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ZANE, BETTY
PLANNING CONSUMER EDUCATION MATERIAL
FOR THE AGRICULTURAL EXTENSION SERVICE IN
HAWAII:
"THE WELL-SELECTED PICNIC BASKET;
"SELECTION, USE AND CARE OF YOUR GAS RANGE;"
AND
"SELECTION AND CARE OF RATTAN FURNITURE."
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PLANNING CONSUMER EDUCATION MATERIAL
FOR THE AGRICULTURAL EXTENSION SERVICE IN HAWAII:
"THE WELL-SELECTED PICNIC BASKET:"
"SELECTION, USE AND CARE OF YOUR GAS RANGE:"
AND
"SELECTION AND CARE OF RATTAN FURNITURE."

A Problem Presented to
The Home Management Staff of
Michigan State College

In Fulfillment
of the Requirements for
Special Studies in Home Management and
Economics of the Family
H. M. C. D. 513 a

by
Betty K. K. Zane

July 1953

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
Statement of the Problem	1
Importance of the Study	1
Definition of Terms Used	2
Method of Procedure	3
II. UNIT I. LESSON "THE WELL-SELECTED PICNIC BASKET"	5
Project Leader's Lesson Outline	5
Project Leader's Report	7
Home Economics Circular No. 1 "The Well-Selected Picnic Basket"	8
Reference and Supplementary Information	17
Illustrative Material	21
III. UNIT II. LESSON "THE SELECTION, USE AND CARE OF YOUR GAS RANGE"	23
Project Leader's Lesson Outline	23
Home Equipment Circular No. 2 "The Selection, Use and Care of Your Gas Range"	26
Guide for Home Demonstration Agents	41
Reference and Supplementary Information	50
Illustrative Material	51
IV. UNIT III. LESSON "SELECTION, AND CARE OF RATTAN FURNITURE"	53
Project Leader's Guide	53
Home Furnishings Circular No. 3 "Selection and Care of Rattan Furniture"	54
Guide for Home Demonstration Agents	57
Reference and Supplementary Information	63
Illustrative Material	64

INTRODUCTION

Statement of the Problem

It was the general purpose of this study to develop material in the field of Consumer Education adapted for use in the Hawaiian Islands.

Specific purposes were to: (1) develop three complete circulars on picnic sets, gas ranges and rattan furniture for Home Demonstration Club members; (2) develop study guides and bibliographies for the Home Demonstration agent; (3) develop guides for teaching for the Home Demonstration project leader and; (4) prepare illustrative materials for each unit which would be personally useful to the writer as a worker in Home Economics Extension program in Hawaii.

Importance of the Study

Circulars and leaflets prepared by government agencies and bureaus, state departments of health, agriculture and labor, college and university experiment stations and extension services provide helpful information for adults for self-directed study and material for group study.

Each Home Demonstration club elects a project leader for each subject area to be studied during the year. These lay leaders attend training meetings conducted by the home demonstration or extension subject specialists. The study guides with an outline and suggestions for teaching are most helpful for the leaders.

The selection of the three items--picnic sets, gas ranges and rattan furniture for special study was based on these reasons: (1) Our

pleasant, warm climate calls for many picnics and outings. A picnic set is an essential and standard item in our homes. Suggestions for selection of picnic equipment will be practical and useful. (2) Rattan furniture is used a great deal in homes of Hawaii, yet very few people know what rattan is, how it is treated for use and the processes of its manufacture. (3) More people are cooking with gas in the Hawaiian Islands. The number increased since Pacific Refiners, Incorporated, established branch offices on the outlying islands and distributed bottled or cylinder gas to consumers in the rural areas. The number will continue to increase. This new fuel for cooking will result in requests for information on the buying, use and care of gas ranges.

Definition of Terms Used

Circular. - In extension terminology, a "circular" is printed information made up of eight or twelve pages, loosely saddle-stitched together. It is a unit, devoted to one phase of a general subject. It is distributed to homemakers interested in the subject.

Home Demonstration Club. - Adult education in the extension service is usually carried on through an organized "home demonstration club" or group. It is a unit organized in different sections of a county to study problems of the home and the family.

Project Leader. - "Project leaders" are selected in each home demonstration club. They are often called lay leaders and are chosen because of their interest in or have superior knowledge of a particular area in homemaking.

Home Demonstration Agent Study Guide. - A "study guide" for home agents is a circular or outline material which may be used as reference. It summarizes helpful material from various sources and is a very useful aid for the agent.

Method of Procedure

The general practices and policies related to consumer buying were reviewed by attendance and participation in Home Economics 339 a, "Consumer Buying." The practices and policies of the Federal Trade Commission were investigated and reported.

A survey was made of recent literature on picnic sets, gas ranges and rattan furniture in order to have the latest information on these products.

There was a good source of information written in books and magazines on the selection, care and use of gas ranges but little or no material written on rattan furniture and picnic sets.

Letters were sent to manufacturers of gas ranges, picnic sets and rattan furniture for pamphlets and other information of their products.

A bibliography was prepared for each unit to be used as reference by the home demonstration agent or by the lay leaders.

Stores in East Lansing, Lansing, and Detroit, Michigan were visited to check what was new and available on the market. The styles, quality and prices of the products were noted.

To date, there are no bulletins written on these topics for the Hawaiian homemakers, therefore, this study was based on a particular need adapted to the Hawaiian Islands.

It was hoped that this study might result in the development of a course of study in Consumer Education and that the material may be used for circulars and study guides which would be helpful to local home agents and project leaders in home economics extension groups in Hawaii.

UNIT I. LESSON--"THE WELL-SELECTED PICNIC BASKET"

Project Leader's Lesson Outline

The Well Selected Picnic Basket

Before presenting this lesson, study H. E. Circular No. 1, "The Well Equipped Picnic Basket." Make up samples or borrow picnic kit from your Home Agent. Visit stores in your community and learn what picnic supplies are available.

Discuss Points	Show or Do	Teaching Aids
1. Fun at picnics for the entire family.	Ask a few members in the group to tell about their family picnics.	
2. Selecting a sturdy well constructed picnic basket of adequate size for the family's need.	Show pictures of different containers which may be used. Show a lauhala woven basket with tight fitted cover. Show any other basket suitable which you have.	Plate 1A-C. Lauhala basket. Any other container.
3. Selecting eating equipment.		
a. knives, forks and spoons	Show pictures and/or actual pieces.	Plate 2A.
b. choice of plastic dishes.	Show pictures and samples of polystyrene, urea-formaldehyde, melamine-formaldehyde types of plastic ware.	Actual samples or pictures. Plate 3A-C
c. aluminum and enamelware cups.	Show pictures.	Plate 4 A-D.
d. choice of thermos jugs or insulated coolers.	Show pictures.	Plate 5A-D.
4. Other equipment necessary.		
a. salt and pepper shakers.	Show equipment.	Salt and pepper shakers.
b. can and bottle opener.		Can openers.
c. table cloth		Tablecloth.
d. napkins		Napkins.

Cont. --

Discuss Points	Show or Do	Teaching Aids
5. Care of plastic-ware.		
6. Things you can make for your picnic basket.	Show holder for silverware. Show picnic place mats.	Holder for silverware. Picnic place mats.
Suggest making picnic hamper as shown in circular.	Show draw string bags.	Draw string bags.

County: _____
Group: _____

Home Management: Project Leader's Report

THE WELL EQUIPPED PICNIC BASKET

No. of local meetings held by leaders _____

Total attendance at local meetings held by leaders _____

No. of non-members helped _____

As a result of this lesson how many women have:

1. Selected a picnic basket for their family... _____

2. Shopped and compared different kinds and
costs of plastic ware _____

3. Made a picnic basket _____

4. Have equipped a picnic basket according to
suggestion _____

5. Made a holder for silverware as suggested... _____

6. Made picnic place mats _____

7. Made draw string bags for plates and cups... _____

Please write below or on the back of this sheet things of
particular interest any of the women have done or experienced as a
direct result of this lesson.

Return this report to your Home Agent by _____.

Project Leader

Cooperative Extension Work
in
AGRICULTURE AND HOME ECONOMICS
TERRITORY OF HAWAII

Home Economics Circular No.1

THE WELL EQUIPPED PICNIC BASKET

"Make it strong and keep it light,
For an ounce in the morning
Weighs a pound at night."¹

Everyone loves a picnic, from Grandpa to all the little keikis. Most of us enjoy eating outdoors if it doesn't take too much effort to plan and prepare for the meals.

One of the "musts" of a well planned picnic is a well-equipped picnic basket. A basket that is ready and always on hand for a quick drive to the beach or to the mountains.

An equipped picnic basket may be purchased or it may be assembled to meet your own needs.

There are a number of ready-equipped baskets in the stores. Before you decide to buy one, shop around and select the one most suitable for you and your family. You may decide that the best for your needs is a hand woven basket you have made with equipment selected individually.

Selecting the Picnic Basket. - Regardless of how big or small your picnic is, you will need a basket to hold your food supplies and other equipment. It should be spacious in size, as well as strong and sturdy in construction and fitted with a cover. (Plate 1A-C)

1 Paul W. Handel, The Outdoor Chief, Harper Brothers, 1950, p. 57.

Suggestions of different containers which may be used for a picnic basket are:

1. A firm wooden box, like an apple crate. A cover may be made to fit the box tightly with hinges and a closing latch. Vertical partitions may be added to make neat compartments for the dishes, and food.
2. An old suitcase may be re-lined with plastic material and used for picnics. Plastic trays may be insetted to hold small equipment.
3. Woven wicker and splint bamboo baskets. Select one with a firm wood frame that is well braced and reinforced.
4. Woven oak splint baskets. These may have an inset basket and an elastic band on the cover to hold eating equipment.
5. Lauhala or Pandanus woven basket. Weave a lauhala picnic basket for yourself, or select one of any size suitable for your needs.

