PUBLISHED FOR AND BY EMPLOYEES OF AMERICAN FOUNDRY EQUIPMENT CO., MISHAWAKA, IND





Julia Baugher sews the second White Star on the Army-Navy "E" Production Award Flag while Enoch Fetters, President, Local No. 995, UAW-CIO and Otto E. Zahn, Asst. Works Manager looks on with approval.



FOR the third time the Army and Navy have rewarded the men and women of AFECO for their excellence of production with the renewal of the Army-Navy Production Award. As a symbol of this great honor a second white star is added to the "E" flag which so proudly flies over the plant.

This recognition of our contribution to the war effort, made on September 9, is especially significant at this time with the tremendous demand for supplies in the European theatre and the vast quantities of materials needed to prosecute the war in the Pacific area. Now, more than ever, we must continue to maintain the tempo on the home front until Victory is final and complete. The strategies of our Armed Forces to bring about Victory are dependent upon knowledge, skill and labor.

All employees who have been added to the AFECO payroll since the date of the first White Star Award, (November 6, 1943) will be presented with "E" lapel pins. Because the War Department disapproves of any formal ceremony in connection with Star Awards, no presentation ceremony will be held. 1,1)

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Tumbl-Spraying To Greater Production

The 20 x 27" American. Tumbl-Spray Metal Washing Machine installed at the Wesley Steel Treating Co., Milwaukee, Wisconsin. Gears, tool blanks and other parts are washed in this machine after salt bath hardening and quenching. This company does steel treating on a jobbing basis and the Tumbl-Spray handles a great variety of work.

Parts that can be tumbled are handled in the usual manner; larger pieces or highly finished parts are merely placed on the conveyor belt and cleaned without the belt running. Satisfactory cleaning is obtained with this method due to the uniform distribution of sprays and the thorough coverage of parts. The cleaning time of some parts was slashed from the 15 to 30 minutes required with former dip tank cleaning methods down to 2 minutes, and in addition, the quality of the cleaning process was greatly improved.

This installation has stirred up great interest among other heat treaters and a duplicate machine will soon be built for a Chicago heat treating concern. Because the American Metal Washing Machines already installed are setting a high standard of performance and low cost operating efficiency, the future of our metal washing division is definitely promising.



THESE WERE THE GOOD IDEAS

- ANDY ACSAI—Give dimensions on blue prints for keyways in over all lengths.
- WILLIAM BRANNON—Shaft carrier hitch that stays with the carrier at all times.
- CLYDE L. BURRIS-Use pincers to force brass rivet through rubber.
- LOUIS CARSWELL and ENOCH FETTERS-Machine off cone at C on print No. 44-B-190.
- STANLEY M. HES-Provide a part number for rubber liner on BM-49305.
- DECATUR JAYCOX-Punch 5/8" slot in various wearing plates No. 48798.

- LEWIS MARK—Instead of going around large Sandcutter with conduit and wire, make a short cut and save conduit and wire.
- CHARLES RICHARDS—Add quotation to pink packing list.
- KENNETH ROHLEDER—A new set of shades be installed on east wall of downstairs engineering.
- DOROTHY WHITMER—"No Smoking" sign be put on door of blue print room.
- EARL WINSLOW—Shipping department discontinue making out separate requisitions for paint and lumber.



BETTY LINSENMIER, of the billing department, and newly elected president of the Julianna Club. Other officers are: Virginia Moore, secretary-treasurer, and a board of directors composed of Mary Bokhart, Mary Wordinger and Anna Marie Biesbroeck.

* * *

DESK DATA

It was just a small, black kitten belonging to Ivan Nelson that attracted the crowd of girls around Maryann Goheen's desk one day at noon.

