

C. D.
Record Book
A. Nimick 4/21/42
Hy

Electronics—a new science for a new world

Out beyond the reaches of a man's sight is a vast world, dwelling-place of a hundred million universes. Infinitely small is another world, the realm of the electron.

By harnessing the energy of this infinitesimal particle of matter, science is extending to undreamed limits the power of the human brain and senses!

You and your children, heirs of the coming Electronic Era, will be able to see what eyes have never seen, hear what ears have never heard, accomplish what you never before could accomplish!

By electronics the botanist now can hear a blade of grass growing. Ship can

"see" ship through densest fog. The surgeon can examine the submicroscopic structure of the body tissue. The astronomer can count the stars a million light-years away.

The scientist photographs the invisible molecule; the fireman "smells" smoke in a home far across the city; the steel worker detects flaws in battleship armament; the miner separates slate from coal; the manufacturer matches lipstick color!

There is simply no limit to the possibilities of this fascinating new science in the fields of industry, television and radio, medicine and public health.

Even now, in the famous General Electric laboratories, research is wresting new secrets from the electron. Many of these are being applied to implements of warfare, to speed the victory.

But all spring from the General Electric tradition to put science to work for the American people — building a better world for us, our children, and our children's children. *General Electric, Radio, Television and Electronics Department, Schenectady, New York.*

• Listen to the General Electric Radio News Program, with Frazier Hunt, on each Tuesday, Thursday, and Saturday evening, broadcast over the C.B.S. and American (FM) networks.



GENERAL ELECTRIC
LEADERSHIP IN ELECTRONICS

R. D.
Record Book
A. Nimick 5/20/42

Hy



Flight to the Sun



Icarus puts on feathered wings and rises to the sky. Aladdin rubs a lamp. A young boy walks on stilts.

All are part of one eternal gesture. Man, seeking for powers beyond his own capacity, reaches for the stars!

Today, in the General Electric Electronics Laboratories, science is extending the potentiality of human brain and senses to a degree undreamed of in childhood legend or fantasy.

By the control of an infinitesimal particle of matter — the electron — man can now use eye, ear and intellect as they have never been used before!

Somewhere in the Pacific a lookout scans the azure sky. His sight is limited. But new electronic devices come to the aid of human

planes one hundred miles away — and chart their speed and direction.

In a thousand other fields, electronic devices work seeming miracles. They "sight" ships through fog, reveal hidden flaws in steel armament, hold color printing presses in register, sort fruits and vegetables, examine candy, guide in the treatment of sinus.

The most elemental force in nature, the electron, has been harnessed for your comfort, safety and health!

General Electric leadership in electronics goes back over 30 years. Here, in the tradition of Steinmetz, Alexanderson, Coolidge, Langmuir, Whitney and their associates, research continues steadily.

Tomorrow, because of electronics, we will live in a finer and better world. . . . General Electric, Radio, Television and Electronics Department, Schenectady, N. Y.

Listen to the General Electric Radio News Program

C. D.
Record Book

A. Mumick
9/29/42
73



General Electric Electronic tubes are linking the world's skies to the earth!

"I want to speak to Mr. Gordon Page, please. He is now over southern China, on Air Flight 625. This is Mrs. Page, and my telephone is Lombard 0100." . . . "Hello, Gordon."

Fantastic?

Not in the electronic world of the future!

General Electric electronic tubes may some day make it possible for you to talk from your home to any airplane thousands of miles distant. This is not yet a promise. But already, by the amazing science of electronics, pilots converse with ground forces as airplanes glide along at five miles a minute.

Electronics serve the Armed Forces on land, sea and in the air in ways that cannot be revealed. By electronic short wave radio, engineers can give bearings to Clippers 1000 miles out at sea. And by electronics, tomorrow's freighters of the sky will safely land "blind" through densest fog.

What is electronics? It is a new science, yet it is not new. Your General Electric radio is an electronic instrument. So will be your General Electric television receiver, after the war. So are magic "eyes" that open garage doors, and so are the talking moving picture and the physician's X ray.

A fascinating 32-page booklet, in six colors, tells about General Electric electronics in radio, industry, television, and medicine. This booklet is free. Write for "Electronics—a New Science for a New World," to General Electric—Radio, Television, and Electronics Department, Schenectady, New York.

Listen to the General Electric Radio News Program, with Frazier Hunt, Tuesday, Thursday, Saturday evenings, over C.B.S. and American (FM) networks. See newspapers for time.

GENERAL  ELECTRIC

Leader in radio, television, and electronic research

G. D.
Record Books

G. Munich 9/22

J. H. H.



You'll never get cold feet under the new **G-E Automatic Blanket**

Look, Cousin Oswald! For a bomber pilot, we make an electrically warmed stratosphere suit that keeps him comfortable at any temperature down to 60° below zero. But for you, we have a zephyr-light Automatic Blanket that works similar miracles for your sleeping comfort. Just *one* will keep your whole bed at exactly the warmth you like — Winter, Spring and Fall!

Speak to Mother about it, Oswald. We'll give you *automatic warmth without the weight of a mountain of covers* (or canines) . . . and always the same warmth, no matter how the bedroom temperature changes during the night.

Just set the small Bedside Control *once* for the warmth you choose . . . the Automatic Blanket does the rest. From then on, protected from chills and overheating, you'll know the luxury of really restful, uninterrupted sleep.

You'll find this "Blanket with a Brain" at department stores, electric companies and other dealers — in limited quantities. For this is the sort of thing we've quit making "for the duration." We've more important jobs to do — for the Armed Forces, now.



Handsome, small Bedside Control connects with

Electron's Child

You are standing on the threshold of one of the most fascinating periods in the history of science—the Electronic Era!

For despite the grim fact of war, a golden age of hope lies before us. Science is using the most elemental force of nature—the electron—to extend to incredible limits the power of the human brain and senses.

Back in 1909, a brilliant young physicist named Irving Langmuir came to General Electric, and soon turned his attention to the secret of the electron—a tiny particle one-billionth the size of a pin-point. Dr. Langmuir harnessed its power for the good of mankind by developing a magical new vacuum tube.

As a result of that invention, and the research it stimulated on two continents, you already live in a world of electronic wonders.

With electronic devices, you can “see” what human eyes unaided can never see. You can match the hundred thousand colors of the spectrum, detect invisible flaws in a battleship’s armament, find a freighter lost in an ocean fog.

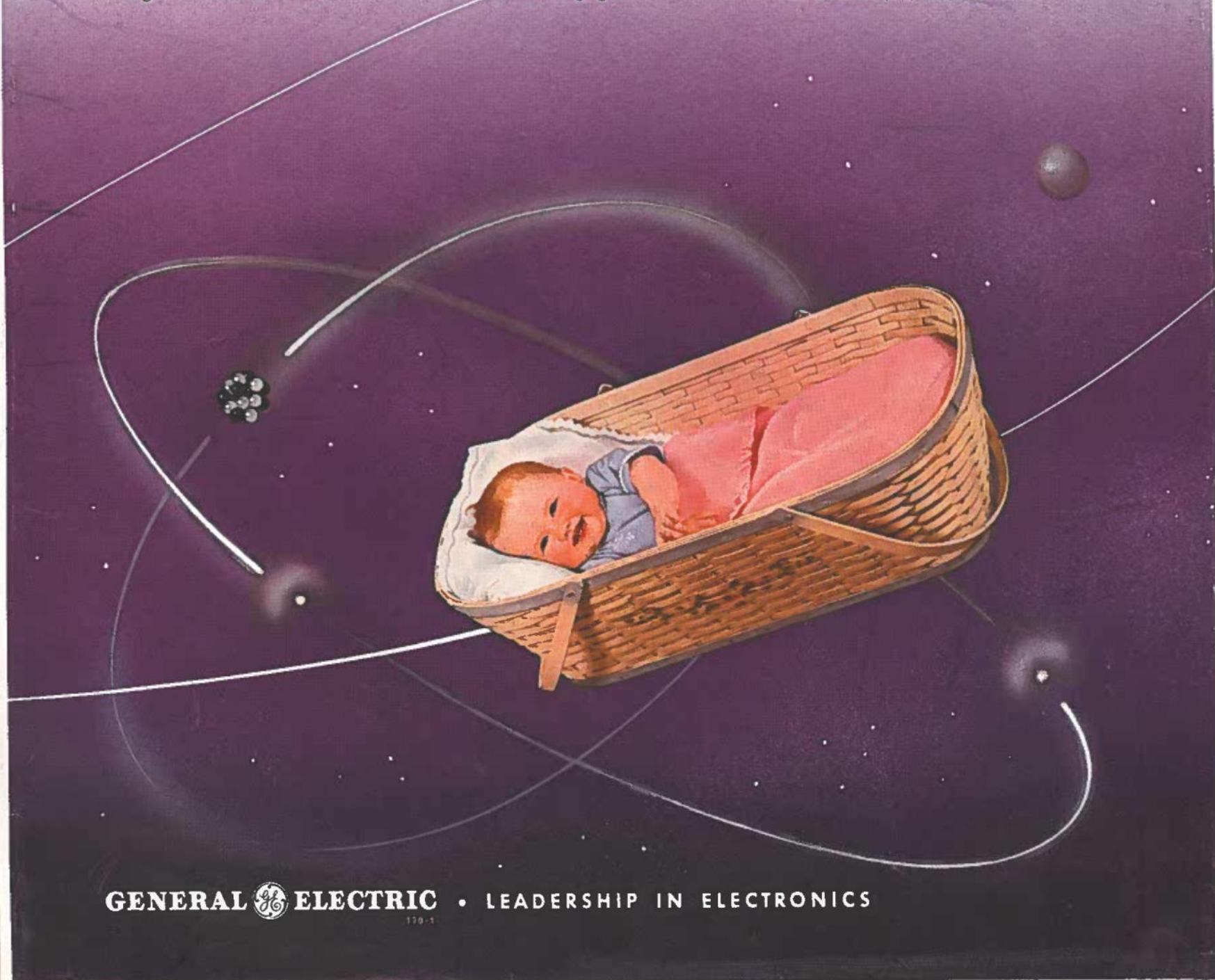
You can “hear” what man has never heard before—the approach of a distant submarine, a swift pursuit plane one hundred miles away, the pulsing of an insect’s heart.

All around you, the whispers of the universe are ringing clear!

General Electric is now furthering the application of electronics in three great fields: (1) Industry, (2) Radio, Television and other forms of communication, (3) Medicine. Research goes steadily on, in the tradition of Steinmetz, Alexander-son, Coolidge, Langmuir, Whitney.

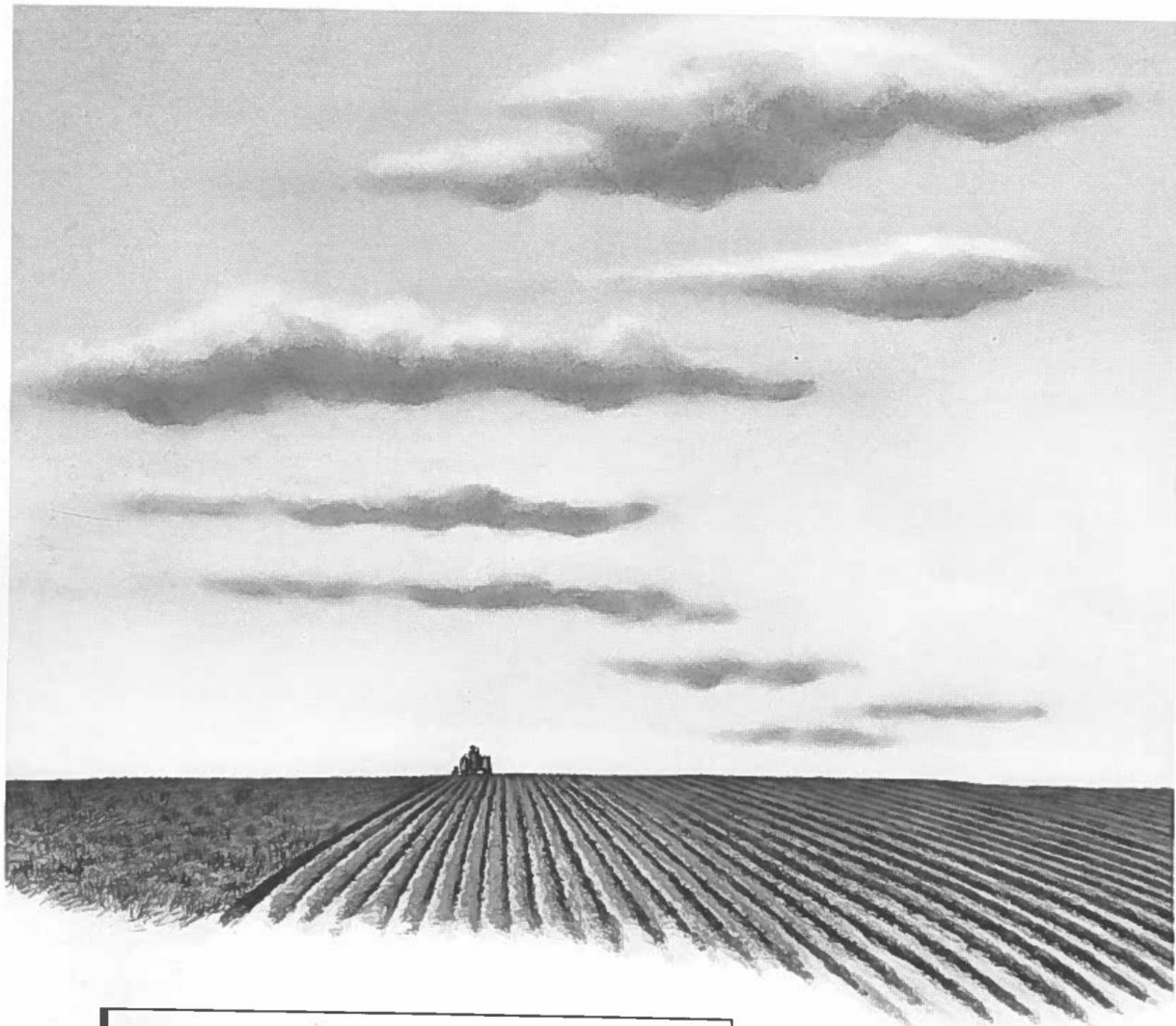
Tomorrow, as knowledge grows, electronics will serve America in literally thousands of new ways. . . . Electron’s children will live in a finer and better world! General Electric, Radio and Television Department, Schenectady, N. Y.

• Listen to the General Electric Radio News Program, with Erastus Hunt—Tuesday, Thursday and Saturday evenings, over the CBS and the American (FM) networks.



GENERAL  ELECTRIC • LEADERSHIP IN ELECTRONICS

C. D.
Record Book
A. Nimich 4/3



THE FURROW THAT HAS NO END

In the rich and fertile soil of America, a new plow is at work.

It is the plow of an amazing new science—electronics.

What is electronics?

It is the science that brings to our radio the news and music of the world. It is the science by which the doctor's X-ray tube is able to search out and treat human ills. It is the science which translates tiny marks on a strip of film into the voice of the actor on the motion-picture screen. And it is the science which, by television, shows us events of

miles away—at the instant they happen.

This, and much more — because the research men of industry have harnessed the electron, a particle of electricity too tiny ever to be seen.

A quarter of a century ago, in a few rooms of a General Electric laboratory, early electron tubes put on the uniform for World War I. Today they serve on every fighting front, and on every front at home. And behind locked doors of the General Electric Electronics Laboratory, scientists labor to apply electron tubes in ways too secret to be revealed.

Already the science of electronics has begun to serve us—in country, town and city—in war and peace. It is locating oil, detecting far-off planes, warning of fire, amplifying sounds as faint as the heart-beat of a butterfly. *It is probing the secrets of the universe.*

Tomorrow all America will join in the harvest from the furrows which electronics is turning today. General Electric Company, Schenectady, N. Y.

• Listen to the General Electric Radio News Program, with Frazier Hunt, on each Tuesday, Thursday, and Saturday evening, over the C. B. S. and the American (FM) networks.

GENERAL  ELECTRIC
952-321-211

C. D.
Record Book

G. Minich

9/2/42

OK with com
School

STOP HOARDING
PETTICOATS, SOPHONISBA!

One G-E Automatic Blanket will keep you

warm as toast all winter!



Aunt Sophie's beach-umbrella silhouette is the mark of a vanishing American — who doesn't know that *one* soft, deep-napped, zephyr-light Automatic Blanket *alone* will keep her whole bed at just the warmth she selects, no matter how the bedroom temperature rises or falls!

Imagine — *warmth without weight* every night, all night! And how you sleep! You rest relaxed, uninterrupted, protected from weather changes as if by an ever-watchful nurse.

Choose your Automatic Blanket today at a department store, electric company or other dealer. We're much too busy with war work to make them today, but the last we made are now in the stores — in limited quantity.

Warmth without Weight! One zephyr-light blanket instead of mountains of heavy covers. More comfort for both when two sleep together.

Uniform Warmth All Night! The warmth you select, no matter what the bedroom temperature. A special blessing if you are keeping your home cooler than usual to conserve fuel!

Warm Bed When You Retire! No chilly sheets if you switch on the Blanket *before* retiring.

Bed Warm All Over! No cold zones when you change position—no muscular kinks or cramps when you wake.

Refreshing, Relaxing Sleep! Wake really rested—you haven't wasted energy trying to keep warm in bed.

GENERAL  ELECTRIC

The Automatic Blanket makes up like any fine blanket. 72 x 86 inches—ample for double beds. Popular colors: Blue, Green, Cedar, Gold, Wood Rose and Beige reversible. Washable, of course.

For information or name of nearest dealer, write General Electric, Dept. OG-1121-16, Bridgeport, Conn.

\$34.50 plus excise tax. Pacific Coast and Rocky Mountain area are slightly higher. Prices subject to change without notice.

C. D.
Record Book
A. Winnick
8/28/42

**DROP THAT LION-SKIN
UNCLE LEM!**



One **G-E Automatic Blanket** will keep you warm *all night, every night*

Lem's bedtime costume might be fine for frightening burglars or saboteurs, but it's a bit heavy for good sleeping. Too bad he hasn't heard that *one* Automatic Blanket is all you need on a bed — Winter, Spring or Fall!

Handsome, soft-napped and zephyr-light, this miraculous Blanket automatically keeps your whole bed at exactly the warmth you choose, no matter how the bedroom temperature rises or falls during the night.

And its dependable, unchanging warmth does wonders for your sleeping. You can really rest relaxed, uninterrupted by chills or overheating, your whole bed warm and welcoming. And yet — you can scarcely feel the Blanket's warmth to touch!

Of course, we're not making Automatic Blankets today — we've more important work for the Armed Forces. But the last Blankets made are now in the stores, in limited quantity. See them, and make your choice, at department stores, electric companies, and other dealers.

GENERAL  ELECTRIC

THE LAST TILL VICTORY!

After present stocks of Automatic Blankets are sold, there will be no more for the duration. Our blanket factory is devoted exclusively to electrically heated flying suits, shoes, gloves and other equipment for the Armed Forces.



Small, handsome Bedside Control connects with any convenient A.C. electric outlet. Small transformer concealed beneath bed. Blanket connection remains out of sight.

For further information or dealers' names, write General Electric, Dept. OG1021-7, Bridgeport, Conn.

• **WARMTH WITHOUT WEIGHT!** One zephyr-light Blanket instead of mountains of heavy covers. More comfort for both when two sleep together.

• **UNIFORM WARMTH ALL NIGHT!** The warmth you select, no matter what the bedroom temperature. A special blessing if you are keeping your home cooler than usual to conserve fuel!

• **WARM BED WHEN YOU RETIRE!** No chilly sheets if you switch on the Blanket before retiring.

• **BED WARM ALL OVER!** No cold zones when you change position—no muscular kinks or cramps when you wake.

• **REFRESHING, RELAXING SLEEP!** Wake really rested—you haven't wasted energy trying to keep warm in bed.

• The Automatic Blanket makes up like any fine blanket. 72 x 86 inches — ample for double beds. Popular colors: Blue, Green, Cedar, Gold, Wood Rose and Beige. Washable, of course.

\$34.50 plus excise tax. Pacific Coast and Rocky Mountain area slightly higher. Prices subject to change without notice.

C. D.
Record Book

Given
10/6/41



SIX BRAND-NEW SLEEPING PLEASURES!

- (B)** **Uniform warmth all night long!** No more midnight waking to add or throw off covers. The Automatic Blanket maintains the warmth you like.
- (D)** **Your bed warm all over!** No more treacherous cold spots. Your whole bed is gently warmed. Sleep relaxed, free to move without discomfort.
- (A)** **Warmth without weight in cold weather!** No need for mountains of weighty, hampering covers. You sleep under one zephyr-light blanket—with the bedroom as cold as you wish.
- (C)** **Warm bed when you retire!** No bed-time chills from cold, damp sheets. Switch on the Blanket *before* you retire—your bed will be warm as toast.
- (E)** **Wake really refreshed and relaxed!** No more morning "depressions"—your energy sapped by the effort of keeping warm. The Automatic Blanket conserves that energy, permits relaxed, restful, uninterrupted sleep.
- (F)** **Protects children, too — automatically!** No need for "wee hour" trips to check on children's blankets. The Automatic Blanket protects them from chills or overheating, lets parents sleep without worry. Ideal for elderly people.



TELEGRAM

• If you can't find the Automatic Blanket on display, wire collect to General Electric, Dept. SO 1711, Bridgeport, Conn., to order. Shipped C.O.D. State color desired. Quantity limited—wire today!

\$34.50 plus excise tax. Pacific Coast and Rocky Mountain Area, \$35.75. Prices subject to change without notice.

The Blanket with a **Brain**

... the promise of refreshing Springtime slumber every night this winter!

GIFT OF GIFTS—the new Automatic Blanket that keeps you cozy warm in bed no matter how the weather changes!

This newest marvel from the G-E House of Magic is actually *weather-wise*. Once you adjust the little Bedside Control to the warmth you like while sleeping, the Automatic Blanket maintains that temperature throughout your bed, regardless of changing bedroom temperatures. Soft, deep-napped, beautiful as any fine blanket, it keeps your bed gently warmed—yet you are never aware of its operation!

You sleep under ideal conditions. Protected from chills and overheating—spared the annoyance of waking to add or throw off covers... your *whole* bed is gently warmed to the temperature you select. Free to move and stretch... you sleep under only *one* zephyr-light Automatic Blanket instead of 10 to 15 lbs. of hampering covers. You wake refreshed and relaxed as never before!

This is the gift supreme! (And a word in the right place may bring one to you!) See it—at department stores, electric light companies, or other dealers.

GENERAL ELECTRIC Automatic Blanket

Natural color photograph shows G-E Automatic Blanket in *Delft Blue*. Choice of 5 colors. Washable, of course. Rayon satin binding. 72 x 80 inches.



C. D.
Record Book



You may have other ideas—
but better see this gift

the blanket with BRAIN

Not to interfere with any plans of yours for the holidays—here's the newest, most original, unique and *universally welcome* Christmas gift in many years. A soft, beautiful-toned luxury blanket—with the miraculous power to *adjust* its warmth to whatever the weather. (Set a bedside thermostat control *once* and it's set for the winter.) Young folks—old folks, *everybody* is CRAZY about this newest marvel from the General Electric House of Magic. It's one thrill you can give ANY ONE. Limited quantity—act promptly.

Keeps you warm. Provides refreshing *springtime* sleep in zero weather. Yet you are unaware of any mechanism or sensation of heat at any time!

No more ups and downs to adjust windows, bedclothes, to check children's covers. Sleep comfortably through sudden rises and falls in temperature.

Contortionists, relax! Wake up fresh because you haven't spent the night tied in a knot trying to keep warm.

No more cocoons. One zephyr-light, fluffy blanket replaces 12 pounds of "winter-weight" covers. A blessing for older people. Degree of sleeping warmth adjustable to any preference.

GENERAL  ELECTRIC

Automatic Blanket

WIRE COLLECT! If your department store, electric light company or other dealer cannot supply you, wire collect to General Electric, Dept. OG-1212, Bridgeport, Conn. State second color choice: Cedar, Delft Blue, Apple Green, Gold, reversible Wood Rose & Beige. 72 x 86 inches. Orders shipped C. O. D. while supply lasts.

\$34⁵⁰

plus excise tax. Pacific Coast and Rocky Mountain area, \$35.75. Prices subject to change without notice.

GIVE 'EM BACK TO THE INDIANS, FREDDY!

At last somebody's done something about the weather—

the new General Electric

Automatic Blanket

keeps you "just right" all night long!



Open the windows wide. Let the blizzards come and go. It's always Springtime under your Automatic Blanket, newest wonder from the G-E House of Magic.

Just *one* blanket on your bed—Winter, Spring and Fall. A deep-napped, beautiful blanket that's actually *weather-wise*: it *automatically* keeps your bed at exactly the cozy warmth you like, no matter how the bedroom temperature falls or rises.

So simple! Set the little thermostat Bedside Control—*just once*—for the warmth you want. All night, every night, your bed's "just right". . . yet you are never conscious of the Blanket's operation, can scarcely feel its warmth to the touch.

This is sleep, superlative. No mountains of heavy covers . . . no treacherous cold spots around your feet (the whole bed is warm!) . . . no ups-and-downs of temperature. Sheer slumber luxury, under a blanket lovely as your best.

We could say more, but you'd better see it displayed—at department stores, electric light companies, or dealers—a promise to end chilly, restless, uncomfortable nights for good!

GENERAL  ELECTRIC

SIX BRAND-NEW SLEEPING PLEASURES!



UNIFORM WARMTH ALL NIGHT LONG! No more midnight waking to add or throw off covers. The Automatic Blanket maintains even warmth no matter what the weather.



WARM BED WHEN YOU RETIRE! None of those bedtime chills from cold or damp sheets. Switch on the Blanket *before* you retire and your bed will be warm as toast.



YOUR BED WARM ALL OVER! No more treacherous cold spots to avoid. Your *whole* bed is gently warmed all night long. You sleep relaxed, free to move without discomfort, muscular kinks or cramps.



WAKE REALLY REFRESHED AND RELAXED! No more morning "depressions"—your energy sapped by the effort of keeping warm. The Automatic Blanket conserves that energy, permits relaxed, restful, uninterrupted sleep.



WARMTH WITHOUT WEIGHT IN COLD WEATHER! No need for 10 to 15 lb. mountains of weighty, hampering covers. You sleep under one zephyr-light blanket—with the bedroom as cold as you wish.



PROTECTS CHILDREN, TOO—AUTOMATICALLY! No need for "wee-hour" trips to check on children's blankets. The Automatic Blanket protects them from chills or overheating, lets parents sleep without worry.



DELFT BLUE



APPLE GREEN



GOLD



WOOD ROSE AND BEIGE

Natural color photograph shows G-E Automatic Blanket in Cedar. Choice of 5 colors. Washable, of course. Rayon satin binding. 72 x 86 inches—ample for double beds.



C. D.
Record Book
Lightner, 124
(as submitted
note: engraver
is working on
girl's figure
hands.)

ml



"I won't always
be tied to my own
apron strings!"

"I'll be good-bye forever to K. P. — after Victory. Good-bye to a whole month out of every year with my hands in hot suds. Good-bye to missing my favorite radio programs after dinner every evening. I'll hang my apron on a hickory limb and never go near dishwater . . . when we get the G-E Electric Sink our War Bonds will buy!"



Dishes washed at the turn of a wrist!
Just press a lever and the automatic dishwasher in the G-E electric sink does all the rest . . . washes, rinses, scalds, dries. Your finest china and delicate crystal get safest care and all your dishes are hygienically cleansed . . . a real safeguard to your family's health.



Garbage disappears like magic! Your Electric Sink has a built-in kitchen marvel called the G-E Disposall that banishes forever unsightly mess and muss after meals. No more trips to the garbage can! Scraps, peelings, spoiled left-overs . . . yes, even bones are ground to a fine pulp and washed away.

