

# NEWSLETTER

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Joe Penne, Editor

## MANAGEMENT PROGRAM BEGINS IN DECATUR

A 20-week course for production supervisors and production managers began Nov. 1 for more than 80 men in the Decatur Manufacturing Division.

They will attend three-hour sessions weekly conducted by E. B. Watmough of Tampa Manufacturing Institute of Tampa, Fla. Mr. Watmough said the course will not be a lecture series but will concentrate on problem solving through the use of industrial engineering fundamentals and sound management practices.

Mr. Watmough is founder and director of the Tampa Manufacturing Institute and has a broad background as a machine operator, industrial engineer, university faculty member, author and consultant. His current schedule of classes takes him about 6,000 miles a week to conduct them from Illinois, to Ohio and Vermont.

## WESTERN DISTRICT ADDS SALES REPRESENTATIVE

Ronald H. Allen, who recently joined Mueller Co. with 11 years of sales experience, has been assigned to a newly created sales territory in the Western District.

Under the guidance of District Sales Manager Warren Crawford, Allen will concentrate his efforts in the area of Underwriter fire protection products. This line includes fire hydrants, gate valves, check valves and indicator posts designed primarily for use in industrial installations, plant fire protection systems, military reservations and private properties. These "UL" products are built to rigid standards outlined by the Underwriters Laboratories of Chicago and the Associated Factory Mutual Laboratories of Boston.

Allen, 36 years old, has a wife and two children and they live in Glendale, Calif. Prior to joining Mueller Co., he was representative for Kennedy Valve Co. in southern California, Nevada and Arizona.

## DECATUR UNITED WAY CONTRIBUTIONS UP 37%

The United Way campaign carried on at Mueller Co. in Decatur produced \$19,682.28, an increase of about 37% over last year for the 19 health, welfare and guidance programs and agencies. Approximately 76% of all employees contributed and two-thirds of those who gave contributed according to our Fair Share program.

Co-chairmen of the campaign, Maintenance Department Electrician Billy Willis and Assistant Plant Manager Charlie Moore attribute much of the success of this year's campaign to the special efforts of the solicitors, plus the

opportunity for hourly employees to contribute their Fair Share through the "Buck a Pay" payroll deduction program.

The United Fund campaign in Chattanooga was also carried on during October but no report has been received to date on its progress.

## MANY DECATUR EMPLOYEES 'ON THE ROAD' DAILY

Mueller Co.'s sales representatives are usually thought of as the company's traveling men, but in Decatur alone about 30% of the work force commutes from outside of the city with some employees traveling as many as 500 miles weekly between their home communities and their jobs.

When we think of commuting to work we think of big cities, crowded subways or jammed freeways--things certainly quite foreign to the farmlands of central Illinois. The Mueller commuters from outside Decatur come from 45 different communities ranging in distance from a few miles to Herrick and Witt which are about 50 miles away.

In 1959 when a survey of the work force was taken, 15% of our employees lived outside of Decatur and there are various reasons given for the five percent increase during the last 12 years. People are generally becoming more mobile but some are shunning the bigger communities because of tax structures, school systems and the general atmosphere that many feel prevails in the large areas.

Better highway systems, and improved automobiles are two more reasons given for the increase in commuting. Others claim that Decatur is too large now, and that they can drive from nearby communities in less time that it takes to drive across town.

Some employees were born and reared in the outlying communities and prefer to remain there even though the travel time to work extends their day. They like being with old friends or with members of their families in familiar surroundings and are unwilling to trade these benefits for the convenience of living near their jobs.

Car pools offer the easiest and least monotonous way to cover these distances week-after-week. The riders in the pool often take advantage of the travel time to take a nap, read the paper, talk about baseball or think about the evening meal. The time, cost, whims of the weather or other inconveniences due to the travel are accepted as routine just as the commuter in Chicago or Los Angeles views his time on the freeway or train.

Moweaqua, a town of 1,800 about 16 miles from

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## METAL MOLDING--AN ART THOUSANDS OF YEARS OLD

Hundreds of Mueller employees are practicing a skill today which is as ancient as the history of civilized man.