Equipment for Eating. - After you have selected your picnic basket, you need to shop for your eating equipment. The basic equipment needed for a family of four are:

- 4 - 9 $\frac{1}{2}$ " or 10" plates, unbreakable
- 4 - cups and saucers
- 4 - knives, forks and spoons
- Paper napkins
- Salt and pepper shakers
- Table cloth
- Can and bottle opener
- Thermos bottle or jug

Other accessories may be added to suit your needs such as folding forks for toasting, large spoons for serving, a kitchen knife and a spatula.

Most homes will have some spoons, forks and knives from the kitchen to add to the picnic basket. If not, there are plastic forks and spoons and even more suitable, stainless steel cutlery which may come with colored plastic handles.

Salt and pepper shakers should be aluminum or plastic to prevent breakage. The type with closing tops to prevent spilling is preferable, but if this type is not available, a piece of adhesive tape on the top of each will serve.

A can and bottle opener is always convenient to have. Select a can opener that will cut the edges clean and clear.

Dishes should be light and non-breakable. Tin, aluminum and enamelware were commonly used for picnicware. Tin and aluminum were not nice to drink hot fluids from, they left an odd taste in one's mouth. Enamelware was scratched and easily chipped. (Plate 3A-C)

On the market today are several types of plastic dishes. They are less subject to breakage, but easily scratched, stained and damaged by heat and weakened by extreme temperature changes.

Plastic ware is of three types:

1. Polystyrene
2. Urea-formaldehyde
3. Melamine-formaldehyde

Consumers' Union tested 12 brands, with 16-20 samples of each brand. Of these, melamine dishes proved best, and most expensive, urea-formaldehyde was better than polystyrene and polystyrene was rated undesirable for home use. These were tested for workmanship, construction and design, scratch resistance, impact strength, resistance to

damage by washing and boiling and odor. The better brands were also tested for staining and thermal shock.²

Complaints were common about the stains on plastic ware when they were first put on the market. Now, a special plastic cleaner, in powder form, is available for removing coffee, tea and food stains from plastic dishes.

Some people prefer to use paper plates and cups. This saves time for washing but is expensive if used often in a long run.

Plastic dishes are easily scratched, stained and damaged by heat, therefore they should be protected by dry heat, prolonged immersion in hot water and extreme temperature changes. Plastic dishes should not be cleaned with abrasive materials, or left dirty or used to store foods. There are special cleaners which may be used for stubborn stains.

Include a tablecloth, plastic or any other durable, washable fabric of sufficient size for the group.

Select a thermos bottle or jug that is well insulated and one that is suitable for the needs of the entire family.

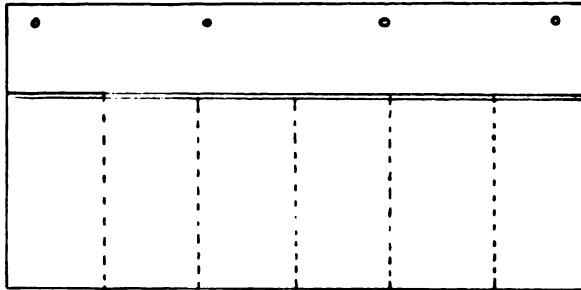
The common type of vacuum bottle has a double-walled glass container enclosed in a metal case. Nearly all the air has been withdrawn from the space enclosed within the two glass walls. A well-constructed vacuum bottle should have a sealing-ring between the glass container and one at the shoulder between the two sections of the metal case which are screwed together, so as to prevent liquid from leaking into the space between the glass filler and the metal casing.

² Consumers' Report, Buying Guide Issue, Consumers' Union, 1953, pp. 229-230.

There are several types of insulated coolers which may be purchased. These are convenient to store all foods throughout the picnic. (Plate 5A-D)

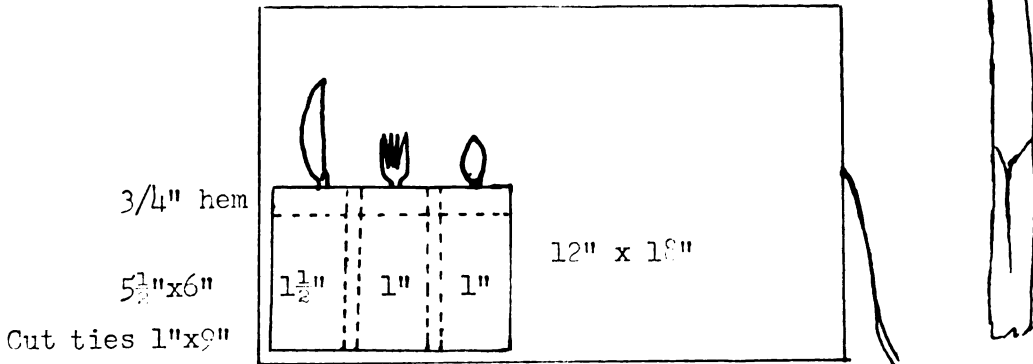
THINGS YOU CAN MAKE FOR YOUR PICNIC BASKET

I. Plastic or fabric holder for silverware:



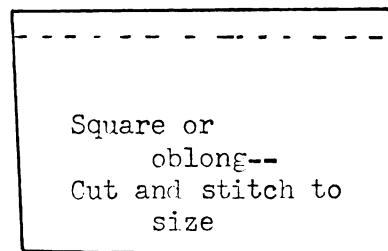
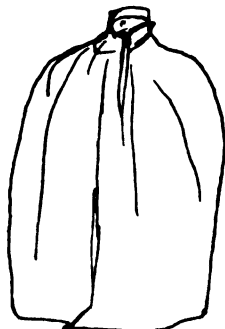
Make it an inch smaller than the cover of basket. Tack securely to cover.

II. Picnic place mats:



Picnic place mats with pockets for silverware. Roll up and tie and place in picnic basket.

III. Draw-string bag for plates and/or cups:



Square or
oblong--
Cut and stitch to
size

Fabric Suggestions--Gay gingham plaids, plastic material or gay printed feed sacks.

MAKE YOUR OWN PICNIC HAMPER³

Someone in your family who enjoys making things with the hammer, saw and a few nails, will like to make the family this "double duty picnic hamper."

It is a carrying case which opens to make a substantial table of the right height to serve a ground-sitting family. The frames are made of $\frac{1}{2}$ inch thick oak or pine and the panels of hard-pressed fiber board. Frame joints and panel grooves must be cut clean and accurately.

Two halves of the hamper assembled with glue, either cold water casein glue or synthetic resin glue. The side pieces are rabbeted at the ends to make the simple joint shown in the enlarged detail of the illustration (page 9). When this has been done, a panel groove is cut in the outer edge of each frame piece as shown in the lower right hand detail.

Prepare the glue and assemble the two halves of the hamper. Allow joints to press together until glue has set. Allow glue to dry. Use cabinet clamps or soft cotton rope. Later glue triangular reinforcing blocks to corners. Legs are fastened to the box with carriage bolt fitted with a wing nut.

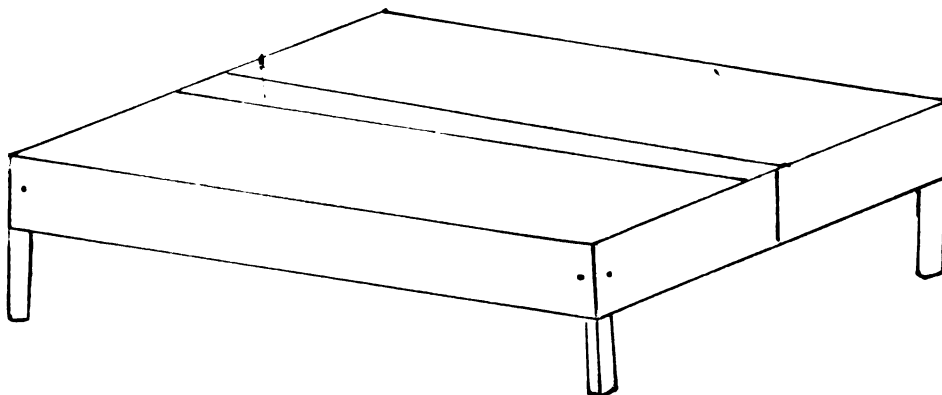
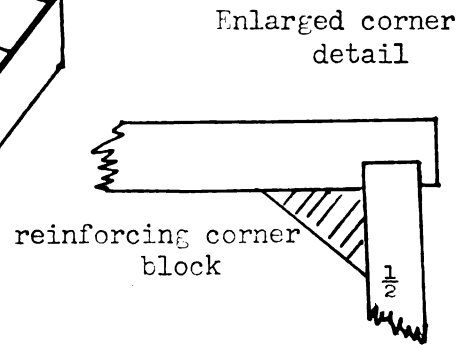
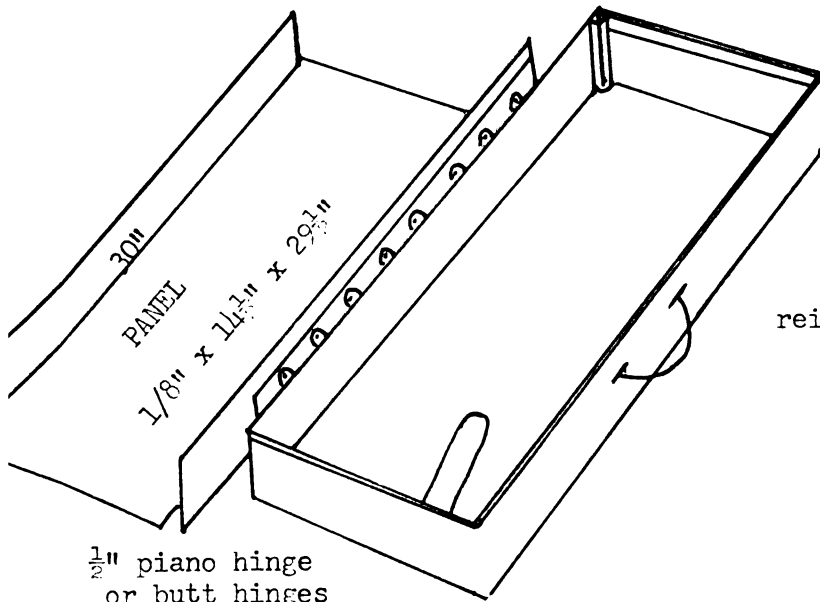
The corners of the two halves of the hamper are next rounded. Knotted rope handles are attached. A piano hinge with $\frac{1}{2}$ inch wings, opening to one inch, is recommended as the strongest method of joining the two halves of the hamper. Three or four butt hinges of the same size will serve just as well.

