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OF  
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1933

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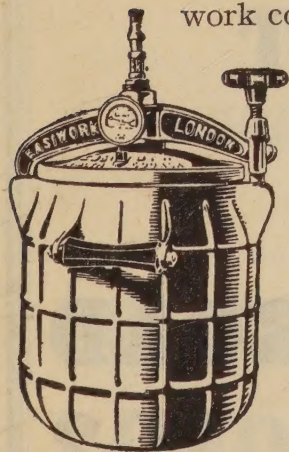
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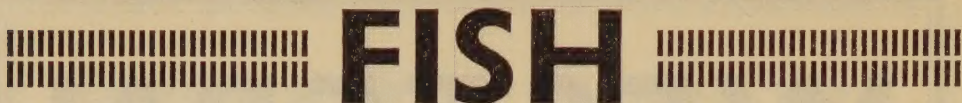
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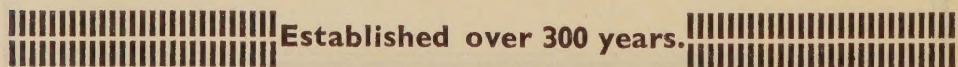
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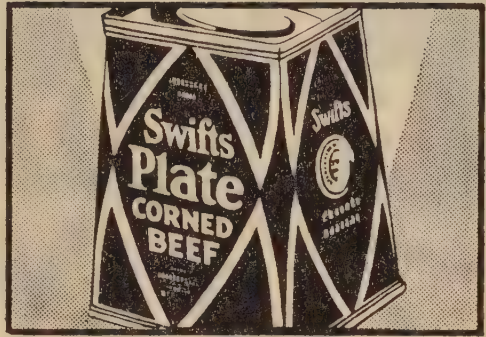


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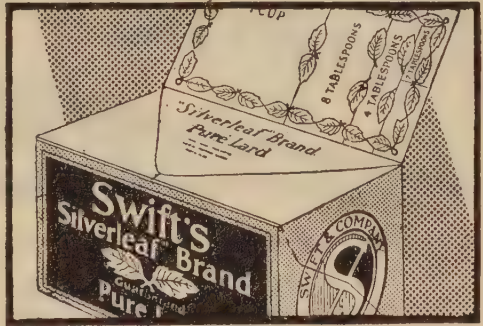
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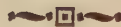
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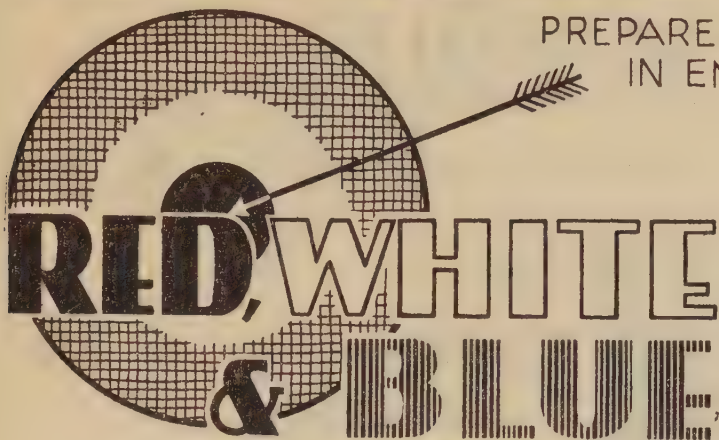
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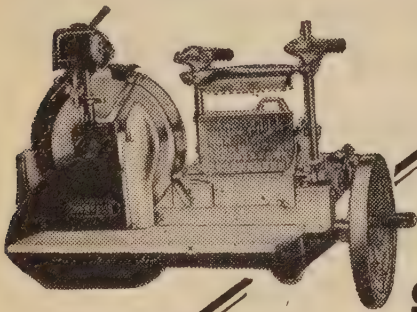


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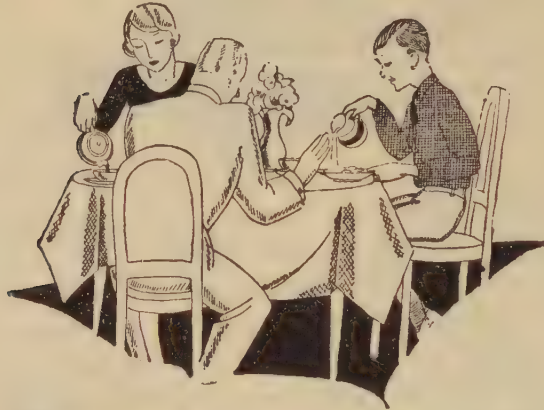
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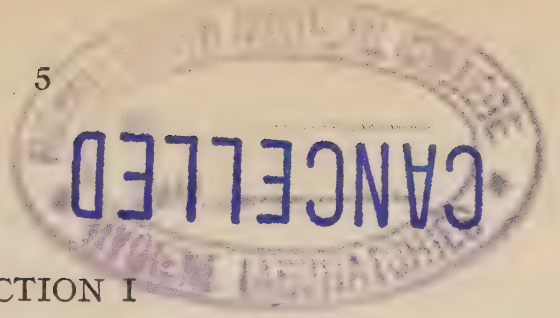