About 8,000 years ago man discovered metal and not too long after that he stumbled onto the skill of metal casting--a skill that propelled the tribes of Sumeria into what is believed to be the first civilized culture. Today the techniques of founding and metal casting are fast, efficient, highly mechanized and still basic to our affluent society.

One of the oldest castings in existence is the Mesopotamian frog cup holder, a 14-inch copper casting that dates from about 2800 B.C. The techniques found in this relic lead experts to conclude that it took hundreds, or possibly thousands, of years of effort to develop the skills evident in the cup holder.

At first, primitive people treated metal as merely an improvement upon stone because it didn't shatter when they tried to shape it. Gold was the first metal to really attract the attention of primitive man. The shiny yellow nuggets of gold could be shaped but they were too soft to be used for weapons so they made them into beautiful trinkets. While looking for gold, they discovered copper and some time later, around 5000 or 4000 B.C. man learned that the "red stone" could be more easily shaped if it were hammered when it was hot.

The real Metal Age did not begin until man learned, probably by accident, how to melt and then to cast copper. We don't know how this happened but casting has been traced to Mesopotamia and then to Egypt sometime in the

5th millennium.

Methods for separating copper from ore were probably found by chance. Some speculate that rocks containing copper ore were used sometimes to protect the camp fire at night and the next morning men found in the ashes some gleaming copper pieces which were reduced from ore by the charcoal in the fires. The discovery of ore smelting has been likened to the importance of learning how to produce a fire artificially.

The camp fire that led to the discovery of smelting may also be regarded as the first metallurgical hearth, the forerunner of today's melting installations. Once man learned how to melt metal, he had to find a way to collect it and to keep it hot. The first method involved digging a hole under the fire and collecting the metal in it. Later the hole was lined with fire resistant clay to keep the metal clean. Still later, the hole in the floor of the hearth was enclosed by stones, which were arranged in the form of a wall, and so a primitive furnace evolved.

Our early metallurgist soon noticed that the wind caused his fire to burn more freely, and thus the effect of draft was discovered. Perhaps tough grass or rushes were used to fan the fires. Then later the furnace was placed on the windward side of the hill and some kind of chimney built by digging a trench in the hill slope. Finally, forced blast, first by blowpipes and then bellows, was introduced.

To transfer the molten metal from the campfire to the mold, the early foundryman used crucibles about the size of a teacup made of pottery. Since he didn't have tongs, he used green sticks to remove the crucible from the fire and sometimes the metal started to set before he got it poured.

The forming of molds was another area that took experimentation and some of these discoveries were unquestionably due to chance. Founders first noted that the molten metal that fell into a hole or into an indentation of rock, took on that particular form when it cooled. From this idea, they began forming molds of sand or clay that roughly shaped one side of the tool or weapon that they were trying to make. The other side of the copper casting was left exposed and had to be shaped by hammering. When many of the same castings were to be made, the mold cavity was formed in hard baked clay or carved out of stone and used over and over.

The next improvement in casting techniques was the double cavity mold. Two molds were covered with flat rocks and the two halves of the object were joined after casting.

For more complex shapes, the solid mold was developed. A model of the object to be cast was made in wood or some other combustible material which was encased in clay. The clay container was then baked in a fire which destroyed the combustible material, leaving a cavity for the reception of metal.

Cored castings probably didn't appear until about 2000 B.C. Cores were made of clay, charcoal or sand and were sometimes strengthened and made more permeable with dry chopped straw, dung or finely broken brick.



Modern methods and an ancient art.

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When casting a hollow article, a clay core was made which very roughly corresponded to the inner shape of the article to be cast. This rough core was then coated with layers of beeswax until the thickness was great enough to allow the exact contour of the desired inner shape to be cut in the wax. The surface of the core was dressed with a mixture of finely crushed clay and brick dust and then with molding clay. During the baking of the clay mold the core wax melted and ran out, leaving a mold cavity for the hot metal. After casting, the outer mold was broken away and the remains of the core poked out. This "lost-wax" method was used both for castings of an intricate external shape where it would be difficult to carve the mold out of stone and for casting hollow vessels.

