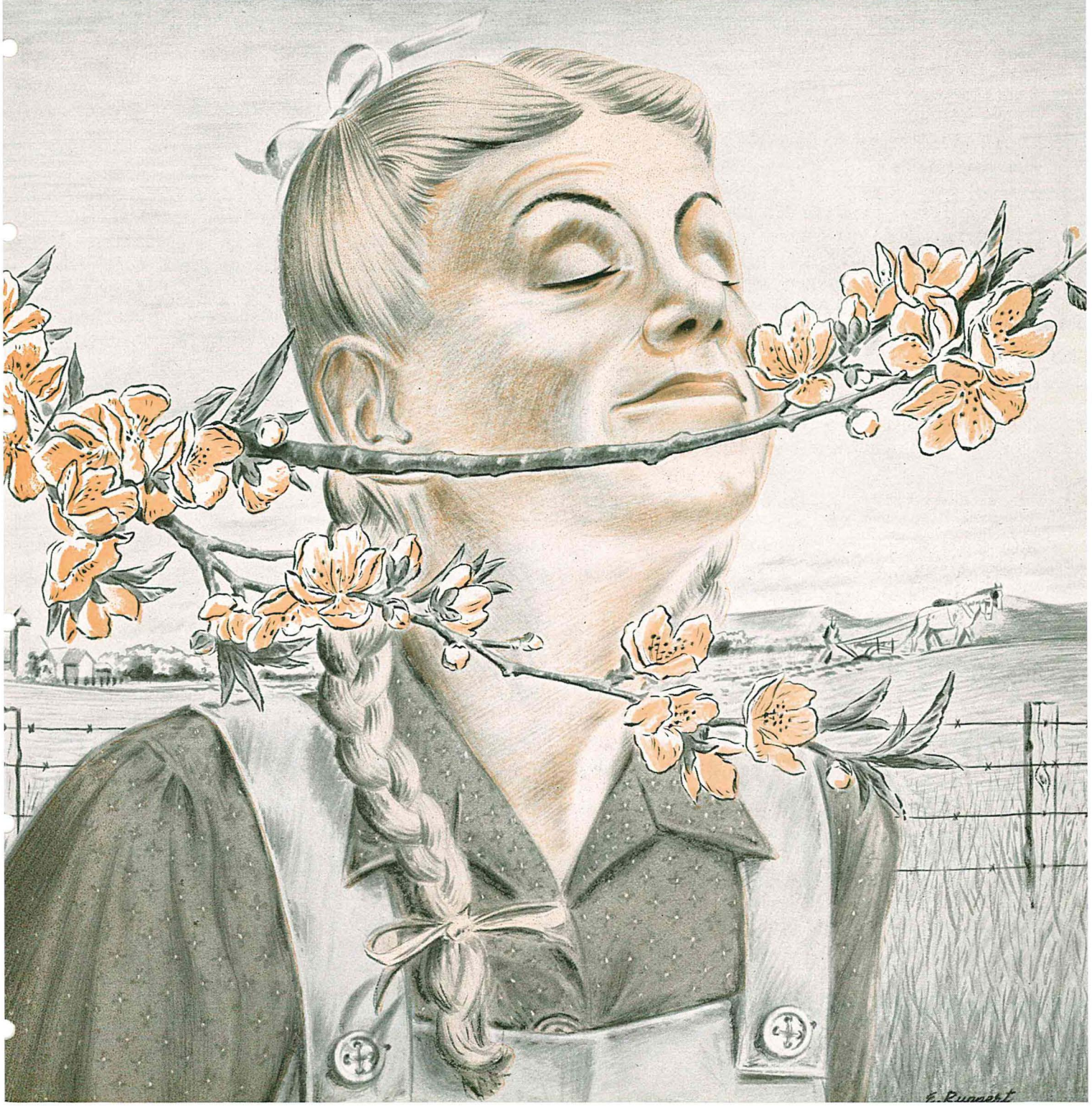
AMERICAN Parade

VOL. 6, NO. 4 APRIL 1947



The Fire Alarm Sounds . . . Then What?

What would you do if the fire alarm sounded? It is a question that everyone should face. Statistics show that approximately 11,000 people will lose their lives this year as a result of fire—one person every 50 minutes. Property damage will be in the neighborhood of $600,000,000, or, to put it more graphically, a fire will break out somewhere in the U. S. every 53 seconds!

There is no set rule about where a fire may break out. It may ravage your factory or send your home skyward. Over half of these fires occur in homes like yours. Begin by planning in your own home what to do next when the alarm sounds. Figuring a way out when the house is going to blazes is not the wisest course. The time to do it is before and the way to do it is by fire drills with your whole family. Here is how to conduct them.

1. Send each member of the family to his or her room.
2. Call "fire!"
3. Each member should then go quickly, quietly to the nearest exit (not necessarily the usual one.)
4. All should then be taken to a fire alarm box and taught how to turn in an alarm. One member may be given this responsibility specifically and told to remain there until firemen arrive so that they can be lead to the fire.
5. Next, all members should be given instructions on how to telephone in an alarm. Lift receiver and dial 5-3177 in Mishawaka, 3-2119 in South Bend, or dial O and ask for the fire department. Say: "There is a fire at . . ." and give address, not the name.
6. All should be taught how to use approved fire extinguishers which should be placed in strategic spots in the house for instant use.

This fire drill is for fires which occur during the day. But you should also be prepared for fires at night. Here is a drill for these fires:

1. If you wake up at night and find there is a fire in the house, do not get panicky.
2. Call "Fire!"
3. Close windows to avoid fanning flames to greater fury.
4. Use approved fire extinguisher if there is one in your room.
5. Feel door to see if it is hot.
6. If there is no other exit and the door is hot, open cautiously with foot behind the door so that door cannot be forced out of control by a rush of flames or strong draft of fumes.
7. If hallway is filled with smoke, close door quickly. Tie a damp cloth over nose and mouth, then open door and crawl out on hands and knees (heat rises and there will be less danger near the floor). Close doors as you go by to avoid the danger of further spreading of flames.
8. As last resort, if none of the above is possible, leave door closed. Open window, throw out mattress, then tie sheets into rope, fasten securely and slide down.

Small at the Beginning

Fires may be large conflagrations. They are all small at the start—the roast which catches on fire . . . the wastepaper basket ignited by a match which you thought was snuffed out. These can be incidents instead of tragedies if the correct action is taken promptly.

Now is the time to use your fire extinguisher. Keep fire extinguisher handy in the kitchen—and that means not concealed, out of sight in some remote corner. That means where you can get it at a split second's notice. Then when the steak burns or the grease suddenly ignites, you can use your fire extinguisher immediately. It will put out the flames. For types of fire extinguishers best for your home, consult your local fire chief. He will be glad to help you. Also he will tell you where they should be placed, as, for instance, in the kitchen where it should be near the door, not above the stove! And make sure that it is always filled!

In the Factory, Too

But you should also be concerned with fire protection in the factory. It is just as important to you. Make sure that you know how to operate all the fire fighting equipment. Watch that it is always in good working order, ready for use at any moment.

And then do one thing more. Pay attention all the time in the factory.

(Continued on Page 6)

AMERICAN PARADE

Published by and for Employees of
American Wheelabrator and Equipment Corp.
Mishawaka, Indiana

Vol. 6, No. 4 APRIL 1947

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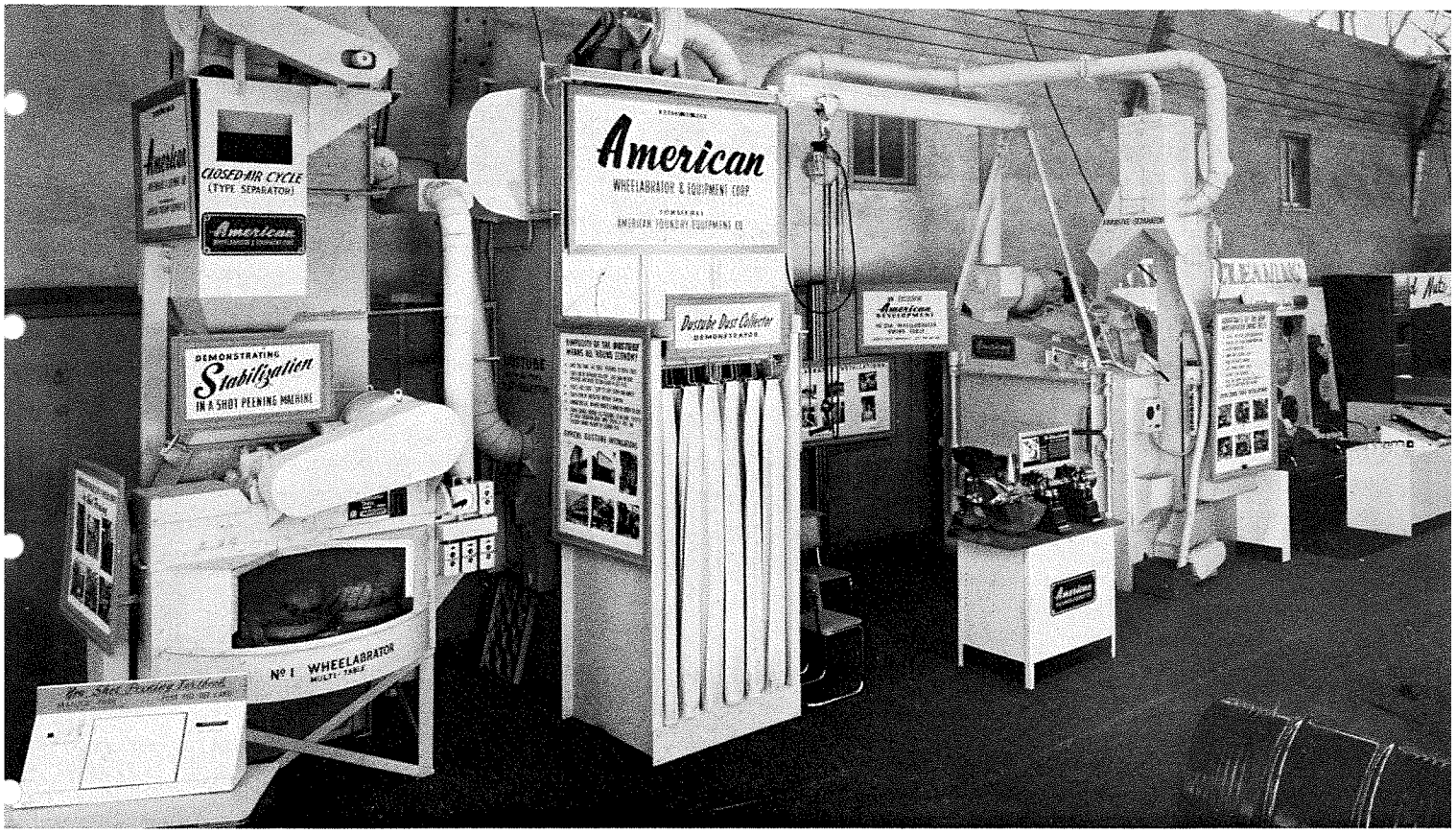