## CONTENTS

	SECTION I	PAGE
Preface	... ..	5
General Instructions	... ..	6
Duties of serjeant-cook and cooks	... ..	6
Detail of cooks' duties	... ..	7
Cleanliness of cookhouses and cooking utensils	... ..	7
Orders to be observed in cookhouses	... ..	9
Organization	... ..	9
Cooking apparatus	... ..	10
Management of Warren's combined cooking apparatus	... ..	10
Iron ovens...	... ..	12
Dean's cooking apparatus	... ..	13
Richmond cooking apparatus	... ..	14
Hot-air ovens	... ..	16
Soyer's stove	... ..	17
Fuel	... ..	18
SECTION II		
Component parts of foodstuffs, brief description of	... ..	20
Cooking of food	... ..	21
Recipes	... ..	22
Soups	... ..	22
Gravy	... ..	24
Hotch potch	... ..	25
Sauces	... ..	25
Cooking, various methods of	... ..	28
Recipes—		
Meat dishes	... ..	32
Rabbit dishes	... ..	44
Fish dishes	... ..	45
Meatless dietary	... ..	47
Recipes, various	... ..	47
SECTION III		
Brine tub, vegetables and herbs	... ..	69
Beverages	... ..	73
Description of herbs, spices, etc., used in cooking	... ..	74
SECTION IV		
Meat ration	... ..	79
Frozen beef, treatment of	... ..	79
Frozen mutton, treatment of	... ..	81
Frozen meat, issue of to troops	... ..	82
Jointing meat and how cooked	... ..	82







## SECTION I

### PREFACE

Cooking and housekeeping in the Army have now reached such a high standard of proficiency that they are not comparable with the methods existing twenty years ago. This is primarily due to the following factors :—

The greater interest that all senior officers now take in the feeding and welfare of the troops under their command.

The selection, by officers commanding units, of the right class of men for training as cooks, after a preliminary training in the unit's kitchen under the regimental master-cook.

The excellent methods of training now in force at the Army School of Cookery, Aldershot.

The remodelling of army cookhouses and dining halls, and the installing of modern and up-to-date cookery plant.

The keenness of the cooks themselves, which is kept alive by the holding of the Army Cookery Championship (both individual and team), the finals of which are held under the auspices of the Universal Cookery and Food Association at their annual exhibition.

The fact that the preparation and cooking of all the dishes and menus included in this Manual are taught at the Army School of Cookery, and are quite within the scope of a trained army cook.

The recognition of the following principles :—

That the main objects of cooking food are to make it more palatable and more digestive.

That the great fault in cooking is to overcook, or to cook too far ahead before the food is consumed.

That well-cooked food, clean and comfortable surroundings and a quick and effective service, with all meals served on hot plates, all combine to make the soldier contented and keep him in good health whilst in training at home and abroad during peace, and fit him to stand the rigours and hardships of war.

## GENERAL INSTRUCTIONS

### DUTIES OF SERJEANT-COOK AND COOKS

The serjeant or superintending cook, who is held responsible for the cleanliness and good order of the kitchens, will have complete control over the cooks, and is responsible to his commanding officer for seeing that N.C.Os. and men employed in connection with the preparation and cooking of food carry out their duties efficiently. In this connection he will bring to the notice of superior authority neglect on the part of any trained cook who is careless or negligent in the performance of his duties.

He will detail each cook to the apparatus suitable for preparing the various dishes required for the following day, dividing the work so that each man may know what he has to do, in addition to the cooking.

He will afford every facility for varying the diet of the several messes, so that each mess may have a complete change daily throughout the week, and will arrange that the messes using the oven one day shall have the use of the boilers and steamers the next day, and so on.

He will be personally responsible for ensuring that no misappropriation of any kind whatever takes place, and, should be present when the foodstuffs are received with a list of the quantities ordered, that each mess receives the correct amount.

