

# 1947 Union Officers



At the Union election March 3 JOSEPH SNYDER (machine shop, night) was elected to his third term as president of Local 995, UAW CIO. Other officers elected at that time and installed March 16 in Union Hall are pictured above. They are:

Seated, left to right: WILLIS HAAS (stock room), SID-NEY BRUGH (machine shop, night), President JOSEPH SNYDER (machine shop, night), Vice President JOHN V. PAWLOWSKI (steel shop), CALVIN KELLY (foundry), and PAUL KIZER (steel shop). The men not designated are members of the Bargaining Committee. Standing: Sergeant-at-Arms ROBERT LENSON (Sandcutter Assembly), Trustees: JEPTHAH MINNES (steel shop, night), GLEN WOLFE (steel shop, night) and RILEY ROBERTS (machine shop).

William Harrington, assistant regional director, Region 3 which includes Indiana, Kentucky and Illinois, and Howard Reams, area representative from the South Bend sub-region office.

Guide WILLIAM MINNES (machine shop, night) and Financial Secretary BERNARD FLEMING (steel shop). Recording Secretary RAY HUTCHINS (steel shop) was not present when the picture was taken.

### American PARADE

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#### VOL. 6, No. 5 MAY 1947

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ROBERT E. SCHALLIOL Editorial Director

MARJORIE E. FRAZEE Editor

#### REPORTERS

Paul Bessmer, Research Wilfred Bickel, Machine Shop Sidney Brugh, Machine Shop, night Bernard Byrd, Steel Shop Alba Ciavatta, Shipping Julia Deak, Steel Shop Emile DeVreese, Demonstration Mildred Fore, Office Harry Hixenbaugh, Engineering Donald Karnes, Machine Shop Lee Kelly, Steel Shop Paul Kizer, Steel Shop George Linn, Steel Shop William Minnes, Mach. Shop, night Jepthah Minnes, Steel Shop, night Jack Noble, Foundry Blanche Null, Stockroom



#### On the Cover

Before the cry of "play ball" could be heard on the company diamond just east of the plant, the maintenance men spent many hours getting it into shape. Although a great deal of work had been done last year on the diamond, the severe winter weather had taken its toll of the grounds. Cracks and rough spots were leveled, trash removed and lines marked.

Maintenance foreman Joe Hendrickson points out to Jackson Snyder, manager of the B league team, where the first base line will be.

Working on the field are Pinkney Carter, Bill Kauffman, Jr., J. D. Greenwood, and Ray Murphy. Pete Mattens drives the dump truck.

The field will be used for practice and some games, both by AA league team and the B league team.



Member of American Assn. of Industrial Editors Industrial Editors Assn. of Chicago National Council of Industrial Editors

# It Pays To Think

Pays real money. Money that can be spent anywhere in the world. Thinking pays real American dollars.

When the Suggestion C o m mittee checked back over the year 1946 they found 174 ideas had been submitted to them. 46, or better than 25%, were accepted and money awards paid to the men and women turning in the suggestions.

When they tried to determine the winners of the year-end awards for

The best suggestion submitted during the year

The worker submitting the most accepted ideas

The worker winning the most money they found that no matter how they figured it, there was still a tie between H. GLEN MARTIN (steel shop), EUGENE HEIGHWAY (machine shop), and DE-CATUR JAYCOX (inspection). So it was agreed to award equal prizes to each of the men.

#### The Winners Say:

H. Glen Martin says his ideas are all the result of his search for ways to make his job easier. And judging by the suggestions he has had accepted, his thinking is along the right lines.

Gene Heighway, who has 14 accepted ideas — more than anyone else here at *American* — commented when asked how he got his ideas: "Sometimes I mull the problem over, off and on for a year or more, then suddenly I have the solution."

It is interesting to note that Decatur Jaycox tied for third place prize last year. When told of the award he said: "I have to keep on thinking up ideas, because I've taken up a new hobby, that of cutting and polishing precious and semi-precious stones, and it's expensive. The suggestion awards come in handy in paying for my new interest."

#### The 10 Club

Every accepted suggestion carries with it, a cash award to the person submitting the idea. In addition when a worker has five ideas accepted, he is paid a bonus of \$5.00. This bonus is paid for each five ideas. This year three names were added to the membership of the 10 Club—workers who have had 10 accepted ideas, the entire list includes:

James K. Davidson	Decatur Jaycox		
Mildred Fore	Otto Morgan		
Eugene Heighway	George Simmons		
George	Tharp		

#### The 5 Club

Three names were added to the list of those having had five ideas accepted. They include:

> Marvalynn Powell Donald W. Raabe

Frank T. Rendel

Kenneth Rohleder

Odelia Schaut

William Shultz

E. M. Young

Ralph E. Banes J. Robert Bunch Ebal Chayie Herman Fries Stanley M. Hes H. Glen Martin Ray Hutchins

#### MEN WITH NEW IDEAS

CHARLES KWASNY — Eliminate sheave part No. 65867 as it is identical to sheave part No. 42368.

