year. Others are theoretical studies looking far into the future. Their common purpose—growth for gas. Achieving it will mean better service to our customers, security and good living for the industry's employees and a fair profit for its investors.

Many of the thousands of tasks gas performs for the industry's 35 million customers have been created by research in just the last 30 years. Gas now plays a vital role in providing everything from food, clothing and shelter to many luxuries. Current research enables the versatile blue flame to take on many more jobs.

One of these is on-site generation of electric power. Research created the total energy package, which is one of the brightest hopes in the industry's growth plans.

Around the nation, offices, motels, schools and shopping centers are now utilizing this total energy package.

Research continues on the technology and economics of other means of on-site conversion of gas energy to electricity. Several projects are contributing to the development of the fuel cell. Another is devoted to applications of gas thermionics. These compact home generating plants of the future could make the all-gas home a reality.

Quick connect couplings make gas appliances easy to move (and clean behind) and easier to install. This plug-in convenience makes possible the design of a whole new family of portable and outdoor gas appliances.

To supply them, gas may be distributed through small semi-rigid tubing throughout the home. This may require higher pressure. So research is already being done on the effects of elevated gas service pressures on appliance design.

Closer to the needs of today's marketplace are projects designed to improve gas dryers. For example, researchers are trying to reduce the size of the part containing the burners so that the cabinet may be made smaller or the clothes drying capacity increased.

Improvement of ranges is another objective. One project is a study of ways to design a range which will stay even cooler on the outside and thereby keep the kitchen cooler.

Why all this effort on already efficient appliances which enjoy public acceptance? Simply because in our extremely competitive energy market, the best today isn't good enough for tomorrow.

Even the magic blue flame itself is the subject of experiments. In an effort to increase its radiation, researchers are recording in hundreds of runs the effects of additives, various ratios of air and gas, and preheating of air and gas.

About \$3.5 million a year is allocated through the American Gas Association by its member companies for coordinated, industry-wide research. Individual utility companies spend \$5 million more in their research programs, and appliance manufacturers' research adds some \$10 million to the total.

The money is well spent—for a future that customers, employees and shareowners of the big and growing gas industry can look forward to with confidence.

How Does A Woman Become Successful In A Man's World Of Purchasing?



At her desk as Purchasing Agent for Peoples Gas System of North Miami, Fla., Betty Saunders thinks like a man. At her easel, she paints like a professional.

She Thinks Like A Man

People who get letters from Peoples Gas System of North Miami, Florida, signed by B. F. Saunders, Purchasing Agent, probably would react by saying to themselves, "Here's a guy who is all business." They couldn't be more wrong—the "B" stands for Betty, and her interests span the spectrum from bowling and golf to cultivating hybrid roses and painting in oils.

True, when Betty is operating behind the well-ordered desk of B. F. Saunders, her business associates tend to forget her sex. You just don't become the successful purchasing agent for Florida's largest natural gas utility by depending on feminine intuition. Peoples Gas System serves some 100 communities on both coasts of Florida, principally in the Miami and Tampa areas. It operates a fleet of over 300 vehicles and over 1650 miles of lines, mainly welded steel. There are three major standby plants, five gate stations, over 100,000 customers and an

average of over \$1,000,000 a year spent in expanding underground facilities. That gives you an idea of how much purchasing detail is involved.

Mrs. Saunders learned to be a purchasing agent by "doing." Born in Evansville, Indiana, and staying there long enough to attend Evansville College she came to Florida on a "vacation" in 1945—and is still here. Fascinated with the way people could live outdoors the year round, she took on the first job that assured her enough salary to stay—typing purchasing orders for the local gas company. From there she advanced step by step to becoming Purchasing Agent.

How does a woman succeed in a job which most executives would say requires "thinking like a man?" "Easy," says Betty, "you learn to think like a man." Seriously, Mrs. Saunders' formula is mostly hand work, common sense, and close coordination with operating personnel. In this connection, Mrs. Saunders acknowledges that

all of Peoples' ten construction crews and three contract crews prefer, and are equipped with, Mueller tapping equipment. In fact, her company developed and built a trailer especially designed to handle Mueller Line Stopper Equipment.

