Sprague to Produce Philco Surface-Barrier Transistor

Sprague Electric Company
North Adams, Massachusetts

VOLUME XVIII
JANUARY, 1956
NO. 5

John Puppolo Assumes Production Responsibilities of New Department

1956 began with a note of long term optimism for the Sprague Electric Company as it was announced that an agreement had been reached between Sprague and the Philco Corporation under which Sprague is licensed to produce the Philco Surface-Barrier transistor, the only transistor currently available for use in high speed computers. The transistor is in continuously increasing demand for industrial and military use. In the latter field particularly, they are essential for improvement of navigation, missile-guidance and weapons-control equipment.

Importance of the Sprague-Philco agreement is increased in the fact that it will provide for the first time two independent manufacturing sources for a critical high frequency transistor. Under the agreement, both firms are privileged to exchange research and development data as well as production and testing techniques, on devices in the entire field of semi-conductors.

For our company,” Mr. Robert C. Sprague, Chairman of the Board, said, “the agreement makes possible valuable additions to our already extensive line of components for the equipment and communications industries and for the military.”

Mr. Sprague pointed out that Sprague, under licenses from the Western Electric Company, has carried on research and development work leading to an established development program in the semi-conductor field.

We began activity in this field early in 1952 and have had under way an active research and engineering program. We have developed several new products which are now ready or ready to be introduced through the pilot plant stage.

In this program we have emphasized development of a germanium junction transistor capable of efficient operation at frequencies up to three megacycles. We also plan to start manufacturing these units during 1956.

We will begin the production of these units by the middle of this year and it is significant that it will mean employment for approximately 230 people at the Sprague Electric Company.

This move will help us to meet the growing demands of our customers throughout the world for components and units designed for high speed computer operation.

Many people have contributed to this important program and we wish to express our appreciation to the component problem solving teams who are doing most to increase productivity, with accompanying benefits to employers, shareholders, the employees as a whole, and to the nation as a whole. Our company has been helped in this work by the development of a significant new technology which can be a valuable contribution to the growth of the national economy.

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Company Once Again Recognized For Excellent Management

For the fifth consecutive year, the Sprague Electric Company has been certified as an "excellently managed" company by the American Institute of Management.

This recognition means that the company ranks with American and Canadian concerns so certified for 1953 in the institute’s “The First 750” list of excellently managed companies. A total of 44 companies are expected to be distributed in February to 14,000 members and fellows of the institute.

The company’s current certification is in “deemed reserved recognition” to those companies whose management practices are deemed as increasing productivity, with accompanying benefits to employers, shareholders, the employees as a whole, and to the nation as a whole.

Ten factors are reviewed in judging a企业管理. A company must receive a minimum of 7,500 points in order to qualify as "excellently managed". Evaluations are based on the company’s continuing analysis of concerns in the United States and Canada for increase in productivity, with accompanying benefits to employers, shareholders, the employees as a whole, and to the nation as a whole.

The factors referred to are: economic function, corporate structure, health of earnings, service to shareholders, research, sales vigor and executive evaluation.

Patent News

Leon Podolsky and Stanley O. Dorst received notice on January 10, 1956 that a patent has been issued to them entitled "Electrical Resistance Elements". This patent, which has been assigned to Sprague Electric Company, provides protection for a resistor having a base of an inorganic material and having a bonded resistive coating of uniform dispersion of conducting particles in a polythermally bonded base. The dispersion coating is sufficiently thin, and the base material is sufficiently thick so as to cause the expansion characteristics of the coating to be determined by the base material. This provides a low temperature coefficient resistor in which it is possible to compensate for the positive temperature coefficient of resistance change by virtue of the dimensional change of the base. This patent provides the public with the knowledge that by limiting the dimensions of the coating, adequate expansion characteristics can be attained. The patent provides protection for the process of producing these resistors, as well as for the resistors themselves.

Neither Mr. Podolsky nor Mr. Dorst is a newcomer to the ranks of patentees. Mr. Podolsky is the holder of many patents in the components field including the patents for the famed MEG-O-MAX resistors. Mr. Dorst’s patents relate not only to the resistor field but also to the wire coating art.

This new patent is a welcome addition to the Sprague Electric Company's line of products. Sprague and the Philco Corporation under which Sprague is licensed to produce the Philco Surface-Barrier transistor, the only transistor currently available for use in high speed computers. The transistor is in continuously increasing demand for industrial and military use. In the latter field particularly, they are essential for improvement of navigation, missile-guidance and weapons-control equipment.