Groceries received by the serjeant-cook will be weighed, and he will satisfy himself that they agree with the diet sheet and are the correct quantities for the number of men in mess. He will, where cupboards are provided, then lock them up and retain the key. He will issue the various articles to each cook, and will see that the full quantity as issued is actually used in the dietary to be served, and is prepared by the cooks according to the instructions given. Surplus food will be returned to store.

When imparting instruction, the serjeant-cook will illustrate his meaning by taking any particular dish and preparing it himself, giving full details during its preparation. When at some future time the same dish is again being prepared, he will see that his previous instructions are carried out. Patience and tact are required, especially with young soldiers, in supervising their duties.



Assistant cooks should be trained by the serjeant-cook with a view to replacing the cooks when required.

Cooks should not be allowed to have their meals in the cookhouse.

Smoking in the kitchens during the preparation and cooking of food is not permitted.

#### DETAIL OF COOKS' DUTIES

Cooks and assistant cooks will be on duty at the hours stated in the duty roster and should not leave the cookhouse without permission of the serjeant-cook.

A duty roster will be posted in each cookhouse and will include the following details :—

- (a) The names of cooks or assistant cooks responsible for lighting fires in the early morning, cleaning flues, scraping ovens, etc., and regulating fires during the day.
- (b) The names of cooks and assistant cooks who may be released from duty in the afternoon or evening or at any time when the services of all cooks are not required for the preparation and cooking of food or for other duties.

#### CLEANLINESS OF COOKHOUSES AND COOKING UTENSILS

New utensils should be cleaned before they are used.

A new iron pot should first have a handful of sweet hay or grass boiled in it, then be scrubbed with sand and soap ; afterwards clean water should be boiled in it for about half an hour.

A new baking tin should be filled with boiling water in which a spoonful of soda has been dissolved, and placed over the fire to simmer ; afterwards it should be scoured with soap and rinsed with hot water. The soda renders soluble the resin used in soldering.

Baking tins can be kept clean by rubbing them gently with sifted wood ashes. A copper stewpan or vessel can be cleaned with fine sand and salt, in the proportion of half salt to that of sand, and then rubbed thoroughly with the hand or a brush. If there are any stains a lemon (or vinegar) may be used to remove them.

Colanders should be well rinsed with boiling water, and the frame cleaned and polished with whiting, care being taken that no particle of dust remains on them before they are hung up for future use.

Steamers, dishes and other tin ware should be well washed in soap and soda water and polished with whiting.

Previous to use, all utensils should be thoroughly clean and, when possible, exposed to the sun and fresh air daily. The practice of keeping them in cupboards, or piled up on the kitchen floor, until required for use, should be discouraged.

All utensils, after being used, should at once be filled with hot water and placed over the fire to scald thoroughly, then cleaned and well dried.

Grease remaining in a vessel will make it rancid, and moisture will rust it.

In washing any greasy utensil it is better to use the hand instead of flannel, as the latter retains the grease.

Knives and forks (unless plated) should be cleaned with brick-dust and flannel, and, if rusty, rubbed with a fresh-cut potato dipped in ashes.

Plate or plated articles can usually be kept clean and bright by washing them with soap and boiling water, rubbing them dry whilst hot with soft cloths.

Utensils with bone, ivory, or wooden handles should never be placed in hot water.

Large knives, flesh forks, choppers, ladles, bowls, etc., should be well washed with hot water and soda, and afterwards polished with brick-dust; after use they should be at once cleaned and put in their proper places in the kitchen.

The meat block and benches should be well scraped, and then scoured with hot water, soap and soda. They should be used for no other purpose whatever than for chopping and cutting up meat.

Cookhouses will be thoroughly cleaned daily, and tables scrubbed with soap and hot water on both sides.

Tables and boards on which meat is cut up should be well scrubbed on both sides immediately after use.

Cupboards in cookhouses are only to be used for the temporary storage of food supplies drawn for early consumption.

Flues and fireplaces of all cooking ranges will be cleaned out daily. Dean's and Soyer boilers should be removed daily, and the soot brushed away. Sinks will be cleaned and gutters and drains kept clear of any obstruction.

Cooking utensils will be washed after each meal and put away until again required for use.

In all cookhouses, cooking pots and dishes, when not in use, will be kept on a low shelf or rack and placed on their sides, so that their interiors are exposed to the air and can be readily inspected.

The practice of keeping coal loose, or in open bins, in cookhouses is objectionable, as the coal dust enters the food and makes the cookhouse dirty. It is suggested that sufficient coal



for one day only should be drawn from the coal store. If this is impracticable, some suitable storage should be devised.

Bowls, soap and towels should at all times be available in cookhouses, and cooks should be made to keep their hands and nails clean when handling food.

A daily allowance of soap, etc., will be issued to cooks for cleaning purposes.