And how about Betty's love affair with Florida living? Just fine! Betty and husband Lewis, who is in grocery merchandising, bowl in the Peoples Gas League. They are ardent football fans, enjoy the theatre, go to the races, go dancing on occasion. Their lovely home in a quiet North Miami residential area is complete with swimming pool and outdoor patio.

For hobbies, Betty paints, mostly in oils and joins her husband in home gardening, mostly in growing a variety of hybrid roses. It's a busy schedule, but to Betty a most rewarding one. "To me," Betty says, "that moon over Miami is 24-caret gold!"



Mike Mantooth

Gas Superintendent's Son Wins National Scout Award

Mike Mantooth, son of Wallace O. Mantooth, General Superintendent of the Chattanooga (Tennessee) Gas Company, recently was awarded one of the most elusive of National Scout Awards—the William T. Hornaday Award for distinguished service in conservation.

The Hornaday award was Mike's third major award in the past few months. Mike, 14 years old, recently earned his Eagle Scout rank, and in November he was recipient of the coveted "God and Country Award."

He has earned 68 merit badges, with many of them in conservation. He has received merit awards in such areas as agriculture, small grains, farm arrangement, bird study, botany, nature, forestry, soil and water conservation, and wild-life management.

The Hornaday medal award, named for the first director of the New York Zoological Society and

Blue Flame Whispers

one of the staunchest pioneers in conservation in our nation's history, is for Boy Scouts only.

Mike's interest in conservation may ultimately lead to an adult life in this work, since he plans to study forestry in college in a few years.

Chief Executive Charles Cook of the Chattanooga area Scout Council says, "Mike is quite a boy." He said, "I am personally acquainted with him and he exemplifies the Scout oath in my opinion. He is outstanding in all respects."

Congratulations to a boy who is apparently "well prepared."

Gas Industry's Highest Award Is Presented to John E. Heyke

The American Gas Association's Distinguished Service Award, the gas industry's highest honor, was presented recently to John E. Heyke, Jr., president, The Brooklyn Union Gas Co., Brooklyn, N.Y.

Mr. Heyke was cited for his leadership in initiating and carrying out the Gas Industry's Exhibit at the World's Fair and for the role he and his company played in gaining acceptance of gas by exhibitors at the Fair.

Ed Parkes, A.G.A. president for 1963-64, conferred the award on Mr. Heyke at the 46th annual convention of the gas industry's national trade association. Some 5,000 industry executives, representing nearly every state in the nation, Canada, Mexico and several foreign countries, participated in the five-day convention in Atlantic City.

The Distinguished Service Award was established in 1929 and is presented annually by A.G.A. to the individual "who has recently made the most outstanding contribution to the general interest of the gas industry."



Francis P. Cooney

Milwaukee Gas Light Promotes Mr. Cooney

Francis P. Cooney has been promoted to purchasing agent for Milwaukee Gas Light Company, it was announced by Ernest F. Semrad, Executive Vice President.

Cooney succeeds Arnold E. Altenhofen who retired after 51 years of service with the utility.

Cooney is a native of Plymouth, Wisconsin, where he attended elementary and high schools. He attended Marquette University School of Engineering after serving with the Air Force during World War II. He worked for 10 years with engineering consulting firms in various parts of the country.

He joined Winnebago Natural Gas Corporation at Kaukauna in 1957 as a staff construction engineer. When Winnebago was purchased by Milwaukee Gas Light Company in 1960, he became a construction engineer for Milwaukee Gas Light's district operations. In 1963, he was promoted to manager of stores.

He is married and has four sons and a daughter. He lives in Port Washington. Mr. Cooney is active in the Elks, Knights of Columbus and the American Legion.



A. O. (Tony) Yonker (second from left) retired recently after 50 years of service with Mueller Co. Looking over the diamond-studded service pin are, from left: Frank Kellett, Mr. Yonker, Charles O. Bafford, and Del Parks. Mr. Bafford will succeed Mr. Yonker as Manager of the Decatur Sales Office.

50-Year Record Speaks for Itself And Tony Yonker

*Decatur Sales
Office Manager
Retires After
Half Century*

"The record speaks for itself" is an oft-used term that is bandied about during an election year with little significance attached to it.

But when an employee reaches his 50th year of service with a company, little more needs to be said because the record **does** say plenty.