ELMER MAST — Make slot in item two of abrasive storage hopper separator in make up, rather than in assembly. This will save time and is easier.

JOHN PETERSON — At the saw, cut channels for the Tumblast side frames, 15° rather than 20°. This will eliminate the burning and two handling operations.

JESSE WEST — Make hole for shaft and wheel guard (31699) 3/16'' larger. This will provide a better fit.

These suggestions are winners. Is it your idea? Turn your stub into the Suggestion Committee for your award.

3519 - 3634 - 3730 - 3764



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H. GLEN MARTIN whose ideas for redesigning Wheelabrator parts make production faster and easier.



EUGENE HEIGHWAY with the redesigned fixture for testing Rod Machine cylinders. The hinged top makes it easier and safer to place castings in the fixture.



DECATUR JAYCOX points to the Sandcutter take up reel gear. He suggested chamfering this part so it would fit tight.



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# Now DDT Gets Into the Act

Today it seems that everything is either atomic energy operated or contains DDT. These two magic words have pushed aside sulfa and nylon; only the word "free" has more interest for mankind today.

American, being a modern and progressive organization, doesn't wait to use DDT or operate with atomic energy we are way ahead — we help make these modern miracles.

The University of California gives us their word that Dust Collectors were used in the development of the atomic bomb, and sales engineer, John N. Harper of Pittsburgh sold Pennsylvania Salt Mfg. Co., Natrona, Pennsylvania two No. 65A Assembled type Dustube Dust Collectors.

At this chemical plant every minute each of four mills grinds 10 pounds of a 50/50 mixture of DDT and clay. The clay is added before grinding to dilute the powerful DDT chemical. Clay also facilitates grinding and improves the spreading and wetting out properties of DDT.

The resulting powder is collected by cyclone dust collectors. To prevent dust from escaping through the pressure relief vents of the cyclones and reentering the working area, American Dustube Dust Collectors strain the air from these vents and collect the valuable dust.

The ground material from the mills, not collected by the cyclones, is removed from the mill and transported to the next operation through tubes actuated by air pressure. The grinding operation continues for two shifts. The boxing and bagging of the insecticide produced during the preceding two shifts is handled on the third shift.

The 50/50 DDT and clay mixture is sold in either a dry dust form or an emulsion form for liquid spraying. The dust is used on plants, mixed with the soil or dusted on animals or humans to kill insect pests. The liquid is sprayed and is more quickly effective.



1. Any sore that does not heal . . . particularly about the tongue, mouth, or lips.

2. A painless lump or thickening, especially in the breast, lip, or tongue.

3. Bloody discharge from the nipple or irregular bleeding from any of the natural body openings.

4. Progressive change in the color or size of a wart or mole.

5. Persistent indigestion.

6. Persistent hoarseness, unexplained cough, or difficulty in swallowing.

7. Any change in normal bowel habits.

Remember: Consult a doctor immediately, for if only people would get early diagnosis and proper treatment, many cases could be helped and often cured.

Give to the Cancer Society's drive for funds for education, service, and research.

Of the money raised in the county, 40% goes to the national office of the American Cancer Society for research, advertising, and education; 20% to the state for research, X-ray machines, etc.; and 40% stays right here.

Not even you are safe from cancer!

#### 1 IN EVERY 8 PEOPLE

Every three minutes someone in the United States dies of cancer!

No one is safe! There is one chance in eight that you yourself will be a victim of this deadly killer.

This inhuman enemy respects no law of mankind — it strikes young and old, rich and poor alike.

17,00,000 Americans now living are doomed to die of cancer unless we do something about it. The present cancer death rate proves this statement of fact - NO ONE IS SAFE FROM CAN-CER.

Cancer is the greatest and cruellest

killer of American women between the ages of 34 and 55.

Cancer is the second greatest killer of men.

Cancer is now killing Americans at the appalling rate of one every three minutes — 21 every hour — 504 every day — 184,000 every year. And the rate is constantly increasing! Many you know and love will develop this dreaded disease and, unless helped in time, die of it.

#### PROTECT YOURSELF

Consult a doctor immediately when any of the following danger signals occur:

### Fore!

Scale is removed from 300 golf head forgings in five minutes in a  $20'' \ge 27''$ Wheelabrator Tumblast at A. G. Spalding and Bros., Chicopee, Massachusetts, one of the leading sporting goods manufacturing plants.