AMERICAN at WESTERN METAL SHOW

American was among the exhibitors at the Fifth Western Metal Congress and Exposition held March 22 through March 27 in the Civic Auditorium, Oakland, California.

In our booth were displayed a 48″ Swing Table, and a No. 1 Wheelabrator Multi-Table demonstrating stabilization of shot peening. The operating Wheelabrators were ventilated by a Dustube Dust Collector. A Wheelabrator unit and a demonstrating Dustube were also shown.

The Show, sponsored by the American Society for Metals, with 16 other technical societies cooperating, attracted thousands of west coast industrialists and engineers interested in new equipment, processes, and products. This is the first time *American* has participated in the Western Metal Show.

On hand were A. H. Freeman and James K. Davidson of the Mishawaka office, sales engineers Davis Taylor, San Francisco; David Neustadt, Los Angeles; George Tolton, Seattle; and west coast service engineer, George Tharp.

★ ★

University of California Uses Dustubes in "A" Bomb Work

In September 1943, a No. 65 Assembled Dustube Dust Collector was shipped to the University of California, Berkeley. In October of the next year, a No. 45 Knocked-Down Dustube Dust Collector was shipped to the same address; a duplicate shipment left our plant in November.

Now what was a University doing with three Dust Collectors? It could be any number of things, but rumors were persistent that they were being used in connection with work on splitting the atom.

Mr. Donald Cooksey, Associate Director of the Radiation Laboratory of the University, told sales engineer Davis Taylor that the rumors were true. The three Dust Collectors were used to ventilate machines used in grinding and cutting operations on powdery materials.

The laboratory to which this shop is attached was associated with the work on the electromagnetic method of separating uranium isotopes, a step in the production of the atomic bomb.

While the dust collected is not especially valuable, it is definitely a nuisance and the elimination of the dust provides cleaner and better working conditions.

* * *

Many travelers return brag and baggage.

* * *

All men are born equal, but not always equal to what comes later.

The Wheelabrator — What it is . . .

Because many of the newer workers at American may not understand how the Wheelabrator unit and the various Wheelabrator machines operate, on these two pages are described, diagrammed and illustrated the appearance and operation of the standard types of Wheelabrator machines—the Tumblast, Plain Table, Multi-Table and Swing Table. No attempt is being made at this time to explain Wheelabrator Special Cabinets. These are not standard, but are especially designed to meet specific problems.

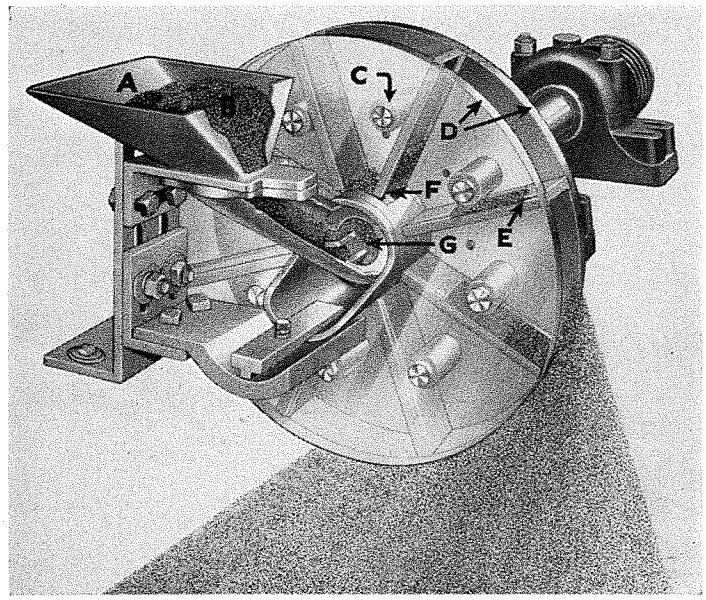


Fig. 1

How the Wheelabrator Works

In the Wheelabrator process, abrasive from an overhead storage hopper is fed to the center of the wheel, whereupon it is hurled under perfect control upon the work to be blasted. The wheel, rotating at high speed, throws the abrasive by centrifugal force.

A cast-alloy impeller (A), (see Fig. 1) rotates with the wheel proper and carries the abrasive to an opening in the stationary control cage (B), where it discharges to the bladed section of the wheel. At this point, the abrasive is picked up by the inner ends of the throwing blades (C) and is gradually accelerated in its passage to the periphery of the wheel. The final throwing velocity is the resultant of radial and tangential forces. This means that the blast utilizes all of the power supplied to the Wheelabrator.

The Wheelabrator will throw more abrasive—and throw it harder—per horsepower expended, than any other blasting device ever conceived.

The Wheelabrator Tumblast

Wheelabrator Tumblasts are extensively used for low-cost, speed cleaning of a wide variety of compact pieces that are sufficiently rugged to withstand a gentle tumbling action. They are made in eight standard sizes from one to 63 cu. ft. capacity for blast cleaning quantities of work in which individual pieces vary in weight from a fraction of an ounce up to 1,000 pounds.

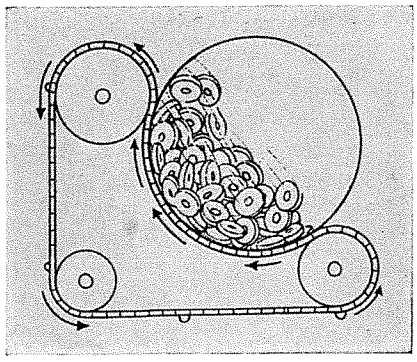
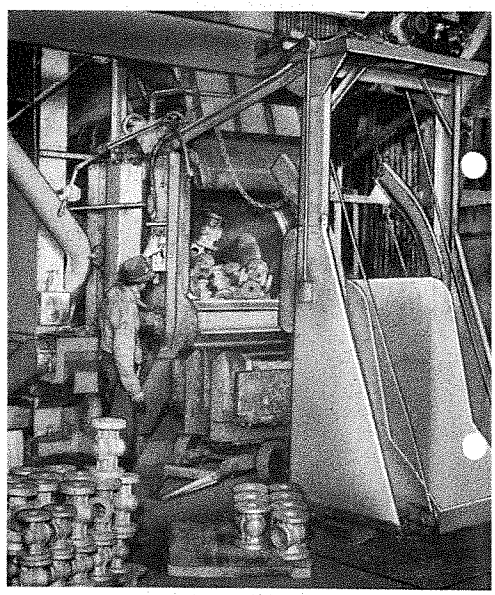


Fig. 2

How the Tumblast Operates

The Wheelabrator Tumblast uses the endless conveyor method of tumbling (see Fig. 2)—an exclusive feature—which completely exposes all surfaces of every piece to the full effect of the abrasive blast. Experience has shown that no other blast mill designed for tumbling work can match its effectiveness.

The rotation of the conveyor tumbles and cascades the work directly beneath the Wheelabrator blasting unit. After striking the work the abrasive falls through holes in the conveyor and passes into a bucket elevator. This carries the abrasive to an overhead abrasive separator and storage hopper, from which it is fed by gravity to the Wheelabrator unit. Unloading of the work in the cleaning chamber is accomplished by reversing the apron conveyor which carries the work up and out of the cleaning chamber, spilling it into a suitable receptacle or conveyor.



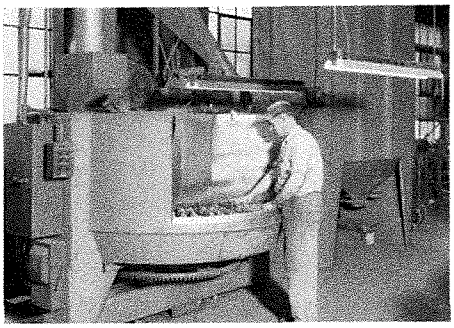
48" x 42" Wheelabrator Tumblast installed in the gray iron foundry of General Metal Corp., Oakland, California.

and How It Operates

Wheelabrator Plain Table

The Wheelabrator Plain Table with its single rubber-covered work table is designed for handling work which does not have too many pockets or vertical edges. It is an ideal machine for the jobbing foundry having a varied production of flat or fragile work.

