GENERAL ELECTRIC

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INFLATION

IN THIS ISSUE

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Monogram is produced for managers, professional, and clerical employees of the General Electric Company and its affiliates, so that readers are kept informed on GE activities to help them do a better job including their relationships with the public. It is published monthly at New York by the Employee Communication Operation of Corporate Employee Relations and printed in the U.S.A. by Kalmbach Press.

CREDITS

Beating inflation is a job so big that no company alone, no group of individuals acting unilaterally, can do much more than dent the problem.

That becomes clear as you read the roundup on inflation which begins on page 4. Many people helped gather material for it and are referred to in the article. Others, not named but equally helpful, include Tom Litwiler, Jack Batty, Jack Farris, and Ed Danford of Pittsfield; Hank Tullock, Marv Stoner, and the girls of the Waynesboro relay assembly line, the majority of which preferred to remain anonymous; and Gil Barley, Bill Lewis and Cal Anderson in Louisville. Contributors too numerous to mention also get a tip of the hat.

GENERAL ELECTRIC

Making the SCENE

★ Everyone knows how Tennesseans love music. They write it. They play it. They listen to it. GE Tennesseans are no exception. For instance, Raymond Moore, a materials supplier and four-year employee in the Lamp Division's Memphis Lamp Plant, composed "I'd Rather Be an Old Man's Sweetheart," which has sold more than 300,000 copies to date. It was nominated for the 1969 Grammy Award in the category of rhythm and blues. (The Isley Brothers' "It's Your Thing" actually won the award.)

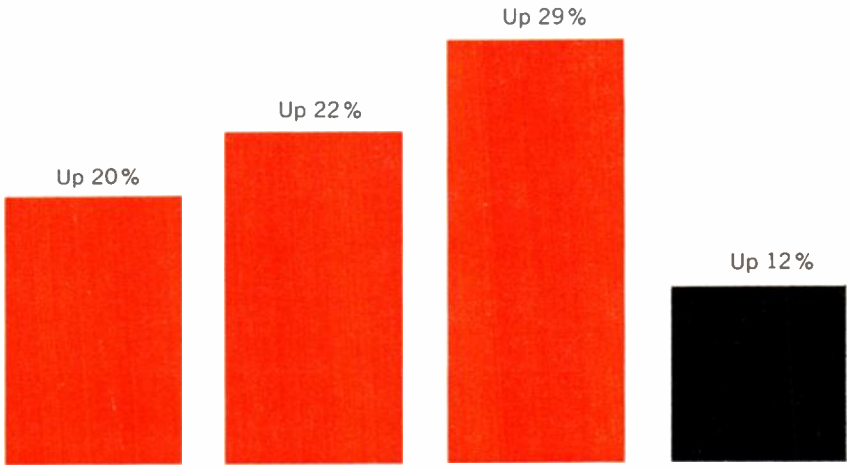
No newcomer to the songwriting field, Raymond has penned melodies for Bobbie Gentry, Wilson Pickett, Clarence Carter, George Jackson, and Candi Staton. The latter sings the lyrics for "Old Man's Sweetheart."

And Memphis Lamp Plant employees listen to music as they work. Music by Muzak was installed late last year. The schedule is for 15 minutes of music followed by 15 minutes of silence. Employees asked for the installation which provides a wide variety of instrumental selections.

★ IN . . . SORECA . . . AAE . . . PABEA . . . SIP. Esperanto? Sanskrit? No, they're acronymic names for various Philadelphia community organizations receiving the Re-entry & Environmental Systems Division's community relations support via a new RESD publication, *Turn On*. Another new quarterly is *EEO/AA* (for Equal Employment Opportunity/Affirmative Action) *UPDATE* which summarizes RESD's effort at continued improvement in developing action which will give both current and potential minority employees new professional growth opportunity. IN (Interested Negroes) aims at helping junior high school students plan their careers. SORECA (Someone Really Cares) tries to show that someone really cares by working through recognized social and civic agencies. AAE (Adult Armchair Education) sets up adult classes in inner city homes. PABEA (Philadelphia Adult Basic Education Academy) fights illiteracy. SIP (Secretarial Improvement Program) provides a technical center for instruction in secretarial skills. Many RESD people participate in these and similar programs.

★ Good TV programs, Erie General Electric believes, deserve to live on. So when the perennial "GE College Bowl" show expired, communication manager Joe Podolsky staved off the embalmer and brought forth last fall "High-Q," a high school version of "College Bowl" complete with a mod Bob Earle-like host in the person of Dr. James F. Drane of Edinboro State College. Contestants should find Dr. Drane a hard man to bluff. He speaks five languages and has a working knowledge of three others. He has produced four books and numerous scholarly articles for major clerical and lay publications.

★ Plant services at the Armament Department, Burlington, Vt., has come up with a wall-washer's dream. (Males who have been pressured into that degrading weekend form of slave labor, washing walls, take note.) The gismo is called "Wallmaster," and, this non-electric, noiseless, portable machine enables one man (got that "man?") to clean with ease 4,000 square feet of wall space in eight hours. Further, it is drip-proof, streak-proof, and eliminates the need for buckets and drop cloths. With luck, and one of these jobs, you could please Mom *and* still spend the weekend afternoons watching sports on TV.



INFLATION PROFILE

(5-year increase, 1965-70)

Source: Bureau of Labor Statistics

INFLATION

One Way We Fight It: Through Cost Improvement

Everybody talks about inflation; not everyone does something about it.

General Electric and its employees are among those trying to fight it through cost improvements — on both the industrial and home fronts. The dimensions of the problem are indicated in the accompanying chart. Since 1965, the government's consumer price index has risen 22%, but the U. S. wholesale price index of electrical equipment and supplies has climbed just 12%.

While electrical prices in general rose only modestly (and not at all for some products), costs of doing business for electrical manufacturers, including General Electric, have soared in the past five years. For example, average straight time hourly earnings in the electrical equipment and supply industry have risen 29% since 1965. And the prices of purchased raw materials, components, supplies, and transportation have gone up 20% in the half-decade.

With pay and other costs rising faster than prices, the percentage of profit which GE earns on the sales dollar has declined during this period. The only way that General Electric can earn the profit necessary to compensate share owners for the use of their money and to reinvest in the business is to reduce the product costs faster than other costs have risen.

Like the housewife who comparison-shops at the supermarket or the homeowner who does his own repair work, GE also must control costs. *Monogram* visited components at Pittsfield, Waynesboro, and Louisville to learn how the people there control GE's "household" expenses or otherwise try to outwit inflation. What follows are some of the highlights of inflation-fighting activities at the three company locations.

Pittsfield GE vs INFLATION

Pittsfield GE provides a wide-ranging case study because a division, six different businesses, two laboratory and development facilities and a relations and utilities operation are there.

The Power Distribution Division has taken a difficult tack. Competitively forced price reductions plus general inflation have led to strenuous cost improvements. Some $16 million on an annual basis were chalked up in 1970, reports Nicholas Sarro, financial analyst for the division. One of the most dramatic is a conversion from copper to aluminum for the coil windings in the transformers built by the division's Commercial Distribution Transformer Department. The design conversion was completed in 1970 for the three-phase pad-mount transformer, its biggest single product line. If copper had been used instead of aluminum in all CDT transformers, the department's material costs would have been 10 to 15% higher last year, estimates Deane Haywood, engineering manager.

The shift from copper to aluminum was no simple matter. Development and re-engineering work on the conversion began in 1965. Trial and development units were built in 1966, to test the quality and performance of the aluminum windings which had to be bigger than the copper equivalents; however, aluminum will do about 2½ times as much work as copper, pound for pound. The new designs required major new manufacturing techniques, including the development of reliable joints for aluminum. The department's first major product line that was converted went into production in 1967. Year by year came more conversions. Now almost all product lines have been converted, and the task will be essentially completed in 1971.

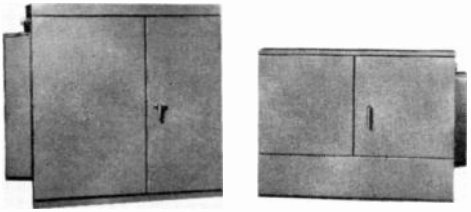
Anthony J. Gizzi, general manager of the department, points out that the conversion of the three-phase pad line was timed to permit prototype production in Pittsfield before volume production begins in a new plant in Shreveport, La. This modern, one-story facility will make further cost improvements possible.