3 Adapted from The Picnic Book, A. S. Barnes and Company, 1942, pp. 82-83.

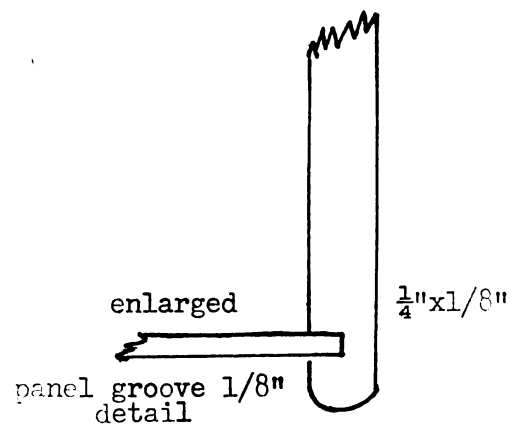
The only other fittings for the hamper are two catches to make it secure when closed. Fittings can be purchased at any hardware or home store.

The finishing of the hamper is largely a matter of individual taste. Before the finish is applied, if any, the frames should be sand-papered carefully and sharp edges and surface roughness removed.

DOUBLE DUTY PICNIC HAMPER



leg 1/4"x2"x12"



REFERENCE GUIDE AND SUPPLEMENTARY INFORMATION FOR
THE HOME DEMONSTRATION AGENT FOR THE LESSON ON,
"THE WELL-SELECTED PICNIC BASKET"

1. "Abercrombie and Fitch Company Catalog," Abercrombie and Fitch Company, Madison Avenue at 45th street, New York 17, N. Y.
2. Consumers' Report, Buying Guide Issue, Consumers' Union, 1953, pp. 229-230.
3. Cooking Over the Camp Fire, Forest Service, United States Department of Agriculture, Washington 25, D. C.
4. "Sears, Roebuck and Company, Spring and Summer Catalog," Sears, Roebuck and Company, 925 Homan Avenue, Chicago 7, Illinois, p. 10.
5. Fredrikson, Clark L., The Picnic Book, A. S. Barnes and Company, 1942. Prepared for the National Recreation Association.
6. Hammett, Catherine, Campcraft A B C's, Girl Scouts of U.S.A., 155 E. 44th Street, New York 17, N. Y.
7. Handel, Paul W., The Outdoor Chef, New York, Harper Brothers, 1950.
8. Kephart, Horace, Camp Cookery, N.Y.C., MacMillan Company, 1910, pp. 18-28.
9. Lewis and Conger, "Lewis and Conger Catalog," 45th Street, New York 36, N. Y., p. 5.

Reference, Picnic:

PLASTIC WARE

Tested by Consumers' Union⁴

CU tested 12 brands, 16-20 samples of each brand

Three types of plastic: Polystyrene, urea-formaldehyde, and
melamine formaldehyde.

Melamine dishes proved best, most expensive.

Urea-formaldehyde better than polystyrene.

Polystyrene rated not suitable for home use.

RATINGS

Based on overall quality, workmanship, construction and design,
scratch resistance, impact strength, resistance to damage by washing
and boiling and odor. Better brands were tested for staining and thermal
shock.

Superior to others:

Boonton (Boonton Molding Company, Boonton, New York)
16 piece melamine set \$12.95*

Equal rating:

Texas Ware- Plastics Mfg. Co., Dallas, Texas
16 piece melamine set \$ 9.95
20 piece melamine set \$11.95

Arrowhead Everware, Brookpark Pattern- International Molded
Plastic, Inc., Cleveland, Ohio
20 piece set \$17.95

Watertown- Lifetime Ware, Watertown Mfg. Co., Watertown, Conn.
20 piece set \$15.95

Inferior Rating:

Devine Foods, Devine Foods Inc., Chicago, Illinois
20 piece set \$15.00

⁴ Consumers' Report, Buying Guide Issue, loc. cit.

* Prices as of January, 1951.

Reference, Picnic: cont.--

- Color-Flyte Ebonyte, Branchell Company, St. Louis, Missouri
16 piece set \$13.95
- Mallo Ware- Plastic Molders, Inc., Chicago, Illinois
20 piece set \$13.95
- Balmoral- Watertown Mfg. Company, Watertown, Conn.
20 piece set \$10.00
- Bar-Harbor- Hemcoware, Hemcoware Plastics Division,
Bryant Electric Co., Bridgeport, Conn.
20 piece set \$5.59.
- Plas-Tex- Plas-Tex Corp., Los Angeles, California
20 piece set polystyrene \$4.16
- Steri-lite, United Plastic Company, New York City, N. Y.
20 piece set polystyrene \$2.98

Price List for Picnic Baskets

SEARS, ROEBUCK AND COMPANY

1. 21-3/4 x 12-3/4 x 10 basket with inset basket
hinged cover, reinforced at every rim, soft,
warm brown, elastic band on cover holds 6 ss
knives, forks and spoons with plastic handles.
12 ozs. tumblers fit into 9 1/2" plastic plates.
Price: \$13.55
2. 21 1/2 x 11 1/2 x 10 with inset basket 6 ss.
cutlery, 9" plates, 10 oz. tumblers.
Price: \$7.39
3. 20 x 11 x 10, Oak and ash splints, slat cover.
6 forks, spoons, tin plated steel, 6-10 oz.
tumblers, 9" paper plates.
Price: \$6.29
4. Deluxe 23 x 15 x 11
Woven fiber, creamy, natural color, heavy wood frame,
braced and reinforced, brass plated closing latch
and corner tips. 6-12 oz. mugs lock into 9 1/2" plates,
6 ss knives, forks, spoons, can opener, ss paring
knife, plastic shakers, elastic band on cover to
hold cutlery, plastic sandwich box.
Price: \$18.95

Reference: Price List--Cont.--

5. Unfitted Picnic Basket, woven oak, stained brown, strong wood strips reinforce rim, 2 metal hinges, handles fold: 18 x 12 x 9-3/4
Price: \$1.98
6. Fitted Picnic Case 14 x 16 x 8 Baked enamel seamless steel case, enamelled inside, 4 knives, 4 forks, 4 spoons, ss., red plastic handles. Plastic salt and pepper shakers, 12 paper plates, 12 paper cups, paper napkins.
Price: \$8.95
7. Divided Steak plates, plastic 13" diameter for four.
Price: \$3.18
8. Mugs with handles, 11 oz. for four.
Price: \$.89
9. Divided plates 10-1/8" diameter.
Price: \$1.49

ILLUSTRATIVE MATERIAL

Picnic Sets

Plate 1. Select a sturdy, spacious picnic basket suitable for your family's needs.

- 1A. Woven basket and cutlery, plastic tumblers and plates for four.
- 1B. Large woven oak and ash picnic basket for four.
- 1C. Picnic suitcase equipped with vacuum bottle, cutlery, plates, tumblers and metal box to hold food.

Plate 2. Picnic cutlery.

- 2A. Combination knife, fork and spoon.
- 2B. Stainless steel tableware.
- 2C. Compact knife and fork ss. plastic handles.

Plate 3. Picnic dishes.

- 3A. Stainless steel and aluminum cups.
- 3B. Brass, nickel plated collapsible cups.
- 3C. Plastic mug and plastic plates.

Plate 4. Light and non-breakable plastic dishes for picnics.

- 4A. Boontonware dishes--Plastic cleaners
- 4B. Brookpark dishes.
- 4C. Melmac dinnerware.
- 4D. Texas ware.

Plate 5. Insulated coolers for your picnics.

- 5A. Insulated thermo--keep bags.
- 5B. Cronco cooler.
- 5C. Arga ice chest.
- 5D. Scotch cooler.

Illustrative material: Cont.--

Exhibit I. Picnic place mat.

Sources:

1. Good Housekeeping Magazine, The Hearst Corporation,
57th Street at 8th Avenue, New York 19, N. Y.
2. Lewis and Conger Catalog, Lewis and Conger, 45th Street,
New York 36, N. Y.
3. Abercrombie and Fitch Co., Madison Avenue, 45th Street,
New York 17, N. Y.

UNIT II. LESSON--"THE SELECTION, USE AND CARE OF YOUR GAS RANGE"

Project Leader's Lesson Outline

The Selection, Use and Care of Your Gas Range

Before giving this lesson, study Home Equipment Circular No. 2, "The Selection, Use and Care of Your Gas Range." Visit the appliance stores in your community and inquire about the availability of gas ranges. Collect pictures of gas ranges to illustrate the different features discussed in the lesson. If possible, arrange to visit a local gas appliance shop to see new ranges.

For teaching aids, enlarge drawings in the circular of groupings of burner arrangement and seals of approval on simple posters to show group.

Discussion Guide

- A. Increased use of gas ranges in Hawaii.
 - 1. Before selection, consider needs of family, costs, time and energy saving features, reliability of manufacturer and satisfactory service.
 - 2. Inquire into the availability of gas in your community.
- B. Types of ranges. (Plate 1A-H)
 - 1. Size--measure range to fit the space you have.
 - 2. Arrangement of burners.
 - 3. Deluxe features--recent changes in design and color.
(Plate 5A, 5B)
 - 4. Types--apartment, table top, modular unit, or large capacity burners.

C. Important features to check. (Plate 2A-B, 4B)

1. Grates.
2. Removable drip pan.
3. Push-in lock switches.
4. Quality construction.
5. Oven vent.
6. Acid resistant finish.
7. Convenience of broiler pan.
8. Heat control.
9. Doors, drawers and racks.
10. Other convenience features.

