The recently published booklet is placed on the booklet racks today. About benefits, progress review, as he stuck his hand in a pocket his personal belongings there was actually to be held on Dec. 24.

Family of Edwin W. Joch, a grandaughter. Was in Bataan Memorial Hospital at the time of his death. Daughter who Harold was recently walking in "smorgasbord." And then each hour would be a joyful one, I'd want to do, I could do whatever I wish for. You--

CHRISTMAS NEW MEXICO STYLE could mean friends gathered around a corner fireplace, a pâtisserie filled with toys hung in the center of the room, and luminaries decorating the outside of the door. Nancy Sanchez, 2135-1, finds the fireplace hearth a handy place to peel an apple—maybe to add to mincemeat for a pie.

Dinner Honors Transfer Members of 2721-3 recently gave a farewell dinner for Jim Simpson who has transferred to 1224.

Aniversary Two members of 5122 will be among those extending their congratulations to Doris Furry, 4135. Doris has been off work recently due to an eye infection. She has been moved into a new home at 4011 Sandia NE. Her score.

Get Well Wishes To Joe L. Garcia, 2461-5, for the death of his young son in Albuquerque.

Moving Day Jack Wissens, 5125, and his family moved into a new home at 4011 Holmest NE.

As a Bird In Hand Harold Rikly, 2111-2, takes a little variety in his hunting.

Pot-Luck Organizations in Bldg. 813 are planning a Christmas lunch—actually to be held on Dec. 24. Members of the five different organizations in the building will bring covered dishes and have a true "smorgasbord."

Sympathy To Edith Warner, 2462, for the death of her mother-in-law in Bismarck, ND.

To Joe L. Garcia, 2461-5, for the death of his young son in Albuquerque.

On Sick Leave Edward W. Baldwin, manager of Administrative Services Department at Livermore, has suffered a relapse from a recent illness and is on leave from his office.

Mr. Baldwin transferred to Livermore on Nov. 16 from Sandia where he had worked for five years as its head of the Payroll, Taxing and Vouchering Department, 3330.

Archbishop=

The Albuquerque Red Cross Mission, 122, has not only been active in this community, but has been all over the world collecting funds. The total amount of money collected is $25,000. The Red Cross Mission in New Mexico will hold a benefit show on Dec. 15 at the Civic Auditorium.

WEDDINGS

Catherine Anesi, 4151, was married Dec. 1 to William D. Blaylock, a former salesman in the Bismarck, Mo., now stationed at Sandia Base. The after-noon ceremony was held at the home of Mr. and Mrs. Malden Halinen and was followed by a dinner at the Desert Sands for the wedding party and guests. In the evening a reception was held at the NCO Club at Sandia Base.

The wedding "Cathy" was given a party by organizations 4151 and 4152. The honeymoon was spent in southern New Mexico.

Mr. and Mrs. James G. Broek are now residents of 1002 June St. NE, following their recent marriage.

Mrs. Broek is the former Anna Beth Newhall of 2212. The room one time worked in 2461.

The wedding was held at Christ's Church and was followed by a reception at the Coronado Club. At attending the reception were Mr. and Mrs. W. S. Spradling, an employee in Special Machine Section 2511, 2 since May 15, 1951, died Dec. 3 in a hospital. He was stricken with a heart attack and was declared dead upon arrival at the Sandia Base Hospital.

W. S. Spradling was in Bataan Memorial Hospital at the time of his death. He had worked at Sandia since January, 1961.

Survivors include his widow, a daughter who is living at home while her husband is overseas, and two granddaughters.

W. S. Spradling Dies Nov. 28

Sympathy is extended to the family of Edwin W. Joch, a Corporation employee who died Nov. 28. Mr. Joch was 47. He was stricken with a heart attack and was declared dead upon arrival at the Sandia Base Hospital.

W. S. Spradling

William B. Spradling, an employee in Special Machine Section 2511, 2 since May 15, 1951, has died Dec. 3 in a hospital. He was stricken with a heart attack and was declared dead upon arrival at the Sandia Base Hospital.