Not so incidentally, the conversion has accomplished more than just cost improvements. It has enabled the department to redesign its products for its market's changing needs. For example, although the winding is larger, the overall size of the transformer has been made smaller, with a more eye-pleasing profile. Also, the redesign has enabled the department to standardize more on parts, to cut down on costly parts proliferation.

Although the copper-to-aluminum conversion is a notable cost improvement, it's just one of scores achieved in 1970 throughout the Power Distribution Division, headed by Vice President Charles J. Meloun. These range from fixing steam leaks and repairing broken windows saving an anticipated $250,000 in fuel and electricity on an annualized basis during the 1970-71 heating season, to renegotiating prices on aluminum used in redrawn rods and strip to save nearly $200,000.

In Ordnance Systems' defense plant at Pittsfield, where more than half of the department's expenses are in people, the cost-improvement emphasis logically lies in that area. In 1970, OS dropped by about 600 in total numbers of people, the majority of them salaried because 75% of its employment is in exempt or nonexempt categories. However, thanks to planning and placement efforts, fewer than 100 have been laid off without a job.

In another people-focused effort — this time among manufacturing hourly — OS began in mid-1969 a program to cut factory reject rates. Although Ordnance Systems has always been noted for its performance, this was a thrust to produce continued excellence — hence the name, Continued Excellence Program. By September 1970, with a year of experience under the program (the strike months deducted), the hourly manufacturing people had produced a 54% reduction in rejects and saved $69,000 in manufacturing quality losses. The program is continuing into 1971 with a focus on holding the gains.



New COMPAD(T) II transformer (right) has aluminum windings larger than the copper windings of the old model (left); the new unit is 11% smaller overall and 6% lighter.

Ordnance's Suggestion System got a shot of adrenalin recently when General Manager Gene R. Peterson inaugurated a major effort to attain the "400 Club" status (400 adopted suggestions per 1000 eligible suggestors). The goal was achieved in 1969 and reset for 1970. OS achieved 150% of its 1970 suggestion goal, which meant savings of more than $200,000. Some $30,000 was paid out to the employees who made the suggestions.

OS also had its cost improvement program, which yielded savings of close to $11.5 million last year, topping the bogey by 40%. Savings range from $1725 by using "popcorn" shaped Pelespan for packaging because it settles itself and doesn't have to be hand-packed, to $17,400 saved by a jig that reduces the cost of welding connectors to a flexible cable.

The department feels inflation sharply because it cuts into the total amount of defense dollars available for new work. Also, there's more competition for the new work available. To tell that story, OS in 1970 made innovations in audio-visual communication methods. Man-manager communication was strengthened. As a result, the rumor mill is down, both internal and external publics have a clearer picture of what the department faces and are prepared for some of the steps that must be taken in the business.

Pittsfield's Relations and Utilities Operation, managed by Richard L. Reinhart, is also communicating extensively among employees and the community about the need for cost improvements. In at least one case, it has been able to communicate about an example where pollution-control also equalled cost savings. By recycling and reusing chemical wastes at the location, R&U has achieved savings of from $65,000 to $100,000. In addition, the recycling-reusing process is being patented for potential sale or licensing to other users.

In the Power Transformer Department, General Manager G. Ronald MacArthur late last year announced an organization consolidation, "indicative," in his words, "of the short-range actions which must be taken for the Power Transformer Department to survive." The action was one of a series of changes in the department's 1971 plans resulting from the continuing impact of increased labor and materials costs coupled with depressed selling prices because of foreign competition. He cited the following factors:

- Material costs have increased 15.6% in the last five years.
- Copper costs are up 54% in the same period.
- Compensation and benefits for the department are up 33% in that period.

• Foreign competition now takes 21% of the domestic market in power transformers.

In addition to the organization consolidation, the general manager listed these steps to achieve short-range cost efficiencies:

• Programs to maximize work efforts of all department employees.

• Less investment in facilities.

• Some curtailment of long-range development programs.

• Reductions in manpower, including cuts in overhead personnel across the department.

MacArthur said that 1971 "will be a critical year for our business. It is truly a case of survival. We are trying to meet that challenge by taking all the measures we deem necessary, and taking them early enough to help." Still another measure is vigorous opposition to foreign dumping of transformers in this country, whereby foreign manufacturers sell here at prices below what they charge in their own country.

Inflation, the economic sickness that grips us all, could insidiously make most companies blue in the face with frustration. Ask any plant employee what his problems are these days.

Bob Fowler, manager, plant operations for Appliance Park, says: "We face almost runaway, inflationary-type increases from many of our suppliers." He cites the long-term soaring increases in the price of steel, nickel, copper and other basic materials.

Jim Tharp, foreman, Refrigerator Products Division, finds "It's much harder to do the job than it was a year or a year and a half ago. One reason is, you have to get by with less people."

Mike Nasser, manager of product engineering, Dishwasher and Disposall® Department comments: "Inflation has caused increased tension in our jobs because of the impact it has had on the business. . . ."

Bill Barringer, manager of shop operations, Refrigerator Products Division, thinks a lot about the higher wages paid in 1970 and the negotiated pay increases in the coming year, plus less visible costs including high rates of absenteeism, extra days off with pay for sickness, and longer vacations.

Barringer doesn't think the average person understands the wage-price spiral that contributes to inflation. "People think only of today and not what it will be like five years from now. Look at how unemployment has gone up and up. It doesn't really sink in until an individual is laid off from work. Then it hurts."

While still below the national average, the Louisville area jobless index has recently hit an eight-year high.

As of this writing, the declining employment trend in the Louisville area does not hold true for Appliance Park. Here on the outskirts of a city of 400,000, six high-bay buildings, some a block long, have been alive with production of thousands upon thousands of GE brand products to meet the expected demand in the coming year. That means work, steady work, but not without challenge from the vicious threat of inflation.

In the case of Jack Morris, manager of manufacturing engineering for ranges and the one responsible for labor utilization and productivity, his work is so steady he was at his desk looking after cost improvement budgets on a day of vacation. One budget

consideration he mentioned was cost of pay which, by itself, went up over 7% last year. As he talked he reached for a workbook with hundreds of entries. In this business, he remarked, we have to work hard at offsetting the increased cost of pay. He flipped through the book's pages and left you with a solid impression that while it is possible it's not easy.

As far as he's concerned, the basic elements in gaining employee acceptance of these changes is either to make a tough, demanding job easier through the use of modern equipment or to create new interest in the job through increased responsibility.

In one case the purchase of two machines for packaging eased the unpopular manual work of folding corrugated box lids and applying steel bands before shipping. In another situation, a small assembly line was set up separate from a major line that handled a mix of range models. The new line meant employees who were transferred over had the responsibility for their own assembly line and could better use their time and identify with their own product models.

Traditionally, the thrust in product engineering has been double-barreled. On the one hand, it sets out to simplify the product and make it more reliable. "When you do this," Mike Nasser says, "you usually take out cost. That is, we reduce the number of parts and make it easier to assemble."

Longer range, though, engineering looks for radical changes in design and the introduction of new or less costly materials. Nasser singles out two products, a dishwasher and a Disposall ® which have benefited from this approach. For the dishwasher a glass reinforced polypropylene was developed at the major appliance laboratory by engineering for use in the washer's mechanism. "This move made possible the design of an even more efficient pump which in turn gave us the opportunity of using a smaller, less sophisticated motor. This kind of innovation," Nasser says, "reaped us substantial savings while delivering more reliability at no loss in performance."

Engineering, in its search for equally durable, less costly materials, has substituted a glass reinforced polyester for aluminum in the GE disposer lines and is in the process of doing the same with Hotpoint Disposalls. In the future, Mike Nasser sees other man-made materials being used to fabricate major components in our disposer lines.

One way to cut costs is to substitute a glass reinforced polyester for aluminum in our Disposall lines.

Paul Kindig came to Appliance Park from Chicago five years ago to take over the one-man pooled purchasing function for Appliance Park and Hotpoint. But times have changed and the need for an expanded group-level purchasing staff evolved for planning new strategies and approaches for purchasing.

The run-of-the-mill do-or-die challenge from our respected domestic competitors keeps Paul Kindig on his toes. Responding to a question about pressure for results from high up in the organization, Kindig leaned back in his chair and said: "I don't know if there's more these days, there's always been quite a bit of pressure on costs, especially because of the long-term trend of appliance prices."

He noted that the group purchasing operation will report $9 million in savings in 1970 associated with contracting of basic commodities and with projects conducted jointly with the divisions.