D. Automatic pilot lights.

1. Safety.
2. Cost of operating.

E. Safety features of gas ranges.

F. Features to look for ease in cleaning.

G. Seals of Approval and Guarantees. (Plate 4A)

1. American Gas Association seal.
2. Certified Performance seal.
3. Guarantees.

H. Use and care of your range.

1. Instructions from manufacturer.
2. Care of enamel.
3. Top burners.
4. Broiler (Plate 3B)

- 5. Oven. (Plate 3A)
- 6. Pilot light.
- 7. Under range cleaning.
- I. Buy from locally established reliable dealer.
- J. Comparative operating costs.
- K. Check List for buying.

Cooperative Extension Work
in
AGRICULTURE AND HOME ECONOMICS
TERRITORY OF HAWAII



THE SELECTION, USE AND CARE OF
YOUR GAS RANGE

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Home Equipment Circular No.2

THE SELECTION, USE AND CARE OF YOUR GAS RANGE

The array of gas ranges that you see in the stores makes one realize that several factors should be considered before a purchase is made. The needs of the family, the money one has to spend, the time and energy saving features of an appliance and cost of upkeep are the first things that should be considered. The reliability of the manufacturer's goods and the guarantee from the dealer for safe and satisfactory service and the American Gas Association seal of approval in addition to sturdy construction are other factors.

Inquire into the availability of gas in your community. If portable tank or cylinder gas is used, inquire how and when distributions are made. It would be wise to learn how the cylinder of gas will be stored. Inquire also about the cost of installation, efficiency and cost of operation. Talk with friends who have gas ranges and consider all factors before making a final purchase.

Types of Ranges

Apartment type. - Smallest type range for family cooking, only 20-22 inches wide. There are 3 or 4 surface units or burners at the regular 36 inches height with an oven below. There is no storage space but the cooking capacity is the same as in many full-size range. The deluxe model may have a few extra features.

Table top model. - This is the most common style in ranges.

The table top provides a work area beside the surface burners and storage space in cabinets or drawers. Some may have no work area with 3 or 4 surface burners and the oven and broiler directly below. The table top range almost always has some utensil storage space. Widths vary from 38 inches or 40 inches. Ranges may be purchased with or without special features.

Modular units. - The surface burners, over-broiler and storage units come separately. The oven may be placed in whatever location and whatever height desired. The surface units are installed at counter height. Any arrangement may be used that is suitable for the homemaker. This type of equipment is most suitable if it can be planned into the kitchen-either when the room is first planned or when remodeling is to be done.

Large capacity burners. - For families that need larger-than-average cooking capacity, there are gas ranges with 6 or 8 surface burners and 2 ovens. These ranges are naturally higher in price, partly because of the larger size, the additional parts used and their small demand.

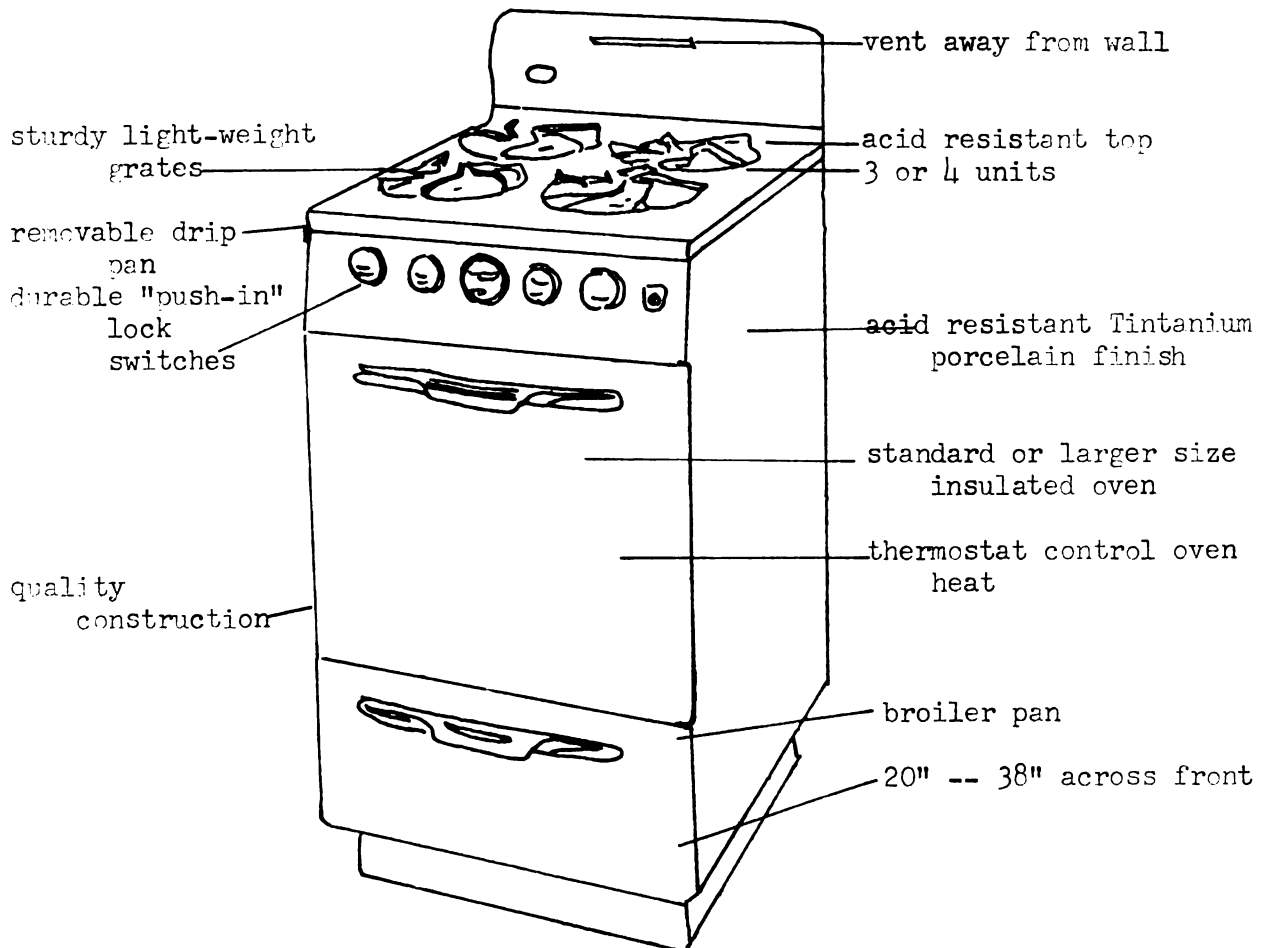
Consider Space Requirements

If the size of the location where the stove is to be installed is limited the dimensions of the stove may be a factor to consider. Ranges may vary in width from 19 inches to approximately 60 inches depending on the manufacturer and model. Some of the widths specified are 19, 20 and $21\frac{5}{8}$ inches for the smaller apartment ranges and 36, $36\frac{3}{4}$, $40\frac{3}{4}$ and $56\frac{1}{2}$ inches for the larger sizes. Depth of range varies from 22 to $28\frac{1}{2}$ inches.

FEATURES TO CHECK FOR STANDARD COOKING FACILITIES IN
A GAS RANGE

These features are common on all gas ranges in all price ranges: size, number and type of surface units, exterior finish and thermostat control oven heat. As the price increases, you will get more convenience features.

Decide what features are necessary for your type of cooking, whether you can afford extra convenience features and if they can be repaired, if necessary.



Construction

Good quality in construction is important. It may be wiser for you to buy a range with less convenience features but one with best quality construction.

Finish. - Almost all gas ranges are finished in porcelain enamel outside and inside the oven. Be sure that the range top is of acid-resisting enamel.

Burners. - In a gas range make sure that the burners you select were made for the type of gas you will be using, some may be used only for natural gas, some for manufactured or bottled gas and a few may be used by both.

There are various types of burners found on ranges. It is in relation to its construction in the range that the superiority of one type of burner over another is found. Thus, the entire cooking top and not just the burner must be considered. The cooking top should be of adequate size to accommodate several large sized utensils at once.

Ranges usually have one to three standard sized burners and 1 or 2 giant ones. Some have burners all alike.

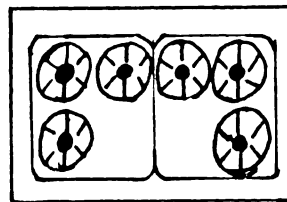
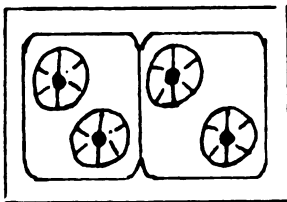
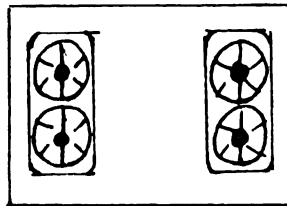
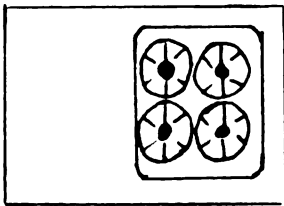
Most burners have a simmer position for low heat. It may be a click position as the valve handle is turned to indicate a safe low point to which the flame can be turned without going out.

There should be a burner tray or burner bowl around the burners to decrease the amount of cold air drawn in around the bottom of the utensil. The cooking top should also be furnished with a removable drip pan beneath the burners to catch boiled over foods.

Arrangement of burners. - The modern gas range offers a variety of burner arrangements. Four burners are commonly supplied, although ranges with 6 or 8 may be purchased.

The most common arrangement is a grouping of 4 in a cluster at either the right or left side of the cooking top. Two burners at each end with work space in the center is also a popular arrangement.

Other arrangements may be a straight line of 4 burners across the back of the top with free area in front of them. They may also be placed in a staggered arrangement.