W. S. Spradling

He is survived by his wife, Pauline, who works in 2221; a daughter, Mrs. Shirley Fleming, employed in 7411, and an 11-year-old son, Stuart.

The body was sent to Charlotte, N. C., for burial.

Handbook for Employees A guide for new employees. "Welcome to Sandia, will take some things away: I'd take all trouble away from which I'd take all trouble away from which I'd take all trouble away from which I'd take all trouble away from which I'd take all trouble away from which I'd take all trouble away from which I'd take all trouble away."

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Survivors include his widow, a daughter who is living at home while her husband is overseas, and two granddaughters.

Good Deed Motorists entering Sandia's East Gate Avenue may be surprised to see a LeBron Leipold, manager of Manufacturing Engineering Department 2506, directing traffic.

During the morning rush the military policeman stationed at the gate fainted. Mr. Leipold took over temporarily after assisting with the movement of the MP to a safe resting place.

Welcome Back Organizers of 2721 welcome back Tony Chaves and Ben Layner after recent hospitalizations.

Organization 2721 welcomes back James Alves and Edwardo Chaves after extended illnesses.

A "welcome back" is extended to Doris Purry, 4135. Doris has been ill for the past three weeks.

Tv Stars Two Sandians appeared recently on a television championship bowling tournament at Carson City. Marty Baldwin, 2511-6, and his bowling instructor, Buddy Vinyard, 2311, were interviewed concerning the advantages of taking lessons. Marty has made remarkable progress in increasing her score.

In Sandia's East Gate Avenue 2721 welcomes back Tony Chaves and Ben Layner after recent hospitalizations.

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Message from the President

Another year of outstanding accomplishment for Sandia Corporation is drawing to a close. There is no way in which the military, the AEC, the government or the individual taxpayers can thank each of you for what you have done. Even I can only do so in this way. But this does not make the appreciation any the less warm or sincere. On behalf of all those who would do so if they could, I say: Thank you.

But now is the time to pause and commemorate the birth of Christ.

Since this is the year in which we established another group away from Albuquerque, it seems appropriate for me to take special notice of all those based at Livermore, Salton Sea, Tonopah, New York, Chicago and Los Angeles and also to those working with the military and in the plants of our suppliers, at locations far and near, my very best personal wishes for a Merry Christmas and a Happy New Year.

President
Sandia Corporation

Holiday Mood Reflected by Decorations

As in the past Sandia Corporation will reflect the mood of the holidays with Christmas trees, decorations, music over the public address system and Corporation shirts to be worn.

Fourteen trees will be decorated with lights and placed at various locations about the Corporation. The front of Bldg. 800 will again be the showpiece of the holiday trappings with one 30-ft. tree and the growing evergreen both lighted and decorated. Theoyer will be decked with holly boughs and wreaths. Matt Ungerman, 2223, and his wife plan and direct the decorations on the front of Bldg. 800.


Greetings in the form of bas-relief decorations will be a characteristic feature of the holidays. Matt Ungerman, 2223, and his wife plan and direct the decorations on the front of Bldg. 800.

Christmas Seals Help Fight Tuberculosis

This year, as in every December for the past 50 years, Christmas Seals are being mailed out to help fight tuberculosis.

The program of the Bernallillo County Tuberculosis Association follows the national drive for prevention, education and early treatment. Last year over 15,000 residents of this county visited the local chest clinic.

Glenn A. Powler, Vice-President, Research and Development, was elected chairman for the seal sale and here at Sandia he is receiving assistance from J. W. Galbreath, 3122, Ken Smith, 3120, and Mrs. P. B. Balmar, 5000.

Continuous blasting of sirens and steam horns sometimes this afternoon between 1:00 and 3:00 p.m. will signal the beginning of exercise "Ever Ready," a practice evacuation to provide training in emergency procedure.

All Sandia Corporation employees will evacuate the Base with the exception of those at Manzano Base, Tech Area III, and certain individuals whose work is of a continuous nature. Employees designated by their supervisors to perform their regular functions during the practice will not participate in the training exercise.