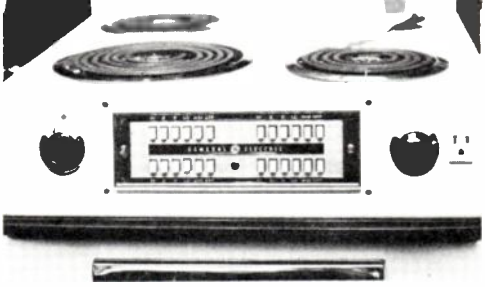
Some major strides to trim costs have come in the field of purchasing major commodities. With cold rolled steel, for example, the group has prevailed upon suppliers to sell the material by the piece instead of by the pound. The normal excess of thickness over specifications is thus no longer paid for. Incidentally, mills have since been holding to closer tolerances, partly with the help of new and sophisticated automated control systems.

"After long planning and negotiating, we have finally arranged for a non-appearance grade of steel for such unexposed parts as backs and bottoms," Kindig reports. "So, for the first time, we don't have to pay as much for steel used on the back as for steel on the front and sides."

In another approach, the group purchasing staff has been spearheading a drive to offset the new competitive threat of imported appliances by purchasing offshore those components and materials which are available in equivalent quality at substantially lower prices. Examples range from a glass seal obtained in Vienna at a 25% savings to a nylon fabric strap purchased in Tokyo at a 90% saving.

"It takes time," Kindig says, "to test all these components, get the necessary approvals, and to win over many people to whom the idea of off-shore sourcing is still strange. They have to be believers, otherwise they won't, and shouldn't, use the materials with confidence. Now the strangeness is beginning to wear off and many foreign sources are achieving full acceptance," he adds. Kindig explains that we go out of our way to help domestic sources remain competitive. If such assistance fails, we must buy worldwide to maintain our competitive posture.

In closing, Kindig emphasized, "The division purchasing sections which are now responsible for all purchases for their product divisions have the major responsibility for controlling material costs, and we in group purchasing serve them in many ways — most importantly in major commodity contracting. I am sure that in cooperation with the division engineering departments they are going to develop major improvements in values, especially in the many special engineered purchased components."



Purchased off-shore, this decorative stamped metal trim for ranges helps keep our cost of materials in line.

The payoff for the group, in part, has been a gradually increasing volume of business. In terms of steady, rewarding jobs, Appliance Park has seen employment grow from 17,000 in 1968 to the present 20,000 level. Coping with inflation has helped make this a reality.

Waynesboro GE vs INFLATION

This is a glistening town in the Blue Ridge Mountains with air so clear it brings tears to the eyes of the smogged-in New Yorker. The peace and neatness of the place makes urban problems seem of another world.

But Waynesboro is of this world, and it has its share of the national affliction, inflation. Motels charge New York prices for dinners, and like everywhere else in the country, the people you meet in food stores complain of the price of sugar, coffee and meats.

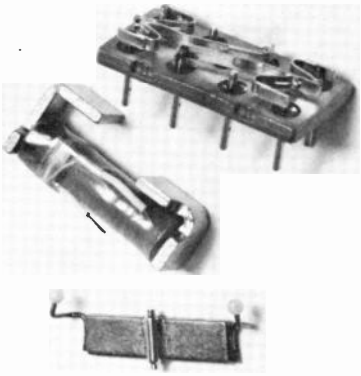
At the General Electric plant a couple of miles from midtown, the worry is about the relay line. Waynesboro manufactures, in addition to other product lines, some 16 varieties of relays, ranging in size from one about as big as the metal ferrule on a pencil, to a "giant" about half the size of a pack of 100mm cigarettes. A few years ago, about 70% of all the relays manufactured here in a "clean" room sealed off from the rest of the manufacturing area, went to military-oriented businesses. Today, the percentage going the military route is about the same, but there has been a sharp reduction of the order rate. Cuts in defense spending are responsible.

But a good commercial market potential exists for Waynesboro's relays in the radio and TV entertainment industry and for manufacturers of electronic instruments like oscilloscopes. But, says David L. Couhtry, manager of manufacturing, "We're fighting the battle for productivity and efficiency." And a touch-and-go battle it is. Here are some of the realities facing the Waynesboro relay line and its people:

★ The heart of any relay is a coil wound with copper wire, fine as fine blonde hair. The great majority of coils are supplied by outside vendors. The highest item of cost to the coil manufacturer is not the copper wire (he gives the wire away when it is above a certain fineness), but labor costs. Thus Waynesboro's purchasing acumen is taxed to the extreme to reduce the cost of vendor-supplied coils. Competitors have the same problem.

★ Many of Waynesboro's competitors pay their relay assemblers less than the wages paid at GE. The differential can go as high as 60 to 70 cents an hour, not to mention further savings affected by benefits programs less extensive than GE's. Thus, the competitor who pays the same price as Waynesboro for coils, takes the competitive lead by paying lower wages.

★ Sales affect coils in savings on buying. So, when Waynesboro had military orders for large quantities of relays, they could in turn buy coils in quantities of 10,000 so as to affect cost savings that result in better prices.



Only 3 major sub-assemblies — where do you cut costs?

Nobody at Waynesboro is beaming about these realities confronting the relay business, but neither are they going to the wall to wail about inflation. Multiple efforts are underway to return the relay business to its old, healthy self. Here are some of the key thrusts that should pay off.

★ All 200 employees of the Relay Operation attended business briefing sessions conducted by Louis L. Trott, manager of the operation, and heard from him the necessity of keeping personal productivity high and scrap losses to an absolute minimum. In addition, Trott spelled out all of the other

hurdles listed above which the operation must surmount if it is to flourish again.

★ A vigorous cost-reduction program is always ferreting for new ways to save pennies.

★ In 1971, several relays will be redesigned to effect more substantial savings.

Some of the key considerations in the redesign program are illustrative of the lengths to which it's necessary for a business like the relay operation to go to offset the upward corkscrewing effects of inflation.

Item: Purchasing specialists Jim Roberts and Jim Truslow said they have located coil makers with automated coil-winding facilities. Waynesboro engineers will redesign relays that can employ coils which, if not fully wound by machines, will at least have a markedly lower labor content than the present coils. This done, the price of coils will drop anywhere from 20 to 40 cents below the present purchase price.

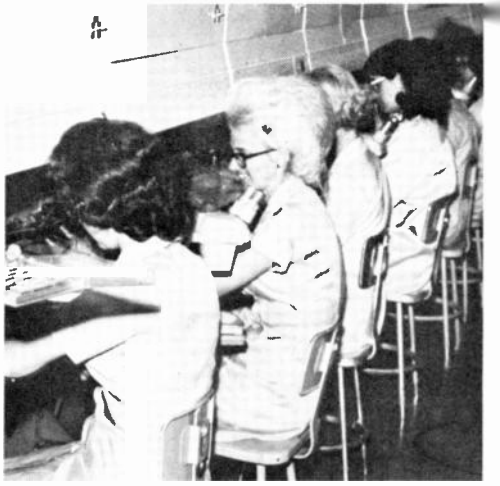
Item: Metal relay covers will be replaced by plastic covers. Another saving of maybe 4 cents a cover.

Item: Less wrapping tape will be used on the new relays than was used on the ones previously made to very high government specifications; specifications which need not be as rigid for commercial application, but which will still provide the customer with what Roberts and Truslow called, "enormous life activity."

Item: Marketing is investigating potential new markets for the new relays. One such market already determined is for oscilloscopes. In fact, it was an oscilloscope manufacturer with a high volume potential for the Waynesboro relays that supplied the impetus for the redesign. He *told* the Waynesboro people how much he was willing to pay for the product and left it up to GE to find a way to deliver at that price.

Of the 160 or more women who assemble relays, four or five were contacted by *Monogram* for their views on the battle to bring costs down. A shop steward said she thought one of the key problems was to get everybody to pull their fair share of work. "When some people let down, other people see it and they let down a little too. If I were a supervisor, I think I would spend more time seeing that everybody stayed busy."

A woman at a neighboring work station made a parallel point: "We can improve here. If we were a little more



"People are very much concerned about their jobs. They want to help make cost reductions."

conscientious with what we are doing, then maybe we could cut our prices a little."

And yet another woman assembler: "Mr. Trott explained that we had to keep costs down. Only way we can do this is to stay at our work stations, work hard, and try not to waste parts. Do it right the first time."

A lady supervisor with 15 years of service at GE Waynesboro: "People are very much concerned about their jobs. They want to help make cost reductions."