Choice of burner arrangements will depend on the other work surfaces in your kitchen and its distance to the range.

Automatic pilot lights. - Most gas ranges are equipped with automatic pilot lights for the surface burners. The usual pilot light burns continuously, using a small flow of gas day and night. This can be costly, particularly if the range has a number of pilot lights. Gas pilots can go out from interruptions in the gas supply, breezes and other causes. Some ranges are equipped with an additional safety factor,

a cut-off which shuts off all gas to the pilot if the flame is escaping for any reason.

A substitution for the gas pilot was recently introduced in the form of an electric ignition. The electrically heated elements need to be turned on for only a few seconds for each lighting and only a negligible amount of electricity is used. This eliminates the high costs and risks involved. Electric ignition is new and found only on a few of the high-cost, deluxe ranges.

Grates. - Grates should be steady, light in weight to absorb as little heat as possible. They should be easy to remove for cleaning and should be of a shape that will support small-diameter pans safely.

Ovens

Heat control or thermostat. - The thermostat is an important feature of a good oven. Its dial should be read easily and set accurately.

Oven shelves or racks should be flexible in its arrangement. Shelves should slide forward with ease. They should not tip as they are pulled out and they should have a secure stop.

The door of the oven should close tightly and be so counter-balanced that it remains at any desired angle when opened.

The oven should be well insulated. It should be at least $1\frac{1}{2}$ inches thick to prevent excessive heat leakage to the outside.

An oven vent is needed to carry off moisture so food can brown well. The vent is usually open on the front of the backsplash.

Most ovens are 16 inches wide and 14 inches high, with varying depth (front to back) of 18 to 20 inches.

Broilers

In gas ranges, broilers are either under the oven (the same burner serving both) or separate, in which case a second burner must be provided. The separate broiler is more convenient to use especially for one who does a great deal of broiling. The broiler pan should be of the non-inflammable type finished either in porcelain enamel, aluminum, or chromium plate. It should be designed for fats to drain quickly from meat and also designed for easy cleaning.

The broiler compartment should be of the drawer type or swinging door type, either of which brings the broiler pan out when opened.

Valve Handles and Switches

The switch panel may be either on the front or on the backsplash or part of the controls may be in one place and part in the other. They are easier to reach at the front of the range and may be too easy for small children. On the backsplash, controls are easy to see but may not be so easy to reach when the range top is covered with utensils. Some ranges have special catches on the valves to make it child-proof.

Switch and valve handles are usually easy to see whether they are in an "on" or "off" position. They should be marked to show which burner or unit they control.

Special Features

New features are constantly introduced by manufacturers of various ranges. Some of these are:

Deep-well cookers	Oven windows	A bell signal
Built-in Griddles	Outlets-electrical	for overheated
Timer	Towel drying rack	oven.

If extra conveniences are important and you can afford to pay for them, then a deluxe model may be worth considering.

Safety Features of a Gas Range

Look for the following safety features when buying your range:

1. Safety lock "push-in-to-turn" position of switches.
2. Automatic cut-off which shuts off all gas to pilot of surface burners, oven and broiler, if the flame should be extinguished for any reasons.
3. Secure stop for oven shelves.
4. Well insulated range.
5. Oven, broiler and griddle control knobs "tamper proof" to prevent accidental turning on of the gas.
6. Oven and broiler ignition by automatic pilot light or electric element.
7. Controlled surface temperature.

Call the gas company or dealer if burner requires adjustment. Poorly adjusted burners are quite inefficient in the use of gas and are costly to operate and may also involve a serious hazard to health.

Features for Ease in Cleaning

Look for the following features for ease of cleaning in a gas range:

1. Porcelain enamel, removable drip tray.
2. One piece assembly of 2 burners with lighter parts welded in, entire unit can be lifted out and taken to the sink.
3. Oven and broiler interior easily reached.
4. Top burners easily removed.
5. Adequate overflow pans.
6. Removable toe panel for convenience cleaning, under the range.
7. Acid and stain resisting enamel.
8. Non-clog type burners.
9. Broiler compartment completely removable.
10. Oven racks lift out easily.
11. Horizontal drilling of port holes of surfaces burners which makes clogging by spill-overs impossible.
12. Removable drawers with rounded inner edges.

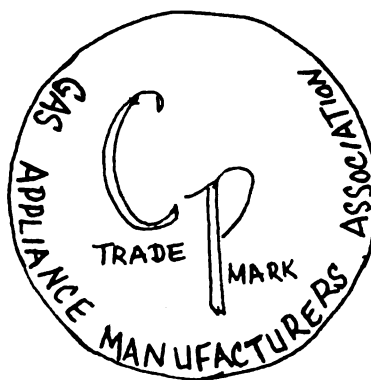
Seals of Approval and Guarantees

The blue star seal of the American Gas Association assures you that the range meets certain requirements for safety, efficient performance and durability. An additional CP (Certified Performance) seal indicates extra features of convenience, and efficiency in addition to the basic safety and performance standards required by A.G.A.

Most manufacturers guarantee their ranges against defective materials and workmanship for stated periods. Ask about their guarantees.



AMERICAN GAS ASSOCIATION
THE LABORATORIES APPROVAL SEAL
Use and Care of Your Range



GAS APPLIANCE MANUF. ASS'N.
C. P. TRADE MARK

Take time to read and study the instruction book written by the manufacturer of your gas range. Try the specific directions for regular and added range features and recheck once in a while to be sure that you are following the instructions on the proper use and care of the range. Keep the instruction book in a convenient place in your kitchen so that the entire family will know where to find it.

If you have lost the book, get the manufacturer's name and address from the range name plate and send for a new instruction book.

Care of enamel. - Range enamel is a form of glass, fused on metal and should be treated like glass. Avoid extreme changes in temperature, always wait until the range is cool before cleaning it. Wipe off immediately any acid food with a dry cloth or paper towel to prevent a permanent stain.

Use only mild soap to keep enamel free from scratches and to retain its finish. Ordinary stains may be removed with baking soda and damp cloth, if stain is stubborn, a fine cleansing powder may be used. After washing the enamel, rinse and dry well. Wipe enamel after each use.

Top burners. - The burners should be wiped after each use. If a bad spill-over has occurred, remove burners and wash with mild soap and water. If ports become clogged, clean with stiff brush or gently insert small wire. Wash grates and aeration pans too.

Broiler. - Remove broiler pan and grid soon after use. When cool, wash in warm soapy water. If necessary, fine steel wool and fine cleanser may be used.

Oven. - After using the oven, leave door partially open for cooling so moisture and odors can escape. When oven cools, wipe inside walls and door with damp cloth. At the same time clean and dry oven racks. Never place the oven bottom in water, wipe and dry thoroughly and be sure it snaps into proper position when replaced. If spill overs have been left to accumulate, remove by saturating a cloth in solution of household ammonia and place over the spot. Close the door and leave it for a few hours before washing.

Avoid banging the oven door. It is hard on the range finish, door catch and spring.

Under the range. - The toe panel of a range is usually removable. Wipe panel with soap and water and clean under range with long handled broom or vacuum cleaner.

Pilot light. - Keep pilot light clean and carefully adjusted. Let it be a safety rule that the pilot burner is relighted immediately after a tank of gas is connected. Have some safety plan worked out with the gas supplier that lets you know when the supply tank is changed.

Buy From a Locally Established Dealer

When you have studied the various features of different brands and selected the gas range suitable for your family needs, buy from a reputable, established dealer. Authorized dealers will provide skilled service for necessary repairs and will also provide adequate installation. Specialized service is especially important if you own equipment with automatic features. It is a good idea to check on service charges, how much per call or per hour, and to check what service the warranty covers.

Comparative Operating Costs

Estimated comparative operating costs were made for three types of fuel used in the Hawaiian Islands: kerosene, gas and electricity.

The different costs were based on actual cost figures used in Hilo and on the basis of accepted estimates of fuel or heat required for cooking by an average family of four.⁵

⁵ Average of estimated fuel used by Home Demonstration Club members in Hilo, obtained by assistant Home Agent, Kikuye Kohashi.

For kerosene cooking:

133,000 BTU heat value per gallon.

Estimated amount required--3 gallons per week or
12 gallons per month or $1\frac{1}{2}$ million BTU at 0.23¢
per gallon.

The amount of kerosene to produce 12 gallons or
 $1\frac{1}{2}$ million BTU per month is \$2.76.

For gas cooking:

1 million BTU estimated heat value required per
month or 10 Therms per month at 0.43¢ per
Therm.

The amount of gas to produce 1 million BTU in Hilo
is \$4.30.

For electric cooking:

100 Kilowatt-hours per month, average amount of
current used for a family of four.

100 kilowatt-hours at .05¢ per kilowatt-hour.

The amount of electricity to produce 100 kilo-
watt-hours in Hilo is \$5.00.

The cost of operating a range depends upon the fuel used, the
local rates, the techniques used in operation, the quantity of cooking
done, and the methods of cooking used.

CHECK SHEET FOR GAS RANGES

Rate the range you are considering in the chart below. Count excellent, E.; good, G.; and poor, P. A sample rating is shown in the first column. (The names of the range and Co. are fictitious.)

