

THE SYLVANIA

BEAM

ATTENTION! *Sylvania Men and Women Who Worked at the Following Plant and Laboratory Locations:—*

ALTOONA
BAYSIDE
BLOOMINGTON
COLONIAL RADIO
DOVER
EMPORIUM
FLUSHING

*S. A. Army Program

HUNTINGTON No. 1 AND No. 2
IPSWICH APPLIANCE
JAMESTOWN
JOHNSTOWN
KEW GARDENS
KINGSTON
LEXINGTON No. 1 AND No. 2
MARIETTA

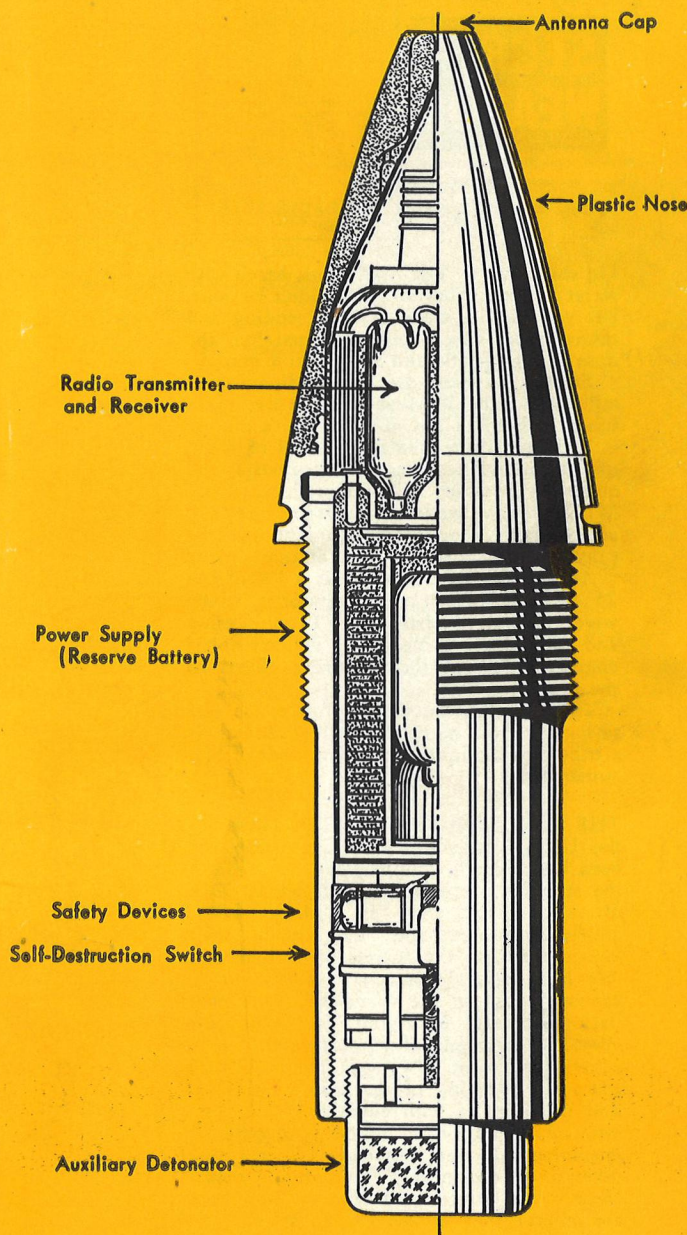
MILL HALL
POINT PLEASANT
TOWANDA
WARREN No. 1 AND No. 2
WILLIAMSPORT
SALEM TUBE*
WAKEFIELD*

HERE IS

Your

SECRET WEAPON

*...One Of The U.S.A.s Most
Deadly Scientific War Weapons...*



...THE RADIO FUZE

Vol. V No. 10

*OCTOBER, 1945 VOL. V, No. 10

Plant and Laboratory Locations:—		
ALTOONA	HUNTINGTON No. 1 and No. 2	MILL HALL
AYSIDE	HEPSTICH APPLIANCE	POINT PLEASANT
BLOOMINGTON	JAMESTOWN	TOWANDA
COLONIAL RADIO	JOHNSTOWN	WARREN No. 1 and No. 2
DOVER	KEW GARDENS	WILLIAMSBURG
EMPIRUM	KINGSTON	SALENT TUBE*
FULSHING	LEXINGTON No. 1 and No. 2	WALESTITE*
	MAHITTA.	

THE SYLVANIA BEAM

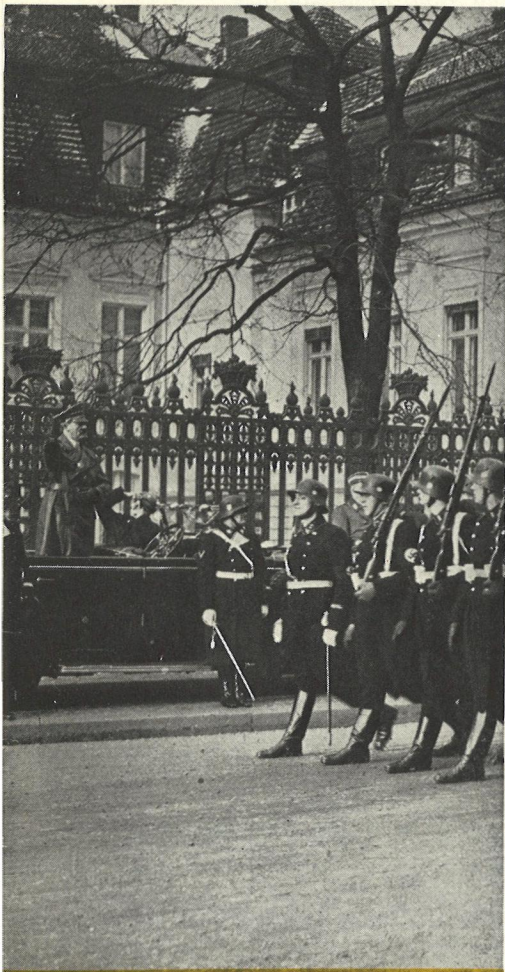
THE RADIO PROXIMITY FUZE *helped* *stop the Nazis at the Battle of* *the Bulge*

EARLY in December, 1944, the Allied High Command was frankly expecting a last desperate counter-attack by Nazi General Karl Von Rundstedt. On December 11

it came. Picking his points skilfully, Von Rundstedt drove fiercely into the Allied lines. Outnumbered locally, the Allies fell back. Fog prevented use of Allied air power. With the ferocity of attack and its wealth of carefully-hoarded materials, the break-through caught the Allies off guard. The Nazi hordes swept on. British General Montgomery rushed to protect the coastline for a possible retreat. It was at this critical point on December 16 that the Allied High Command put into effect the decision to unmask perhaps its greatest secret weapon used against Germany —THE RADIO PROXIMITY FUZE —which for concealment's sake had never before been used over enemy territory. The Allied artillery opened up. Its effects were as amazing as they were deadly. Destruction of German men and materiel was ghastly. Von Rundstedt's counter-attack had failed. Even the German High Command knew that the war was over.

The effects of the radio proximity fuze on German morale were told by terrified Nazi captives. Exploding downward from tree top height, proximity fuzed shells killed men even in foxholes. Be-

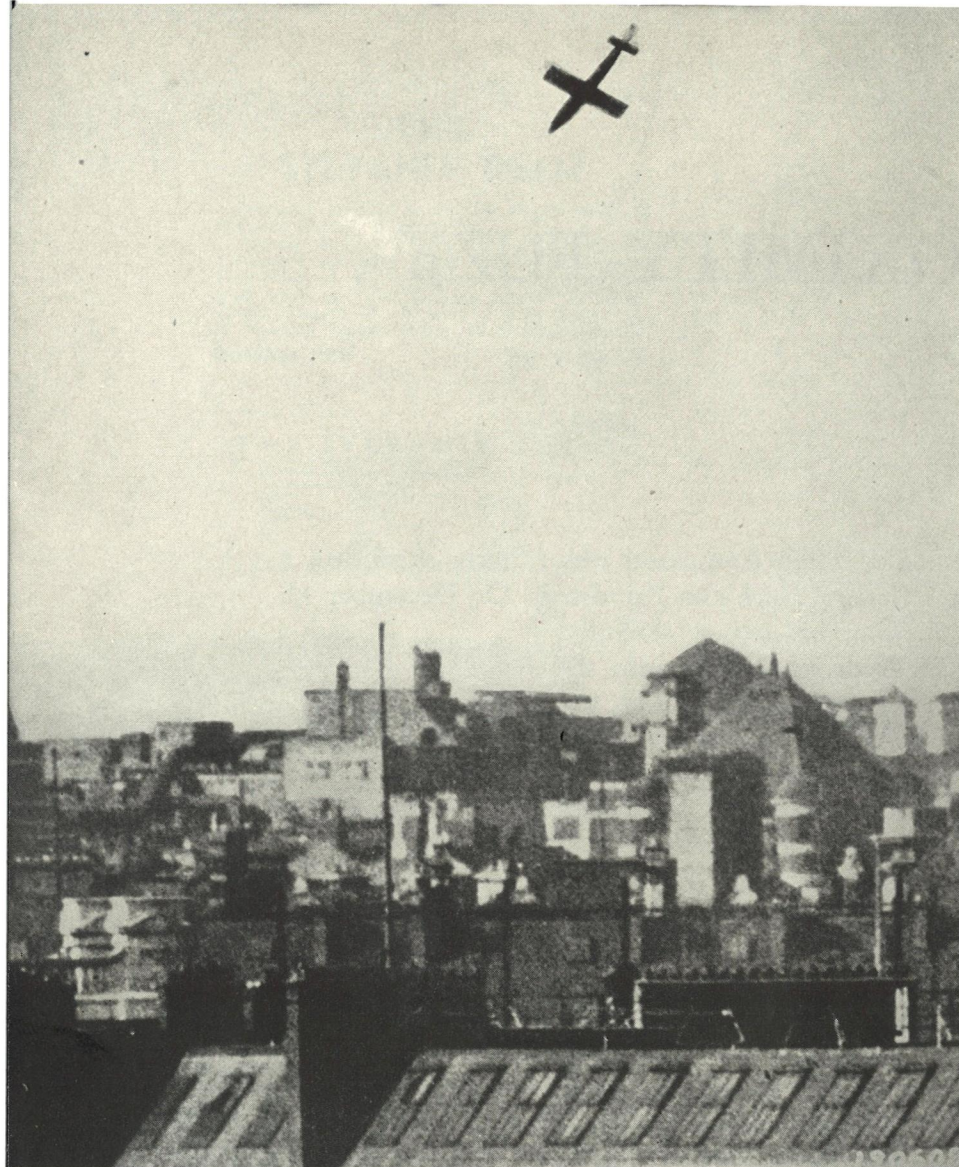
cause no testing barrage was necessary, the shells also achieved unusual surprise. The fear and insecurity of German troops made them subject to panic wherever proximity fuzed artillery was operating.



Marching to Doom



German Dead



A German robot plane, Hitler secret weapon, dives down on its bombing mission over a city in southern England after its cross-channel pilotless flight. The dreaded "doodle-bug" was to a great degree brought under control by the radio proximity fuze.

THE RADIO PROXIMITY FUZE *helped* *defeat V-1 in the Second Battle of Britain*

In June, fighting desperately for time, the Germans unleashed their notorious V-1 bomb which fell like a rain of death on England for eighty days.

The radio proximity fuze equipped anti-aircraft and coastal defense shells began to become effective against V-1 by August. According to the Navy Department report, "The result of the advent of VT fuzes was truly sensational increases in 'kills.' For the last four weeks of the now famous 80 days of V-1 attacks, the record of anti-aircraft was as follows:

1st Week—24% of all targets engaged were destroyed

2nd Week—46% of all targets engaged were destroyed

3rd Week—67% of all targets engaged were destroyed

4th Week—79% of all targets engaged were destroyed

"The last day in which a large quantity of V-1's were launched against England, 104 were detected by early-warning radar, but only four reached London. About sixteen failed to reach the coast, having mal-functioned over France or the Channel. RAF brought down 14, barrage balloons 2, while anti-aircraft accounted for 68."

The Radio Fuze was also credited with saving the City of Antwerp, vital port of supply for the U. S. and British Armies, from a concentrated V-1 attack.

A Jap Kamikaze plunges into the sea, a victim of the Navy's radio proximity fuze directed anti-aircraft fire. Deadly within seventy feet of the mark, this form of anti-aircraft fire was a leading factor in clearing the skies of Jap air power.



THE RADIO PROXIMITY FUZE *helped destroy Jap Airpower Including Suicide Bombers and thus helped the U. S. Navy destroy the Jap Fleet*

The first Japanese plane to be shot down by a radio proximity fuze projectile was destroyed by the cruiser Helena January 5, 1943. During the siege of Okinawa, the destroyers Hadley and Evans used the fuze in standing off 156 enemy planes including Kamikaze suicide craft.