Upon sounding of the evacuation signal, employees will perform usual closing time duties such as securing classified information and material, disconnecting electrical appliances and closing windows. Employees will not "punch out" when leaving and will not be expected to return in when the "all clear" sounds.

Military Police will insure an orderly flow of traffic. No deviation or crossing traffic will be allowed. Routes to be followed are as follows:

1. Employees whose cars are parked west of Bldg. 800 will proceed north on Capital, west to the North Gate. Cars parked on F Street east of Main street, east and south sides of Tech Area I, or to the left outside of Tech Area II will proceed by the nearest access road to the East Gate and Eubank Blvd.

2. Upon reaching Central Ave., they will proceed to their homes or other off-base areas as desired. Employees who reside in the ABC Housing Area will depart from the Base through designated gates and return through the West Gate (Gibson Ave.) which is reserved for incoming traffic.

3. Car pool riders will assemble in the parking lot in which the driver's car is parked. Bicycle riders should delay until evacuation is completed or arrange for car pool rides. City bus service will be maintained throughout the evacuation.

Employees who normally return to their children at the Kindergarten must remain.

Employees who normally return to their homes or other off-base areas as desired will proceed to their homes, where they will proceed to their homes or other off-base areas as desired.

Corporation to Observe Holidays, Normal Work Week

Sandia Corporation will operate under normal Monday through Friday work schedule the weeks of Dec. 24 and 31 except that only one hour a day, from 8 a.m. to 9 a.m. of Dec. 24 and 31, with no loss in pay. Employees will be excused from work one hour a day of their normal quitting time on Monday, Dec. 24 and 31, with no loss in pay. However, where continuous work coverage is required, supervisors will determine which employees must remain.

Sandians of Los Altos Share Luminarios Cost, Decorating

Sandians planning to use luminarios for Christmas decorations on their houses during the holidays might profit from the experience of a group residing in the Los Altos sub-division.

For the past six years on Christmas eve the owners of the 28 adobe homes of Rio Vista Circle SW have placed luminarios over the entire sub-division area. The beautiful effect gives the valley the illusion of a luminous Spanish Castle attracting hundreds of visitors.

This year the group—among them Sandians C. J. McCurry 2246, M.V. Gowdy 7123, Maude McCurtay 1423, Florencio Baca 2414, and J. O. Marsh 7233—purchased more than 6,000 candles and bags to make the luminarios.

The bright squat 12-hour candles in bulk at a cost of $1.33 each. It will be a story quadrangle surrounding an uncovered patio. The building will contain 75,000 sq. ft. of space.
More Sandia Organizations Plan Holiday Help to Needy

The number of Sandia Corporation organizations planning to aid needy families rather than exchange Christmas cards has more than doubled in the past two weeks.

Organization 2583 expresses the thought nicely: "Blessed is the video between the Toys for Tots drive and the Salvation Army." Their program for providing holiday cheer for a needy family in the form of clothing, toys and cash includes a hearty "Merry Christmas" given verbally to co-workers in place of the usual greeting card and at the same time putting the true spirit of Christmas-giving into action.

Other groups are making up food baskets, contributing cash, collecting clothing, or "adoption" of a family by the holiday season.

Employee Services will have available (through the Albuquerque Council of Social Agencies) a list of names of less fortunate families, and other worthy charity needs in Albuquerque. For information, call Ext. 2419. When a family is assigned to one organization, that group's representatives will be responsible for delivery of the gift.

The Council of Social Agencies also is providing information about donations by checks and contributions which are especially active over the holiday season, and will collect cash donations.

Departments in 1400 have raised funds to purchase food, basketing, cash, clothing, or "adopting" a family for the holiday season.

In collecting money to help deserving organizations, Organization 2511 is using an added incentive. George Shilton, 2711-A, has donated three original watercolor landscapes which will be awarded to winners in a lottery to be held in connection with the fund drive. Each 50 cents donation entitles the giver to one chance in the drawing.