* * *

We have a lot of new girls in the office, pretty ones, too, such as:

- Maxine Felton Cary-Sales Ellen Phillips-Files Mary Chamberlain-Purchasing Finanna Harrington-Office girl Natalie Wishon-Office girl Virginia Sellon Russell-Heater office Verna Jean Landgraf-Parts Service Hope Lee Marvin-Cost Accounting Eunice Rusler-Personnel
 - * * *

Johnny Wolf is teaching accounting to Indiana University Extension night classes this year. Wonder if he gets apples from his pupils.

* * *

SHIPPING SHORTS Arvilla Hummel Herman Roeder, Jr., whose father works in the machine shop, has returned to school after spending the summer making boxes for shipping war materials.

* * *

Bill Crowell has returned from Minnesota, with its pollen-free air where he took his vacation and escaped hay fever suffering. American Parade

50

Bits About Us

STEEL SHOP Ray Hutchins The soft ball team held a stag party at Baugo Creek, August 26.

* * *

The Denver Johnson's are celebrating the arrival of a daughter on August 30. The Glen L. Martin's new daughter was born August 21.

* * *

We are still laughing at the dismay on Jesse Whittaker's face the noon he opened his lunch pail to find his wife's tidbits instead of his usual large feast.

* * *

Jesse Whittaker, we finally found out, is shingling not one but two houses — the main house and the dog house.

* * *

Five of our fellow workers — Andy Federnok, Ray Vande Walle, Frank Miles, Harold Groh and Bill Snyder, left Sept. 8 for their annual fishing trip to Silver Lake.

* * *

Bernard Fleming turned fisherman for a week and spent part of his vacation after the big ones.

* * *

One minute drama. Scene the Steel Shop. Gilbert Bair: "Claude, did you borrow my car?"

Claude Riddle: "Why no, I wouldn't take it without asking your permission."

GB: "Then it must be stolen, I put it in the garage and it isn't there."

CR: "You put it in the parking lot Wednesday noon — have you looked there?"

Need we go on — it was in the parking lot.

* * *

HEATER HINTS

Virginia Ernst, Alice Hutchins Florence Shively is recovering from the serious injury she received from an accident while at work.

* * *

Mary Wagner says she doesn't believe in bad luck resulting from black cats but when a little black cat followed her to work the morning she burned her hand — she is wondering.

* * *

"Jerry" Brunk's face was red the day he followed a fellow worker from the factory one day at 3:30. After getting outside and seeing everyone else was working he looked at the clock — then returned to work another hour.

MACHINE SHOP MURMURS

Irene Grams

Bill Marvin started to trim the limbs of the peach tree to prevent them rubbing the telephone wires. Darkness descended before the job was finished and being unable to see well, Bill sawed the telephone wire as well as the limb. Since the insulation was rubbed off the wires the telephone company said they should have been replaced anyway — relieving Bill's guilt no end.

* * *

With the help of Oscar Holden, John Reedy, Sid Brugh and Udrell Herriman, Dean Brugh finally got his basement poured. Then they also made a sidewalk. After this hard work, Mrs. Dean Brugh served the boys a very delicious dinner and they insist that Ruth's cooking was more than worth the hard work of pouring cement.

* * *

Joseph Estal Dean was born September 10 to Mr. and Mrs. Sid Brugh. They also celebrated their tenth wedding anniversary on that day.

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Walt Beatty says his son Lee Edward, born August 27, weighs 7 lbs. $10\frac{1}{2}$ oz. in the nude. Walt finally bought a home at 431 Cushing St., South Bend — after a long, hard search for a place to live.

* * *

Jack Metcalf's relatives and friends helped him celebrate his birthday, August 17, with a picnic supper in Potawatomie Park. VOICE OF ENGINEERING

Agnes Ernst, Chuck Bultinck Johnny Ward really enjoyed eating the cheese-burger Mrs. Rohleder sent to Kenny. Conscientious Johnny bought one for Kenny several days later when the truth came out. Now, we hear that Mrs. Rohleder paid for the second one also.