An official report describing the defense by six destroyers with radio proximity fuze projectiles against Jap planes gives a typical picture. "The horizon," it says, "was filled with burning planes

from east to northwest. There were too many to count."

Hundreds, in fact thousands, of Jap planes attacking U. S. battleships, carriers and other naval vessels were shot down by radio fuzed projectiles.

It would be impossible to estimate the number of American lives that were thus saved by the improvement in effectiveness due solely to the use of the radio fuze as compared with previous equipment.

CONGRATULATIONS, SYLVANIANS

*It Was a Thousand to One It Couldn't
Be Done, but YOU Did It!*

SCIENTISTS, PRODUCTION MEN, OPERATORS, ALL ORGANIZATION MADE POSSIBLE THE EPIC OF THE RADIO PROXIMITY FUZE

THE Radio Proximity Fuze was America's answer to the Dive Bomber, most deadly and terrifying weapon of the Axis in World War II.

The strategic military importance of the Radio Fuze, coming as it did at a highly critical moment of the war, is absolutely second to none.

At the heart of this outstanding device, gravely written off by Nazi scientists as "impossible," is the tiny radio tube designed and built by the men and women of Sylvania Electric Products Inc. Not only did Sylvanians make a large share of the complete fuzes, but they manufactured every fuze tube used by the Navy from January, 1944 until Victory. The Germans had concluded that even if such a tube could be made in the laboratory it never could be manufactured in sufficient quantities to be an effective war weapon.

Sylvania scientists in cooperation with members of the O. S. R. D. staff were the ones who achieved the goal of a tube that would work under the conditions demanded of the fuze. They contributed with associates in the industry to the invention of the fuze itself; and Sylvania's production men and women achieved the production rate of a million tubes every 2½ days; ⅔ the rate of tube production of America's entire peacetime radio industry.

Tube Versus Bomber

In material terms, a tube one-third the size of a cigarette was thrown into battle January 5, 1943* against the screaming Axis Dive Bomber, the hitherto irresistible blitzkrieg weapon that had already destroyed the French Army, routed the British at Dunkirk, scuttled a United States fleet at Pearl Harbor and sunk the British Navy's mighty dreadnaughts, Prince of Wales and Repulse—a tiny tube against the Dive Bomber; and the tiny, titanic tube won.

At Sylvania, there were miracles of imaginative creation, miracles of invention and design and miracles of production and management. Every experienced production manager was working as never before on war projects, but more were needed. Men who had been foremen or accountants were

enabled by intensive training to take responsible positions in plants employing hundreds or even thousands of employees.

Thousands upon thousands of women who had never performed such work—many who had never been inside a factory before—rallied to the call for help on essential war work and in a space of time that before the war would have seemed impossible had learned to assemble the intricate tubes and fuzes.

(Continued on page five)

What The Radio Proximity Fuze Is And How It Works

THE radio proximity or VT (variable time) fuze is a miniature radio sending and receiving set which fits into the nose of a projectile and causes the projectile to detonate when it comes within striking distance of the target, usually about seventy feet from it.

Smaller in size than an ordinary pint milk bottle, the new VT fuze contains five radio tubes, each about a third the size of a cigarette. (See BEAM cover for cross-section drawing showing how fuze is assembled inside the shell.)

To understand how the fuze works just imagine a Japanese suicide bomber beginning its run against an American cruiser. Handling the projectile with no special care or concern, as VT fuzes are rugged and equipped with reliable safety features, the crew of a 5"/38 gun loads a VT fuzed projectile into the breech of the gun.

No Time Setting Necessary

In the usual manner the gun crew directs the gun at the target and fires the projectile. Since no time setting of VT fuzes is necessary, and since they are always "on" in range, the fire control problem is much simpler than with time fuzes.

When the projectile is fired, a wet battery that furnishes energy to the fuze begins to be activated. The shock of fire

(Continued on page six)

*The U. S. S. HELENA used it in the Pacific.

—EPIC OF THE RADIO FUZE

(Continued from page four)

Highest job priority ratings were given to the work. Housewives, schoolgirls, secretaries, women from almost every walk of life streamed into Sylvania plants from the hills of Kentucky to the seacoast of Maine.

Top Secret

Over the entire project hung a blanket of the profoundest secrecy. None but a few top executives knew what was being made. The project was departmentalized, particularly at Ipswich and Dover where the fuzes were assembled. Almost no one knew what the finished product looked like. Project A (the fuze) was, with the Atomic Bomb, one of the best-kept secrets of the war. Employees on the project were even declared ineligible to receive the Army-Navy "E" as part of the secrecy program. With the revelation of the secret, however, many will receive the coveted Navy-Ordnance Award. To prevent the fuze from falling into the hands of the enemy, it was used for a considerable period solely over Allied land or at sea. This was an additional precaution to the self-destruction mechanism contained in each fuze. The German High Command which had sought to make the fuze and had failed had written it off as impossible and hence did not even consider that it might have been invented by the Americans. At one point in the Sicilian Campaign, several shells containing the fuze were accidentally left behind in an area temporarily recaptured by the Germans. It was regarded as so important to recapture these few shells that a special counter-offensive on that particular sector was immediately put into operation and the precious fuze-bearing shells were recaptured.

1,000—1 Against

It was the prodigious speeds of the airplane and the inability of old-fashioned contact and time fuzes to cope with the situation that made the invention of a proximity fuze of superlative importance—if it could be done. Navy scientists frankly admitted the odds were 1,000 to 1 against. Sylvania and several other leading electronics firms were called in. Here was the problem: construct a complete four tube radio transmitter and receiving set small enough to be installed in the nose of an anti-aircraft shell and rugged enough to withstand being shot from a high-velocity gun. Later, a standard test for the tubes was a centrifugal force test equivalent to 20,000 g's—20,000 times the force of the earth's gravity!—sufficient of course to pulverize a regular tube. Hundreds of thousands were shot from guns in tests alone. Under such prodigious stress, the T3 Tube, weighing slightly over 1/10 of an ounce, takes on an "effective weight"

of 140 pounds. Each part of the fuze thus must withstand tremendous, sudden pressures.

Tube Was Missing Link

Well before the war started, the Navy had foreseen the necessity for a proximity fuze to protect their ships against air attack. The U. S., England and Germany had all worked on the problem. Swedish scientists had a shell including a radio receiver which would explode on a signal from the ground. The final unsolved problem was that of the tube. Sylvania scientists and production people furnished that missing link. So successful was the company that it was finally entrusted with the entire tube program: four tubes for every shell fired from the chattering AA and big gauge guns of the greatest fleet in the history of the world. This was why long after many war plants had closed down Sylvania continued to expand right up until the Jap surrender.

Just as the war brought about an amazing teamwork among the military, the scientific and the industrial, so within Sylvania itself results were achieved only by the most selfless teamwork amongst all phases of organization.

In order to accomplish the great production needed, many new plants were required; and a large-scale training program was instituted. Sub-contractors provided important assistance. Mill Hall was the original center of tube manufacturing and Ipswich Appliance of the assembly of the fuzes. In all, 23 Sylvania plants and laboratories were engaged in phases of radio proximity fuze engineering and production. They are listed on THE BEAM cover.

History alone can determine what weapon "won the war" and even history's verdict may be indecisive. There is credit enough for all. In judging the importance of the radio proximity fuze, it is necessary only to consider five facts:

1. It provided decisive help in winning the Battle of the Bulge.
2. It helped neutralize the V-1 over Britain and made it possible to keep the port of Antwerp from destruction by this weapon. If the Germans had put Antwerp out, Allied offensives would have been stalled for lack of regular supplies.
3. It checkmated Japanese planes and dive bombers and was the factor that permitted Admiral Halsey's fleet to steam off the Japanese shore in relative security.
4. Because of the timeliness of its perfection and Sylvania's ability to supply it in needed quantities, it proved to be of superlative strategic importance.
5. The radio proximity fuze by paralyzing the activities of Japanese airpower permitted American naval and army forces to set the stage for the application of the final treatment—the atomic bomb.

WHAT THE RADIO PROXIMITY FUZE IS AND HOW IT WORKS

(Continued from page four)

breaks a small glass vial filled with liquid electrolyte. Centrifugal force in the rotating projectile causes this liquid electrolyte to flow toward the outside of a cylindrical cell through a stack of thin, ring-shaped plates that have been carefully insulated from each other.

Tube Sends Out Impulses

Contact between the electrolyte and the plates makes the battery electrically active. Within $\frac{1}{4}$ to $\frac{1}{2}$ second after the battery has become active, it has charged a firing condenser with electricity. Once this condenser is charged and a mercury safety switch has been opened, the projectile is "armed," and ready to detonate when its target influences it to do so. All this is accomplished by the time the projectile has traveled four or five hundred yards toward the Japanese bomber.

As the projectile speeds through the air at a rate of approximately 2600 feet per second, a radio vacuum tube (triode) sends out electro-magnetic waves or impulses at the speed of light—186,000 miles per second. These impulses are reflected back by any target that gives a radio reflection, such as metal objects, water, or earth.

"Ripple Pulse" Created

At first the projectile is so far from the bomber that these impulses are not returned in any strength. But as the projectile approaches closer, ever stronger reflected impulses are received.

These incoming impulses interact with outgoing impulses to create a "ripple pulse" which is amplified by vacuum tubes. When the projectile comes within a radius of about 70 feet from the bomber, this "ripple pulse" becomes powerful enough to trigger a thyratron tube which acts as an electronic switch.

This releases the electrical energy stored in the charged condenser which, in turn, operates an electrical detonator called a squib. The blast from this squib operates a standard electrical detonating fuze, which sets off the main explosive charge in the projectile.

Jap Bomber Dives Into Sea

Because the projectile has now reached a point at which its area of fragmentation includes the space occupied by the target, the Japanese suicide bomber breaks into flames and dives into the sea.

Instead of being detonated by electro-magnetic impulses reflected from an enemy airplane, VT fuzed projectiles used in howitzer fire by artillery batteries on land, are detonated by electro-magnetic impulses reflected from the ground. Even men in foxholes cannot escape their deadly fragmentation at about tree-top height.

VT HIGHLIGHTS

1. "The chances are a thousand to one it can't be done." That's what government scientists thought of the possibilities for designing the manufacturing VT fuzes.
2. Sylvania's contribution to the successful development of VT fuzes was greater than that of any other company.
3. 95% of all tubes used were manufactured by Sylvania factories. After 1944, 100% of all tubes actually used by the Navy were manufactured by Sylvania.
4. Due to the great urgency for protection of capital ships against planes, the VT fuze was designed first for use in naval 5" anti-aircraft projectiles. Later it was adapted for use in Army projectiles.
5. VT fuzed projectiles have a terrific margin of combat advantage over time or contact fuzed projectiles.
6. Timely development of VT gave it a strategic value in winning the war second to no other weapon.

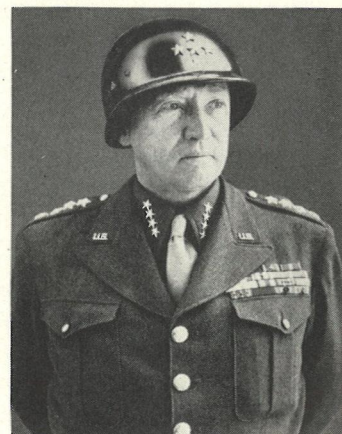


May Change Nature Of Warfare

The radio proximity fuze may cause fundamental changes in the strategy of war. This is the reaction of General George S. Patton, America's famed tank commander and one of the most brilliant military leaders of World War II.

"I think when all armies get this shell we shall have to devise some new method of warfare," he wrote General Campbell of the U. S. War Department. "The new shell with the funny fuze is devastating.

The other night we caught a German battalion which was trying to get across the Sauer River with a battalion concentration and killed by actual count 702. I am glad that you all thought of it first. It is really a wonderful achievement."



Gen. George S. Patton
"The Funny Fuze"

New Organization Plan Meets Peacetime Problems

The following notice was sent out in a Sylvania Management News Letter dated October 3:

In order to meet peacetime conditions, Sylvania has decided to put in effect certain changes in its organization. These changes are not revolutionary but are rather another step toward the attainment of Sylvania's often expressed organizational policy:—Decentralization of operating responsibility with centralization of policy control.

