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Joe Penne, Editor



Guy Pruett of the Engineering Test Lab shows Mueller, Limited salesmen the stopper cover on a line stopping machine during one of the many equipment demonstrations made during the workshop in Decatur for the Canadian sales force.

CANADIAN SALES FORCE MEETS IN DECATUR

Since Mueller, Limited has withdrawn from the manufacture of a plumbing line in Canada, greater sales efforts will be made in the areas of water and gas products. As a part of this new emphasis, Canadian sales representatives attended a general sales meeting for a week during March in Decatur.

Sales meetings of the entire Canadian sales force have been held in Sarnia in recent years, but this is the first one held in Decatur for some time--possibly since the late 1940s.

The meeting began on Sunday, March 19, with a day devoted to sales technique and company policies. The next two days were spent reviewing products for the gas industry, including actual operation of products by the salesmen themselves and demonstrations by William R. Knorr, sales training coordinator, and by staff from Engineering and the Test Lab. Tours of both Decatur plants took most of Wednesday. Thursday was set aside to work with products for the water industry. The last day of the session was used for review and discussions with Mueller Co. management. Ten outside sales representatives, plus B. (Sig) Sigurdson, sales manager of Mueller, Limited, and Bert Pullen, assistant sales manager, both from Sarnia, attended.

Greatly missed from the group was Wilfred J. Saint-Cyr, who was killed in an automobile accident a few days before the meeting was scheduled to begin. He was a Mueller, Limited representative who traveled in Quebec Province and was highly respected and liked by all those who knew him.

HOUSING CONTINUES TO RISE INTO 1972

Housing starts climbed to a new record level in February, reaching a seasonally adjusted annual rate of 2,678,000 units, up 8.4% from January's 2,471,000 units.

The February figure exceeds January's record and was well ahead of the 1,793,000 units registered in February of last year.

The chief economist of the National Association of Homebuilders said declining mortgage rates and continued availability of money for housing explained the jump in housing starts.

Starts of one-unit structures declined last month, but these were offset by sharp increases in starts of structures with two to four units and those with five units or more. Those starts with five or more units reflect the growing interest in condominiums.

Since October of 1971, when housing starts stood just above two million units, steady_increases in the adjusted annual rates have been seen. The rate had increased to about 2.2 million by November, to 2.4 in December, rose slightly in January and then leaped to the 2.6 million unit rate last month.

A FAMILY'S SHARE OF FEDERAL SPENDING

The annual Federal budget of \$246.3 billion proposed for 1973 is so enormous we find it difficult to relate it to our own incomes. However, if we reduce it to each family's share, or about \$3,681, we can look at it in full perspective.

Some of us would see this \$3,681 figure representing "X" number of months in college for our children, or perhaps a new car or boat. This average household's share in next year's budget is 82% more than the comparable cost 10 years ago. Even the consumer price index, which is some 36% higher than it was in 1962, has not grown as fast as Federal spending.

79,000,000 ''REGULAR'' HYDRANTS

"I need a fire hydrant today" sounds like a simple enough request of Mueller Co., where many hundreds of hydrants are made each week.

After an explanation from the Chattanooga sales office that it will take "X" number of weeks of lead time, the customer responds, "I don't want anything special, just a regular fire hydrant. Why don't you stock them and then ship them?"

There is no such thing as a "regular" or "stock" fire hydrant when you consider that there are millions. of ways to produce a fire hydrant. That's right--millions. Considering all of the variables that go into fire hydrants, there are about 79,000,000 different combinations possible.

Obviously, Mueller Co., never expects to produce all of these, but during the last four years records were kept on the different kinds of hydrants we made in Chattanooga and sales orders indicated that nearly 9,000 varieties have been produced.

The number of 79 million is a rough figure calculated in Chattanooga and even if it were only half that many it makes the point that it is impossible to meet customer demand by stocking hydrants. Even the stocking of popular parts and sub-assemblies that can be used in many designs presents a scheduling problem.

This figure of 79 million seems unbelievable until you start checking into the variables and all of their combinations possible. There are six basic types of Chattanooga hydrants: Standard, Improved, MUELLER /107, Modern Improved, Flush and Underwriter. These vary in design, internal workings, offer special features or have specific applications. (In addition to these all made in Chattanooga, the Brea plant produces a wet barrel hydrant which can be used in areas where weather conditions allow water to stand in the hydrant's upper barrel without danger of freezing.)

Multiply our six types of Chattanooga hydrants by two because the direction for opening can be specified. Next, mix in the more than 100 color combinations that have been furnished to customers and are available upon request. The variable that has the most possibilities is in the threading of the nozzles where there are more than 400 different sizes and pitches to the threads. (There are national standards established for threads, but hundreds of cities and fire protection districts require special threading for their systems.) The arrangements and numbers of the hose and pumper nozzles offer additional possibilities.

While still on the upper portions of the hydrant, we have different designs and sizes for operating nuts and wrench lugs. As we move down the hydrant, the depth of bury can range from 1½ feet to 10 feet at intervals of six inches working in combination with other barrels.