GENERAL

Name of Range	Built-well
Manufacturer	Corruna
AGA seal	Yes
CP seal	No
Price	\$155.95

SIZE OF RANGE

-height	42 $\frac{1}{4}$ "
Dimensions-width	36"
-depth	28-1/8"
No. of burners	Four
Separate broiler	Yes
Griddle	No
Adequate cooking top	Yes
No. of oven racks	Four
Satisfactory size of oven	Yes

CONSTRUCTION

Frame-welded	--
-bolted	Yes
Corners rounded	Yes
Top and back seamless	Yes
Grate, light weight and well-built	Yes
Grates, easy to clean	Yes
Insulated oven	Yes
Tightly fitted oven door	Yes
Automatic oven heat control	No
Conveniently placed oven and broiler	Yes
Location of vent opening	Back splash
Sturdy drawers	None
Sturdy doors	Yes
Sturdy legs	Yes
Sturdy gas valve handles	Yes
No. of positions	Three
How marked	Clear
Where located	Front valve panel
Sturdy cooking top	Yes
Automatic pilot light	Yes
Burner tray, drip pan	Yes
Simmer burner	Yes

Check Sheet for Gas Ranges: Cont.--

Burner arrangement	Staggered
No. of standard	Three
No. of Giant	One
Finish	
Exterior	Porcelain enamel
Interior	Porcelain enamel
Ease in Cleaning	Yes
Safety features	Yes

Cooperative Extension Work
in
AGRICULTURE AND HOME ECONOMICS
TERRITORY OF HAWAII

HOME EQUIPMENT INFORMATION

Series No. 2

GUIDE FOR HOME DEMONSTRATION AGENTS

THE SELECTION, USE AND CARE OF YOUR GAS RANGE

Compiled by Betty Zane
East Hawaii Home Demonstration Agent
July 1953

THE SELECTION, USE AND CARE OF YOUR GAS RANGE⁶

Objectives of unit:

1. Understand the source of gas and its uses. To recognize the importance of the reliability of gas range manufacturer and dealer.
2. Appreciate kinds of metals and finishes for easier care and efficiency of gas ranges.
3. Appreciate construction features for easier care of gas ranges.
4. Understand and appreciate seals of approvals of gas ranges.
5. Appreciate that careful selection contributes to the economy and usefulness of ranges.
6. Know how to clean and care for gas ranges.

Suggested Outline for Discussion--Demonstration of Gas Range:

I. Gas--What is it?

A. Kinds of gases

1. Four main types of gases

- a. manufactured gas
- b. natural gas
- c. manufactured and natural gas mixed
- d. liquid petroleum gas

2. Distribution of gas for home use

- a. piped gas--no storage required
- b. liquid petroleum gas--supplied in cylinders
- c. gas flow from source to appliance depends upon tendency of gas to diffuse from higher pressure to one of lower pressure
- d. supply distributed and maintained by local gas company

3. Heating value of gas

- a. expressed in British thermal units (Btu) heating value
- b. a therm is equivalent to 100,000 Btu

⁶ Peet and Thye, "Household Equipment", pp. 137-165 and also, Consumers' Reports, October, 1952.

4. Liquefied Petroleum gases

a. Central system

- 1) gas supply is furnished by gas made from liquefied petroleum products consisting of propane and butane
- 2) gas distributed as butane-air mixtures from a central mixing plant through an all-welded steel distribution system
- 3) mixture contains about 550 Btu per cubic feet
- 4) an undiluted vapor of high heat value, between 2500 and 3200 Btu per cubic foot is used in warmer climates

5. Bottled gas

a. Tank, portable and cylinder gas

- 1) gas is propane or butane or a mixture of the two
- 2) derived from oil refinery and wet natural gas sources or from fractional distillation of natural gasoline
- 3) liquefied and shipped to distributing centers in special tank cars

b. Distribution of bottled gas

- 1) from distribution point, gas is delivered to the home in cylinders containing 47 to 95 pounds of the liquid
- 2) cylinders placed in cabinet outside the home or buried in the ground, connected through a pressure regulating valve to the house gas pipe system
- 3) some distributors fill cylinders at customer's from a tank truck, others replace used cylinders with fresh ones from the central supply.

B. How gas is measured.

1. The meter

- a. gas piped into the home from a distributing center is measured by a meter
- b. operates whenever gas is being consumed

2. Is measured in cubic feet

II. Important points to know about the gas range

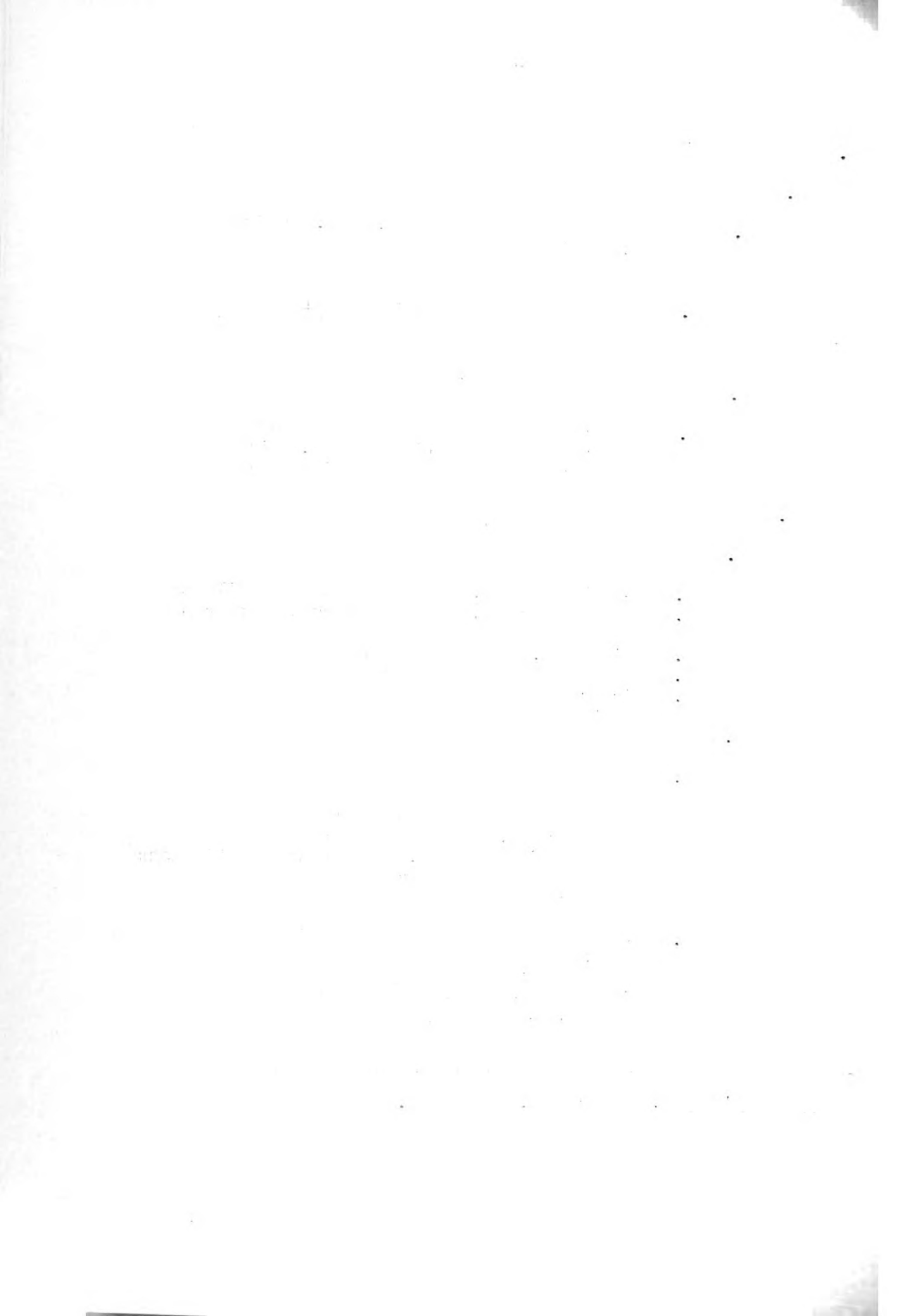
A. Materials used

1. In the cast-iron range the frame, legs, and top are cast, but the panels are usually of sheet iron
 - a. the somewhat heavy construction holds its shape and is a most satisfactory base for the porcelain enameled surface
2. It may also be made of steel
 - a. the strength and elasticity of steel permit manufacture of light weight ranges, which offers great resistance to repeated shock

B. Types of Ranges⁷

1. Apartment type
 - a. 20-22 inches wide, smallest range for family use
 - b. 4 surface burners, no work surfaces, no storage space
 - c. basic model, no extra features
 - d. deluxe model, few extra features
 - e. price range \$150-170
2. Table top models
 - a. 30 inches model
 - 1) some work surface and storage
 - 2) 4 burners, oven and broiler
 - 3) instead of storage, some models have big ovens
 - 4) with or without special features
 - 5) price range \$180-230
 - b. 36-43 inches model (standard model)
 - 1) 4-6 surface burners
 - 2) 1-2 broilers and ovens
 - 3) may be basic or deluxe models
 - 4) price range \$185-350

⁷ Consumers' Union, Summer 1952, price list.



c. 50 inches or larger

- 1) 6-8 surface burners
- 2) 2-3 broilers
- 3) 1-2 ovens
- 4) features of all kinds
- 5) good working surface and storage
- 6) price range \$700-1000

3. Modular units

- a. Burner, oven-broiler and storage units come separately
- b. Need not be installed together
- c. Oven may be placed high or low as preferred
- d. Price range
 - 1) \$130-250 for oven-broiler unit
 - 2) \$80-200 for 4 burner unit
 - 3) \$125 for 3 burner unit
 - 4) \$44 plus for storage unit

C. Standard vs. Deluxe

1. The average price of the 11 standard 4 burner gas ranges Consumers' Union bought and tested was \$160; the 12 deluxe models had an average price of \$335
2. CU's tests showed that deluxe models could not be counted on to perform better than standard models, the reverse was true in a number of cases

D. Cooking top may be of three types

1. Open, in which a grate, single or divided, is over the entire burner surface
2. Semi-enclosed, with each burner surrounded by a porcelain enameled bowl covered by a separate grate
3. Solid top, with lids

E. Removable tray beneath top burners

1. Should have a raised edge
2. Easily cleaned, rust-resisting finish
3. A new model has burner, tray and lighting equipment welded together into one unit
 - a. very easy to clean
 - b. tray holds a quart in case of a boil-over

F. Arrangement of burners

1. Choice of burner arrangement depends on other work surfaces in your kitchen and nearness to your range
 - a. 4, 6, or 8 burners may be purchased
 - b. groupings vary, select according to needs
2. In 8 burner range, 4 of the burners may be replaced by a built-in griddle, with or without a broiler space beneath