A. O. (Tony) Yonker, Manager of Mueller Co.'s Decatur Sales Office, reached this 50-year plateau on Sept. 2 and also retired on that date.

This service record tells a lot in hours and days, but it doesn't reveal the company loyalty that Tony held, or begin to describe the warm friendships that he has developed by phone and mail with Mueller customers all over the United States.

Tony started with Mueller Co. as a messenger in 1914, and then spent a number of years as head of the Billing Dept., but most of his time has been spent in the Sales Office. Even though he has been in Sales for years, he hasn't had the pleasure of calling on customers and meeting them personally. His has been a long-distance

relationship. His primary duties have dealt with orders which were taken by phone or received by mail. Since 1957 when he became Decatur Sales Office Manager, it has been his responsibility to see that proper service and attention are given each order.

Tony was born at Blue Mound, Ill., some 13 miles from Decatur. During his school days, he got his start in the business world as a carrier boy for the Decatur Review. That was the only position he ever held other than with Mueller Co.

After graduation from high school, it was natural that he turned to H. Mueller Manufacturing Co. for employment. His father, the late Samuel Melvin Yonker was with the company for 43 years. A brother, G. J. Yonker, retired after 32 years with the company, and another brother and two sisters worked a number of years for Mueller Co. Tony's mother was the only member of the immediate family who didn't work at Mueller Co.

A number of Tony's nephews and cousins still work at Mueller Co. Joe Yonker, Tony's nephew and

Warehouse and Shipping Foreman, has been with Mueller for 13 years.

Tony, who is quiet and modest, is in excellent health and doesn't look much older than his years of service. He and his wife, Mary, plan to remain living in Decatur; in the next months, however, they expect to put a lot of miles on their brand new automobile.

A number of men working in the Mueller factory have exceeded 50 years of service with Mueller Co., but Tony shares this distinction with only one other man in the office, J. W. (Bill) Simpson. Mr. Simpson, executive vice president of Mueller, died in 1951 during his 51st year of service.

Dan R. Gannon, Vice President and General Sales Manager, says of Tony: "He has always wanted to stay in the background of any activity, but his devotion and sincerity to Mueller Co. and its customers have always made him stand out. It is hard for someone of this calibre to go unnoticed, even though his modesty and seeming shyness temper his warm personality. How do you describe the loyalty and hard-work of a man who has given 50 years of life to his job? Tony's record speaks for itself and him."

Charles O. Bafford, Sales Service Manager—Water since 1960, has been named to succeed Tony Yonker as Manager of Decatur Sales Office.

Charley started working at Mueller Co. in 1950 as a machine operator in the factory. A few months later he was transferred to the Production Control Dept. in the Brass Foundry. In June of 1951, he went into the sales office and advanced through various positions.

Born on a farm near Decatur, he attended Blue Mound High School and later attended Millikin University. Charley has sons 14 and 9, and a daughter who is 15 years old. Charley, Mrs. Bafford, and their 3 children now live in Blue Mound. He is a member of the school board and has been treasurer of his church for 11 years.

He is also active in Shrine and Masonic organizations in Decatur, Blue Mound and Springfield.

Guy Wadsworth Elected President of A.G.A.

Guy W. Wadsworth, Jr., president of Southern Counties Gas Co., Los Angeles, was elected president of the American Gas Association at its annual meeting Oct. 11 to 15.

Mr. Wadsworth succeeds Ed Parkes, president of United Gas Corp., Shreveport, La., who is now beginning a one-year term on the A. G. A.'s board of directors.

Other new officers for the 1964-65 year include: first vice president R. J. Rutherford, president, Worcester Gas Light Co., Worcester, Mass.; second vice president, John H. Wimberly, president, Houston Natural Gas Corp., Houston, and treasurer Charles H. Mann of The Columbia Gas System, Inc., New York.

About 5,000 gas industry executives and officials attended the convention which opened in Atlantic City's Convention Hall and then moved on to the New York World's Fair for the final two days.