Accordingly, it is with real confidence in the future that the following organization is announced:

WALTER E. POOR, President

and reporting to the President—

STAFF GROUP

DON G. MITCHELL . . .	Vice President in Charge of Sales
M. F. BALCOM . . .	Vice President and Treasurer
NOEL E. KEELER . . .	Controller and Vice President
ROGER M. WISE . . .	Vice President in Charge of Engineering
E. FINLEY CARTER . . .	Director of Industrial Relations
CONDA P. BOGGS . . .	Assistant to the President
GRENVILLE R. HOLDEN . .	Assistant to the President

OPERATING GROUP

FRANK J. HEALY . .	Vice President and Manager of the Lamp Division
H. WARD ZIMMER . .	Manager of the Radio Tube Division
LOUIS S. KIMBALL . .	Manager of the Fixture Division
O. HOWARD BIGGS . .	Manager of the Electronics Department
JOHN B. MERRILL . .	Manager of the Tungsten and Chemical Department

This new organization plan is designed to do away with any needless duplication of functions, to permit decisions to be made at the lowest level consistent with good managerial practice and to have individuals responsible for results and judged in relation to those results.

Divisions and Departments, therefore, have been set up under their respective managers to cover the various groupings of products that we manufacture. Each Division or Department will be responsible for the successful design, development and production of its assigned products, as well as for office functions related to the operation of the unit. The development and production of special manufacturing equipment will be incorporated in the largest divisions. These Equipment Development Sections will also be available to serve other production divisions.

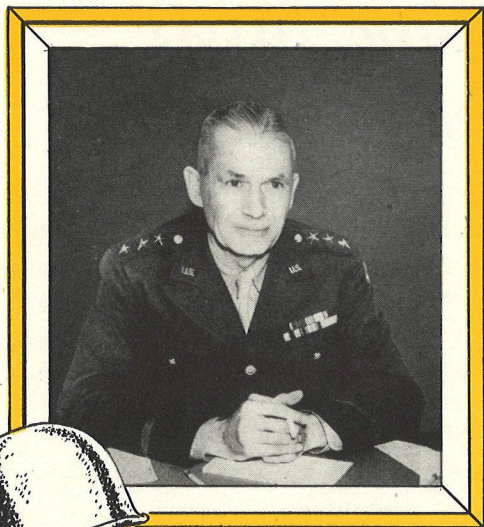
Sales of all products will be handled by the Company's selling organization. Each Division Manager, however, will have a great interest in the sale of his products and will confer with the appropriate Sales Manager in regard to such matters as selling costs, advertising budgets, etc.

To aid in the development of our engineering policy and to maintain our advanced position in the industry, an active research and advanced development program will be conducted by the Vice President in charge of Engineering at Sylvania Center. Office functions of a corporate nature and associated with the overall administration of company activities will also be located at Sylvania Center.

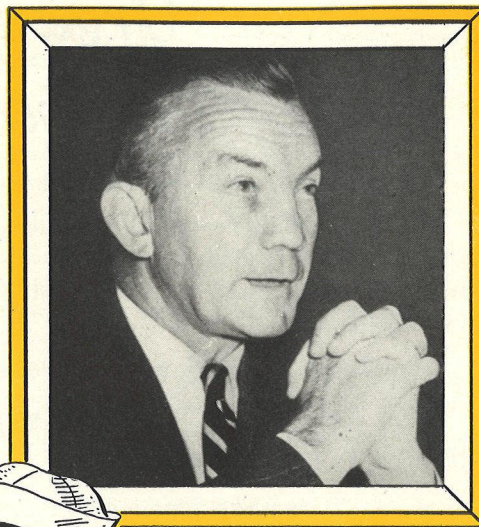
Each Division Manager will report directly to the President who will have as his staff representatives of the major functions of Engineering, Sales, Industrial Relations, the Controller's functions and the Treasurer's functions. They will operate for and in behalf of the President in their respective fields. Division and Department Managers will run their respective Divisions within the limits of established policies and with the advice and the guidance of the President and the President's staff. To maintain coordination, Division and Department Managers will consult frequently either with the staff member concerned with the immediate problem or with the President.

In line with this change in top management organization, as various adjustments are made within the individual Divisions and Departments, appropriate announcements will be issued by the Department or Division heads involved.

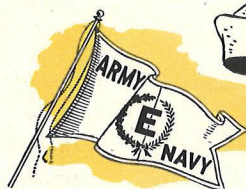
A TRIBUTE TO *Sylvania*



General Somervell



Secretary of the Navy Forrestal



7 September 1945

"My dear Mr. Poor:

"Your company has played a very important part in producing the equipment and supplies which have been such a decisive factor in winning the war. You and your associates and employees must have a deep sense of satisfaction as you look back upon your accomplishments on the war production front.

"Now that the war is won, I want to express to you the gratitude and appreciation of the Army Service Forces for the magnificent achievements of your organization.

"The energy, initiative, and efficiency which industrial concerns like yours have demonstrated in the war effort give me complete confidence that the problems of transition to normal peace time production will be met with the same effectiveness as those of war time and will be as swiftly and as successfully solved.

"With all good wishes for the future, I remain

Very sincerely yours,

BREHON SOMERVELL

General, Commanding Army Service Forces."

1 September 1945

"Dear Mr. Poor:

"I am addressing this letter of appreciation to Sylvania Electric Products Inc., on the day of the surrender of our last enemy.

"Among the companies which gave the Navy the power to blast its way across two oceans yours has been pre-eminent. You and the men and women who have worked with you deserve, therefore, to carry into peace a special pride in a great national achievement.

"On the day of final victory the Navy sends you its sincere thanks.

"Sincerely yours,

JAMES FORRESTAL

Secretary of the Navy."

EDITOR'S NOTE:

Above are letters from Secretary of the Navy James Forrestal and General of the Army Service Forces Brehon Somervell. These Victory-Day letters commend Sylvania for its part in producing the equipment and supplies which were so important in winning the war.

Replying to Secretary Forrestal on behalf of the company Mr. Walter E. Poor wrote: "Thousands of men and women have worked under our direction untiringly in order that the Navy should be kept supplied with important materials. Through the medium of our employees publication, *The Beam*, we will let these workers know about the contents of your letter. Be assured that they will read it, as we have, with a feeling of great pride and satisfaction."

Mr. Poor addressed a similar reply to General Somervell.

700 DIFFERENT SYLVANIA LAMP TYPES NOW AVAILABLE FOR EQUIPMENT MANUFACTURERS

Exclusive of the "clear" and "inside frost" distinction, Sylvania offers approximately 700 different lamp types suitable for incorporation in various sorts of manufactured equipment. There are so many equipment applications for these different types that it would be impossible to list them all.

In practice, however, certain lamps stand out as important offerings to specific equipment manufacturers, either because of actual development for their equipment or ready adaptability to it.

Sylvania has lamps especially suited for incorporation in the following equipment: refrigerators, vacuum cleaners, sewing machines, scales, electric ranges, showcases, power tools, apparatus controls, wiring devices, and amusement devices.

For refrigerators alone there are at least seven different Sylvania lamp types available, including the 5 Watt, T-8 icebox germicidal. The germicidal ultraviolet of the latter lamp retards bacteria and mold growth in the home refrigerator.

Many Sylvania lamps find application in the amusement device industry, which is interested in relatively low wattage sources offering color and decorative features.

EMPORIUM SYLVANIANS HAVE HAD LONG SERVICE WITH COMPANY

40% With Five or More Years of Continuous Service With Sylvania

Latest figures show that approximately 40% of all personnel at the company's Emporium plants have five years or more of continuous service. Out of the total personnel of 1,875 on June 9, 1945, 725, including 520 hourly and 205 salary employees, had five years or more of continuous service with Sylvania.

In the Receiving Tube Plant at Emporium, 174 hourly and 15 salary employees had been with the company five years. One hundred fifty-two hourly and 20 salary employees had 10 years' continuous service. Fifty hourly and 20 salary employees had fifteen years or more continuous service with Sylvania.

General Engineering and the Front Office had the next largest number of employees with long years of service with Sylvania.

Commenting on these figures, Mr. Nelson W. Gibson stated that part of this excellent record could be attributed to the size of the town and the plant and the relationship to each other. However, he said, "In the main these figures imply tributes to the loyalty and stability of our personnel and the soundness of our policies."

Ideas mean cash • Ideas mean cash • Ideas mean cash • Ideas mean cash • Ideas mean cash • Ideas

Cash Idea Winners

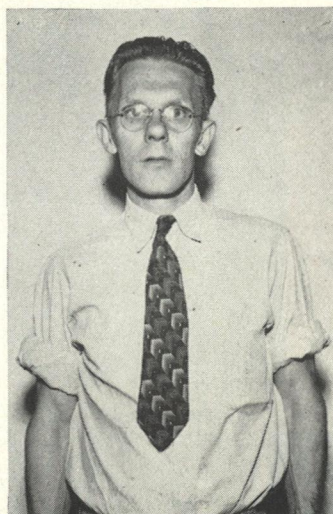
DOVER:

Philip F. Webber, SA, \$5; Clifford Laleme, SA, \$10; Norman Farrand, IC, \$10; May Belle Cater, IM, \$10; Willa Sprague, IC, \$10; Ida Carr, MO, \$5; Charles Fager, IM, \$10.

MILL HALL:

Glenn Stephens, IM, \$25; Vivian Bauman, IC, \$5; Phyllis Glennon, IC, \$5; Cecil Garrison, IM, \$3; Sydney Grenninger, IC, \$3.

Earl Caton, of Emporium's Production Control Department, has just won \$25 for his improved bulb splicing method. It saves time, reduces shrinkage, and makes for a better quality bulb.



SALEM LAMP:

Richard J. O'Keefe, IC, \$5; Ann McCarron, IM, \$3; Leona St. Charles, IM, \$3; Caroline Buba, IE, \$10; Helen O'Donnell, IE, \$3; Esther Dumas, IE, \$15; Alma Masse, HK, \$3.

SALEM TUBE:

Dorothy Zarembaska, IM, \$3; Philip Dodge, IM, \$5; Mary Butifnski, IC, \$3; E. Mahlon Elder, IM, \$5; Stella Simard, SA, \$3; John J. Sharkey, IC, \$5; Raymond Macaulay, SA, \$3; Alexander J. Kiely, IM, \$5; Thomas P. Kelley, SA, \$3; Margaret Cullen, IM, \$42; Percy Goday, SA, \$3.

IE, Improved Equipment; IM, Improved Method; MO, Morale; SA, Safety; HK, Housekeeping; IC, Improved Conditions.

Ideas mean cash • Ideas mean cash • Ideas mean cash • Ideas mean cash • Ideas mean cash • Ideas

Outings

Here

Pie-eating contest, wheelbarrow races highlight day.

Lowell

With the coming of Fall, came also a marked increase in the number of S. E. A. outings and picnics. Sylvania Center, Bayside, was the scene of three annual outings for the following groups: The New York office, the Long Island Laboratories, the Flushing Research Laboratory.

Over 600 Sylvanians from the two Williamsport plants held their second annual outing at Trout Ponds Park. 200 Sylvanians from the Lowell plant held their first annual outing

at Canobie Lake, New Hampshire. Brookville employees held their annual picnic at Clear Creek State Forest.

For all these groups the outings were welcome diversions and splendid opportunities for relaxation and good fellowship. No longer shadowed by wartime fears and worries, Sylvanians put new enthusiasm and spirit into their fun making.

"A good time was had by all" was the consensus of opinion of Lowell Sylvanians after their first outing at Canobie Lake, New Hampshire.

Box lunches, sports and games featured the day's activities. Suitable prizes were awarded the winners of each game.

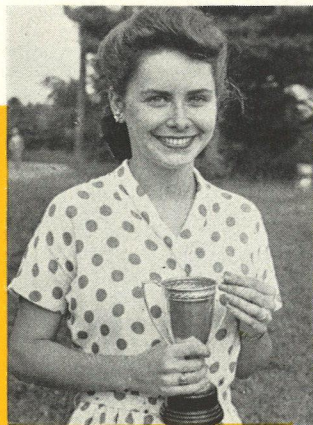
Main attraction for the men in attendance was the softball game between Lowell Sylvanians and the International Paper Company of Lowell, Mass. Rising to the occasion the Sylvania team came through with a sparkling victory.



Group picture of Lowell Sylvanians at their outing.



Wheelbarrow Race
(girls wheeling)



Winner of the Beauty Contest, Mrs. Geraldine Cott holding the coveted cup which makes her Miss Sylvania of Lowell 1945.

Outing committee in charge: front row, left to right, Peg MacDonald, Mary Lou Clark, and Nora Leahey. Back row, left to right: Arthur Millen, Barbara Griffiths, Theresa Courtais, Marie Martel, Lucy Miller, Carol Rutyna, Frances Sullivan, Ed Rost.



Pie-eating contest.



and There

Williamsport

600 on hand at Trout Ponds Park.
Sylvania Concert Band performs.