* * *

Shirley Vollmer, Betty Musser and Roy Fishburn have returned to school. Roy and Shirley will continue to work with us half days. Eudoxie Chaillaux is attending Indiana University Extension at night studying chemistry and psychology.

* * *

Clyde Snyder spent a week of his vacation at Shipshewanna Lake acting as "Doc" for 80 girls from his Church. He tended all sprains, cuts, bruises, etc.

* * *

STOCKROOM STUFF Ernest Young George Simmons is back from the Veterans Hospital at Indianapolis after an examination and treatment for a stomach ailment.

* * *

Willard Flowers and his stockroom bowling team insist they are going to win all they can this year, other teams beware.

* * *

Barney Burrows had quite a time keeping awake the first few days after being on nights for so long, but he's doing well now.



Jim Bostick, Jennie Metzger and Helen Rodgers hold fish caught on their respective vacations — to prove that the stories they have been telling are true.

ELOUISE LEADS A PARADE



One-finger twirl, steeple throw, leg catch, horizontal throw, fake twirl are just a few of the many baton movements Elouise Hutchinson Knisley of the blue printing department has mastered in the eight years she has been twirling a baton. During this time she has performed with the American Legion Drum Corps of Post No. 161 Mishawaka, Bendix Aviation Post, the bands of the Mishawaka High School and South Bend Post No. 50. During her senior year in high school she was assistant drum major.

Baton twirling is a field in which girls are rapidly replacing men because the emphasis is being placed on grace, originality and poise rather than the strictly military movements that formerly led a band through its paces.

Elouise says skill depends largely upon practice and originality and the contestants with the most new movements, best personality and grace are walking off with first place honors. The leg catch took her longest to master and she says a horizontal throw demands force and lots of energy. She is now working on an exceedingly difficult maneuver: a combination palm roll, horizontal throw, catching the baton on the palm of the other hand and continuing the palm roll.

Elouise, an AFECO worker for over a year, has participated in numerous parades, exhibitions and contests. Her most recent appearance was in August at Indianapolis where she led the Bendix Aviation Post Drum and Bugle Corps (an organization that has won several state championships) in two parades. With this Corps she serves as drum majorette.

Among her awards are the U. S. Navy exhibition medal presented to her at an American Legion Convention in Milwaukee in 1940 and the first place medal won in 1941 at the National American Legion contest held in South Bend.

In 1941 while performing at the American Legion Girls Town she gave an exhibition before Governor Schricker and was a guest at his tea before the show. Another recent performance was before the polio victims at Camp Millhouse, where she delighted the children with her skillful handling of the lighted baton. Elouise was married August 4 of this

Elouise was married August 4 of this year to Pfc. Clarence Knisley, who is now serving with the Army overseas.



Official U. S. Navy Photograph Robert M. Nagle, M 2/C

ROBERT M. NAGLE, M 2/C

"I'm sorry I can't send you a picture of what I am doing each day, but I am sending you a picture of myself with my sax, as a member of the ship's dance band. We aren't an official band so everything we do is extra time, or on our own. There are eight members in this band and we play every week for dances, shows and parties or whatever the occasion might be.

"My job on this ship is coppersmithing. This takes in a number of things that have to do in repairing a ship such as welding (acetylene) brazing, soldering, plumbing and sheet metal work. We also do quite a bit of copper brass pipe bending.

"I haven't sent a letter of thanks for the kindness the men and employees have shown me; so I would like to thank each one for the gifts, money, vacation check and the 'American Parade,' the latter I enjoy reading very much.

"I have been in England now for five months. In 1943 I was in Brazil about four months. Where we will go next is hard to say, but I hope that soon everyone on this side will be back in the States, anyway I hope to see you all soon."

¥ ¥ ¥

JAMES FELLER, S 1/C, Seebeas

"We have been in the Hawaiians on the Island of Oahu for some time and it is really nice. I have seen the Royal Hawaiian Hotel and have been swimming at Waikiki beach several times and it is every bit as nice as people say.



