April 1946

TECHNOLOGY REVIEW

Title Reg. in U. S. Pat. Office

Precision FORGING

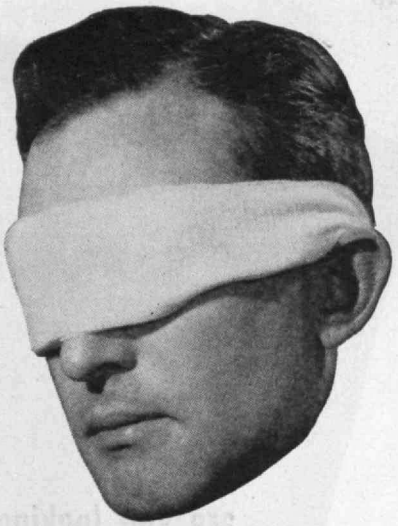
HARVEY METAL CORPORATION

HAROLD B. HARVEY '05 • *Engineers & Manufacturers* • SHERRY O'BRIEN '17

74th STREET and ASHLAND AVENUE • CHICAGO 36, ILLINOIS

FORGINGS IN ALUMINUM • BRASS • BRONZE • COPPER • MAGNESIUM • MONEL • ALLOYS

MACHINING FACILITIES



Major Eye Accidents Cost

according to estimates of the National Safety Council, an average of $328.00 per injured man per year.

Minor Eye Injuries Cost

(estimated from typical records) an average of $14.60—in first aid attention, idle machine charges and unproductive time—per injured man per year.

AO Safety Goggles *Save*

sums like these: a manufacturer of electrical equipment: $14,000 in two years; a large machinery manufacturer: $44,200 annually.

An adequate eye protection program will pay for itself—often in less than six months. Why not let your nearest AO Safety Representative give you complete details?

AO SAFETY GOGGLES SAFEGUARD THE EYES OF INDUSTRY

American Optical

COMPANY

Safety Division

SOUTHBRIDGE, MASSACHUSETTS

BRANCHES IN PRINCIPAL CITIES

THE TECHNOLOGY REVIEW, April, 1946. Vol. XLVIII, No. 6. Published monthly from November to July inclusive at 10 Ferry Street, Concord, N. H. Publication date: twenty-seventh of the month preceding date of issue. Annual subscription $3.50; Canadian and Foreign subscription $4.00. Entered as second-class matter at the Post Office at Concord, N. H., under the Act of March 3, 1879.

PENFLEXWELD

is a Versatile High-Pressure, Corrugated Tubing

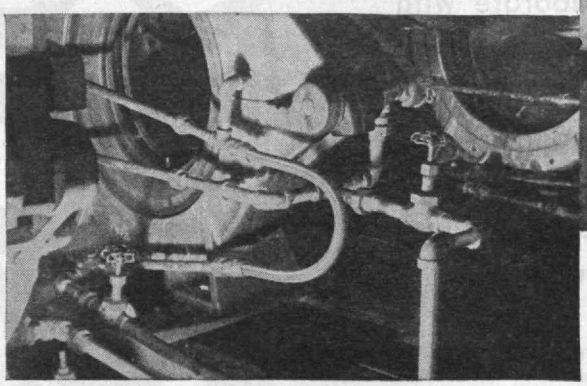
Vibratory motion on refrigeration compressors is isolated at its source by short lengths of PENFLEXWELD.

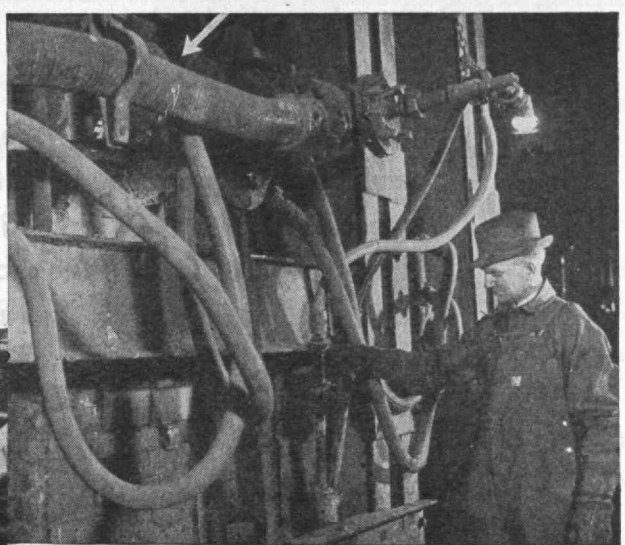
. . . designed for a wide variety of applications in industrial plants

PENFLEXWELD Tubing is invaluable in handling volatiles, liquids and gases with penetrative or solvent characteristics. Its corrugated construction expands and contracts with temperature alternations, provides extreme flexibility and resists bursting, crushing, cracking and splitting. I[illegible] jointless length is seep-proof under practically all conditions of pressure and temperature.