Plain tables are furnished with 6′, 8′, 10′, 12′ and 14′ diameter rubber-covered work tables.



6″ Plain Wheelabrator Table cleaning drills at Union Twist Drill Co., Athol, Massachusetts.

How the Plain Table Operates

Work to be cleaned is placed on the exposed area of the single rubber-covered work table at the front of the machine. (See Fig. 3.) Rotation of the table carries the work beneath the blast from the one or two Wheelabrator units provided.

When the work emerges at the front of the cabinet, after leaving the blast zone, the operator turns it over to expose the underside and the work passes through the cabinet again.

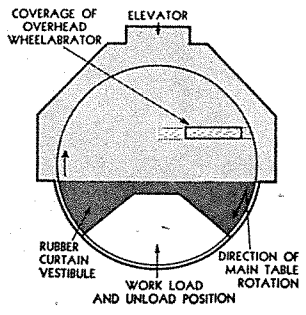
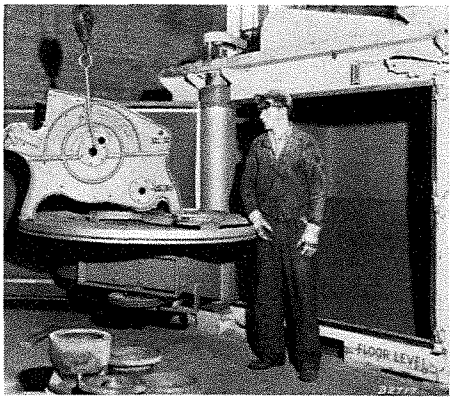


Fig. 3

Wheelabrator Swing Table

The Wheelabrator Swing Table is designed for the foundry that needs a moderately priced machine capable of handling a wide range of large and small pieces where production does not warrant the purchase of several types of cleaning equipment.

The speed and economy of the airless Wheelabrator makes the Swing Table an ideal unit for cleaning large intricate pieces that normally would have to be blasted in an airblast room. Five sizes are available with single work tables 24″, 48″, 66″, 72″, and 86″ diameter.



66″ Wheelabrator Swing Table installed at Western Land Roller Co., Hastings, Nebraska.

How the Swing Table Operates

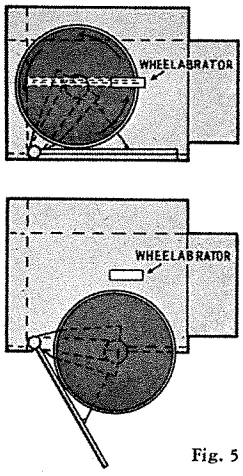
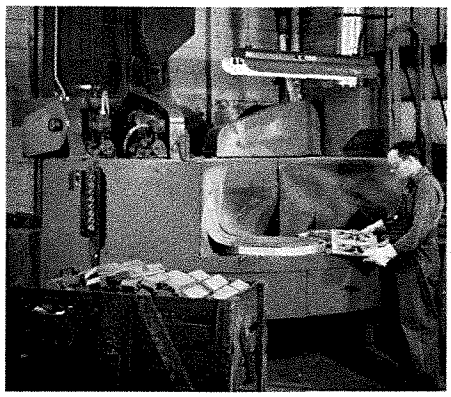


Fig. 5

Opening the door of the machine brings the work table into position for loading or unloading. (See Fig. 5.) Closing the door brings the table beneath the blast of one or more Wheelabrator units mounted overhead which pour a continuous stream of abrasive upon the work to the full width of the table. The table rotates within the blast stream so that all surfaces and cored areas are scoured to a bright, clean finish.

Wheelabrator Multi-Table

Multi-Table machines are made in five sizes to clean small, flat, fragile, thin section castings or forgings or pieces which have high vertical edges or deep pockets. Since each piece is individually placed on the table, and turned over by hand, breakage is eliminated.



A No. 2 Wheelabrator Multi-Table installed at American Stove Co., Cleveland, Ohio.

How the Multi-Table Operates

Work to be cleaned is placed upon a series of independent rubber-covered tables mounted on a main spider platform which rotates on a central spindle. (See Fig. 4.) As the platform turns about its axis the tables are carried inside the cabinet.

The tables revolve automatically as they approach the blast stream of the single or multiple Wheelabrator units mounted overhead and continue to do so until they leave the blast zone. When the tables return to the loading station in front of the machine the work is turned over and passed through the blast again to permit cleaning of surfaces not exposed on the first pass.

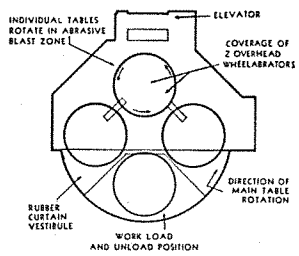


Fig. 4

Machine Shop Supervisors

These are the men responsible for the work performed in the machine shop. Every one of them knows the work from actual experience, for all were promoted to their present positions after having worked at least 12 years in the department.

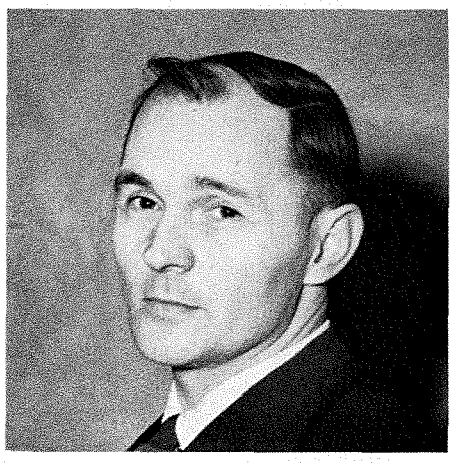
Machining, tool and jig making, and tool storage are under their direction.

SAMUEL A. HEARRELL
Superintendent

RAYMOND E. GOOD
Foreman, Second Shift

WALTER E. BEATTY
Foreman, Day Shift

LAWRENCE W. METCALF
Foreman, Day Shift



E. CLAIR WILSON
Foreman, Second Shift

WHEELABRATOR In the Starring Role

"Hurry, hurry, folks, step right up, the Show is about to begin". Wait a minute, isn't that a 27″ x 36″ Wheelabrator Tumblast in the starring role, supported by service engineer William F. Sutherland? That's right, so here's the explanation.

Bill Sutherland was at Belknap Manufacturing Co., Bridgeport, Connecticut, installing a new 27″ x 36″ Wheelabrator Tumblast to clean valve bodies and valve fitting castings.

After the machine was installed and operating satisfactorily, the management asked Bill if he would return to their plant on February 20 and demonstrate the machine for all of their employees. He did.

Before the day of the show, notices had been posted on the time clocks informing all Belknap workers that they could take time off to have a look at the Wheelabrator Tumblast and ask questions about the performance, machine data and maintenance work.

The Fire Alarm Sounds

(Continued from Page 2)

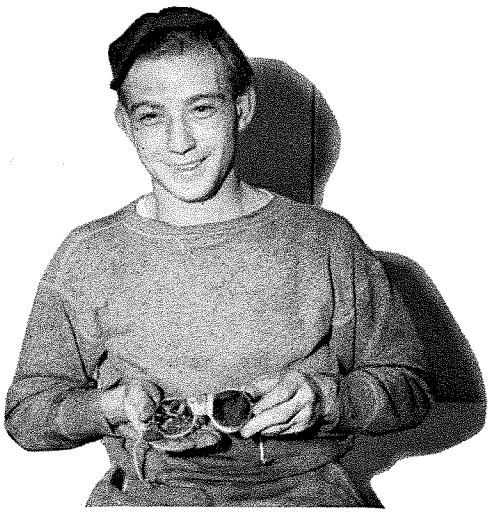
Machinery which is lost in flames cannot always be replaced in short order. Don't put yourself out of work. Guard also against careless use of matches and smoking equipment which causes 10% of all blazes, the third largest single cause for conflagrations. Next time you flip a match to the wind, or knock the ashes out of your pipe, or toss a cigarette away, remember the risk you take.

Does all this sound too OMINOUS? Listen to what the experts say. They tell us that this year there will be more fires, more deaths than ever before!

To See Tomorrow — Wear Goggles TODAY

Safety goggles are like a parachute, if you need one and don't have it, in all probability you will never need it again.

BERNARD GEHL, foundry molder had safety goggles when he needed them . . . when a piece of molten metal flew off the receiving ladle and shattered the lens of his safety glasses.



Of course, if Bernie hadn't been wearing safety glasses, he *might* still have *one* good peeper instead of two and could still take a chance on that one good eye . . . but he won't. A new pair of safety goggles and Bernie was safely back on the job.

If he hadn't been wearing the goggles he is holding, all the regrets in the world wouldn't restore the sight to his right eye.

Safety pays!

ACCIDENT RECORD

INJURIES

	Jan.	Feb.	Total
Steel Shop	139	117	256
Machine Shop	68	55	123
Foundry	12	8	20
Stock Room	8	11	19
Shipping	7	9	16
Demonstration	6	1	7
Maintenance	5	3	8
Inspection	3	1	4
Engineering	3	0	3
Office	2	3	5
Pattern Shop	1	0	1
Research	0	1	1
	254	209	463
Cases to Doctor	9	9	18

LOST TIME ACCIDENTS

Machine Shop
1 day—foreign body in eye.
9 days—bruise of the foot.

Steel Shop
9 days—bruise of the foot.

Foundry
2 days—foreign bodies in eye.

Stockroom
4 days—fracture of thumb.

Shipping
2 days—fracture of foot.
2½ days—infection of hand.