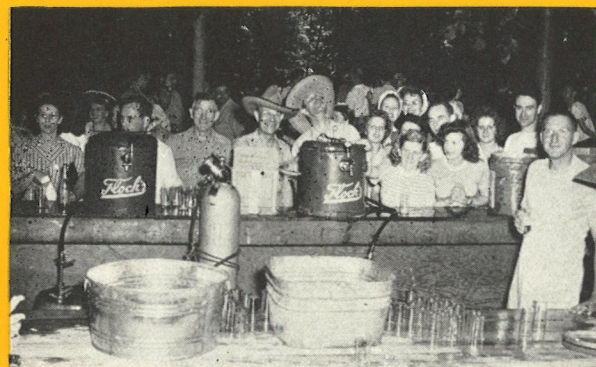
Helen Furman entertains
on the "Glockenspiel."

One of the largest Sylvania outings took place recently when over 600 Sylvaniaans from the two Williamsport plants gathered for their second annual outing at Trout Ponds Park, approximately fifteen miles from the city.

Roller skating, round and square dancing, volleyball, softball, and various concessions at the park furnished the entertainment for the afternoon and early evening. The recently organized Sylvania Employees Association Band, under the direction of Charles W. Noll, gave a one-hour concert in the evening, featuring the Mountaineers and several novelty groups. Later in the evening the roller skating rink was converted into a dance hall and music for dancing was played by Joe Walker's Band of Emporium.



Majorettes start drill. In the near background is the SEA Band and farther back the stage on which entertainers performed.



One center of activity.



Championship volleyball girls' team at the Williamsport S. E. A. picnic were the "Moonbeams." They are, left to right: Edith Lechner, Ida Harstead, Betty Fries, Betty Shortlidge, Emma Mertz, Maxine Moon, Jane Moon, and Arlene Gardner.



Beverage committee.

"Hell's-a-Poppin'" day. Live ducks, chickens awarded for contest winners.

Brookville

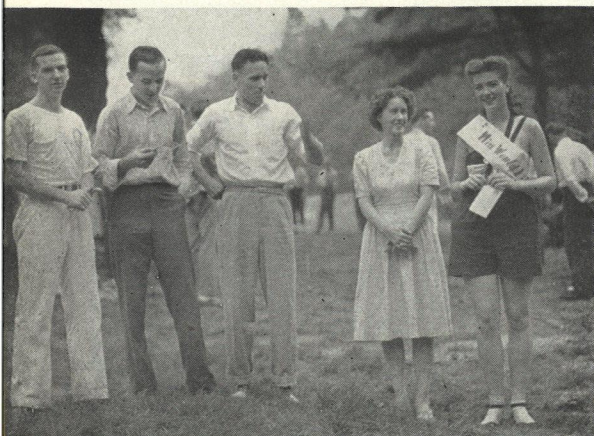
Brookville Sylvanians had "Hell's-a-Poppin'" day at their annual picnic at Clear Creek State Forest. Although the weather was damp, everyone had a good time and a lot of laughs.

Master of Ceremonies Thorne Bennett kept the crowd entertained and moving to all events. Even he was surprised when Ellen Dougherty of Industrial Engineering appeared in her bridal outfit. She was looking for Horace whom she had tired of waiting for at the church. As you can see from the pictures she found Horace at the picnic and "Pistol Packin' Mammy" made him pay.

Events of the day included dinner, a treasure hunt, a beauty contest, singing, croquet, badminton, horseshoe pitching, bag and swimming races and a softball game between the Champion girls' and boys' teams. Winning contestants were surprised to find their prizes could walk, for live chickens and ducks were among the prizes!

The afternoon was topped off with a chicken dinner feed, and the hungry picnickers had their fill. So much food was on hand that everyone had to be coaxed to come back for a second helping.

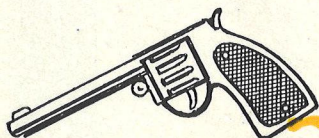
Winning croquet team: Left to right, Bob Miller, Clif Ford, Chet Marshall, Mary McFarland, and Marjorie Bloom, "Miss Would Like to Be."



Ruth Cochran, winner of the girls' swimming contest. The prize was a live duck.



"Has anyone seen Horace?" That is the question Ellen Dougherty asks Master of Ceremonies Thorne Bennett.



Bag races, one of the highlights of the day.



Mock wedding takes place. "Pistol Packin' Mammy" makes Horace pay.



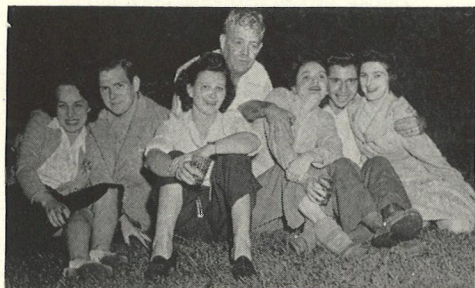
Long Island (Bayside, Flushing & Kew Gardens)

Softball, badminton, volley-ball and rowing the "S. S. Sylvania" on the lake kept 200 Sylvanians on the go.



Members of the Flushing Research Laboratory at their annual picnic at the Hamlin Estate, Bayside. This photograph was taken by Elizabeth Benson of the laboratory.

Side lines at the Beer Keg.



Off to a fast start in the three-legged race. Left to Right: Ann Woods and George Gunnell, Mr. and Mrs. Bob Schmidt, Ann O'Brien, Sandy Robinson; Rosemary Ruguile, Charlie Grayson; Ruth Turner, Forrest Gehrke; Helen Roitero and Ray Whitmer; Rita Johnson and Bob Bauer; Nancy Peluso, Joe Kletecka.

Officers of the S. E. A. and the picnic committee. Left to Right: Ann O'Brien, Ann Woods, Sam McDonald, Virginia Heaney, John Parchman, Ethel Springer, and Bob Vanderkay.



"Never a dull moment" is the description that best fits the 1945 S. E. A. picnic for approximately 200 employees and their guests from the Bayside, Flushing, and Kew Gardens Laboratories.

Sylvanians found a variety of entertainment throughout the afternoon and evening. Most popular sports were volley-ball, badminton, pitching horseshoes, dancing, ping pong, and leisurely rowing the "Sylvan" on the lake. There were three-legged, pipe-lighting, and cracker eating contests. In addition a left-handed baseball game was played between the men and women.

Members of the S. E. A. committee in charge were: Ann Woods, Chairman; Ethel Springer, food and refreshments; Francis McGowan, games; and Bob Vanderkay, entertainment.

At which Radio defeated
Lighting in a pitchers battle
... 15 to 13

New York Office

At the second annual New York office outing about two hundred Sylvanians gathered for lunch at Sylvania Center, Bayside. Intermittent rain did not prevent an exciting softball game between the Radio and Lighting Divisions. At the end of seven innings the score was 15 to 13 in favor of Radio. At this point girls replaced the men in the line-ups.

Credit for the successful outing goes to members of the S. E. A. committee: John Muller, Warren Ames, Evelyn Duffy, Donald Gunn and Doris Landes.

New York Office outing group picture at Sylvania Center, Bayside, Long Island, New York.



The S. E. A. Committee in charge of New York Office outing. Left to right: Doris Landes, Warren Ames, John Muller, Donald Gunn and Evelyn Duffy.

Having "A Barrel of Fun"



Sylvanians with the COLORS



★ Home On Leave

Edward C. Barry (Danvers), Boatswain's Mate 3/c, U. S. Navy, enjoyed a twenty-day leave at his home in Beverly, Mass. He is the son of Mrs. Ann Barry of 11 Central Street.

Boatswain's Mate Barry has been on an L. C. T. in the Mediterranean waters and has also been in North Africa, Sicily and Italy.

★★★
John Fields, Electrician 1/c, U.S.N., radio technician in Electrical Maintenance Department, Emporium, Pa., for six years prior to joining the Navy in April, 1944, won four battle stars with

Task Force 58 in the Pacific under Admiral Halsey. His ship was hit by a Japanese suicide bomber at Iwo Jima and brought back to San Diego, Cal., for repairs.

★★★
Joe DeVoe, Sergeant, U. S. A. A. F., radio technician at Emporium for three years prior to entering the Army in April, 1942, won the Presidential Citation for meritorious service at a bomber base in France. He was previously in the Signal Corps under Lt. Col. (then Captain) Dean Wilson, Sylvanian who was killed in action in Germany. His

wife, Anne, is a monitor at the Brookville plant; and he is a nephew of General J. T. McNarney. His mother, Jean (now deceased), was for many years Editor of the *Sylvania News*.

★★★
RT 1/c Michael McKiernan, formerly of the Electrical Maintenance Department, is home on thirty-day leave. He has five Battle Stars and has taken part in four invasions, including the Philippines and Iwo Jima. He hopes to return to Sylvania after he receives his discharge. He has four brothers in the Service.

★ Typical Letter from Sylvania Serviceman



"I want to express my thanks for the good service you have been rendering in getting THE BEAM over to us. It's a wonderful morale builder, to say the least.

"Don't want to go into detail on my experiences over here. Far too many of the fellows have been through a lot more than I have for me to describe our travels, etc. However, we have had our share of it and have earned three

Battle Stars for our work, the "Ardennes" Campaign, the "Central Europe" Campaign and the "Rhineland" Campaign. We are proud of them, naturally, but also figure that they give us 15 more points.

"I've run into just one Sylvanian over here (outside of a former Sylvanian who is in my Company). He's George Frizzell who used to work with me in the Ipswich Fixture Office. George is in the Finance Disbursing Section but I haven't heard from him lately so maybe he has been lucky enough to head home.

"Noticed in June BEAM which I received today that you ask us to write if we have seen any Sylvania products in action. Yes, we have one anyway, right in the Battalion. It's a tiny radio tube used in the 'Walkie-Talkie.'

"Also noticed in the new BEAM the picture of my good friend, Kelso Sutton, who is now a 1st Lieutenant at the Pentagon Building in Washington.

"We are living a comparatively soft life now doing odd jobs here on the Cherbourg Peninsula and waiting for the War Department to make their minds up what to do with us. We swim daily in the

warm (it's true) Atlantic, have movies three times a week, live in a seashore hotel, have our beds made and rooms kept clean. But give us the good old U. S. A. any day.

"Thanks again for the good service on the BEAM and congratulations on the fine job you are doing. The Company certainly is expanding and it looks as though there will be a good chance for former employees who want to return after V-J Day. Keep up the good work, Sylvania!"

Regards,

BURLEY T. CRAM.

★ WHAT THEY WRITE

Henry I. Grabowski, Salem Tube Quality Department, writes that he was aboard the U. S. S. Texas during operations off Okinawa and Ie Shima.

James Antell, S/Sgt. U. S. A., writes that his station instrument tester in Karachi, India, uses Sylvania fluorescent lamps. This made quite an impression on Jimmy as he used to help make them.

Michael Armento, Radioman 2/c U. S. N. R., who left Danvers Fluorescent in September, 1942, to join the Navy, writes that Tinian in Marianas is really a beautiful place.



Wanda Woleyko

WITH RED CROSS

Wanda Woleyko, daughter of Mrs. Mary Woleyko, Five Saltonstall Street, Ipswich, Mass., has arrived in the European Theater of Operations to serve the Armed Forces as an American Red Cross Staff Assistant. Miss Woleyko, prior to entering the Service, was with the Ipswich plant.

AWARDED OAK LEAF CLUSTER

Flight Officer Clarence M. Green of the Salem Tube Quality Department has been awarded an Oak Leaf Cluster in addition to

the Air Medal. He is an Observer in the Black Spiders Night Fighter Squadron of Brig-Gen. Earl W. Barnes' 13th A. A. F. Command.

PROMOTED

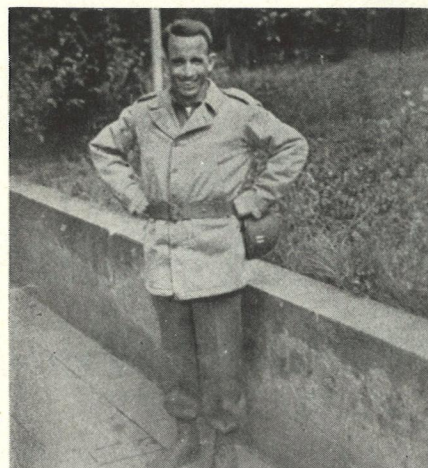
Henry Guinivan, Jr., of the Salem Tube Purchasing Department, has been promoted to the rank of Major in the United States Marine Corps. He is at the present time on duty at Okinawa.

Major Guinivan was with the first Marine Division to land on Okinawa, going in with the invasion forces on April 1. He fought for 83 days through the campaign for the liberation of the island. Henry has been overseas in the Pacific Theater for the past 10 months; he previously saw service in the Canal Zone where he was stationed for 21 months.

WIN BRONZE STAR MEDALS

Capt. John W. Collins of the Ipswich plant did such a commendable job in the push toward Germany that he was presented with a Bronz Star Medal. He took part in the Ruhr River crossing when the dams were destroyed by the Germans. A member of the 275th Infantry Headquarters, he is now on his way home and hopes to be discharged since he has 89 points.