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Transistors Used In Products

We have all heard of transistorized circuits, but just what is a transistor and how does it differ from the vacuum tube of old? Foremost of these differences is the small size and very low power consumption. A transistor consumes about 1/1000 of the power required by a vacuum tube. It requires no heater or filament power and operates on a very low voltage. A vacuum tube employs no filament, operation is instantaneous.

Take the vacuum tube, the transistor functions by the control of the flow of current carriers through a solid. Various types of transistors are being used in hearing aids, computers, guided missiles, communication equipment, and a large market is developing for their use in automobile and portable radios.

National Electrical Week

The week of February 5 is designated as "National Electrical Week." This is the observance of the 40th anniversary of Thomas A. Edison, whose inventive genius is typical of all electrical pioneers who contributed so much to the growth of today's mighty electrical industry.

The purpose of this week is to focus the public's attention on the achievements which have been made in both living and working conditions through the use of electrical equipment. Contributions which the industry has made to the economic strength of the country.

Mr. Puppolo has always been active in civic affairs having been a member and chairman of the Reserve Bank and an active participant in the activities of St. Anthony's Church. Mr. Puppolo is married to the former Lena A. DeDibbio of North Adams and they have one child, John Michael, 13 years old.

Also employed by Sprague are two brothers of Mr. Puppolo—David, who is in the Specifications Engineering department and Henry in the Wire Coating Lab on Brown Street.

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Polio is not licked yet.

These five words sum up the present state of the fight against infantile paralysis.

The Salk vaccine is a tremendous stride forward. Now, at least, there is a reasonable hope of eventual control of polio. But a vaccine does not eliminate a disease overnight.

Tragic proof of this are the ten thousand of Americans, adults as well as children, who were stricken with polio during 1955. Today, those most recent of the many smaller outbreaks in this city.

It is not a time for complacency or a let-down in effort. The March of Dimes and needs and deserves your support. Give to it, and as often and as generously as you are able.

Polio Still Strikes - Now Is The Time To Strike Back!

Recently, a group of doctors, after an extensive study recommended to the Massachusetts Board of Health, that it should lift its ban against inoculating the children of the Commonwealth with the Salk polio vaccine. To any parent the decision whether or not to inoculate his or her child poses a problem. We have all seen how vaccinations in the past have almost completely made certain diseases a memory of the past. But to vaccinate with a virus which is now upon the scene is another question. In an attempt to bring about a better understanding of the Salk polio vaccine, we present below the answers to 12 questions most frequently asked about the vaccine. These answers are prepared by Dr. Hart E. Van Pipe, Medical Director, National Foundation for Infantile Paralysis.

Q. How effective is the Salk vaccine? A. The vaccine used during the 1954 field trials was 60 per cent to 90 per cent effective against paralytic polio. There is reason to believe that the vaccine being used today is even more effective.

Q. What assurance do we have that the Salk vaccine is safe? A. Every possible assurance. The vaccine used in the field trial caused neither polio nor any other major reactions. Appropriate tests for safety are required by the U.S. Public Health Service on every lot of vaccine released for use.

Q. How long does it take for polio to incubate? A. From three to 35 days, but most often in the neighborhood of two weeks. If a person is vaccinated after he has been infected with the polio virus, the vaccine cannot prevent the disease.

Q. Is one shot enough for full long-term protection? A. No. There are needed. The first shot begins to take effect in from seven to 10 days. The second shot, two to four weeks after the first, brings a sharper rise in antibodies. With these two injections, a child should be protected from paralytic polio for a polio season. For long lasting immunity a third or booster shot should be administered seven months later.

Q. If the second shot is delayed, will it be effective later on? A. Yes. According to Dr. Salk, the effect of the first shot is not lost even if delayed and cannot be given for many months afterwards.

Q. How long does the protection given by the vaccine last? A. There hasn’t been enough time since the vaccine was developed to answer this question. On a March of Dimes grant, Dr. Salk is continuing to improve the Salk vaccine.

Names of the News

SPRAYCIPLE ELECTRICLOG

January, 1956

EDITORIAL

Robert F. Fellows, Research & Engineering, and John H. Winant, Employee & Community Relations, both graduates of Williams College, were members of panel discussions held at the college in observance of "Career Weekend," January 6 and 7. Fellows was invited to the Chemistry, Chemical Engineering, Research panel and Winant, the Personnel and Industrial Relations discussion.