The "adopted" family idea is mushrooming in organization 6536. Department arrangements have been made for providing a family of 11 with the basics necessary from Januar y 1 to Dec. 31. A bulletin circulated throughout the organization contains sketches of the family and complete information about their needs. Employees in order to belong to several Albuquerque merchants have offered to purchase items at wholesale prices.

"The idea of giving a Merry Christmas" is the slogan for 4131 and the food basket idea is also being followed by 1580, 2016, 2010, 2511, 4151, 4131, 5351 and 7240 in addition to those organizations listed in the last issue of the Lab News.

All workers in Bldg. 413 are signing together to collect clothing and food. Organizations represented in this cooperative drive will be 7411-1, 7223, 2310 and 2121.

Double Program Set for PGTRC Tuesday, Dec. 18

A double program is scheduled by the Professional Group on Telemetry and Remote Control (PGTRC) on Dec. 18, John McCoy, 1454, group coordinator, reports. The meeting will begin at 8 p.m. in Rm. 201 of the Electrical Engineering Building on the UNM campus.

C. H. Hooper, national chairman of PGTRC and Director of Research for Radiatization, Inc., Melbourne, Fla., will discuss policies and procedures of the national organization of PGTRC. He will also discuss a technical subject, "Errors in Digital Measurements and Role of the Telemetry Engineer."

G. C. Swaz, vice-president, engineering, Radiatization, Inc., will discuss the introduction to Pulse-Code Telemetry.

'Missiles' Topic of NAA Speaker at ASME Meeting

The American Society of Mechanical Engineers will meet Wednesday, Dec. 19, at 7:30 p.m. in Rm. 101 of Mitchell Hall, UNM. Gene Gartner, 2534, publicity chairman, reports.

"Opportunities for the Vanquard of the U. S. Armed Forces in Technological Barriers" will be the subject of a talk to be presented by D. D. Austin. Assistant to the Manager of the Applications Division of National Aviation Administration, Inc., Austin has been associated with several Albuquerque merchants having to do with the procurement of missiles.

Supporting Mr. Austin's talk will be the showing of a short movie, "Engineering for Tu-60," produced by North American which traces the development of a hypersonic weapon.

Sandians Given Chance To Assist Hungarians Fighting for Freedom

An opportunity for every employee to contribute to the Hungarian relief campaign being handled by the Red Cross is being extended through the distribution of literature and contribution envelopes within the Corporation work area.

No personal solicitation will be made, but employees are urged to send their contributions in the special envelopes addressed to the Bernadino County Chapter of the American Red Cross. As pointed out in public accompanying the letter to employees, the amount collected by the Red Cross will be used to provide direct assistance to homeless refugees in Hungary. Because of the urgent need for funds to feed and clothe the refugees, the Red Cross is appealing for the people's money as soon as possible. They expect to have 100,000 Hungarian families supported by January.

Contributions are being made anonymously but the Red Cross has agreed to total the contributions received from Sandia Corporation employees in the special envelopes to provide some indication of extent to which Corporation employees are participating in this humanitarian movement.

Social Security Deductions Go Up

Sandians are reminded that Jan. 1, 1957, their pay-check will show a change in social security tax deductions authorized by Congress last August.

The increase is in line with liberalized benefits. The deduction will be increased from the present 2% to 2 1/2% on salaries up to $4,200 a year. Wages in excess of that amount will not be taxed.

Sandia Corporation will pay a similar tax of 2 1/2% in each employee's behalf in addition to 3 per cent unemployment tax which employees do not pay.

Identity Badge Will Be Issued Retirees

Employee Services has instituted an identification badge to be issued to all Sandia Corporation employees.

These badges are the same size as the usual ABC identification cards and used for admittance to Sandia Base — but not to the Corporation Teeth Area.

S P I R I T O F C H R I S T M A S is typified by Joan Bledgett, 5223, who looks here as if she could use a third arm to hold onto those gifts.