WRITE FOR THE FREE BOOK, "Your Wedding Ring on the Window Sill," that describes this great improvement. Learn about it—save for it—plan to get it now. WAR BONDS, bought now, will not only bring you the wonderful new conveniences that make for better living, but they will help provide post-war jobs. So write today. Address Dept. AH 2-4, General Electric Consumers Institute, Bridgeport, Connecticut.

Hear the General Electric radio programs: The G-E "All Girl Orchestra" Sunday 10 P.M. E.W.T., NBC. "The World Today" news every weekday 6:45 P.M. E.W.T., CBS.



EVERYTHING ELECTRICAL FOR AFTER VICTORY HOMES

GENERAL  ELECTRIC

— C. D.
Record Book

Lightner, 12/6/43
Packard 12/7/43



Four good reasons why you should choose General Electric 2-way FM Police Radio

Yes, you get ~~four~~ positive advantages when you select General Electric 2-way FM police radio equipment.

- **Extended communication range** — the G-E FM receiver picks up weaker signals, suppresses more background noise, still further reduces interference. The G-E FM system enables you to protect greater areas with greater dependability.
- **Lower battery drain** — G-E mobile units have lower battery drain than any other comparable equipment, both for continuous operation and for standby . . . the battery stays on the job longer with less attention.
- **Improved tuning reliability** — precision is assured by G-E's iron-core

inductive tuning method with its micrometer-like adjustment. Tension locks plus the adjustment feature materially reduce the effects of car vibration.

- **More easily serviced** — stable workbench support for each unit . . . all parts easily accessible for inspection or repair . . . identification of sockets and controls stenciled on the chassis . . . complete, easy-to-follow servicing instructions.

Behind all of these advantages is the unequalled experience G-E electronics engineers have had working with police departments throughout the country.

If local wartime responsibilities require better police protection, you can secure equipment at once. Complete

bulletins available on request. *Electronics Department, General Electric, Bridgeport, Conn.*

• Tune in "THE WORLD TODAY" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to the G-E "All Girl Orchestra" at 10 P.M. E.W.T. over NBC.



FOR FM AT ITS BEST—SELECT G-E

GENERAL  ELECTRIC

183-C1-6918

C. D.
Record Book

Wans 9/30/41



SIX UNIQUE SALES POINTS!

- 1 Uniform warmth all night long!** Dial a Bedside Control *once*—to desired temperature—"thermostatic" control maintains it. No adding or removing covers!
- 2 Bed warm all over!** No cold spots. Whole bed gently warmed. Sleep relaxed and free to move around.
- 3 Warmth without weight in cold weather!** Sleep under *one* blanket—instead of 10 to 15 lbs. of covers.
- 4 Warm bed at retiring!** . . . Just switch on the Automatic Blanket while preparing to retire. No more cold sheets.
- 5 Wake really refreshed and relaxed!** Ordinarily, people use up energy to keep warm on cold nights. The Automatic Blanket's warmth conserves that energy, allows relaxed, uninterrupted sleep.
- 6 Protects children — automatically!** Uniform warmth guards them from chills or overheating. Parents may sleep without worry. A blessing for elderly people, too.

NEW GENERAL ELECTRIC

Automatic Blanket

promises refreshing Springtime slumber every night

Bedding gets its best break in years! A brand-new product introduced with color pages in *Life*, *The Saturday Evening Post* and *Esquire* . . . an entirely new kind of comfort-in-bed . . . a deep-piled luxury blanket that is actually *weather-wise*!

The G-E Automatic Blanket *automatically* controls bed temperature to the warmth you select, no matter

how the bedroom temperature changes during the night.

It's a great gift item . . . an outstanding opportunity for multiple-department display — and multiple profits. And with a universal appeal—the promise of better rest, relaxed, uninterrupted sleep! Plan now to make a feature of the Automatic Blanket.

TELEGRAM

Retails at
\$34⁵⁰
PLUS EXCISE TAX

For name of local distributor,
wire collect to General Electric,
Dept. O-11210, Bridgeport, Conn.

**The Blanket
with a Brain**

Pacific Coast and Rocky Mountain area, \$35.75.
Prices subject to change without notice.

GENERAL  ELECTRIC

Actual photograph of the G-E Automatic Blanket. Styled in Delft Blue, Cedar, Apple Green, Gold, Wood Rose & Beige reversible—matching rayon satin binding. 72" x 86" — washable, of course.

erating "proving ground"
and Television Stations



General Electric's own proving ground for developing tomorrow's finer radio and television equipment.



Scene in General Electric Television Station WRGB, where General Electric engineers and staff build a rich background of experience.

o, free of static and inter-
ference and rich color the full
tomorrow's television will em-
brace pictures, and theater, and
all-time "proving grounds"
General Electric Television Station WRGB. Here

the future of electronic entertainment and education is tak-
ing shape. Skills in programming, the knowledge of trans-
mission, and constant improvements in engineering design
will enable General Electric to produce the finest FM radio
and television equipment — and also to give valuable aid to
the men who will build the FM and television broadcasting
systems of tomorrow.

G-E Electronic Tube for Electronic device!

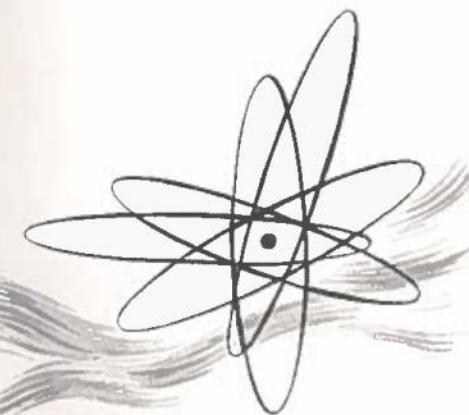
Carrier current communication
Amateur radio transmitters and receivers
Facsimile transmission and reception
Public address systems
Merchant Marine communication
and navigation equipment
Laboratory and testing equipment

VISION, AND ELECTRONIC RESEARCH

GE ELECTRIC
170-A2-690



What General Electric
is doing now for
the future of electronics



What is electronics? It is
a new science, yet it is not new.
The General Electric radio is
an electronic instrument.
So is the talking moving picture,
and the physician's X ray.
So is television. And so are the
thousand devices of industry
that open doors, level elevators, guide
printing presses, detect tiny flaws
in castings, and control motors that
speed the vast production of war materials.

General Electric faces the electronic
future supported by nearly forty
years of electronic research. It was
a General Electric scientist,
Dr. Irving Langmuir, who developed the
high-vacuum tube and made it practical
for widespread application. And other
General Electric scientists, including Coolidge,
Alexanderson and Whitney, contributed greatly
in the development of electronics to its present stage.



C. D.
Record Book



MY PROMISE TO OUR FIGHTING MEN

I will never forget that if I am careless in my work it may cost your life..... You are fighting for my country and my freedom. A good job is not good enough for you... It must be perfect. I will do my best to make it so.... I will *NEVER* let you down.

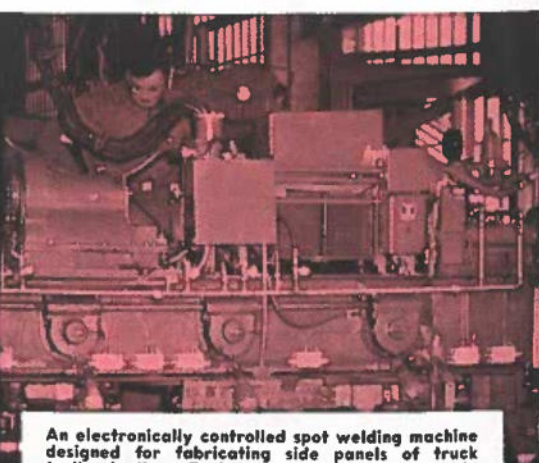
Months ago the workers in General Electric's war-radio plants solemnly promised their best to America's fighting men. They kept their promise and now proudly wear the Army-Navy "E."

history. The volume, and diversity, and the function of these amazing electronic devices are simply beyond popular belief.

This wartime activity is helping America and our allies win the war. And it is also providing a rich fund of experience for the days after victory.

Some day, General Electric plants, machinery, skilled workers, scientists, and engineers will help electronics build a safer, more comfortable, more efficient world for all of us.

of much of this equipment cannot be re-
t this can be told: production of General
ic equipment is at the greatest point in



An electronically controlled spot welding machine designed for fabricating side panels of truck



Thousands of General Electric electronic devices and tubes are used by the Signal Corps of the United States Army. A sergeant demonstrates



**G-E is telling the
American people
what electronics
promises for
tomorrow**

Electronics will grow as public understanding grows. General Electric is undertaking a campaign of public education, reaching all the people of the nation, and demonstrating the power of this new science to build a better world. In magazines, over the radio, by special literature, and by the operation of electronic devices in a thousand fields of activity, the public can see the outlines of the Electronic Era.

➤ In national magazines, reaching millions of people weekly, General Electric advertisements are educating the American public in this new science.



➔ This handsome General Electric brochure, "Electronics — a New Science for a New World," is the first book of its kind ever to explain to the general public the scope and meaning of the electronic science. Thirty-two pages, beautifully illustrated. We will be glad to send you a free copy. Write for GED-1028 to General Electric, Section 170-A2, Schenectady, N. Y.



C. D.
Record Book

G. Winnick 10/9/42

Stellen



CALL OFF YOUR DOGS, OSWALD!

THE LAST TILL VICTORY!

After present stocks of Automatic Blankets are sold, there will be no more for the duration. Our blanket factory is devoted exclusively to electrically heated flying suits, shoes, gloves and other equipment for the Armed Forces.

**You'll never get cold feet under the
new G-E Automatic Blanket**

Look, Cousin Oswald! For a bomber pilot, we make an electrically warmed suit that keeps him comfortable at temperatures down to 60° below. But for you, we have a zephyr-light Automatic Blanket that works similar miracles for your sleeping comfort. Just *one* keeps your whole bed as warm as you like—Winter, Spring and Fall!

Speak to Mother about it, Oswald. We'll give you *automatic warmth without a mountain of covers* (or canines) . . . and always the *same* warmth, no matter how the bedroom temperature changes.

Just set the small Bedside Control *once* for the warmth you choose. From then on, protected from chills and overheating, you'll know the luxury of really restful, uninterrupted sleep.

You'll find this "Blanket with a Brain" at department stores, electric companies and other dealers—in limited quantities. For this is the sort of thing we've quit making "for the duration." We've more important jobs to do—for the Armed Forces—now.

WARMTH WITHOUT WEIGHT! One zephyr-light blanket instead of mountains of heavy covers. More comfort for both when two sleep together.

BED WARM ALL OVER! No cold zones when you change position—no muscular kinks or cramps when you wake.

UNIFORM WARMTH ALL NIGHT! The warmth you select, no matter what the bedroom temperature. A special blessing if you are keeping your home cooler than usual by conserving fuel.

WARM BED WHEN YOU RETIRE! No chilly sheets if you switch on the Blanket *before* retiring.

REFRESHING, RELAXING SLEEP! Wake really rested—you haven't wasted energy trying to keep warm.

\$34.50 plus excise tax. Pacific Coast and Rocky Mt. area slightly higher. Prices subject to change without notice.

The Automatic Blanket makes up like any fine blanket. 72 x 86 in.—ample for double beds. Colors: Blue, Green, Cedar, Gold, Wood Rose and Beige. Washable.

For more details or dealers' names, write direct to General Electric, Dept. OG-1222-16, Bridgeport, Conn.

GENERAL ELECTRIC



outstanding opportunity for radio and
men to do their part, and at the
the finest possible training in one of
ter-the-war industries.

ics field is still in its infancy. Ten years
comparatively few electronic devices.
e more than a thousand kinds of elec-
at work in factory, hospital, office, cot-
hill, the home and on the fighting front!
ectric is a leader in electronic research.
itely interested in having available,
omes, trained men for the sales and

service of future electronic devices. This is a highly
specialized field, and good men will be in demand.

If you are now an expert in radio, or are ambitious
and willing to learn at good pay, General Electric
urges you to consider the Signal Corps now. The Signal
Corps is also sponsoring courses in the fundamental
theories of radio and electronics in many colleges
and universities. . . . Get in on the ground floor today!

★ ★ ★

For further information regarding enlistment, call at the nearest Army Recruiting
and Induction Station. Or write to "The Commanding General" of the Service
Command nearest you. For Civilian Training information, call at any office of
the U. S. Civil Service or U. S. Employment Bureau.

GENERAL ELECTRIC

Leader in radio, television, and electronic research

This is a General Electric electronic radio tube. General Electric is building thousands and thousands of electronic tubes, of many sizes and styles, for use in Uncle Sam's radio communication equipment and electronic weapons.



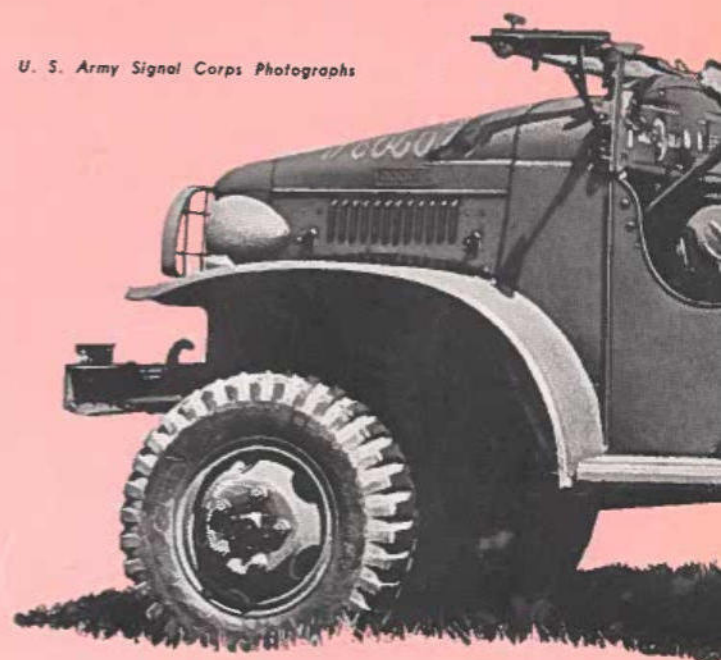
**Men wanted for
the Signal Corps of
the U. S. Army**

You can (1) serve your country, (2) learn the rapidly advancing science of electronics, (3) prepare yourself for a promising career after the war by joining "The Nerve Center of the Army" now.

Men are needed now to man America's electronic weapons.

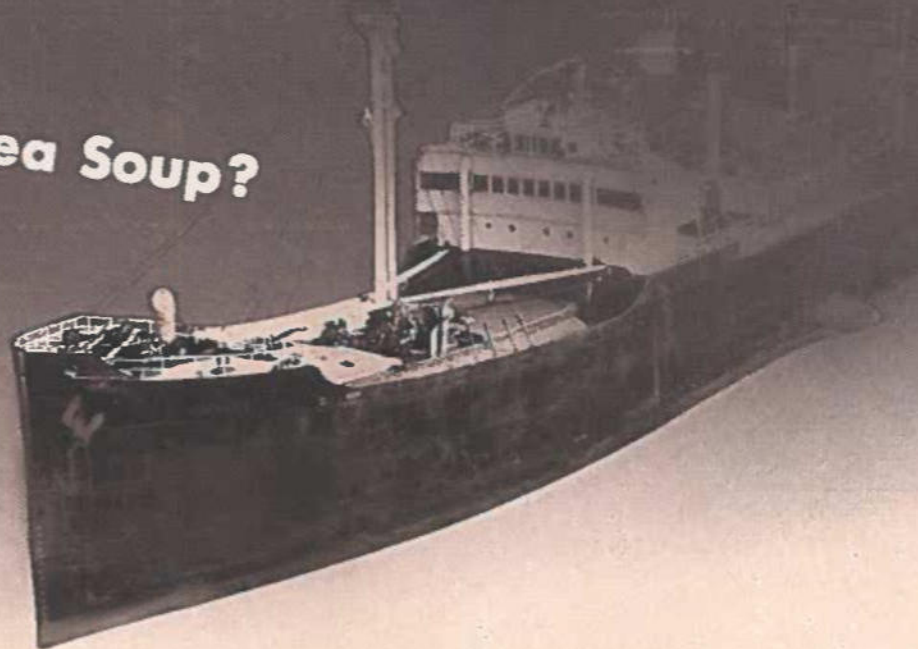
This is a war of communications. "The message must get through!" Radio communication equipment and electronic devices known only to the men of the U. S. Signal Corps are fighting the war on world fronts.

U. S. Army Signal Corps Photographs





Ever try to look through Pea Soup?



General Electric Electronic tubes will lift the fog from sky, sea, and land!

Fog coming in!

Ships crawl. Planes are grounded. Cars hug the side of the road. You can't see for the "pea soup."

But General Electric is "lifting" the fog!

Tomorrow, amazing electronic devices will tell the ship captain the position of reefs . . . permit the pilot to land blind . . . warn the locomotive engineer of danger on fog-drenched tracks, no matter how thick the whiteness.

Ship and plane and train will ride as safely in fog as in sunlight!

The exact nature of these miraculous inventions must remain a war secret. But General Electric research has already developed a thousand other electronic devices that add to your health, comfort and general well-being.

Electronic tubes, basically the same as the ones in your General Electric radio, can distinguish 2,000,000 shades of color — match lipstick, fabrics, stockings, paints. An electronically controlled welder stitches together metal parts of war planes as easily as your sewing-machine stitches cloth. By electronics, you can study the stresses in an airplane wing

during a power dive, or make photographs with the correct exposure automatically determined. Your General Electric radio is an electronic instrument.

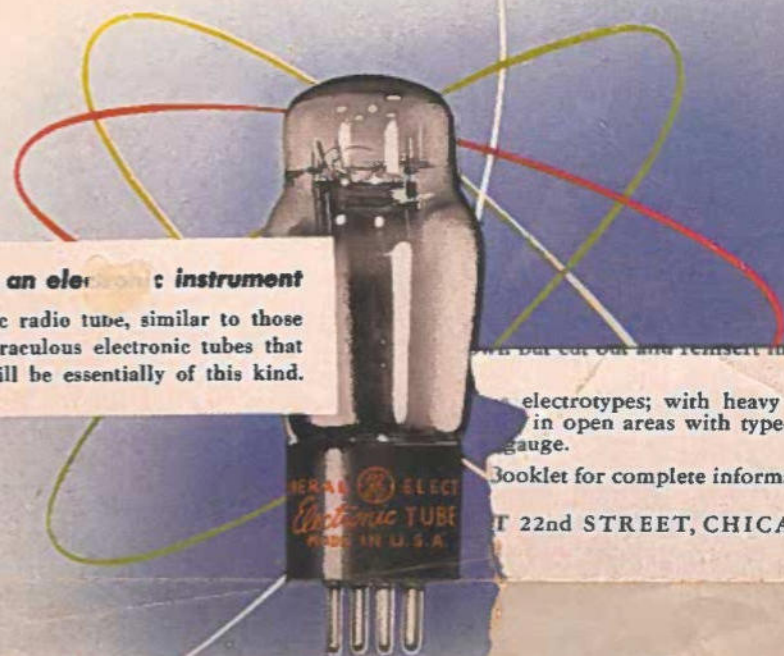
General Electric electronic equipment will some day be available to every home. Today, it is limited to businesses engaged in war activity. If you believe that electronics can be applied in your factory, write to General Electric — Radio, Television, and Electronics Department, Schenectady, New York.

GENERAL  ELECTRIC

Leader in radio, television, and electronic research

Every General Electric radio is an electronic instrument

This is a General Electric electronic radio tube, similar to those used in all G-E radio sets. The miraculous electronic tubes that will "see" through fog tomorrow will be essentially of this kind.



electrotypes; with heavy shell in open areas with type-high gauge.

Booklet for complete information.

22nd STREET, CHICAGO, ILL.

C. D.
Record Book

dw or 7/2/42



**This orange
is a black sheep**

Frag

You'd never know from the outside. The skin is firm, the color good. But on the viewing screen of the X-ray unit—an electronic device—appears a mottled image. Presto! The inspector discards the sub-standard fruit.

Leading fruit packers now use this electronic method to protect the public. Often they protect their own investment as well! Over fifty per cent of citrus fruits discarded by other tests were found by the X-ray test to be in A-1 condition—a saving to California packers in one record year of over \$7,000,000!

There are other G-E electronic

devices to time the welding of steel. To help test milk for pasteurization. To gage the thickness of paint. To control printing press register. To extend dramatically the power of man's brain and senses.

There is scarcely an industrial plant where a G-E electronic device cannot in some way result in more efficient, economical production!

General Electric electronic equipment is limited now to businesses engaged in war activity. If you believe electronics can be applied in your plant, write to General Electric, Radio, Television and Electronics Department, Schenectady, N. Y.



• Operators checking condition of oranges. With a General Electric electronic X-ray inspection unit, California packers **SAVED** over \$7,000,000 in one year alone in fruit mistakenly discarded by other inspection methods.

GENERAL  ELECTRIC
LEADERSHIP IN ELECTRONICS

A NEW SCIENCE GOES TO WORK FOR INDUSTRY

170-4

Record Book
A. Nimmell
11/20/42
F



A long handclasp... on a short wave

ON AN ISLAND in the Pacific a soldier turns a dial. Over the balmy air comes a golden song. Garden and porch and fireplace, study hall, shop and office, all the familiar pictures of home are in the welcome voice . . . beamed to the distant war front by the magic of short wave radio.

General Electric short wave stations are the one link with home for many soldiers and sailors. These men are far from America. But they are not beyond the reach of Station KGEI, San Francisco, and Station WGEO and WGEA, Schenectady.

Daily, a round-up of news, dance music and sports results is broadcast. To the Far East, also, General Electric stations speak in Malay, Dutch, Japanese, Burmese, Korean, Thai, and ten Filipino dialects; and to Europe, in French, Spanish, German, Italian, Swedish, and six other languages.

This handclasp from a free people to men with freedom in their hearts is a triumph of electronics. It is the electronic tube that flings the spoken word into the sky, and the electronic tube that captures the word and gives it a voice in your radio. And the engineering excellence

that creates the great General Electric transmitters is found also in the radio built by General Electric for the home.

The fascinating story of electronics is told in a new 32-page book: "Electronics — a New Science for a New World." This booklet is free. Write for your copy (publication GED-1028). Radio, Television, and Electronics Department, General Electric, Schenectady, N. Y.

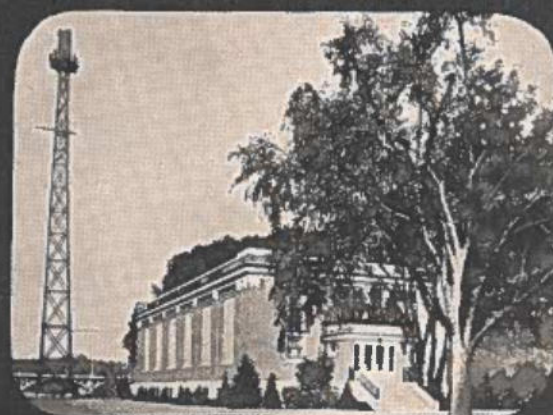
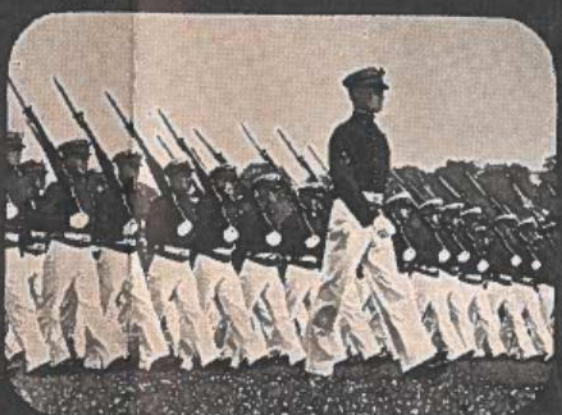
Listen to the General Electric Radio News Program, with Frazier Hunt, Tuesday, Thursday, Saturday evenings, over C.B.S. and American (FM) networks. See newspapers for time.

Leader in radio, television, and electronic research

GENERAL  ELECTRIC
RADIO • TELEVISION • ELECTRONICS

C. D.
 Record Book

G. Nimick 11/16/42 Schenectady, N.Y.



*

*To help you plan for television, visit General Electric's proving-ground station WRGB

experimenting
 won't have to

General Electric is operating today one of the world's most complete television stations, WRGB, at Schenectady. There, within the limitations of full-scale war production, G. E. is gaining practical knowledge on which to build a new industry.

For a clear television picture on a fluorescent screen is only the beginning of television. From there on out, problems still loom. What will television offer that movies, theater, concert hall, school, and radio cannot

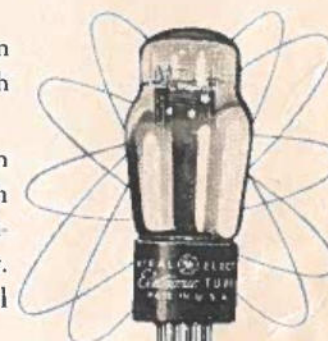
offer? Will the television screen make a good teaching platform? Will it further the fine arts, science, industry? What has it to contribute uniquely to the church?

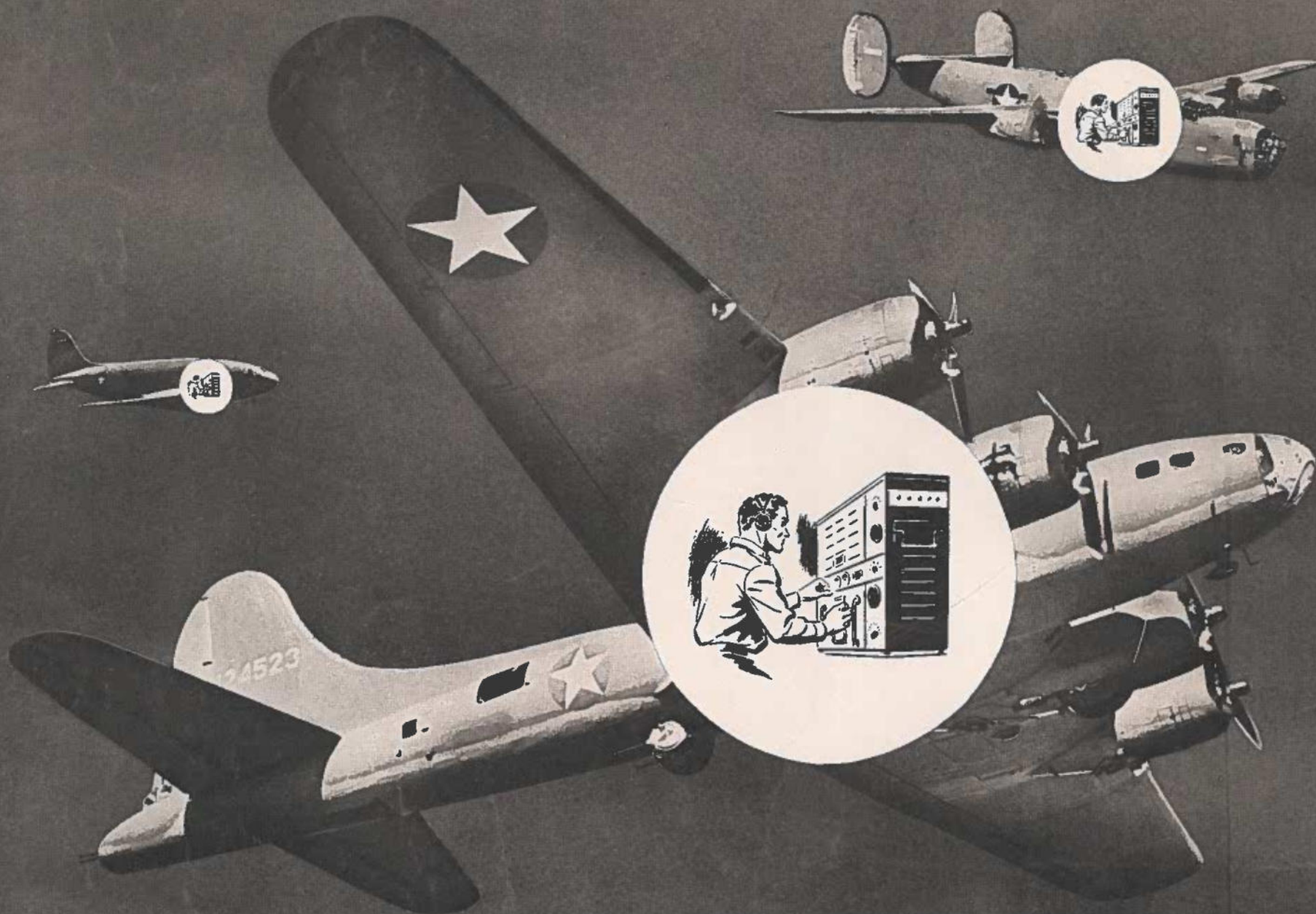
How, in short, will television best serve the public welfare? How best improve our lives?