Robert Bakis, Research & Engineering, recently had a paper printed in Acta Metallurgica, on In-International Deformation Markings in Single Crystals of Cu-Au. Mr. Bakis was a co-writer of the article.

New Management Club Members

(Hubo) John Rice was born in Schen-nectady, N. Y., and served with the U.S. Navy from 1940-54. Came to Sprague in 1955 as an executive pilot.

(Atone) Paul Spillane was born in Boston, graduated from Boston College. Joined Sprague Electric’s training program at Nashua, N. H. in May 1954. Present position with Com-pany is Foreman, Sandia Dept. on Brown Street.
January, 1956

DEPARTMENTAL NEWS...

F.P. Owens and Covers  
by Marguerite Daub

On December 12 our annual Christ-  
mas party was held at Petey Dick's.  
Everyone had a thrill by going to  
the party and waiting for next Christmas! We  
were sure that there were only a  
few who did not like our presents.  
Happy New Year!  
Barbara Dickey

Retail Sales
by Betty Jangrow

A very pleasant affair took place  
for the first time when Shirley Chalfant and Bernard Bouwer were  
married on December 16.  
Norma Luncher was the matron on January 14.  
Maid of honor was her  
stationary  
secretary, Fred Knapp.  
Best men — Ronald Bauer and  
roth — and Mrs. Henry Simon who celebrated their wedding anniversary on January 4.

Sales Office
by Jane Delia and Kay Baroni

Let us tell you of the wonderful  
gifts received for our annual Sales  
Office: Martha Harvey — Her fur  
Ritza English — A cook book so  
that she can serve her family  
without a mistake.  
And last, but not least, Margaret  
Beth; a large economy size (ruit  
sec so he won't have to wait  
for the fruit that is plums.  
Jeanne Onfiled — A subscription  
to the North Adams Transcript.  
Maryland Anderson and Laurel  
Smith — Arrangements for a spring  
wedding! Loyal Fitzpatrick — Some-  
to transcribe her dictation! Linda  
Dew — Five girls to file while she  
superintended the dormitory.  
Bobby Barbuto to help her handle the  
traffic.  

Building No. 7 Offices
by Selma Sabin

Several announcements this month:  
our lovely Miss in the Material Con-  
duction department has engaged  
her friend, Connie.  
Kay O'Connor — Some-  
place of her letters — Elaine Bouchard  
and Jeanette Gilbert.  

Advertising
by Dorothea Borchard

A gala Christmas party was held  
at the Clarkburg Sportsman's Club in  
Barre.  
Mr. Carl Thomas of the company  
force gave a toast for the occasion and it  
went over very well.  
Many of the girls and Misses Santa  
and Jan Fawler as Rudolph did  
a job of distributing grabbing  
gifts.  
In addition, we had Christmas  
Entertainment included grabbag prizes  
and $15 donation to the children at the  
Brightside Orphanage. Thanks to  
everyone who helped in this worthy  
cause.

Centrifuge
by Dominick Pisano

A positive report to report that during the Christmas season it had  
two winners in the annual display  
contest for the Chamber of Commerce.  
Mrs. Barbara Armstrong of Clarkburg  
won the first prize and Jerry O'Neill  
won third prize.

F.P. Assembly
by Grace McConnell

Johanna Kayser celebrated her 70th  
niversary on December 5th.  
A Christmas  
party was held at Norma Luncher's  
home for the packers on December 9th.  
The menu included appetizers,  
Entertainment included grabbag prizes  
and $15 donation to the children at the  
Brightside Orphanage. Thanks to  
everyone who helped in this worthy  
cause.

Test Equipment
by Mary Castani

A wonderful time was had at our  
Christmas party held at the  
Heart of Barre.  
In spite of the hazardous weather,  
everyone enjoyed a merry party.  
Zero weather has taken its toll.  
Sanica said, "I can't do it first!"  

Round Midget Assembly
by Jennie Girces

Irene Konstapos has a beautiful  
watch and plenty of money to  
spend.  
We were pleasantly sur-  
prised to hear Fran Kordana on the  
telephone.  
Franny wishes to be remembered to all  
her friends, especially in their prayers  
as she has been ill,  

Continued on Page 5
Carol Ann Demarsico is the 5 year old daughter of Frank, Marshall Street warehouse, and Florence, of the Metal Clad department at Beaver Street.

5 year old Thomas E. Kustra is the son of Jean Kustra, Metal Clad, Beaver Street, and grandson of Ann Scully of the Filter Development department on Marshall Street.