Buy Gifts To Suit Recipients; Express Yourself in Wrapping

When you're footloose and fancy-free, you can't help but love the gift of a Christmas tree and there's still a big job ahead—wrapping the presents in a decorative manner. Here's a tip to make the task seem less like a chore. The gift is selected to suit the recipient, but your personal taste and thoughtfulness are expressed in the wrappings. An attractive box under the Christmas tree can be a "tedder" for many days before it is opened.

There are many booklets available on tying fancy bows, but actually there are a few basic steps for making the simplest decoration attractive.

Generally speaking small designs belong with small boxes whereas a large box is ideal for an important center design such as a big Santa Claus or bright Christmas tree.

Choose a ribbon to either match the color in the paper design or else to create an accent. Keep away from dark bows on dark-background paper.

To wrap a box smooth and snug start out with a solid surface on which to work and all the supplies you will need. Cut the paper so that it wraps all the way around the container plus an extra two inches for overlap. Extend the ends one inch longer than half the depth of the box. Miter the corners and secure with tape, seals or rubber cement before trying to add the ribbon.

For a round container, cut the paper so that it folds just to the center of each round end.

Wife of Sandian Wins Safety Slogan Awards

Marie Mitcham, wife of W. R. Mitcham, 2414, has won two consecutives awards in National Safety Council "Safety Slogans" contests. Marie's entries were both captions for many days before

... deductions:

... Sandia...

... Small...
Memorable Christmas Holiday Recalled by Sandia Employees

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Happy Traditions of Christmas Come from Many Varied Cultures

All of the traditions of Christmas—the evergreen trees glittering with lights and tinsel, the masts decked with holly, the yule log glowing in the fireplace, the hestle-toe and the holly wreath, the children’s anticipation of Santa’s visit—can be traced to carols—set a mood of joyous reverence as we observe the holiday.

Many of the traditions we observe during the holidays are time-honored customs predating Christianity and were originally of historic and by many different national groups.

Mid-Winter Festival

Mid-winter has been a festival occasion throughout the world. The Romans celebrated the birthday of Saturn, and the Celts observed “the return of light,” when the short-cold winter days began growing longer and warmer.

Feasting in the Scandinavian countries was the result of a joint celebration of the evergreen trees glittering with lights and tinsel, the halls decked with holly, the yule log burning with lights and tinsel, the halls decorating.

Children’s anticipation of Santa’s visit can be traced to the carnival of Saturn and the Kahlmas in Germany.

The decorations of our Christmas holiday were contributed at different times and by different national groups. In America, the tradition of decorating with the evergreen is the symbol of everlasting life. The red ribbons decorating with the thin ascetic wreath, the garland of hawthorne or cherry—some of the first Christmas. The singing of these carols by the student groups at our universities and colleges has become a lasting tradition.

Christmas Caroling

“Twas the night before Christmas when all through the house not a creature was stirring, not even a mouse. This is the traditional opening line to the Christmas carol that has been sung for over 300 years.

In the 19th century, St. Nicholas was Bishop of Lydia in Asia Minor. He was noted for his benevolence to children and secretly giving presents to them. In time all gifts from unknown sources were accredited to him.

According to him, the custom for parents to give gifts to their children on Christmas Eve, or “Christmas Eve” day, saying that the gifts were from the “Christian Saint Nicholas.”

Santa Emerges

St. Nicholas came to America with the early Dutch settlers. From there, the tradition spread to England and France, where it is still observed.

The first Christmas was in 1623 when my wife and I first arrived at Los Alamos as the most unusual. He said, “We arrived there close to Christmas and had to make our own presents as well as decorations. All the mail for Los Alamos was sent to P. O. Box 1440 in Santa Fe and a military truck would go down every fourth of July. Everyone had their windows and doors open and sitting around drinking iced tea.”

Charls Ryzhko, 2125, said that his first Christmas at Los Alamos in 1944 was the most unusual. He explained, “My most memorable Christmas was in Hilo, Hawaii, with 20 close relatives on hand and a number of livestock it could feed through the winter. Relatives from all over were welcomed and feast time followed. On Christmas morning, the children would have a special birthday party after the advent of Christianity, but Santa Claus has continued to give presents of meaning to children and secretly given presents to them.