PENFLEXWELD Tubing available with standard braiding and protective sleeve types. End fittings, Solseal for general use where temperatures do not exceed 250° F and Metseal for higher temperatures, provide a complete assembly of leak-proof, long-lasting service on split molds, platen presses, compressors, furnace doors, open hearth furnaces and many other installations. Write for Bulletin 90 C, describing sizes 5/32" to 2" I.D. and special literature on larger sizes.

Below—*Split molds of the tire vulcanizing type are often equipped with PENFLEXWELD to enable them to give longer, trouble-free service.*





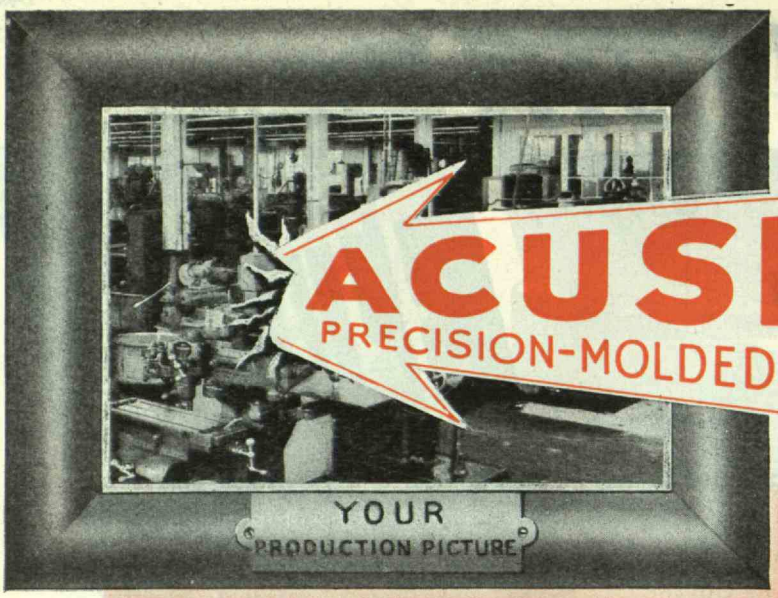
Open hearth operation requires tubing that resists extremes of temperature. PENFLEXWELD is designed to do that kind of job. Arrow points to 4" PENFLEX Interlocked Hose on high-pressure steam line.

PENFLEX

PENNSYLVANIA FLEXIBLE METALLIC TUBING CO.

Established 1902

7211 POWERS LANE PHILADELPHIA 42, PA.



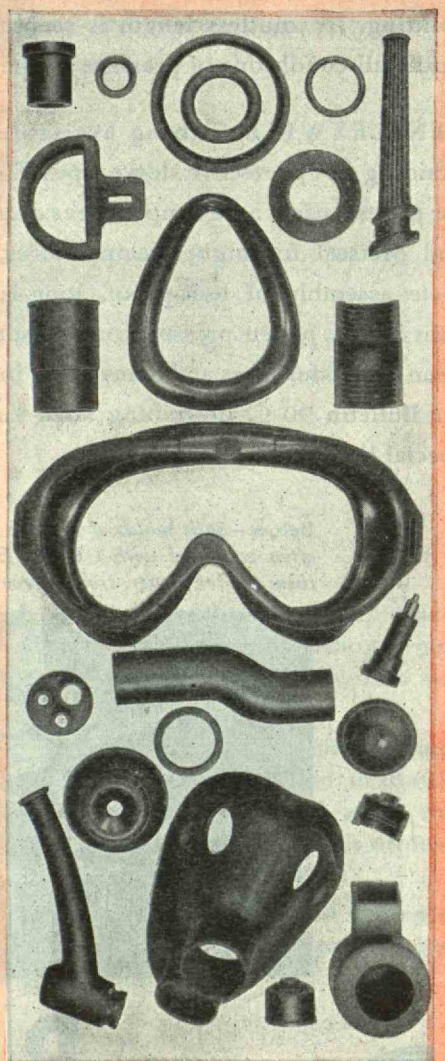
ACUSHNET

PRECISION-MOLDED RUBBER PARTS and PRODUCTS

YOU CAN PUT OUR SKILL, EXPERIENCE, FACILITIES INTO YOUR PRODUCTION PICTURE

Yes, our specialized skill, long experience and complete modern facilities for designing and precision-molding natural and synthetic rubber parts and products can be applied to your particular requirements.

