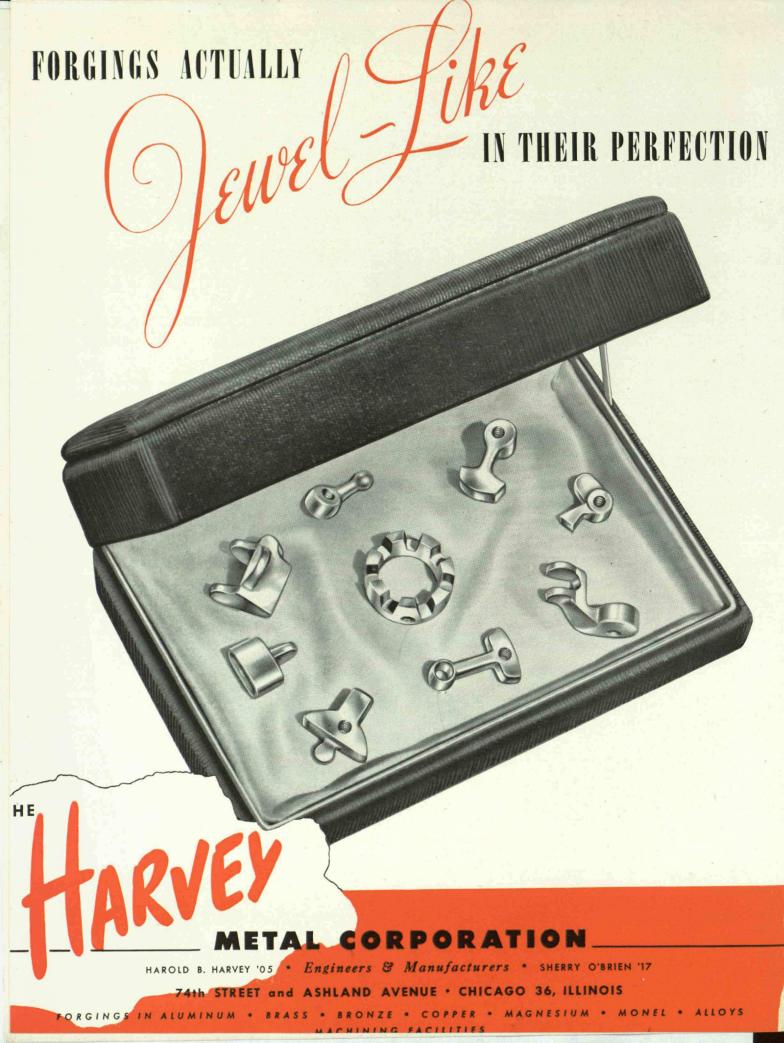
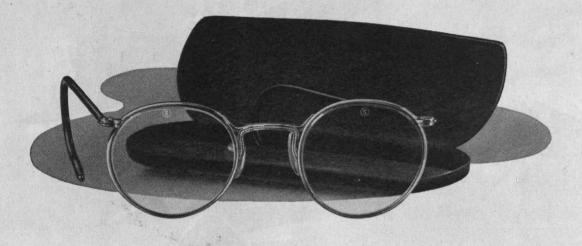
January 1945

TECHNOLOGY REVIEW Title Reg. in U. S. Pat. Office





Safety Goggles are are protections to

CHECK PROTECTORS too

send fighters into the air faster. And new fuel in hours today, high-fiving transports shuttle—injection equipment adds another plus to



An eye accident can cost as much as a raised check — frequently \$1000 or more.

Yet, according to conservative estimates, 98% of all eye accidents are preventable. The wearing of safety goggles practically eliminates the danger from eye hazards. And the price of such protection is low...only about \$1.50 per employee.

Your Safety Director can show you how an adequate eye protection program can materially reduce your production costs. Why not let him work out the details with an AO Safety Engineer?



SOUTHBRIDGE, MASSACHUSETTS

CALL IN AN AO MAN AND KEEP YOUR PRODUCTION EYES PRODUCING



SHUTTLE SERVICE OVER MARCO POLO'S TRAIL

It is written that no man ever equalled Marco Polo's "speed" record in crossing Asia afoot. It took him six years.

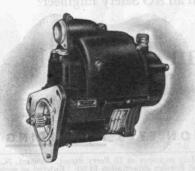
In hours today, high-flying transports shuttle over much the same route, keeping China's lifeline intact, winging tons of vital war materials to our fighting allies. Pilots fly this route, confident that plane and engine will deliver the goods.