Your Badge of Achievement Wear It Proudly American Parade

★ 179

Additions to the Honor Roll Max Bottoroff Lewis C. Carswell

OUR BOYS!

CPL. BILL GRISWOLD - India

"... I'm beginning to understand Kipling's statement, 'Only mad dogs and Englishmen go out into the noon day sun.' I would like to change his statement slightly. My version would be, 'Only mad dogs and Americans would go out into the sun at all!' Surely this is the land of white heat.

"When I first reached India I was truly mystified and thought it was enchanting. The name, 'Land of Mystery' was really quite appropriate. I think I now have discovered the mystery. It is how so many people can live on so little. The average Indian's life is poverty stricken and his earnings very meager. Just a short time will convince you that the 'American Way' is *the* way!"

* * *

ROBERT A. POWELL, SC 1/C says he quit boxing after the tar was knocked out of him, but adds he won second place playing ball — with a money prize, so now must arrange a beer party. RAY DE SMET says he likes Camp Phillips, Kansas better than Camp Shelby, and thanks the shipping room for what they did for him when he entered the service. Pvt. ROBERT W. CONLEY says he recently visited Honolulu and Waikiki, but they are nothing like Mishawaka.

* * *

FRANCIS W. GEIST, Paris Island S. C.

"Boy, it sure is hot here, the thermometer is 120° F. By this time I know why a marine is tough. The second day we were here we got two shots, picked up the rest of our equipment, rifle, canteen, cartridge belt, pack, etc.; I had 10 teeth filled and marched 3 miles.

"The food and equipment are the best. Believe it or not, we had steak and French fries and all the trimmings for chow. We started out with 76 men and now have about 68. We drill in ankle deep sand four hours in the afternoon. Yesterday three men passed out and any one who tried to help him would be punished severely."

S/SGT. CHARLES KWASNY - France

"I'd like to thank the Serviceman's Gift Committee for the gift of the Bond and for the grand job they are doing in helping the men's morale by such gifts as the 'Reader's Digest,' etc. It's such little things that add up towards keeping one's morale up and shows thoughtfulness on someone's part.

"It's been about three and one-half years now since I have been employed by you and during that time I have been in quite a few places, but I don't believe that any of them come up to the standards we of the United States have set up for ourselves."

* * *

T/Sgt. REX NEELY receives a \$25.00 war bond from the Servicemen's Gift Committe this month.

* * *

PVT. C. A. SOENS — New Guinea

"I am very well, as a matter of fact thankful to place my two size $9\frac{1}{2}$'s back on good solid earth; particularly after seeing nothing but salty water for an awful long time. . . It has rained continuously since we arrived, and it doesn't look like it's going to let up any for the next six months. We make our homes in tents; seven to a tent, and the only time we stay dry is when it doesn't rain.

"I'm having a little difficulty getting used to this money over here. It's a pound here and a pound there. Frankly, I don't know whether they're talking about my weight or interested in buying some steel castings."



"When I showed the vacation check to the boys in my barracks they thought it was pretty nice of my old employers sending me a gift like that. I thought it was nice too, especially since I have been gone from the company so long.

"The weather here in England is still cool. I sort of doubt if it will ever get warm over here. The people say it should be warm next month, but that is what they said last month and the month before that.

"The war situation looks pretty good now and we all hope it will be over soon. It has been a long time since I have been home and I will really be glad to get home.

"Thanks again for the fine gift and tell everybody I said 'hello.' It certainly has been nice knowing I once worked for such a thoughtful and considerate company."

* * *

RUSSELL HUTCHINS tells us he is almost through his training at San Antonio and intends to be a "hot pilot." Pfc. ROY MITCHELL is still helping to keep the 17's in the air at Pyote, Texas. ROBERT NEWSOM, S 1/C used his vacation check to come home after a trip to England. LAYTON WICKIZER went to England this summer also. Pfc. CARL MARTIN says he can't send us a picture because he's pretty busy trying to get a glass of beer at the PX. Cpl. ROBERT MOORE says his vacation check evidently followed his old outfit overseas then back to him in Louisiana.