The two youngsters above are Robert, 6, and Walter, 6, sons of Madeline and Bill Kaczowski, who work in Pulse Transformers, Beaver Street, and Maintenance departments respectively.

“Nothing like good old milk!” little Ronnie Andrews, son of Lorraine Andrews, seems to be thinking. Mother works in the Hi-Reliability department on Beaver Street.

Louise Galinski is the daughter of Peter Galinski. Proud Dad is employed in the Metal Clad department.

Juanita Jean, 6, Diana Lynn, 2, and Frances Marie, 8, are the three daughters of Angie and Melwood Downs. Mother works in the Hi-Reliability department and Father in the Can Shop, both on Beaver Street.

Little Marcia Lucemai was all smiles when this was taken! Aunt Jennie Burdick is employed in the Metal Clad department.

Diane and Tommy Lewis are the niece and nephew of Mr. and Mrs. Jack Sullivan. Diane recently drew a “child’s idea of Christmas” which won first prize and was published on the cover of “Contact”, the employee publication for the New England Power Company.

And who is this—all dressed up? Why it’s David Michael Stevens, 6 months old son of Harold Stevens, Jr., Product Engineering and grandson of Harold, Sr., of Factory Engineering.

9 year old David Risch just couldn’t wait for warm weather to use his new bike! He is the son of Ceil and Ernie Risch—Ceil works in Miscellaneous Drys, Western Electric, Marshall.

Nellie Leazer of Metal Clad is mighty proud of her granddaughter Lucinda, who is the daughter of Mr. and Mrs. Donald Leazer who live in Boston.

Pictured above are Mr. and Mrs. Gerald Duprea. Betty formerly worked in Hi-Reliability and Gerald is the brother of Mary Duprea also of Hi-Reliability.

Airman Robert Lewis, son of Mr. and Mrs. George Lewis, is currently stationed at Sheppard Air Force Base, Wichita Falls, Texas. Lewis’ mother works in the Industrial Oils department at Brown Street and grandmother Martha Lewis is in the Filter department at Marshall Street.

Anthony Romeo, currently serving in the U.S. Navy, is the son of Elizabeth Romeo of the Metal Clad department.

Gisella Blake’s husband is shown above with the 140 pound, 8 point buck he bagged in the Hopper in Williamsport. Gisella works in Retail Sales.

“Who’s afraid of the Man in the Moon?” Nancy, 4, Duane, Jr., 5, and Theresa, 8, the children of Duane and Phillis Beatley of Industrial Oils prove that they’re not! These cute youngsters are 21 month old Dorothy and 9 months old Derryl, the children of David Beightley of Test Equipment.
Industrial Oils Cover Assembly
by Isabell Withrow
We first want to welcome Martha Chauvin back to our department. We were sorry to see Blanche Reid leave us to join her husband in Florida. She was covered with coffee-flavored icicles — Anne Gentile's thermos bottle — better now.

Industrial Oils Roling
by Maggie Flanagan
Elisabeth Slattery returned from a visit to her daughter in New Jersey. Agnes Miller's daughter and grandchildren are visiting her for a while. The girls in the department got to gel at a movie and said the new children's sweater is lovely. They don't share too much for you, boys. Your reporter's son is a Christmas present and has since returned to his home in New Mexico. While on vacation he bought a new golf club and he says he's really improved his game.

Industrial Oils Christmas Hafner's
by Richard Beaman
Our foreman Mr. Charles Hafner has moved into his new home on Lee Terrace. He stated that it is a beautifully furnished ranch type house. We wish Dr. C. St. Cyr is on a leave of absence. We wish him well. His wife, Doris, is a veritable hard worker and has since returned to her job in the Bennington hospital for a few days' observation. We wish her well. She is the best of luck after her recent operation.

General Salvage
by Anna Heath
Our salesman Mr. Charles Hafner is truly pleased with the plants we received. He has been out of the Christmas tree — Charlie Briggs.

Industrial Oils Xmas MINI: A 1954 Plymouth sedan was re-covered in the Department by Dave Sprague. The car was sponsored by a member of the Industrial Oils Department. We hope he is well now. Good luck to Kenny Brooks who was promoted to Airman I st Class and Mr. C. St. Cyr is out on a leave of absence. We wish him well. His wife, Doris, is a veritable hard worker and has since returned to her job in the Bennington hospital for a few days' observation. We wish her well. She is the best of luck after her recent operation.