Helping to push service ceilings even higher and non-stop ranges ever wider are the aviation products of American Bosch. Aviation magnetos perform dependably from sea level to the ceiling — in air temperatures that vary from +130° to -70° in a matter of minutes. Starting vibrators send fighters into the air faster. And new fuel injection equipment adds another plus to American plane excellence.

In the peace to come as in war today, American Bosch research, engineering counsel, production and maintenance facilities will continue to serve all branches of the internal combustion engine industry.

AMERICAN BOSCH CORPORATION

Springfield, Massachusetts



AMERICAN BOSCH

AVIATION AND AUTOMOTIVE ELECTRICAL PRODUCTS
FUEL INJECTION EQUIPMENT

There's a Complete Line of NORTON OPEN STRUCTURE Wheels and Segments...

Norton Open Structure Grinding Wheels in complete range of sizes —20" x 6" or 24" x 4" and all the way down to the small internal sizes. And segments too in all the popular shapes and sizes.

Norton Open Structure Grinding Wheels are available for your jobs that require large pore space—jobs where contact is broad or where extra coolness of cut is essential. Norton abrasive engineers in all the industrial centers will help you with specific recommendations to meet your production requirements.

NORTON CO., Worcester 6, Mass. Behr-Manning, Troy, N. Y., is a Norton Division



"Put it on the Blanchard"



...GET THESE ADVANTAGES

Production √
Adaptability √
Fixture Saving √
Operation Saving
Material Saving
Fine Finish
Flatness √
Close Limits

Grinding Aluminum Base Castings

These frail castings are ground on two sides flat and parallel on a No. 18 Blanchard Surface Grinder. They measure $23\frac{1}{2}$ " x $21\frac{1}{2}$ " x 11" and $\frac{5}{32}$ " stock is removed from each side. One piece is ground at a time, lightly held by clamps to a steel base plate which is magnetically held on the chuck. Two pieces, four surfaces, are finished per hour.

If you have work, large or small, that requires flatness, squareness, parallelism and fine finish, "put it on the Blanchard" for best and fastest results.



Send for your free copy of "Work Done on the Blanchard." This book shows over 100 actual jobs where the Blanchard Principle is earning profits for Blanchard owners.



The BLANCHARD MACHINE COMPANY

64 STATE STREET, CAMBRIDGE 39, MASS., U. S. A.



We waved a potent wand

The casual observer is usually amazed when he sees a huge and intricate assembly of walls, towers, tanks, piping and other equipment rise "like magic" from what once may have been a barren field. But to Badger, swift plant construction is an achievement in "know how" organization . . . organization of physical materials, engineering talent, labor, procedure—and timing.

Badger uses this formula with good effect in giving Badger clients fast and efficient engineering and construction service. Badger's long experience, favorable access to materials and equipment, capable manufacturing facilities, and well-manned engineering, purchasing, expediting and construction departments have contributed to some remarkable big-project records.

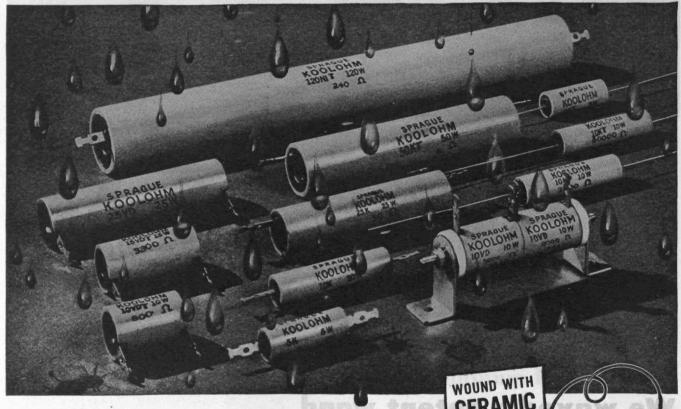
Is time lapse an important cost factor in the new plant, addition or modernization you are planning?

Where every day saved in getting into operation means valuable sales advantages, consider Badger's facilities for speed by what Badger records show. We welcome the opportunity to lay such records before you.

E. B. Badger & sons co. · EST. 1841

BOSTON 14 · New York · Philadelphia · San Francisco · London

NOW! EXTRA HUMIDITY PROTECTION IS STANDARD



... designed for tropical conditions ... unbeatable on ANY job

Standard Sprague Koolohm Wire Wound Resistors now offer the same high degree of humidity protection formerly obtainable only on special order to match exacting military specifications. This construction, newly adopted as standard, includes a glazed ceramic outer shell and a new type of end seal. These features give maximum protection against even the most severe tropical humidity conditions. Type numbers remain the same ex-

cept for the fact that the letter "T" has been added to designate the new standard construction.