General Electric electronic engineers are studying and improving transmission and reception. And studio manager and program staff are urged to give fullest expression to creative talents and ideas. For the General

Electric vision is to make television stand on its own feet as a new cultural and entertainment medium, with its own important place in our affairs.

In the future, when you are planning your television station, General Electric will be ready with a wealth of experience in television programming and techniques. General Electric today is scanning tomorrow. Radio, Television, and Electronics Department, General Electric Company, Schenectady, New York.





**Every Flying Fortress, Liberator,
Commando and Marauder
is equipped with G-E radio**

TODAY, General Electric radios of almost unbelievable quality go into every heavy bomber being built for our Armed Forces. Other war planes get them, too . . . paratroop and cargo planes, many medium and light bombers.

Tests for this G-E designed and built aviation radio would wreck ordinary radios. Built at mass-production speed, it must nevertheless meet every condition of altitude, pressure, temperature, humidity, and vibration encountered by military aircraft.

One test puts it through hours of operation at minus 40 degrees centigrade. Another, at plus 70 degrees centigrade. Another subjects it to drenching saturation. Still another test shakes it at the shattering rate of 60 cycles a second through a 1/16-inch space.

Special component parts had to be designed by G-E experts before radios that could pass these and other killing tests were possible.

**Today . . . for America's War Planes!
Tomorrow . . . for American Homes!**

Many of these war-proved parts, plus efficient new circuits developed by G-E engineers, will become the heart of G-E post-war home radios, for a finer radio line than any you have ever handled at comparable prices.

This same message of the quality that will be built into G-E home radios when peace returns is being told over and over to the public today through full-color advertisements like the one shown at right in mass-circulation magazines. The public will know that your G-E line of

radios is the quality line! . . . Electronics Department, General Electric, Bridgeport, Conn.

Tune in "THE WORLD TODAY" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to "The Hour of Charm" at 10 P. M. E.W.T. over NBC.



This advertisement appears in Collier's and The New Yorker, July 17, 1943; The Saturday Evening Post, July 24, 1943; Look, July 27, 1943; Life, August 2, 1943; Country Gentleman, August, 1943.

FREE—a 30 x 40-inch blow-up of this striking advertisement in full color, mounted on board and with an easel back, is available on request, for use in showrooms—and windows. Send for yours today.

G. E. IS BUILDING MORE MILITARY RADIOS THAN ANY OTHER HOME-RADIO MANUFACTURER

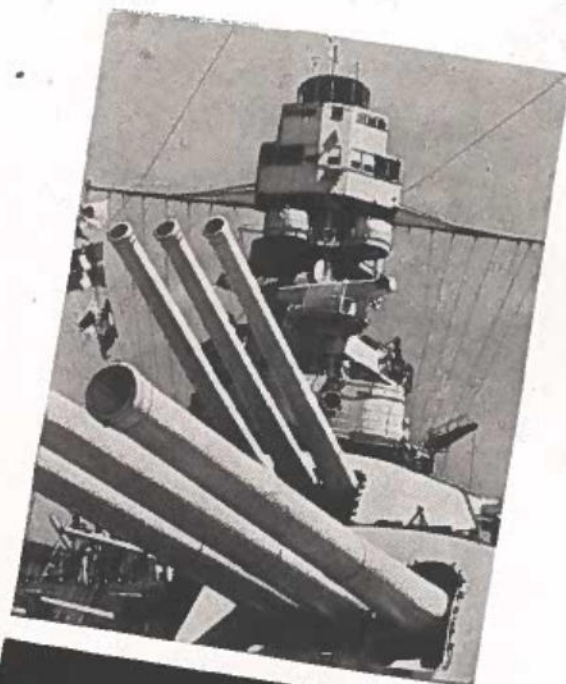
GENERAL ELECTRIC

173-89

Revised

C. D.
Record Book:

of Baker
7/28
W



Electronic welding
now builds sections
for "battle-wagons"



HOW ELECTRONIC TUBES MAKE POSSIBLE THE HEAVY-DUTY WELDING OF STAINLESS STEEL AND ALUMINUM

THIS husky steel claw is a heavy-duty spot welder — a machine controlled by G-E electronic tubes which turns out super-structure sections for Uncle Sam's Navy.

Three sheets of stainless steel or aluminum, each .109 inch thick, are placed between electrodes. In a fraction of a second, electric current heats the metal at the point of contact, and fuses the sheets in permanent bond.

To perform this operation, the electronic welder exerts a pressure of 3000

pounds, requiring a current of 12,000 amperes — enough power, if applied continuously, to fly a bomber or haul a freight train.

Two kinds of electronic tubes make possible this heavy-duty resistance welding of stainless steel and aluminum. The G-E ignitron is the *power tube* that supplies the high current. The G-E thyatron is the *precision timer* which controls the passage of the current.

It is the purpose of G-E electronic tube engineers to aid any *manufacturer* of electronic devices in the application of tubes. General Electric, through its

nation-wide distribution system, is also prepared to supply users of electronic devices with replacement tubes.

FREE BOOKLET ON ELECTRONIC TUBES

Send us the names of interested men in your plant and we will keep them informed of electronic developments. For example, we would like to mail without charge an illustrated book entitled "How Electronic Tubes Work," written in easy and understandable language, and showing typical electronic tubes and their applications. Address *Electronics Department, General Electric, Schenectady, New York.*

Tune in "THE WORLD TODAY" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to "The Hour of Charm" at 10 P. M. E.W.T. over NBC.

PUTTING ELECTRONIC TUBES TO WORK FOR AMERICAN INDUSTRY

GENERAL  ELECTRIC

162-812-8850



The Light no war will ever dim !

Christmas is a light.

- . . . a candle burning in a window.
- . . . the gleam of a star on a tree.
- . . . the light in the eyes of a child on Christmas morning.

But Christmas is more than these. Christmas is a light within.

This light shines brightest in the face of a child — but it glows *deepest* in the heart of a father and mother who watch the child at play.

For the light that we know in our hearts at Christmas time does not belong to Christmas alone, or to children alone.

It glows in the heart of every man in the armed forces of the United States who stands ready to give the greatest of all gifts — himself.

It shines in the heart of the worker who — through the long day, the holiday pleasures given up — gives his skill, with industry's strength, for freedom's sake.

And, in the hearts of those who gather scrap, use less sugar and coffee and tea and meat, walk to save gasoline and tires, and keep on buying *one more* U. S. War Bond.

The things we give, and give up, today as Americans, are gifts of freedom and liberty and opportunity to all the world tomorrow.

Book.
G. Mumick
10/21/42
m



Although we have seen the lights go out, one by one, in many of the cities of the world, this light still burns, inextinguishably, in the heart of every American.

And while it burns, in true devotion to a cause, a faith, a loyalty, we may be sure that one day we shall see the lights come on again, one by one, over all the world.

In past years General Electric has manufactured many gifts for Santa's sack — gifts that kept on giving in terms of the comforts and conveniences that modern electrical servants bring into a home. This year we are manufacturing the tools that America is using to bring liberty and freedom to men of hope and good will everywhere.

← bottom leaf cut off to allow room for raised logotype

GENERAL  **ELECTRIC**

} raised in plates to line up with bottom of type

TO CITIES WITH VITAL WAR DUTIES



You can obtain your General

- A limited quantity of the finest FM emergency-communication equipment that General Electric electronics engineers have ever built is ready now for your state, county and municipal police and fire departments. This is a new, All-American design, employing suggestions from hundreds of users.

- Deliveries can be arranged from the Defense Supplies Corporation Radio Reserve Pool for communities with a real need . . . based on war-multiplied civil, industrial, and military activities.

- General Electric one-way or two-way FM police radio is of higher efficiency . . . easier operation . . . longer range . . . and maximum dependability. And FM

—Frequency Modulation—greatly reduces the nuisances of man-made and natural static, interference or "cross-talk," fading, and background noises.

EASY FOR YOU TO ORDER

- You do not need a WPB priority for this new General Electric FM equipment. A special Government procedure speeds the tapping of the Reserve Pool.

- For complete instructions and the proper allocation request forms, either inquire directly at your nearest G-E office, supply house, apparatus agent, or distributor, or write at once to us. But act quickly! Radio, Television, and Electronics Department, General Electric Company, Schenectady, New York.

FEATURES OF THE NEW G-E FM EMERGENCY-COMMUNICATION EQUIPMENT

1. Extended communication range

Sensitivity, stability, selectivity, and "squellch" performance assure greater area coverage. Direct crystal control holds transmitter within .01% of assigned frequency.

2. Accurate initial tuning

Initial tuning simplified and made more accurate by G.E.'s iron-core inductive-tuning method. Micrometer-like adjustment, spring-locked against vibration, maintains initial accuracy — positive advantage.

3. Easy to install, adjust, test, service

Complete accessibility — plus built-in workbench support — simplifies alignment, tube renewals, inspection, and service. All sockets and alignment controls clearly stenciled on chassis. Real aids to servicemen.

4. Low battery drain

Receiver with vibrator power supply draws only 5 amp. Helps your battery stay on the job longer. Stand-by operation of 30-watt transmitter, 2.1 amp.; full operation, 26.5 amp. (All at 6 volts.)

5. Takes less space in car trunk

Individual cabinets 8½ by 10 by 14 inches. Controls and test jacks grouped to permit mounting sets side by side, leaving plenty of trunk room for other squad-car equipment. Cabinets are exceptionally strong.

6. Thoroughly tested under all conditions

Exhaustive temperature, humidity, vibration, and field tests, plus years of General Electric research, give this equipment extraordinary ability to "take it."

Electric FM Police Radio Now!

G.E.'S OUTSTANDING NEW FM EMERGENCY-RADIO COMBINATION

Two-way Mobile Combination . . . MC-1. 30 watts

Here's what you get: 1. Transmitter. 2. Receiver. 3. Battery cable (17-foot). 4. Speaker (back of grille mounting). 5. Antenna interconnecting lead (18-inch). 6. Microphone (airplane-type). 7. Antenna cable (3-foot). 8. Control unit. 9. Control cable (17-foot). 10. Quarter-wave antenna, solid rod with swivel base. Also twelve additional FM standard mobile and station combinations to meet all your requirements.

FM Police Radio • FM Broadcast Equipment • FM Home Radio • FM Broadcasting • FM Military Radio

NO OTHER MANUFACTURER OFFERS SO MUCH FM EXPERIENCE

GENERAL ELECTRIC

193-01-0510

What do **THEY** think of FM?



This new antenna by G. E., with circular bays, eliminates the usual complex, costly structure, yet radiates energy uniformly. It is an example of General Electric engineering leadership in FM equipment.

IT TO THEM AND FOUND OUT!

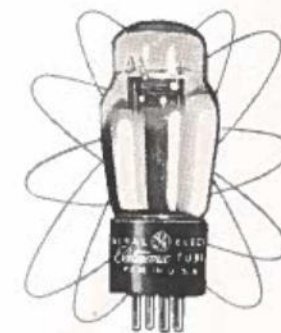
AMONG owners of frequency-modulation receivers, a large majority like the quality of FM reception. For example, 85 per cent say it is better than regular broadcast reception, and 91 per cent would recommend it to their friends!

These are facts and figures taken directly from a survey made for General Electric in 14 cities by an independent research organization. Among owners of General Electric FM receivers, the approval registered was even greater.

The research organization went directly to private homes for its findings. It sought and obtained answers from both FM and non-FM owners of high, medium, and low cost sets. The answers took on a pattern of telling significance.

Seventy-eight per cent of the non-FM owners rated virtual freedom from static and better tone quality as the outstanding FM advantages. Eighty per cent of FM owners emphasized these same advantages also.

Today G. E. is building FM transmitting and receiving equipment for war purposes only, with the same precision and skill that characterize all of its electronic devices. When peace comes, General Electric FM equipment will be more than ever the best that money can buy! . . . For detailed information on the FM survey, write for booklet, entitled "What the Consumer Thinks of FM," to Radio, Television, and Electronics Department, General Electric, Schenectady, N. Y.



Record Book
G. Nimick
12/7/42
5000D

G.E. is telling your customers Service over 51 C.B.S. about Wartime Radio and 8 FM radio stations

The General Electric radio news program, with Frazier Hunt, is explaining to your customers your difficult wartime radio service problems.



ON DECEMBER 1, the General Electric radio news program, featuring Frazier Hunt, started telling your customers of your wartime radio service problems.

G.E. fully appreciates the difficulties under which radio service men are operating, and is anxious to prevent any public misunderstanding that would reflect on your service business.

Therefore, the G-E radio news program is pointing out over and over that, with so many radio service men now in the armed forces, the task of those still on the job is tremendous and is being met in many cases by day-and-night work. G.E. is explaining that although fewer service men are available to keep the nation's 50,000,000 radio sets working, the hard job

can be done if the public will be just a little patient.

The public is also being reminded that some radio parts are now difficult to get in a hurry. Furthermore, it is being asked to remember that rubber and gasoline rationing are as hard on the service man as on themselves. So radio owners are asked to carry tubes and small sets to you, rather than ask you to go to them.

Above all, G.E. asks the public to understand that you are doing a great job under trying conditions, and that wherever possible G-E electronic tubes and other replacement parts on hand are being rushed to help keep your wartime radio service going. . . . Radio, Television, and Electronics Department, General Electric Company, Schenectady, New York.

G.E. IS TELLING YOUR SERVICE CUSTOMERS THAT:

Thousands of former radio service men are now in the armed forces. Those left in service shops are doing an important job — well! Everything possible is being done to keep America's 50,000,000 radios working. A little customer patience over delays is asked for — and appreciated. Gasoline and rubber are scarce, so please bring tubes and small sets to the service men whenever possible.



GENERAL  **ELECTRIC**
175 A1

Leader in Radio,

Television, and Electronic Research

C. D.
Record Book

G. Heinich
1/5/43

4



The little girl who never was sick

You do not know this little girl. But for a thousand years she has lived as a dream in the minds and hearts of mankind . . . symbol of a time when science shall have won its long battle against disease.

Today that dream has come a long step nearer reality with the development of the General Electric electron microscope . . . a super-microscope with which man can see many things that he has never been able to see before.

After the war, General Electric and other manufacturers will pro-

duce electron microscopes in quantity. The advantages of simplicity and portability, offered for the first time in the new General Electric instrument, will make the electron microscope available to thousands, instead of to only a few.

The skill which produced the electron microscope is also represented in the General Electric radio. For the radio, too, is an electronic instrument. Radio and television receivers which General Electric will bring you after the

war will be finer than ever before because of the knowledge now being gained by General Electric as a leading producer of radio for the armed forces.

The story of electronics is told in a new 32-page book: "Electronics — a New Science for a New World." Write for your free copy. Radio, Television, and Electronics Department, General Electric, Schenectady, New York.

Listen to the General Electric Radio News Program, with Frazier Hunt, Tuesday, Thursday, Saturday evenings, over C.B.S. and American (FM) networks. See newspapers for time.



THE NEW
G-E ELECTRON MICROSCOPE

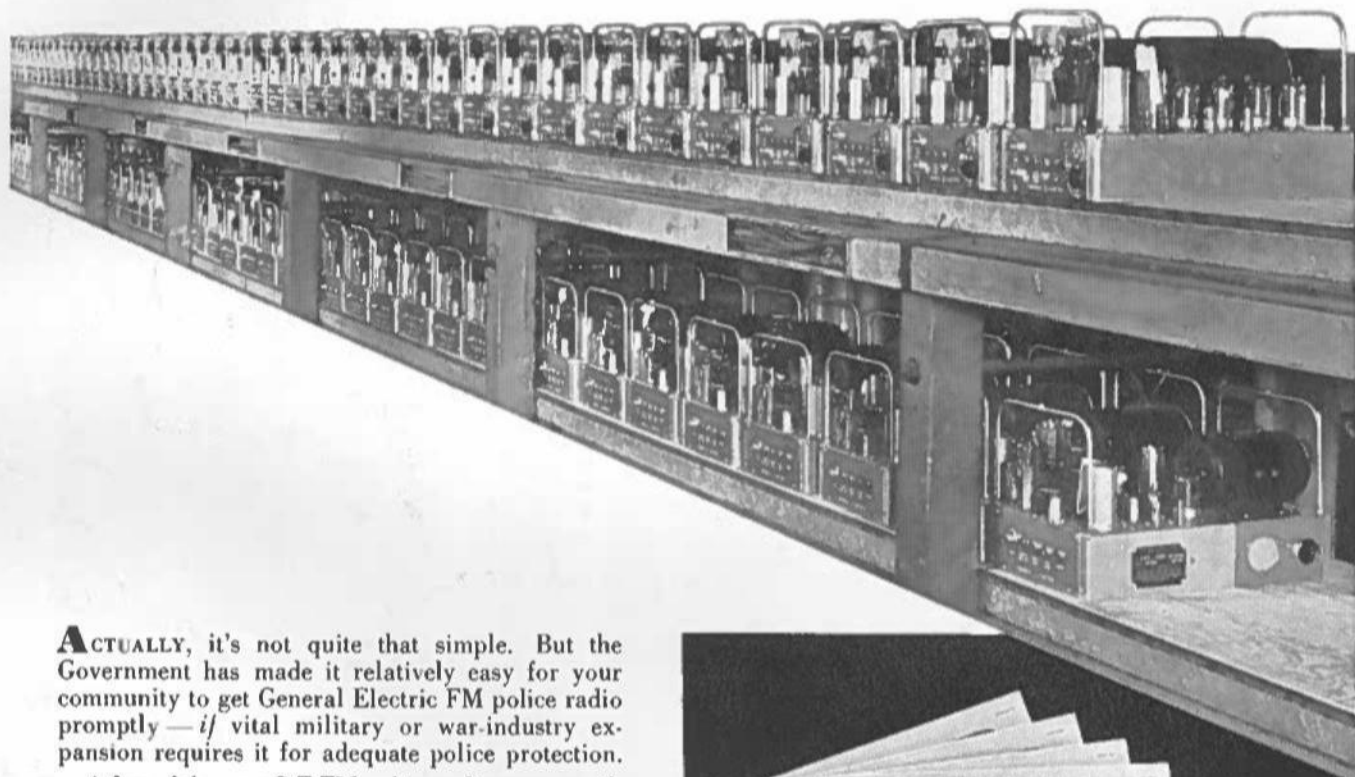
GENERAL  ELECTRIC

RADIO • TELEVISION • ELECTRONICS

C. D.
Record Book
G. Munnich
1/12/43

Jan 12
1/12/43

**YOUR NEW G-E FM POLICE RADIO IS READY—
COME AND GET IT!**



ACTUALLY, it's not quite that simple. But the Government has made it relatively easy for your community to get General Electric FM police radio promptly—if vital military or war-industry expansion requires it for adequate police protection.

A few of the new G-E FM police radios now available through the Defense Supplies Corporation Radio Reserve Pool are shown above. Engineered in the G-E electronics laboratories, this new equipment also contains many design suggestions from hundreds of municipal police-radio operators.

With extended communication range, remarkable ability to override static and interference, and virtual freedom from fading, it is *FM at its best!* It comes in a variety of 30- and 60-watt mobile and station combinations. There is also a 250-watt station combination.

To simplify selection of your equipment, G.E. is offering brief, explicit bulletins describing eight mobile and five station FM combinations, as well as various accessory combinations. There is also a handy combination-selector guide, a communication-range guide, an FCC procedure guide, and an FM budget guide.

Remember that a special Government set-up simplifies obtaining this new G-E equipment without priorities. Get your order in promptly while the supply lasts! . . . *Radio, Television, and Electronics Department, General Electric, Schenectady, N. Y.*

GENERAL ELECTRIC
163-82-5918



WRITE IN TODAY FOR THESE BULLETINS

- | | |
|-----------------------------------|-------------------------------|
| () FM Budget Guide | () FM Mobile Combinations |
| () FM Communication-Range Guide | () FM Station Combinations |
| () FM Combination-Selector Guide | () FM Accessory Combinations |
| () FCC Procedure Guide | |

U. S. 1211
Record Book
A. Nimick
Hy

Lily Pons came to dinner tonight



General Electric Television will enable you to see and hear your favorite entertainers in your own home

Just as now by radio you *hear* the world's great artists and entertainers, tomorrow by General Electric television you will *see* them, too!

In some form or other, whether a table model, or a cabinet set, or a projected image on a wall-screen, *everyone* will be able to enjoy the excitement of this wonderful new science.

By television, you will see the big baseball and football games, the Mardi Gras, the launching of giant ships. You will invite friends in for the latest television movies, or the new Broadway musical show. By television, you will keep up with new fashions, new recipes, and new dance steps.

If you are a business man, you will introduce new automobiles, radio receivers, refrigerators, electrical appliances, and airplanes by television. Not only will you *tell* the public about your product, as you do now by radio; you will *show* the public the actual product, package and all.

All of General Electric's experience in radio and television is at work today producing electronic weapons that are helping to win the war. When Victory comes, new knowledge gained in war years will be applied to the purposes of peace, and General Electric will build fine radio and television receivers for your pleasure and enjoyment.

FREE: A fascinating new booklet, 32 pages, full color, tells the story of television and other electronic equipment. Write for your free copy of "Electronics — a New Science for a New World" to Section 3-D, Radio, Television, and Electronics Dept., General Electric, Schenectady, N. Y. And when you come to Schenectady, visit General Electric Station WRGB, one of the largest television stations in the world.

Tune in on Frazier Hunt and the News every Tuesday, Thursday, Saturday evenings over C. B. S. On Sunday night listen to the "Hour of Charm," over N. B. C. See newspapers for time, station.

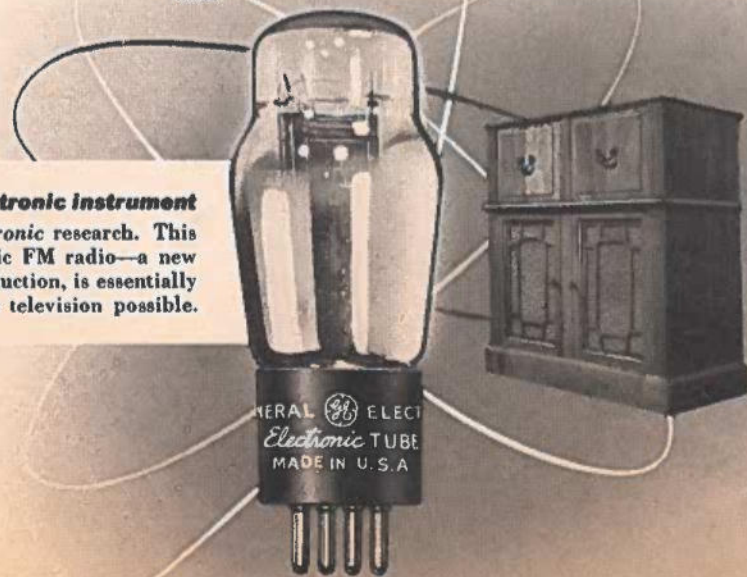
GENERAL ELECTRIC

Leader in radio, television, and electronic research

170-83

Every General Electric Radio is an electronic instrument

Radio, like television, is a product of *electronic* research. This electronic tube, used in the General Electric FM radio—a new kind of radio with amazingly lifelike reproduction, is essentially the same as the electronic tubes that make television possible.



C. Record Book
 G. Nimick
 1/21/43
 Van Duzen
 1/4/43



DO YOU KNOW? HOW THEY LIKE FM

...t survey shows that 91% of FM radio
 would recommend them to their friends!

Americans want FM radio. *Facts* show that FM has what it takes to win public acceptance. An independent, doorbell-ringing consumer survey of hundreds of FM set owners proved this beyond any doubt. Overwhelmingly, FM set owners like FM's better tone quality, its virtual

freedom from static, its breath-taking "background of silence"!

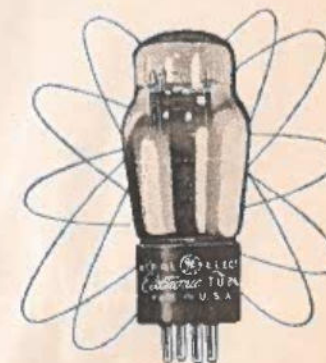
For example: That FM reception is better than regular broadcast reception is the conviction of 85% of FM set owners. And more than half of these classified it as a "great improvement"! Some 79% of FM owners expressed full satisfaction with their FM reception quality. And 91% of them would recommend FM to their friends!

Today there are 600,000 FM receivers in use. A good record, considering that from the start the production of FM transmitters and receivers was handicapped by the demands of war production on the radio industry.

These *facts* about FM indicate a trend which EVERY BROADCASTER should watch. We believe that the growth of FM will be rapid throughout the United States after the war, replacing many of the present local, regional and possibly

a few of the high-power stations. Thus a two-fold benefit can be expected — FM plus better AM reception as a result of fewer and possibly more powerful AM stations broadcasting over clearer channels.

For more detailed information on the FM survey, write for the booklet, "What the Consumer Thinks of FM," to Radio, Television, and Electronics Department, General Electric Company, Schenectady, N. Y.



FM Broadcast Apparatus • FM Broadcasting • FM Receivers • FM Military Radio • FM Police Radio

C. D.
Record Book G. Minich
2/12/43
S.D. 17
2/12/43

G-E TELEVISION APPARATUS + G-E PROGRAMMING EXPERIENCE =

YOUR FUTURE TELEVISION SYSTEM



WITHIN the limits of all-out war production, General Electric television broadcast equipment is undergoing rigid testing at G.E.'s own proving-ground television station, WRGB, at Schenectady.

Flexibility of equipment is constantly being analyzed. New television programming arts and skill are being developed. Three times weekly live talent shows — such as boxing matches, menu planning, style shows, and operettas with full orchestral accompaniment — are being televised.

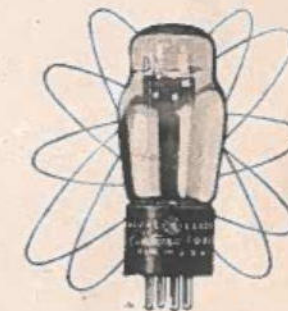
Techniques in staging, lighting, and make-up are being tried. Carefully checked results provide a vast fund of practical experience for you to draw upon when television is again available. Development of television at WRGB is greatly helped by a co-operative home television audience organized to criticize the programs.

And the G-E post-war television receiver for the home will come out of the same vast fund of television experience. It will be a receiver that will get the most out of the

most recent discoveries and developments in television broadcasting.

G-E television broadcast equipment, program experience and receivers are working together for your future television success. We are experimenting so you won't have to.

General Electric cordially invites you when in Schenectady to visit Station WRGB for a preview of your future television system. . . . Radio, Television, and Electronics Department, General Electric Company, Schenectady, New York.



LEADER IN RADIO, TELEVISION, AND ELECTRONICS

GENERAL  ELECTRIC

180-82-6916

TELEVISION

C. D.
Record Book
G. Minich
2/22/43
4



FM radio brings you "natural color" music

It's just the difference between a photograph and a man's best girl, in person!

Scientists will tell you that every note of music you hear is composed of (1) a "fundamental" tone, and (2) a series of "overtones."