Send us the details of the parts problems or conditions you wish to control or overcome in the assembling of your products. Our Engineering and Laboratory Staffs will gladly collaborate with your designers or engineers, or submit designs of the part recommended for maximum efficiency and economy. When design is accepted we devise the techniques and build the tools to produce the required parts in any quantity.



Though representative of our versatility, the above illustration shows only a few of the parts in constant production.

Acushnet PROCESS CO.
New Bedford, Mass., U.S.A.
Precision-Molded RUBBER Parts & Products

Write to Acushnet Process Company, New Bedford, Massachusetts giving complete information, specifications or samples. No doubt our Research Records will reveal short cuts in the development of your part or product.

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K. P. Goodwin '37, *Sales Manager*

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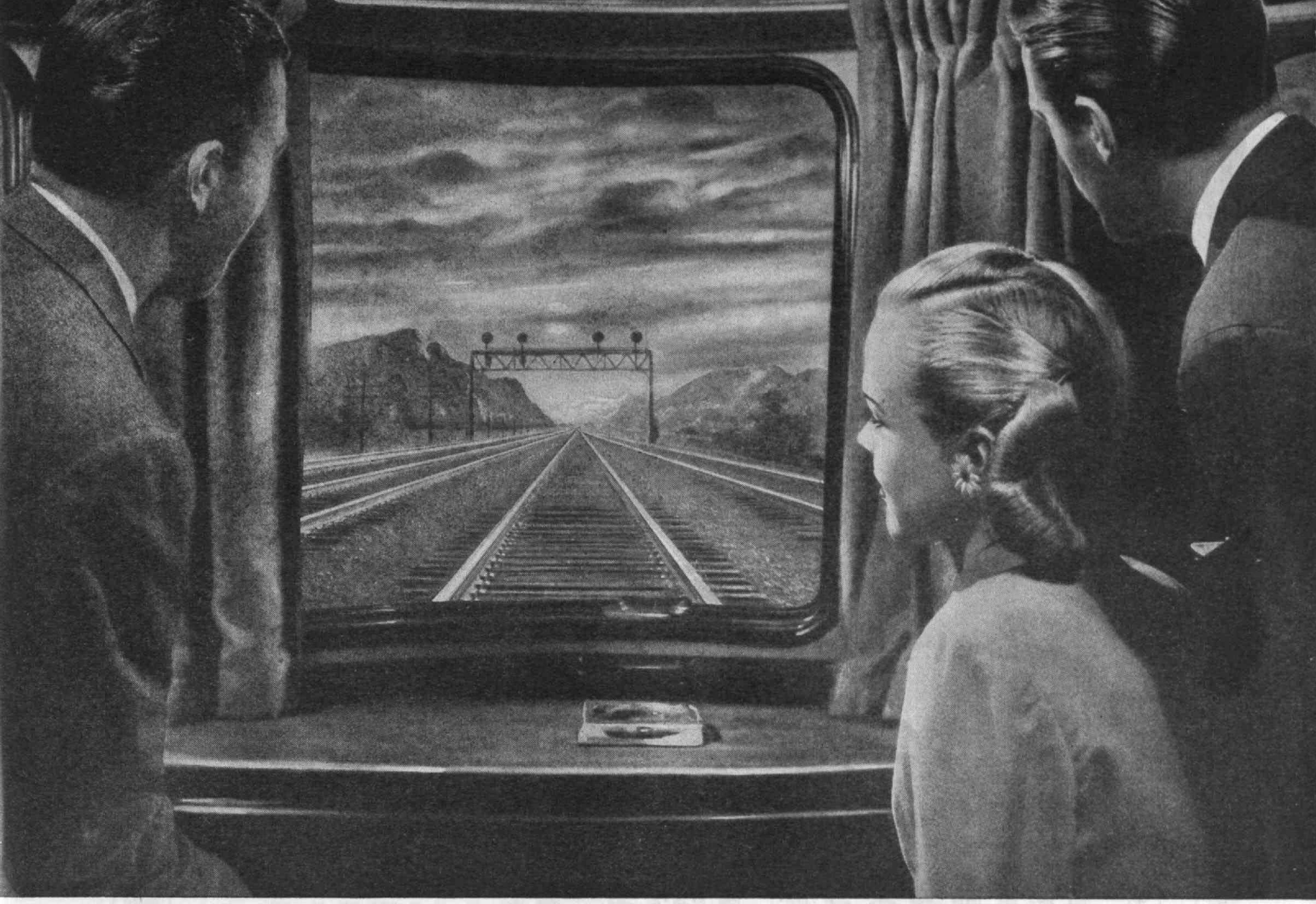
L. A. Keches '40, *Chemist*