Technician Fifth Grade Henry A. Caron, Jr. of the Salem Tube Engineering Department, has been awarded the Bronze Star Medal. A member of the 165th Engineer Combat Battalion, Corp. Caron was given the mission of providing flank security for the battalion convoy. His citation reads: "His efficiency in contacting the battalion convoy



Capt. John Collins

undoubtedly saved his battalion from running into an enemy ambush. His courageous and aggressive action reflects great credit on himself and the military service."

GETS PURPLE HEART

Private Edward R. Meyer of the Ipswich plant has just received the Purple Heart Medal for wounds received in action.

Private Meyer was wounded last March when he was serving with the 14th Armored Division of the Seventh Army in Germany. He received the medal at Lovell General Hospital, Fort Devens, where he is a patient.

Sylvanian Loses Four Children in Fire

News of the tragic death of his four children in a fire came as a complete surprise to Private First Class Woodrow W. White on his arrival home from the European Theater of Operations.

Private White was employed in the Electrical Section of Equipment Construction, Williamsport, prior to joining the Army on March 18, 1944.

Equally surprising to him, however, must have been the generous financial assistance which was immediately forthcoming from the local community. All told, a collection of \$3,843 was made for the Whites. The community-wide newspaper drive netted \$2,100; the church contributed \$1,066; neighbors sent in \$350.

White's fellow Sylvanians made him a present of \$327; and one, Mr. J. E. Hine, offered him, free of charge, a building lot in Nisbet Heights, Williamsport, and sufficient mountain stone for the construction of a stone bungalow.

Private First Class Woodrow W. White receives check for \$2,100 from Mr. Ferd Coleman representing the Williamsport Elks who sponsored a city-wide collection for the White family after the loss of their children. Directly behind Mrs. White is Mr. Van W. Person, official of the Williamsport Sun-Gazette, through whose newspaper the drive was conducted, while at the extreme right is Mr. Thomas Morgan, another representative of the Elks.

Williamsport Gives Him \$3,843





VISITS DOVER

Question: "How did you happen to come to work for Sylvania?"

JEAN CONNOR, Dover, Production Secretary, I4:

"It's a long story. My, boy friend went into the Service and I wanted to do my part. Sylvania was in my home town and my friends were there. There really wasn't any other war plant and I was curious about the work because I had heard about its importance at school."

ELSIE WILLIAMS, Dover, Production Operator, I3:

"I came to work for Sylvania because my husband was in the Service. I heard about Sylvania over the radio by their broadcast and I figured I wanted to go to a place that is good and with good pay. It was all that so I came."

MARIE COMISKEY, Dover, Quality Moulder:

"I suppose I really wanted to help in the war. I have never worked before. My girl friend told me about it. She told me they were making something for the Navy and my brother is in the Navy in the Pacific so I went right down to the employment office."

VIOLET JACOBSEN, Dover, Emergency Girl:

"To tell the truth, I couldn't work any place else as Sylvania has the highest priority in this district. I thought it would be rather interesting. I had heard so many people talking about Sylvania, I was anxious to see what it was all about."

DORIS KENNEY, Dover, Inspector:

"I was working at a bakery and didn't care

for the work. My brother went into the Army and we are nearly the same age, so I figured I would come here as it was really the only war plant around. The Sylvania representatives came to the high school and asked for a list of all the graduates so that they could interview them. I was working in the high school office at the time and had to type that list, so I came right down after graduation."

(Doris graduated with honors. Her brother was in Italy with the Ski Troops and was due home August 12.)

JOHN MURPHY, Dover, Guard:

"I was working up at the power plant and when the lights went on after the hurricane I went on a vacation. I worked in the same building for about 38 years for the Pacific Mills as night watchman, so it's like home to me. I saw this plant burn down and put up again practically new."

(John was the first man hired in Dover for that plant.)

Question: "What do you miss most now that you are back in civilian clothes?"

EVERETT KING, CPI of Dover, formerly on ARD59:

"I am darn glad to be back in civilian life. I got married and got a job. It seems, of course, you leave some unfinished business over there and any guy out of Service misses the fellows he knew."

(Off Saipan, King was in a group of five of our ships that the Japs sank "one after another.")

With Sylvania a Quarter Century . . .

Mr. George E. Spurling, Salem Lamp, is a Maintenance Man in the Plant Maintenance Department under Mr. Sterling Turner. He has been working for the Company since June 8, 1920.

George is married and has four children. In his spare time he enjoys outdoor sports such as fishing and hunting.



George E. Spurling

Mrs. Lillian C. Whalen joined the company on January 1, 1920 and started on the second floor of Boston Street on the side pumps, a small edition of our present-day trolley exhaust. After that, she worked in Special Lamp under the supervision of Frank Becker and worked there for almost twenty-four years.

For the last year Lillian has been working at General Engineering where her long experience has helped in the development of new types of products.



Lillian C. Whalen

SECOND ANNUAL PARTY FOR SALEM LAMP "TEN YEAR CLUB"

On July 10, 1945, eighty-five members of the "Ten Year Club" of the Salem Lamp Plant enjoyed their second annual party at the Country Club.

A turkey dinner and a huge birthday cake, followed by entertainment and dancing were part of the evening's fun. Mrs. Helen Darsney (Devine) was Mistress of Ceremonies and she introduced a few of the more prominent members.

Entertainment was provided by Emory Eaton and Chester Horne, vocalists, Phyllis and Lois Thibodeau, acrobatic dancers, and a specialty song by the committee composed by Gertrude Smallwood and Mary Foster, both of the Special Lamp Department.

Credit for the success of the affair goes to Mrs. Helen Darsney and her committee who contacted the entertainers and planned the party.



Lauretta La Brie, Chessie Dobrosielska, Gertrude Goodak, Gertrude Smallwood, Mary Foster, Helen Murphy, Theresa Zampino, Alice Peabody, Helen Darsney, Eunice Craighe, Mary Wishnfsky.

Ground Broken for Erection of New Sylvania Plant

Mechanical Development Plant to Be Located in Salem

Ground-breaking ceremonies for the Company's new Mechanical Development plant were held September 10 at Sylvania's Loring Avenue, Salem, property. Mr. Frank A. Poor, one of the Company founders, turned the first shovelful of earth.

In delivering the ceremonial address, Mr. Poor termed the erection of the new plant "a definite milestone in the progress which Sylvania is making in the incandescent lamp field." He said the new building will be equipped with fluorescent lighting and all other up-to-date facilities.

Will Employ Two Hundred

"This new plant which will employ eventually up to 200 highly-skilled mechanics, engineers and designers is further indicative of the fact that Salem will continue to be the home of Sylvania's incandescent lamp manufacturing," Mr. Poor concluded.

Representing the city of Salem at the ceremonies were: Mayor Edward A. Coffey, Chief of the Fire Department Arthur L. Flynn, City Marshal John C. Harkins, Superintendent of Public Buildings John J. O'Rourke, Superintendent of Streets Thomas L. Hever, City Engineer Frank P. Morse, and James Garland, Secretary of the Chamber of Commerce.



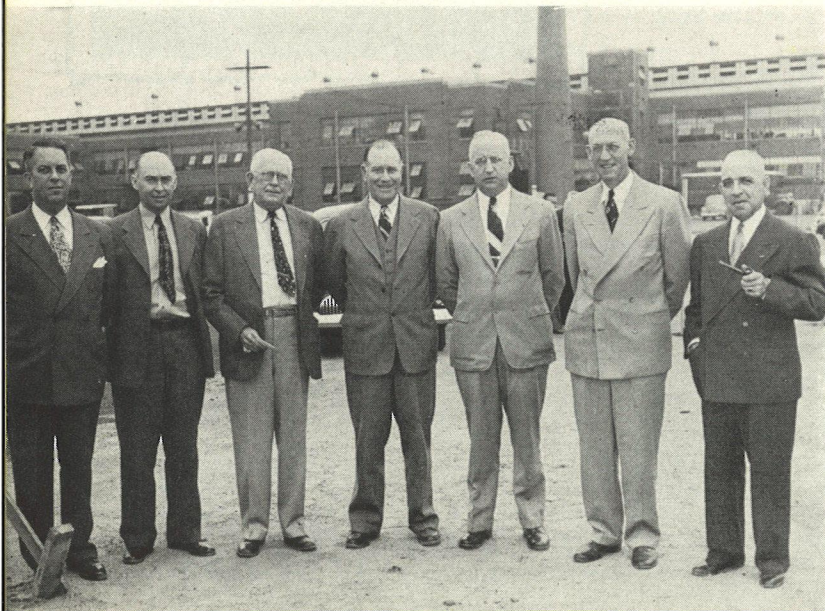
Mr. Frank A. Poor, one of the Company founders, passes shovel to Mr. James J. Walsh, whose company, the Walsh Construction Company of Webb Street, Salem, was awarded the contract for Sylvania's new Mechanical Development plant.

Represent Sylvania

Sylvania's representatives at the ceremonies included Frank A. Poor, C. F. Horne, R. M. Gardner, J. J. Jackman, R. M. Zabel, O. H. Biggs, J. S. Learoyd, J. Wooldredge, J. C. Carter, Mrs. M. Bradstreet, J. R. Fuller, P. A. Arnold, R. E. Barrett, H. F. Callahan, S. J. McDonald, W. R. Burns, W. K. Anderson, F. Hartley, E. A. Wall, A. A. Brisebois, J. P. O'Brien, A. E. Kulberg, E. S. Babcock, D. J. Dwinell, and S. M. Brown.

The New Mechanical Development plant will be used for the construction of machinery required in the manufacture of fluorescent and incandescent lamps. Mr. Chester F. Horne, General Manager of Operations—Lamps, anticipates that the Mechanical Development activity now located in the Colonial Garage on New Derby Street, Salem, and the construction shop now located in the Danvers Fluorescent plant will move into the new quarters about the first of the year.

The building, a one-story structure 270 feet long by 100 feet wide, is being erected parallel to the present Salem Tube plant approximately 230 feet from the main section of the Salem Tube factory with the front facing on Loring Avenue and located 80 feet behind the far side of the rear wing. The building will be of tapestry brick with tile on the inside and will cost approximately \$140,000.



Principals in ground-breaking ceremonies at Sylvania's Loring Avenue property—left to right, Mr. Chester F. Horne, General Manager of Operations—Lamps; Mr. John J. O'Rourke, Supt. of Public Buildings; Mr. Frank A. Poor, one of the Company founders; Mr. James J. Walsh of the Walsh Construction Company; Mayor Edward A. Coffey; Mr. Roland M. Gardner, Manager of Mechanical Development; and Mr. Joseph J. Jackman, Salem Tube Plant Manager. In the background is the Salem Tube plant.

This and that from here and there....

S&R Form 12

SYLVANIA SAVINGS AND RETIREMENT PLAN
Notification of Change of Name or Address

Active Number _____

Social Security Number _____ Plant employed _____

CHANGE OF NAME

Please change my name on your records as follows:

From (Former name) _____

To (New name) _____

Member's First Name _____ Initial _____ Last Name _____

Date _____

Signature of member _____

CHANGE OF ADDRESS

Please change my address on your records as follows:

From (Former address) _____

To (New address) _____

Number _____ St. or Ave. _____ City and Zone _____ State _____

Date _____

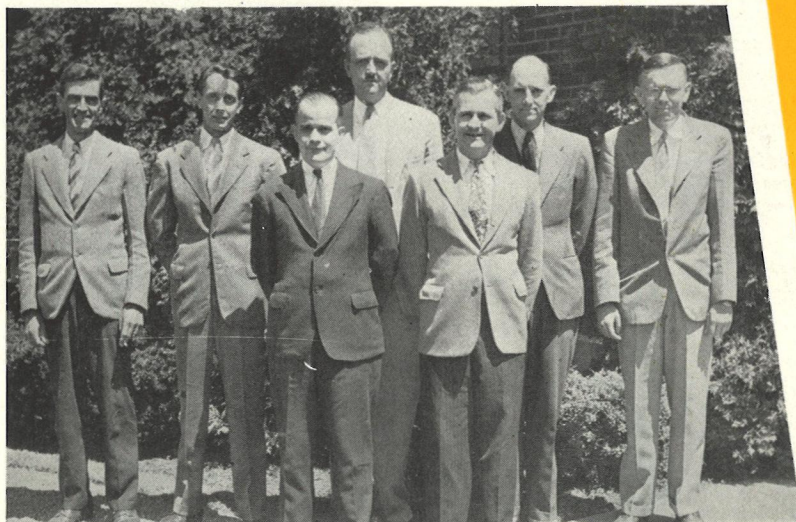
Signature of Member _____

Has your S. & R. status changed recently? If you have married or changed your address, it is important that your S. & R. Plan office be informed of it. Up-to-date records of these facts are to your benefit and help keep records straight. If necessary, fill out a new form immediately.