For technical reasons, which needn't concern us here, conventional radio cannot reproduce all the overtones of a given musical instrument. As a result, something is lacking — some of the depth and purity of tone has been lost.

But a new kind of radio, known as FM, reproduces tones and overtones as they have never been reproduced before . . . brings you "natural color" music without static or interference of any kind!

The General Electric FM (Frequency Modulation) Radio is an *electronic* instrument. It was developed by General Electric engineers working with Major E. H. Armstrong, originator of FM radio.

These same scientists and engineers have developed other amazing electronic tubes which open doors automatically, peer into tiny viruses believed to be the cause of the common cold, accomplish the miracle of television, and promise a safer, more comfortable world for all of us.

Today, General Electric FM radio is fighting the enemy on land, on sea, and in the air. Tomorrow, General Electric FM radio will offer you a wholly new conception of radio performance!

FREE: Fascinating booklet, 32 pages in full color, tells the story of FM radio, television, and other electronic wonders. Write for your free copy of "Electronics — a New Science for a New World," to Section 4-A, Electronics Dept., General Electric Company, Schenectady, N. Y.

Tune in on Frasier Hunt and the News every Tuesday, Thursday, Saturday evenings over G. B. S. On Sunday night listen to the "Hour of Charm," over N. B. C. See newspapers for time, station.

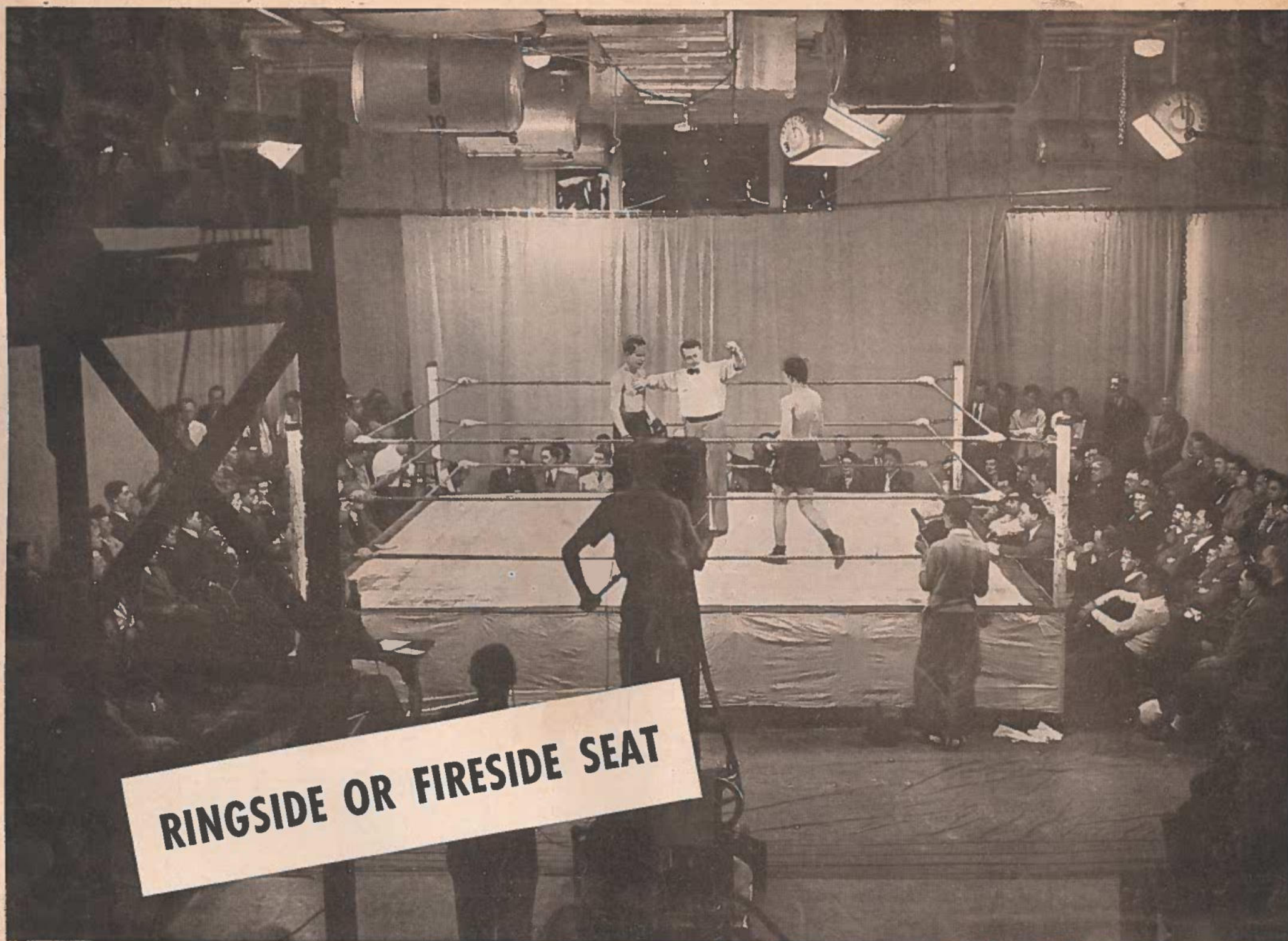
GENERAL ELECTRIC

Leader in radio, television, and electronic research
170-84

Every General Electric Radio is an electronic instrument

This is a General Electric electronic radio tube, similar to those used in all G-E radio sets. The radio-phonograph illustrated is the General Electric Musaphonic, the most distinguished of the many G-E radio receivers for the home.





RINGSIDE OR FIRESIDE SEAT

Actual live-talent program in General Electric Television Station WRGB.

General Electric is speeding the day when television will be part of your business!

WRGB, General Electric's Television Station at Schenectady, is really producing television shows that people like!

Successes are measured by the comments of a large local audience organized to criticize WRGB's predominantly live-talent shows.

But that's not all. G.E.'s mass-production manufacturing facilities are operating around the clock to build nearly every kind of radio and electronic device for the fighting men of the United Nations. The specifications for this equipment call for a high standard of skilled workmanship — a standard that G-E workers will carry over to the building of the post-war G-E Television Receivers!

Don't expect television immediately after the war. But you can be confident that the

kind of work General Electric is doing in the field of television is speeding the day when television will become an important, profitable part of your business.

Through constant consumer advertising in national magazines — such as the current one shown at the right — G. E. is telling these facts to the public.

And when television once more is a peacetime privilege, the public will look to department stores, radio and appliance, furniture, and other dealers, like yourselves, for G-E Television Receivers. The improved G-E Television Receivers on your showroom floors will be your front-line leaders! . . . *Electronics Department, General Electric, Schenectady, New York.*



THIS G-E CONSUMER ADVERTISEMENT APPEARS IN:
COLLIER'S FEBRUARY 27, 1943
THE SATURDAY EVENING POST . . . MARCH 6, 1943
LOOK MARCH 9, 1943
LIFE MARCH 22, 1943
FORTUNE MAY, 1943

• WRGB, Schenectady, G.E.'s proving-ground television station, where live-talent programming experience provides shows people like!



GENERAL ELECTRIC

175-B3-6912

C. D.
 Record Book
 G. H. H. 3/9/43 3/10/43

Write today for these fact-packed bulletins to help plan your G-E FM POLICE-RADIO SYSTEM!

General Electric's brand-new set of up-to-the-minute bulletins, answering all important questions regarding the selection and immediate purchase of new G-E FM police-radio equipment, should be in the hands of every city, county, and state government with vital war duties.

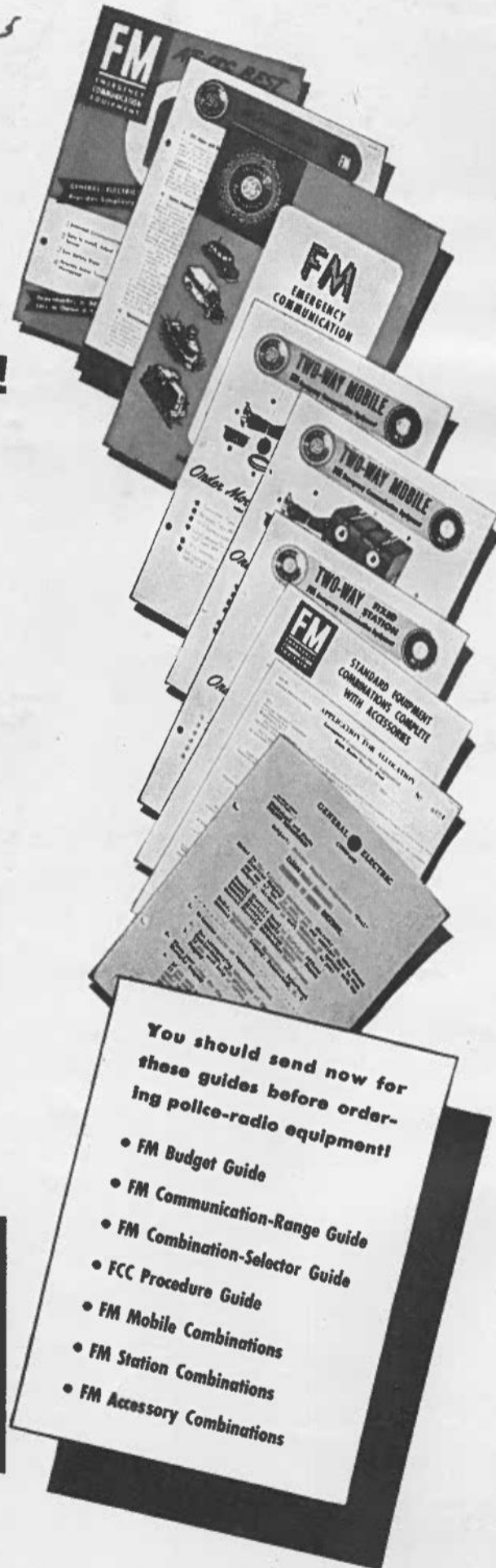
Many government units protecting vital war areas are finding it necessary to install new police-radio systems or to expand their present systems.

To simplify and speed your planning, the specially prepared bulletins tell you how to budget for needed equipment, how to plot your communication range, how to prepare proper data for the Federal Communications Commission. They also describe in detail all the handy-to-buy G-E mobile and fixed, 30 and 60 watt FM police-radio combinations and accessories, and explain how best to select what you should have.

Write at once for your bulletins! . . . *Electronics Department, General Electric, Schenectady, N. Y.*

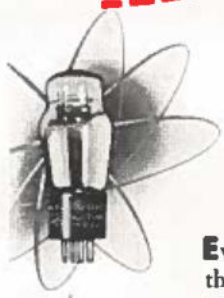
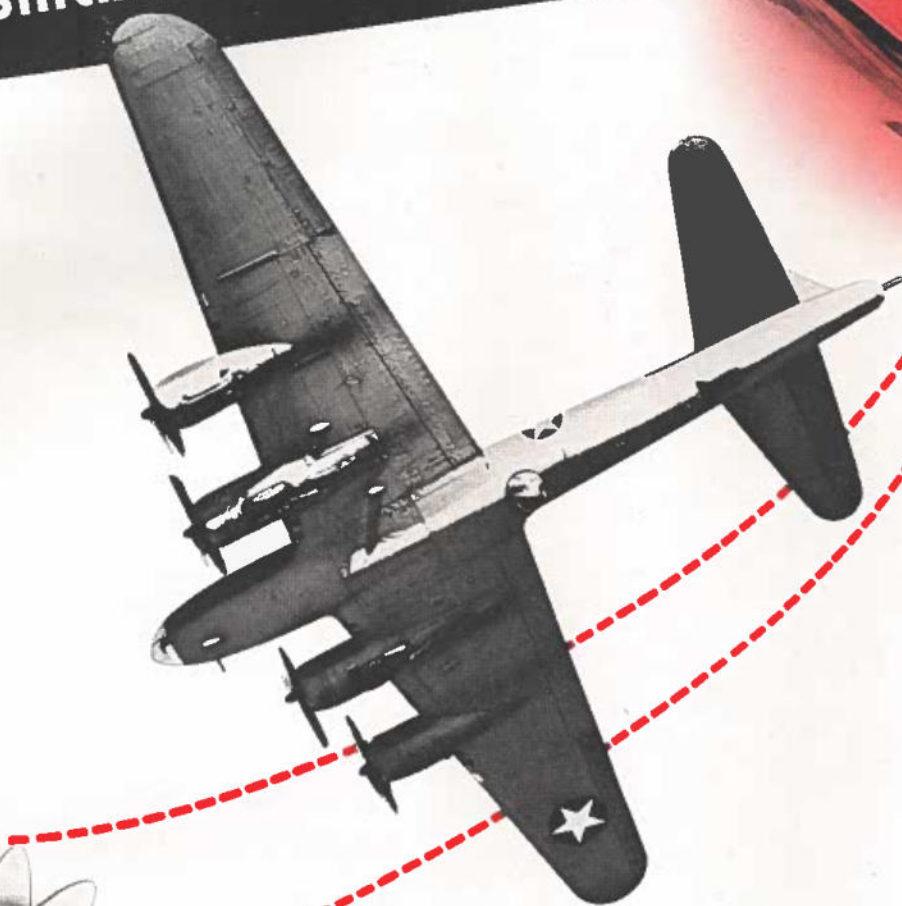
**WAR COMMUNITIES WITH SPECIAL
 PUBLIC SAFETY PROBLEMS CAN GET
 QUICK DELIVERY OF GENERAL ELECTRIC'S
 NEW FM POLICE-RADIO EQUIPMENT**

GENERAL  ELECTRIC
 163-03-6918



C. D.
Record Book
A. Nimick
3/15/43

An electronic
sewing machine that
stitches airplane wings



lowered
in plates

EVER RIDE in one of the crack aluminum or stainless steel trains like the City of San Francisco or the Empire State Express? Electronic resistance welding was used in building them—the method by which Flying Fortresses are now sewn together.

Here's the way it works.

In spot-welding, the operator places two sheets of steel or aluminum between electrodes. Electric current heats the metal at the point of contact in a fraction of a second and fuses the two sheets.

By using wheels instead of contact

WITHOUT ELECTRONIC TUBES, HIGH-PRODUCTION WELDING OF ALUMINUM AND STAINLESS STEEL WOULD BE IMPOSSIBLE

points, a series of spot-welds can be overlapped as a seam to produce a continuous water-tight joint . . . and the Flying Fortress or train is under way!

Heart of the resistance welder is the electronic tube—which times and controls the heavy welding current with unequalled speed and accuracy. Without the electronic tube, high-production welding of aluminum and stainless steel would not be possible.

For heavier work, much higher currents may be required—in one case, 7000 amps. at 550 volts. This much power, if applied continuously, would

fly a bomber, pull a crack passenger train or drive a large merchant ship. Yet electronic-tube control turns it on full and off again, applying the exact heat needed to exactly the right spot with an accuracy of 8 thousandths of a second!

Reports show that in many cases parts can be joined by electronic resistance welding at a fraction of the cost of rivets or other fastening means.

We will be glad to put the interested men in your plant on our mailing list to receive useful information on electronic tubes. Address *Electronics Department, General Electric, Schenectady, N. Y.*

PUTTING ELECTRONIC TUBES TO WORK FOR AMERICAN INDUSTRY

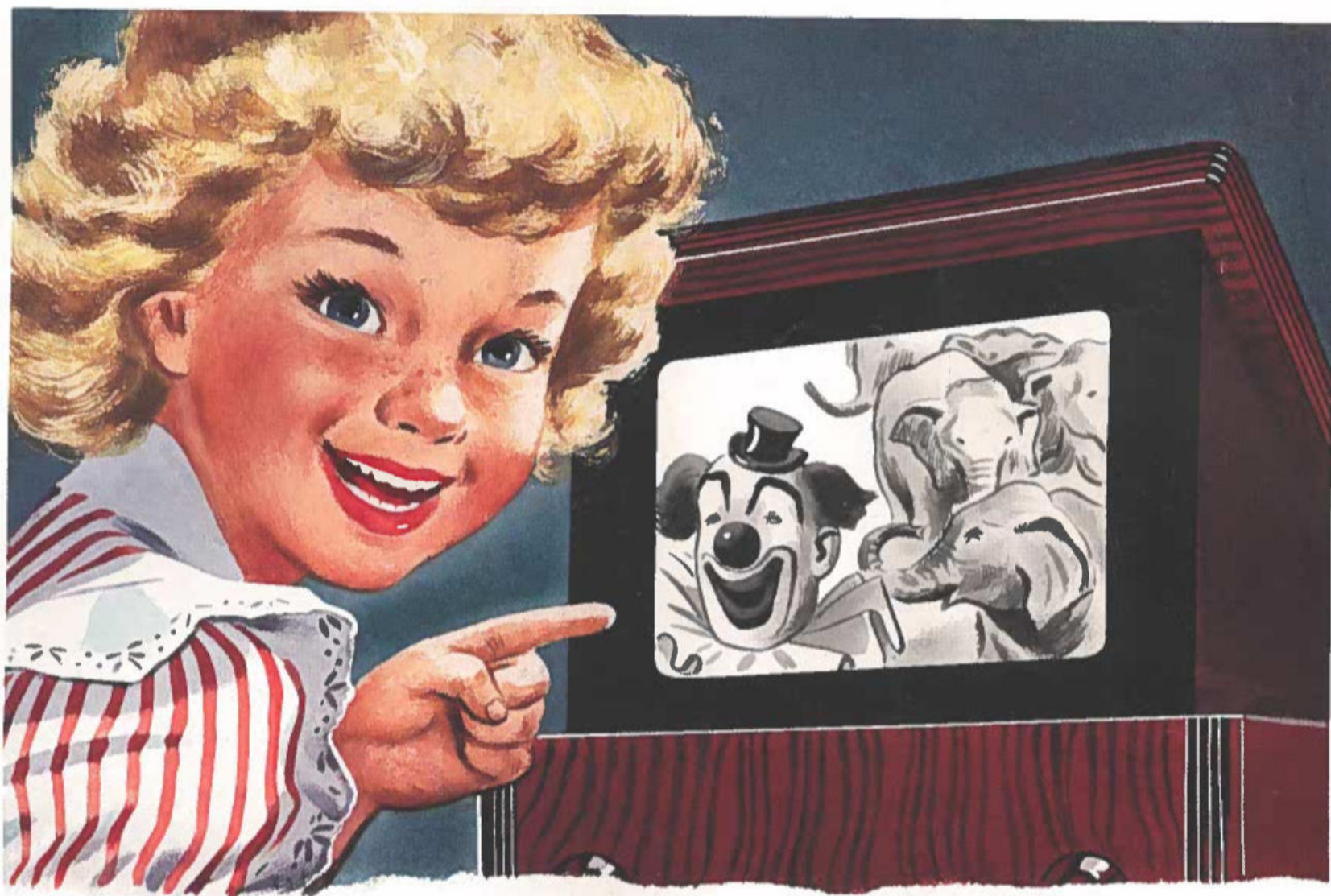
GENERAL  ELECTRIC

162-81

in red

C. D.
Record Book

G. Munnich 3/19/43
Hij



"Hurry up, Mother! Here come the elephants!"

General Electric Television will make your home a window on the world

in red
The time is coming when in some form—whether a cabinet set or a projected picture on a wall screen—every one will be able to enjoy the thrill of home television.

By television, you will see a circus parade, a big baseball game, the Mardi Gras, the launching of giant ships. You will invite friends in for the latest television movie, or the new Broadway musical show. By television, you will keep up with new fashions, new recipes, and new dance steps.

If you are a business man, you will introduce new automobiles, radio receivers, refrigerators, electrical appliances, and airplanes by television. Not only will you tell

the public about your product, as you do now by radio; you will show the public the actual product, package and all.

All of General Electric's experience in radio and television is at work today producing electronic weapons that are helping to win the war. When Victory comes, new knowledge gained in war years will be applied to the purposes of peace, and General Electric will build fine radio and television receivers for your enjoyment.

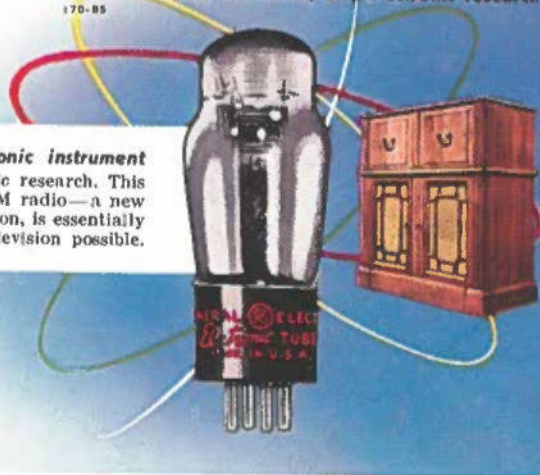
Television and FM (a new kind of high-fidelity radio) are coming industries that will provide thousands of new jobs in the post-war world.

FREE: A fascinating new booklet, 32 pages, full color, tells the story of television and other electronic equipment. Write for your free copy of "Electronics—a New Science for a New World," to Section 5-F, Electronics Department, General Electric, Schenectady, N. Y. And when you come to Schenectady, visit General Electric Station WRGB, one of the largest television stations in the world.

Tune in on Frazier Hunt and the News every Tuesday, Thursday, Saturday evenings over C.B.S. On Sunday night listen to the "Hour of Charm" over N.B.C. See newspapers for time and station.

GENERAL ELECTRIC

Leader in radio, television, and electronic research



Every General Electric Radio is an electronic instrument
Radio, like television, is a product of electronic research. This electronic tube, used in the General Electric FM radio—a new kind of radio with amazingly lifelike reproduction, is essentially the same as the electronic tubes that make television possible.

C. D.
Record Book

A. Minick
3/19/43
fy

NO. 1 IN A SERIES EXPLAINING THE USES OF ELECTRONIC TUBES IN INDUSTRY

This is a
sealed **IGNITRON**



* The sturdy steel-jacketed G-E sealed ignitron for power conversion is available in ratings ranging from 20 amp to 200 amp. It is one of a complete line of electronic tubes which General Electric supplies to manufacturers and users of all kinds of electronic equipment.

It can be used instead of rotating machinery
for converting A-C to D-C

Industry uses the G-E sealed ignitron — a steel-jacketed electronic tube — in many ways. One of the most important is as a power rectifier — converting alternating current to direct current.

Practically all power distribution today utilizes alternating current. But *direct current* is essential for many industrial operations — for example, electrolytic processes in aluminum and magnesium plants; and for operating motors that require speed adjustment. Typical D-C motor loads are machine tools, grinding machinery, cranes.

Rectifiers using the G-E sealed ignitron for D-C power at 250 volts or more

generally will have about the same installed cost, but lower operating costs than a motor generator set. Such equipment has no moving parts. It requires no special foundation. It is quiet in operation. Over-all efficiency is high, and practically constant over the entire load range.

The sealed ignitron is only one of many kinds of G-E electronic tubes working for industry.

It is the purpose of the G-E electronic tube engineers to aid any manufacturer of electronic devices in the application of tubes. Through its nation-wide distribution system, G. E.

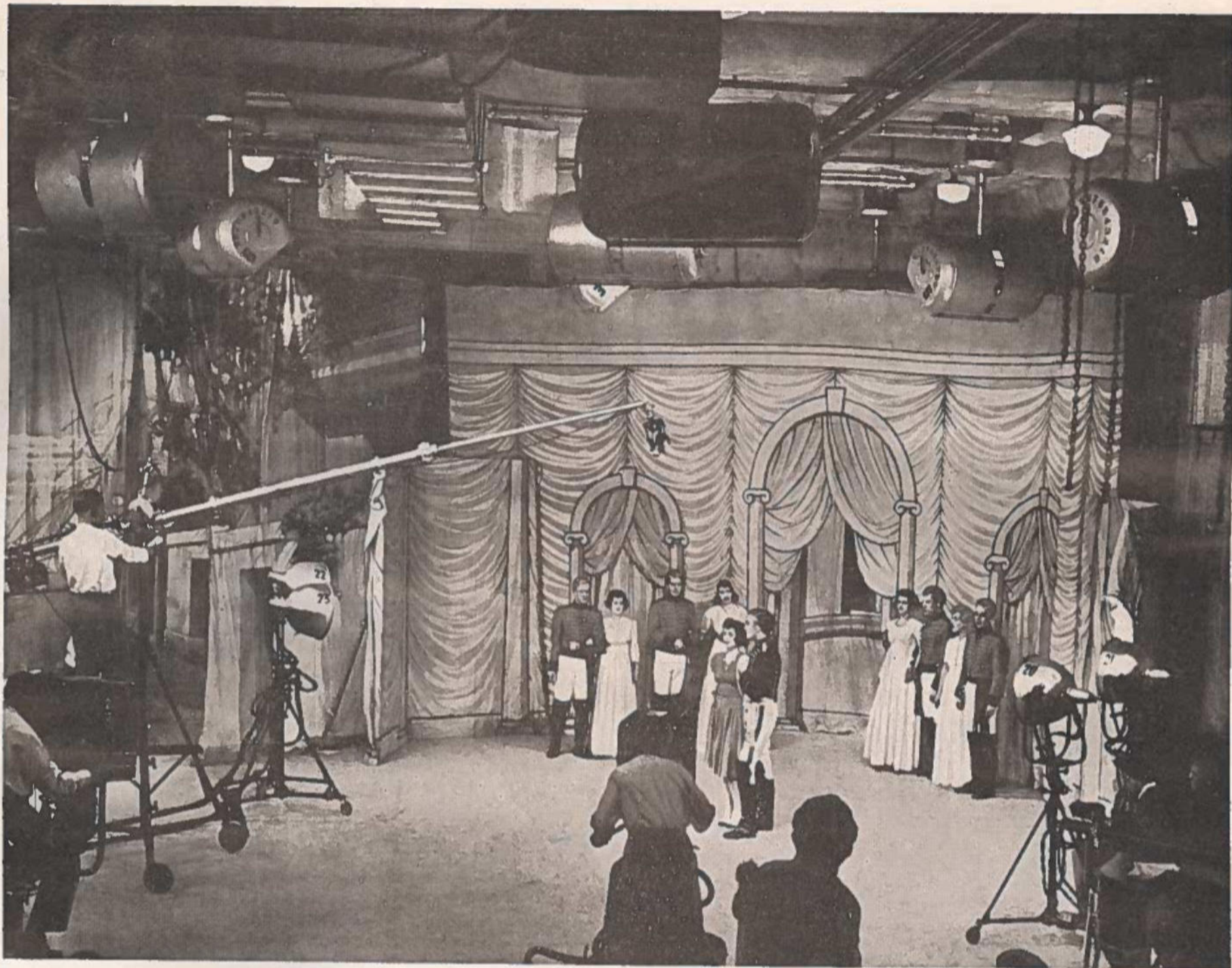
is also prepared to supply users of electronic devices with replacement tubes.

If you will send us the names of interested people in your organization, we will keep them informed of electronic tube developments. For example, we would like to mail every one interested a full color spectrum chart showing typical electronic tubes and their applications. Please write on your company letterhead. *Electronics Department, General Electric, Schenectady, N. Y.*

Time in on Frazier Hunt and the News every Tuesday, Thursday, Saturday evenings over C. B. S. On Sunday night listen to General Electric's "Hour of Charm" over N. B. C. See your local newspapers for time of broadcast and station.

GENERAL  ELECTRIC
162-82-8850

C. D.
Record Book
A. Winnick
3/17/43 S.O. 3/18/43



Bright but cool lights now simplify live-talent programming at G-E Television Station WRGB

Studio lighting bright as daylight... and cool

An Example of General Electric's Complete Service to Radio and Television Broadcasters

Once television actors had to work under hot studio lights that brought beads of perspiration through make-up, wilted costumes, caused discomfort, hindered good production.

Today at General Electric's proving-ground Television Station WRGB, Schenectady, made-up faces stay cool, costumes don't wilt. Excessive studio air conditioning is no longer necessary. For the handicap of high heat from studio lights is on its way to being completely

licked by G-E developed, mercury-filled capillary lamps. They give illumination of daylight intensity with less than half the heat of the noonday sun. Water-cooled, and three to a unit, they have a light efficiency more than double—and heat output one-tenth—that of incandescent lamps. And one control panel aims a dozen of them, noiselessly, independently, anywhere in the studio.