Address all correspondence to 774 Belleville Ave., New Bedford, Mass.



There's plenty here you can't see

YOUR TRAIN RIDE of the future may be a more delightful experience because of something you can't see in this picture.

The thing you can't see is the customary gap between the ends of the rails. You can't see it because it isn't there. For the rails, instead of being bolted together, are welded together into lengths of solid metal sometimes a mile long.

This is done by pressure-welding . . . by forcing the rails together at their ends in the heat of oxy-acetylene flames until they become a single, continuous piece, uniform in appearance, structure, and strength.

Pressure-welded track is being used increasingly by railroads because it cuts maintenance costs and provides a smoother, quieter ride for passengers.

Pressure-welding also is used by many other industries. Some use pressure-welding for the construction of overland pipe lines . . . some for the fabrication of machinery parts . . . some for making oil-well tools . . . and some are using pressure-welding to make airplane and automobile parts.

Pressure-welding is a research development of The Linde Air Products Company and The Oxweld Railroad Service Company, Units of UCC.

If you are a bit technically minded or just want to know more about this subject, write for booklet P-4 on Oxy-Acetylene Pressure-Welding.

▼

UNION CARBIDE AND CARBON CORPORATION
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UCC

Products of Divisions and Units include—

ALLOYS AND METALS • CHEMICALS • PLASTICS
ELECTRODES, CARBONS, AND BATTERIES
INDUSTRIAL GASES AND CARBIDE

NOW...

Portable Bryant Thread Gages

Bryant Thread Gages have proved their superiority for bench work . . . now, the new *Portable* gage offers fast, accurate inspection of internal threads in large castings, work in the machine, etc., or in any parts where bench inspection may be inconvenient.

The Bryant Portable Thread Gage is so accurate that it can be used to check master gages, and on production work it will check threads *all* over in a few seconds. It is 4 to 5 times faster than plug gaging. Retracting gage segments *eliminate* threading the gage into and out of threaded holes — they prevent wear — on Class 4 and 5 fits, selective assembly is possible by classing threads according to indicator readings — pilots on back of thread segments mean rapid, catchless insertion and removal of the gage — there is no chance of cross threading.

The fastest, cheapest, most accurate method of inspecting threads is the Bryant method — it is the *only* method for *visually* indicating the size of internal threads. Write for complete details.

Perfect for inspecting threads on large pieces that cannot be moved conveniently to the inspection department.

Allows checking of threads in the work in the machine.

Eliminates threading of gage into and out of threaded holes.

Four or five times faster than plug gaging.

Gives overall inspection in a few seconds—at a glance.

Master gage accuracy transferred quickly to production parts.

BRYANT

BRYANT CHUCKING GRINDER CO.

SPRINGFIELD, VERMONT, U. S. A.

POSITIVE CONTROL

of Varying Power Supply

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Raytheon Voltage Stabilizers

DELIVER OUTPUT VOLTAGE CONSTANT TO ±½%

FLUCTUATION of line voltage need not impair the performance of your electrical equipment. Such variations are easily corrected with magnetic-type, entirely automatic Raytheon Voltage Stabilizers.

Positive control is gained. Power supply is stabilized to ±½%. Reliability and accuracy of performance are effectively improved, *and at low cost.*

Investigate. Determine how positive control of line voltage can benefit your equipment. Our Bulletin DL-48-537 gives the detailed story. Write for it today.

Get These Principal Operating Advantages:

- **Control of output voltage to within ±½% of 115 or 230 V.**
- **Stabilization at any load within rated capacities.**
- **Quick response. Stabilizes varying input voltage within 1/20 second.**
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