Fred Robinson, Sales Manager of Latin America, is shown stepping off the plane in Santiago, Chile, one of his stops on a two-months circuit through the countries south of the border.

Quality Men of Salem Tube



Among the leading Quality Control organizations within the company is (left to right) front row: R. C. Svenson; H. P. Murray, (left to right) back row: A. Putnam; B. R. Tucker; E. Jewett; R. A. Swan; S. F. Boyd.



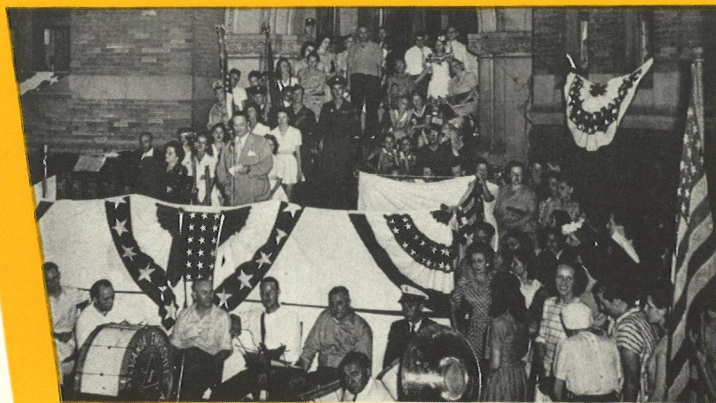
SYLVANIA FLOAT MARKS V-J DAY AT SALEM

Through the center of town went a stream of floats as the news of V-J Day reached Salem. Sylvania was represented by Lucia Cook of

the Industrial Relations Department and Emmerton House holding the American flag atop a unique float.



Williamsport Greets V-J Day



Sylvania's Williamsport band and majorettes were on hand

Mayor Leo Williamson delivers the V-J Day address to the townfolk at the City Hall





Kew Gardens SOFTBALL



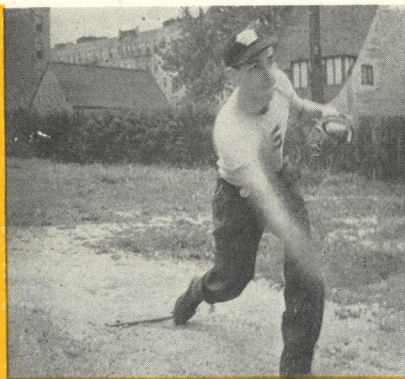
Charles Grayson making a "put out"



(First Row) Joseph Kletecka, Charles Grayson, John Zyats, Ray Bond, Wesley Kinnier, Wilfred Lenze. (Second Row) Jack Geddes, John Mirabella, Clarence Bailey, Ray Whitmer, Art Cohen, Harry Housler.

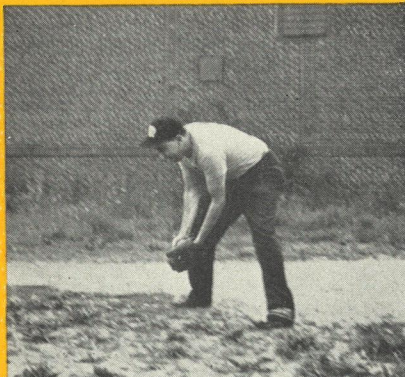


Joe Kletecka waiting for the "fat one"



Ray Bond curves one in

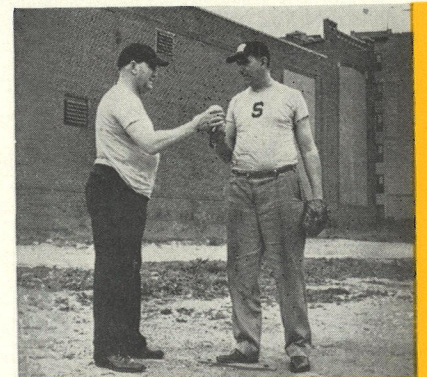
John Mirabella handles a hot one



Under the able managership of Jack Geddes and Harry Housler, the Kew Gardens softball team wound up a better than average season. Starting with mostly inexperienced, but good material, the team came along rapidly, and finished in the first division of the fast-moving Industrial Softball League of Long Island.

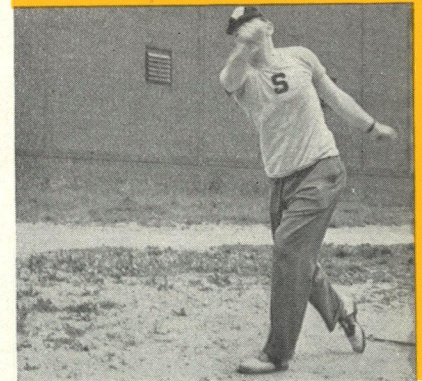
In the League play-offs, Kew Gardens competed in three close games. They lost the first 7 to 6, won the second, 3 to one, and lost the third game 8 to 7. Throughout the regular season, Sylvania played .500 ball winning 12 and losing 12.

Due to the draft, there were many times when older players were called from the bench and performed well under fire. Outstanding players were pitchers Clarence Bailey and Art Cohen who won 7 and 5 games respectively. In the hitting department, John Mirabella with .341 took top honors, with Warner Wicke and Art Cohen close behind with .330 and .326 respectively.

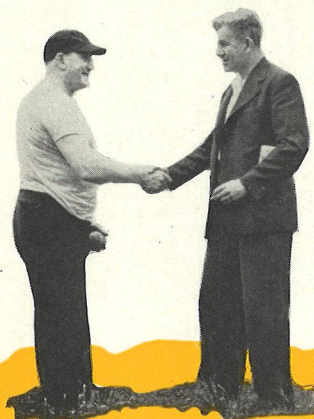


Coach Jack Geddes gives Clarence Bailey last-minute instructions

Art Cohen pitches



Charles O'Rourke, Standardizing Dept., Kew Gardens, congratulates Jack Geddes, Manager and Coach of the team, on an outstanding season.



Charles Grayson slides home



Wesley Kinnier, outfielder, shagging flies





Weddings



ALTOONA:

Miss Ruth Marie Skelly to Mr. Andrew Lashinsky, on August 11.

Miss Shirley L. Genselbaugh to Mr. Robert J. Walters, on August 25.

DANVERS:

Miss Blanche Sweet to Chief Petty Officer Henry J. Slazenik.

Miss Priscilla Catherine Egan to Mr. Franklin W. Killam.

Miss Helen Burke of Personnel to Lt. Col. A. Earle Fisher of Washington and St. Louis, July 29.

Miss Rollande E. Marquis to Mr. John F. Henry, in July.

Miss Ruthada Thornton to Mr. Charles L. Lisko, on July 7.

Miss Muriel Jane Crossman to Mr. Robert John Sweeney of the U. S. Navy, in July.

Miss Mabel Miller to Mr. Dwight Dwinell of Equipment Development Design, on July 28.

Miss Elinor Fielding, Equipment Development Dept., to Lt. Charles N. Powers, U. S. M. C., on May 20.

EMPORIUM:

Miss Helen Sushereba to Sgt. George S. Castner, on August 18.

Miss Aggie Farcus, Shipping Dept., to Mr. William Van Gelder, Electrical Maintenance Dept., on August 14.

Miss Marian Appleby, Accounting Dept., to Mr. Grant Hart, Jr., Machine Shop, on September 1.

IPSWICH APPLIANCE:

Miss Margaret Shaw of Appliance Quality Dept. to Sgt. John Sullivan.

JAMESTOWN:

Mrs. Pauline Carlson to S/Sgt. Carl A. Larson, on August 30.

MILL HALL:

Miss Betty Lou Courter to Mr. George Wolfe, on August 18.

NEW YORK:

Miss Gloria Drew to Mr. Richard G. Mackey, Publications Division, on September 8.

SALEM LAMP:

Miss Lorraine Deschamps, Secretary, Sales

Dept., to Chief Petty Officer Thomas Cadoret, U. S. N. R., on September 1.

Miss Alice J. Frazier, Special Order Dept., to Mr. Wesley P. Alexander, U. S. C. G., on September 9.

Miss Marion A. Jones, Special Order Department, to Mr. Richard J. Wentworth, on September 22.

Miss Rita Leonard, Special Order Dept., to Mr. Edward L. Scanlon of Somerville, Mass., on April 14.

Miss Pricilla Begin, Tabulating Department, to Chief Petty Officer Robert H. Saunders, U. S. N. R., on September 27.

Miss Mary Louise Purtell, Stencil Dept., to Joseph B. Harrington, E. M., 2/c, U. S. N. R., on September 22.

WILLIAMSPORT:

Miss Doris Helm to Mr. Robert Miller, on July 18.

Miss Philomena M. Verdini to Lt. Carl M. Deibert, U. S. A., on August 18.

Miss Rosalea Alice Clark to Dr. Eugene Donald Breisch.

Miss Betty Lou Alberts to Mr. Stanley H. Leavy, on August 25.



Births



DANVERS:

To Mr. and Mrs. Niles Pierpont, a son, Brooks Alan (8 lbs. 2 oz.), on August 17. Father is Supervisor in 1N Dept.

To Mr. and Mrs. George Redding, a son, Charles Gary (6½ lbs.), on August 29. Father is General Foreman in 1N Dept.

To Mr. and Mrs. Henry Mika, a son, Ronald Andrew (7 lbs. 13 oz.), on August 25. Father is a Radio Technician.

To Mr. and Mrs. Donald Larrabee, a son, James Newman (8½ lbs.), on August 25. Father is Assistant Supervisor, Industrial Engineering.

To Mr. and Mrs. George Pond, a son, David George (7 lbs. 12 oz.), on August 27. Father is in Production Control Dept.

To Mr. and Mrs. James Sullivan, a son, Mark (8½ lbs.), on September 10. Father is Foreman in 1B24 Department.

To Mr. and Mrs. Henry B. Maloney, a son,

Richard Troy (7 lbs.), on July 11. Father is an Equipment Designer in Equipment Development Dept.

To Mr. and Mrs. Joseph Preczewski, a son, Peter (8 lbs. 1 oz.), on August 31. Father is in Equipment Development Dept.

To Mr. and Mrs. Hans Frederickson, a son, David, in August. Father is in the Maintenance Dept.

EMPORIUM:

To Mr. and Mrs. Edwin Olsen, a son, Donald (8 lbs.), on August 22.

To Mr. and Mrs. Victor Sherwood, a daughter (8½ lbs.), on September 2. Father is Stock Clerk in Special Tube plant.

FLUSHING:

To Mr. and Mrs. Edwin R. Bowerman, a son, Jeffrey David (6 lbs. 1 oz.), on August 18. Mrs. Bowerman was formerly employed in the Standardizing Dept. in Emporium.

IPSWICH APPLIANCE:

To Mr. and Mrs. Ronald Kingston, a daughter, on August 20.

To Lt. and Mrs. Thomas Reiling, a daughter, on August 27.

To Mr. and Mrs. David G. Christie, a daughter, on August 31. Father is in Industrial Relations Dept.

To Mr. and Mrs. John Riddle, a son, on September 1.

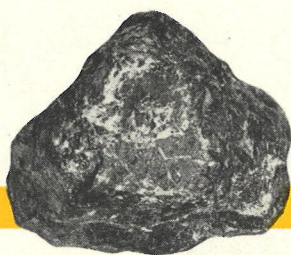
To Mr. and Mrs. Lawrence Sweetser, a daughter, Meredith Sears (7 lbs. 14 oz.), on August 14. Father is Engineer of Experimental Projects.

SALEM LAMP:

To Mr. and Mrs. Lucien Provost, a daughter, on August 11.

To Mr. and Mrs. Alfred E. LaBrie, a daughter (7¼ lbs.), on August 19.

To Mr. and Mrs. L. A. Allen, Jr., a daughter, Nancy (5 lbs. 6½ oz.), on August 21.



The wolframite ore from which tungsten is derived

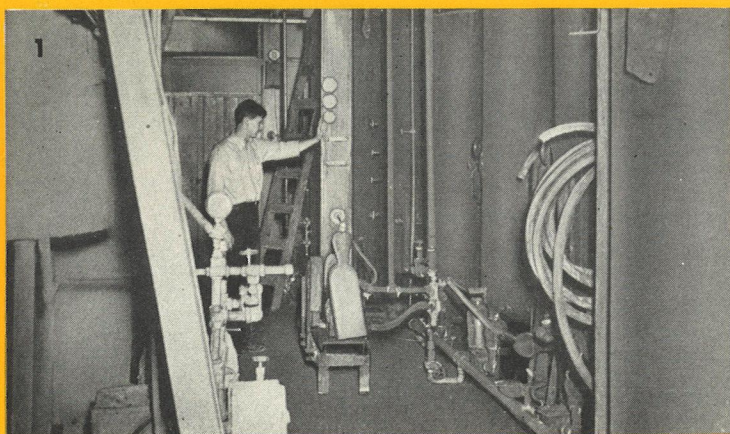
Tungsten FROM

THE history of tungsten dates back to 1820, at which time the word wolframite was adopted for the mineral containing the tungstate of iron and manganese. The year 1847 marked the date when the industrialization of tungsten may be said to have begun, and from that date to this the processing and improvement of this metal has progressed in leaps and bounds.