Manufacturing manager Dave Couhtry agrees with his people, but he adds that, as yet, individual productiv-

ity is not up where he would like it to be. He's cautiously confident that the relay operation will win its uphill struggle to regain its place in the sun, and that it will not be necessary to further reduce employment on the line. (Employment has already dropped 50% over the high of a few years ago.) But looking away from his own operation to the problems faced by every American manufacturer, he makes this observation:

"The demands of more money for less productivity are pricing people as workers right out of the market. They are also pricing jobs right out of the country and into foreign labor markets. And management is partially responsible for this too, because some of us have been too timid to communicate the facts of life to our people. People will work as a team, but did you ever try to get a football team to function when you didn't bother to tell the guards or someone else what the damn plays were? It's impossible. If the people aren't with us and feeling a part of this thing, we aren't going to be a success."

At Waynesboro, management is talking and doing. But the final success story will depend on how well the message was received and acted upon.

GE Shares Apollo 14 Exploits

Apollo 14 astronauts and General Electric scientists teamed up on man's third lunar landing mission to probe for improved vaccines to fight off the debilitating Asian Flu and perhaps even the common cold.

On the return flight from the Fra Mauro area of the moon, astronauts Alan B. Shepard Jr., Edgar D. Mitchell and Stuart A. Roosa performed a demonstration aboard the spacecraft Kitty Hawk, which scientists say, may lead to "ultra-pure" vaccines important in combating diseases on earth.

The success of the experiment, to be determined in subsequent tests by GE and NASA, is expected to show the feasibility of using a chemical separation process to purify biological and other materials to a degree difficult to obtain under the influence of gravity.

Lou McCreight, GE Valley Forge program manager, noted after the experiment was run that, "If it works, and the program continues to receive attention from NASA, production of vaccines might be started within the next decade. Because small amounts of these substances can go a long way," McCreight added, "enough active ingredients of a vaccine for 200 million people could come back in an astronaut's pocket."

Another GE contribution to the Apollo mission was the SNAP-27 "atomic battery" needed to power the Apollo lunar surface experiments package. In addition, a GE television crew was aboard the prime recovery ship to transmit color picture coverage of the splashdown.

Borch Forecasts

A Good Year

Note: In the previous 10 pages of this issue, Monogram *reports on the efforts of GE people to improve costs.*

In a press conference recently, reviewing 1970 results, Chairman Fred J. Borch commented that "we were greatly heartened and encouraged by the performance of GE employees. . . . More notably, this performance was turned in at a time when the economy was, to say the least, not the best of all possible worlds." Further excerpts from Mr. Borch's statement follow.

Highlights

At the end of nine months, our sales were about 5% below those for the first three quarters of the prior year due principally to the strike disruptions in the early part of 1970. *Preliminary, unaudited* results indicate that our rebound continued strong in the final quarter of 1970 with sales of $2,570,000,000. On the same basis, sales figures for the full year will be $8,728,000,000, which will be $280,000,000 above sales for the full year 1969, which were also affected by the strike in the closing months of that year. As for earnings, our *preliminary* and *unaudited* review shows that we may expect results for the last quarter of a few cents over $1.80, which will approximate $3.60 per share for the full year.

In reviewing some of the highlights of the year just completed, our power equipment businesses accounted for an increased portion of General Electric's sales, primarily as a result of record shipments of power generation equipment. Our backlog of orders for power generation equipment totals about $5 billion.

In consumer products, our 1970 performance reflected the strike which affected the first quarter.

General Electric's industrial customers represented the largest sector of the company's business in 1970. Strong segments of this business were engineering plastics and communications systems. Improvements were made in sales of transportation equipment, computer time-sharing services and heavier equipment. Soft markets were reflected in electronic components and construction materials.

The rapid growth of the services — or non-goods-producing — sector of our economy is also reflected in many of General Electric's growing diversified businesses that are departures from the traditional electrical manufacturing area. Among these are the General Electric Credit Corporation, General Electric Broadcasting and Cablevision, Service Shops, Appliance Service and General Learning.

In our Aerospace and Defense businesses, the company sought new markets in 1970. While sales declined, General Electric received essentially a steady share of the lower levels of new orders placed by the Department of Defense and the National Aeronautics and Space Administration.

Summing up, insofar as General Electric is concerned, with the company's regained momentum, and with the signs of renewed economic activity pointing upward again, 1971 is shaping up to be a good one.

Save the painless way

"It is a painless way of saving. The plan gives you flexibility in securities and the program fits perfectly into my overall personal plan for long-range savings."

Speaking is Bob Nerad, manufacturing engineer in the Medium AC Motor Department in Schenectady. He's one of thousands of employees who received payouts from General Electric savings plans in mid-January and termed them "the best yet."

This year's highest-ever payout of $126 million can boast other superlatives, too.

It was the earliest-ever payout, beginning on Jan. 11, nearly a month sooner than any previous one.

The teamwork to achieve the largest, quickest payout was the best ever, according to H. A. Goodwin, manager of the company's Employee Savings Operation in Schenectady. "The payout came as a result of much planning and hard work and great cooperation between Employee Savings Operation and Personnel Accounting groups all over the country," he explained. "We knew that many employees have special needs for an early-as-possible payout because of educational expenses or other family or personal requirements. The earlier delivery date represents the culmination of four years of planning and work aimed at moving up the payout date."

There is a payout every year as holding periods under the Savings and Security Program and Stock Bonus Plan end. Under S&SP employees leave their investments in trust for a specified three-year holding period — five years under SB. S&SP participants receive a 50% company matching payment and SB members get a 15% stock bonus on their savings.

"To achieve the early payout, Personnel Accounting employees in all departments had to furnish a great amount of essential data to Employee Savings Operation as early as possible," Goodwin said. "They also had to make sure employees returned payout authorization forms to provide needed information on registration of stock, fund units and U. S. Savings Bonds. Systems and programming personnel of Treasury Operations had to develop the computer programs needed to process the data required to get the proper securities to the proper participants in the payout. Each kind of security — stock, fund units, bonds and cash — goes to individuals in separate envelopes."

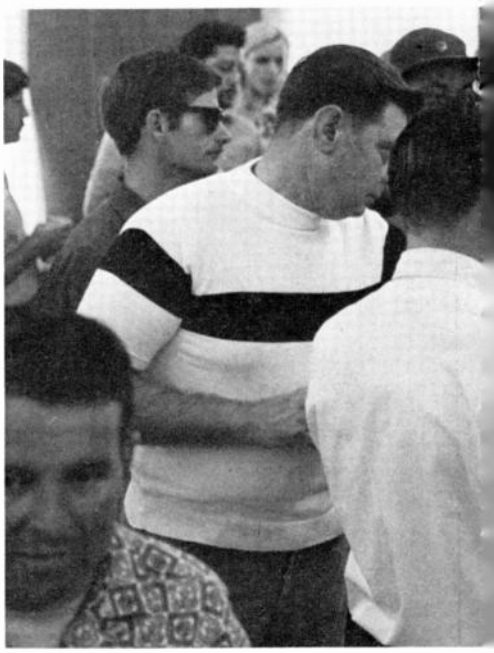
Goodwin added that GE worked closely with the Regional Disbursing Center of the U. S. Treasury in Philadelphia to achieve the mailing of Savings Bonds by Jan. 11.

The payout of $126 million in securities and cash went to a total of 172,400 participants in the two savings plans during the years for which holding periods ended on Dec. 31, 1970. Of the 172,400 some 138,700 participated in S&S — still another superlative because it was the highest number yet receiving a payout under that plan.

One of those S&S participants, Lorraine Hervieux, a foreman with the Television Components Products Department, reports: "I'm putting the money in the bank to save for my daughter's education. She's a freshman in high school. This is one way to be sure of a better education for her."

Moonli
at aca

By Lois Walker — Nu



Nuclear Energy Division employees, most c
division's new Learning Center in San Jose, exa

There's a student demonstration in San Jose, Calif.

And all the students involved are General Electric employees.

What they're demonstrating is the same quest for learning that is much in evidence throughout society today.

But at San Jose, this quest for learning is something special.

Some 1,000 Nuclear Energy Division employees — 25% of the division's total employment in California — are moonlighting as students.

NED might well call itself General Electric University — West.

Last autumn, almost 200 hourly employees hit the books as the first "class" to enroll in the division's new Learning Center for nonexempt employees.

They joined some 800 other NED employees enrolled in technical and management development courses offered in-plant and studying at area colleges and universities toward a degree under the company's Tuition Refund Plan.