Other notable Christmas stories include that of St. Francis of Assisi in 1223, when he said, “My most memorable Christmas was in Hilo, Hawaii, with 20 close relatives on hand and a number of livestock it could feed through the winter.”

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Summary

It’s true that Christmas rolls around every year on Dec. 25, but there has been one observation that particularly stands out as being your most memorable Christmas?

To obtain a sampling of notable times of history and by different eras of history and by different national groups. In America, the tradition of decorating with the evergreen is the symbol of everlasting life. The red ribbons decorating with the thin ascetic wreath, the garland of hawthorne or cherry—some of the first Christmas. The singing of these carols by the student groups at our universities and colleges has become a lasting tradition.

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Boiler Plant Operation Part of Dep't 2410’s ‘Housekeeping’ Job

A comfortable place in which to work—this the employees of Sandia Corporation take for granted. The Corporation offices and buildings are well lighted, clean, well ventilated and temperature controlled.

But these things do not just happen. Here is a behind-the-scenes account of some activities which contribute to this end result.

Sandia Corporation’s “housekeeping” organization is the Plant Maintenance and Services Department, 2410, headed by J. L. Boase. Maintenance crews—electricians, pipelayers, repairmen, inspectors, janitor and others—work around the clock to insure Sandians the best of working conditions.

One small segment of this organization is the Heating Plant Section, 2414-2, headed by R. L. Boase, who reports to L. D. Chapman, 2414.

Four Boilers

The four-story-tall boilers are almost automatic in operation. A boiler operator and two boiler firemen operate the plant and outside heating units during each eight-hour shift. They check the numerous dials and gauges that indicate the degree of heat and the amount of pressure maintained in the boilers.

The outside boiler firemen inspect all mechanical equipment and auxiliary units each shift and make minor repairs when needed.

Not all of the four boilers are needed at any one time to supply the necessary steam. In the summer two boilers are kept on standby and even in winter one is held in reserve.

Fuel Switch

The boilers can be switched into operation immediately from standby in case of any emergency. Gas is the usual fuel for the boilers but a complete diesel fuel system is maintained to insure operation of the plant in case of a gas failure.

A generator and an independent electrical power system are on hand in the event of a commercial power failure.

All of the water fed into the boilers to be heated into steam goes through a water softening system. Continuous tests are run to determine the amount of chemicals required to keep the water at the desired level of softness.

Water Softener Maintenance

In addition to these water softeners, the boiler firemen maintain the water softeners needed in some laboratories and in the air conditioning units in many of the Corporation’s buildings.

During the summer months, the boiler firemen take care of the swimming pool filtration equipment at the Coronado Club.

Operation of the heating plant meets specifications determined by the Plant Engineering Department, 3410. A daily check is made by the engineers to see that standards are met.

Plant Supervisor Boase, who takes pride in his heating plant, always rates high on the inspections. The efficiency and cleanliness of his plant “is the best in the Southwest” the inspector has said many times in his reports.

(The Sandia Lab News will report on other around-the-clock activities of the Plant Maintenance and Services Department in future issues. — Editor’s note)
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Credit Union Hits $2,000,000

"Pretty lucky" is the way Frank Alexander, 2711-4, describes himself after depositing the 2,000,000th dollar in the Sandia Laboratory Federal Credit Union. An extra $50 in shares was deposited in Frank's account as a gift from the Credit Union to mark this milestone in the organization's coverage of 2,000 employees. Frank was "truly surprised and happy" about the outcome.

CERTIFICATE honoring Frank Alexander, 2711-4, left, who deposited the 2,000,000th dollar in the Sandia Laboratory Federal Credit Union is presented by Robert E. Boush, President of the Credit Union.

Fire is Serious Threat to Every Christmas Tree; Yours Safe?

There are preventive measures which can reduce this flammability and thus increase the tree's beauty.

After purchasing your tree saw off the trunk at a slant at least an inch above the original cut. Stand the tree in a newspaper-lined bottle or tin containing a solution of one-pound ammonium sulfate or calcium chloride to one and one-half pints of water. For each four feet of tree, place the tree in base in water even after it is trimmed helps keep the needles from drying out.