### Better Bond for Galvanizing

1,000 pound loads of annealed steel castings are uniformly cleaned in ten minutes in a  $36'' \ge 42''$  Wheelabrator Tumblast at Manitoba Steel Foundries, Winnipeg, Manitoba. The perfectly cleaned surface anchors the galvanizing finish in a permanent bond.

# American Sales Offices in Other Lands



In addition to the sales offices in 22 cities of the United States and Canada, manned by direct factory sales representatives, *American* products are now being sold through offices in foreign countries.

American has licensed Tilghman's Pat-

ent Sand Blast Co., Ltd., in England, and George Fischer Steel and Iron Works, Switzerland, to manufacture and sell Wheelabrator equipment in Europe and the British Empire (excluding Canada).

In Mexico, South America, China, and Puerto Rico, *American* products are sold by sales and engineering organizations SALES ENGINEERS Nicolas Covacevich

Mexico City Angel Cobiella

San Juan, Puerto Rico

Equipamentos Industriais "Eisa" Ltda. Rio de Janario, Brazil Sao Paulo, Brazil

Robert Campbell Toronto, Ontario

William Hunt & Co. Shanghai, China

#### LICENSEES

George Fischer Steel & Iron Works Schaffhausen, Switzerland Tilghman's Patent Sand Blast Co., Ltd.

Broadheath, Nr. Manchester, England

who know the country and its industries.

While our equipment has been sold to foreign countries for many years, usually through commissions sent here by the interested company, sales offices in foreign countries will be able to contact a larger number of prospective buyers of our equipment.



It takes a heap of hauling to keep AMERICAN operating; therefore a fleet of five trucks is maintained to do this job. Illustrated are the two newest trucks. Both are attractively painted a bright red. The Chevrolet dump truck, driven by Pete Mattens, is the work horse and is used for bauling material to and from the plant, cinders, coal, and other heavy loads. The Chevrolet stake truck, driven by Maurice Vercruysse and J. D. Greenwood, is employed primarily to haul stock to and from the railroad freight house.

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In the closed "chamber of torture and turbulence" a cyclone of metallic abrasive hits every spot. It takes off everything — right down to the virgin metal and each piece comes out with an egg-shell finish. Just the right texture to hold a perfect finish.

# For Contented Cows . .

### Wheelabrated Barn Equipment

#### Starline, Inc., Harvard, Illinois, Describes for Their Dealers How Their Wheelabrator Works

Palmolive takes fourteen days according to their own solemn word over the radio.

In a relatively short time, you, too, can have that Ivory look. And by now all of us have learned what Drene does for dandruff, not to mention the more impressive and spectacular accomplishments of Lifeboy. Well, dear listener, they've got a new contraption out in George McGuine's room that does all of those things to a piece of pipe in just a matter of seconds.

The machine it supplants is the belt sander which, up to a few days ago, was used to rub off the rust, dust, and mill scale from a piece of pipe before it went through the evolution that made it a stall arch, partition, or pen spindle.

It's kinda hard to describe because everything that happens to a piece of pipe takes place inside of a cabinet. There is a hole at one end where they stick the pipe in and one at the other end where the pipe comes out with a surface so nice it seems a shame to cover it up with any kind of paint or enamel.

But those holes are small and inside the cabinet it's as black as your hat. So you just have to give up trying to see what goes on and concede that it is either magic or a miracle.

And you would be surprised at the amount of unwelcome stuff that comes off the pipe in the spookey cabinet.

You've heard the one about the little boy who said, "If you don't believe I washed my face, just look at the towel."

Well, then, if you don't believe those pipes are clean, you ought to see the kegs of dust, etcetera (about 4 etceteras to one dust) gathered in a few days.

No one knows what a lovely thing a piece of pipe can be until it gets that beauty treatment.

The last time you saw a piece of pipe coming out of the old sander, it made that pipe shine like a Nigger's heel. But, as in the case of the aforesaid heel, the shine was no guarantee of immaculate cleanliness.

The way the pipe comes out now, it really has "the skin you love to touch" — all but the dimples. And you'll hear more about it later.

### How Starline Equipment Is Made

Starline, Inc., Harvard, Illinois, one of the leading manufacturers of farm equipment, installed a Wheelabrator Special Cabinet about a year ago. This machine cleans and prepares for final finishing, all the tubular pipe used for stanchions, stalls, bull pens, door track and related products.

To keep their salesmen and dealers informed on their products and tell them how quality is built right into Starline products, the company periodically sends out bulletins.

The above is their description of the Wheelabrator Special Cabinet. In another bulletin they told of showing three important dealers through their plant and how "Possibly because it is such a big, and spectacular brute, the Wheelabrator in action appeared to overshadow everything else." This description was complete with pictures of the star performer, the Wheelabrator.