We have talked primarily about copper because it was the first metal cast. Many think of iron as being primary because of the great industrial development period known as the "Iron Age", but the discovery and use of gold, silver, lead and copper preceded iron by as much as 4,000 years.

After 8,000 years all ideas have still not been exhausted and new techniques are continually being sought and introduced to make foundry work dynamic and exciting.

## HOUSING STARTS CONTINUE STRONG

Construction of new housing units rose in the second quarter of the year by 43% compared with the same period from the year earlier, according to a report by F. W. Dodge Division of McGraw-Hill Inc.

The Wall Street Journal story of the increase said construction of new one-family homes and apartment buildings in the second quarter, valued at \$9.91 billion, scored a 36% increase from the preceding three months.

The U.S. Commerce Department, reporting on housing starts for August only, said home building climbed to a record level with the month showing gains of almost 60% compared with the same period a year ago. The seasonally adjusted rate of 2,228,000 units for August was up fractionally from July's revised report.

Michael Sumichrast, chief economist for the National Assn. of Home Builders, said that the "outlook is really good at least for another year. But beyond that I'm not sure what the picture will be."

Sales at Mueller Co. have followed this strong upward trend in the housing industry and have increased substantially. This increase in incoming orders has required considerable overtime work, has created temporary delivery problems and is adding to our production scheduling problem. However, at this writing, we are beginning to see the "light at the end of the tunnel".

## SOCIAL SECURITY OFFICE OFFERS NEW CONVENIENCE

The Social Security Administration has recently "re-discovered" the telephone and is now offering a new procedure called "Teleservice" to improve its public service.

This new national program makes it possible to transact most Social Security or Medicare business by phone rather than by mail or in person.

# Some Time Ago

"The biggest thing to happen to Decatur" was the way **Decatur Review** announced a \$300,000 expansion program outlined by Mueller Co. in 1902. The expansion, about doubling the capacity of the factory, took place in the general area now occupied by Plant 1. One of the biggest items was the addition of an iron foundry, reducing our dependence on outside casting suppliers. The newspaper said, "No such a spreading out has ever been heard of here before. It means a solid block of buildings and great quantities of new machinery added to the present factory. It means more than doubling the force of employees, even in these rush days, when day and night shifts are crowding the plant." The work force of about 425 was expected to reach about 1,000 following the expansion and the weekly payroll of \$5,000 was expected to be about doubled. The Wabash Railroad was the only other Decatur employer with a larger work force at that time. The Decatur Herald said a survey it made indicated that 17% of the population of Decatur was directly dependent upon the company for a livelihood. When the expansion was complete, as many as 1/3 of the population of Decatur could be directly affected by the company's operations the paper speculated.

## Service Awards

The following Mueller employees received service awards during October.

### Brea

10 Years: Warren Sweany, Ruben Rojas, Elex Stewart, James Haller

### Decatur

10 Years: Jack Calfee, James Grandon, Phillip Tucker, Verlyn D. Burnett, James Fleckenstein, Howard Hull, Ronald Riley, James Grider, Sidney Duffer, Gary Ledbetter, Rockne Winner, David Boline, Robert Maxwell, Jesse A. Steele, Thomas McGeorge, Richard Janetzky, Charles L. Mauck, Larry Malloy, Robert L. Davis, David Gregory, Carroll W. Beck, Phillip E. Wiseman

30 Years: John Drake

### Outside Sales

10 Years: Lloyd Murphy

### Chattanooga

10 Years: Rufus Yates, Roland E. Mitchell  
20 Years: Paul S. Slatton, Roosevelt Powell  
30 Years: Kyle Hardy

### Mueller, Limited

10 Years: William Robertson

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Decatur, is the most popular home of our "commuting" with 27 persons living there. Next is Blue Mound with 20 employees who commute those 15 miles daily. Mount Zion, adjacent to Decatur is rapidly becoming a "bedroom" community for the industries of the city. In 1959, there were only six Mueller employees living there but now there are 19, registering the largest increase over the last 12 years. Shelbyville, with 14 employees, is our fourth most popular hometown.