Life on your tree? Mix a small box of soap flakes and water with an electric or hand beater until the soaps are stiff enough to stand in pans. Dab it on the tree branches, then sprinkle on packaged snow. More protection against fire and the snowsts on the branches—instead of the floor.

For sale
WASHING MACHINE, Thor automatic, $25.

VACUUM, 10, 157 Tulane Dr. 3-1821.

BARBOU, Band, complete set, $75.

CINTA, $50.

WASHING MACHINE, Tappan, 6.2-cu.

رغض، 2-9500.

CUTTER, small and instruction books $5.

REPLACE SCREEN, grate, $20.

LADDER, 22', $20; 24', $25.

FORD, convertible, $2,200. Bolduc, Alb. 9-3679.

TURBO FLOAT, 2-BR., $2400. Pat Seel, 2-9026.

VALUE, $165; bed complete, $3195. 8510 Marlin, 6-4252.

PIANO, mahogany Spinet. Hansen, Alb. 9-3778.

BICYCLE, girl's Schwinn 16 w. 25" wheels. matching machine w/ stand, $58. Gilbert, 5-8300.

PANO, white; St. Louis. Leaving Dec. 21 and return Jan. 2. From 6-4852.

PIGSCHER, registered, $6; PUPPY, AKC registered, $20. Zaluga, 9-0340.

RUG, throw, 2x3, $20. Gilbert, 5-6702.

FOOD, 3-8550.

FUTON, queen size, $50; new, $15. Frye, Alb. 9-4460.

TAGES, 3x3, $5. Woffinden, Alb. 3-1179.

STUDENT, $20; $5. Woffinden, Alb. 3-1179.

DRIVE, 2x3, $48. Tatum, Alb. 2-9021.

GARDEN, 12' x 32'; $20. Everett, 2-9026.

MATTRESSES, king size Beresford and twin size, used. Brown, Alb. 9-0674.

DIRECTOR SET, Big Gilbert No. 10, never used. (8 pieces, $45; will sell for $25. Alb. 9-0340.

DRAFTING TABLE, 34"x47" with adjustable legs, $39. Woffinden, Alb. 9-3679.

REPRODUCE PERSPECTIVE, 45 ft. automatically with portrait in cabinet. Price, $5. Pape, 4-5390.

GUN, revolver, .22 caliber, used, $16. Rusinoff; rent, borrow, buy; new or used. 8510 Marlin, 6-4252.

RANGE, electric, 27'x27'; $30. Leach, 4-1185.

BAR, 2-BR., $2400. Reidel, Alb. 9-47146.

FLYING CHAIR, fur trim; sell or trade for U. S. coins. Collins, 6-4852.

PINSCHER, registered, $6. Woffinden, Alb. 3-1179.

PIANO, $150; spinet, $95. Woffinden, Alb. 3-1179.

REPLICA, $145. Gilbert, 4-1185.

REPLICA of 1954 SCHWINN BICYCLE, $15. Welker, 9-1179.

BED, queen size, $80. Woffinden, Alb. 3-1179.

PENGUINS, $5; birds. St. Louis. Leaving Dec. 21 and return Jan. 2. From 6-4852.

REST, small and instruction books $5.

HIS, 12"x16"x12"; $20. Everett, 2-9026.

WASHING MACHINE, wringer type, 10-L,...o_n_e_n.,..b-a-ug~h,...,-A:-:1.,---b. 6,

THERM, 15, 157 Tulane Dr. 3-1821.

WALKUP STAND, 35"...o_n_e_n.,..b-a-ug~h,...,-A:-:1.,---b. 5,

REPLICA of 1954 SCHWINN BICYCLE, $15. Welker, 9-1179.

BED, queen size, $80. Woffinden, Alb. 3-1179.

DRESSES, 5 shoulder pads, $75. Welker, 9-1179.

BED, queen size, $80. Woffinden, Alb. 3-1179.