After the pipe is Wheelabrated it is bent to the desired shape, holes are drilled in it and a rust preventative applied. To remove the oil smudges a shower bath of cleaning fluid scours the assorted shapes after which they are passed through an oven where heat literally burns off the last vestige of grease.

At this stage the formed pipe is dipped

in paint for the final finish. Here the Wheelabrated finish, which is slightly rough, provides what is technically known to painters as a "tooth". This is what makes the paint stick so much better than it does to a metal surface that has a shiny polish.

#### March Accident Report

#### March

Foundry — Foreign body in eye — 3 days for one man, 1½ days for another man

Shipping — Body muscle strain — 3 days, Fracture of foot — 5 days for each of two men

INJURIES	Mar.	Feb.	Jan.
Steel Shop	. 94	117	139
Shipping	. 4	9	7
Machine Shop	. 61	55	68
Foundry	. 7	8	12
Stock Room	. 7	11	8
Maintenance	. 4	3	5
Inspection	. 1	1	3
Demonstration	. 2	1	6
Engineering	. 0	0	. 3
Office	. 0	3	2
Pattern Shop	. 0	0	1
Research	. 0	1	0

#### TRAFFIC

#### SUPERVISORS

The shipping department is supervised by traffic manager WILLIAM CROWELL and the shipping room foreman WIL-LIAM KAUFFMAN, SR.

Truck or car load shipments — large boxes or pieces of equipment that must be loaded by the crane — are handled in



WILLIAM CROWELL Traffic Manager



WILLIAM KAUFFMAN, SR. Foreman

the North shipping room. Single packages or less than car load shipments are taken care of in the South shipping room.

These are the men whose responsibility it is to send out our products to the buyers, and send it so it arrives in good order. They are familiar with the various forms of transportation and have information on the best, quickest and most economical carriers by which *American* products can be sent.



om pours green plastic powder into a mold around a ' part of the blade that failed. Heat and pressure apby the machine directly behind him will mold plastic id the metal into a rod shaped piece about  $1\frac{1}{2}$ " long 1" in diameter. 2. The section of metal is polished, first with decreasingly smaller sizes of emery paper, then with a wheel and fine emery powder.

3. Tom studies the section of metal under a microscope to determine the microstructure. This examination reveals the metal's innermost secre, proper melting) cracks; flaws result from incorr require different melting

The specimen is the

#### ooking in on the Metallurgist's Job

# TAILOR MADE

So you think steel is steel. Here's a surprise for you, it isn't. Not at all even if engineers have tried to standardize it, assigning SAE (Society of Automotive Engineers) numbers to certain types (steel containing definite chemical compositions and organic structures).

Metallurgists are constantly analyzing, testing and experimenting to develop new alloys for specific jobs. And the melters and furnace men get into the act, too, for it must be melted just right every time . . . and that "just right" varies with the alloy desired.

It isn't only the carefully measured ingredients that go into the steel that make it have the proper qualities for the job it has to do, but also how it is melted and cast. The "cooking" is just as important in making steel as in making a cake.

American is no exception. Purdue graduate THOMAS HUTCHINSON, in charge of metallurgical research and development, keeps an eye on the metal produced in our foundry along with his continuing research and experimentation.

#### **Specials Alloys**

The formulae for producing "AR" and "WR" alloys — the two metals used in Wheelabrator blades) were established and have been used for a long time. "WR" metal was developed during the war because molybdenum — an ingredient in "AR"-metal was unobtainable. Cas the me the ced spe is I

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What the Microscope Sees

American Parade

A 1000 times enlargement of a casting of "AR" metal (as cast).



1000 times magnification of "AR" metal after heat treating with an air quench. The large dark areas are Martensite, the light areas Cemintite, with speckles of Austenite in the Martensite. These are three of the numerous metallic structures.

action of these metals is dethe way it is melted and l as the constituents. And rticularly difficult metals to st. Tom trains and instructs man and melter in the proisary to produce the metal present only "WR" metal our foundry.

ung problem for the metalking the Wheelabrator blades and break-resistant. A hard metal that resists wear, is usually brittle and breaks easily under sharp impact.

If there is a complaint from the customer that blades are not giving satisfactory wear, Tom checks the offending blades to see why they are failing to perform as they should.

#### **Blades Checked**

A chemical analysis is made of every heat, so if the alloys in the proper amounts are not present, this can be corrected immediately and but one heat is lost. But research usually follows these lines:

The blade testing cabinet in the demonstration room operates 16 hours a day checking castings made in our own foundry and detailed reports on blade life are sent to Tom. Samples of those poured by outside foundries are also tested.



