With this Yuletide issue of the Log, the reporters and editors again wish all Sprague employees a Merry Christmas and Happy New Year for the eighth successive year... This year may you find new strength and happiness in the old hymns and carols; in the laughter of little children; in the variety of Christmass throngs; and in the common adoration and thanksgiving of a people weary of war and desirous of peace. This coming year let us resolve to promote peace and understanding... in the home, the neighborhood, the shop, the city, state and nation... and thus throughout the world, -- until truly there is "Peace On Earth -- Good Will Toward Men."

May good fortune attend your loved ones still in the Armed Services here or abroad. May they and the other millions still in service be brought safely home to their families and friends... Let us pray at this Christmas season for those whose sons and daughters laid down their lives for their country... and for those who, maimed or broken in body, mind or spirit, may look in dark despair to the life left for them on this earth... In our joyous Christmas hours and days let us not forget that by their sacrifice and suffering we can this year once more celebrate these holidays in the old manner.

**It Came Upon the Midnight Clear**

It came upon the midnight clear,
That glorious song of old,
From angels bending near the earth,
To touch their harps of gold:
"Peace on the earth, good will to men,
From heaven's all gracious King";
The world in solemn stillness lay
To hear the angels sing.

For lo! the days are hast'ning on,
By prophets seen of old,
When with the ever circling years
Shall come the time foretold,
When the new heav'n and earth shall own
The Prince of Peace their King,
And the whole world send back the song
Which now the angels sing.

**O Come, All Ye Faithful**

O come, all ye faithful,
Joyful and triumphant,
O come ye, O come ye to Bethlehem;
Come and behold Him, Born the King of angels;
O come, let us adore Him,
O come, let us adore Him,
O come, let us adore Him,
Christ, the Lord.

Sing, choirs of angels,
Sing in exultation,
O Sing, all ye citizens of heaven above:
Glory to God in the highest;
O come, let us adore Him,
O come, let us adore Him,
O come, let us adore Him,
Christ, the Lord.

A Merry Christmas...
Radar during the War

Working on information received by the radar's electric eye in the radar pilot room.

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"Every Sprague Worker an Assistant Reporter!"

Radar in 1911.

This is a second series of articles concerning radio, appearing in the first set, was entitled "Radar in 1911. A third, to come, will be the account of the future of radar."

Radar was no secret to our enemies, and many of them had radar equipment ready before their entry into the war. The United States was no exception, and on November 4, 1942, our Army had 580 sets on hand, and it was the SCR-270 which gave warning of the impending attack on Pearl Harbor.

The primary importance of radar in war is to give knowledge of the enemy's activity. Radars does this by exploring the region of battle with a directed beam of radio energy and detecting the echoes which arise when the beam encounters an enemy target. To be of value, targets must be detected at great distances to give adequate warning of the enemy's approach, and must transmit as the highest possible power and receive the echoes with the most sensitive possible receiver.

Radar transmitters commonly have peak power output in the ten or hundred kilowatts and the effective power of this power is increased several hundred times by directive antennas. However, the power received back from the target at the maximum range at which the target is detectable is measured in microwatts, or roughly a millionth of a millionth of the power transmitted. Therefore, to be effective, radar demands the most advanced techniques that our radio scientists and engineers could develop. And in 1937 apparatus was set up for aerial-deception work, with marked success. At that time, it was possible to deceive planes and track them at distances as far away as 11 miles.

In 1938, work began on the SCR-270 (mentioned before) which was used for long distance warning against aircraft. To transmit long range, the highest possible transmitter power and a large antenna having high power gain, were required. Many improvements in this type were added, so now, five years of use, the SCR-270 is still standard equipment. One type is truck mounted, and with its associated tracks, can be moved over roads and set up quickly wherever needed. Another type was developed for fixing locations in permanent buildings. The reliable range of these SCR-270's is 120 miles on bomber aircraft targets and 25 miles on fighters. The distance to the aircraft is accurate to within 1,000 yards and 10,000 for targets more than 300 miles.

During the war he was appointed a lieutenant on an 11-inch gun of the Manpower Production Board. He has represented the company in industry-wide meetings and is actively engaged in sales engineering work.

The distance to the aircraft is accurate to within 1,000 yards and 10,000 for targets more than 300 miles.

While I was in Tokyo I saw the Emperor's palace and General MacArthur and where he stayed. The Japanese were good to me. Well, Miss Otsu it is time to eat so I will sign off now. Here's hoping it will be fine for Xmas. So until I see you and the rest of my friends at the plant, good luck and God bless all.

Peter Mano.