WILBUR W. BORDEN, S 1/C

"The navy is OK and I have seen quite a few different countries, including England, Scotland, Ireland, Africa and all through Europe to Asia. It is very interesting, but I still wish that it would end soon 'cause there's no place like the good old U.S.A."

* * *



S/Sgt. Joseph Myszak



Cpl. Eugene Lucarelli



Wilbur W. Borden, S1/C



IOE HENDRICKSON, a member of the maintenance gang since July, 1940 has been given a well-earned promo-tion to foreman of the outside main-tenance gang. This includes mainte-nance of grounds and all outside stornance of grounds and all outside stor-age of fabricated materials. Art Murphy continues to have charge of all building maintenance.

FINANCIAL REPORT OF ATHLETIC ASSOCIATION

September 1, 1944

Bank Balance, Sept. 1	1.764.71
Deposited with Credit Union	200.00
\$1,000 War Bond	
_	

Total Assets\$2,714.71

Bowling League Gets Under Wav

Here it is Fall and arms that have been swinging golf clubs, batting soft balls, swimming and holding fishing poles get back into the swing of bowling. AFECO bowlers have again organized a league, sponsored by the Athletic Assn. in South Bend which will roll on the Indiana Club alleys each Friday night. Teams are made up of the following men:

TUMBLAST	TABLAST

Claude Riddle Bill Snyder Kenny Bidlack Jacob Schmidt

Andy Federnok Harold Groh Leo Vavul Carl Schlicker

WHEELABRATORS ELECTROMODE HEATERS

Ray Steele Harold Books Tom Hameline Mel Morris Dick Ross

SANDCUTTERS

Ivan Nelson Kenneth Magnuson Bob Pequignot Gerald Brunk Eddie Huntsinger

ROD STRAIGHTENERS

Willard Flowers Ray Leuthold **Bob** Fisher Del Powell Harold Crawford Joe Vellemen

Jim Andrews Ernie Young George Tharp Stan Hess

I THANK THEE, LORD

I thank Thee, Lord, for a home that has a roof. I thank Thee that I do not waken nightly to the lethal scream of bombs. I thank Thee for the privilege of saying or writing what I please, so long as I do not play the traitor. I thank Thee that I worship in a way that suits my conscience, without duress from any other source. I thank Thee that I am free to meet with any group of honest citizens, anywhere at any time and for any purpose that does not undermine my country's welfare. I thank Thee that I have constructive work to do and that I get fair pay for doing it. I thank Thee that my country has bred heroic boys who have the skill and courage to defend these rights for me. I thank Thee that I have the power to back them with my money and my work. I pray that I may have the simple decency to put behind them every ounce of effort I can muster-that their grim work in my behalf may come to a victorious conclusion with a minimum of suffering on their part.

I thank Thee, Lord, from depths beyond the reach of words that thou hast granted me the privilege of living in America instead of in some deeply stricken land where tyranny creates a hell on earth. I pray with all my heart that I may show myself, in some small measure, worthy of this favor - and may devote my life henceforth to work that will help people everywhere to find such safety and such happiness as we enjoy, in this most blessed land.

-from "Bankers" Bulletin

HEATER DIVISION OUTING

Approximately 80 persons attended the Electric Air Heater Co. picnic on Saturday, September 16 at Castle Manor in Merrifield park. Delicious food was the feature of the pot luck supper.

Games and contests were enjoyed by young and old, finishing the evening with bingo, cards and the awarding of prizes. Mrs. Vernon was the winner for the best marksmanship with a rolling pin. Mr. and Mrs. Bernhardt had a lucky night winning several prizes among which was the door prize, a set of bookends shaped like horses' heads, a prize coveted by all.