As we get to the base or the shoe, the hydrant size or its valve opening can vary from 2-1/8 inches to

6-1/4 inches, depending, in some cases, on the type of hydrant. In the same area, we have not only two or three different sizes of inlet connections, varying with the size of the hydrant, but also a number of types, including hub or bell, flanged, universal, mechanical joint, flanged tee, screwed ends, and others.

These are some of the more "typical" variations found in hydrants, but, in addition, some communities do not want chains on the nozzle caps or they may want an auxiliary gate valve bolted directly to the "hydrant shoe. On an underwriter hydrant, each nozzle "may have an independent gate valve.

The basic Mueller Improved fire hydrant has about 125 different parts in it, including nuts and bolts, gaskets, washers, and castings. This is a relatively small number when you consider the millions of combinations that exist as they are used to get our customers just a plain, ol' "fire plug."



Hundreds of fire hydrants are stacked and sorted for shipment near the loading docks in Chattanooga.

Retirements

The following list gives the retiree's job at time of retirement, years of service and date of retirement.

Mueller, Limited

Violet Southon, flush valve and regulator tester, 21 years, 2 months and 7 days, Feb. 20

Decatur

Cleo Craft, stop grinder set-up man in Dept. 80,36 years, 4 months and 27 days, March 14, (80 Plan)

Arthur J. Menapace, drill press operator in the Iron Machine Shop, 19 years, 1 month and 2 days, March 31, (80 Plan)

Chattanooga

Samuel C. Adair, Jr., slinger molder in the Iron Foundry, 24 years, 10 months and 10 days, March 31, (Disability Plan)

MUELLER CONTINUING FINANCIAL GRANTS

Mueller Co. has been carrying on financial aid programs to colleges and universities in a number of cities around the country, especially near our plant sites, for some time.

Two examples of these long-term projects can be seen at Bradley University in Peoria, III., and at the University of Illinois at Urbana where pieces of engineering laboratory equipment have recently been put into use.

At Bradley, a wind tunnel for undergraduate and graduate classes in fluid mechanics has been donated and will be used extensively in connection with research and design projects related to fluid flow and hydraulics.

At the University of Illinois, Mueller has helped to equip the Mechanical Analysis and Simulation Laboratory in the Department of Mechanical and Industrial Engineering. The lab started to develop about three years ago through funding from the National Science Foundation, but it materialized through the help of Mueller. The only stipulation Mueller placed upon its contribution was that the lab would be used for student work only.

The lab allows 125 students a week to test classical theory against reality through individualized experiments, utilizing an analog computer to simulate a variety of conditions.

According to W.R. Leopold, vice president-engineering, Mueller Co., has had a program of assistance for a number of years with the type of help slowly moving away from individual scholarships to larger, long-term grants which might include specialized pieces of equipment or the outfitting of a lab. "This type of expenditure provides something for a broader number of students and each item donated by the company is clearly identified so Mueller receives some form of lasting recognition," Leopold said.

At Rose-Hulman Institute of Technology in Terre Haute, Ind., Mueller has made grants over the past four years directed at equipping a stress analysis laboratory in the engineering school. Similar grants for equipment have also been given to schools in the Brea and Chattanooga areas.

The individual has not been forgotten, however, and an "outstanding senior" award in mechanical engineering is still given by Mueller at a number of schools. This is given to a senior in recognition of his superior academic abilities, leadership and maturity.

The company also provides six individual scholarships at Millikin University, Decatur, each year.

FAMILIAR FACES IN NEW PLACES

Malvin C. West, formerly a machine operator in Dept. 80 on the second shift, has been promoted to assistant Brass Foundry foreman on the second shift in Decatur effective March 27.

HEART SURGERY GIVES NEW LEASE ON LIFE

When many health buffs start jogging it often marks the beginning of a body renewal program. In the case of Clyde W. Grooms of Chattanooga the ability to jog this summer will be the climax to his medical story that has given him a new lease on life.

A few months ago, simple walking could cause agonizing chest pains that filled him with anxiety. Today after an eight-hour operation which replaced arteries near his heart, he is back on the job, working around the house and "feeling great."

This extended surgical approach to the treatment of coronary heart disease, the cause of most heart attacks, is proving to be a "life-saver" for patients with what used to be "end-stage" illness.

Much heart disease results from the build up of a hard material on the inside walls of the arteries that supply blood to the heart muscle. As this plaque accumulates, it narrows the arteries, reducing the flow of blood, so the heart does not get enough nourishment.

Clyde's problem was coronary insufficiency with blockage of the right and left coronary arteries. To get away from these obstructions, bypasses were grafted from the aorta, run around the problem areas, and attached to the healthy sections of the arteries. A vein section taken from Clyde's thigh was used for the bypass on both the left and right coronary arteries.

During portions of the operation, the heart is completely stopped to allow the delicate procedures and much of the heart's work is done by a heart-lung machine.