Windows in cookhouses should be kept open at the top so as to give ventilation and allow steam and heat to escape.

## ORDERS TO BE OBSERVED IN COOKHOUSES

The following orders will be found useful when adapted to local requirements. It is obvious that, though the general principles remain the same, detailed orders which make for success must be worked out and issued according to circumstances.

### ORGANIZATION

(a) The organization of a cookhouse will be such that the cooks work together, and that all messes prepare the particular meal at the same time.

(b) Cooks and assistant cooks will be supplied with the necessary equipment for the proper preparation and cooking of food.

(c) The meat will be issued from the meat store to the different messes, and the cooks should be asked if they have any complaint to make as to the joints issued before taking the meat away.

NOTE.—A cook will be justified in making a complaint in the case of stew meat being issued when roast or baked meat is the dish to be served.

(d) On arriving at the cookhouse or preparation room, the cooks will proceed to bone and cut up the meat, working together under the supervision of the serjeant or senior cook until the preparation is completed.

(e) When the various dishes have been prepared they will be inspected by the serjeant-cook and passed by him before the food is put into the ovens, steamers or boilers to cook.

(f) The table space in the cookhouse or preparation room will be allotted to the different messes in such a way that meat can be cut up on one cutting-up board and pastry prepared on another table or board, etc.

(g) The serjeant or senior cook will closely supervise the various dishes during the process of cooking and will be held responsible for badly cooked food and any waste of good material.

(h) Occasional basting of baked meat, removal of liquid fat from the surface of stews and scum \* from stock pots is of the utmost importance, if food when cooked is to be appetising and nourishing.

(i) Ovens should be kept at an even temperature for ordinary cooking. The raising and lowering of temperature by frequently opening oven doors, or by irregular stoking, should, as far as possible, be avoided. Stews should gently simmer. Fast boiling tends to make the meat tough.

(k) At a selected time the serjeant-cook will give the word for the meals to be prepared for issue. When this has been done the food will be kept on the hot plate or inside the oven (door partly open) till the mess orderlies arrive to take the meal away.

(l) After the issue to mess orderlies has been made cooks will proceed to the dining-rooms to assist in the distribution.

NOTE.—The man who cooked the food will observe at the dining-room tables whether his efforts to provide a good meal have been successful and will note any complaints made, for future guidance.

## FOR SANITARY RULES FOR COOKHOUSES, *see Appendix I*

### COOKING APPARATUS

(*See Appendix XIII*)

#### MANAGEMENT OF COMBINED COOKING APPARATUS (WARREN'S)

After use the fire should be drawn, and the apparatus allowed to cool down. Close the furnace and ashpit doors, then remove the soot cap at the bottom of the stove pipe, insert the flue brush, clean the flue and the top of the oven, sweeping from side to side, close the soot cap and damper in the flue, open the soot caps on top of the oven, sweep the top and sides of it. Close the soot caps, remove the cover under the oven door, clean out the ashes and soot with a rake, sweeping well out with a flue brush, replace the cover, open the ashpit and furnace doors, clean out the furnace, empty the ashpit, and fill it with water. Lay the fire with wood and coal. Close the furnace and ashpit doors. Fill the boiler to the gauge tap or to the level indicated on the water level gauge. In the morning open the ashpit and furnace door. Light the wood and

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\* The extraneous matter or refuse which rises to the surface of liquids in boiling or fermentation. It is useless, and, if not removed, will, through the action of boiling or stirring, consolidate into small pieces and possibly settle in the food being cooked.



close the furnace door. With a moderate fire the water should boil in 1 hour, the oven be ready for cooking in about 45 minutes, and the hot plate for frying in 30 minutes. When the water boils the tea or coffee should be made, the boiler refilled and the fire replenished for dinner, the damper being closed slightly, until the cooks resume their work after breakfast. Should the cooker supplied for green vegetables, soup or stock be required for dinner, it must be placed on immediately after breakfast has been served. When the dinners have been cooked and served, the boilers should be refilled for washing up. After the required quantity of water has been issued for cleaning purposes, the boiler should be refilled and the fire banked up for tea.

NOTE.—Combined cookers are in many instances adapted for working at an approximate steam pressure of 5 lb. (gauge) to supply steam to a hot closet and serving counter. Water should never be drawn off for custards, etc., during the heating of hot closets or the steaming of food. Hot water for custards and tea making should be heated in the steam jacketed pans or portable boiler, where provided for this purpose.

### *General Instructions*

1. Avoid the use of the rake ; it is only required for cleaning purposes.

2. To economize fuel and to ensure the apparatus working satisfactorily it must be cleaned out every day when in use ; also keep the space above the bridge clear, and the fire bars free from clinkers.