While most of the other educational courses and programs have been conducted at San Jose for a number of years, the Learning Center represents a real departure from tradition. Learning Center courses have been structured specifically for the employee who needs either to develop special skills or to improve his general learning in basic subjects like English, math, reading and the physical sciences. The ultimate goal, in many cases is to help him advance on the job. But there is no requirement that the courses pursued by an individual be aimed toward specific job advancement.

The Learning Center and its courses are open to all hourly employees, regardless of their previous educational background or lack of it.

The reception has been overwhelming. The 191 students represent better than 40% of all NED hourly personnel employed in San Jose.

The response to the first announcement, in fact, staggered Manager Jack Larson and his staff of personnel and community relations people, who had been assigned to set up and operate the center. Although the Learning Center grew out of a study of employee educational needs and desires, management still held some lingering doubts whether employees would, in fact, participate in the numbers indicated by the study.

As it turned out, the response was far more enthusiastic than the most optimistic projections, according to Dan Fraire, manager of Minority Relations and Non-Exempt Training,

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deme

clear Energy Division

them already enrolled as students at the mine course materials.

and Ural Willis, specialist for the Learning Center. The students represent a wide cross section of NED hourly employees, including all ages, educational and ethnic backgrounds.

Seventy percent of those enrolled are men; 30% women.

Fifty of those enrolled have no high school. Thirty-eight have some college credits.

Forty-eight of the students have signed up for technical courses. But there's much greater interest in the basic subjects of math, English, social sciences, reading and introductory science courses. One hundred nine students are taking these general education courses. The remainder are enrolled in both general and technical courses.

Forty percent of the students are of minority ethnic background, the largest number of these — 61 — from the division's Mexican-American employees.

The center is set up in a mobile building complex located in one of the San Jose plant parking lots. Employees attend classes or use the center's study facilities before or after working hours on their own time.

Most of the courses are programmed learning. That is, instead of the conventional class and teacher, each student works individually, at his own pace, using prepared lesson materials. The Learning Center provides the course materials, study areas and an instructor for assistance as needed for individual study, as well as classrooms for courses taught in the conventional class style.

The general education courses are of the programmed learning type provided by General Learning Corporation (jointly owned by GE and Time, Inc.) geared to providing the equivalent of an up-to-date high school education, including new math.

The technical courses are taught in classes and cover job-related subjects such as blueprint reading, commercial codes, principles of quality control and general electronics.

Before year-end, Fraire and Willis expect to open the Learning Center to nonexempt salaried employees, offering first the programmed general education courses. Beginning next year, they plan to offer additional job-related courses to nonexempt salaried employees.

Further ahead, their plans are not specific, but offering extension courses at the Center for which college credits would be given is not out of the realm of possibility.

VIP — Very Involved People

Helping Others

Ed White usually is a toolmaker with the Armament Department in Burlington, Vt. But GE has granted him a year's leave of absence to help a company that is the only one of its kind in the U.S. Champlain Valley Transportation Co., Inc., a delegate agency of the U.S. Office of Economic Opportunity, was formed on July 1, 1969, as a two-year pilot project designed to help alleviate poverty conditions of isolated Vermonters in the Champlain Valley.

The U.S. has funded the transportation project which currently provides 12 buses to bring people in isolated areas to goods, services, jobs, training centers, and community meetings. The buses also transport children to schools or camps if necessary.

Ed's role is to operate a garage to service the 12 buses. He's also responsible for training men, currently unemployed, to repair and maintain the vehicles.

Ed White (left), and friend.

Ed says: "Helping people — that's my thing. I can relate to young men with problems in spite of an age gap. Besides, I've always had a desire to be in social work, but on a one-to-one basis."

GE has furnished surplus equipment for use in the office and shop of the transportation organization.

Award

The National Association of Market Developers has awarded Howard Wittner, manager of Group Resources and Planning for the Aerospace Group, a Special Recognition Award for the group's community relations programs. NAMD is a national organization of minority practitioners in the areas of merchandising, marketing, advertising, and public and community relations.

Three Lives

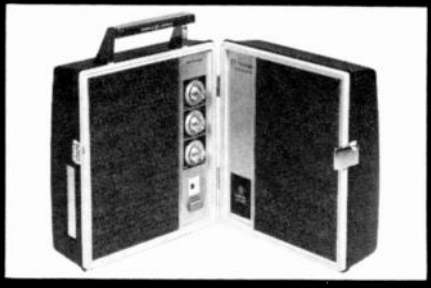
Dick Michael, supervisor in the Direct Current Motor and Generator Department, Erie, leads three lives and finds them all compatible. Besides his GE job, he is studying for the ministry and is also a part-time lay pastor. "Through my work in the church," he says, "I've gained valuable experience in dealing with people, and I feel this has helped me to become a better supervisor." In the early 1960s, Dick became interested in the ministry and decided to enroll in the seminary-level correspondence course offered by the United Methodist Church. He expects to be ordained next June. His third life comes as a lay pastor in a small community church.

Showcase

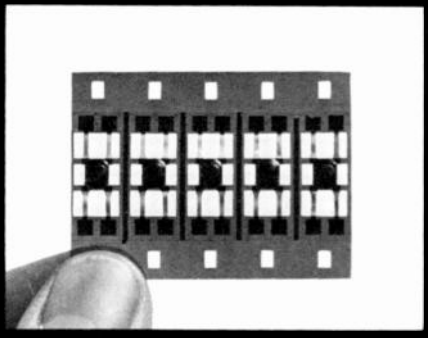
Products

It's a cube, it's a new GE clock radio. Snooz-Alarm® feature offers Wake-to-Music and Music-Alarm, plus sleep switch for automatic shut-off. Radio, with 3½-inch dynamic speaker, is solid-state. Available in white (C2440) and blue (C2441). $21.95*

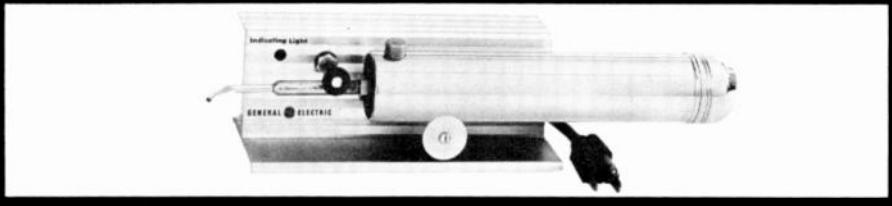
Lead a double life with our new FM/AM table radio with two-way power for use indoors or out. Model T4840 boasts of built-in automatic frequency control for drift-free FM listening. Price: $34.95*



Here's a portable eight-track stereo tape player with built-in three-way power to play on house current, on flashlight batteries or by using an adapter (included) on the cigarette lighter in your car. $79.95. *



Ever puzzle over what makes most consumer products tick? Integrated circuits do. IC's for short is an assembly of miniature electronic components assembled all at once. Our latest contribution to that world is a new process that bonds up to 72 circuit leads in one stroke. The associated packaging technique (photo) is called miniMod™.



It's a bladeless knife. The new cordless, rechargeable Hot Knife, designed for quick cutting of fibers, cloth and plastics, is suited for use where extension cords or rotating equipment in the plant might create operational hazards. Credit our Heater & Device Section, Shelbyville, Ind.

* Manufacturer's Suggested Retail.

Who's Calling?

Who hasn't wished, at times, that Alexander Graham Bell had been spanked by his mother and told not to play around with coils and wires? Bell's telephone, wonder that it is, can also be a nerve-jangler and a sensitivity shocker, because the instrument makes it so easy to forget one's manners. The rude or thoughtless remarks made over the phone (Who's this? Whaddya want? etc.) are too obvious to belabor. But a more subtle breach is to treat the person on the other end of the wire as a disembodied voice rather than a real individual. Bell himself may have intuitively sensed the potential anonymity that his invention might cause. History notes that his first words over the instrument were, "Mr. Watson, come here, I want you." Not, you note, "This is Dr. Bell," just a voice barking an order. Imagine how Watson felt getting the anonymous treatment!

People whose business is to be on the telephone most of the working day, such as phone operators, testify that the continuing concern about anonymity was valid. Vivian Delmonico, a telephone operator at our Denver Appliance and Television Sales Office, can comment on the subject. Mrs. Delmonico is the mother of four sons and the wife of the promotion manager for the *Rocky Mountain News* in Denver. In her fight against anonymity, she says:

"I have enjoyed reading *Monogram*, but I am very disappointed that not once has the position I work ever been applauded, scorned, or even mentioned. Yet, without me and my kind, every General Electric employee could not function properly. I like to call myself the voice of GE, but so are all my long-armed sisters of the switchboard.