Of special interest was the men's tug o' war. Everyone pulled with all his might then the rope split and all went tumbling - such surprise as was registered on their faces! It was one of the biggest laughs of the day. Another contest which provided fun for all was the men drinking cokes through nipples. Mr. Sherrard took his in true style, lying on a nice grassy spot of lawn

Kenneth Magnuson was the very able chairman and June Harrington proved good in entertaining the children.

> YOUR IDEAS **ARE HELPING** TO WIN THE WAR Keep 'em coming!



The new officials of Local No. 995, UAW-CIO, from left to right, first row: Bernard Fleming, financial secretary; J. Robert Bunch, vice president; Enoch Fetters, president; Riley Robert, trustee. Second Row: J. E. Minnes, bargaining committee; Denver Johnson, bargaining committee; Ernest Young, recording secretary; Perry Sharp, guide; Claude Wiseman, bargaining com-mittee; Sydney Brugh, sergeant at arms; Glen Wolfe, trustee; and E. J. Chayie, trustee.

American Parade

THE FAMILY ALBUM



John Kirkpatrick

"Well, I've done about everything in the steel shop since coming here in 1928; now, most of my work consists of assembling abrasive separators," is the way John Kirkpatrick hurriedly passes over his sixteen years at AFECO. But we wouldn't be doing justice to this friendly veteran by stopping at this point. Sure, John has done everything - and in a manner which has made him one of the best liked and most respected men in the shop.

Never too busy to help a new employee, John, with his storehouse of experience, is constantly besieged for advice on how to do the difficult. His ability and leadership have been recognized by his fellow workers in his appointment as Union Steward.

Years before John started at AFECO he daily passed the plant in the cab of an interurban on the old line between Goshen and South Bend. Little did he realize then that someday he would be daily punching the time clock at the "best place to work in the country." Some of the other jobs he has held were night manager of the street car barns in South Bend and also an export room employee at Dodges.

On September 6, John and his wife, who celebrate their birthdays on the same day, although he is four years older, marked their 45th wedding anniversary. A resident of Osceola, he claims that he has lived there longer than anyone else now living there.

Gifted with a fine bass voice he will put it to good use in the newly organized AFECO Glee Club. On Sunday morning he can be found in the choir at the Osceola Methodist Church.

Another of John's hobbies is fishing. He is still regaling the steel shop with stories of the blue gills he caught recently at Fish Lake.

White Collar Girls Sample

Farm Relaxation

The late arrivals at the Battles' farm on Ireland road were greeted by a line of AFECO girls, dressed in a variety of costumes ranging from jodhpurs and leather jackets through blue jeans to gaberdine slacks and sweaters, waving and shouting "this is the place." In the barnyard two large, gray farm horses were hitched to a wagon, well padded with straw.

Patting the friendly dog and petting the tiny, tiger kitten took up the time until the ride started. The wagon was too high to make jumping off and climbing on it again feasible, so the girls amused themselves singing everything they could think of including "Pistol Packin' Mamma," waving and shouting at every passer by and throwing straw on other people and into their own hair.

After the trip along Main Street, Mishawaka and back to the farm, the girls ad-journed to the "2 x 4" to fortify their cold and hungry selves with hamburgers, coffee and French fries. The ride was arranged by Marge Frisz and Marjorie Frazee. The next morning the girls were speaking softly with deep husky voices, hoarse from the loud singing.

Let's Sing a Song

"Do, re, mi —" some 50 AFECO people are singing, directed by Karl Knorr. The newly formed Glee Club, which intends to sing popular, classical and religious music, plans to make its first appearance at the AFECO Christmas Dance. This new or-ganization is sponsored by the Athletic Association.



Missionary, eh! Golly, I'll bet it feels good to get back to civilization.

School Bells to Ring For **AFECO Employees**

The University of Notre Dame has announced a new term of free evening classes, starting Monday, September 18 sponsored by the Engineering, Science and Management War Training Program. AFECO workers are urged to attend.