Industrial Oils Christmas Greenhouse:
by Ann Heath
Fuller and youis truly are learning to make Christmas sweaters. Surely we will never see one so well done! Now that Christmas has arrived, please send your orders in time so that we may have your sweaters back in time for Christmas. Merry Christmas and a happy New Year to Winnie Emery from all of us.

Industrial Oils Goodbyes:
by Rita Sullivan
By the time we printed this month's edition of Old Song Sheets, she received her present. She says, "I'm only the one with a special gift for Christmas. Santa didn't forget me!"

VACATION WHICH SHE TOOK DURING THE HOLIDAYS
by Florence Dupre
Blanche Newlands Bonnie Day vacation which she took during the holidays was covered with coffee-flavored icicles — Anne Gentile's thermos bottle — better now.

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as a new hairdo. By the way, Joan, you didn’t know you had such talent. That was quite a stylish shoe number. Some of the girls who recently had their hair cut by Irene Boschetti, Tenise Choquette and Eva Gossut. We’d like to welcome MabelPause and Mary ed our supervisor’s Eddie LaBonte. Mary’s vacations were Irene Boschetti, Tootie Some of the girls who recently had their Ceramics celebrated her birthday on December was held at the American Legion in An... Tom Quinn and Ed Mulvaney are enjoying their vacations in Andover. ...Amy Bryant sure has a glow lately. Her husband came home recess from the Sacred Heart School in ...Sweeney doesn’t believe that you get her photostat...As we glance around the office we see a few more new faces. As usual, we have received many cards from our coworkers. ...The girls had their Christmas party at the Hub restaurant on December 15 and everyone had a good time. Gerry Guisti made little favors for everyone and they sure dressed up the table. Thanks, Gerry! January 3—Mr. and Mrs. Frank Chilson 7th January 4—Alice Bratcher January 5—Betty Mahoney January 6—Priscilla Hayden January 7—Mary Ida Brooks January 8—Ann Negrette January 9—Bernard Roberts January 10—Priscilla Hayden January 11—Rita Merrill January 12—Betty Berger January 13—Anna Pugliese January 14—Vicky Zoltek January 15—Cecelia Bucholch January 16—Bernard Boucher January 17—Maggie Mancini January 18—Eileen Taylor and Herbert Brown January 19—Mao Moses January 20—Joe McLaughlin January 21—Mama Lonchew January 22—Franklin and Jeannette Cady January 23—Lonefron and Ends January 24—Mr. and Mrs. Harvey Valleries 25th January 25—Mr. and Mrs. Albert Blondin 8th January 26—Mr. and Mrs. Albert Blondin 8th January 27—Mr. and Mrs. Vincent F. Mann 10th January 28—Mr. and Mrs. William Pratt 8th January 29—Mr. and Mrs. John Denno 7th January 30—Mary Ida Brooks...Sprague Electric International, Ltd. by Suzanne T. Lemieux My word! It’s harder to get news from our most hard-core fans this time of year than to get news from the mighty General Motors. Perhaps it was the holiday merry-making that left everyone in a vacation mood. Some of the girls were engaged in Christmas shopping around at a most appropriate time too...Tom Quinn and Ed Mulvaney are enjoying their vacations in Andover. ...Our congratulations to Chriselle Peters on the birth of a son. Tanner also received beautiful...Engaged to George Parisien on Christmas Day. No daily newspaper is set for the wedding Betty Neveu and Janice Mulvaney also received beautiful diamonds from their husbands. Nancy Kelly is going on a three week vacation to Florida. We’ll all envy...Sympathy Notes will no longer appear in Departmental News. 'I Do' Notes December 14 Virginia Fox and Richard Chapman December 17 Bette Voll and George Gugmemini January 14 Shirley Ann Chatfield and Bernard Boucher Anniversaries... January 3 Mr. and Mrs. Clifford Champagne 14th January 3 Mr. and Mrs. Lawrence Young 9th January 3 Mr. and Mrs. Frank Thomas 7th January 7 Mr. and Mrs. Harvey Valleries 23rd January 7 Mr. and Mrs. Angelo Mazzu 7th January 7 Mr. and Mrs. Ernest Rondreau 3rd January 18 Mr. and Mrs. George Kelleher 10th January 22 Mr. and Mrs. William Pratt 8th January 28 Mr. and Mrs. Albert Blondin 8th January 26 Mr. and Mrs. Frank Santelli 16th Happy Birthday January 1—Olive Odell January 1—Olive Odell...Sprague Electric Int’l Dept., placing his 1956 parking permit sticker on his car. Have YOU done the same?