G. Grates

1. Should be sturdy, light in weight to absorb as little heat as possible
2. Square disk of heat-resistant glass over center of some of the surface burners, protects burners from spill overs and is an adequate support for utensils

H. Size of burners

1. Giant for rapid heating and for large utensils
2. Regular for general cooking in average size utensils
3. Simmer burner

I. Lighting the burner

1. Most ranges are equipped with automatic lighters for the surface burners
2. May be necessary to use a match for igniting a burner

J. Flame adjustment

1. Correct adjustment of burners important
2. Call a service-man immediately for proper adjustment

III. Ovens

A. Two types of ovens depending on methods of heating

1. Semi-direct-burner is under a bottom or baffle plate
2. Circulating- the gases and air currents are directed by a system of flues. The outlet may be near the top or the bottom of the rear wall

- a. vent, usually located at top of rear panel with the opening at the back guard
- b. opening placed so that flue vapors will be directed away from the wall
- c. vent grill frequently is chrome finished; may be removable for ease in cleaning

B. Size of ovens

1. Most ovens are 16" wide and 14" high, with varying depth, usually about 19"
2. Some ranges have 2 ovens, one larger than the other

C. Insulation of ovens

1. Usually packed with mineral wool or fiberglass which should be at least $1\frac{1}{2}$ " thick to prevent excessive heat leakage to the outside
2. The longer the insulated oven is used at one time, the greater the saving in gas
3. Door of oven should close tightly and be so counter-balanced that it remains at any desired angle when opened

D. Oven racks

1. Should have a positive stop that may be pulled out without tipping
2. Materials used for rack construction should be rust-proof and stain resistant

E. Oven light

1. Deluxe model with an electric light that is automatically opened
2. Some with switch on the outside panel

F. Oven burner

1. Similar in construction to surface burner
2. A self-latching valve handle is mandatory on all gas ranges.

G. Heat regulator

1. The thermostatic control of oven saves gas and time of the homemaker
2. Gives more uniform products

H. The broiler

1. Usually of the drawer type with front panel that drops down
2. Some ranges have a separate broiler burner, pan is attached to door of compartment and swings out when door is opened

IV. Other convenient features of a gas range

A. Deluxe models with special features

1. Folding top over surface burners
2. Utensil drawers
3. Broiler and storage drawers on roller bearings
4. Indicator to indicate when surface burners are on
5. Timer and clock
6. Convenient outlets
7. Deep well cookers

V. Seals of approval and guarantees

A. American Gas Ass'n. Laboratory (AGA) seal

1. Requirements for gas ranges set up by representatives of gas companies, Federal government agencies, interested national technical societies, consumer organization, insurance interest, architects and the A.H.E.A.
2. Minimum requirements for safety, efficient performance and durability
3. 529 tests were established as requirements which appliance must meet before awarded blue star seal of approval

B. The Certified Performance (CP) seal

1. Manufacture of "CP" certified performance range by number of companies, members of AGA
2. Seventeen specifications set up to provide certain standards in addition to basic safety and performance standard requirement by AGA
3. C. P. and A. G. A. approval seals denotes best and latest features for speed, convenience, flexibility and efficiency of range

C. Guarantees

1. Reliable manufacturer will have 5 year warranty on burners and 1 year guarantee on whole range
2. Buy always from a reliable dealer

VI. Care and cleaning of range

A. Range porcelain enamel

1. Should not be subjected to extreme changes in temperature
2. Wait until range is cool before cleaning
3. Is acid resistant but not acid proof
4. Wipe immediately with dry cloth or paper towel to prevent permanent stain
5. Use mild soap, cleansing powders will scratch
6. Use baking soda if stains are stubborn
7. Rinse and dry thoroughly

B. Top burners

1. Wipe off after each use
2. If a bad spill over occurred, remove burners and wash with mild soap and water
3. Grates and aeration pans may be washed too
4. If ports become clogged, clean with stiff brush or gently insert small wire

C. Broiler

1. Remove broiler pan and grid soon after use
2. When cool, wash in warm, soapy water
3. Fine steel wool and fine cleanser may be used to remove stubborn spots
4. Remove broiler pan from oven when oven is in use

D. Oven

1. Wipe inside walls and door with damp cloth when oven cools
2. Clean oven racks, dry thoroughly
3. Oven bottom may be removed when oven is cooled, wipe clean
4. Never place oven bottom in water
5. Be sure oven bottom snaps into proper position when replaced
6. If spill-overs have been left to accumulate on oven bottom, remove by saturating a cloth in a solution of household ammonia and place it over the spot

REFERENCE GUIDE AND SUPPLEMENTARY INFORMATION FOR
THE HOME DEMONSTRATION AGENT FOR THE LESSON ON,
"SELECTION, USE AND CARE OF YOUR GAS RANGE"

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3. "The Care of the Range", Home Service Division, Philadelphia Gas Works Company, 1951.
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ILLUSTRATIVE MATERIAL

Gas Ranges

Plate 1. Types of Ranges. Note style of range, size, capacity of cooking top and oven, arrangement of burners, position of broiler unit, type and position of switches and convenience features.

- 1A. Apartment type range.
- 1B. Deluxe large capacity burners, double ovens.
- 1C. Standard table top model.
- 1D. Deluxe model with grill and swing-out broiler.
- 1E. Deluxe large capacity burners, double ovens.
- 1F. Modular Units, separate oven, broiler and surface units.
- 1G. Deluxe range with left side grill.
- 1H. Deluxe large surface 6 burners, double broiler units.

Source of material:

- 1A-D and 1G -- Magic Chef. American Stove Company, St. Louis.
- 1E and H--Caloric Stove Corporation, Topton, Pennsylvania.
- 1F--Chambers A.I.A. File No. 35-C-11, Chambers Products, Inc., Indianapolis, Indiana.

Plate 2A. Top of range convenience features.
2B. Top of range convenience features.

Source of material:

- Tappan --Tappan Stove Company, Mansfield, Ohio.
- Magic Chef--American Stove Company, St. Louis.
- Roper--Geo. D. Roper Corp., Rockford, Illinois.
- Caloric--Caloric Stove Corporation, Topton, Pennsylvania.
- Universal--Cribben and Sexton Company, Chicago, Illinois.

Plate 3A. Oven Safety and convenience features.
3B. Broiler convenience features

Source of material:

- Universal--Cribben and Sexton Company, Chicago, Illinois.
- Magic Chef--American Stove Company, St. Louis.

Illustrative material: Cont.--

- Plate 4A. Lifetime Guarantee of a gas range.
4B. Construction of frame of a gas range.

Source of material:

Caloric--Caloric Stove Corporation, Topton, Pennsylvania.
Roper--Geo. D. Roper Corp., Rockford, Illinois.

- Plate 5A. Exclusive feature in a gas range.
5B. Special feature in a gas range.

Source of material:

Universal-Cribben and Sexton Company, 700 N. Sacramento Blvd.,
Chicago 12, Illinois.

UNIT III. LESSON--"SELECTION AND CARE OF
RATTAN FURNITURE"

Project Leader's Guide

Selection and Care of Rattan Furniture

Before giving the lesson, study Home Furnishing Circular
No. 3, "Selection and Care of Rattan Furniture," and the Guide for
Home Demonstration Agents, "Series 3."

Discuss Points	Show or Do	Teaching Aids
1. What is rattan?	Use pictures to illustrate.	Plate 1A.
2. How is rattan prepared? a. cutting. b. drying. c. removal of bark d. washing e. sorting f. bleaching		Plate 2A. Plate 3A. Plate 4A. Plate 5A, and 5B.
3. Assembling of the furniture at the factory.		Plate 6A-D.
4. Grades of rattan.		
5. Types of furniture made.	Discuss various uses of rattan.	
6. Selection of rattan furniture.	Take a chair and point out buying questions.	Show pictures of wicker and reed rattan furniture.
7. Care of rattan furniture.		
8. Claims and Federal Trade Commission rulings.		

Cooperative Extension Work
in
AGRICULTURE AND HOME ECONOMICS
TERRITORY OF HAWAII

Home Furnishings Circular No. 3

SELECTION AND CARE OF RATTAN FURNITURE

What is Rattan?

Rattan is a vine which is found in India, Burma and the Philippines. Its scientific name is Calamus, and we all know it by the name, RATTAN.

Most of the rattan furniture found in Hawaii are imported directly from the Philippines. Only a few small pieces of furniture are made locally in Honolulu.

The processes of preparing rattan for the furniture factory are very interesting. Natives in India, Burma and the Philippines go into the forests and cut the rattan vine into twelve to thirty feet lengths. These are dried and the bark and thorns are removed. The bark is treated and is known as rattan "cane." It is used extensively as material for seats of chairs, davenports and for binding joints in furniture. The wood part, inside the bark is also treated and the finished product is known as the "reed."

The next step in the process is the washing and sorting of the rattan for size and quality. It is sulphured to bleach the color and prevent infection by insects.

Then it is packed for shipment to the United States to furniture factories or to the factories in Manila.

Construction of Rattan Furniture

The raw rattan is washed, sorted and cut into desired lengths decided upon by the particular pattern being used. It is then placed in the steam chamber of a boiler until it becomes soft and pliable.

After the steaming, the rattan is bent around a shaped form.

Assembling the Parts

The frame construction is held securely by screws and dowels. Then the joints are bound by hand with splint rattan cane. This reinforces the frame construction.

To date, rattan is available only in natural color. The finished piece is sprayed with spar varnish and hand rubbed to a nice natural finish.

Upholstering follows in the case of chairs or other sitting pieces.

Grades of Rattan

There are four grades of rattan: The prime grade, which is freer of spots and markings, lighter in color and more uniform in the joints; the 2 and 2B and 3 are poorer qualities of rattan with respect to the characteristics noted above. This information is seldom specified on the label.