At Towanda, Sylvania during the war produced tungsten used in the cores of armor-piercing shells.

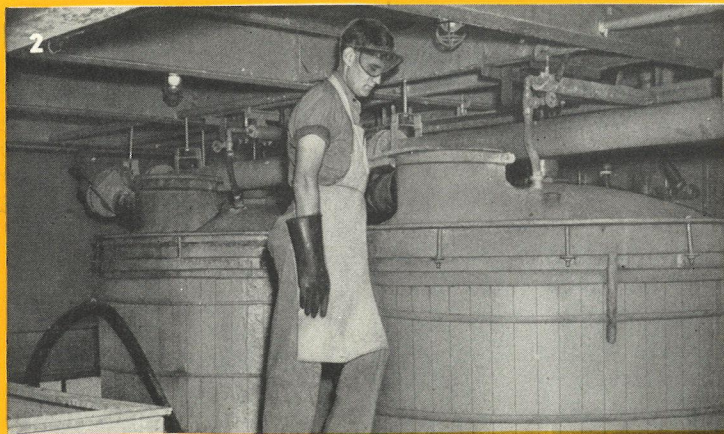
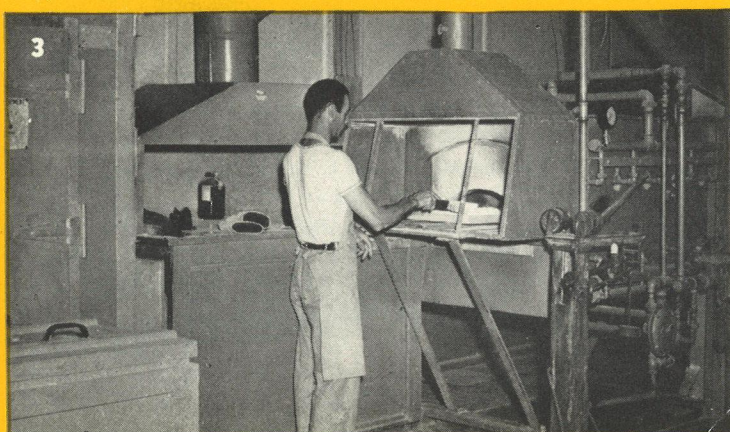
Tungsten is also made into ground seal rods prepared to customers' specifications. Rod is used in Sylvania radio transmitting tubes.

Below is the complete story of how Sylvania makes tungsten filaments.



1—Ore digester on right where ore is boiled in acid and transformed into sodium tungstate. Storage tanks at left. Lloyd Streby is in charge.

2—The sodium tungstate is put into hydrochloric acid which precipitates tungstic acid. The pure tungsten rises to the top while impurities sink and form sludge. The tungstic acid is then dried in large glass-lined tanks. Operator, Floyd Johnson.

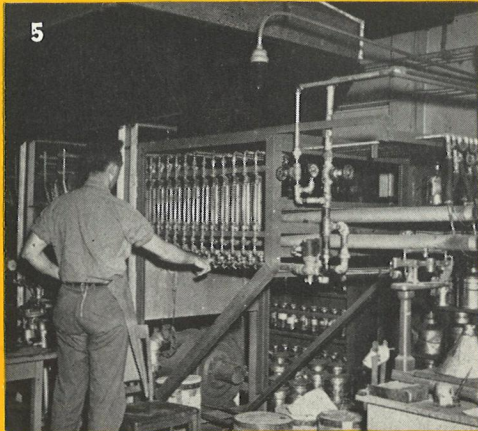


3—The dry tungstic acid is baked in a gas-fired furnace to remove moisture. Coming out of this furnace, it is tungstic oxide, a yellow-green powder. Claude Moore is the operator.

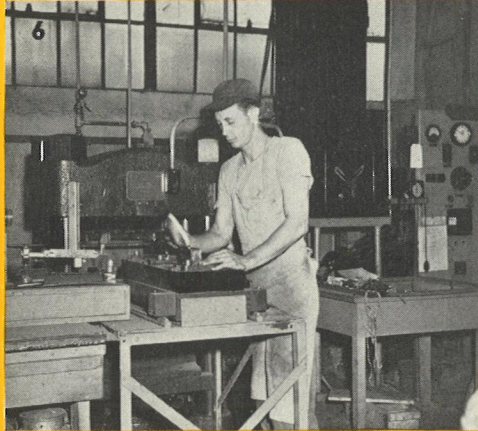
4—The tungstic oxide powder is put through this pipe-like reduction furnace to remove the oxygen, coming out of the furnace a gray metal powder. Anna Gordon weighs the powder and Bernard Potter is the operator.



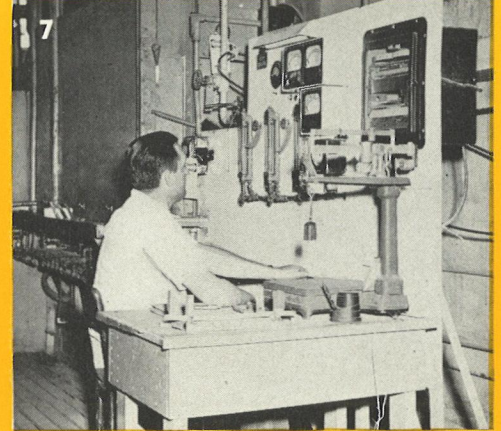
Towanda ...



5—The checking of the hydrogen flow gauges at the exit end of the furnace is handled by Vernon Dyer.

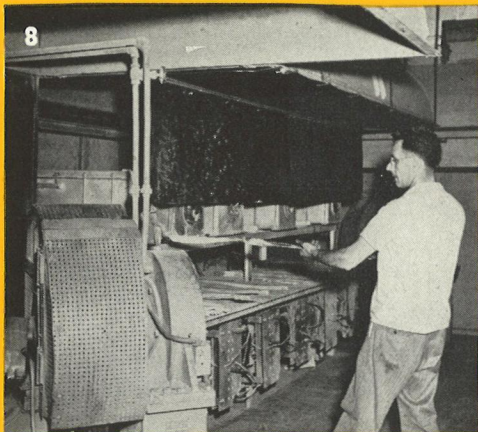


6—The tungsten powder is poured into a press where it is squeezed into bars about the size of soldering irons. The bars are then heated so that they obtain more the nature of a solid metal.



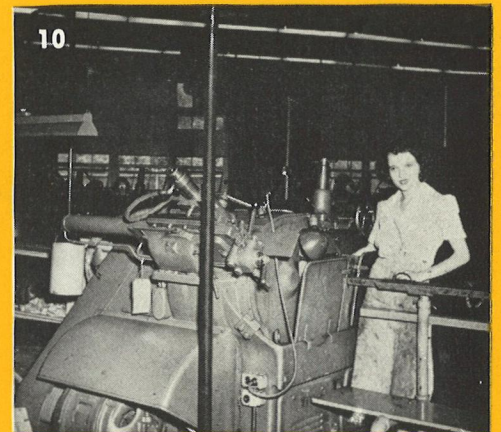
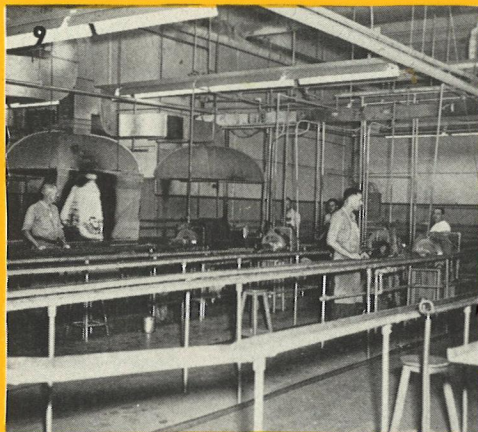
7—The bars are next treated under intense heat created by thousands of amperes of electricity. When they come out, they may be slightly bent from the heat and show beautiful purple and bluish coloring. John Patrician is the operator.

8—The metal is put into a high-heat oven and taken out and inserted in a mechanical swager which pounds it into shape. Olin Canfield is operating the plincers.



9—The tungsten rod now goes through a continuous process of swaging or pounding and is passed along the troughs which hold the rod which now resembles wire.

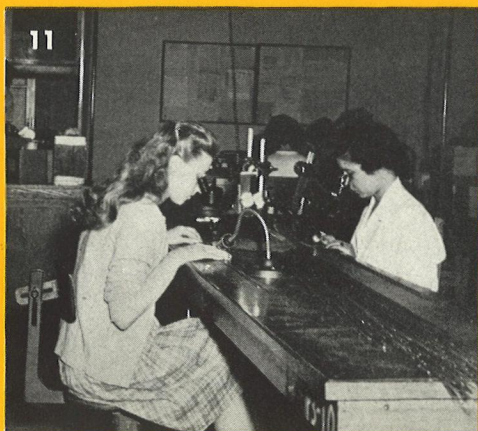
10—Centerless grinding is performed by costly machines. Gloria Parsons is the operator. This polishes and smoothes the rod.

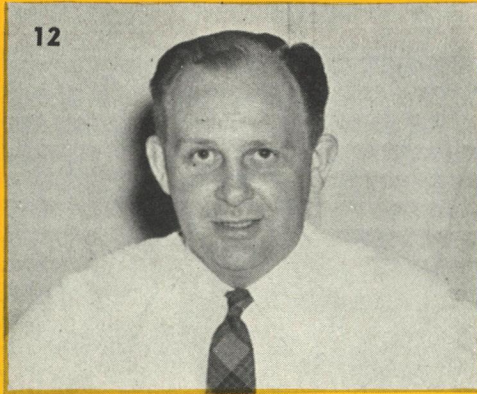
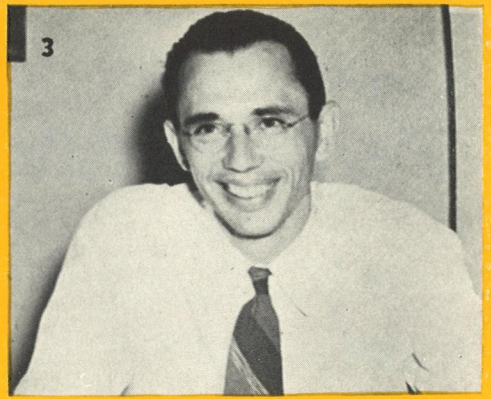
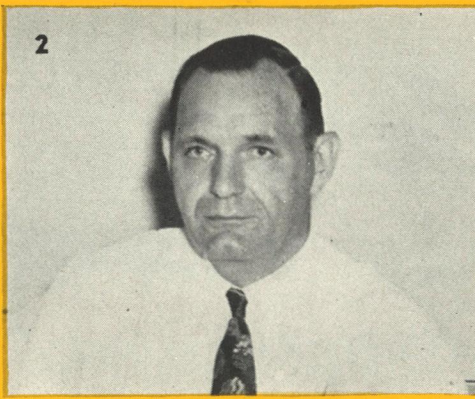
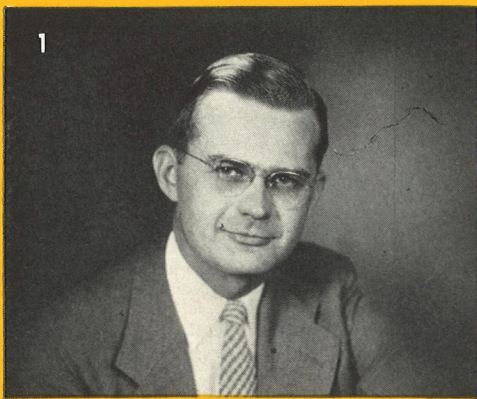


11—The rod is inspected through 30-power microscopes. Lola Bailey, left, and Margheurite Christino, right.

12—Rod cut-off machines snip the rod into standard lengths. Clara Smith and Arlene Purhenn are the operators.

13—Final inspection—left to right, first row: Sara Blackwell, Hazel Dean and Barbara Shores; second row: Eloise Welliver, Alberta McNeal, Neva McPherson, Monitor; third row: Louise Buell and Mary Hurley.