"We have been on the bottom of the totem-pole long enough. The stereotyped operator of yesterday is no more. Gone are the high-pitched voices of dumb blondes, dizzy redheads, and bombed brunettes. Baby! We've come a long, long way!

"Anyone can learn the mechanical workings of a switchboard. Only a good operator can combine that knowledge with compassion, patience, and humor. General Electric hires the best operators.

"The lowly operator is so many things — a mechanical engineer, a mental cataloger of people and departments, a storehouse of information concerning the company. She is a brain contortionist who must manage to satisfy all because a breakdown in communication would result if this were not so. She is lonely on the job because it is unrecognized and therefore excluded from office activity.

"If I had my druthers, I would still choose to be what I am and do what I do. The switchboard is the hub and heart of a business."

New Social Security Deductions

In case you missed the significance of the higher Social Security tax deduction from your paycheck as the new year began, this is a reminder that General Electric must match it for every employee. Thus, it's another added cost of doing business.

Under the law in effect as 1971 started, the maximum possible SS tax increase you can pay this year is $31.20. The company's Social Security tax — matching each employee's tax — will climb an estimated $8 million.

Under the law in effect on Jan. 1, the total GE 1971 tax for Social Security is an estimated $110 million, while the individual's total maximum tax will be $405.60.

The increase for both employees and GE results from scheduled improved benefits and tax increases enacted in 1967. The schedule of increases provides for the SS tax rate to go from the former 4.8% of an individual's first $7800 of annual pay to 5.2% on Jan. 1, 1971. The company pays an equal amount for each individual on the payroll.

But the tax schedule may be out of date before the year is done. As Congress adjourned last year, it was considering a change in the law which would still further increase benefits and taxes. At *Monogram*'s presstime, the new Congress was considering this proposed legislation.

Proposals getting the most attention would increase the taxable wage base from the first $7800 of annual earnings to the first $9000 of annual earnings. If it is applied this year, this could increase your maximum SS tax in 1971 to $468. General Electric payments would also go up — to $120 million, another $10 million to match employee payments.

From Memory

General Electric's Management Development Institute in Crotonville, N. Y., represents a unique feature on the landscape of manager education. The story begins with Harry Arthur Hopf, one of the pilgrim fathers in management development. In 1922 he founded his own firm of management engineers. In 1934 he moved his headquarters out of New York City, buying the 15-acre Windrose Farm near Harmon, N. Y., with its 100-year-old farm house and gardener's cottage. Dr. Hopf established his residence and Hopf Institute of Management there. The onset of World War II and Dr. Hopf's illness and death in 1949 prevented the full realization of his dreams for the institute. But he did build a management library of 7,000 volumes considered among the best in its field. In 1954, General Electric purchased the Hopf estate (and, later, some surrounding acreage so that the total property now consists of over 32 acres). Two new buildings were added to make up the Crotonville "campus" — education and residence buildings. The old farmhouse is now the recreation building. The Hopf Institute building has become the Hopf Library, preserving Dr. Hopf's collection and housing General Electric's own management library.

Ireland's apprentices

Put it all together

Alan Cronin is yet another reason why those Irish eyes are smiling.

Cronin, toolroom training technician, E. I. Company, Limited, a wholly owned General Electric subsidiary in Shannon, Ireland, is the source of new pride for sons and daughters of the Emerald Isle. In recent weeks the Apprentice Program member placed first in Ireland during the Department of Education examination for his apprentice skills.

The technician, who has one year of service with E. I. Company, is the third and latest Apprentice Program representative to receive recognition in the last two years.

Early in 1970, 20-year-old Brian King, son of a creamery official from Newcastle West, won the National Apprentice Competition. He then represented Ireland in Tokyo, finishing a very credible eighth against the best apprentices from 29 competing countries. King has been an employee of E. I. Company since September, 1967.

King's accomplishment was a repeat performance of John C. Roche who won the national title (milling section) in 1969 and subsequently represented Ireland at the international competition in Brussels, Belgium. Roche, 20 years old, is also well known in athletic circles as an all-Ireland cross country medal winner when his team, Grange A.C., took the team title in 1965.

Recent events have roots that go back to Ireland's industrialization program which was begun in 1959. Within three years the E. I. Company was established, primarily as a manufacturing extension of the former Radio Receiver Department, Utica, N. Y. It was later expanded to include the production of electronic components and is assigned to our Electronic Components Division.

The performance, with striking consistency, of E. I. Company Apprentice Program employees is surely one of the success stories of the country's industrialization program.

Another accomplishment, through capital investment, has been a greatly expanded toolroom facility which gives Shannon and Ireland one of the most modern facilities of its kind in Europe.

This combination of high caliber facilities and intensive apprentice training has brought pride and recognition deserved by the sons of Erin.

Brian King, Ireland's 1970 National Apprentice Winner.

After retirement, you can volunteer and see the world

For some people, perhaps a lot of people, retirement can be as gloomy a prospect as a rainy day at the beach.

Just as many men and women have reached the crest of their business career, the retirement years begin to stare them down. The challenges, the feeling of achievement, the many friendships over the years, as well as the fast gaited life of the business world in general, come to a dead stop one day.

Then what? For some it's rest, relaxation, travel and rounds of golf. But not everyone is content with this after so hectic a former life. Such was the feeling of George S. Hill of Anchorage, Ky., a retired project engineer from Appliance Park, Louisville.

The activities of the International Executive Service Corps, a non-profit corporation which arranges for retired (and occasionally mid-career) executives to share their know-how with enterprises in developing nations, came to the attention of Hill.

Liking the idea because it happened to be the type of foreign service work he had enjoyed during his last six or seven years prior to retirement (International Refrigeration Operation-Household Refrigerator Department), Hill sought an assignment, without compensation except for travel and living expenses.

Just back from a three-month stay (with his wife) in Tehran, Iran, the Hills are enthusiastic supporters of the program. "The main requisite," George professes, "is a desire to work with people . . . and help them understand and adopt business practices which will enable them to move quickly into a fuller economy and a competitive position with neighboring nations."

Specifically, he found that he could help not only in the design and engineering work at S. S. Pars America, a Tehran based refrigerator company, but in manufacturing, product planning, quality control, cost reduction, packaging and product service, among others.

In Hill's experience, "There was considerable small detail that required rolling up your sleeves and getting your hands dirty in order to show them how or to prove a point," he recalls.

As George Hill puts it, "It was a wonderful and unforgettable experience. And since we have been asked to return in the spring, I believe it can be considered successful from a business standpoint."

Hill is by no means the first retired General Electric employee to enter the International Executive Service Corps. Louise Barthold, a retired employment practices and training specialist of the Lamp Division, became the first woman volunteer to go with the Corps in 1968 (*Monogram*, Aug. '68). Others over the years include retired Vice President Charles V. Schelke, who has been to Chile and Formosa, and Ralph E. Colclesser, former manager of manufacturing at Erie, who has been to Korea.

General Electric is only one of numerous U.S. corporations which support the I.E.S.C. Former GE Chairman of the Board, Philip D. Reed is presently Chairman of the Executive Committee of I.E.S.C. and other company executives have served on the I.E.S.C. board of directors.

NEWSGRAMS

GE MICROWAVE OVENS PASS TESTS: The Bureau of Radiological Health has advised the Surgeon General that it "sees no need for further surveys of microwave ovens manufactured by the General Electric Company in view of the fact that the oven presents no significant health problem." GE's Versatronic® ranges save from one-eighth, to one-half normal cooking times. The clean bill of health for the ovens opens the door for increased sales emphasis.

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GAS TURBINE PLANT EXPECTED TO DOUBLE: GE's new gas turbine plant in Greenville, S. C., only came to full production in 1970. Yet, so rapid is the gas turbine market expanding, that demand for additional capacity is expected to double Greenville output by 1974. Jobs will be expected to increase gradually from the present 900 to about 1500. The gas turbine market more than quadrupled during the 1965-1970 period.