1000 times magnification of "AR" metal, heat treated and salt quenched. The cross-catch-appearing areas within the large Martensite structures are Austenite. Notice how a difference in quenching produces different structures within the metal.

Heat treating is done to temper the Martensite, thus transforming the Austenite structure to Martensite. Just to make it more complicated, castings may be harder on the surface than they are on the interior.

acid or picric acid. The acid eats away the softer portions of the metal revealing to the searching eye of the microscope, the structure of the metal. There is usually more

4. Microphotographs, taken through the microscope are filed for future reference or use.

than one structure within a casting.

netal (caused from imrinking areas, etc. These . . . and various alloys

ith a solution of nitric

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SEEL



Al Ross, at right, explains the operation of the  $20'' \times 27''$  Wheelabrator Tumblast to a group of the visitors.

# **Entertaining Visitors**

About 7:30 P. M., Tuesday, April 8, the second shift workers looked up from their duties to see approximately 70 men being shown through our plant. These men were members of the Indiana-Michigan Industrial Engineer's Club, of which industrial engineer Dick Ross is president. Every month this club makes an inspection tour of one of the local industries. After being shown the offices, engineering and manufacturing facilities, the group went to the demonstration laboratory where Harold Garman, Roscoe Rush, Armando Nicolini and Lloyd Forner demonstrated cleaning, finishing, and peening of various products using American equipment.

On hand to act as guides, explain details and generally answer questions were: Al Ross and Ralph Claudy (industrial engineering), Robert Schalliol and Art Fuller (advertising) Jim Bostick (purchasing), Julius Skene (sales) and Harold Schulte (engineering).

The engineers, who represent practically every factory within a 50 mile radius of South Bend, were particularly impressed with the cleanliness and outstanding good housekeeping of our factory.

Many commented that ours is the cleanest foundry they had ever seen. Some of the visitors, who had known little of our plant or products, were amazed at the size and type of machinery produced here. Many asked for literature and plan to recommend American equipment for installation in their own plants.



### Maintenance Supervisors

These are the men in whose hands rests the responsibility for the maintenance of the buildings and grounds here at American.

ARTHUR MURPHY, right, is the man under whose direction building maintenance is performed. For him work the electricians, plumbers, carpenters, painters, masons, and other building tradesmen.

JOSEPH HENDRICKSON, left, has charge of all maintenance outside the buildings — the unloading of coal, landscaping, as well as heating and similar duties.



# **Research Department In New Home**

Our staff of research workers is housed in this brick building located just east of the main portion of the plant. This is the department that searches for ways to improve our equipment and develops new technical processes within our field.

At the right: Don May, Thomas Greene, Johnny Davis and John Straub in one of the offices. Below, at left (front to back) Carl Ritter, George McNeile and Vern Valentine, conducting tests.





# Spring Dance

The Spring Dance given by the Athletic Association and the Julianna Club at Spanish Terrace, April 11, attracted approximately 160 American workers and their guests.

Dancing to the strains of Charlie Rogers' music was so popular, the orchestra was retained for an extra hour — or until 2:00 A. M., Michigan time.

During the dance, an impromptu entertainment was presented by members of the orchestra, the two owners of the Spanish Terrace, and Jim Andrews (maintenance) who sang "Anniversary Song."

Ann Spart and Melvin Morris were co-chairmen of the dance. They were assisted by Lucile Simcox, president of the Julianna Club, and C. Burton Barnard, president of the Athletic Association. Tom Hameline acted as master of ceremonies.

Vern Lott (machine shop) won the G. E. electric coffee maker; Bernard Gehl (foundry) the electric mixer, and Betty Flournoy the electric iron.



MACHINE SHOP

Harley T. Sullivan, Theodore L. Baker STEEL SHOP

Albert E. Head, Robert L. Tyler, Kenneth W. Himes, Grover C. Kankamp, Gregory H. Hall

#### RESEARCH

Johnny Davis, Thomas F. Greene OFFICE

Mary Jane Killian, Victor J. Gulatta, Edward J. Bohdan

SERVICE ENGINEER

Thomas M. Stanger

A part of the group of men who attended the dinner keld April 12 in the Hotel Hoffman, for the factory supervisoryforce. The dinner marked the completion of the series of foreman's meetings. After the dinner, Mr. O. A. Pfaff, President and General Manager, addressed the group thanking them for their cooperation and loyalty.



THE FAMILY 4lbum

**ROYAL BIGGS** 



When ROYAL BIGGS came to American in 1928 it was because his father was living in Mishawaka.

Previous to working here most of his time had been devoted to wood working — assembly at the Premier Bed Stead Co., and working in a saw mill in Alabama. No he isn't a native southerner, Mt. Gilead, Ohio is "home town" for him.