These lamps that give cool studio lighting are another example of the bold

research that will enable G-E electronics engineers to build improved cathode-ray scanning and picture tubes, cameras, transmitters, and other equipment for post-war television.

All this so that television may more quickly find its proper place in the peacetime scheme of things as a vital medium of public entertainment and education. . . . Electronics Department, General Electric, Schenectady, New York.

Tune in on Frazier Hunt and the News every Tuesday, Thursday, Saturday evenings over C. B. S. On Sunday night listen to the "Hour of Charm" over N. B. C. See newspapers for time and station.

GENERAL  ELECTRIC
160-83-6912

FM RADIO • TELEVISION • AM RADIO

STUDIO EQUIPMENT • TRANSMITTERS • ANTENNAS • ELECTRONIC TUBES • HOME RECEIVERS

Hand proof

C. D.
 Record Book:
 A. Minich
 4/5/43
 S. J. D.
 4/6/43



Police-radio protection for small towns or large...

with G-E All-New, Long-Range Frequency Modulation Police Radio!

Communities of every size with vital war industries must guard against accidents, disasters, sabotage. The flow of men and materials into and away from factories, arsenals, airports, military zones must be ceaseless.

Two-way police radio is essential for this exacting task. It provides the quickest possible dispatch of orders to and between police cars. Its record of raising the efficiency of public-safety work is unquestioned.

Such a record calls for dependable equipment. To provide dependability, long range, remarkable freedom from static and other interference, General

Electric offers all-new, flexible, emergency-communication equipment that meets the most exacting police-radio specifications.

It is FM, of course. It comes in a wide variety of 30 and 60 watt mobile and fixed-station combinations with a choice of accessories. There is also a 250-watt fixed-station combination.

This new G-E FM equipment is available now for better police protection in vital war areas. Officials are urged to write at once for descriptive bulletins, ordering aids and other detailed information. *Electronics Department, General Electric, Schenectady, N. Y.*

Tune in on Frazier Hunt and the News every Tuesday, Thursday, Saturday evening over C. B. S. On Sunday night listen to General Electric's "Hour of Charm" over N. B. C. See your local newspapers for time and station.



This is General Electric's outstanding new 30-watt, FM mobile combination police radio. There are twelve other mobile and station FM combinations.

GENERAL ELECTRIC

NO OTHER MANUFACTURER OFFERS SO MUCH FM EXPERIENCE

FM Police Radio • FM Military Radio • FM Broadcast Apparatus • FM Receivers • FM Broadcasting

C. D.
Record Book

G. M. M. 4/5/43
S. O. P. 4/6/43



**People Like
"Natural Color" Music!**

THAT'S WHY GENERAL ELECTRIC FM WILL INCREASE YOUR POST-WAR RADIO SALES

Few realize how FM broadcasting has grown—or how enthusiastic the owners of FM receivers are about this new kind of radio.

Half of the 32,000,000 radio homes are already within listening distance of the regularly operating FM broadcasting stations. When the war stopped FM expansion, 129 individuals had applied to the FCC for FM station construction permits.

In 1938 there was one FM station. At the beginning of this year there were 49. And more than half a million FM receivers were bought in this short time!

How do owners like FM? A consumer survey in 14 cities, handled through independent investigators, reports:

85% Say FM Is Better than Regular Broadcast
91% Would Recommend FM to Their Friends

General Electric pioneered FM. More than a third of all FM broadcast transmitters are General Electric—as are many thousands of home receivers. Today, through advertisements like the one shown, in magazines reaching tens of millions of consumers, General Electric is pre-selling FM to your future customers. After the war most if not all General Electric console-type receivers will have FM.

The public wants FM because it's the nearest thing to perfect sound reproduction. Write today for our free booklet, "The FM Eye Opener." . . . *Electronics Department, General Electric, Bridgeport, Connecticut.*

• Listen to General Electric News Time every Tuesday, Thursday and Saturday evening over C. B. S. On Sunday night listen to the "Hour of Charm" over N. B. C. See newspapers for time and station.



This four-color advertisement is appearing in the following:

The Saturday Evening Post . . . April 3, 1943
Life . . . April 26, 1943
Collier's . . . March 27, 1943
National Geographic . . . May, 1943

GENERAL ELECTRIC

175-94-6914

C. D.
Record Book

A. Nimick
4/74/43
Selling

Fistsful of Stratosphere



"BOMBS AWAY!"—The bombardier's finger touches the lever at precisely the moment the pilot "steadies off." No chance of freezing, fumbling fingers when light, electrically warmed gloves meet every temperature change from ground to stratosphere—giving our fliers the great advantage of quick-fingered action in bitter cold.

Those gloves and other essential "keep-warm" equipment were developed from the principle of the G-E Automatic Blanket that so perfectly controls your sleeping comfort at any temperature.

Today, our full facilities are devoted to keeping 'em flying for Victory.

• After the war, you'll find your favorite store again featuring the famous G-E Automatic Blanket . . . for it will be among the first of the great host of new-day G-E products to help you enjoy living in tomorrow's world.

Automatic Blanket

by **GENERAL**  **ELECTRIC**



Police-radio protection for small towns or large...

with G-E All-New, Long-Range Frequency Modulation Police Radio!

Communities of every size with vital war industries must guard against accidents, disasters, sabotage. The flow of men and materials into and away from factories, arsenals, airports, military zones must be ceaseless.

Two-way police radio is essential for this exacting task. It provides the quickest possible dispatch of orders to and between police cars. Its record of raising the efficiency of public-safety work is unquestioned.

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GENERAL ELECTRIC

NO OTHER MANUFACTURER OFFERS SO MUCH FM EXPERIENCE

FM Police Radio • FM Military Radio • FM Broadcast Apparatus • FM Receivers • FM Broadcasting

ET 38 - rev. - 1943 - 1 page - 7x10 APCO Bulletin, April
C. D.
Record Book
G. Minich
S.O.D.

C. D. R.
Record Book
MacFarland
Red

A war bride has to cook with stardust, sometimes



A lot of us who moved to this war-industry city are doing just that. I have so much to be thankful for, having Jim home inspecting planes instead of flying them any more, usually I don't mind.

But one night after a hard day at the plant office, I broke down. . . .

"It's that hole we have to cook in!" I fairly yowled at Jim. "Look at all the cook-books I got from home. Look at the lessons I took so I could get you swell meals. And then look at that dinky two-burner plate in the bathroom!"

"Never mind, small-damp-and-handsome," Jim said, mopping me up. "Before the baby comes, the Housing Committee'll have to find us a place to live with at least a closet to cook in."

"But I don't want to cook in a closet," I wailed. "I want a sunny kitchen with red-checked curtains, and a high-chair, and everything electrical G. E. used to make—like that electric range with colored signal lights to show you at a glance just what it's doing."

That's when Jim said it. "Now you're cooking with stardust, Amy," he whistled softly.

—"Don't you know that's what every cent of both our pay-checks we've put into War Bonds is going to go for—to build us a home of our own that will have all those things and many more some day!"

I hadn't thought of that. I knew our Bond purchases were helping to win the war but I hadn't thought of their effect on our future. That was before I started to cook with stardust.

Hear the G-E radio programs: "The World Today," news, weekdays, 6:45 P. M. E.W.T. over CBS, and "The Hour of Charm," Sunday, 10 P. M. E.W.T. over NBC.

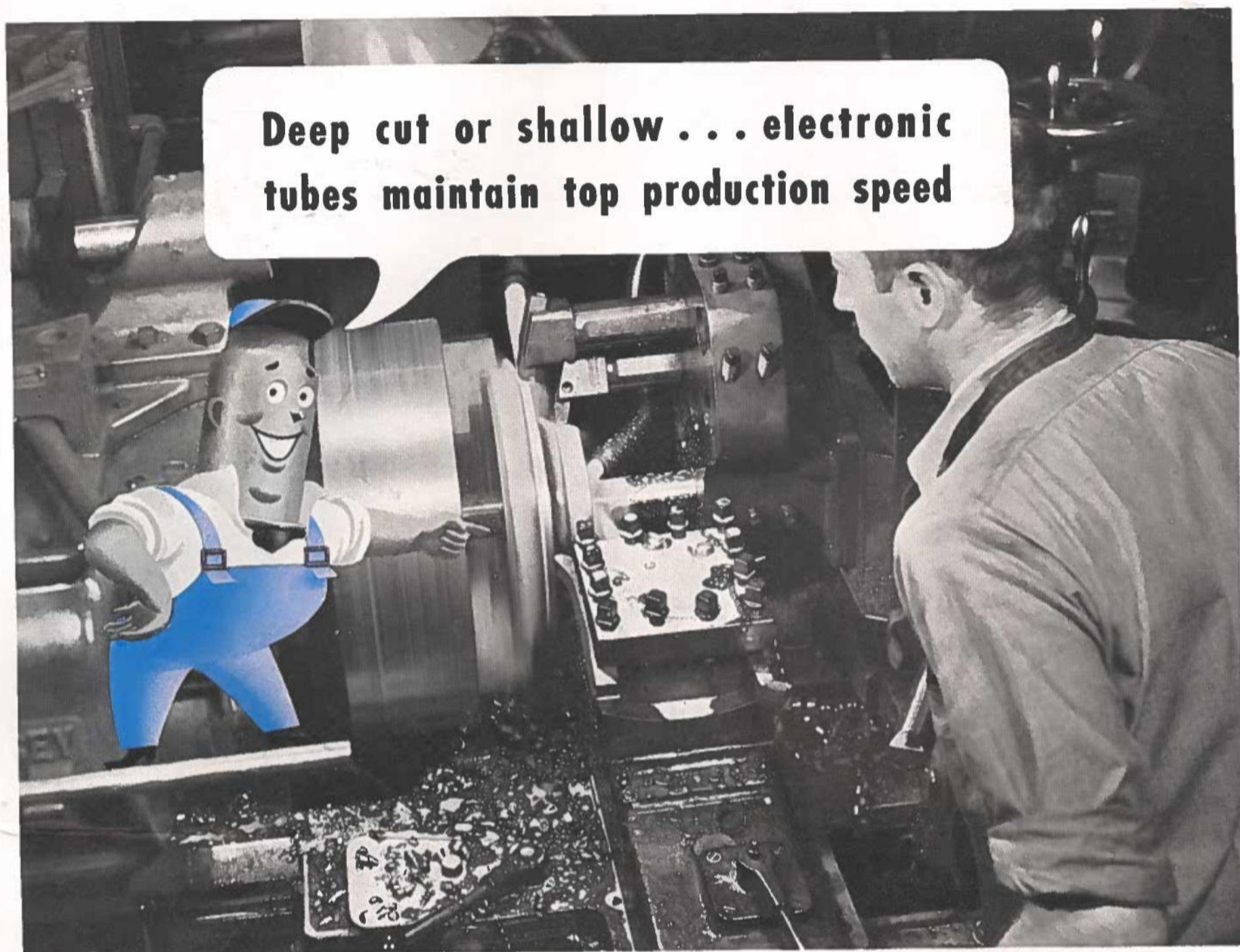


ELECTRIC RANGE

POST-WAR PLANNING FOR PLAIN PEOPLE: As little as \$5 a week invested in War Bonds regularly can provide the down payment for a new G-E equipped home of your own after peace comes. It's one way you can ACT NOW to help give post-war employment to millions of men. . . . Meanwhile, if you have any problems in wartime housekeeping, write to General Electric Consumers Institute. We will send you a helpful answer. For in the midst of General Electric's vast war production, the Consumers Institute is still devoted exclusively to *your* homekeeping interests. Address Dept. McC 10-3, GENERAL ELECTRIC CONSUMERS INSTITUTE, Bridgeport, Conn.

GENERAL ELECTRIC
EVERYTHING ELECTRICAL FOR AFTER VICTORY HOMES

No. 5 OF A SERIES EXPLAINING THE USES OF ELECTRONIC TUBES IN INDUSTRY



How the General Electric thyatron tube makes possible the simple and accurate control of motors

LIKE some silent guiding hand, a G-E electronic tube is busy at the benches and lathes of industry — cutting production costs and speeding the output of war goods.

This tube is the thyatron, a lightning-fast automatic switch. Its job is to keep machine speed constant regardless of variations in load so that production continues without interruption.

Thus, on the cutting lathe, in turning steel parts where depth of cut varies from deep to shallow, the thyatron automatically supplies

the right amount of power to hold the speed of turning exactly constant, whatever the load condition.

On textile looms where the slightest variation of driving speed may result in imperfect cloth, the thyatron assures an unfailingly uniform motor speed for perfect weaving.

Fast to a split cycle, accurate to a hair, the thyatron is at once a synchronous switch and a rectifier that enables D-C motors to operate from an A-C power supply.

It is the purpose of the G-E electronic tube engineers to aid *any* manufacturer of electronic devices in the application of tubes. General Electric, through its nation-wide distribution system, is also prepared to supply *users* of electronic devices with replacement tubes.

FREE BOOKLET ON ELECTRONIC TUBES

Send us the names of interested men in your plant and we will keep them informed of electronic developments. For example, we would like to mail, without charge, an illustrated book entitled "How Electronic Tubes Work," written in easy and understandable language, and showing typical electronic tubes and their applications. Address *Electronics Department, General Electric, Schenectady, New York.*

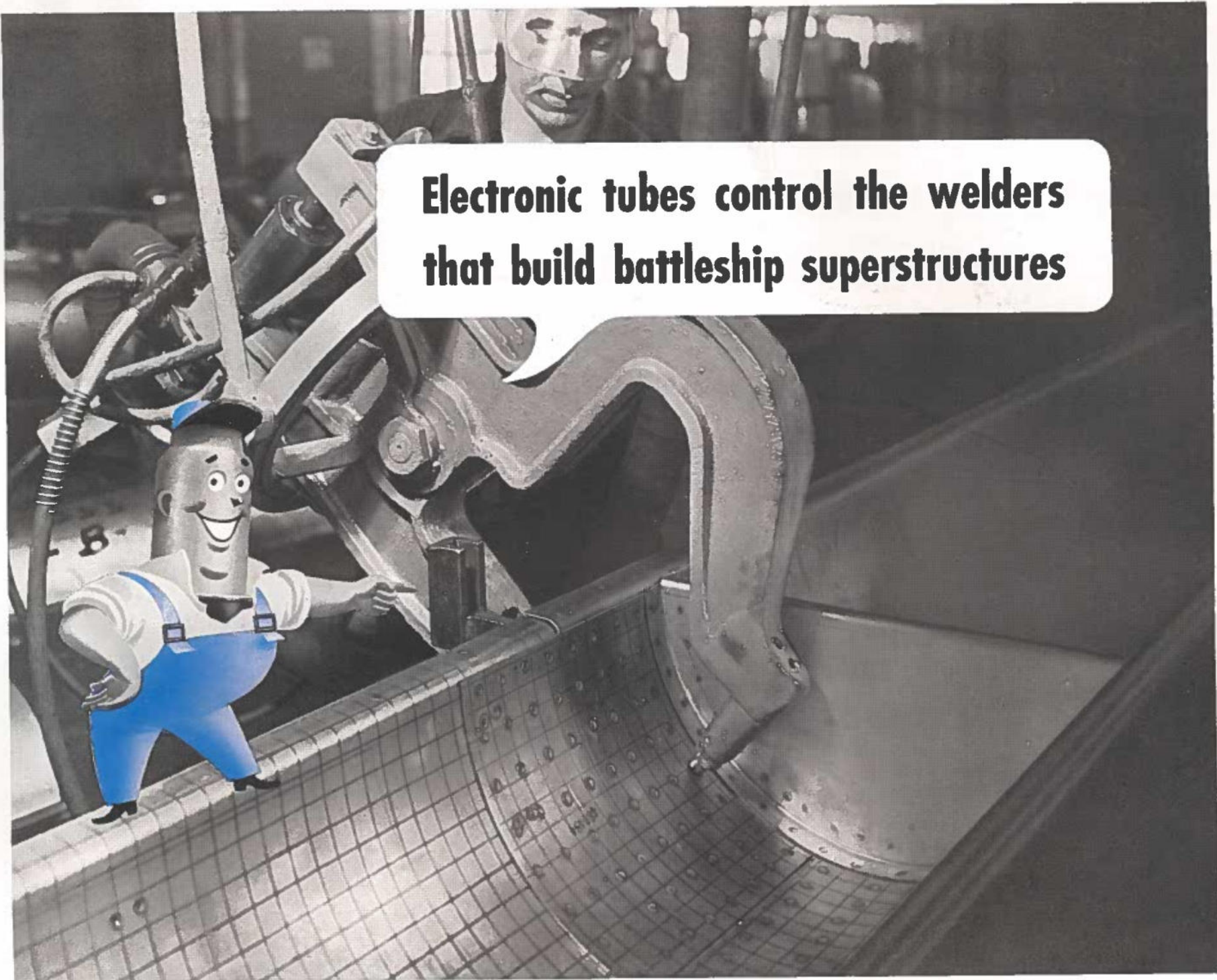
• Tune in "THE WORLD TODAY" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to "The Hour of Charm" at 10 P.M. E.W.T. over NBC.

THERE IS A G-E ELECTRONIC TUBE FOR EVERY OCCASION

GENERAL  ELECTRIC

162-911-9559

No. 6 OF A SERIES EXPLAINING THE USES OF ELECTRONIC TUBES IN INDUSTRY



**THE G-E IGNITRON IS THE POWER TUBE
AND THE G-E THYATRON IS THE TIMER**

THIS husky steel claw is a heavy-duty spot welder — a machine controlled by G-E electronic tubes which turns out superstructure sections for Uncle Sam's Navy.

Three sheets of stainless steel or aluminum, each .109 inch thick, are placed between electrodes. In a fraction of a second, electric current heats the metal at the point of contact, and fuses the sheets in permanent bond.

The special heavy-duty welding electrodes in the illustration exert a pressure of 3000 pounds,

requiring a current of 12,000 amperes for 17 cycles — 17/60 of a second.

Two types of electronic tubes make possible this high-speed, heavy-duty welding. The G-E *ignitron* is the power tube which provides the high current. The G-E *thyatron* is the precision timer, an automatic switch controlling the passage of the heavy welding current.

These are only two of the General Electric electronic tubes at work for industry in a thousand different and vital jobs.

It is the purpose of the G-E electronic tube engineers to aid *any* manufacturer of electronic devices in the application of tubes. General Electric, through its nation-wide distribution system, is also prepared to supply *users* of electronic devices with replacement tubes.

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THERE IS A G-E ELECTRONIC TUBE FOR EVERY OCCASION

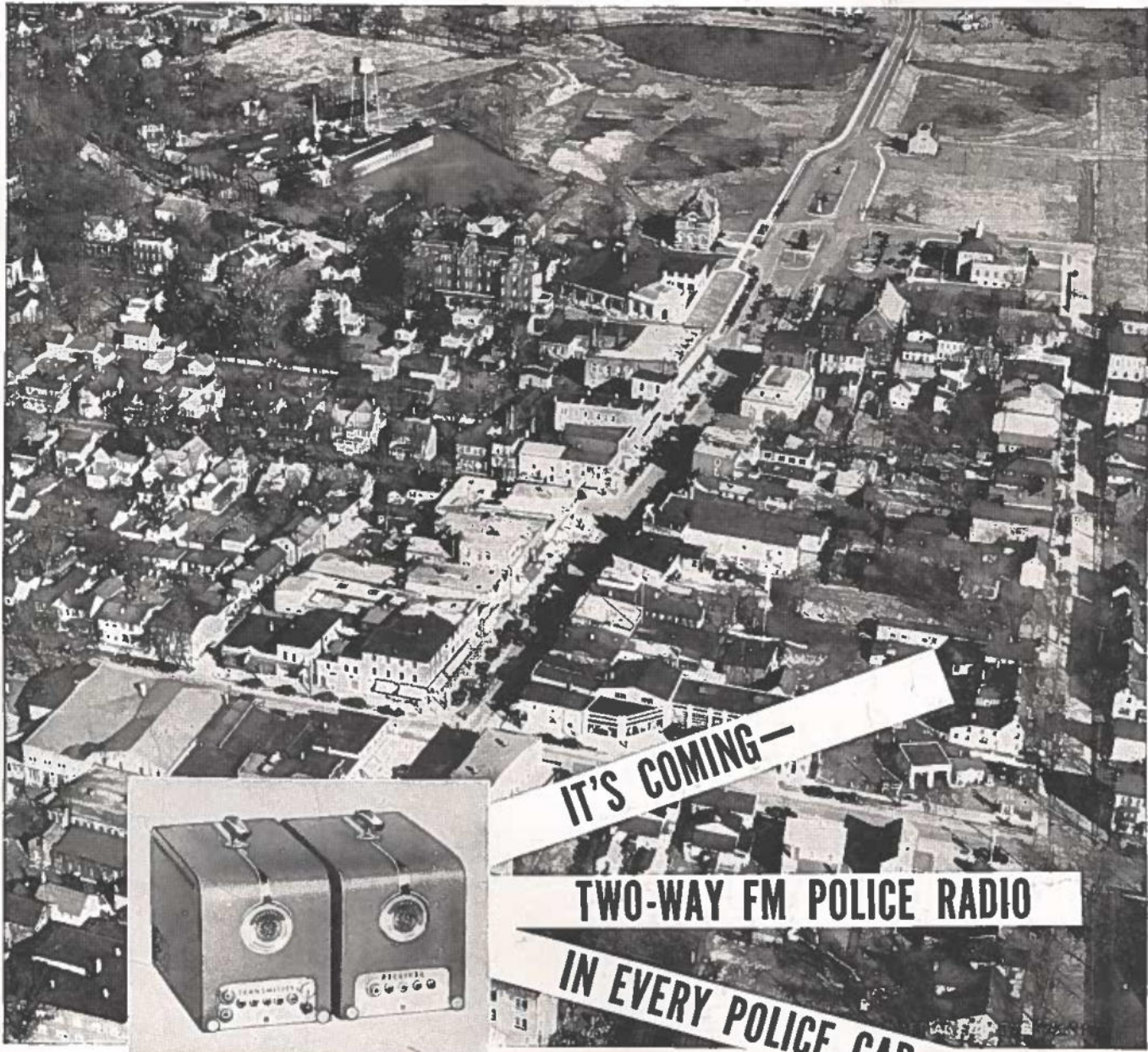
GENERAL  ELECTRIC

162-813-8850

C. D.
Record Book

A. Weirich
7/2/43

S.N. 1
7/2/43



The General Electric 30-watt mobile combination FM police radio

SMALL CITIES AS WELL AS LARGE CAN PROFITABLY USE G-E POLICE RADIO

SCATTERED throughout the nation are hundreds of small municipalities, often with areas greater than populous cities, which need the economical, efficient help of General Electric FM two-way police radio for vital war-plant protection.

Extensive police experience with this equipment in large cities proves the value of two-way FM police radio

in guarding war plants effectively and at low cost.

G-E police radio is as perfect as careful research and experienced engineering can design and build. Its thoroughly tested frequency modulation provides amazing freedom from static and interference, plus dependability, and long-range communication that make it ideal for small cities and large.

If your city needs G-E police radio at once for better protection of vital war plants or military areas, apply to General Electric today. Or start

planning now for post-war needs by writing at once for bulletins describing G-E FM police-radio apparatus. They show you how to select equipment to suit your particular needs, give you prices, and offer a handy budgeting guide. Address *Electronics Department, General Electric, Schenectady, New York.*

Tune in "THE WORLD TODAY" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to "The Hour of Charm" at 10 P. M. E.W.T. over NBC.

NO OTHER MANUFACTURER OFFERS SO MUCH FM EXPERIENCE

GENERAL  ELECTRIC

FM Police Radio • FM Military Radio • FM Broadcast Apparatus • FM Receivers • FM Broadcasting

C. D. Rev.
Record Book
MacFarland 8/20

8/20



Gene O'Haire illustrates and analyzes war news with maps. This Wednesday night feature has a rating of 2.37 out of 3.00.



Amateur boxing matches draw a large studio audience. This feature has a rating of 2.35 out of 3.00.



Light operas and operettas are presented by well-known college and other amateur groups. A recent hit showed a rating of 2.26 out of 3.00.



A "home" program of helpful hints for the housewife suggests house-keeping time savers. The program rates 2.23 out of 3.00.

COME TO SCHENECTADY . . . and See Your Future Television Station in Action

To you, the future telecaster, General Electric offers as an aid to your planning a wealth of television programming and manufacturing experience.

Station WRGB in Schenectady is General Electric's television workshop. It is one of the finest and most complete television studios in the world.

At WRGB programs are created, studied and analyzed. Live talent multiple-scene productions are staged at low cost. Audience reaction is constantly checked and a rating established for every show. Operettas, civic meetings,

variety shows, drama, sports events, and educational features are but a few.

Enthusiastic responses and repeated requests from an interested studio and home receiver audience prove the success of WRGB's weekly features—reactions providing abundant information which G.E. will gladly share with those considering television for after the war.

WRGB workshop is another example of General Electric's service to the broadcasting industry.

Within the limitations imposed by 100% war production, General Electric

is planning and developing post-war television. Experiments are constantly in progress. As a result, programming refinements seen nowhere else often are to be seen at WRGB.

If you are in the broadcasting field, or interested in building a television station after the war, COME TO SCHENECTADY and inspect WRGB in operation. No other manufacturer of television broadcasting and receiving equipment offers so much knowledge and experience as General Electric. You are welcome at WRGB. Write . . . Electronics Dept., General Electric, Schenectady, N. Y.

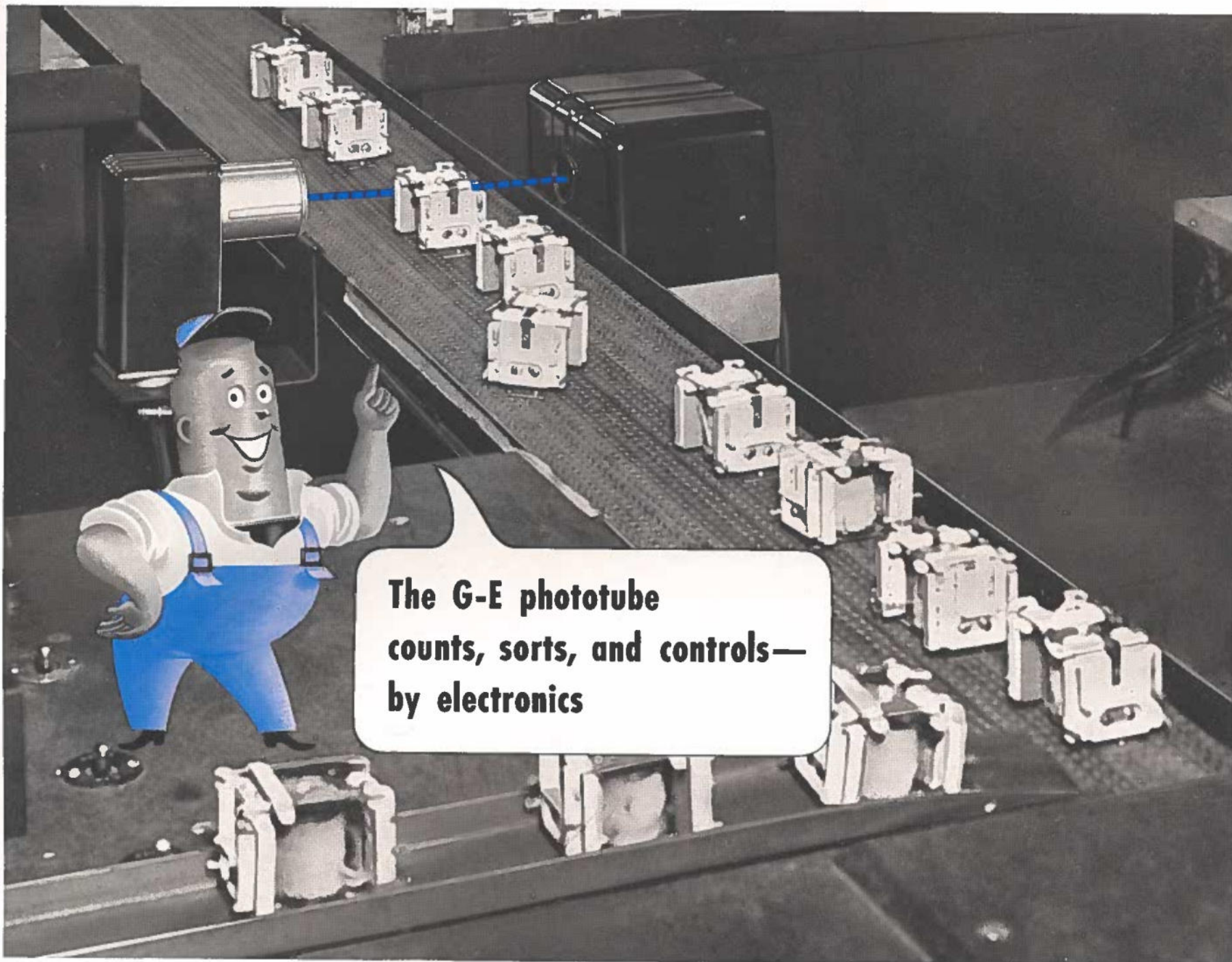
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GENERAL ELECTRIC FM • TELEVISION • AM

COMPLETE STATION EQUIPMENT • STUDIO EQUIPMENT • TRANSMITTERS • ANTENNAS • ELECTRONIC TUBES • HOME RECEIVERS

APD
7/2
7

No. 4 OF A SERIES EXPLAINING THE USES OF ELECTRONIC TUBES IN INDUSTRY



The G-E phototube
counts, sorts, and controls—
by electronics



The General Electric phototube, a light-sensitive electronic tube with hundreds of applications, is one of the most useful tubes in modern industry

ONE phototube counts the relays speeding down a war production line.