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KLYSTRON TUBES FOR SPACE: A new development in microwave klystron tubes for space applications may help make possible high-flying communication satellites for direct and simultaneous nationwide television broadcasting. A new electrostatic depressed collector developed jointly by Dr. Theodore G. Miharan of the Research and Development Center and Wendell Negebuaer of the Microwave Tube Operation, both in Schenectady, increases efficiency of the high-power broadcasting tube from 45 to 67%. The combination of increased tube efficiency and size reduction of solar cells is expected to permit use of smaller communication satellites. Thus, less rocket power will be needed for launching.

EXEMPT SALARY STRUCTURE UP: Effective Feb. 1, 1971, exempt salary structure values for Levels 1-14 were increased 5.5%. The structure was last increased for these levels on April 1, 1970, by 5.1%.

These increases in structure values reflect the company's action in response to its continuing evaluation of the factors affecting the market values for managerial, professional and other exempt positions. Under the provisions of the Exempt Salary Plan, employees' salaries are accorded individual treatment based on performance. The new salary ranges provide a higher base against which individual salary determination will be made.

•

'PICTURE PHONE' TUBE: Imaging Devices Operation, part of the Tube Department in Syracuse, is producing a new type of television camera pick-up tube that offers high sensitivity and long life. One of the earliest applications may be in "picture phones," where its sensitivity will permit it to operate in normal room lighting.

•

GE COMMUTER LOCOMOTIVES: GE's first diesel-electric locomotives designed specifically for commuter service has been purchased by the State of New Jersey for operation by the Erie-Lackawanna Railroad. They will be used in single-locomotive, push-pull service, over the nonelectrified lines of the Erie-Lackawanna in northern New Jersey. The 3430-hp commuter locomotives will replace 20-year-old lower-horsepower units. Geared for faster operation, the new GE locomotives will cut time commuters spend on the road.

Riding with a winner

While a sluggish economy in 1970 gave some businesses a severe case of the blahs, one activity that came away feeling chipper about the year past is Outdoor Power Equipment Operation, producer of the Elec-Trak® garden tractor.

OPEO, Schenectady, like various other components across the company, had one big drag on its business, the 101-day strike which carried over into last February. The problem was more acute for OPEO since the strike delayed initial production beyond a cutoff date to deliver tractors for the peak (April-June) selling season.

Close to Target

Notwithstanding the late start, OPEO reports it came within 5% of its announced sales goal for 1970. On the basis of the highly favorable reception to date, OPEO expects to triple last year's sales in 1971.

At year-end, OPEO had also succeeded in achieving retail representation for its product throughout the heavily populated sections of the country. OPEO plans to sign up still other dealers to strengthen its sales network in the new year.

Elec-Trak home and garden tractors can mow grass, throw snow, sweep leaves, plow earth or snow and can be used as an external power source for power tools. And they are pollution free.

Employees wishing further information concerning their nearest dealer should write to Outdoor Power Equipment Operation, Bldg. 702, Corporations Park, Schenectady, New York 12305.

PEOPLE

Happy now, Verna and Matt Winkler.

Rabid Nightmare

Rabies is a derivative of the Latin word, *rabere*: to be mad, rave. For centuries, parents have warned their kids in the "dog days" of summer to avoid animals, especially dogs, because they could have hydrophobia, or rabies. They were mad, and their bite could be fatal.

Saturday night, October 10 — long past the usual period of concern about rabies, Nick Winkler, an employee of the GE plant in Decatur, Ind., and his wife Verna, had their two children abed in their farmhouse in Wiltshire, Ohio. It was 10 p.m. when one of the children screamed. Switching on the lights, the parents found young Matthew, 6, transfixed by terror. A bat had its teeth in the boy's flesh. Nick Winkler ripped the thing away and locked it in a jar. He was thinking of rabies.

His anxiety was to prove valid. A first in medical history had already begun. The bat *was* rabid, and Matthew began taking his daily anti-rabies shots, too late, as it was soon to be established.

Despite the shots, Matt grew progressively more listless, and on November 3, he had developed a fever of 104. The family physician was out of town at a medical meeting. His standby rushed the boy to Lima, Ohio, 40 miles away. Physicians there could find no evidence of rabies, but they were taking no chances. One entered this line on the hospital orders: "Although no rabies, I would suggest that (everyone) avoid rare possibility of child bite."

But by Saturday, November 14, when the physician made his rounds, the boy's words were unintelligible gibberish. Dr. Michael Hattwick, 29, the acknowledged rabies expert at the U.S. Public Health's Communicable Disease Center, Atlanta, Ga., was called to Lima. Dr. Hattwick thought rabies need not be fatal, that its victims died from complications; oxygen insufficiency, heart failure, intra-cranial pressure, drowning in body fluids or of the victims swallowing their own tongues. Hattwick was going to fight for the boy's life with this theory.

On November 16, Matt showed signs of a lack of oxygen. Hattwick performed a tracheotomy — a small airway into the throat. It proved the turning point. A few days later a twitching in the child's left arm signaled convulsions. Prompt medication was applied and the convulsions were forestalled. From then on, Matthew Winkler's course was upward. His is the first documented case in medical history of a person who developed rabies and survived. But the future for the boy will not be certain until at least a year.

Cost? As of January 3, the Winklers estimated they owed $7,000 for the child's treatment. But this anxiety shouldn't be a serious concern to them. Their GE insurance can wipe out nearly all of the cost for them. The plan pays 100% of the hospital semi-private room and board cost, all of the hospital special services cost, all of the first $500 of surgery cost and 85%

of nearly all other medical costs.

Nick Winkler says: "I never had any type of insurance until I came to work for General Electric, and I'm certainly glad I'm in a company with such a plan as this one."

HONORED: Dr. Robert B. Richards, manager of engineering for the Reactor Fuels and Reprocessing Department in San Jose, Calif., has received the Robert E. Wilson award in nuclear chemical engineering presented by the American Institute of Chemical Engineers. The Institute of Electrical and Electronic Engineers has elected the following GE people as fellows:

Donald S. Brereton, manager, Industry Market Development, Industrial Sales Division, Schenectady; James T. Duane, general manager, Speed Variator Department, Adjustable Speed Drives Division, Erie; Richard J. Hopkins, manager, Power Capacitor Product Engineering, Industrial & Power Capacitor Products Department, Hudson Falls, N. Y.; Major A. Johnson, manager, advance development engineering, Heavy Military Electronic Systems, Syracuse; Darren B. Schneider, manager, engineering, Numerical Equipment Control Department, Waynesboro, Va.; and Istvan Somos, consulting engineer, Custom Power Equipment Department, Collingdale, Pa.

"BUSINESS MAN OF THE YEAR": "We are blessed with a growing and good labor force, an abundant technology, and great depths of managerial talent in this country. Accordingly, I put forward this simple proposition that our society is a productive society; that its prime mission, as well as its great genius, is its productivity."

So said Chairman Fred J. Borch recently. Statements of this sort were among the reasons that he was voted *Saturday Review's* "Businessman of the Year" in a poll of more than 300 business leaders, government officials, educators, economists, business writers, and public opinion analysts. *SR* said that his "outspoken philosophy on matters economic and social is but one of the reasons Mr. Borch received twice as many votes . . . as any other candidate."

LIFESAVER: Everybody dreams of someday performing an heroic act. Trouble is, when confronted with the opportunity, most of us would freeze, but not Nate Casey. The Apollo Systems man, his wife and two sons were staying at a Holiday Inn in Clearwater, Fla., for the weekend recently, when a Negro boy was pulled from the pool, eyes fixed and no pulse. Nate applied mouth-to-mouth resuscitation and saved his life. Innkeeper James Hulsey said: "In this day and age when so many people won't involve themselves when others need help, he certainly set an example any of us could follow with pride."

$3850 SUGGESTION AWARD: Robert Crist, a process technician with the Integrated Circuit Products Department in Syracuse, has been awarded $3850 for a suggestion for installing an electronic timer on thermal compression bonding machines to maintain a uniform bond time for all circuits, thus lessening chances for error and rework. He's going to use the money to pay off his car and house trailer.

Crist, center, describes $3,850 idea.

New Facilities Lineup

Above is the new Shreveport, La., plant, one of three GE facilities which continued under construction in 1970 (see listing below). Also listed are eight of the largest facilities added to the company during the year ended October 1, 1970. The plants, identified by operating division or group are:

Division: Power Protection and Conversion
Facility: Purchased manufacturing plant in Sharon Hill, Pa.

*

Division: Large Steam Turbine — Generator
Facility: Leased manufacturing plant in Schenectady.

*

Division: AC Motor and Generator Business
Facility: Opened new motor plant in Hendersonville, Tenn.