Office
6 days—infection of foot.
2 days—infection of leg.

Total: 9 cases—37½ days lost.

Is Orange Your Favorite Color?

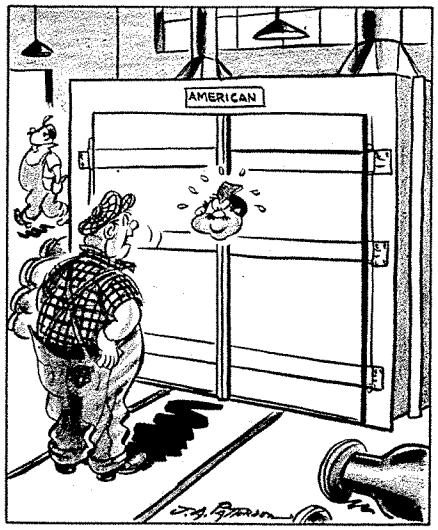
Have a true affection for orange and you are a person to be envied. Yours is a big heart and a generous mind. You are naturally gregarious. You love people, neither profoundly nor passionately, but because a social life is the one that suits your temperament the best.

Unfortunately your last friend is usually your best friend. You have an enviable taste for wine, women, and song and the makings of a real gourmet. You are fluid in speech, proud of eminence in others. Your love of people, however, more concerns companionship than the passions. Rare among mortals you would make the ideal bachelor—but not a particularly virile one.

You are amiable and inconsistent. You defer to others in order to be agreeable and well liked. Mention a party and your eyes sparkle. You can handle people and situations—they are a specialty with you.

Yet you are inclined to be Jack of all trades and master of none. What you need is concentration. Details bother you. Selling is one of your big talents, because people like you. But your naturally quick wit could stand a bit of training. You would be wise to stay at home in some of your spare time and do something with yourself.

—Reprinted through the courtesy of General Printing Ink Div., Sun Chemical Corp.



"Make up your mind, you gonna' stay in or out."

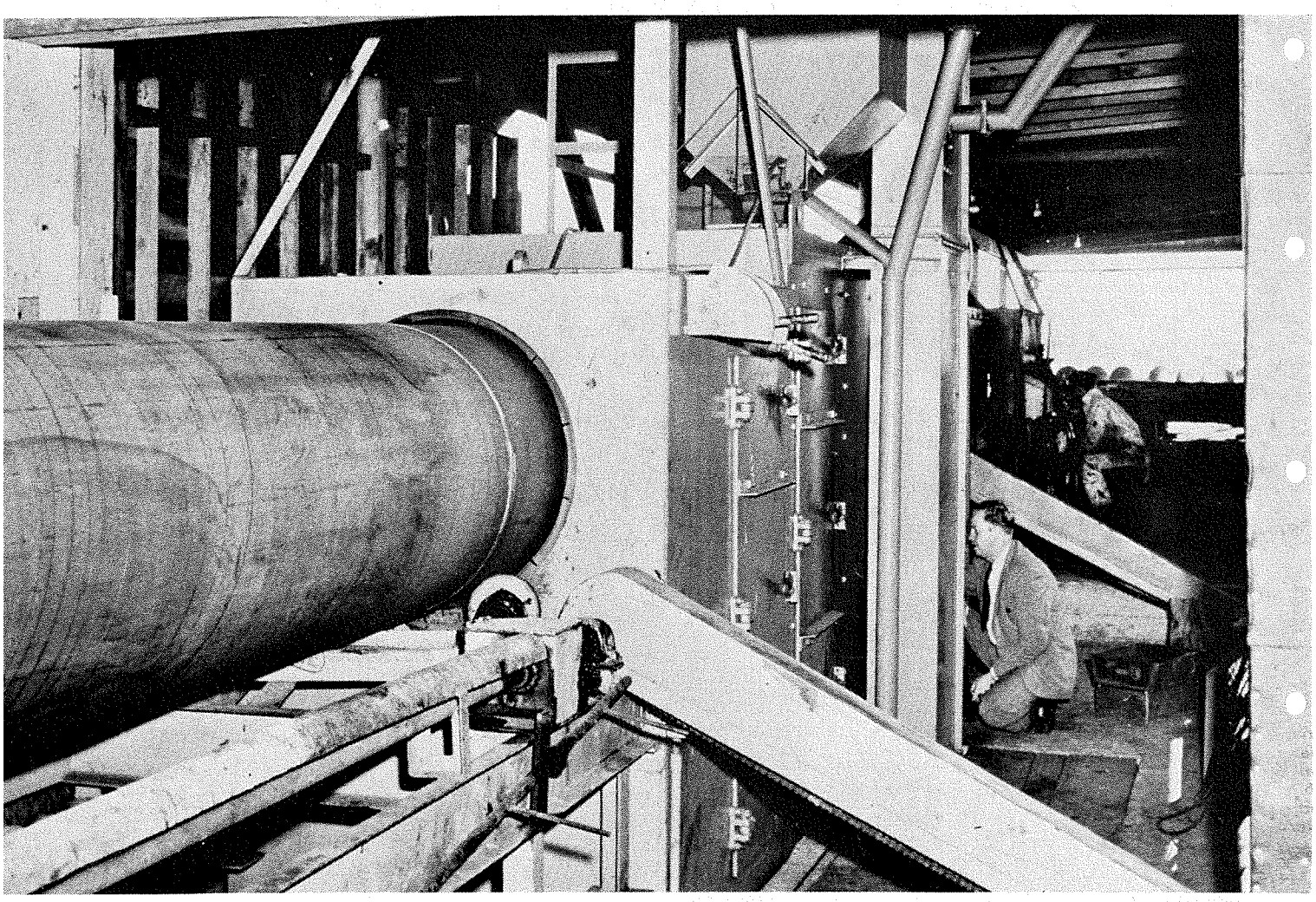
* * *

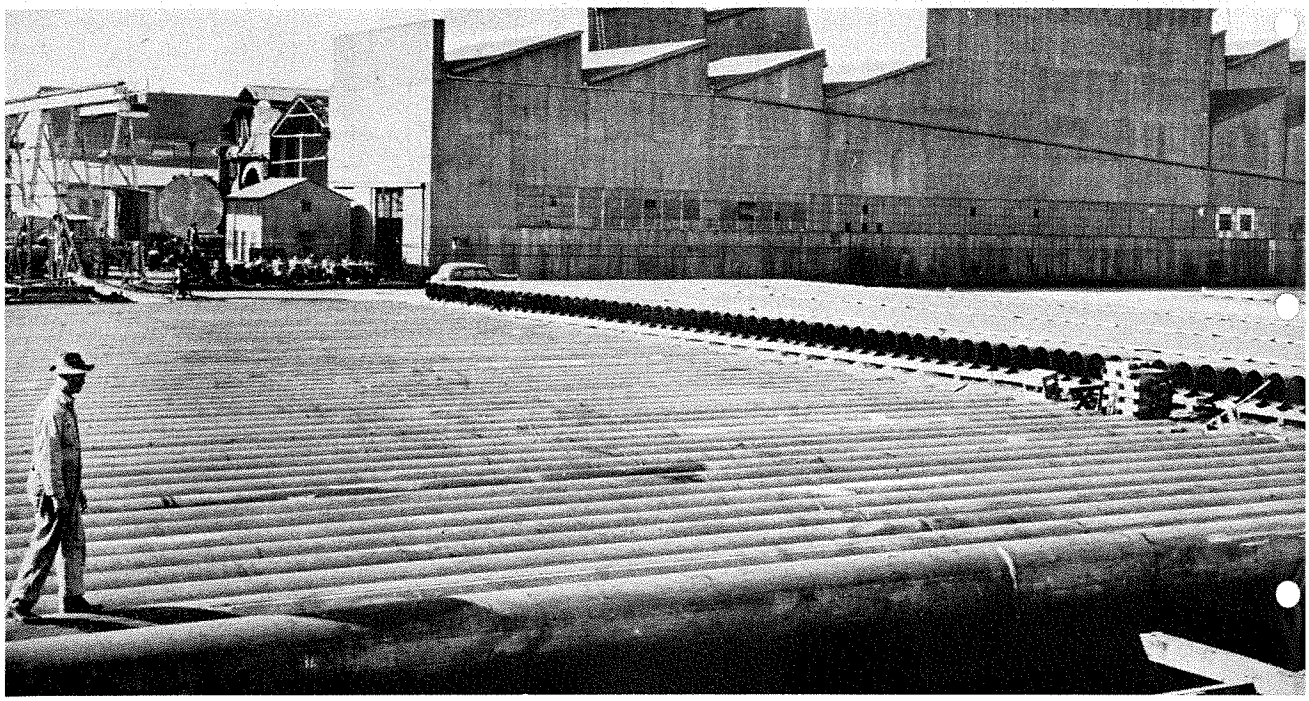
A pessimist is a man who builds dungeons in the air.

* * *

Genius: A man who shoots at something no one else can see, and hits it.

"The Biggest Inch"





Wheelabrator Cabinet Cleans 30-inch Pipe Prior to Priming, Tarring and Wrapping Operations.

All eyes in the petroleum industry are focused on the construction of the biggest high pressure gas pipe ever built. This pipe line extends 214 miles from Santa Fe Springs, California, to Blythe at the Arizona-California border.

At Blythe this pipe line will meet a similar tube of steel winding 1200 miles across the Continental Divide from the Mid-Continent Fields in Texas. Through this line, 26″ in diameter from Texas to Blythe, and 30″ in diameter from Blythe to Santa Fe Springs, will eventually flow 305,000,000 cu. ft. of natural gas a day! Enough gas to care for every home in four cities the size of Akron, San Antonio, Des Moines and Indianapolis!