His first job here was helping Carl Britton make up dust collectors, later he progressed to layout. During the past 19 years Royal has worked on the Tumblast, Cabinet, and elevator assembly line. Elevator assembly is the task that has engaged his time for the past 10 years.

Because doing a job the hard way isn't for him he has contributed several ideas to the Suggestion Committee and has been paid awards for two of his suggestions.

When Royal leaves the plant at the end of the shift, his work is laid out for him. He is a widower and the cooking, house keeping, washing and even the ironing await his practiced hand. This of course, leaves little time for outside interests — about the only thing he has time for is occasionally listening to the radio.

His children, Edward, who works at the Dodge Mfg. Corp., and 11-year-old Ruby are at home, William is in the Army and Eddie Claire is married and has a son.

## **Vacation With Pay**

#### Two weeks with pay!

Those beautiful words mean different things to different people, but to all it means a chance to do something contrasting from the activities of the other 50 weeks out of the year.

As has been the policy in years past, American workers will be taking vacations with pay . . . a policy that pays off for the worker and Company alike in ) health, happiness and efficiency.

#### Who

As of July 1, 1947, all hourly rated workers who have been employed at *American* five or more years, will receive two weeks paid vacation.

Hourly rated workers who have been employed here a year, but less than five years, as of July 1, 1947, will be granted one week paid vacation.

Salaried workers with one year or more association with this company as of June 1st, 1947, will receive two weeks paid vacation.

Other salaried workers will be granted one day's vacation for each full month worked up to June 1, 1947.

### How Much

Payment for hourly rated workers will be computed at 47 hours for one week and 94 hours for two weeks, at straight time day rates in effect on June 1, 1947.

Salaried workers will receive their regular weekly wage.

#### When

The vacation period for hourly rated workers will be the first two weeks in July. The exception will be the maintenance men who will use this time to repair and overhaul certain machinery and plant equipment. These men will arrange their vacations with the approval of their foreman, for other weeks.

During this period the office and engineering departments will operate on a skeleton force so members of these departments may also take their vacation then.

#### Men in the Armed Forces

Again this year, men in the armed forces, under the Selective Service Act, who were employed here a year or more before entering the service will be sent a vacation check.

These checks will be computed on the basis of 40 hours work at their last pay rate. Former salaried employees with a year or more employment, will receive a vacation check equivalent to two weeks former pay.

# ELI WHITNEY

#### Inventor of Mass Production

Eli Whitney was born on a farm near Westboro, Massachusetts in 1765. He began to show signs of genius in mechanical things when very young. When he was only 12 he made a violin. People liked his workmanship so well they brought their violins to him to be repaired. At 14 he set up a shop for making nails and made it pay.

After attending Yale University, Eli made a trip to the South. By that time, spinning and weaving machinery had been introduced and with it came an increased demand for raw cotton. Hand labor was able to remove the seed from only a few pounds of cotton a day.

Eli's genius for invention was becoming known and the wife of a planter said to him, "Why don't you invent a machine to separate seed from cotton?"

#### 2 Weeks Later

Two weeks later, Eli's machine was ready. The Southerners immediately began calling it "gin" — which is short for engine. It was capable of doing the work of 50 slaves.



The Cotton Gin

Before Whitney's invention, the United States exported a meager 138,000 pounds of cotton a year.

In 1800, we produced 35 million pounds and exported 18 million.

But before Whitney could get his machine patented someone broke into his shop and carried it away. Soon his "gin" was operating all over the Cotton Belt. Others made millions from his invention and he lost everything he had in lawsuits.

#### **Government Contract**

Never wholly discouraged, Whitney in 1798 secured the help of Thomas Jefferson in getting a contract to make 10,000 muskets for the United States.

Up to that time, muskets were made by hand and the parts of one never matched the parts of another. Whitney believed that parts could be made so nearly alike, they would fit any gun in the ten thousand. Experts laughed at him.

Nevertheless he built a factory near New Haven, Connecticut, using a waterfall for power. He designed and built special jigs and fixtures and tooled up his machines so that he was able to obtain greater accuracy and more nearly identical parts than had ever been produced before. This took a lot of time. The government grew impatient.

#### Interchangeable Parts

Finally, two years later, Whitney appeared at the Capitol. He opened several boxes and placed ten gun barrels, ten triggers, ten stocks, and so on, in separate piles.

"Now," he told the experts, "pick any piece from any of these piles and lay them together."

This was done. Whitney quickly as-

sembled the parts into complete muskets. The scoffers were amazed, but convinced.