When this survey was last taken, Moweaqua was the most popular outside of Decatur, but Blue Mound was fourth behind Macon and Pana. Macon has now dropped from 18 employees to 11 and Pana from 17 to 12.

Mueller Co. was "born and reared" in Decatur, but 45 other communities share directly in its success through job opportunities available here today.

## News Briefs

Mr. and Mrs. Herman E. Jackson recently returned from a three-week trip to New Zealand. The Jacksons went to Christchurch, N.Z. to present charters to new clubs of the Dale Carnegie Alumni Association. Herman is a past-president of the association and the invitation to visit New Zealand resulted from his efforts while in office to help organize the chapters "down under." Herman retired from Mueller Co. in 1966 after 25 years as an editor, artist and catalog compiler.

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Our first report on Walt Disney World, which recently opened in Florida, comes from Kathryn N. Plemons of the Chattanooga Personnel Office. Along with her praise for the Florida entertainment world was an endorsement of the Magic Kingdom membership that is available to Mueller Co. employees in Chattanooga. The membership is free and available to any qualified organization or company with an active recreation program. It provides major discounts for tickets at Disney World and Disneyland, savings on accommodations at the Disney World complex and makes members eligible for special travel and tour programs. Kathryn reports there is much construction being carried on at Disney World and speculates that work will probably continue for a year. She adds: "The part that is finished is well worth the trip to Florida." The only thing unpleasant about the trip, she said, was the speeding ticket she got but, philosophically, she concludes that "the fine will help to keep Florida green for a while."

### RETIREES CHANGE MEETING LOCATION

About 50 men retired from Mueller Co. in Decatur met in Nov. at the Scanda House, 1610 E. Pershing Rd., for their regular monthly meeting. The men will meet at the Scanda House on the 2nd. Thursday of each month until further notice. The Dec. meeting will be at 11:30 a.m. on the 9th.

## JUNIOR ACHIEVERS PRODUCING SHIRTS

TYE-DYE, a Junior Achievement firm sponsored by Mueller Co. in Decatur, is taking advantage of one of the dress fads of young people today by producing tie-dyed T-shirts.

By tying the shirts and then dipping them in dye, wild, "mod" designs in many colors are obtained. The shirts come in a wide range of sizes, including children, and can be purchased for \$3.

By the end of October, the high school students operating their own company under "JA", had organized, elected officers, sold stock and begun production.

About 15 young people are operating TYE-DYE under the guidance of Mueller advisers Gary Evans, Bill Knorr, Bill Lindgren, Bill Sebok and Dave Vanskike.

## Retirements

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

### Decatur

Edward Richards, material handler and hi-lift operator in Dept. 20, 21 years, 2 months and 10 days Oct. 8. (80 Plan).

Gus M. Fyke, lathe operator in Dept. 80, 20 years, 3 months and 7 days, Oct. 26.

### Chattanooga

A. J. Davis, Core Room 17 years, 8 months and 12 days, Sept. 30. (Disability Plan).

James A. Newman, pattern storage clerk, 16 years, 4 months and 10 days, Oct. 31. (Disability Plan).

### Mueller, Limited

James Slager, stop grinder, 24 years, 7 months, 23 days, Oct. 27.

### Brea

Ida Lou Hughes, core cleaner and inspector, 36 years, 6 months and 16 days, Oct. 20. (80 Plan)

## FAMILIAR FACES IN NEW PLACES

Jack N. Malone, formerly quality control supervisor, has been promoted to manager of employee relations in Chattanooga succeeding Richard (Nat) Wilhoite who died unexpectedly late in September. Ruben G. Skipper, Jr., formerly chief products inspector, has been named to succeed Malone. Claude A. Hawthorne, who has been products inspector, has been promoted to chief products inspector, succeeding Skipper.

In Decatur, Gene E. Denton, formerly a products inspector, has been promoted to a Ground Key Division foreman on the second shift. A. N. (Buddy) Grossman, toolmaker, is being promoted to Tool Room foreman, succeeding Carl H. Hill, who is retiring Nov. 26.