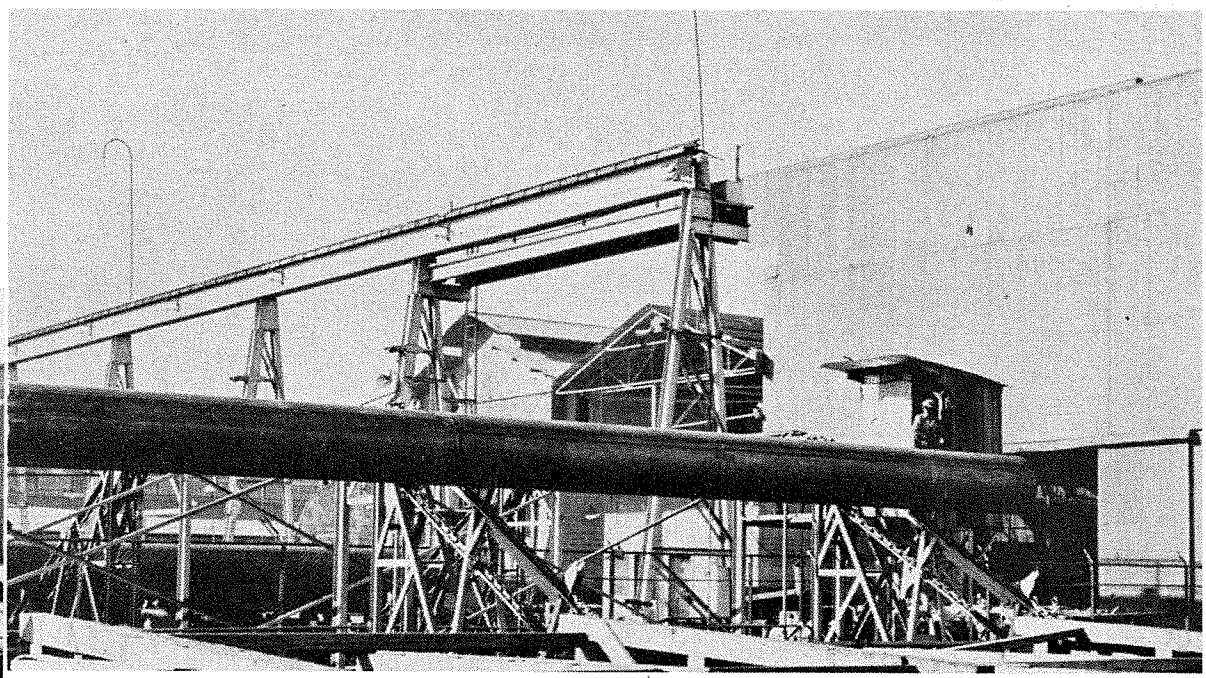
The pipe for the California section of the line is being constructed of sections of pipe 60′ long and 30″ in diameter by the Consolidated Steel Co. in their Maywood, California plant. The pipe is rolled from sheet steel, welded, and stretched.

The 30″ pipe sections, immediately after their manufacture, are picked up by a rig and delivered to Bechtel Bros. McCone Co. who have the contract for cleaning the pipe by Wheelabrating, priming, tarring and wrapping each section—which by then weighs 4000 pounds. The tarring and wrapping are protective measures to prevent or retard the action of rust and corrosion.

The cleaning machine employs two airless Wheelabrator units to hurl steel grit upon the surface of the pipe as it is conveyed through the machine. The huge sections of pipe are rotated as they are conveyed through the abrasive stream by means of a specially designed conveyor.

8,000 feet of pipe per day are cleaned. After leaving the Wheelabrator cabinet the pipe is tarred and wrapped and loaded on trucks for shipment to points of construction. Actual laying of the line began the middle of February.

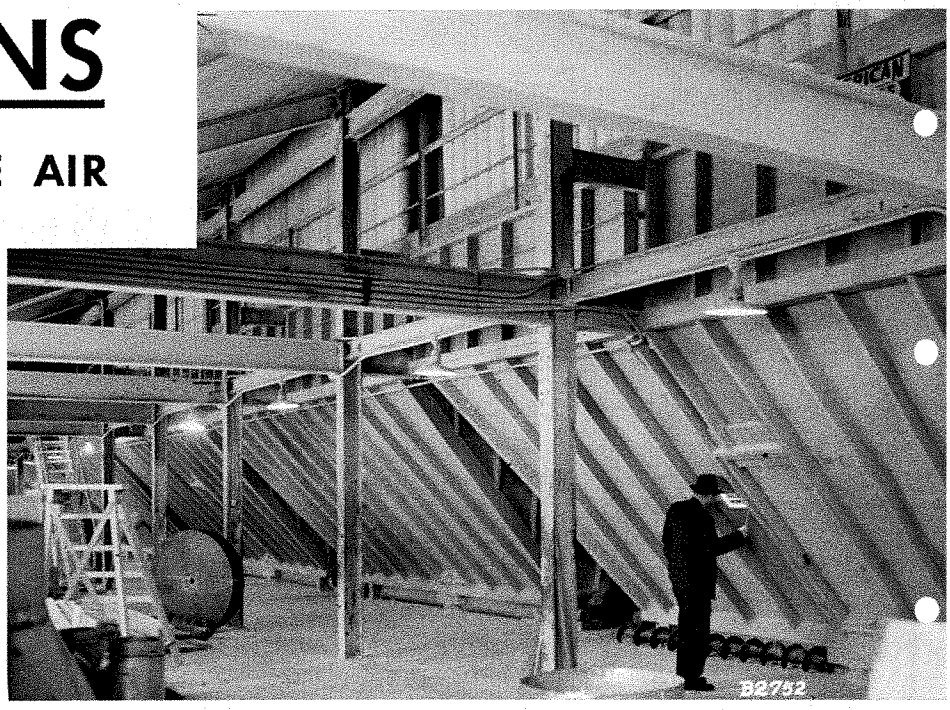
'ice Engineer George rp checks the operation of the Wheelabrator inet machine. A section of pipe may be seen ering the cabinet.



The rig carrying a 60′ section of 30″ pipe prior to cleaning operation. Nine miles of pipe are fabricated every week, or 30 feet every four and one-quarter minutes.

When the line goes into use in November, 1947, these sections of the "biggest inch" now awaiting cleaning and wrapping, will carry 125,000,000 cu. feet of gas per day. Gradually this will be built up to the capacity of 305,000,000 cu. feet per day. The Texas fields are so extensive they can pour gas at this rate into Southern California for at least 30 years.

TAKING 20 TONS OF DUST OUT OF THE AIR



The front of the collector. Note that the bags are not enclosed in a cabinet as is the usual construction. Short asbestos fibres or dust are converted into shingles, cement products such as pipes, corrugated sheets and paint, paper, millboard, molded goods, etc.

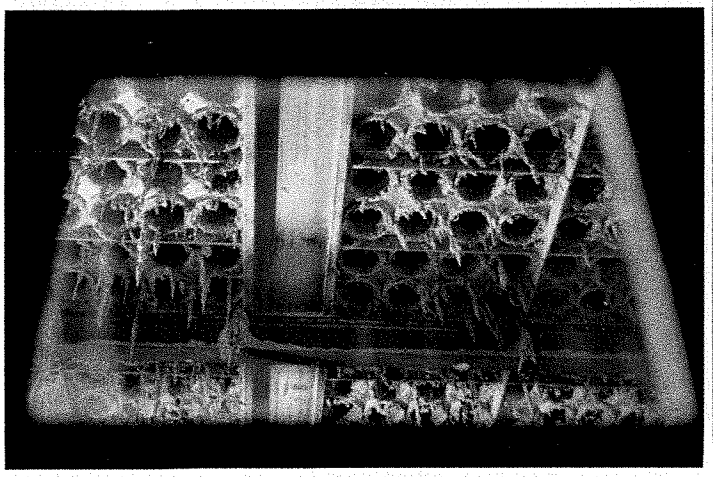
85% to 90% of the world's supply of asbestos comes from Canada and almost all of this is from a narrow strip of land about 150 miles long extending northeast from the Vermont border.

Asbestos is a mineral and here is how it is recovered from the rock. First, it is hand picked to select the "crudes"—the highest quality, long fibres suitable for weaving. The rock is then crushed, sorted, recrushed, resorted until all fibre is removed.

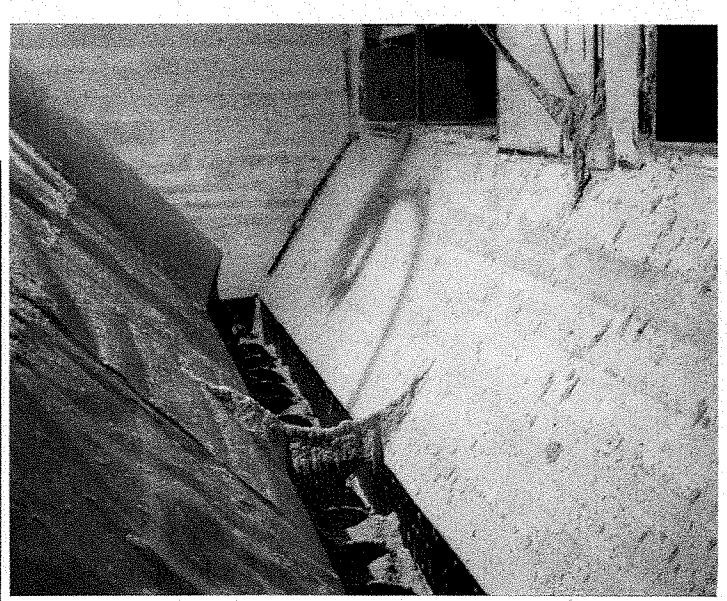
Sorting the asbestos from the waste rock is done by means of a suction hood which hangs over a shaker table. By regulating carefully, the rate of air flow through the hood, fibres of a certain length only are moved. This material then settles out in cyclones and is collected and bagged.