Since that time great strides have been made in design of machine tools and they have been set up to perform extremely accurate work, and Whitney's system of interchangeable parts has become the basis of all mass production. This system makes it possible to manufacture all sorts of mechanical devices at a price within reach of everyone.

For example, it would cost close to \$20,000 to make one automobile by hand. At such a price not many people could afford to buy cars. This in turn would mean that many millions of people would not have jobs making, selling and servicing them.

Mass production makes it possible for this country to produce 70% of all the automobiles in the world, although our population is only 6% of that of the world.

We also have 52% of the world's telephones, 44% of the world's radios and 30% of the world's railroads.

### New 10 Clubber



OTTO MORGAN makes it seven seven members of the 10 Club! The Club is composed of thinking people who have had ten ideas accepted by the Suggestion Committee. As is customary, Otto was paid \$5.00, in addition to his suggestion awards, upon membership in the Club.





# Eye to the Keyhole

How to tell time in the steel shop without a watch or calendar:

MARK WARSTLER eating his cookies and drinking coffee - 6:50 to 6:55 A.M.

GLEN MARTIN feeding the cat its breakfast 7:16 to 7:30 A. M. (When the kitten was born a fee was charged to see it, so the mother cat has a bank account.)

JACKSON SNYDER and EARL BRYAN drinking their cokes: 8:00, 10:00, 2:00 and 4:00, every day except Monday. (There are no cokes on Monday.)

JOHN WOODRUFF getting out the cards — 11:59 A. M.

4:25 P. M. — everyone lining up for the grand rush to the time clock (and brother, that's a race to see).

4:40 P. M., Friday only—CAMIEL DE MEES-TER and SERAFIEN BOENNE arrive at the "west end bank" (Pooky's Tavern). Occasional ly, AUGUST VAN HECKE is there to greet them.

Anyone who has ever seen a child with a new toy will know how EVA COPP felt and acted when she saw her new "jeep" the week of April 21.

DON MAY (research) recently attended an automotive engineers meeting in Chicago.

GEORGE McNEILE (research) was a delegate to the meeting of the American Society of Mechanical Engineers. The group met April 24 and 25 in St. Paul, Minn.

April 17 was the birthday of AL ROSS (process engineering). JUNE KOONTZ remembered the occasion with cake and candles. Al was thoroughly surprised.

Signs of Spring: Some of the office girls talk of their long walks to and from work every day, and remark about their aches and pains. The latter resulting from new exercises in preparation for the coming summer months when coats cannot be worn.

BRUCE HARKINS (stock room) probably covers more territory in one day than any other average individual does in a week. He is the Stockroom truck driver.

ASA BAIZ paid a visit to the stockroom a while back. He has been ill for over a year.

First ROBERT SULT is on the jeep, and then he isn't. Just what classification can he be given?

ROBERT GIBBENS must like to see women pleasingly plump. Gibby gives to the stockroom girls, the candy he wins on the punchboard. And he wins consistently.

OTTO DIEPERT (machine shop) celebrated his 38th wedding anniversary on April 10.

After waiting so patiently for them, JOHN BARNA (machine shop) has quit wearing his false teeth. They make him too nervous.

It is the old story of a man who built a boat in his cellar, and when it was completed, had a tear down the wall of the house to get the boat out.

But here's a new angle: DICK QUINTANCE (steel shop, night) has a nice police dog and so he built a big dog house in his cellar. When the house was completed Dick found it would not go through the door so had to take the roof of the dog house off to get it out of doors.

#### Congratulations to:

MARTIN BOEHNLEIN (steel shop) who was married May 17 to Irene Beschampelear in St. Bavo's Roman Catholic Church. They honeymooned at Paul Kizer's Resort on Dewart Lake.



BILL GEIST (steel shop welder) tried to take his new motorcycle to bed with him. It wouldn't go through the door.

Drawing by Martin Boehnlein and William Brannon.

MICHAEL KOLESZAR (foundry) for Elizabeth Ruth, born April 13.

THOMAS MINNING (stock room) for Margaret Ann, born April 5.

EDWARD PAGE (machine shop) on the birth January 31, of Robert Lee.

HUBERT HENSLEY (foundry) for Betty Jean, born April 21.

JACOB NOENS (demonstration) for a granddaughter, born April 21. He is even passing out cigars for the occasion.

MARY BRENNEMAN (purchasing) — her sister, Zola Lechlitner (late of the payroll department) gave birth to a son.

GEORGE F. PARTRIDGE (maintenance) for Kathleen Ann, born April 22.

HAROLD B. HOOVER (steel shop) for John Richard, Jr., born April 21.

WILLIAM H. DOTY (steel shop) for William, Jr., born April 27.