After a couple of weeks in the hospital for tests and a general build-up, Clyde underwent the surgery on Dec. 16. He spent three days in the intensive care unit at a Chattanooga hospital and was up on the fifth day. His recovery for a man 48 years old was speedy and he was released from the hospital after 10 days. About two months after surgery he was back half-days at his job as a quality control analyst at the Mueller plant in Chattanooga.

By summer he will be able to jog, marking the end of this phase of his body re-building program.

Service Awards

The following Mueller employees received service fawards during March.

Chattanooga

	Veal, Clifford Thornton
30 Years:	Otto Glass, Jr., Edward Parham, Harvey
20 Years:	William H. Holloway

Decatur

10 Years: Betty Ann Roe	е
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30 Years: Thomas J. Adams, Jr.

"E" IS FOR ECOLOGY IN NEW PICTURE BOOKS

"A" is for Apple."B" is for Book. Remember those first picture books that matched a word with a picture. Back then "E" usually stood for elephant but today with such emphasis and interest being placed on fighting pollution and a great interest by young people in the environment, "E" may stand for ecology.

Indicative of the concern of kids today for the environment was a recent invitation from Fanning Elementary School's fifth and sixth grade science ecology class to neighboring Mueller Co. in Brea. The students _ invited company representatives to talk to the classes about our operations and efforts to curb pollution.

Representing Mueller were Plant Manager Lloyd W. Darnell, Manager of Industrial Relations Edmund P. Moore, and Manager of Product and Plant Engineering G. Eric Peterson.

The class wrote "thank you" notes to Darnell and in them are found some of the concerns of young people today for our environment and some of them have a note of humor because of their candor.

Young Troy said: "I would like to give my compliments on the great talk that you and your partners gave. I'm sure glad that you're doing something about smog and pollution because its getting a little crowded and hard to breath even on sunny days."

Eric touches on the costs and says: "I am glad that Mueller and you are so concerned about pollution. You spend millions of dollars for anti-pollution devices."

Apparently our money is well spent because Bob claims that he lives right behind our plant and "we never had any problems with pollution." He seemed to have second thoughts, however, because in the next paragraph he adds: "When we first moved here to Brea, I couldn't sleep because the plant made some noise. Now I can't sleep without the noise." (Our devices to muffle noise seem to work!)

Pattie felt she was "lucky" to get a front-row seat and said, "thanks for your long, great speech."

A young man who also felt fortunate to have a front row seat added: ''I didn't have the slightest idea of what Mueller Co. was doing. Before I knew about Mueller's and what they did, I thought it was closed. I think Mueller's is the best organization for pollution.''

Jeff drew a couple of other conclusions about Mueller in Brea. "I like the way your plant is run. I like your front lawn the most." Lindsay also mentioned the lawn in his remarks. "I thought that we weren't allowed to play on the grass. Thanks to Mueller, we can," he concluded. (Apparently a reference to the company's offer of the use of some of our property for a playground.)

The important point that was found in many of the letters was that they understand pollution comes from many sources--not just industry and the young people promised to help do their part toward reducing it.

TRAINING PROGRAM ENDS IN DECATUR

A 20-week training program for supervisors and foremen in the Decatur Manufacturing Division, designed to improve shop management skills, was completed March 27 with the awarding of certificates by E.B. Watmough, founder and director of Tampa Manufacturing Institute, Tampa, Fla.

About 80 men have been participating in the program since Nov. 1, concentrating on business economics, sound management practices and industrial rengineering fundamentals, including time and motion study, work simplification, methods, costs, etc.

During the last few weeks of the program, the men submitted more than 200 ideas and suggestions for ways to improve the company's operations. Due to duplication, these could be reduced to more than 100-all of which will be considered fully. Receiving special recognition for their methods improvement suggestions were: Warehouse and Shipping Foreman Joseph E. Yonker, Brass Foundry Foreman C.A. (Bud) Berner, and Assistant Iron Foundry Foreman Dale Spires.

This same program has been underway in Chattanooga for about 85 supervisors since Jan. 12. Each three-hour session is conducted twice on Wednesday in Chattanooga to allow men from all three shifts to attend.

News Briefs

Twenty-five students from Rio Hondo College, Santa Fe Springs, Calif., visited the Mueller Co. plant in Brea on March 2. The students, all industrial arts majors, toured the plant and were particularly interested in the forging and foundry operations.

Three men from the Mueller Co. plant in Brea have been elected to offices of the Orange County Chapter of the American Production and Inventory Control Society. Rick Trzcinski, assistant manager of production and inventory control, has been named vice president in charge of programs. Elected to the organization's board of directors were Vince Ermovick, manager of production and inventory control, and Wayne Fike, inventory analyst. Fike, also, was recognized recently for his part in helping to save a neighbor's home which had caught fire while the occupants were away. According to reports, Wayne and two others kept the fire under control until the fire department arrived.

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If you have a question about Mueller Co. and its operations, send it to Editor Joe Penne, Decatur. We will get the facts and publish them if the matter is of general interest. Your question need not be signed.