Towanda
PERSONNEL

1 J. B. MERRILL *Plant Manager*

2 GEORGE F. STEWART
General Foreman

3 ALDEN B. DAVIS
Engineer in Charge of Fluorescent Powder Plant Operations

4 HENRY C. GLENN
Supervisor of Production Control

5 PAUL W. FELTEN
Chemical Engineer in Charge of Chemical Engineering

6 WILLIAM EARL STEWART
Research Engineer

7 WILLIAM F. KNOP
Industrial Engineer

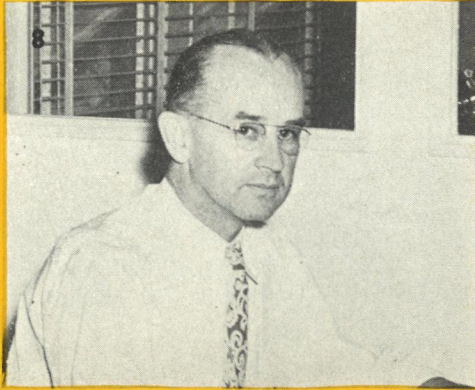
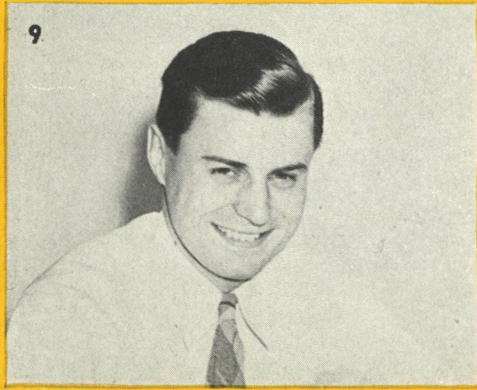
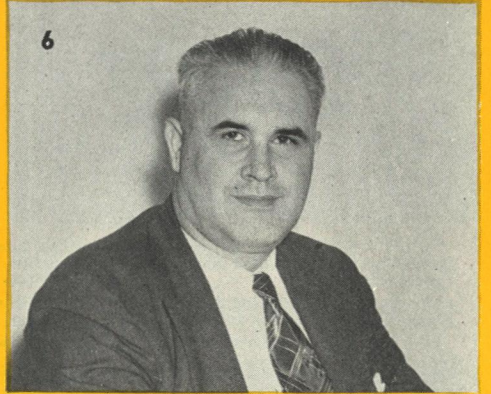
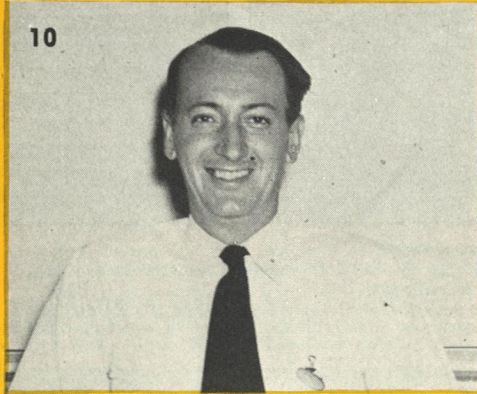
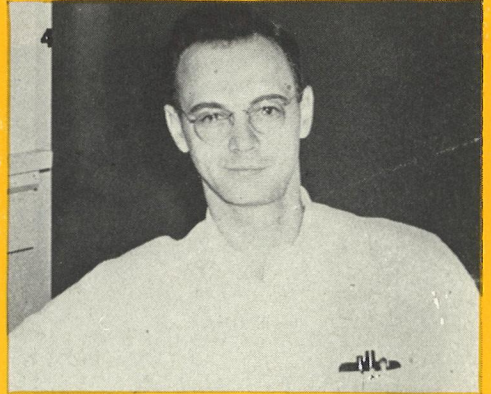
8 HAROLD S. WILLIAMS
Supervisor of Cost Accounting

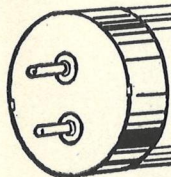
9 ROBERT E. MAHR
Metallurgist

10 JOHN L. BAILEY
Supv. of Quality and Safety Engineer

11 THEODORE R. COYLE
Purchasing Agent

12 CALVIN JOHN SPARROW
Manufacturing Superintendent





Three New Developments in Fluorescent



1. For the first time fluorescent Christmas tree lights will be on the market this year. Developed and manufactured by Sylvania, the new lights come in four pastel shades of blue, green, coral and maize, are round in shape, and need no auxiliary equipment in order to operate. In addition to providing a soft, attractive glow to the tree, fluorescent bulbs provide new and unusual color effects for Christmas decorations.

The lights come eight to a string, have a screw type base and are independently operated. A string of fluorescent lights may be added to a string of incandescent Christmas tree bulbs by just plugging it into the socket. Each light burns about five watts of current and each has an approximate life of up to a thousand hours. Because they burn cool, the new lights help to retard drying up of the tree.

Designed for use on either indoor or outdoor trees, a string of eight lights sells for about \$7.50, with replacement bulbs costing 60¢ apiece. Royal Electric Company and Miller Electric Company, both of Pawtucket, Rhode Island, will manufacture Christmas tree sets using the new fluorescent lights.

2. Specially designed to operate with instant start type of ballast, Sylvania's new instant-start 40 watt, T-12 fluorescent lights are treated to eliminate operating faults frequently encountered in conditions of high humidity.

Humidity, frequently the cause of bad starting in instant-start types, will not affect the operation of the new lights which are supplied with special invisible hydrophobic coatings which cannot be rubbed or scratched off and effectively prevent the formation of a film of moisture.

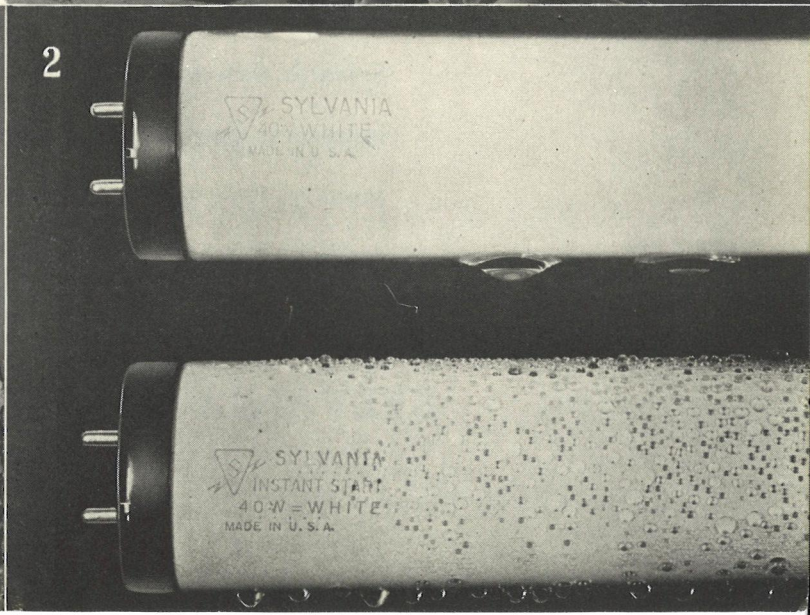
Photo shows untreated light (at top) after receiving fine spray of water which has produced continuous film of water in contrast with the treated lamp (below) on which moisture has collected on tiny droplets, each separated from the other by completely dry area.

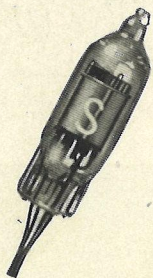


3. Suitable for ceiling fixtures, table and other portable lamps, Sylvania's new circular fluorescent lamps provide cool, diffused light for many home and commercial applications. Translucent plastic base permits turning the light a full 180 degrees without removing it from lamp holder.

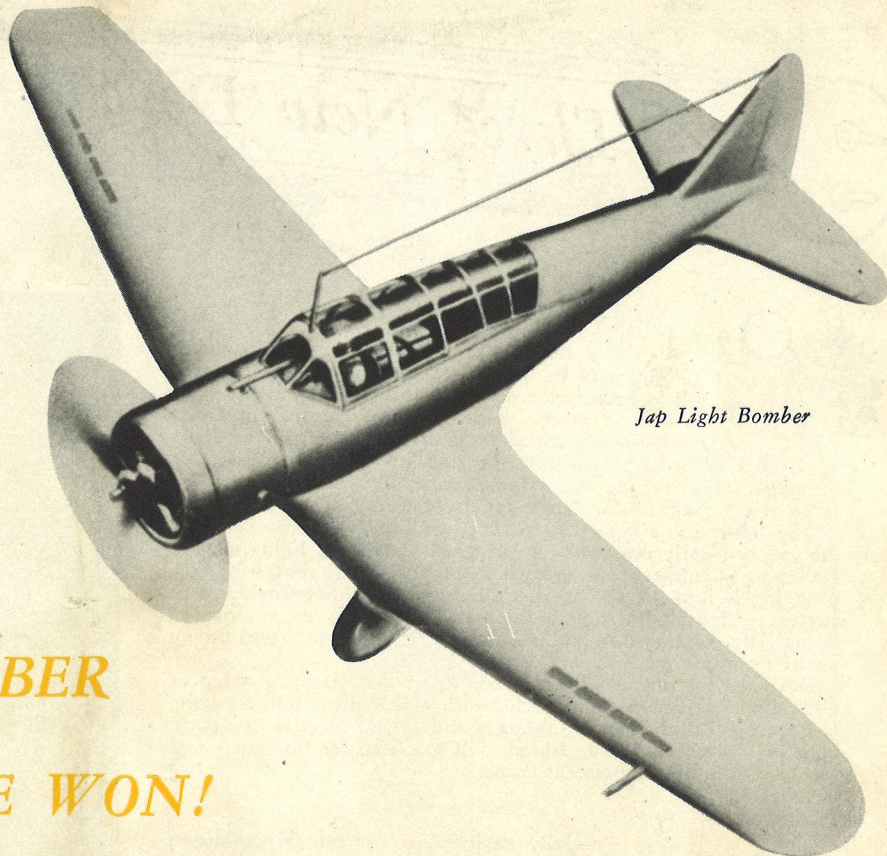
By reversing position of the light it may be turned another 180 degrees thus making possible a total of 360 degrees around the lamp holder. The translucent plastic bases pick up light from the lamp and tend to eliminate dark spots in a continuous ring of light.

These new circular lamps operate with conventional fluorescent lighting ballasts provided with manual or automatic starter control.





Actual Size



Jap Light Bomber

TUBE VERSUS BOMBER AND THE TUBE WON!

A Radio Proximity Fuzed Anti-aircraft Shell is to the Bomber what the Bazooka is to the Tank. It spells Sudden Death.

Heart of the Radio Fuze is the tiny T-3 Tube. (See picture, actual size.) It was the only part of a Proximity Fuze that the Nazis could not make. Even if it were made in a laboratory, they said, it never could be manufactured in the necessary quantities to be a military factor.

They didn't count on the ingenuity of American scientists. They forgot that American men and women have a particular genius for mass production technique.

Sylvania men and women helped develop the fuze and built an important part of the nation's total fuze production. From January, 1944 until Victory every tube used in Navy fuzes was made by Sylvania Men and Women.

SYLVANIA ELECTRIC PRODUCTS INC.

SYLVANIA

ELECTRIC PRODUCTS INC.



TOWANDA • PENNSYLVANIA

Dear Friend:

All during the war it was impossible to tell you much about the products that we were making here in the Towanda plants or the other plants in Sylvania. Security has now been released on many of the operations and I am very glad to be able to tell you that the Towanda plants played a vital part in the winning of the war and to explain how.

The fluorescent powders were used to improve the visibility of dials in airplane cockpits and submarine instrument boards as well as in cathode ray tubes which were used in radar applications.

The tungsten products had many and varied applications. A large percentage of the products went directly into tubes for radar which were used on land, sea and in the air very extensively. Other uses of tungsten rod include the tungsten carbide cores which were used in shells that had an extremely high penetrating power such as blasting a hole through eight inches of armor plate. Some of the tungsten was used in the many problems of producing the atomic bomb.

The silicon project found a unique application in communications.

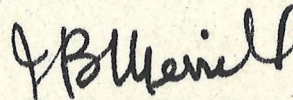
The Special Navy operation Project A was set up for the manufacture of special tiny tubes for the V-T Fuses which, as you already know, were next in importance to the atomic bomb. In particular, the current issue of the BEAM describes this Fuse in detail and, therefore, we are forwarding it to you thinking it will be of interest.

On many occasions I knew of particular instances where some of you walked long distances over roads drifted full of snow and through severe storms in order to be on the job. True enough, this was no worse a condition than many of our boys at the front experienced but still, it enabled us to meet our schedules and everyone should have a quiet feeling of satisfaction in having helped to make a major contribution to the war effort.

I am justly proud of the record that this plant made in the production of materials vital to the winning of the war and wish to thank each of you for the wholehearted cooperation and interest that you had in performing your part of the job.

Sincerely,

SYLVANIA ELECTRIC PRODUCTS INC.



J. B. Merrill, Manager
Tungsten and Chemicals Division

JBM:MFC