Another rejects imperfect ball-bearings by automatically sizing each one to perfect dimensions. A third, responsive to radiant energy, controls temperature in an electric furnace.

A fourth watches the smoke density in a plant chimney and sounds an alarm to warn of wasteful combustion.

In its many industrial applications the phototube is primarily a signaling device, actuated

by the breaking or modulation of its beam of light. It tells other tubes what to do and when to do it.

Working with the thyatron, a precision "timer," the phototube transmits a low-power impulse which is amplified by the thyatron to such proportions that it can start or stop, accelerate or decelerate the equipment.

Thus in hundreds of ways does the phototube increase the efficiency of industry. New uses are discovered daily.

It is the purpose of G-E electronic engineers to aid any manufacturer of electronic devices in the application of electronic tubes. General Electric, through its nation-wide distribution system, is also prepared to supply users with replacement tubes.

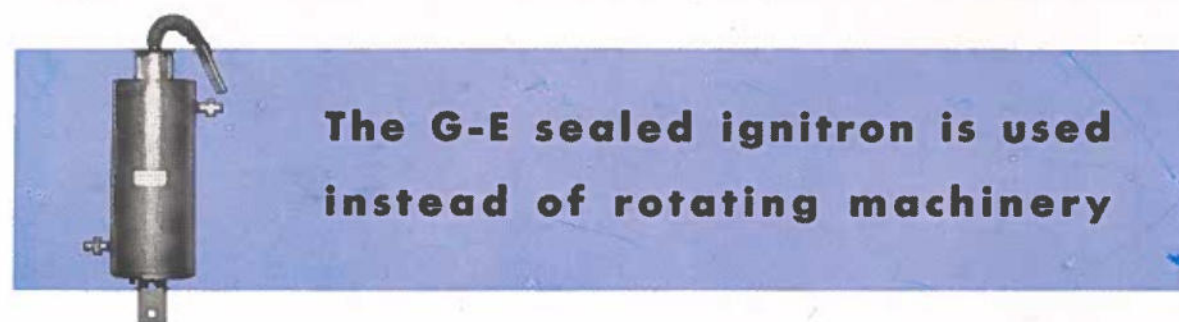
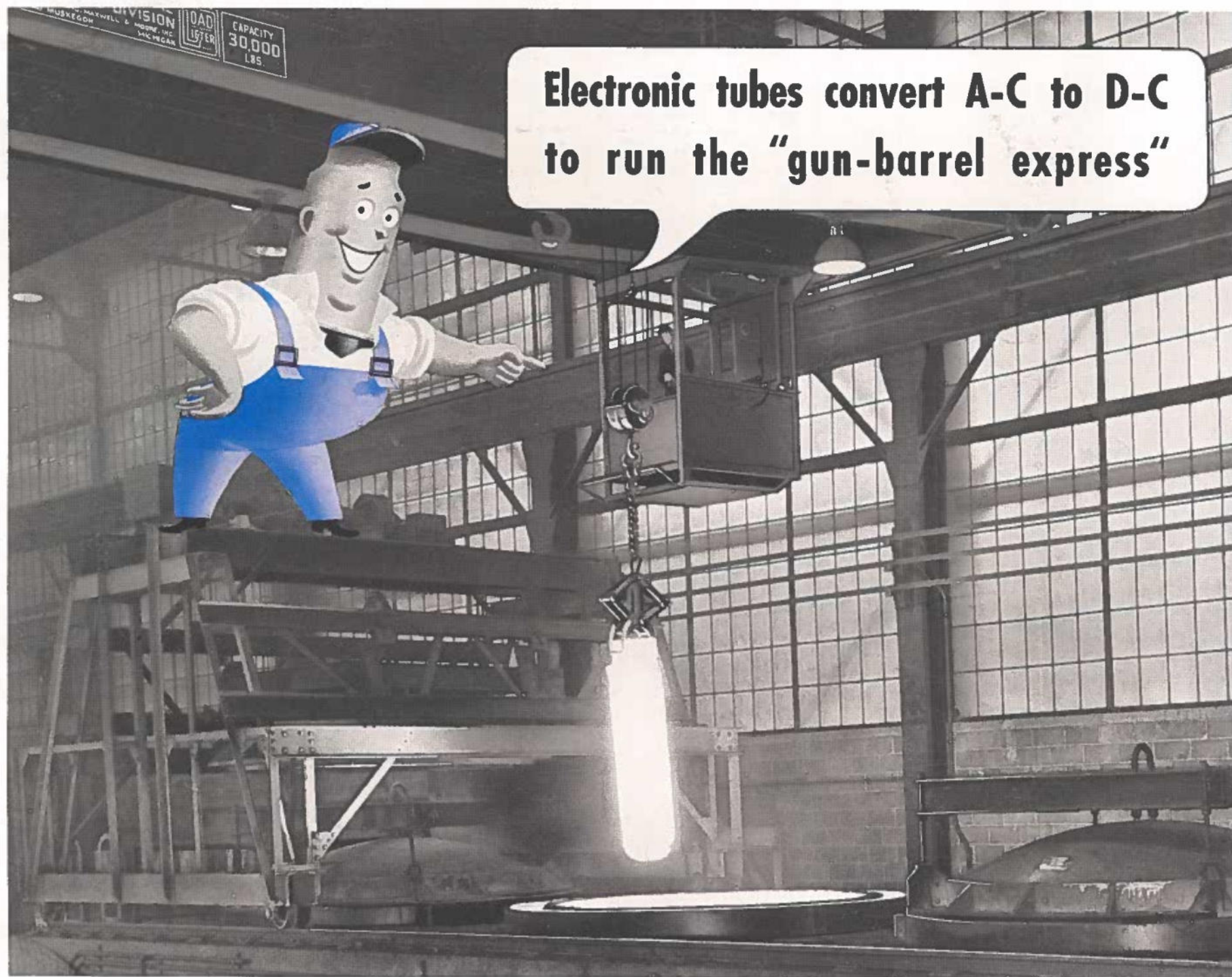
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GENERAL ELECTRIC
GENERAL ELECTRIC EMPLOYEES ARE NOW PURCHASING OVER \$1,000,000 IN WAR BONDS WEEKLY

No. 7 OF A SERIES EXPLAINING THE USES OF ELECTRONIC TUBES IN INDUSTRY



The G-E sealed ignitron is used instead of rotating machinery

THIS traveling crane, 100 feet long, is suspended from the sides of a war plant turning out gun-barrels for destroyers. Its power supply offers industry an excellent example of electronic tube application.

Direct current is essential for precision crane operation. Here, rectifiers using the G-E steel-jacketed ignitron (available in ratings from 20 amp to 200 amp) provide direct current at about the same installed cost as rotating machinery—but at far lower operating costs.

This electronic tube has no moving parts. It requires no special foundation. It is quiet in operation. Over-all efficiency is high, and practically constant over the entire load range. In many cases the area of production space required by the G-E ignitron and its auxiliary rectifying equipment is less than for any other type of rectifying machinery.

The steel-jacketed ignitron is only one of a complete line of G-E electronic tubes now working for industry in a thousand different jobs.

It is the purpose of the G-E electronic tube engineers to aid *any* manufacturer of electronic devices in the application of tubes. Through its nation-wide distribution system, G.E. is also prepared to supply *users* of electronic devices with replacement tubes.

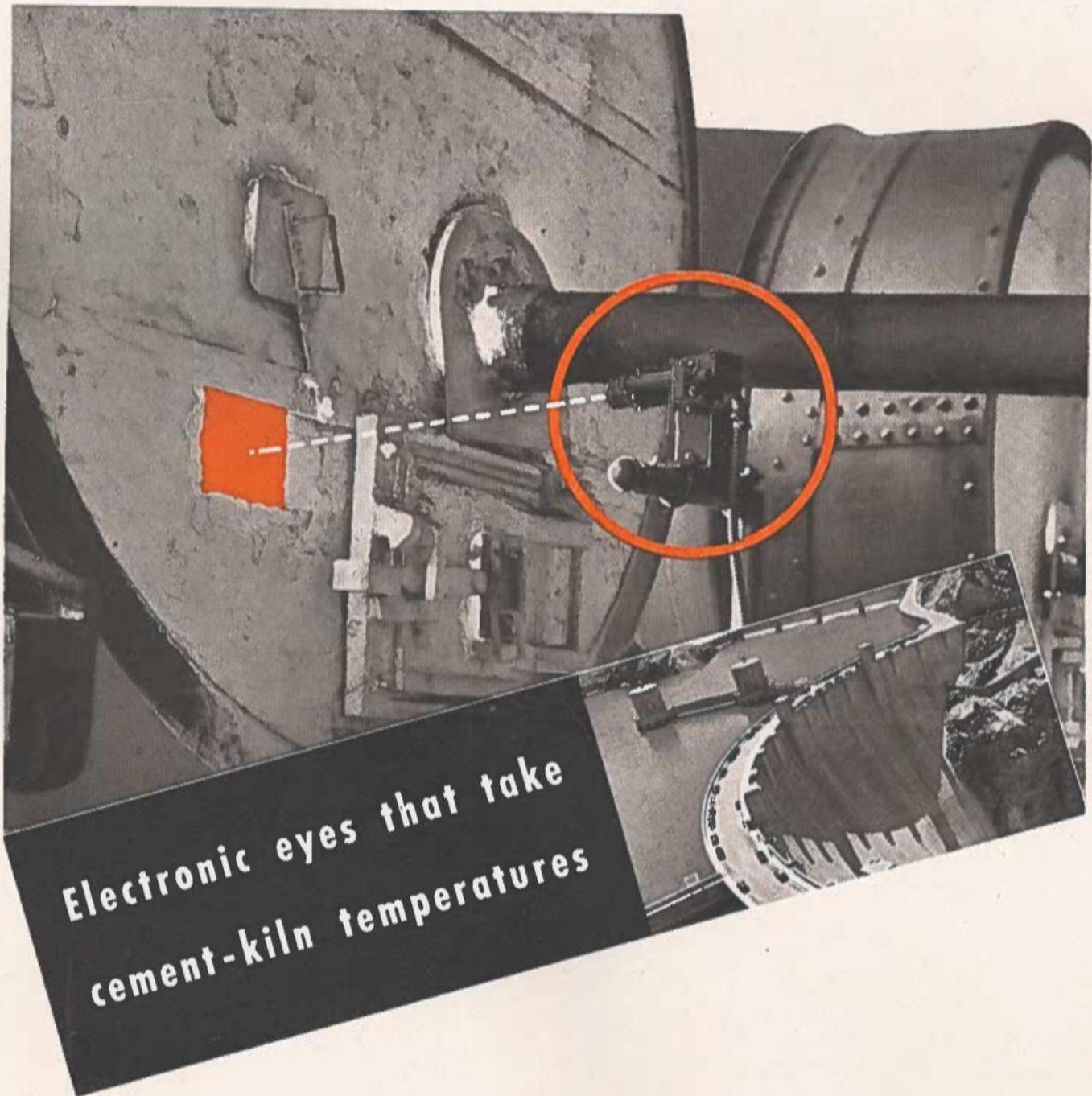
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GENERAL ELECTRIC

GENERAL ELECTRIC EMPLOYEES ARE NOW PURCHASING OVER \$1,000,000 IN WAR BONDS WEEKLY



How the G-E phototube responds to radiant energy, and controls speed, temperature and kiln feed

You are looking at one of the most dramatic uses of the "electronic eye"—a phototube pyrometer that automatically controls a kiln in one of the nation's leading cement plants.

This electronic eye is focused on a clinker cascade of red-hot cement within the kiln. Radiant energy given off by the clinker as it changes temperature acts on the tube, and causes a corresponding change in the current it passes.

Other electronic tubes receive this change in current; the temperature of

the clinker is adjusted by speeding up or slowing down the kiln; and at the same time, a permanent record is made of temperature and kiln speed. A better cement for dams, tunnels and bridges is the result.

There are literally hundreds of applications of the G-E phototube in industry today. One phototube counts the valves speeding down a war production line. Another rejects imperfect ball bearings by automatically sizing each one to perfect dimensions. Still others perform a thousand tasks that hasten the war effort.

General Electric engineers will aid any manufacturer of electronic devices

in the application of tubes. Through nation-wide distribution, General Electric is prepared to supply users of electronic devices with replacement tubes.

FREE BOOKLET ON ELECTRONIC TUBES

We will keep interested men in your plant informed of electronic developments. Ask us to mail without charge the book, "How Electronic Tubes Work," written in easy and understandable language. Address Electronics Department, General Electric, Schenectady, New York.

• Tune in General Electric's "The World Today" and hear the news from the men who see it happen, every evening except Sunday at 6:45 E. W. T. over CBS network. On Sunday evening listen to "The Hour of Charm" at 10 E. W. T. over NBC. Buy War Bonds today for the better things of tomorrow—including a General Electric FM radio-phonograph.

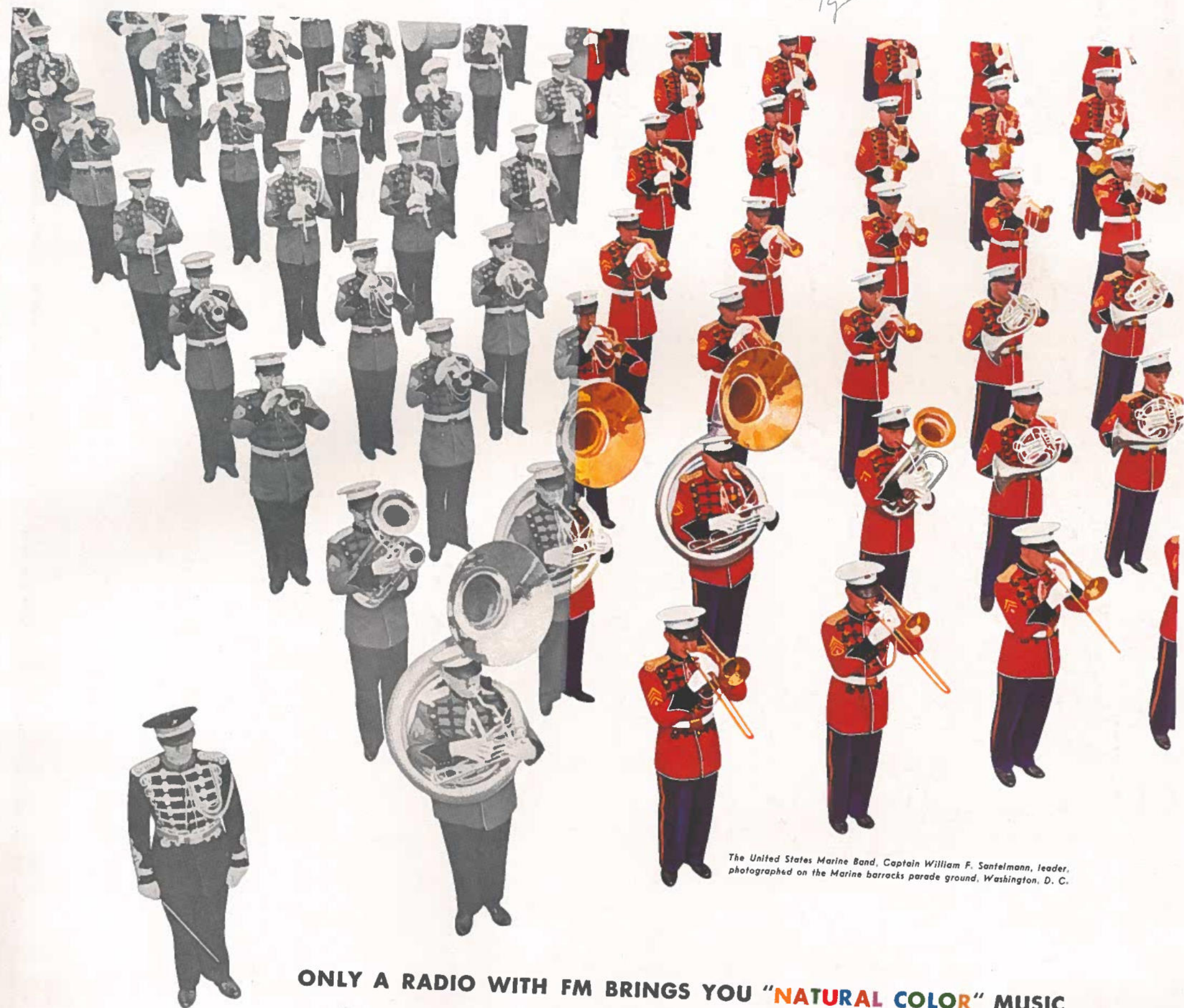
PUTTING ELECTRONIC TUBES TO WORK FOR AMERICAN INDUSTRY

GENERAL ELECTRIC

142-810-8850

**C. D.
Record Book.**

*A. Hennich
6/30/43
Fy*



The United States Marine Band, Captain William F. Santelmann, leader, photographed on the Marine barracks parade ground, Washington, D. C.

ONLY A RADIO WITH FM BRINGS YOU "NATURAL COLOR" MUSIC

EVERY note of music from the U. S. Marine Band, or a piano, or a great entertainer — or any sound you hear—is composed of a fundamental tone plus a series of *overtones* which sound in harmony with it.

The overtones give color and realism to music. In a concert hall, you hear these tones, and the music is deep, rounded, and resonant. But over the conventional radio, because of inherent limitations in transmission, you hear less than half the range you ought to hear.

General Electric FM brings you the *full range of tone* — all the fundamentals plus the glorious "Natural Color" overtones. Instead of traveling over

a narrow "highway" of 5000 cycles, radio sounds travel over a broad "highway" of 15,000 cycles.

FM radio is so astonishingly lifelike that a whisper, the crackle of a match, a sigh, the tinkle of a glass, every subtlety of tone is unerringly reproduced. And FM radio is virtually static-free.

By now, an estimated 2,000,000 persons listen daily to FM programs over 49 FM stations. Which is proof that this new kind of radio offers something you can't get in conventional radio!

General Electric FM radio is built now for military purposes only. But your General Electric FM radio after victory will be finer than ever before.

FREE: The story of electronics and FM radio is told in a full-color, 32-page book. Write for "Electronics — a New Science for a New World," to *Electronics Dept., General Electric, Schenectady, New York.*

• Tune in "The World Today" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to "The Hour of Charm" at 10 P.M. E.W.T. over NBC. Buy War Bonds today for the better things of tomorrow, including an FM radio.

GENERAL ELECTRIC

Leader in radio, television, and electronic research

softened

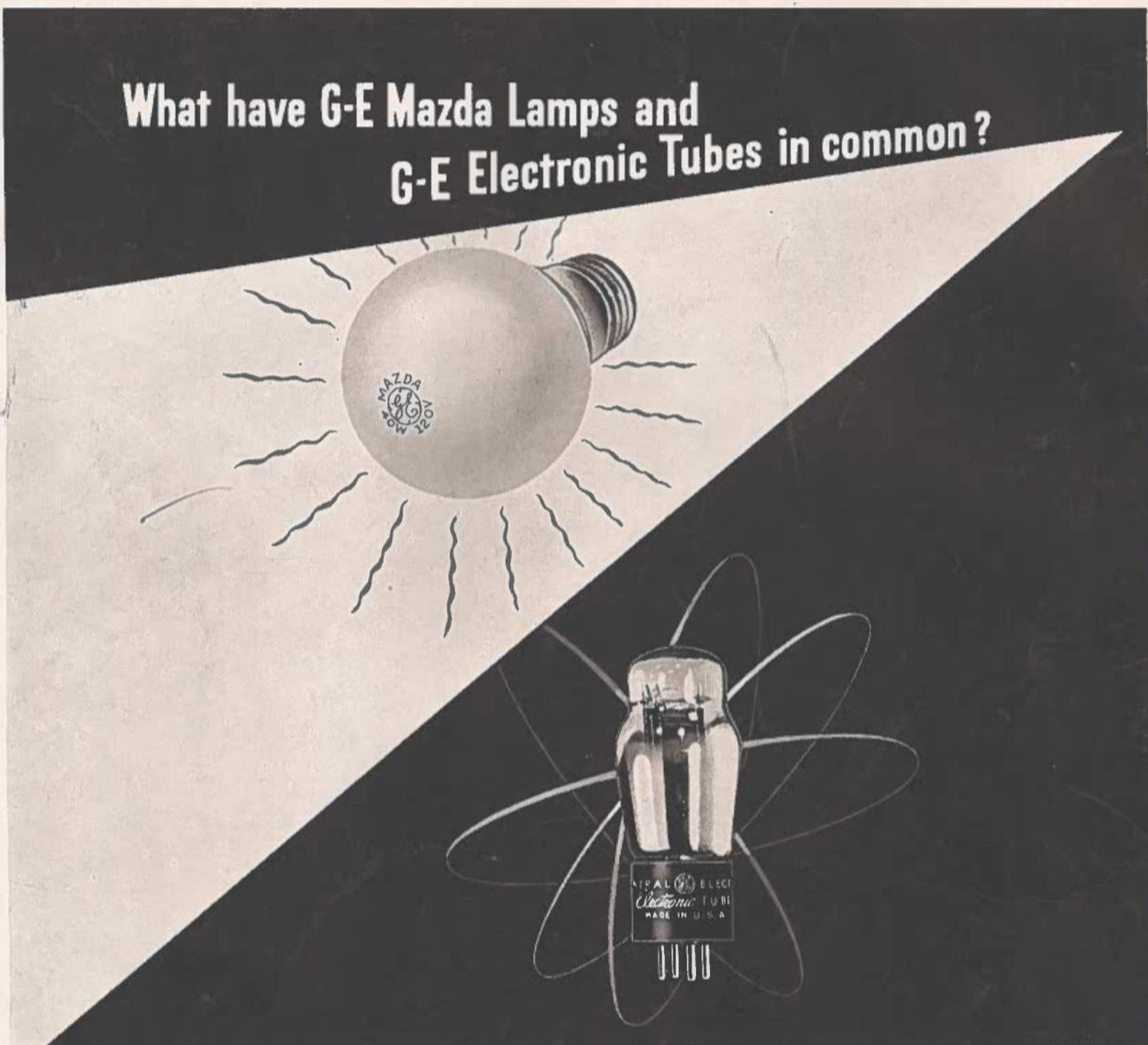
Every General Electric radio is an electronic instrument
Radio is a product of electronic research. The newest kind of radio is FM (Frequency Modulation) which brings you "Natural Color" reception—with all the overtones that you miss in conventional radio.



*Calder
New*

C. D.
 Record Book
 Mrs. Farland 6/29
 S. D. D. 6/24

What have G-E Mazda Lamps and G-E Electronic Tubes in common?



THE General Electric Mazda Lamp and the General Electric Electronic Tube have a lot more in common than meets the eye!

But radio service men and service dealers should recognize the important similarities. Both lamp and tube bear the same G-E symbol that the public has long shown its respect for by buying countless millions of electric lamp bulbs for its homes, stores, farms, factories.

Both are durable. Both are efficient. Both bring a fair profit to the retailer. Both are as American as Chevrolets,

Plymouths, Fords. Both give much more service than their cash value indicates.

The history and development of both are closely tied in with General Electric's history and development. Both are being widely and currently advertised to consumers through the nation's most effective advertising media.

As a result, the G-E Electronic Tube is earning the same complete consumer confidence now given to the famous G-E Mazda Lamp.

There is already an increased demand for G-E Electronic Tubes. And when

peace is restored, General Electric Electronic Tubes will be in greater public demand for replacements than they ever were before. Insistent G-E advertising and promotion aim to make them your fastest moving radio tubes. And—G. E. won't let you down! *Electronics Department, General Electric, Schenectady, New York.*

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GENERAL  ELECTRIC
 LEADER IN RADIO, TELEVISION, AND ELECTRONIC RESEARCH

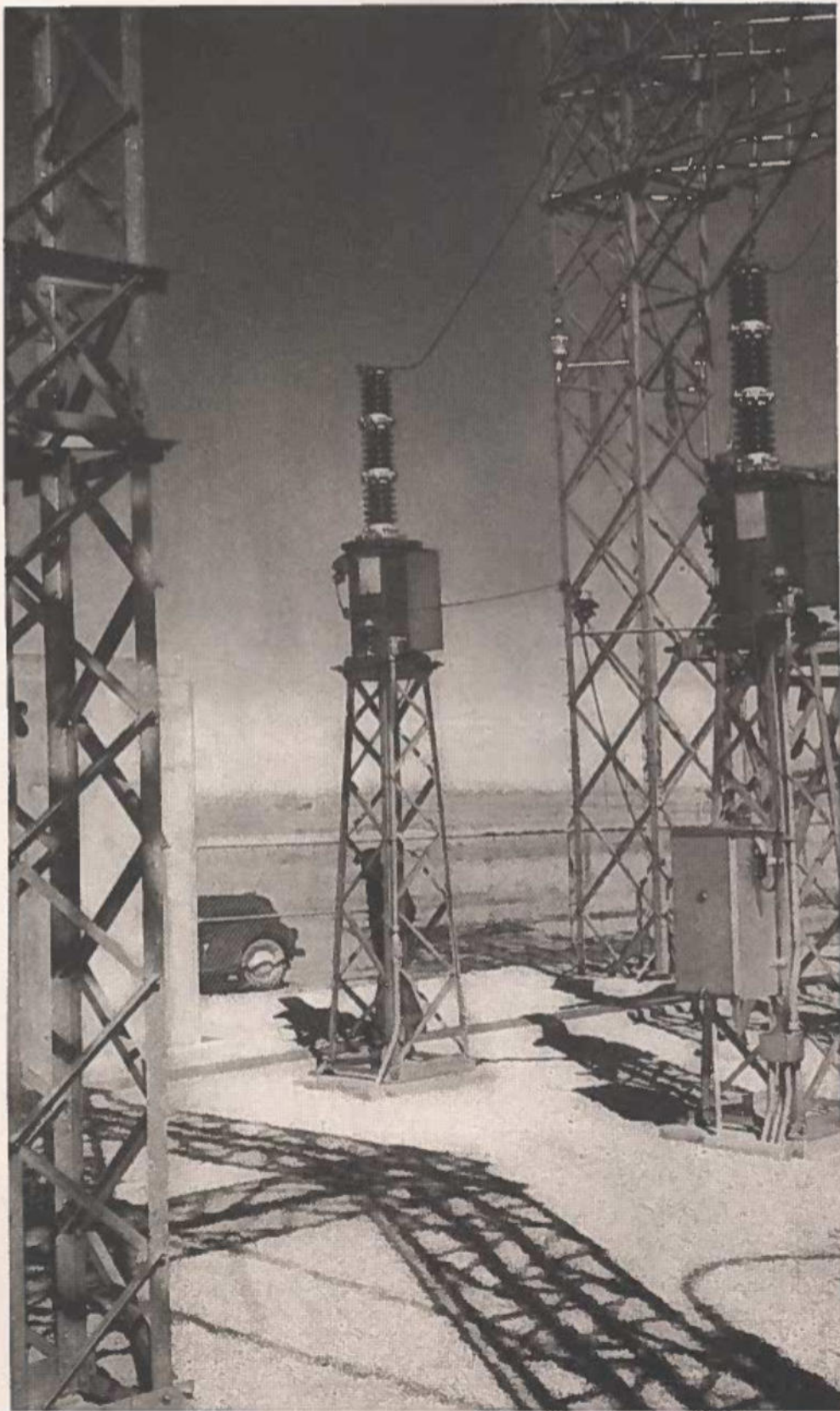
C. D.
Record Book

A. Kinnick
6/29/43
S. U. D. / 6/29/43

PRESENT power systems

PLUS G-E carrier current

SAFELY deliver more kilowatt hours



MANY power companies—faced with increased power demands for war uses—can deliver more kilowatt hours and stay well within safe operating limits by installing modern G-E carrier-current equipment. Regardless of the type of carrier function needed, General Electric can supply it.