3. A good fire must be maintained while cooking the dinner ; when it requires replenishing, ease the fire with a poker, pushing the live coal to the back, placing the fresh in front, adding not more than 5 lb. of coal ; if more than this quantity is added, it will invariably choke the fire and stop the draught.

4. The cooker in front is intended for soups, rice, vegetables, puddings, hams, porridge, etc., and should never be used for tea or coffee. It may be used for providing an extra supply of hot water.

5. Cinders must not be used till after dinner ; then sufficient should have been saved from the day's consumption of coal to prepare the tea.

6. All cookers when not in use should be clean, thoroughly dried, and kept in a dry place ready for use.

7. During the cooking of stews by steam they should be frequently stirred, the dishes in the oven being moved about. When potatoes are not steamed, the cookers can be used for steaming puddings. Care should also be taken that the water from the condensed steam is occasionally drawn off.

8. Should the whistle on the feed pipe indicate that the boiler is empty, it must be refilled at once. If this should happen during the cooking of the dinners, or the heating of hot closets, the boiler must be filled with hot water, so as not to reduce the pressure of the steam. *See also* page 11.

### IRON OVENS

The oven is an iron box, which can be closely shut, with a furnace underneath, surrounded by fire lumps, and enclosed in a cast-iron frame.

After being in use, the oven should be allowed to cool, and then thoroughly cleaned by opening the soot caps and oven dampers above the folding doors ; then insert the flue brush and clean the top of the oven. Close the soot caps and oven dampers, open the doors on top, and remove the back and side soot caps, insert the flue brush and sweep well down the back and sides of the oven, replace the soot caps and close the doors on top ; remove the soot caps above the furnace doors, and with a rake clear the soot from the back and sides of the oven, sweeping well out with a flue brush ; close the soot caps, open the furnace, sweeping on either side with a cinder brush ; empty the ashpit.

If required the following morning, lay the fire with wood and coal ; close the furnace and ashpit doors. In the morning open the furnace and ashpit doors, oven dampers and the damper in the flue ; light the wood and close the furnace door. Each fire should be allowed to burn well down before replenishing, then take the rake and clear the bars, pushing the live coal to the back of the furnace, and adding fresh coal in front. During the time the oven is in use, should one side appear to get hotter than the other, the oven damper on the hotter side should be closed until the other side is brought to the same temperature, then opened again.

When the oven is sufficiently heated, which can only be ascertained by experience, it should be damped down, by having a clear fire, free from smoke, closing the ashpit and furnace doors, oven dampers, and damper in the flue, leaving the slide of the ashpit door open.

During the time the oven is in use the doors should be opened as seldom as possible. An iron oven takes about one hour to reach the required heat.



## DEAN'S COOKING APPARATUS

Before lighting the fire, thoroughly rake out any ashes or coal from the flue at the back of the furnace.

The fire damper should be used only for :—

- (a) First lighting the fire ; to be closed after half an hour.
- (b) Reviving the fire quickly.
- (c) Heating water for baths quickly.

The opening of the fire damper greatly increases the fuel consumption and lessens the heating of the hot plates, ovens and boilers.

The oven damper—right.

Full open for oven ; right hand.

Half open for (a) stock pot over oven ; (b) hot plate over oven.

The boiler damper.

Controls (a) the boiler on left hand ; (b) oven left-hand top heat.

The oven damper—left.

Controls the oven left-hand bottom heat.

Any of the dampers may be closed, concentrating the whole of the heat from the furnace upon that portion of the apparatus controlled by the open dampers.

The apparatus may be damped down by closing entirely the furnace and ashpit doors and all dampers, leaving one slightly open to allow the smoke to pass away ; the fire will then remain in for several hours.

To ensure regularity in the working of the apparatus it must be swept and cleaned out every evening after use. To clean the flues remove all the steamers and cookers, the left-hand boiler and boiler over the furnace, the loose hot plates over the furnace, the six soot doors in the hood, and the soot doors under the oven ; and open all the dampers.

Commence sweeping from the uppermost soot door above the dampers, down through each flue, passing the dampers to each of the four soot doors over the hot plates.

From each soot door over the hot plates sweep well down the backs of the ovens, also the boiler flue and back of the centre boiler, into the furnace.

Sweep out all soot from the flues which surround the removed boiler and the tops of the ovens into the furnace, rake out all soot and ashes from the flue under the boiler at the back of the furnace and thoroughly sweep down the right-hand side flue of the large oven.