Gas Industry to Spend \$7.2 Billion For Construction from 1964 to 1967

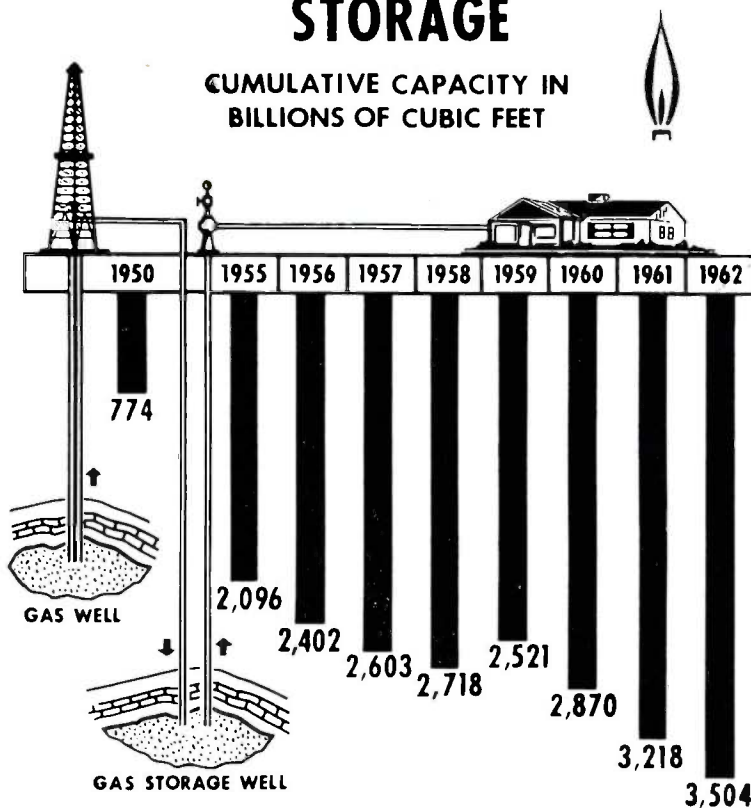
The nation's gas industry will spend \$7.2 billion on construction in the next four years, Ed Parkes, past-president of the American Gas Association, announced recently.

"In 1964 alone, gas utilities and pipeline companies throughout the United States expect to spend \$1.8 billion on new construction," he said in announcing the results of a survey conducted by A.G.A.'s Bureau of Statistics.

"These expenditures for new plant facilities and equipment are needed not only to better serve the nation's 36 million gas customers," Mr. Parkes declared, "but are necessary to help meet the country's continually expanding energy requirements".

Total plant value of the nation's sixth largest industry climbed to \$26 billion in 1963, when construction outlays reached \$1,558 million, according to A.G.A. findings.

UNDERGROUND GAS STORAGE



SOURCE: AMERICAN GAS ASSOCIATION

Strictly Off the Record

Boss: "You are twenty minutes late again. Don't you know what time we start around here in this factory?"

New employee: "No, sir. They're always at it when I get here."

* * *

Instructor: "Now remember, men, figures don't lie. Now for an example, if 12 men could build a house in one day, one man could build the same house in 12 days. Do you understand? Harold, give me an example."

Harold: "You mean if one boat could cross the ocean in six days, six boats could cross the ocean in one day."

* * *

Judge: "Couldn't this have been settled out of court?"

Defendent: "Yer honor, this is exactly what we wuz thryin' to do when a couple av policemen butted in an shtopped the fight."

* * *

Little Betty was crying bitterly. Her mother asked what was the matter. "My new shoes hurt me."

"Well, no wonder. You have them on the wrong feet," replied her mother.

She kept on crying and refused to be comforted. "I haven't any other feet," she cried.

* * *

First secretary: "Have you and your boss ever had any difference of opinion?"

Second Secretary: "Yes, but he doesn't know it."

* * *

A surgeon, an architect, and a politician were arguing as to whose profession was the oldest.

Said the physician: "Eve was made from Adam's rib, and that surely was a surgical operation."

"Maybe," said the architect, "but prior to that, order was created out of chaos, and that was an architectural job."

"But," interrupted the politician, "somebody created the chaos first."

Three matronly ghosts at a cocktail party in the spirit world were gassing angrily in a corner. The object of their angry stares was a very curvesome young spook surrounded by a cluster of male spooks. The matrons sizzled as their spectral husbands leaned closer to the young ghost's obvious charms. Finally, one could no longer contain herself.

"Hmmmmmf," she sniffed, "her and her contour sheet."

* * *

Definition of a bird that got caught in the lawnmower: Shredded tweet!