A certain amount of dust or "floats" is discharged from the cyclones and it is to collect this that a large Dustube Dust Collector was installed at Johnsons Co., Ltd., Thetford Mines, Quebec.

The collector accumulates 20 to 22 tons of asbestos a day. In the past this was distributed over the town, but now it is bagged and sold. There are five mines within a one-half mile radius and, since Johnsons is one of the smallest, one can guess what living conditions in the town have been. Not only does the Dustube Dust Collector eliminate health and nuisance problems, but it also collects floats having a salable value.



A view of the underside of the cell plate in the collector. This view emphasizes the fibrous character of the collected materials. Long fibres are woven into brake linings, gaskets, fireproof curtains, clothing, insulation, conveyor belts, etc.



A view of the interior of the hopper showing the screw conveyor at the bottom. The screw carries the dust to a port through which it drops to a sealed duct below the floor. This duct runs the full length of the collector and is equipped with drag chains to carry the collected asbestos float to a central point for dumping and sorting.

From a Customer:

The following letter received from The Canton Malleable Iron Company, by our Cleveland sales engineer, John D. Alexander, reflects credit to our entire working staff.

"I can't begin to tell you how much we appreciate the many courtesies and cooperation extended to my son Bill who took certain critical parts of our Sandcutter to Mishawaka to be reconditioned.

"They did a splendid job and gave us marvelous service and I would like to have you thank for us the numerous ones in your organization who were so cooperative.

"It is a pleasure to have this type of service in such an emergency."

R. N. COLE, President

★ ★ ★

STOCKROOM

Jack E. Noble, George L. Kuhlman, Donald E. Barr.

STEEL SHOP

Edwin C. Fisher, Ernest Smith, Samuel S. Weisner, Jack L. West, Donald R. Pickett, Valdie F. Spake.

OFFICE

Martha J. Bragg, Anna Marie Streich, Edgar F. Davis.

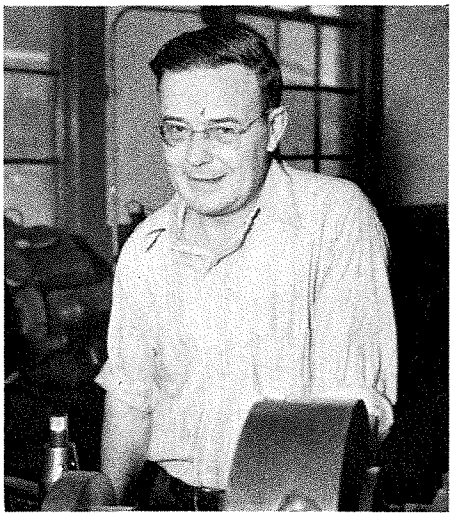
MACHINE SHOP

Walter S. Jaskins, Gerald R. Doolittle.

MISCELLANEOUS

Dean E. Mathias, Maintenance; Carol J. Kurtz, Engineering; Rudolph E. Zeithamel, Shipping.

ALFRED LEYES



ALFRED LEYES, engine lathe operator, is an old-timer whose youthful appearance belies 19 years spent at *American.* On May 14, 1928, because Frank Gehl suggested it, Al came to *American* from the Dodge Mfg. Corp. Since then he has operated many of the machines in that department, including drills, lathes, milling machines, and the key seater.

When the war came Al, always a careful and steady worker, worked on the third shift; later was transferred to the second shift to serve as a floor inspector. About two years ago he was changed to day work.

In his home workshop Al devotes a lot of spare time to repairing and constructing things for the home and his two sons. Dark-haired Tom is 14 and tow-headed Johnny is 3.

When Spring comes, attention in the Leyes family is turned to raising White Rock chickens. A description in *Popular Mechanics* supplied the plan for his home-built chicken house. One of its outstanding features is that it can be cleaned in 5 minutes.

Most of the chickens are consumed by the Leyes family, some freshly killed, others are canned by Mrs. Leyes. Last year Al raised a rooster that weighed 9½ lbs. at six months. When one considers a chicken usually gains a pound a month, this weight vouches for the care given the birds. This year Al plans to obtain and raise about 20 capons; these will weigh 14 or 15 lbs. in six months time.

Listening to the radio, especially mystery stories and orchestral music, both classical and popular, are pleasant pastimes. Tom has usually finished his clarinet practice when dad arrives home each day—and that's all right, too.

Still fishing in the summer offers enjoyment too, and, for a really fine evening, frog hunting rates tops. Al recalls one enjoyable evening when 78 huge frogs were caught. They provided 6 or 7 people with legs for breakfast, lunch, and dinner for several days. When it comes to frog legs, Al entrusts the job of cleaning and cooking to no one, preferring to do the work himself.

JAMES CURTIS—Use the bolt regularly used on the 8 x 30″ elevator assembly in all cases instead of BM 70507. By using standard hex head cap screws one part can be eliminated.

JACK FITZSIMMONS—Drill part number 44301, hand lever for door of the 27″ x 36″ Wheelabrator Tumblast, 9/16″ instead of 7/16″. This will save the time it takes to ream the hole to the correct size in assembly.

JEAN TRACY—Use carbontetrachloride instead of "Dr. Skat" to clean typewriter keys. It will accomplish the same result and is less expensive.

Cleaning Problems and Their Solution

A natural mecca for friends and customers seeking the solution to metal cleaning and finishing problems is the American Demonstration Room and Testing Laboratory. Every week innumerable sizes, shapes and types of metal products are received for test cleaning or finishing.

If you have ever done any selling you know that most people are "from Missouri". Particularly is this true in selling heavy industrial equipment. Buyers are naturally skeptical, and it takes strong evidence to convince them of the wisdom of buying new equipment, especially if it means going to another method about which they are not familiar.

Since the "proof of the pudding is in the eating", we encourage prospective customers to send work to our laboratory for test cleaning. By witnessing these tests in person and timing the speed of cleaning they can determine for themselves the unusual benefits to be derived from installing this equipment.

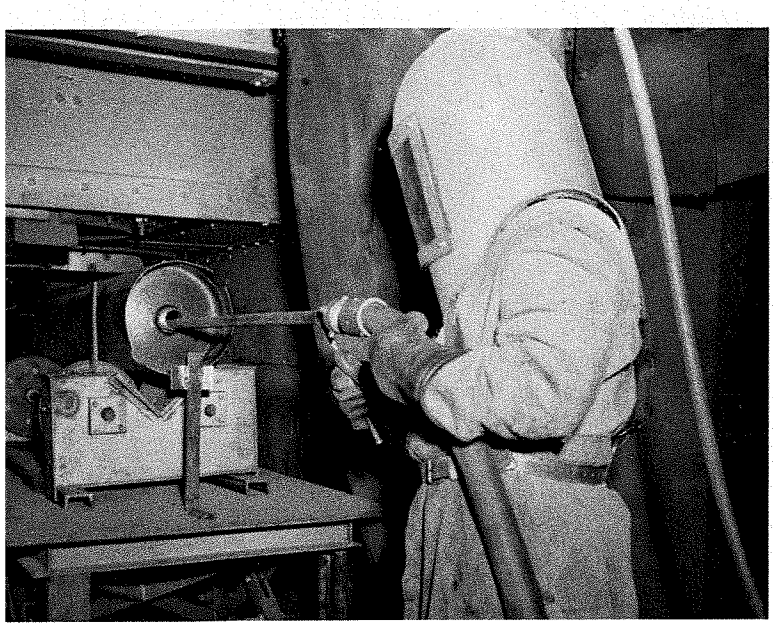
The largest and best equipped laboratory of its kind in the blast cleaning industry, the American Demonstration Department is able to give competent assistance in working out practical answers to any problem. Standard and Special Wheelabrator machines are available for carrying on this work. In many cases special fixtures and handling mechanisms must be built to accommodate the work for testing purposes. By altering and studying the efficiency of these devices our engineers can determine the type of equipment needed for solving each individual problem. The final designs, in blueprint form, are the result of initial studies conducted in the demonstration department.

All of the tests are conducted at no obligation whatsoever to the prospect even though the actual demonstration often involves many hours of set-up work and the construction of intricate handling devices and fixtures.

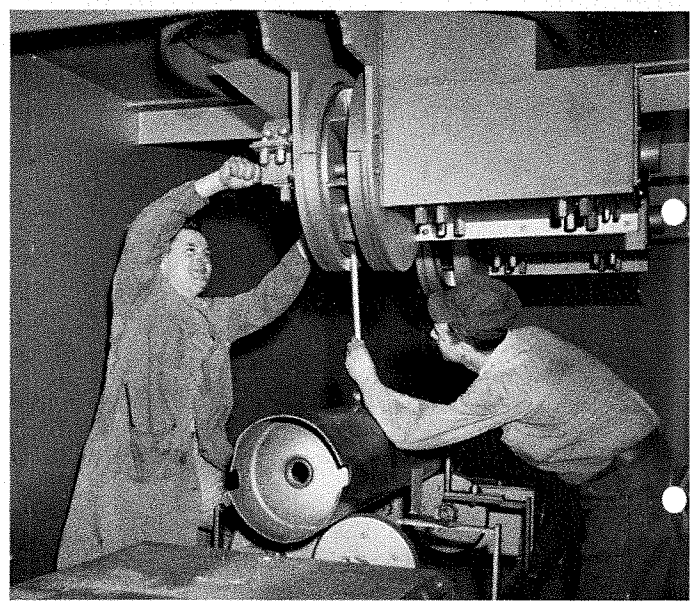
The procedure followed in the handling of a test demonstration involves many steps with the major ones outlined below. When the metal parts are received at Mishawaka and a date scheduled for performing the test, informal discussions of all the factors involved are held with Harold Garman, Department Head. Included in these talks are interested members of the Sales and Engineering Departments and the senior testers, Lloyd Forner, Roscoe Rush, and Armando Nicolini.