Besides offering all types of carrier-current equipment, an exclusive feature of G-E design is its package-type unit construction. For example, your immediate need may be pilot relaying to improve stability of transmission lines, increase their load-carrying capacity, and reduce outages in protected or unprotected sections. Later, when more functions are wanted, additional G-E apparatus is designed to fit quickly and easily into your original installation.

Literally “packaged” G-E carrier-current equipment can be added as needed for every purpose, if you insist on modern G-E equipment from the start.

Here are some major carrier-current functions that may boost the kilowatt-hour output of your system:

1. Pilot relaying
2. Transferred tripping
3. Automatic tie-line load control
4. Telemetry
5. Telephony
6. Supervisory control
7. Line sectionalizing control

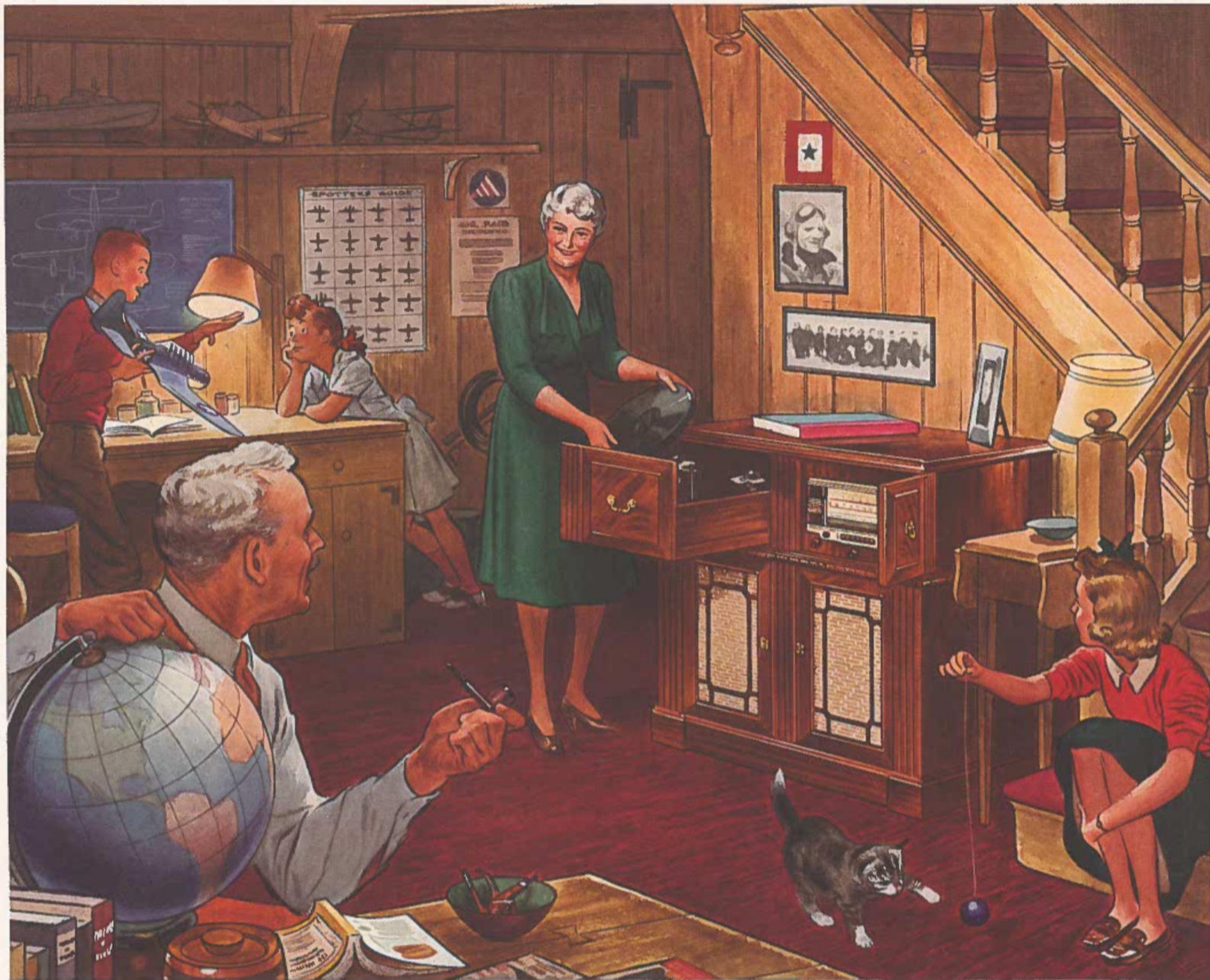
G.E. has led the field in carrier-current design, research and application for 20 years, and its installations cover the nation. Your G-E representative will gladly discuss with you the application of carrier current to your system. . . . *Electronics Department, General Electric, Schenectady, N. Y.*

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← Transmitter-receiver assembly mounted on same column that supports the coupling capacitor: base also includes line tuning equipment and a potential device.

GENERAL  ELECTRIC

151-84



**"We never knew till now how much enjoyment
an FM radio-phonograph could give us!"**

The car's in the garage. Shoe leather is scarcer. Everybody's staying home more now—and it's turning out to be fun!

And you are doubly fortunate if you own a General Electric FM radio-phonograph.

This electronic instrument is two instruments in one. You flick a button, and in comes the news of the world, a play, a comedy, a symphony orchestra, a dance band.

Your mood changes. You want another kind of relaxation. So you flick another button, put on the records, settle back, and the *permanent* treasures of the world's music are at your command.

What endless hours of delight await you then! The great symphonies of Beethoven, Brahms, Schumann. Glimpses into fairyland on children's records—the story of Red Riding Hood, and Babar, and Sleeping Beauty. Gems of jazz, and historic moments such as Congress' Declaration of War.

All the inspiration, the entertainment of recorded music, plus the eventful happenings of our day—in one glorious instrument!

General Electric is building radio for military purposes alone now. But after Victory, the General Electric radio-phonograph with FM (Frequency Modulation) will be available to every one, at a

modest and reasonable price. It will be a finer instrument than ever before, because of wartime developments in the science of electronics.

FREE: Send for the fascinating 32-page book in full color: "Electronics—a New Science for a New World." Tells the story of FM radio. Hundreds of thousands of copies have been printed. Write for a copy to *Electronics Department, General Electric, Schenectady, New York.*

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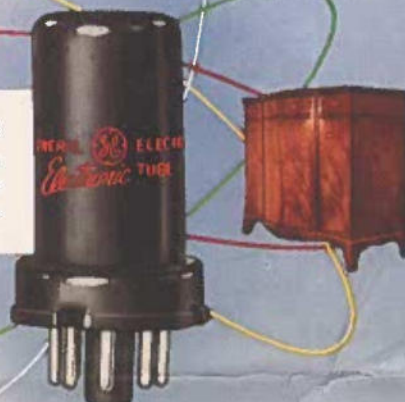
GENERAL ELECTRIC

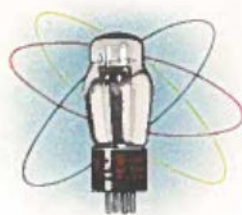
Leader in radio, television, and electronic research

170-810

Every General Electric radio is an electronic instrument

Radio is a product of electronic research. The newest kind of radio is FM (Frequency Modulation) which brings you "Natural Color" reception—with all the overtones that you miss in conventional radio.





TRICORNE...BY ELECTRONICS

Trumpets sound. Cries of *Olé! Olé!* The shaking of castanets, and a distant chant. *Le Tricorne* begins! . . . So brilliantly does the Musaphonic recreate the subtlety and the humor of De Falla's music, that you almost see the dancers before you! This superb instrument is endowed with a tone of astonishing realism. General Electric engineers, applying the science of electronics to the reproduction of sound, have succeeded in producing a radio-phonograph of great tonal beauty. Today General Electric is engaged in war production only, though the Musaphonic with FM (Frequency Modulation) is bringing music's rewards to many owners. Tomorrow, research will offer a still more satisfying instrument.



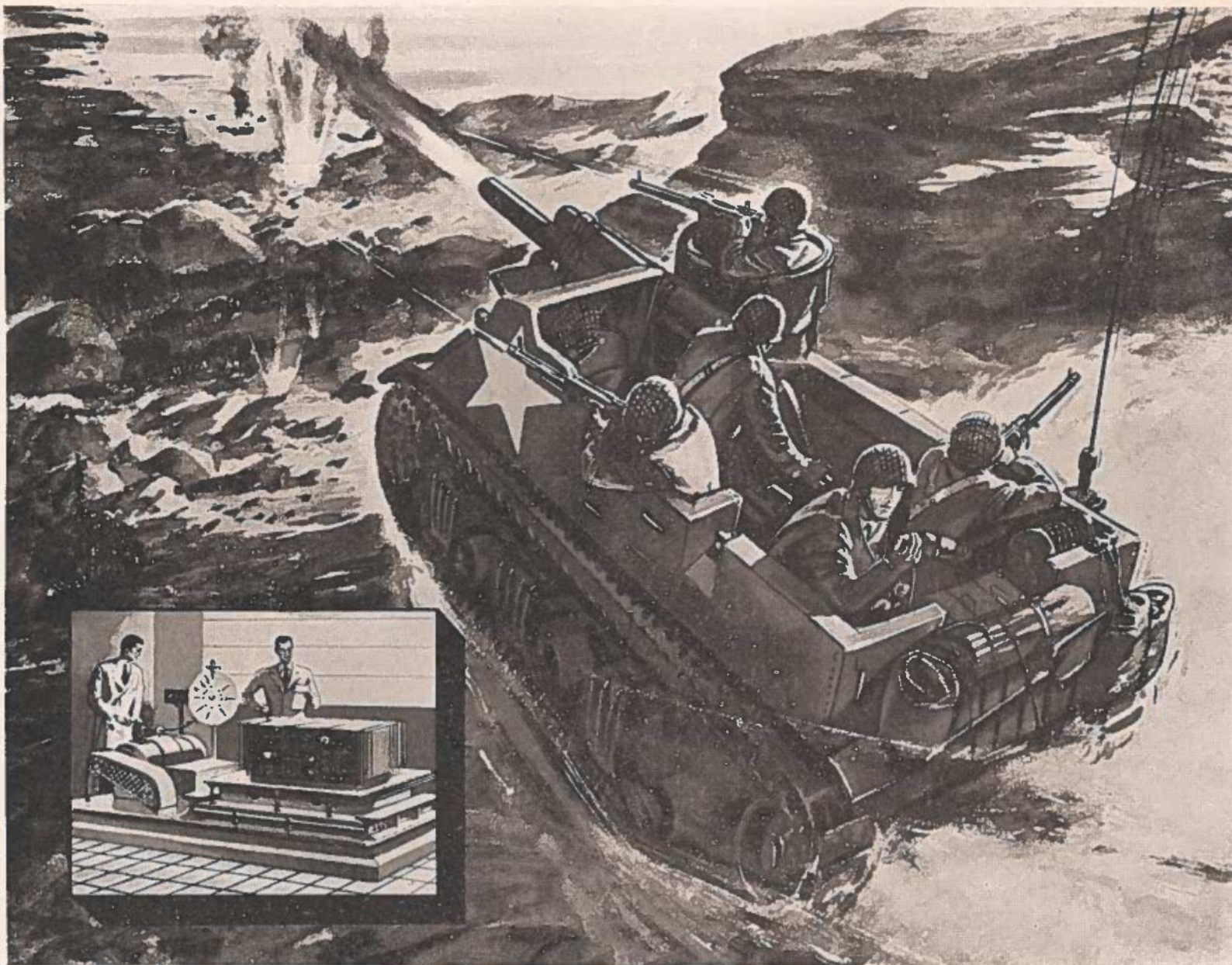
Massine as the Miller, and
Argentinita as the Miller's Wife, in
the Ballet Theatre production of *Le Tricorne*,
"The Three Cornered Hat." Costumes by Picasso.



The distinguished Chippendale model. Musaphonic prices range from \$300. Send for 32-page book, in color, "Electronics—a New Science for a New World." Address Electronics Dept., General Electric, Schenectady, N. Y. Tune in "THE WORLD TODAY" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to "The Hour of Charm" at 10 P. M. E.W.T. over NBC. Buy War Bonds today for the better things of tomorrow—including a G-E FM radio-phonograph.

MUSAPHONIC
GENERAL ELECTRIC
LEADER IN RADIO, TELEVISION, AND ELECTRONIC RESEARCH

C. D. Review
 Record Book
 MacFarland 6/24
 S.O.D. 6/24



A G-E vibration test for military radio

Radios for tank busters **MUST BE TOUGH!**

Another reason why your post-war G-E radios will have the quality to win consumer appeal!

To TAKE the beating that a tank destroyer gives it . . . and come up fighting! That's the first requirement of a tank buster's radio!

At General Electric plants today, volume-produced G-E military radios rehearse for battle in torture tests that would completely disable ordinary equipment.

A radio is fastened to a table and shaken at the shattering speed of 60 times a second through a 1/16-inch space . . . faster than the eye can see. Then engineers check the set's operation for hours . . . in test rooms of desert dryness; arctic cold; blistering, humid heat! All to make sure their radios will take the punishment of battle.

Skilled engineering, fine materials, expert workmanship, and testing assure per-

formance quality. Through many national advertisements like the one at the right, in mass consumer magazines, G. E. is educating the public to expect quality in the post-war G-E radio line.

Free—a full-color, 30 x 40-inch blow-up of the advertisement shown here, mounted on heavy cardboard with an easel back, will be sent for your showroom or window on request. Simply write to . . . Electronics Department, General Electric, Bridgeport, Connecticut.

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This full-color advertisement appears in:

Collier's	June 19, 1943
The Saturday Evening Post	June 26, 1943
Look	June 29, 1943
Life	July 5, 1943
Farm Journal	July, 1943
American	August, 1943

GENERAL ELECTRIC

G. E. IS BUILDING MORE MILITARY RADIOS THAN ANY OTHER HOME-RADIO MANUFACTURER

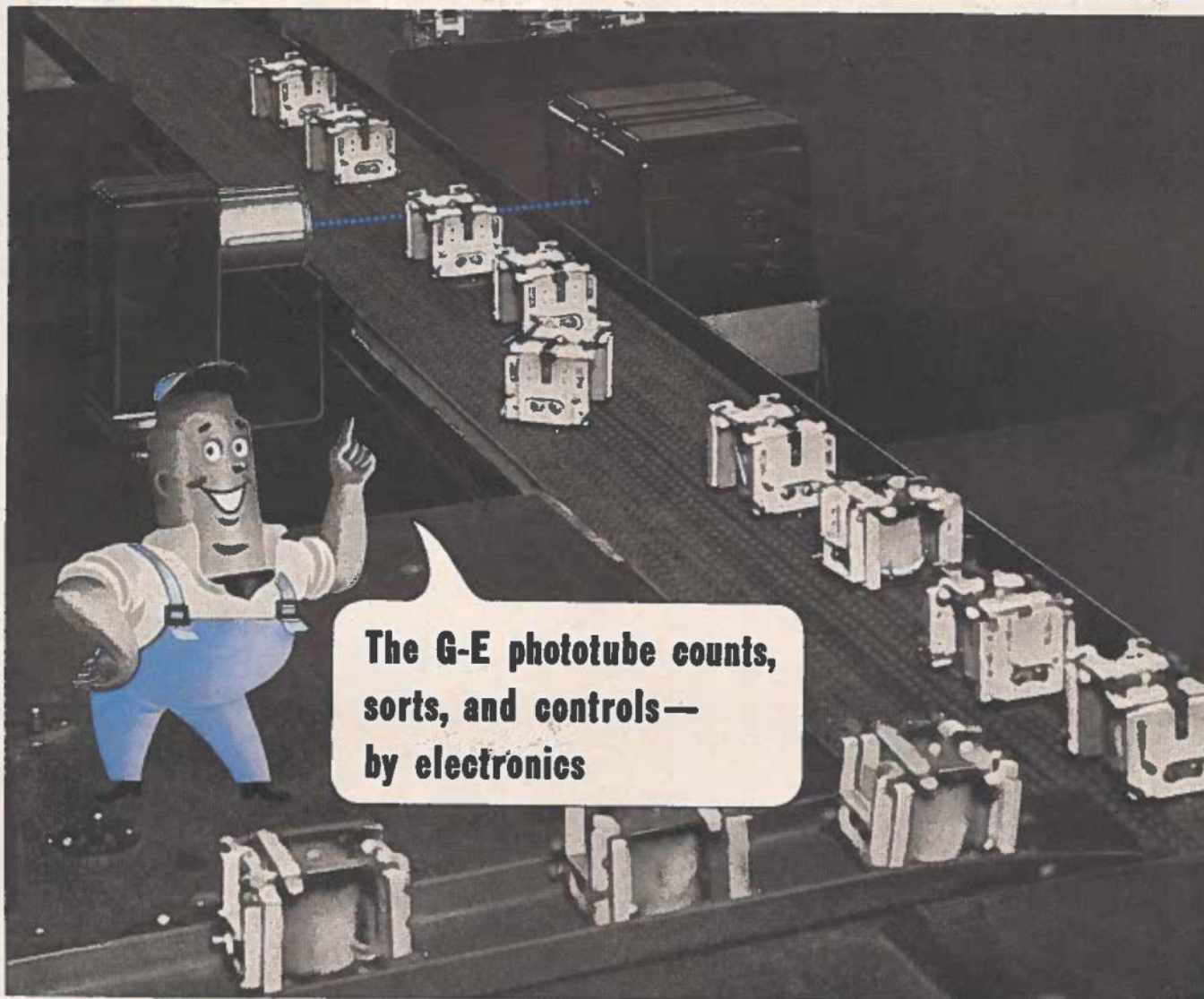
Revised

C. D.
~~Record Book~~

Alister
4/28

73

No. 4 OF A SERIES EXPLAINING THE USES OF ELECTRONIC TUBES IN INDUSTRY



The General Electric phototube, a light-sensitive electronic tube with hundreds of applications, is one of the most useful tubes in modern industry.

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GENERAL  ELECTRIC

General Electric employees are now purchasing over \$1,000,000 in War Bonds weekly



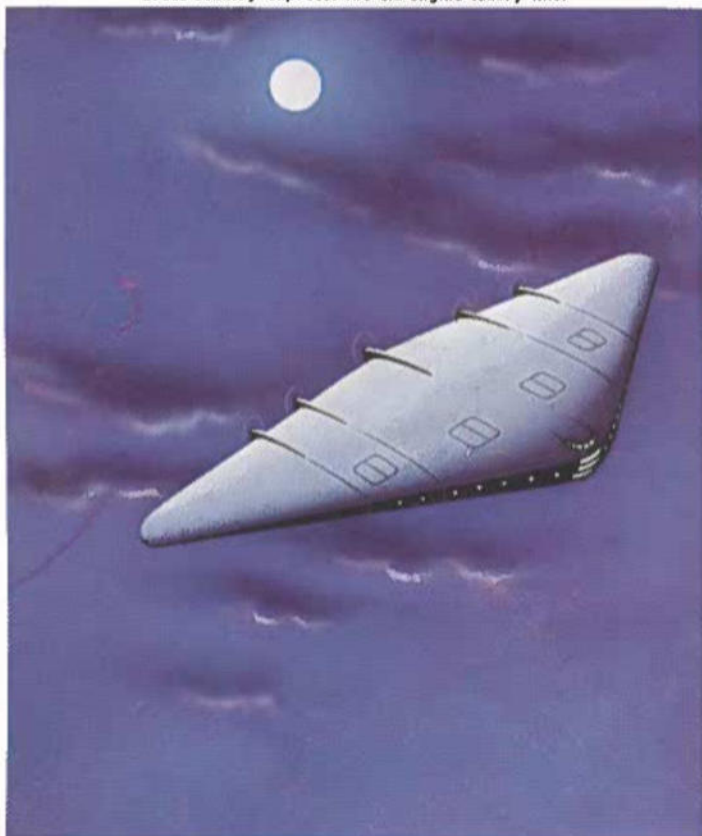
Cross-country express: the six-engine luxury liner



The helicopter: vertical take-off, vertical landing



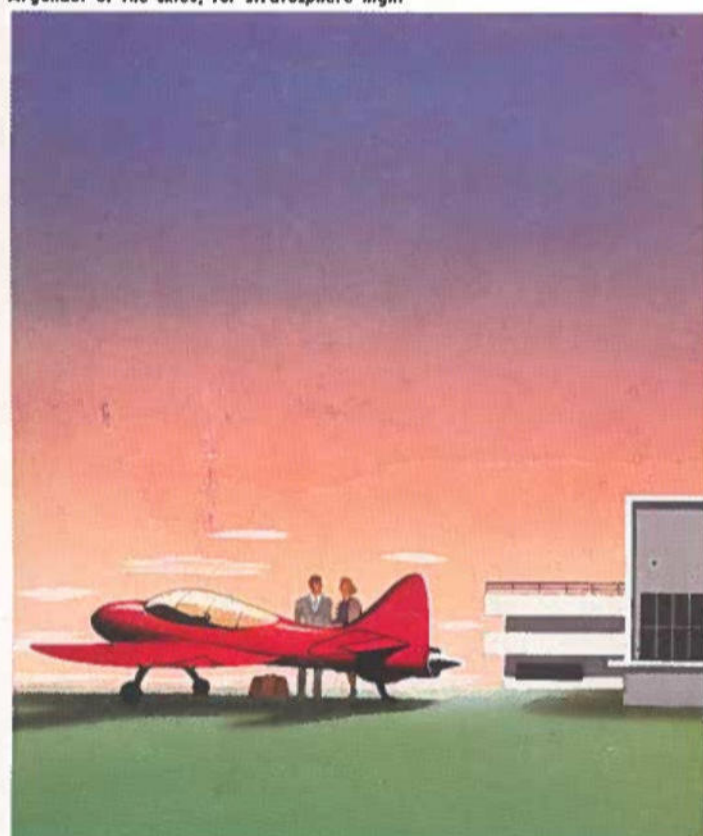
Argonaut of the skies, for stratosphere flight



Sky freighter: the Flying Wing as cargo ship



Flying Boat: New York to London, on the hour



Daily local: private plane for tomorrow's commuter

GENERAL ELECTRIC RADIO AND RADAR WILL GUARD AND GUIDE THEIR FLIGHT

Practically every Flying Fortress, Liberator and Commando in the skies today is equipped with General Electric radio.

Radar — RADio Detection And Ranging — the amazing electronic development that locates distant planes and ships despite darkness and fog, is also built by General Electric and supplied to our Armed Forces in every theater of war.

Tomorrow, transatlantic planes may carry 400 people. Giant freight ships will cruise from continent to continent. Private planes will multiply, and you may own one that is an automobile in the city

and an airplane in the country. But whatever the size, or range, or tonnage of the airplanes of the future, General Electric electronic systems will guard and guide their flight. By radio and Radar, planes will take off, fly, and land blind in any weather.

General Electric military radio is built to cope with swift changes in altitude, temperature, climate. One hour a plane may skim across desert . . . one hour push through cold space 40,000 feet up. The same engineering skill that makes possible this wartime radio operation will bring you a finer General Electric radio-phonograph after Victory!

FREE: The fascinating story of electronics and FM radio is told in a full-color, 32-page book. Write for "Electronics—a New Science for a New World," to Electronics Department, General Electric, Schenectady, New York.

• Tune in General Electric's **WORLD TODAY** and hear the news from the men who see it happen, every evening except Sunday at 6:45 E. W. T. over C. B. S. network. . . . On Sunday evening hear General Electric's **Mazda Lamp** program over N. B. C.

GENERAL ELECTRIC

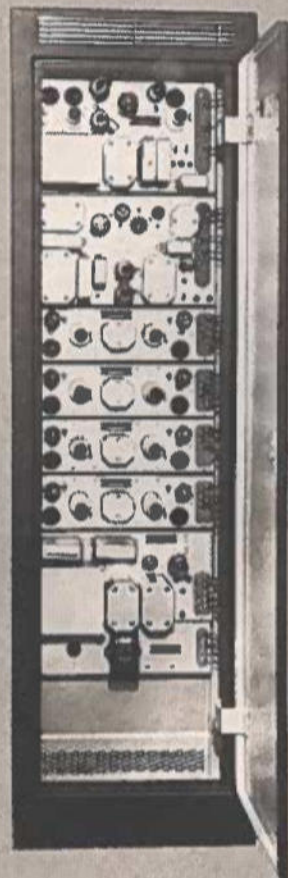
Leader in radio, television, and electronic research

Every General Electric radio is an electronic instrument

Radio, like television, is a product of electronic research. This electronic tube, used in the General Electric FM radio, is essentially the same as electronic tubes that make television possible. G-E employees now purchase over \$1,000,000 in War Bonds weekly.



C. D.
 Record Book
 MacFarland 6/7
 500ms
 6/7/43



G-E carrier-current equipment can provide nine major services

Power companies today are broadening their use of G-E unit-type carrier-current equipment to include almost all of the nine major carrier-current functions. By doing so, they appreciably increase their ability to deliver more kilowatt hours and thus prepare for growing energy needs.

Superimposed on existing power lines, G-E carrier current is, in many cases, making unnecessary the construction of new power lines and power apparatus that would require large amounts of strategic war materials. . . . Carrier current permits:

1. Tap points for new war loads from major transmission lines without appreciably impairing their reliability.
2. Increased interconnections between systems to help boost kilowatt deliveries.
3. Safe loading of existing lines closer to their stability limits.

Complete new carrier-current equipment to meet your requirements can be supplied from G-E standard rack-units. You save engineering time with these unit-constructed accessories and avoid excessive cost and construction delays of specially built equipment. Remember that the design and performance of G-E carrier-current equipment have been proved in service.

Companies that install modern G-E carrier current can add units as needed to handle new functions . . . easily, quickly, without scrapping

other equipment . . . and at low cost. These compact "packaged" units are self-contained for easy installation.

It will pay you to investigate now the possibility of applying carrier current to your system for:

Pilot relaying. Transferred tripping. Line sectionalizing. Supervisory control. Signaling. Telemetry. Automatic load control. Telephony. Line-potential from carrier coupling capacitors.