The urgent need for increased war production has, within recent weeks, been brought to the attention of the public at large by high officials of the Army, Navy, War Production Board and executives at the White House. If we are going to keep down the cost in American lives, then cost in labor and in effort for everyone on the home front must continue to rise.

Towards this end it is evident that training on the college level, directed carefully to meet the needs of industry, is urgently needed. Such training cannot help but render great service to total war production. In offering these classes, the University of Notre Dame, cooperating with the U. S. Office of Education, affords you the opportunity of increasing your efficiency in the war job in which you are now employed or hope to be employed.

Since all courses are taught on a college level, graduation from high school or its equivalent in industrial experience is a requirement for admission to any course. Some of the more advanced courses have other special qualifications for admission. No one should apply for any course who is not able and willing to give the neces-sary time and make the necessary sacrifice of other interests.

There are no tuition fees and the only cost to the student is the purchase of the basic textbooks, normally from \$2.00 to \$5.00. Classes will be held once a week for 15 weeks with each class lasting for 3 hours.

Registration was held Monday, Septem-ber 18 at 7:00 P. M. in the Engineering Building and the first class meeting was held that night, but registrations are still being accepted.

Classes offered include:

Jasses offered include: Auditing for War Industries Industrial Accounting I & II Basic and Advanced Cost Accounting Aircraft Engines Engine Testing Chemical Analysis of Materials Elementary Chemistry Organic Chemistry Organic Chemistry Qualitative Analysis Basic Industrial Mathematics Industrial Drawing Advanced Industrial Mathematics Industrial Drawing Applied Descriptive Geometry Tool and Die Design Electronics I & II A. C. Circuits Electric Motors Fundamental Electrical Engineering Manpower Utilization Industrial Personnel Relations Industrial Psychology Motion and Time Study Methods Engineering Job Evaluation Industrial Organization Production Process Technique Elementary Statistics Industrial Statistics Structural Engineering Engineering Mechanics

A bunch of the boys on the Tumblast assembly line – DAN MILLER, BILL SNYDER, JOHN UNDERWOOD, FRANK MILES and FRANK BURKETT discuss the fate of the world between bites during a lunch hour.



GI postmen this month will be delivering packages to AFECO servicemen still in the U.S. When former fellow workers open these boxes they will find a half pound of mixed salted nuts, a deck of playing cards, band aids, foot powder, tooth brush and tooth powder, a pocket book, and a set of four miniature games; Acey Ducy, Asia, Chess and Dominoes.







A college student arose from his table in a fashionable dining room and walked toward the door.

He was passing the house detective at the entrance when a silver sugar bowl dropped from his bulging coat.

The young man glanced calmly at the detective, then turned with polite annoyance toward the occupants of the restaurant.

"Ruffians!" he said, "Who threw that?" and walked out.

Tourist: "White man very glad to meet red man. White man hopes big chief is feeling very good."

Indian: "Hey fellows, come and listen to this guy. He's great!" * * *

"My husband is an efficiency expert in a large office".

"What does an efficiency expert do?"

"Well, if we women did it, they'd call it nagging."

* * * *

A colored man doing a hauling job was told he couldn't get his money until he submitted a statement. After much meditation he evolved the following bill:

"Three comes and three goes, at four bits a went, \$3.00."

How good is your 'thinker''?

ANOTHER 5 CLUB WINNER



Charles Richards

WHEELAPEENING MAKES A HIT IN INDUSTRY



HAMMERING the surfaces of metal objects (called "peening" because it was originally done by a peen hammer) to make them last longer in use is a process that has been known for centuries. The Damascus sword blades were toughened in this manner; and more recently, leaf springs were peened on one side for longer life and to produce the characteristic curvature.