Thoroughly rake out all the soot and ashes from the furnace, leaving the fire bars perfectly clear, also rake down through the

slots in the fire cheeks, forming the sides of the furnace, to clear the down cast flue.

From the front soot doors under the ovens thoroughly rake out all the soot and ashes each side of the iron flue, breaks and midfeathers, taking care that the flues at the back of the ovens are reached and that the under sides of the oven bottoms are well scraped.

Sweep, externally, the left-hand boiler and replace ; replace the soot doors, clean up the whole of the apparatus ; replace the various fittings and the apparatus will be ready for use.

Lay the fire with wood and coal.

It is essential in connection with any apparatus that the cook should make himself thoroughly conversant with the run of the flues and the action of each damper in the regulation of the heat to each part.

### RICHMOND COOKING APPARATUS

This apparatus is composed of two distinct parts. The (A) portion consists of oven and steam chambers, hot plate and boiler for generating steam, also providing water for tea or coffee. The (B) portion consists of soup or vegetable boiler and stock pot. There are two sizes in use. The small apparatus will cook meat, potatoes and pudding for 120 men, but is rated to cook for 50 men. The larger cooker is rated to cook for 150 men, but will cook similar dishes for 240 men.

#### *Management of the (A) Portion*

After use this portion of the suite should be cleaned by removing the fire, clearing out the furnace and ashpit, closing the furnace and ashpit doors, and the damper in the flue. Open the cover over the boiler damper, insert the wire brush and thoroughly clean the tubes of the boiler, sweep the top of the oven with a flue brush, close the boiler damper and cover. Open the right soot cap below the oven doors, insert the flue brush, sweep from right to left, close the cap, open the soot cap on the left, sweep to the left, close the cap. Open the small soot door at the left-hand side of the lower oven and clean the back of the ovens. Close the door and open the three soot caps at the bottom, and with a rake remove any soot and ashes that may have accumulated at the bottom. Clean out the ovens, replace the gratings, close the doors. Open the doors of the steam chambers, remove the gratings, wash them with a solution of hot water and soda, wipe the sides and bottom of the chambers, replace the gratings, close the doors. Empty the condensing box, thoroughly clean it, fill with clean water and replace it. Open the valve on top



of the boiler. Fill the boiler with the required quantity of water; this is judged by watching the gauge glass and the indicators on the metal protector. Lay the fire with 1 lb. of wood and 7 lb. of coal, replace the bullseyes on the hot plate. To light the fire, open the furnace and ashpit doors, the boiler damper and the damper in the flue, light the wood and close the furnace door. When the fire has burned down take the small poker and push the live coals to the back of the furnace, keeping the bridge clear, placing the fresh coals in front, adding not less than 7 lb. When one or both of the steaming chambers are required for breakfast, immediately the water boils the valve must be closed and the steam forced into the chambers, a fairly good steam being maintained. If, on the other hand, the steamers are not required, the fire should be damped down when the water reaches boiling point by closing the boiler and flue dampers, just allowing sufficient draught to carry off the smoke. As soon as breakfast has been served, the boiler should be refilled, the fire replenished and the apparatus damped down. On the resumption of the cooking for dinner, the damper in the flue should be opened and the heat directed round the oven.

When preparing meat for roasting or baking, the largest joints should be done first and placed in the hottest part of the oven, and as each subsequent joint is ready the first joint must be moved to another part of the oven to make room for the next joint, and so on, so that each piece of meat may be browned on the outside before being placed finally in the position best suited for it to cook in.

With the small cooker the higher portion of the steaming chamber should be reserved for meat and puddings, the lower chamber for vegetables, etc. As soon as the dishes to be cooked by steam are ready, the valve should be closed until the steam gauge registers from 2 to 3 lb. pressure; the steam should then be turned on the chamber in use, this pressure being maintained as far as possible. Vegetables can be placed on the steam according to the time they take to cook. Potatoes should be put in the chamber about 45 minutes before the dinner hour, the whole of the pressure of steam being forced on them by slightly closing the tap of the chamber containing the meat dishes, keeping up a fairly good supply of steam until the potatoes are cooked. During the cooking the overflow box of the condenser must be emptied when necessary.

*(B) Portion—Management of the Stock Pot and Vegetable Boiler*

This portion of the cooker has been designed for making soups, porridge, boiling rice and green vegetables, also for

making stock. The boilers are fitted with wire baskets, the stock pot basket having three compartments as receptacles for the three grades of bones. The two boilers are fixed close together in a cast iron frame and are heated by one fire.

The capacity of the stock pot is 15 gallons, that of the vegetable boiler 25 gallons.

The heat can be directed on either of the boilers, or may be allowed to pass into the flue direct as desired by the cook.