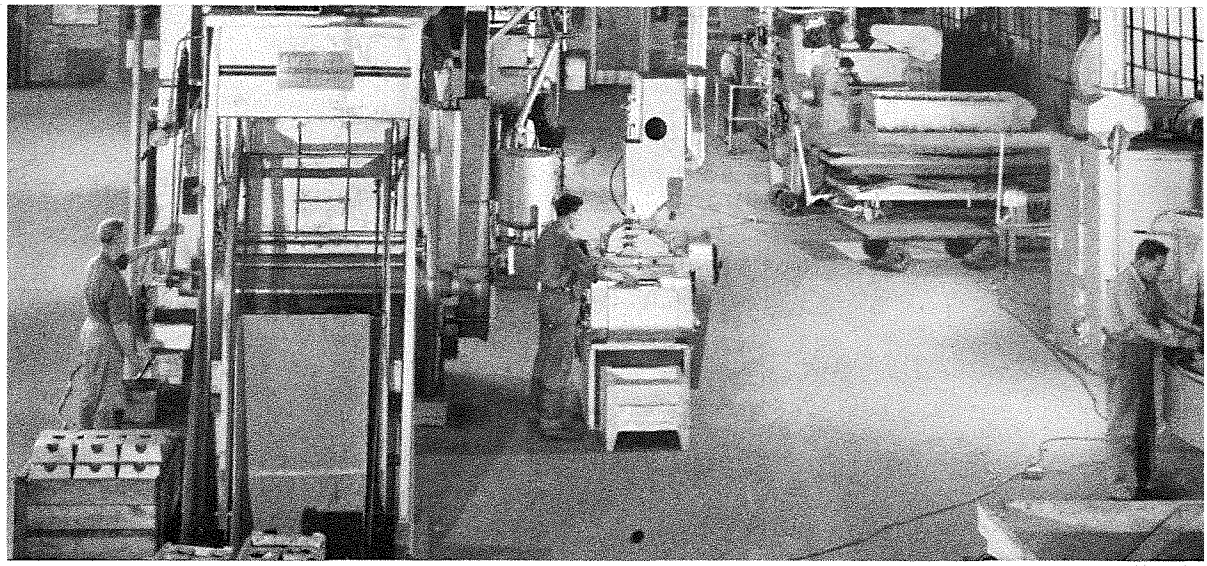
As a result of the meeting, the Wheelabrator machine

Senior Tester Armando Nicolini uses an air blast outfit to clean the interior surfaces of a water softener tank.

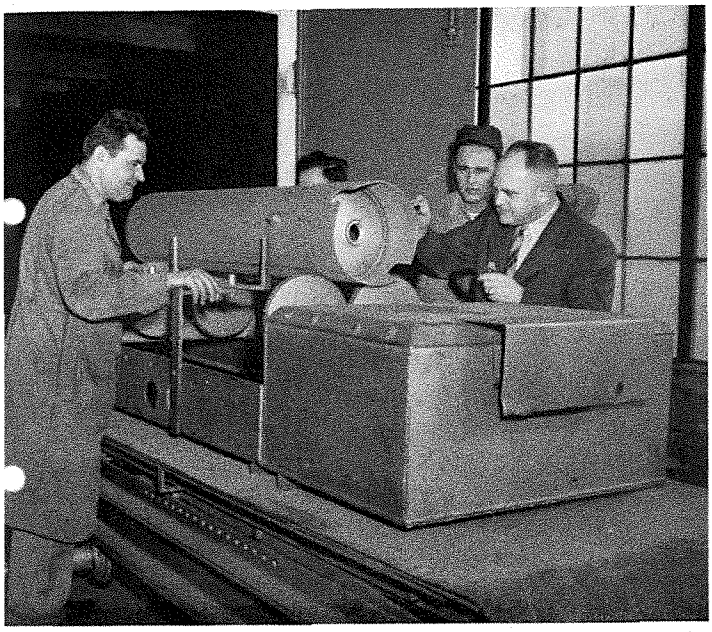


Armando Nicolini and Cornelius Nicholas prepare fixtures for the Wheelabrator cleaning of the exterior of the water softener tank. This involves the accurate positioning of the work table in relation to the overhead Wheelabrator unit to insure complete and thorough abrasive coverage.





An overall view of part of the demonstration room showing some of the standard and special machines installed.

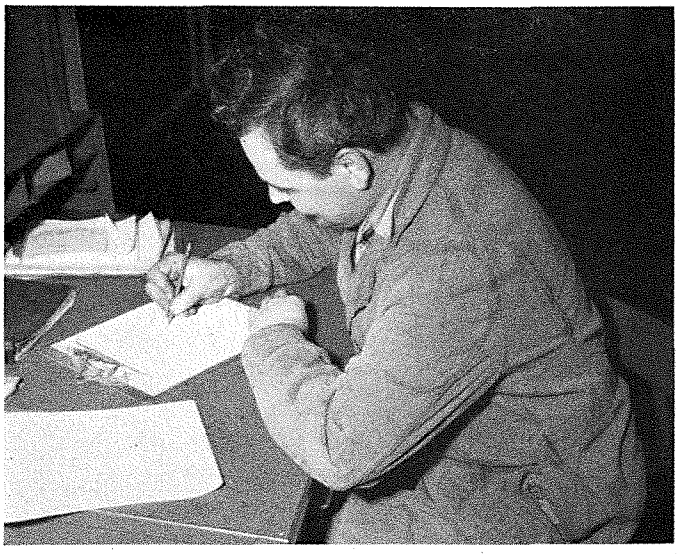


Nick, Dalton Smock, Cornelius, and department head, Harold Garman inspect the Wheelabrated water softener tank. Using one of the special test cabinets installed in the department, the testers have simulated a straight lines kew-roll cabinet. Harold Garman uses copper sulphate to test the surface to ascertain if it is chemically clean. As the water softener tanks are to be enameled inside and out, this test is necessary because enamel will not adhere to a dirty surface.

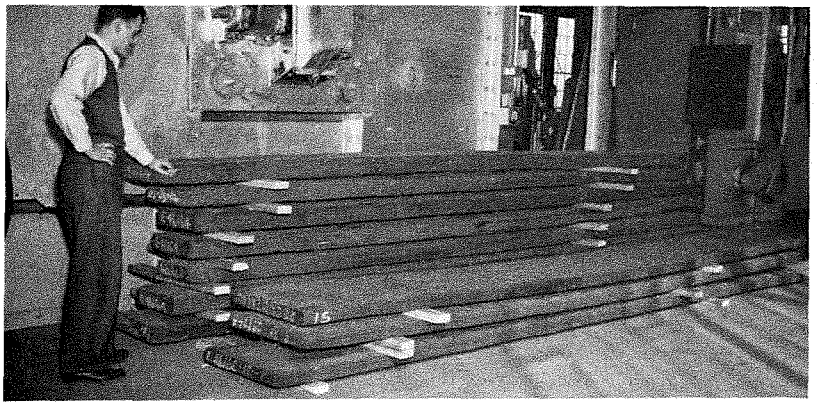
and abrasive to be used, fixtures and other devices needed for the test are decided upon and the set-up arranged for the demonstration. Representatives of the company for whom the tests are to be made are often present when the actual demonstration is held. They can furnish first hand information on the problem being studied and at the same time obtain first hand knowledge of what the Wheelabrator can do for them.

At the completion of the demonstration, complete reports of all phases of the demonstration are prepared by the senior tester, in charge of the test, and Emile DeVreese. These include all pertinent information such as type of material, Wheelabrator machine used, abrasive size, if a special type of equipment is simulated, that also is indicated, time required to process the piece, speed of travel, and results. These reports are processed and copies sent to members of the sales and engineering department executives, and other interested parties.

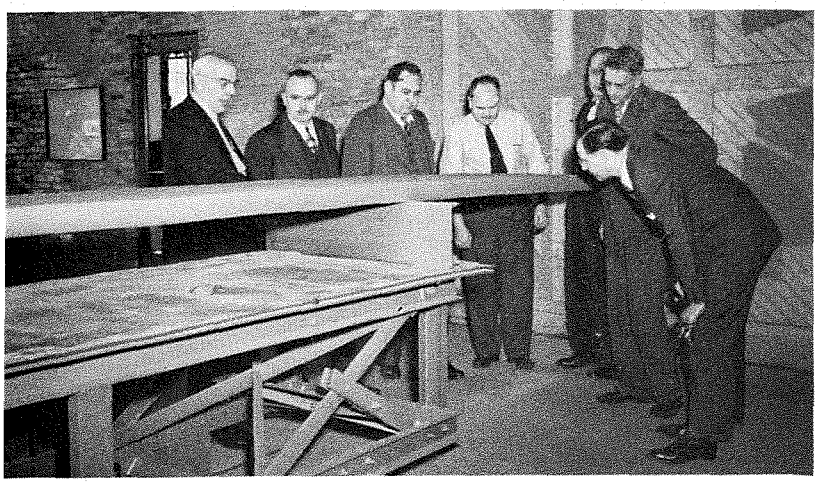
(Continued on page 14)



The report on the completed test, including machine used (or simulated), abrasive, procedure, time, and results is made out by the senior tester.