Everyone is doing it now — getting a new car, that is:

JEAN SEYBOLD (office) Ford, ART FULLER (advertising) Olds, JOHN FOSTER (guard) Chevrolet, KATHRYN GLASS (nurse) Chevrolet, MARGARET SAWYER (sales) Plymouth, RACHEL STEELE (purchasing) Plymouth.

DON BURNS of the Tumblast line, nights, is making big plans for the fishing season. He is the owner of a new Martin "60" outboard motor. Don says he is going after the big ones up near Traverse City, Michigan, in the near future.

#### DID YOU KNOW?

WILBUR (BUGS) DUNNUCK (steel shop, night) still holds the high jump record in Marshall County? He also held the pole vault record one year, back in 1915.

JOHN ENGER (steel shop) has two silver cups for butter making? These were won at Indiana State Fairs.

ELMER (TATE) GROVE was a guide at Camp Idlewild in Minnesota for three years?

MARTHA KEMP (advertising) won a beauty contest when she was in high school?

All year the Research bowling team has tried hard, but was still in the cellar position. With only three games to go, they broke loose and bowled a 2790 game series; thereby winning some much needed prize money.

EVERETT FISH does hide his lunch And when he goes to get it, It isn't there and he has a hunch That the saw men must have eaten it.

# 3 Out of 4 Came Back



Wayne Thomas, George Scott, Jr., and Robert Vrabel

During the war men from American served in the Army, Navy, Coast Guard, Marines, SeaBees and Air Corps.

They served with distinction in every rank from private or apprentice seaman to Major.

They served on the ground, in the air and on the sea.

They saw action in every part of the world — including some they hadn't known existed.

They won ribbons by the chest-full for bravery, outstanding attention to duty, and personal achievement.

They were decorated by the governments of the United States, the Philippines, France, and China.

On the ribbons they wear numerals, arrowheads, stars and oak leaf clusters,

signifying they were there first and often.

They wear their bronze, and silver stars, flying medals, Purple Hearts, and Good Conduct ribbons with the off hand manner of the truly modest.

The Meritorious Unit and Presidential Citations were awarded to their groups.

And when the war was over four had given their lives, and some were still in hospitals.

Some went to college, some moved to new areas to live and 74% of them . . . 3 out of every 4 . . . came back to *American* to work. Some returned to fill their old jobs, some to fill positions for which their war time training had fitted them.

And the men and women and Management of *American* are glad and proud to have them back.

#### The Foundryman's Friend

Four months after their "AM" Sandcutter was shipped to them, the general manager of the Prospect Foundry Co., Minneapolis, Minnesota wrote the following letter to us:

"We are very happy to own an American Sandcutter because it solved a shakeout gang problem that was serious throughout the past five years, due to labor scarcity. Before getting a Sandcutter we used a Screenerator to condition our sand, which was operated by two men 8 hours a day, on 16 floors and five other men to shakeout and floor up the sand for the Screenerator.

"Before installation of the Sandcutter, labor was really the problem. Our labor turnover before installing the Sandcutter was 57 men in one year's time, and since last July, 1946 when we received the Sandcutter, we haven't lost a man. Since last July three men are doing our shakeout work, and the other four men we put on the day crew.

"Each heap of sand in our foundry is cut three times and 16 heaps of sand takes one man one hour and 10 minutes. Our floors are 40 feet long. We feel we are saving approximately \$45.00 each day and making it much easier for the men since installing the Sandcutter.

"We feel the Sandcutter is really the foundryman's friend."

Stanley J. Sitarz, General Manager.

### Smaller, Stronger and Cheaper

The effect of scientifically controlled shot peening is to give metal parts longer life by increasing their resistance to fatigue failures. It is not uncommon to effect life increases as great as 1500%and more by the application of this process. To the designer this is of great importance because such life increases can be translated into smaller parts, lighter parts, the use of less expensive materials, the elimination of polishing, and other benefits which spell increased profits.

# HOW **NOT** TO GET HURT

16

The three most vulnerable spots eyes, hands, and feet. At least as far as injuries are concerned, for these are the sections of the body where most injuries are suffered.

Protective clothing — goggles, gloves, and safety shoes will change this.

Few men plan to get hurt, but many unconsciously go out and ask for it by being careless or failing to wear protective clothing.

JOHN BLASHER, machine shop grinder, doesn't though — he protects his precious eye sight by wearing goggles when he grinds Sandcutter brackets.



REMI SPEYBROECK and FRANK PANGALLO, steel handlers, use gloves to protect their hands when they move steel sheets. Otherwise the rough edges of the stock would cut their hands.

Falling objects hold no fear for layout man BERT BIGGS. The big smile proves he feels no pain when a 25 lb. elevator boot channel is dropped on the toe of his safety shoes.