Types of Furniture Made

Rattan is made into furniture of all descriptions--chairs, tables, stools, serving carts, shelves, chest of drawers, credenzas, desks, settees and sofas. Accessories such as lamps, mirrors and vases are also trimmed with rattan.

Selection of Rattan

The guide for buying any piece of furniture might be used in buying rattan.

Ask yourself these ten questions when you are shopping and selecting your rattan furniture:

1. How are flat surfaces joined?
2. How are the joints put together?
3. Are legs and posts firm and substantial?
4. Are the drawers well made?
5. Do doors and table leaves fit?
6. Have you examined the backs and undersides?
7. What about the casters? Do they pivot and roll easily?
8. What is the quality of the mirror?
9. How is the wood finished?
10. Is the frame sturdily made with the ends of fibers securely and smoothly fastened to the frame?

Care of Rattan Furniture

It is recommended that at least once every two years a coat of varnish be put on the rattan parts and that the furniture be kept clean regularly by dusting and vacuum cleaning. If rattan parts are badly marked from use, sand over with fine sandpaper and refinish with clear spar varnish.

Rattan furniture manufacturers do not recognize any claims for deterioration or warpage due to exposure to sunlight or salt air. They will also not assume any responsibility for fading of all upholstered materials used.

Cooperative Extension Work
in
AGRICULTURE AND HOME ECONOMICS
TERRITORY OF HAWAII

HOME FURNISHINGS INFORMATION

Series No. 3

GUIDE FOR HOME DEMONSTRATION AGENTS

RATTAN FURNITURE

Compiled by Betty Zane
East Hawaii Home Demonstration Agent
July 1953

SELECTION AND CARE OF RATTAN FURNITURE

What is Rattan?

Rattan furniture is made principally of three materials, rattan, rattan cane and upholstery materials. Rattan is a product of Calamus or Daemonorops, a vine which is found in India, Burma and the Philippines. There are some 200 species in the genus, inhabiting tropical and sub-tropical Asia, Africa and Australia. The two major types used for furniture are the Philippine and the East Indies rattan. The Philippine rattan is larger in size than the East Indies and it can take a lighter, softer finish. Philippine rattan itself is more porous and the markings are less distinct. East Indies rattan is small in diameter, has very distinct markings and is easily distinguished by the yellowish shiny bark.

The rattan vine is protected by vicious, strong hooked thorns, this vine stretches out and climbs sometimes, to a height of 600 or more feet. (Plate 1A)

How is Rattan Prepared?

Rattan is usually cut about three feet above the ground. The remaining shoot continues to grow and in seven years reaches sufficient maturity so it can be cut again.

The natives cut the vines into twelve foot to thirty foot lengths for drying and use particular care not to touch the vine of thorns. (Plate 2A)

After several days of drying, the sun and air have shriveled the bark and taken much of the sting from the thorns. Rattan assumes a

yellow color when dry. (Plate 3A)

Following a method used many years ago, the natives pull the rattan across a notch that is cut in a tree. This pulling removes most of the bark and the thorns.

The bark is removed and treated and is known as rattan "cane." It is used extensively as material for seats of chairs, davenports and for binding joints in furniture. The wood part, inside the bark is also treated and the finished product is known as the "reed."

The slender stems of the rattan rarely exceed an inch in diameter, generally they are much smaller. A distinct ring is always present at the junction of the sheathing leaves with the stem.

Today the natives must go deeper and deeper into the jungle to find the vine in sufficient quantities and transporting rattan to Coastal regions is a real shipping problem. It must now be floated down on the mountain streams or carried on horses, buffalo or oxen. Sometimes the terrain is so rough that it is necessary for the natives to carry bundles of rattan on their backs over miles of wild country to easier means of transportation. (Plate 4A)

From the Coastal regions, rattan is shipped to Macassar, Singapore or Manila, where it is washed, sorted for size and quality and sulphured to bleach the color and prevent infection by insects. (Plate 5A and 5B)

The last step is the packing for shipment to the United States where the agents select the top grades for shipment to the factory.

At the Factory

The raw rattan arrives in the United States in twelve to sixteen foot lengths and upon arrival is washed, sorted, sanded and cut into

the lengths decided upon by the particular pattern being used at that particular time.

After the rattan is cut, it is placed in the steam chamber of a boiler where the steam makes the rattan soft and pliable.

After the steaming, the rattan is bent around a desired form. It is then ready for mill work processes. Holes are drilled for screws, boring is done for dowels and it is fine-sanded.

Assembling

The parts are ready to be assembled. First, the frame construction is held securely by screws or dowels. Then the joints are bound by hand with splint rattan cane. This reinforces the frame construction. (Plate 6A-D)

To date, rattan is available only in natural color. The rattan furniture piece is sprayed with spar varnish and hand rubbed to a nice natural finish. Upholstering follows in the case of chairs or other sitting pieces.

Grades of Rattan

There are four grades of rattan: The prime grade, which is freer of spots and markings, lighter in color and more uniform in the joints; the 2 and 2B and 3 are poorer qualities of rattan with respect to the characteristics noted above. Most furniture in peace time is made of grades 1 and 2.

Types of Furniture Made

Rattan is made into furniture of all descriptions--chairs, tables, stools, serving carts, shelves, chest of drawers, credenzas,

desks, settees and sofas. Accessories such as lamps, mirrors and vases are also trimmed with rattan.

Selection of Rattan Furniture

The guide for buying any piece of furniture might be used in buying rattan.

Ten questions to ask yourself when buying furniture are listed in the Better Buymanship pamphlet of the Household Finance Corporation.⁸ These are as follows:

1. How are flat surfaces joined?
2. How are the joints put together?
3. Are legs and posts firm and substantial?
4. Are the drawers well made?
5. Do doors and table leaves fit?
6. Have you examined the backs and undersides?
7. What about the casters? Do they pivot and roll easily?
8. What is the quality of the mirror?
9. How is the wood finished?
10. Is the frame sturdily made with the ends of fibers securely and smoothly fastened to the frame?

Care of Rattan Furniture.

It is recommended that at least once every two years a coat of varnish be put on the rattan parts and that the furniture be kept clean regularly by dusting and vacuum cleaning. If rattan parts are badly marked from use, sand over with fine sand-paper and refinish with clear spar varnish.

Claims

"Having no control over the elements or their chemical effects, we cannot and will not recognize any claims for deterioration or warpage

⁸ Better Buymanship--Use and Care of Furniture, Household Finance Corporation, pp. 10-27.

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due to exposure to sunlight or salt air. All cover fabrics are manufactured with the finest vat-dyes obtainable--however, we can assume no responsibility whatever for fading."⁹ This statement is made by Ficks Reed Company and is typical of other rattan manufacturers in the United States.

Federal Trade Commission Ruling on Furniture

The Federal Trade Commission in cooperation with the furniture industry, established a few rules in regards to forms of advertising, labeling, and descriptions of all kinds of furniture and are enforceable by law in interstate commerce. The rules state that:

"Furniture in which exposed surfaces are of one wood, shall be designated by the name of that wood.

"Furniture in which the exposed surfaces are of more than one kind of wood, shall be designated as to the woods used.

"Note: "Exposed surfaces" mean those parts of a piece of furniture which are exposed to view when the piece is placed in the generally accepted position for use."¹⁰

Furniture trade associations and Better Business Bureaus in the United States have prevailed upon retailers to adopt and to apply these rules so that now many ethical furniture dealers observe them in their advertising. However, the observance of the rules is not generally applied to tags which appear on merchandise.

⁹ "Fick Facts," Feed Reed Company, Cincinnati, Ohio.

¹⁰ Better Buymanship--Use and Care of Furniture, op. cit., p. 5.

REFERENCE GUIDE AND SUPPLEMENTARY INFORMATION FOR
THE HOME DEMONSTRATION AGENT FOR THE LESSON ON,
"RATTAN FURNITURE"

1. Better Buymanship--Use and Care of Furniture, Household Finance Corporation, 919 E. Michigan Avenue, Chicago, Illinois, pp. 5, 10-27.
2. The Encyclopedia Americana, 1951, New York American Corporation, pp. 227-228, 93, and 291.
3. The Encyclopedia Britannica, 1768, Chicago, London, Toronto, Vol. 4-741a; 13-954c.
4. "Ficks Facts", reprinted from Upholstering, July, 1951, Ficks Reed Company, Cincinnati, Ohio.
5. "Furniture of Romance," Ficks Reed Company, Cincinnati, Ohio, pp. 2, 3.
6. "Tropitan," The American Chair Company, Manufacturer, Sheboygan, Wisconsin.

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ILLUSTRATIVE MATERIAL

Rattan Furniture

- Plate 1A. The rattan vine is protected by vicious, strong hooked thorns, and this vine stretches out and climbs sometimes to a height of 600 or more feet.
- Plate 2A. The natives cut the vines into twelve foot to thirty foot lengths for drying and use particular care not to touch the vine of thorns.
- Plate 3A. The sun and air shrivels the bark and takes much of the sting from the thorns. Rattan assumes a yellow color when dry.
- Plate 4A. Transportation of rattan from the deep jungle to the Coastal Regions.
- Plate 5A. Rattan is washed and sulphured to bleach the color and prevent infection by insects.
- 5B. Rattan is trimmed and sorted for size and quality.
- Plate 6A--6D.
Construction of rattan furniture.
- Plate 7A. Sample of rattan.
- Plate 8A. Rattan Reed furniture.
- 8B. Rattan Wicker Peel furniture.

Source of material:

- "Furniture of Romance" published by Ficks Reed Company,
Cincinnati, Ohio.
- "Tropitan" published by the American Chair Company,
Manufacturer, Sheboygan, Wisconsin.

Problem

M. S.

1953

Zane, Betty K. K.

Planning Consumer Education Material
for the Agricultural Extension
Service in Hawaii: "The Well-Se-
lected Picnic Basket;" "Selection,
Use and Care of Your Gas Range;"
"Selection and Care of Rattan
Furniture."

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