The variety of tests performed is only limited by the problems of the prospective customers. Here, Emile DeVreese looks at a stack of stainless steel slabs awaiting cleaning.



Representatives of the mill producing the steel inspect the slab after it has been processed on all sides. Mishawaka sales engineer Philip Jordan is third from the right.

Senior tester Roscoe Rush and Harold Garman inspect a ferro-chrome cast after it has had one pass in the Wheelabrator abrasive blast. This one-ton cast was sent in by the Vanadium Co. of America, Niagara Falls, N. Y., to determine the effectiveness of the Wheelabrator to remove the scale.

Cleaning Problems and Their Solution

Listed below are listed some of the tests the demonstration department has made the past few months. These will give an idea of the variety of work done.

Plate glass to be etched by Wheelahoning. Mississippi Glass Co., Floreffe, Pa.

* * *

Torsion bars to be Wheelapeened for improving fatigue life. Sent in by the Studebaker Corp., South Bend, Indiana.

* * *

Rock drill pistons to be Wheelapeened to improve fatigue life; submitted by Chicago Pneumatic Tool Co., Detroit, Michigan.

* * *

Transmission gears to be Wheelapeened to improve fatigue life. Submitted by International Harvester Co., Ft. Wayne, Indiana.

* * *

Aluminum door handles for deep freeze units to have burrs removed and produce a fine finish. Submitted by Kel-Kold Company, Johnstown, New York.

* * *

Aluminum cooking utensils to be ball peened to produce a hammered finish. Submitted by the Kinney Aluminum Co., Los Angeles, California.

* * *

Wrench parts and hack saw handle to have scale removed and produce final finish. Submitted by American Swiss Company, Toledo, Ohio.

* * *

Stove element castings for finishing. Submitted by Knapp Monarch Co., St. Louis, Missouri.

* * *

Brass boat cleats for finishing. Submitted by Whaling City Marine Co., New Bedford, Massachusetts.

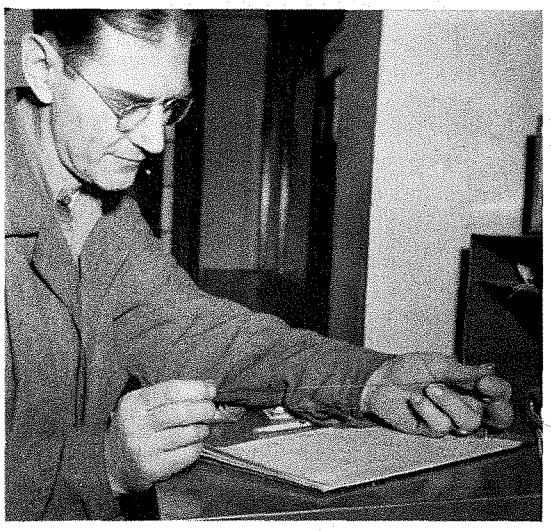
* * *

Hot water bag rubber closers to roughen the surface to form a fast bond for cementing. Submitted by Faultless Rubber Co., Ashland, Ohio.

* * *

Artificial arm frames and artificial hand casting (aluminum); arm frames to be Wheelapeened to stiffen and Wheelabrate hand casting for finish. Submitted by the Miracle Artificial Arm Co., Bourbon, Indiana.

* * *



Tests come in all sizes. Senior tester Lloyd Forner holds a strip of wire that is destined for a watch spring. Lloyd is writing a report on the various peening operations and abrasive sizes used on this test for the Waltham Watch Co.

Eye to the Keyhole

Congratulations are in order for:

DICK MECKLENBURG (engineering) for Paul Michael, born March 8.

ANDREW KOLESZAR (foundry) for Linda Sue, born March 10.

CARL D. MARTIN (stock room) for Carl Jr., born March 16.

JOHN KOLESZAR (foundry) for Bonita Kay, born February 7.

WILLIAM ECCLES (steel shop, night) for daughter Jonnie Dee, born March 14.

TUDOR W. FINNELL on the birth February 28 of William Erwin. Cigars were enjoyed by the night men who in turn presented Tudor with a high chair for the new son.

* * *

HAROLD NARRAGON (steel shop, night) will be married June 28 to Marian Neiswender of South Bend.

* * *

ORVILLE POTTS (nibbler operator, nights) will marry Ruth M. Weber on June 30.

JACK L. WEST (steel shop) and Marjorie Snyder of Culver who were married April 5.

* * *

STANLEY HES (stock room) for Kathleen Ann, born March 26.

GEORGE REITH (machine shop, night) for Edward Everett, born March 26.

GAIL KRING (foundry) for Toni Rae, born March 28.

THOMAS MINNING (stock room) for a daughter, born April 5.

* * *

WILLIAM MINNES (machine shop, night) for Michael Bill, born April 3.

Congratulations to ROBERT HUDDLESTON (steel shop) who was married recently.

* * *

When JEAN TRACY (research) was married April 5 to JAMES AMICK of Detroit and Hampton, Virginia, *American* was well represented for three of the six bridesmaids work here. MARY BRENNAMAN (purchasing), VIRGINIA SCHEETZ (sales), and MARILYN SPRAGUE (engineering). Jean, who spent her honeymoon in Bermuda, is a niece of MARTHA KEMP (advertising). Before she quit her job in the research department the men in that division presented her with an electric clock.

* * *

FISH BAIT—Nite crawlers, red worms, angle worms, crickets, grubs. GERALD R. DOOLITTLE, 922 Oak Street, South Bend. Phone: 2-1117.

* * *

For DON FOUTCH (foundry) it wasn't "mud in his eye" but 28 pieces of sand that the doctor removed from his peeper.

* * *

On April Fool's Day—it seemed that everyone was the victim of many tricks. This happened to GERALDINE FULLER (and many others): The stock room phone rang, Gerry picked it up and said "hello". No answer. It rang again. Again she said "hello". No answer. When it rang the third time she said "hello" (maybe exasperation and annoyance were creeping into her voice at this unusual happening). When she saw everyone laughing she investigated to find the contacts taped down so lifting the receiver did not engage the contact.

If that wasn't enough, she, on another day, dialed a number, began talking. Then the truth dawned. Gerry was talking to GENE DICKERSON right in the same room!

After all this time, it still amazes, even the foundry men who are accustomed to such sights, to see 110 lb. CLARENCE FRICK move molding weights around as if they were ping pong balls.

* * *

ROY BUCK (night steel shop) is a sociable fellow and the other welders like to eat their lunches at Roy's bench. They bring their stools along to sit on while eating, but forget to take them back when they leave.

Roy thought he would cure them so he welded a few of these stools together as a joke. He did such a thorough job that he welded his stool along with the others.

* * *

The night gang presented Mr. and Mrs. Harry Holmes (shipping) with a light weight wool blanket. Harry was surprised and pleased.

Batter Up

Spring and softball go together, and at *American* this year they will go together to the tune of two teams.

ROBERT GIBBENS, receiving, will manage the team entered in the City AA league.

JACKSON SNYDER, steel shop, will take the B team under his wing.

Everyone will be given a chance to try out for a place on the team. See either of these managers today if you wish to play. You don't have to have played on the *American* teams before to play this year.

The teams are entered in the City League and games will be played in the city parks, beginning May 10. Watch the newspaper for dates of games. These will also be printed in *Parade* when schedules are made up.

JOE HENDRICKSON'S team of maintenance men have been working on the diamond east of the plant and will have it in shape for the teams to use for practice by May 15.

Strength is no longer a matter of size

What a shock it was to the warriors of old when little David pitted his skill against ponderous Goliath and emerged victorious. Giants were kings no longer. Superior weapons were needed, and men cudgeled their brains to provide them. In time their efforts bore fruit when clever craftsmen learned the secret of adding great strength to their swords by skillful hammering.

Today, this same process enables manufacturers to use smaller, stronger, less expensive parts in the design of their equipment. The armorer's hammer has been replaced with a blast of metallic shot, and the art has become a scientifically controlled process known as Shot Peening (our trade mark: "Wheelapeening"). The preferred method for most applications is to hurl the shot by controlled centrifugal force from a bladed wheel known as the Wheelabrator.

The effect of this peening action 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.

Wheelapeening is being economically applied to a wide variety of metals and metal parts. The application of the process to your products warrants serious investigation because of its inherent advantages in materially reducing unit costs. By virtue of exhaustive research, experience with hundreds of applications and a complete demonstration department American engineers are well qualified to demonstrate how Wheelapeening can be profitably applied to your specific problems.

Every management and engineering executive in the metal working field should know the complete story about shot peening and its economic value, as covered in our 128 page illustrated book, "Shot Peening" (second edition). Write for free copy.

American
WHEELABRATOR & EQUIPMENT CORP.
(FORMERLY AMERICAN FOUNDRY EQUIPMENT CO.)
378 S. Byrkit St., Mishawaka, Indiana

Manufacturers of: Dust and Fume Control Equipment • Blast Cleaning Equipment (Airless Wheelabrator and Airblast) • Foundry Equipment

This is the first American advertisement of a series to appear in FORTUNE magazine in a new campaign directed at business executives. Wheelapeening (shotpeening) equipment and Dustube Dust Collectors will be featured in this series of advertisements.