As the bank robbers were finishing their job, they noticed the gagged cashier giving expression that indicated a desire to talk. When they removed the gag he pleaded:

"Take the books, too; I'm \$3,000 short."

* * *

Modern idea of roughing it: Driving a car with standard shift.

* * *

Secretary, handing letter to boss: "This one's marked 'Personal' but it isn't, really."

* * *

When you get something for a song, watch out for the accompanist.

* * *

Prof: "How many zones has the Earth?"

Student: "Five."

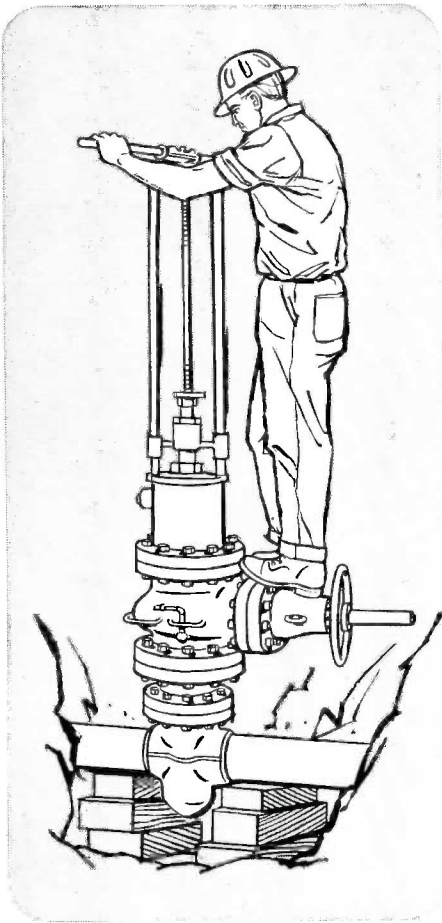
Prof: "Correct. Name them."

Student: "Temperate zone, in-temperate, canal, no-parking and o."

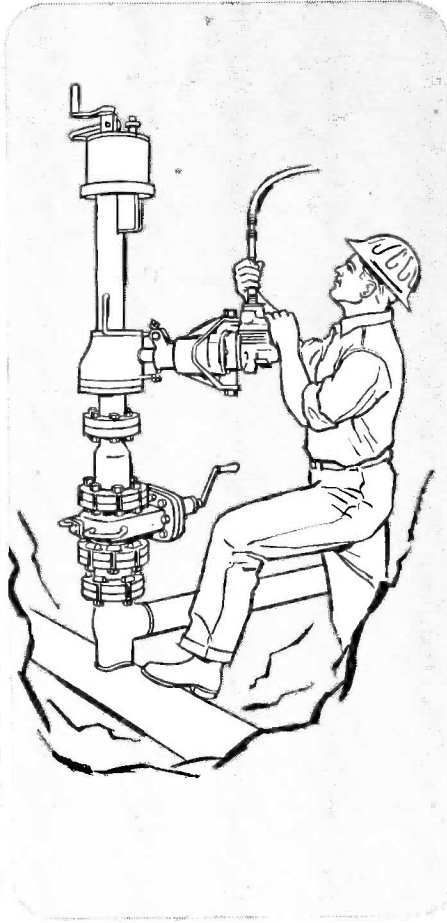


"Gentlemen we are going to have a fire sale. Anyone who doesn't sell his quota is fired."

(The cartoon shown above was drawn by Stuart B. Cope, teen-age son of Mueller Co. Sales Representative in Kentucky, Robert J. Cope.)



**Stop off
high pressure
lines where
no control
valves
exist...**



**Connect laterals
under
pressure
without
shutting off
flow...**



**Tap high
pressure
lines
without
shutting off
flow...**

Each of these operations can be safely made under pressure without hazardous loss of fluid or interruption of flow with proven Mueller® No-Blo® methods and products.

Fittings, drilling machines, attachments and operational procedures have been carefully

engineered to assure absolute safety and ease of operation.

Tie-ins, repairs, replacements, extensions, additions and by-passes can be made *anytime* without expensive or time-consuming system or piping shut down.

See your Mueller Representative for complete information on the full line of No-Blo methods and products, and their many applications that may solve your piping problems.



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IS HIS SHARE IN AMERICA'S FUTURE



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