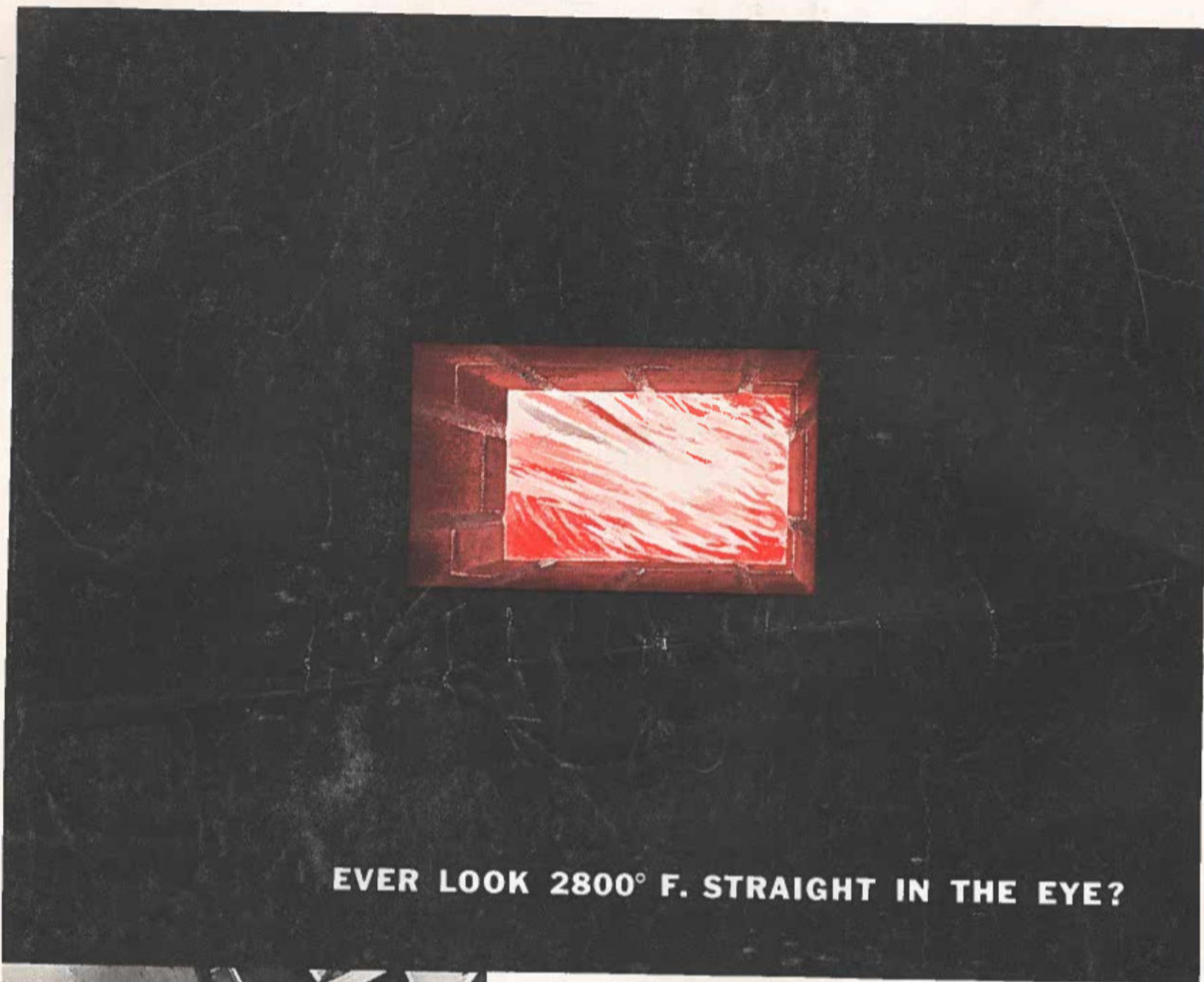
Your G-E representative will gladly discuss the advantages to you of new or additional equipment. Or write . . . *Electronics Department, General Electric, Schenectady, N. Y.*

• Tune in General Electric's World Today and hear the news from the men who see it happen, every evening except Sunday at 6:45 E. W. T. over C. B. S. network. On Sunday evening hear General Electric's Mazda Lamp program over N. B. C.

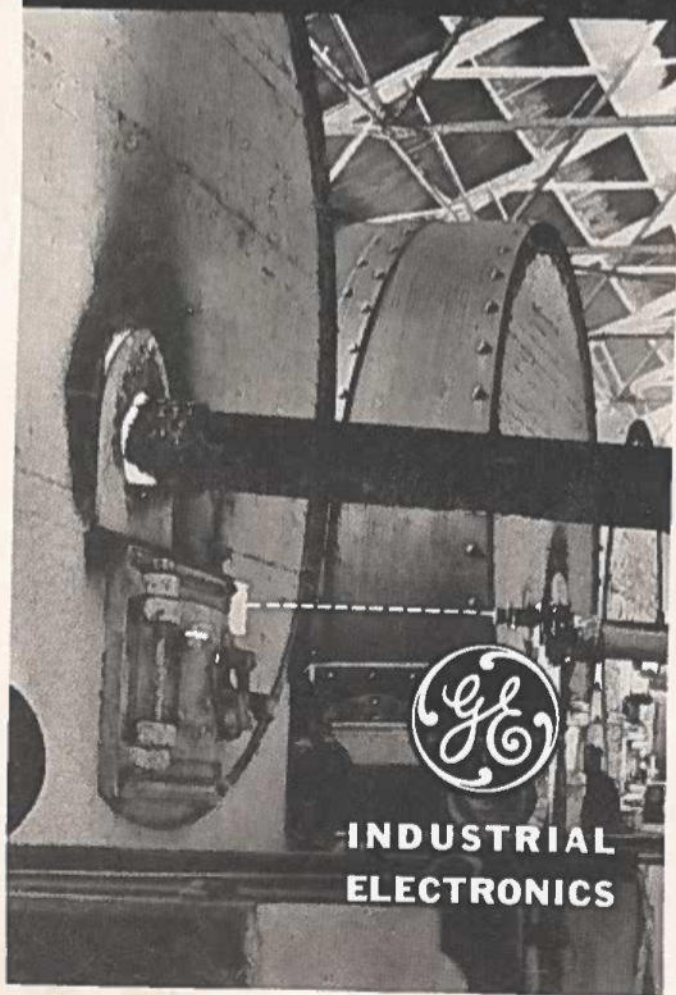
GENERAL ELECTRIC

G-E employees are now purchasing over \$1,000,000 in War Bonds weekly

C. D.
Record Book
C. Rogers
Hay



EVER LOOK 2800° F. STRAIGHT IN THE EYE?



RAW materials for cement are burned in large rotary kilns at temperatures up to 2800 F. Operators used to squint through dark glass at the white-hot clinker, and thus try to judge kiln temperature.

Today, instead, an electronic eye peers at the clinker, determines the temperature accurately, and transmits a signal to a special G-E motor and control. This automatically adjusts the speed of the kiln. Result: a cement of uniform quality!

This is a practical example of electronics at work for industry. As in many other electrical operations completely engineered by General Electric, electronic circuits were chosen to do the job faster, cheaper, more efficiently.

You can purchase *standard* G-E electronic apparatus that is ready for immediate installation. Or, where indicated, G.E. will design and build *special* apparatus. Back of each recommendation is an intimate knowledge of every field of industry — 25 years of experience in electronics. And, General Electric supplies the *complete electric equipment* of which the electronic apparatus is a part.

A call to our nearest office will put you in touch with a G-E industrial-electronics specialist. *General Electric Company, Schenectady, N. Y.*

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

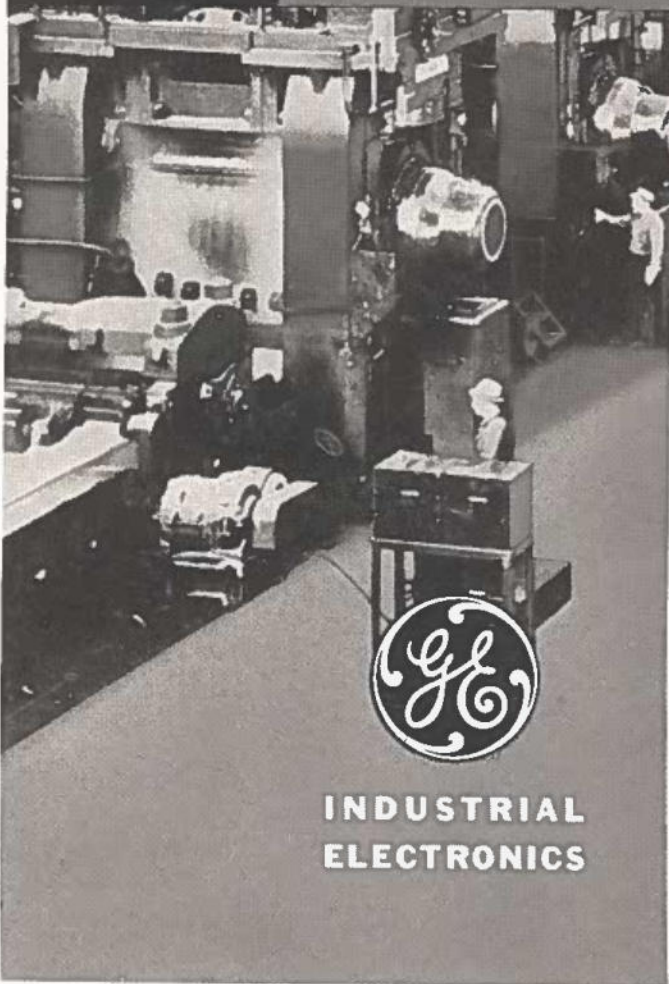
GENERAL  ELECTRIC

Every week 192,000 G-E employees purchase more than a million dollars' worth of War Bonds

C. D.
 Record Book
 12/30/44



SNIPPING HOT STEEL WITH THE FLYING SHEAR



**INDUSTRIAL
ELECTRONICS**

ALL steel men know the "flying shear"—two fast-rotating drums, each carrying a knife, that cut hot strip steel into specified lengths as metal rushes from the rolling mill at 2000 feet per minute.

By means of electronic controls, engineered and built by General Electric, and used with special G-E motors and generators, the flying shear now cuts the steel within an accuracy of $\frac{1}{4}$ of 1 per cent. Scrap loss in this operation is the lowest in history.

In hundreds of plants, G-E electronic apparatus is speeding production, improving quality, eliminating waste. This equipment detects gases. Converts a-c to d-c. Opens and closes doors. Measures luster of paints. Regulates motor speeds. Matches colors. Detects invisible flaws in

metals. Multiplies the efficiency of modern industry!

There is *standard* G-E electronic apparatus that is ready for immediate installation. Or, where needed, G.E. will design and build *special* electronic equipment. Back of each recommendation is an intimate knowledge of every field of industry—25 years of experience in industrial electronic applications. And, General Electric also supplies the *complete electric equipment* of which the electronic apparatus is a part.

A call to our nearest office will put you in touch with a G-E industrial-electronics specialist. *General Electric, Schenectady, New York.*

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

GENERAL  ELECTRIC

Every week 192,000 G-E employees purchase more than a million dollars' worth of War Bonds

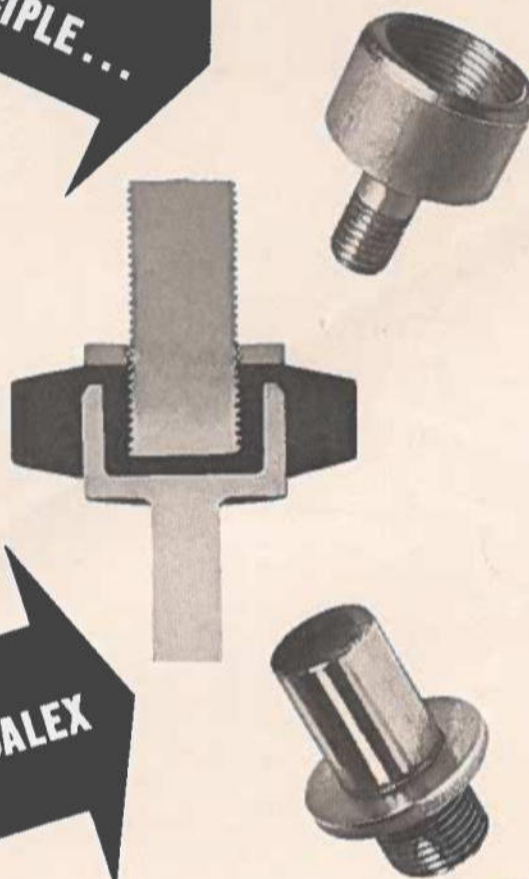
C. D.
Record Book

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as furnished
Pactard 12/23

A PRACTICAL
DESIGN PRINCIPLE...

A PERFECT BOND...

METAL AND G-E MYCALEX



NOT ONLY is G-E mycalex outstanding as a high-frequency electronic insulator but it is absolutely unique as a ceramic product . . . because metal parts can be inserted and securely anchored *right in it during the process of molding*.

This gives G-E mycalex two definite advantages as an insulator: (1) You are assured the tightest, strongest possible bond between your insulation and metal components; (2) You save time and money by eliminating or greatly simplifying subsequent assembly operations.

There are countless other reasons why G-E mycalex has been for more than 21 years helping to solve the toughest insulation problems. For example, it has high

dielectric and mechanical strength, gives prolonged resistance to electric arcs, withstands oil, water and gas, and does not deteriorate with age.

Remember, when you choose G-E mycalex, you get the benefit of General Electric's unequalled experience in the application of mycalex. Whether or not your insulation problem is electronic, G-E engineers will help you solve it.

G-E mycalex sheets are now readily available to speed your production.

Just fill out the coupon for your copy of the data bulletin, "G-E Compression-Molded Mycalex." A free sample of G-E mycalex is available upon request. . . . General Electric, Schenectady, N. Y.

**FREE—
G-E MYCALEX
BULLETIN**



**ELECTRONICS
DEPARTMENT
GENERAL ELECTRIC CO.
Schenectady, N. Y.**

Please send your descriptive booklet explaining the methods and tools to use for machining G-E mycalex.

Name _____
Company _____
Address _____

• Tune in General Electric's "The World Today" and hear the news from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday evening listen to the G-E "All Girl Orchestra" at 10 E.W.T. over NBC.

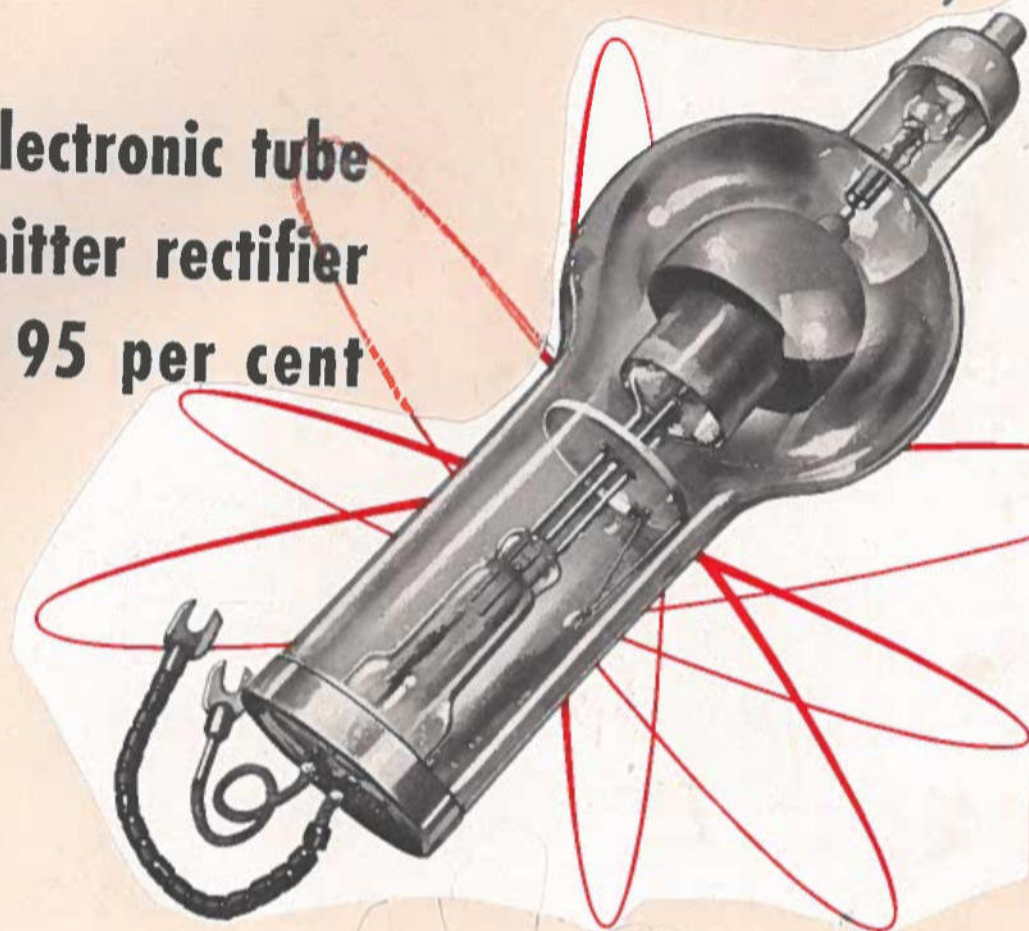
Over 21 Years of Mycalex Experience—Your Assurance of Quality

GENERAL  ELECTRIC
177 M-CI 9915

*C. D.
Record Book
Lightner, 12/13/43
as furnished*

*Rich
12/14*

**This G-E electronic tube
cut transmitter rectifier
losses by 95 per cent**



another G-E electronic FIRST!

TODAY's complete line of G-E transmitting and industrial tubes includes many basic electronic "firsts."

For example, G.E. developed the hot-cathode mercury-vapor rectifier tube, the tube which has cut rectifier losses to a twentieth of what they were with high-vacuum rectifiers and reduced over-all transmitter power costs by 15 per cent. Moreover, the mercury-vapor rectifier has a lower first cost and longer life

than the high-vacuum rectifiers that it has replaced. And by making it possible to use less expensive transformers and filters, over-all transmitter costs have been appreciably reduced.

ALL G-E transmitting tubes are designed and built to provide the greatest efficiency, longest service, and maximum operating economy possible.

Ask your G-E electronic tube distributor for current prices and delivery dates.

FREE BOOK—"How Electronic Tubes Work." Address Electronics Department, General Electric, Schenectady, N. Y.

• Tune in "The World Today" every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to the G-E "All Girl Orchestra" at 10 P. M. E.W.T. over NBC.

G-E TUBES ARE "FIRST" IN INDUSTRY, TOO!

Many modern methods of manufacture could not have been achieved if G-E electronic tubes had not been developed to do the job. The G-E steel-clad ignitron and the G-E thyatron, for instance, made today's high-speed welding of aluminum and stainless steel both possible and practical.

G. E. HAS MADE MORE BASIC ELECTRONIC TUBE DEVELOPMENTS THAN ANY OTHER MANUFACTURER

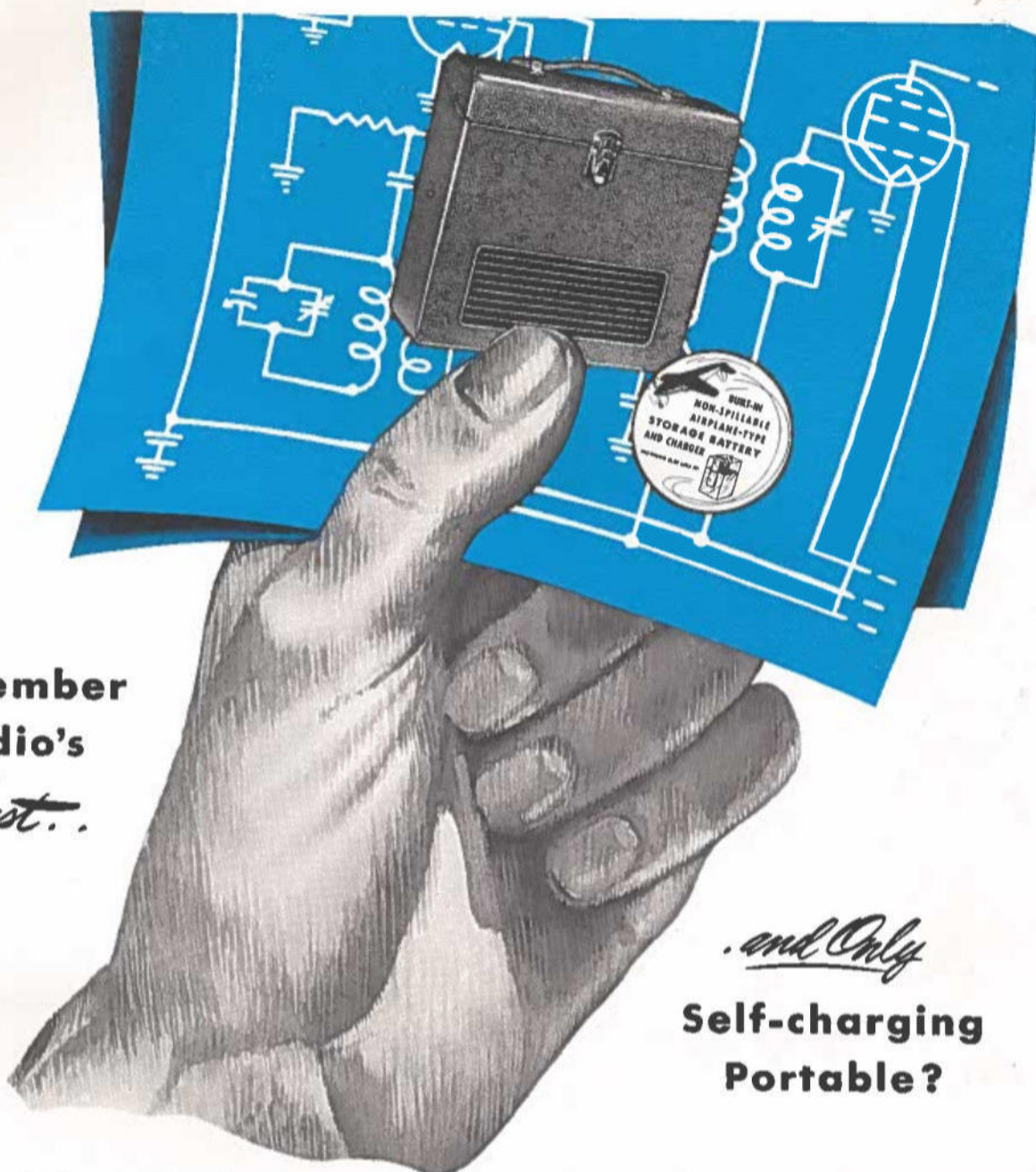
GENERAL  ELECTRIC

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as furnished
Puckard 12/17



Remember
Radio's
first...

...and Only
**Self-charging
Portable?**

Another General Electric "first" that helped sell tens of thousands of radios . . . and, after the war, General Electric's new and improved portable will be an even greater sales feature for you!

It's EASY to remember the first self-charging portable . . . because this G-E radio is the ONLY portable still operating on its original battery, in these war days when dry batteries are not readily available for civilian use.

Yes, while other portables are "laid up" for the duration, this all-purpose, all-year radio — for outdoors and indoors — continues to bring enjoyment to thousands of owners at a low operating cost.

But wait — until after the war — and General Electric will bring you an even *better* self-charging portable — with many new and exciting features.

Therefore — when you plan for the post-war, bear

in mind the many new developments and manufacturing techniques that General Electric is employing in building military radio equipment.

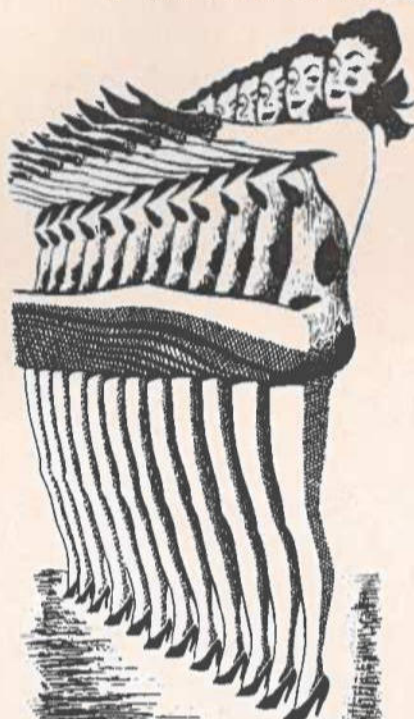
The G-E Self-charging Portable is just another example of the many General Electric developments in post-war home radios that will bring G-E customers to your store . . . that will build new radio profit opportunities for YOU! *General Electric, Bridgeport, Conn.*

Tune in "THE WORLD TODAY" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to the G-E "All Girl Orchestra" at 10 P.M. E.W.T. over NBC.

GENERAL ELECTRIC IS BUILDING MORE MILITARY RADIO EQUIPMENT THAN ANY OTHER MANUFACTURER OF HOME RADIOS

GENERAL  ELECTRIC
FIRST IN RADIO, TELEVISION, ELECTRONICS

UNFAILING PRECISION



IN THE new General Electric line of SERVICE TESTING EQUIPMENT, unfailing precision is just one of many invaluable features. Designed by the famous G-E electronic laboratories for radio service men, service dealers and others—this line gives you a wide selection of portable, compact apparatus for accurate and rapid maintenance and testing work.

The units include: G-E unimeters, tube checkers, audio oscillators, oscilloscopes, condenser resistance bridges, signal generators and other utility instruments for testing radio electronic circuits and component parts.

These dependable G-E units are now in production primarily for the Armed Forces. But they may be purchased on a priority if you are engaged in war work. After victory, of course, the full line will again be available to everybody. . . .
General Electric, Schenectady, N. Y.

FREE
CATALOG



ELECTRONICS
DEPARTMENT
GENERAL ELECTRIC CO.
Schenectady, N. Y.

Please send, without obligation to me, the General Electric Testing Instrument Catalog S-1 (loose-leaf), for my information and files.

Name _____
Company _____
Address _____

GENERAL ELECTRIC
Electronic Measuring Instruments

ET-18—1944—1-3 page—2 1-6 in. x 10 in.
Service, Radio Service Dealer,
Radio Craft, Jan.
N. W. Ayer & Son, Inc. 9796

ment Catalog, D-1 (loose leaf), for my

ment Catalog, R-1 (loose leaf), for my

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Hugo



A long handclasp... on a short wave

ON AN ISLAND in the Pacific a soldier turns a dial. Over the balmy air comes a golden song. Field and fireplace, workshop and office, all the familiar pictures of home are in the welcome voice . . . beamed to the distant war front by the magic of short wave.

General Electric short wave stations are the one link with home for many soldiers and sailors. These men are far from America. But they are not beyond the reach of KGEI, San Francisco, and WGEO and WGEA, Schenectady.

Daily, a round-up of news, dance music and sports results is broadcast. To

the Far East, also, General Electric stations speak in Malay, Dutch, Japanese, Burmese, Korean, Thai, and ten Filipino dialects; and to Europe, in French, Spanish, German, Italian, Swedish, and six other languages.

This handclasp from a free people to men with freedom in their hearts is a triumph of electronics. It is the electronic tube that flings the spoken word into the sky, and the electronic tube that captures the word and gives it a voice in your radio. And the engineering excellence that creates the great General Electric transmitters is found

also in the radio built by General Electric for the home.

The fascinating story of electronics is told in a new 32-page book: "Electronics — a New Science for a New World." This booklet is free. Write for your copy (publication GED-1028). Radio, Television, and Electronics Department, General Electric Company, Schenectady, New York.

Listen to the General Electric Radio News Program, with Frazier Hunt, Tuesday, Thursday, Saturday evenings, over C. B. S. and American (FM) networks. See local newspapers for time.

Leader in radio, television, and electronic research

GENERAL  ELECTRIC
RADIO • TELEVISION • ELECTRONICS