To clean out the flues, etc., the fire must be removed, furnace and ashpits cleaned out. Close the dampers. Open the soot caps in the flue, sweep both sides of the flue well down, close the caps; then open the soot doors on either side of the boiler tops, clean the sides of the boiler, raking out the soot with a rake. Lay the fire with wood and coal. Close the furnace, open the lids of the boiler, remove the bones from the stock, empty the pot. Wash out with hot water and soda, rinse out with clean warm water, replace the stock, remove the bones from the basket, wash the basket, and put it away in a cool place. Clean out the vegetable boiler, fill three parts with water. In the morning open the furnace and ashpit doors and dampers, light the wood and close the furnace doors.

When the fire requires replenishing push the live coals to the back, adding the fresh in front. Close the stock pot damper, directing the heat on the larger boiler. Should the latter not be required for breakfast the dampers may be closed just sufficiently to maintain combustion.

## HOT-AIR OVENS

### *Working Instructions*

1. See that the firebars are well clear of clinker and that all ashes are cleaned from the ashpit and on no account allowed to accumulate. Unless this is done good results cannot be obtained, and the cost for fuel will be considerably greater; the firebars will also require to be renewed oftener; a pan of water or an occasional damping of the ashes in the ashes pit will assist in preserving the firebars.

2. If firing over-night, commence with wood and a few shovel-fulls of coke. Draw this through to a bright red with the main damper wide open. Then fill the furnace full of coke and immediately close the damper sufficient to allow the sulphur fumes to escape up the chimney.

3. If firing during working hours, put on a good fire and regulate the damper according to requirements. If once firing does not give the necessary heat for the work required, repeat the process.



4. It is essential that the coke should be broken up into small pieces (about the size of walnuts) to obtain the utmost heat.

5. Never let fuel remain on the ledge beyond the furnace, on the deadplate or in the side flues. It is simply wasted and prevents circulation of the heat.

6. When raising the heat, occasionally rake out the firebars from underneath so that a bright glow is maintained in the ashpit.

7. Always remove the clinker from the firebars and sides of the furnace when hot. It is then in a semi-molten state and comes away more easily.

8. Do not be heavy-handed with the poker; the furnace will then last much longer.

9. Do not use the flue-cleaning rakes for clearing the firebars. They are not suitable for the purpose.

10. Clean the flues of the smaller types of oven approximately every 3 months, and of the larger types every 12 months. If a sudden stoppage of the draught occurs afterwards examine the base of the chimney. It sometimes happens that the increased draught dislodges a fall of soot in the main flue.

11. If the coke is of poor quality, a little wood fuel may be added to give the necessary combustion.

12. Never renew firebars singly, as this causes them to project above the others and burn away quickly. It is cheaper to replace with a full set.

13. Never, on any account, throw water on the oven floor. Cracked and uneven soles and bulging side walls are the result of this, and it has been found necessary to take down and rebuild ovens so ill-treated.

14. Occasionally apply graphite paste or blacklead to the hinge-pins of the oven and furnace doors and report damage to the asbestos packing of the oven doors.

### SOYER'S STOVE

The Soyer's stove is intended for cooking in camps, but as it is frequently supplied to supplement the cooking equipment at barracks it is included with other cooking apparatus.

It consists of a 12-gallon boiler contained in an iron cylinder, at the bottom of which is a small fireplace. It will boil vegetables, puddings, etc., for 50 men; it makes a good stockpot.

## FUEL

It will be obvious that a careful and economical use of fuel is necessary, in order to carry out the present improved system of messing. It has been practically demonstrated that, with careful supervision, the regulation allowance is barely sufficient to meet all requirements. The following remarks are issued for information on this subject.

The allowance of coal for the cookhouse should be issued daily to the master cook, and care should be taken that an undue amount of slack is not included.

The master cook will be held responsible for the economical consumption of coal, and it will be his duty to regulate the fires, using no more than necessary for the cooking required. By consulting the Weekly Diet Sheet the master cook will be able to arrange beforehand how his cooking apparatus can be used to the best advantage.

Cinders should be carefully preserved, as in some cases they are as valuable for fuel as coal.

The following rules for regulating fires and furnaces should be observed :—

- (a) Fires should not be kept burning longer than necessary ; for instance, when soup or stock has reached its boiling point, a portion of the fire should be withdrawn, also when certain dishes are being cooked and the ovens or boilers are heated to the required pitch, the fire should be at once removed and the food cooked by the stored heat.
- (b) After fires have been used, but are required subsequently, they should be banked up by placing damp cinders on them, and the ashpit door and damper closed, leaving only sufficient draught to carry away the smoke, the furnace door being kept open.
- (c) In replenishing a fire, the live coal should be pushed to the back of the furnace, the fresh coal being added in front. In this way the fresh coal becomes gradually consumed and the heat of the fire is not reduced.