*

Division: Industry Components and Metallurgical
Facility: Purchased manufacturing plant in Springfield, Mo.

*

Division: Lamp
Facility: Purchased manufacturing plant in Austintown, Ohio.

*

Division: Refrigerator Products
Facility: Expanded GE manufacturing plant in Bloomington, Ind.

*

Division: Transportation Systems Business
Facility: Purchased manufacturing plant in Grove City, Pa.

*

Division: Transportation Systems Business
Facility: Leased manufacturing space in Scotia, New York.

*

Division: Lamp
Facility: New construction continues in Ravenna, Ohio.

*

Division: Power Distribution
Facility: New construction continues in Shreveport, La.

*

Group: Appliance and Television Business
Facility: New construction continues at Appliance Park East in Columbia, Md.

Make Way For Tomorrow

General Electric has formed a subsidiary devoted to the production of television programs, motion pictures and legitimate stage presentations.

President of the subsidiary is Thomas W. Moore, former president of the ABC television network.

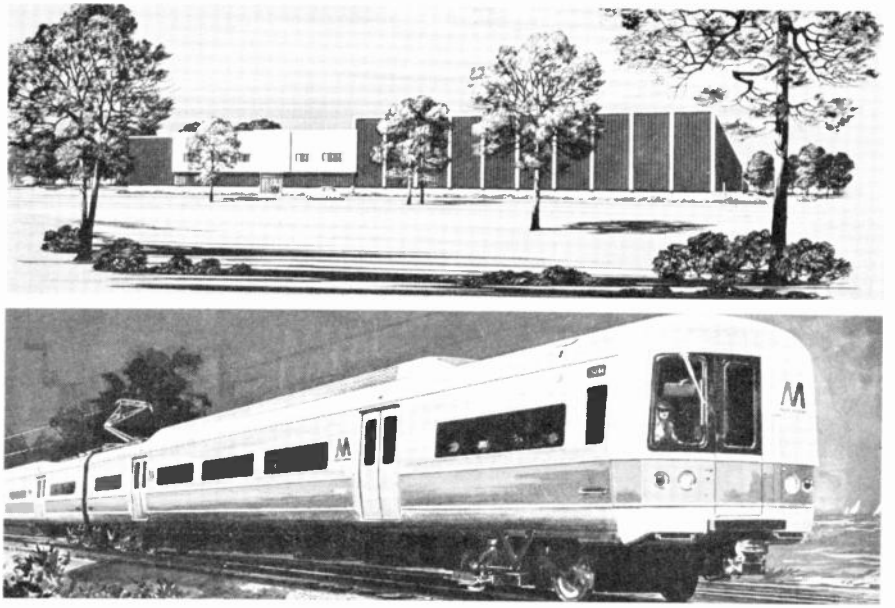
Moore, speaking at a press conference in New York, said, "We will quickly become involved in all phases of television programming — series, specials, and syndication. We will place a great emphasis on sports events and industrial programs. We mean to become an important new source of television programming.

"Initially, distribution will be through the television networks, and our own syndication. However, we will constantly explore the possibilities of participating in the expanding fields of cable television and cassettes. Closed circuit broadcasting will be an important part of our operation, utilizing such facilities as General Electric's Command Performance Network."

Moore added that active feature motion picture production is expected. He said, "We plan on becoming a major source of capital and innovation in motion pictures. We are vitally interested in feature films of quality and sound box office potential."

Formation of the new subsidiary was announced by Donald D. Scarff, Vice President and Group Executive in charge of General Electric's Consumer Products Group.

The operation will be headquartered at 777 Third Avenue, New York, N. Y. 10017.



A BUSINESS ON THE MOVE: A $14 million program for construction of new facilities and modernization of an existing building for the assembly of rapid transit and commuter cars has begun at Erie, Pa., plant. The first cars to be assembled in the new facilities will be the 144 commuter cars ordered for Penn Central's New Haven line.

Listen! What do you hear?

In the office, the clatter of typewriters.

In the factory, the scream of a saw cutting into steel.

In the streets, the cacophony of traffic.

Noise even permeates the walls of our homes.

According to a medical authority at New York's Mount Sinai Hospital, "under exposure to high noise levels, blood vessels constrict, the skin pales, pupils dilate, the eyes close, one winces, holds his breath and the voluntary and involuntary muscles tense."

In recognition of the fact that noise pollution is growing, perhaps doubling every 10 years, federal regulations have been enacted recently to curb the effects of heavy noise in industry, where people come in contact with some of the most severe noise pollution.

Of all the ways to minimize industrial noise exposure, perhaps the most common is the ordinary ear plug or ear muff. To meet industry needs for a more convenient, more comfortable hearing protector, GE's Medical

Development Operation, Schenectady, is now marketing the Peacekeeper (T). Light weight by nature, the protectors are individually molded to "custom fit" each person's ears.

The Peacekeeper is made of a special GE silicone rubber that effectively attenuates excessive industrial noises including the shattering sounds of jack hammers, newspaper press rooms, riveting operations, drop forges, textile looms, paper mill machinery, airline operations, among others.

According to the Medical Development Operation, the protectors are effective against high intensity noise but still permit the wearer to carry on a normal conversation with the Peacekeeper in place.

GE Peacekeepers, which are designed to be more comfortable to wear and more convenient to use and store than other types of hearing protectors, can be fitted to the individual in less than five minutes. For an effective fit, it is recommended that the Peacekeeper be molded by an industrial nurse, hygienist or technician who has been trained to do the fitting.

Engineers

Wherever GE plants are located in the U. S., their employees have, traditionally, taken a leading part in their communities to gain favorable public attention for the role the engineering profession continues to play for the betterment of society and for assuring the nation of technological supremacy. The effort finds its culmination during National Engineers Week, always the week which includes Washington's birthday. (G. W., be it remembered, was an engineer — a civil engineer.) This year the story is the same. Some typical plant efforts: The Aircraft Engine Group's Evendale plant held their annual Engineers Recognition Day with special ceremonies in a local auditorium. The Bridgeport plant devoted nearly the entire edition of its plant publication to interviews with local engineers and to feature articles about their work, not only in General Electric but also in helping the city solve its pollution problems.

We're Challenged

A reader in Schenectady posed this challenge in a recent letter:

"It would be interesting if readers were told in an interesting and informative article which products are produced by the vast reaches of the General Electric Company. For instance: Schenectady GE has several functions, so has Syracuse, Lynn and Cincinnati, very little of which is divulged to fellow employees. And there are many more (operations) both foreign and domestic that are virtually obscure from the reader's eyes, all faithfully producing objects from Amp meters to Zener diodes, and everything in between — but where?"

One of our missions is to undertake a sort of running travelogue of General Electric in regular monthly vignettes. We expect to be on the road to accomplishing same in coming editions.

Reader Submissions?

Do we, others ask, accept employee-written articles for publication in *Monogram*? We do, on occasion. In fact, our first appeared in the December edition.

But, we hasten to add, always inquire before you roll up your sleeves to tackle an article. Tell us what you have in mind and how you propose to handle the subject, what the photo possibilities might be, and any other details that seem pertinent. And speaking of photos, some *can* be a story by themselves, if they can carry a thought forward without the need of elaborate caption material. Just be sure they are taken by a professional photographer who knows magazine requirements. The kind of photo shot for a family album with an inexpensive camera is seldom printable. Color prints or prints from color slides do not translate well in a black and white publication like ours. We'll answer all queries as promptly as time and deadlines allow, giving you a go or no-go answer. Just as a suggestion, we are always especially interested in hearing about people who have unusual jobs, and who perform a unique, but unheralded service for General Electric.

Admonition

Don't use an electric hair dryer while you're taking a bath. Avoid the intake of liquid into the domestic vacuum cleaner. Don't wash your toaster in the electric dishwasher. Position the makeup mirror so that direct sunlight won't strike the magnifying side of the mirror which might concentrate heat sufficient to cause damage to other objects. And don't use your electric toothbrush for the dual purpose of pollination and oral hygiene. These admonitions come from E. J. (Ted) Wray, manager of product safety and standards for the Housewares Division in Bridgeport. The toothbrush reproof came as a result of *Monogram*'s article in the January issue (page 11) about the novel use of GE's electric toothbrush as a pollination method in hydroponic culture. Who would ever put a toothbrush in his mouth after it has come in contact with pesticides in pollination? Answers Ted Wray: "You would be surprised at what a few people, in a moment of carelessness, do with electrical products."

The Eds.

ALSO IN THIS ISSUE