WIRE

DOUBLY PROTECTED by glazed

Thus, again, Sprague leads the way in practical, truly modern wire wound resistor construction. Your job of resistor selection is greatly simplified. No need to study and choose between types or coatings. One type of Koolohms, the standard type, does the job—under any climatic condition, anywhere in the world!

SPRAGUE ELECTRIC COMPANY, North Adams, Mass.

SPRAGUE KOOLOHM RESISTORS

TRADEMARK REGISTERED U.S. PAT. OFF.

The Greatest Wire-Wound Resistor Development in 20 Years

General Electric answers your questions about

TELEVISION



Q. What will sets cost after the war?

A. It is expected that set prices will begin around \$200, unless there are unforeseen changes in manufacturing costs. Higher priced models will also receive regular radio programs, and in addition FM and international shortwave programs. Perhaps larger and more expensive sets will include built-in phonographs with automatic record changers.



Q. How big will television pictures be?

A. Even small television sets will probably have screens about 8 by 10 inches. (That's as big as the finest of pre-war sets.) In more expensive television sets, screens will be as large as 18 by 24 inches. Some sets may project pictures on the wall like home movies. Naturally, pictures will be even clearer than those produced by pre-war sets.



Q. What kind of shows will we see?

A. All kinds, For example: (1) Studio stage shows—dancers, vaudeville, plays, opera, musicians, famous people. (2) Movies can be broadcast to you by television. (3) On-the-spot pick-up of sports events, parades, news happenings. G.E. has already produced over 900 television shows over its station, WRGB, in Schenectady.



Q. Where can television be seen now?

A. Nine television stations are operating today—in Chicago, Los Angeles, New York, Philadelphia, and Schenectady. Twenty-two million people—about one-fifth of all who enjoy electric service—live in areas served by these stations. Applications for more than 80 new television stations have been filed with the Federal Communications Commission.



Q. Will there be television networks?

A. Because television waves are practically limited by the horizon, networks will be accomplished by relay stations connecting large cities. General Electric set up the first network five years ago, and has developed new tubes that make relaying practical. G-E station WRGB, since 1939, has been a laboratory for engineering and programming.



Q. What is G. E.'s part in television?

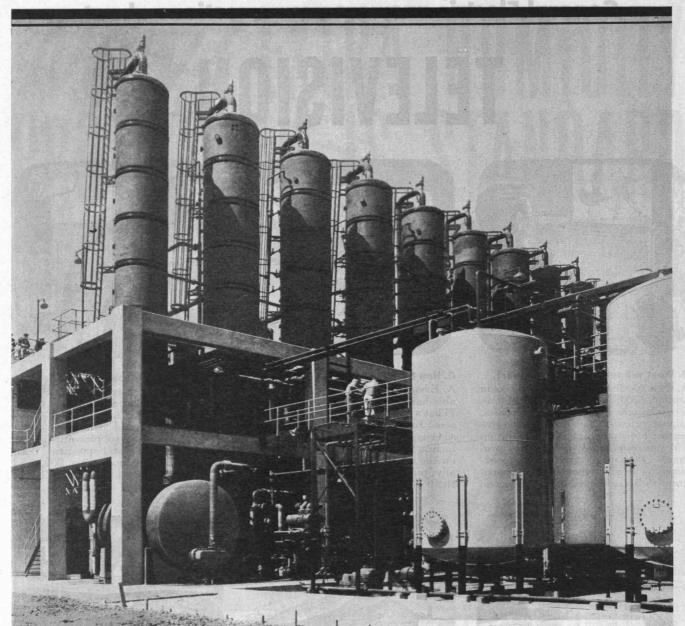
A. Back in 1928, a General Electric engineer, Dr. E. F. W. Alexanderson, gave the first public demonstration. Before the war, G. E. was manufacturing both television transmitters and home receivers. It will again build both after Victory. Should you visit Schenectady, you are invited to WRGB's studio to see a television show put on the air.

TELEVISION, another example of G-E research

Developments by General Electric scientists and engineers, working for our armed forces in such new fields as electronics, of which television is an example, will help to bring you new products and services in the peace years to follow. General Electric Company, Schenectady, N. Y.

Hear the General Electric radio program: "The G-E All-Girl Orchestra," Sunday 10 p.m. EWT, NBC-"The World Today" news, every weekday 6:45 p.m. EWT, CBS.





Photograph courtesy of CARBIDE and CARBON CHEMICALS CORPORATION Most of these columns by VULCAN.

DISTILLATION EVAPORATION EXTRACTION

PROCESSES AND EQUIPMENT

THE VULCAN

COPPER & SUPPLY CO., CINCINNATI, OHIO