Greetings

The last bugle note has sounded.

Over all the world.

Just where Freedom once abounded.

"Merry Christmas" this year is true as never before.

Lift up your heart, it is your due.

Freedom and justice are complete.

Give thanks that having done our part,

May live in unison, as one.

Beneath tomorrow's brilliant sun

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SPRAGUE ELECTRIC VOLTAGE LOG

SPRAGUE HUNTERS FAVORED BY "LADY LUCK"

Tales from New England Woods

by M. Matthews

"I say Oldham, that's your phone ringing, are you sure you were looking for, Jimmie?"

"What, in Sun Hill is the matter with you, John?"

The final question came from Fred Seldon.

"Oh, I guess my thoughts are with the fellows group around estimating the weight: the hard but happy dragging of the deer back to the lodge. But as soon as I had been in the woods about eight hours when Dame Sandisfield full of pep and of luck."

"Dead shot, I guess."

"Right out on the target."

"But Sandisfield fired another shot, a glancing shot, which ended his interest."

"It was as if she desired to drain all the strength out of the woods, through the thick brush, the buck turning, finding a second shot shot hill he had been in the woods about eight hours when Dame Sandisfield full of pep and of luck."

"Dead shot, I guess."

"Guessed right, Sandisfield."

"Hunters and PRIZE"

HUNTER AND HIS PRIZE

Jimmy Oldham of Purchasing Department with his 200 lb. buck.

Can You Top These . . .

December 8th was a bright clear day, perfect for the hunters, who were entertaining dreams of getting that seemingly unlucky hunters were: "Doc" and Joe Girardi.

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Welcome to:

Robert M. Blakely, who was in the Naval Air Training Corps in the summer of 1943, and held a commission in the Marines as a lieutenant in 1944, was discharged this November. He comes to the Payroll as an assistant to Mr. Allison on high frequency measurements.

Fred Blakely is married, and lives in Williamstown with his wife and young daughter. He is a Williams College man. It is interesting to note that his father, Rev. R. B. Blakely, former pastor of the Williamstown Congregational Church has just received his discharge this November at about the same time that his son did. Rev. Blakely was a chaplain in the Service.

Eveett Barton, discharged from the Navy in November, has joined Earl Burke's staff as draftsman. He graduated from Massachusetts State College in '42, majoring in Engineering. He received his commission as a lieutenant in Naval Aviation and saw action in England and Iceland. Mr. Barton, after his discharge, does not plan on returning to the Berkshires. He has been left the Sprague Electric Company after 15 years of service. Her husband, Chief Engineer Raymond J. Crosier is left the Sprague Electric Company at about the same time that his son received his discharge this November.

Engagements

The engagement of Miss Shirley G. Hildrenbrandt of Marion of Payroll, and Major William Senecal, Chief Engineer at Fort Devens, Massachusetts, was announced. The wedding is to take place in January.

Mr. and Mrs. Francis Stanton.

We were most pleasantly surprised today upon the receipt of some very beautiful knitted extremity coverings and haste to thank the many people who are in this part of the country to thank them for this kindness.

The Christmas Season will be as happy for them as it will be for our patients as a result of their many gifts.

Sincerely yours,

Sidney Licht, Major, M.C.

DAUGHTER: A baby girl was born to Mr. and Mrs. Francis Stanton, Thursday, November 29, 1945. The baby is the first child of Mr. and Mrs. Francis Stanton and is to reside in North Adams, Mass. Mr. Barton, after his discharge, decided to make North Adams his home, and has brought his wife and 16 months old son to live here, in the Berkshire Hills.

BIRTHS

Miss Georgiana M. Hildrenbrandt of Springfield, after an uneventful confinement, was delivered of a healthy baby girl on Monday, November 26, 1945. The mother and child are doing well.

Almost two thousand years ago, the Prince of Peace was born. And now, two thousand years afterwards, the principle of PEACE IN EARTH—GOOD WILL TO MEN still seems to be unattainable, yet remains our best solution if we wish to live in the complex world we have created, with its threat of world destruction by forces such as the atomic bomb.

Now, after the close of a second world war, civil strife wrecks the foundations of this globe. This is the second time we have waged a war to save the world and all wars. Today, the teachings of the Prince of Peace on brotherly love, charity, and faith are obscured by senseless slaughter and greed. And yet— we believe in those principles—denying the idiocy of war.

TAS WERE THE NIGHT BEFORE CHRISTMAS...

Cynthia Jane Crosier falls asleep while waiting for Santa, and her Daddy, Fred, of Engineering Specs, takes the opportunity to make this lovely picture.