HIS, 12"x16"x12"; $20. Everett, 2-9026.

GRANITE, 12x20; $75. Welker, 9-1179.

BED, queen size, $80. Woffinden, Alb. 3-1179.

HIS, 12"x16"x12"; $20. Everett, 2-9026.

BED, queen size, $80. Woffinden, Alb. 3-1179.

HIS, 12"x16"x12"; $20. Everett, 2-9026.
Lightweight, High Strength Plastics Substitute for Metal

With the number of ventilators on the roof as the only external indication of anything unusual, work is being done in Bldg. 834 that has never been done before. Here the Corporation's research and development engineers are exploring the use of new lightweight, high-strength materials as substitutes for metals as well as other uses.

Sandia's plastics shop contains some of the most modern equipment in the rapidly expanding field of plastics. "Only a few years ago," recalls Harold R. Payne, supervisor of the Plastics Section 2124-3. "Sandia's plastics facility consisted of a small household refrigerator and a homemade oven. Today he can show a laboratory in which may be performed almost any type of plastic work known to industry.

"Conference Laboratory" With a background of heated presses, electronic ovens, complex molds, and a water-cool booth instead of the usual tables, chairs, and blackboards, conferences may be taking place at any time among scientists and engineers and the shop supervisor, craftsmen and organization 1600 process engineers.

R. E. Frye, 1621, a 1600 plastics process engineer, acts as a link between the plastics laboratory and the model shop organization. He maintains communication between the development organization and preproduction work involving new process development.

The successful materialization of a new design frequently depends upon the evolution of an appropriate new process. This work relates to designs rather than the conventional and strengthens the Sandia team approach to a successful product.

Mr. Frye also aided in the selection of the modern equipment in the plastics shop and in the flexible layout and arrangement of the facilities.

Continuous Search Harold Payne points out that the craft support is also found in other model shops of the 2100 organization. A model procurement service is performed by 2100 with the help of the purchasing organization and individual engineers for further effectiveness of this craft support.

A constant search is conducted by this model procurement service to locate and evaluate competent and unusual specialties to supplement the personnel of the model shops, which are probably the best available between the Mississippi River and the West Coast.

This common meeting ground—on which one may consider the plastics shop and other shops in 2100—results in a service "par excellence" for Sandia's B & D groups.

A visit to the plastic's shop housed in building 834 reveals some interesting applications in the world of glass and resin. Glue laminate layup, to use the words of the craft, is the process of working glass-thread cloth impregnated with resin plasmas into a mold. It is pressed and cured and the final product is a form light and easily handled yet strong enough to withstand extremely rough treatment.

"The resultant shape when reinforced with lightweight focused plastics." Harold relates, "weighs only a fraction of the same volume of aluminum; its strength-weight ratio is greater than that of the finest steel.

Other Uses

Housings and cases for field testing instruments come from the shop. Battery boxes, bellows for special cameras, and even protective aprons are manufactured.

The craftsmen of the plastics are given engineers a method of "potting" in which complete electrical assemblies are encased in plastic. Damage or malfunctions as a result of vibration, moisture, cold, heat, fungus growth, and many other of the engineers' bane's often disappear when this coat of plastic is used.

Compression Molding Compression molding is also a skill of the plastics craftsmen at Sandia. Production costs and precise physical dimensions are possible with the injection-type machine now on the floor.

"A new compression molding machine to be installed about the first of the year will be able to make large parts," according to Harold. A force of 600 tons (three times the present capacity) will then be available for molding.

Electronic equipment plays an important role in the plastics lab. Having the advantage of precise control and penetrating source of heat, a microwave oven burns instantaneously and welds large plastic parts in one second.

Though it hasn't been tried, some of the plastics craftsmen who are also culinary experts claim the oven will bake a cake in one minute or broil to perfection a 3-inch steak in 45 seconds.

Plastics techniques and materials are making even greater contributions to industry. The direct contact and support provided by the plastics shop, as well as all 2100 model shops, give design engineers the opportunity to profit promptly by these advances.