But it was not until AFECO developed high-production machines for shot peening (Wheelapeening machine using the Standard Wheelabrator units) did peening devel-op out of the handwork stage. The Wheelabrator throws a rain of hard metallic shot onto the surfaces of parts such as gears, springs, propellers, connecting rods, crankshafts, etc., that are subject to bending or twisting action in service. Each shot acts as a tiny peen hammer, making a small pit in the surface of the metal so as to stretch it slightly in all directions from the pit. This stretched layer extends only a short distance into the metal (.005" to .010"), and underneath it the fibers of the metal are put into tension. After the peening action the under fibers tend to pull the stretched outer fibers together so that they end up in compression.

When a metal part is bent under load the outer fibers are put in tension, which eventually causes cracking, but with a shot-peened (Wheelapeened) surface the outer layer, being stretched already, "gives" enough to counteract the effect of the bending. The tiny fatigue cracks that ordinarily occur when the metal surface gets "tired" under repeated bending do not get a chance to start when the surface is Wheelapeened. The net result is an increase in the useful life of metal parts up to 20 times. One example is that of transmission gears used in large trucks for hauling heavy loads of iron ore to boats from mines in the Lake Superior district. Going up and down the six-mile hills caused such a load on alternate sides of the gear teeth that they broke after two days' operation. After being Wheelapeened they run months without failure.

General Motors Corp., in its Research Laboratory Division has found the following increases in fatigue life due to shot peening: Welded Joints 310% life improvement, Steering Knuckles 475% life improvement, Engine Crankshafts 900% life improvement and Helical Springs 1370% life improvement.

Cabinet type Wheelapeening machines are usually used for shot peening, with Tablasts being used for certain applications such as Wheelapeening bevel gears. The Wheelabrator unit is adapted to each cabinet machine, with a special mechanism for carrying the work through the machine with a revolving, twisting or other motion as needed to secure thorough coverage by the shot peening action.

Wheelapeening machines are in wide use in the automotive and aviation industries. Among the users might be mentioned General Motors, Cadillac, Chevrolet, Buick, Allison (airplane motors, etc.), Curtiss-Wright Propeller Plant, Studebaker automotive and aviation, Allis-Chalmers and International Harvester. This new process has been called by "Colliers" magazine, "the greatest technological development of the war" and the benefits of Wheelapeening are seen on every battlefield in the performance of tanks, vehicles of every kind and type and airplanes of every description. The postwar applications of Wheelapeening are unlimited and extensive developmental research and promotion work are being undertaken to capitalize on the new process.



"Just who was it you let these sub-contracts out to on these, Ormshod?"

BLADES and MORE BLADES

Looking in on the Other Fellow's Job







JUST small rectangular pieces of metal but vitally necessary to economical high speed cleaning and metal finishing are the eight blades of a Wheelabrator wheel. These blades in the rapidly revolving wheel are utilized to pick up the abrasive from the center of the wheel and transmit it at the required velocity and direction upon the work to be cleaned. With over 2500 Wheelabrator machines installed throughout industry for processing almost every type of war materials and operating on around the clock production schedules the demand for blades is terrific. Since the normal wear life of a set of blades is around 60 hours almost every Wheelabrator machine averages a new set of blades weekly.

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To supply Wheelabrator users with blades when required a special blade department is maintained at AFECO.

The blades, made from a special hard steel alloy (called "AR" metal) are first checked b; GLADYS WARREN on a Rockwell Hardness Tester. Blades must test between 55 and 65 Rockwell C or they are rejected.

The blades are next checked on a gauge by JOSEPHINE DATTALO and KATH-ERINE KAMERER to ascertain whether they will fit the wheel.

Then, blades are weighed by BILL BYKHOFF or JOHN WILLIAMS, department head. Each blade must weigh within $\frac{1}{9}$ oz. of every other blade in the set of eight. This exactness is absolutely necessary to insure the balance of the Wheelabrator Wheel. A large variety of blades to fit the various sizes of Wheelabrator wheels is produced and blades vary in weight from 7 oz. up to 7 lbs. each.

The final operation, performed here by JOHN BAHLES, is packing the blades in sets of eight for shipment to customers.