Almost two thousand years ago—

The Latest G. L. Newington brings around the efforts of Rita Bishop of English starts a high school ring found on the Breach of Levy on its Final Journey Home.

While running between bases of a recreation center softball diamond on Saturday, November 30, 1945, Eugene A. LaPine, Seaman first class, kicked something bright out of the way. He found it to be a high school ring. He put it in his pocket with his personal belongings, and almost forgot about it. But the day came when he was given leave to turn the ring over to the base in the hope that the lost ring would be found. Upon showing the ring to his family, his sister remarked that it must be a story in connection with it, which could be located in a search made for the owner. Perhaps some boy's mother or sweetheart would cherish the ring as a memento.

Decipher Letters

Rita examined the ring carefully. It was bands of silver with the help of a microscope and suggestions of friends, and in the end marked on the ring K.E.N.S.—T.O.N. Knowing that there was a town of Kensington in Connecticut, she wrote to the principal of the school there, describing the ring. The Superintendent of the school at Kensington has sent back no letter, and has returned the rings. However, he too has become interested in the ring and suggested a school at Kensington, Penn. High School Principal Aida.

Following this lead, she wrote to the Pennsylvania school and received the following reply:

Dear Miss Bishop:

Your letter of November 19 arrived today. This is certainly a very interesting letter and I want to commend you for the interest you have taken in trying to locate the owner of this ring. We have checked our records and believe we have located the owner of this ring. She is a girl by the name of Betty Ruth Calendar who graduated from this high school in the Class of 1944. She is now enrolled in college at the University of Pittsburgh and we are very glad to hear that she is a student, who is now a student in this school, informed me that she had HAVING LOST A HIGH SCHOOL RING—NOT TO TELL—LOST ANOTHER—SOMEONE ELSE TO TELL.

The engagement of Miss Carolina Chapman to Gunner's Mate 3rd. James G. Martin, U.S.N., has been announced. The wedding is to take place on December 29, 1945. Florence is employed in the Payroll Department.

Wedding bells will ring for Miss Florence Martin and Paul Lepore on February 9. Florence is employed in the P.A.A. Department at Brown Street.

Miss Mildred M. Embery's engagement to Raymond S. Stephfitt has been announced. No date has been set for the wedding. Mildred is employed in the Baptista Assembly Department.

Edward and Fredrick Nazewski think up some new brand of medals, but promise to be good just around Christmas, "Edward", 2 years, and "Freddie", 3 years, are sons of "Mat" of Marshall Street Laboratory.

Office Chatter

By Priscilla Windover

The Payroll Department said good-bye to a real friend recently. Mrs. Raymond Crosier ("Fred" to us) has left the Sprague Electric Company after almost 2 years. Her husband, Chief Engineer Raymond J. Crosier is home on terminal leave and is to be discharged in January with the Payroll. The office girls presented her with a cake and a bouquet of flowers when they wrote on her farewell card, "Here are red, violet is blue, And so are you!"

Second "Honeymoonery" Mr. and Mrs. William Senecal (Marion of Payroll, Mr. and Mrs. Frank Wandsley (Wanda of Cost).

News from the Payroll Department—Bertty Alderman: "I heard that minister was going to be scarce this year so

gave of their spare time to knitting crutch protectors and amputee socks for the patients at Lovell. To date the committee has sent to the hospital 25 crutch protectors and 18 amputee socks from the employees of the Sprague Electric Company. That the boys and the house work they did in World War II is not forgotten is emphasized in the splendid cooperation the committee has received from the employees.

Spa drainage of the lovely picture.

Mystery of Lost Ring Makes Front Page Headlines

By Hazel Goodale

The front page headline-writer has been on the lookout for stories which appeared in the Pittsburgh Post Gazette on December 6th. A second picture of the same story was carried by North Adams boy now in Stedfield, Ohio and he has sent it to his mother, Mrs. Grace Banks, who is then forwarded it to Rita.

We congratulate you, Rita, on the interest which your effort has brought and hope the ring will continue to ring good luck to Betty and Jimmy.

While running between bases of a recreation center softball diamond on Saturday, November 30, 1945, Eugene A. LaPine, Seaman first class, kicked something bright out of the way. He found it to be a high school ring. He put it in his pocket with his personal belongings, and almost forgot about it. But the day came when he was given leave to turn the ring over to the base in the hope that the lost ring would be found. Upon showing the ring to his family, his sister remarked that it must be a story in connection with it, which could be located in a search made for the owner. Perhaps some boy's mother or sweetheart would cherish the ring as a memento.