The principal substances used as fuel in the Army are :—

- i. Wood (kindling, fuel and bavons).
- ii. Charcoal.
- iii. Coal.
- iv. Coke.
- v. Oil.

Wood is issued for kindling purposes in barracks, and the allowance is 1 lb. for each 40 lb. of coal or coke.



The allowance of coal for cooking purposes is as follows :—

Warren apparatus	...	...	$3\frac{3}{4}$ lb.	a man	each week.
Richmond „	...	...	$4\frac{1}{2}$ lb.	„	„
Other „	...	...	5 lb.	„	„

#### FIRES

The fire should be prepared as follows : cut the wood into small strips, taking care that it is quite dry, then place small pieces of coal on each side of the furnace ; place half the wood crossways, the ends resting on the coal, the remainder lengthways, which will allow the air to pass through ; cover with moderate-sized pieces of coal and light it at the bottom.

## SECTION II

### NOTES ON THE CHIEF ARTICLES OF FOOD FORMING PART OF THE SOLDIER'S RATION WHICH HAVE TO BE COOKED

The chief articles of the soldier's ration which have to be cooked consist of meat, fish, vegetables, pulse and cereals, with the addition of condiments and seasoning.

Anyone who is responsible for the selection of dietary or the cooking of food should understand the elementary principles relating to the food value of any dietary to be served, whether it is to meet the requirements of men undergoing arduous military training or following sedentary occupations.

*Meat.*—Meat, after cooking, can be readily digested and assimilated. Meat is high in protein, which is nitrogen. Nitrogen is the life of every human being, animal and plant. The foods which contain it in large quantities are called nitrogenous. Animals by feeding absorb this material into their flesh, and human beings eat the flesh of animals, thus obtaining their chief source of nitrogenous food. Its purpose is to replenish the exhaustion of muscular energy, to repair waste and to allow for growth, and is of great value as food to men undergoing arduous training.

*Fish.*—Fish as a food is similar to meat, but it cannot be classed in the same category as animal flesh intended for the replenishment of muscular energy.

There are three classes of fish :—

- (a) Oily fish, such as herrings, mackerel, sprats, etc.
- (b) White fish, such as sole, turbot, plaice.
- (c) Shell fish, such as oysters, lobster, crab, mussels.

Owing to the limited cash available for the purchase of food, the soldier's mess can only afford to consider (a), unless fish of the cod species is obtainable at a reasonable price, which occasionally happens when a plentiful supply is available.

In the case of (a) the oil is in the flesh, but in white fish the oil is chiefly contained in the liver. There are, however, certain conditions worth noting with regard to oily fish. For example, herrings in season have but little roe; they are then suitable for kippering and the flesh is full of flavour, but, as the roe forms, preparatory to spawning, it absorbs the oil from the flesh, and if kippered in this condition the flesh is dry and flavourless. They are then suitable for bloatering, which takes



place without the removal of the roe and the herring retains its full value. A kipper in season provides good food, but out of season it is of little food value unless cooked in fat, etc. Treated in this way it provides a certain amount of nutriment.

*Vegetables and fruit.*—Vegetables and fruit are of extreme importance in dietary, and serve the purpose of supplying the blood with alkaline salts. They are not productive of either energy or muscular development, but are essential in compiling any form of dietary.

*Pulse and cereals.*—Pulse and cereals such as peas, beans, oatmeal, etc., are fairly high in protein, but in the process of digestion they are not so readily absorbed by the body as is meat.

*Condiments and seasoning.*—Condiments and seasoning have no food value and cannot be eaten alone, but are important from the fact that they increase the appetizing value of food and thereby assist the digestive organs to assimilate many foods which without them would be insipid.

*Cooking of food.*—Some of the reasons for the cooking of food are to destroy bacteria, to render mastication more easy, to facilitate digestion, and to combine various foodstuffs, thus making them appetizing for consumption when warm and pleasant to the taste.

Food, by the process of cooking, is freed from a large portion of matter difficult of mastication and digestion. Fibre is softened, starch is possibly converted into sugar, dough solidified and albumen coagulated. On the knowledge of cookery will depend whether fibre is shrivelled up instead of merely softened, and gelatine rendered brittle instead of dissolved. Regulated heat plays a most important part in cookery. The use of a quick, moderate or slow oven; whether liquid is required to boil rapidly or to simmer; vapour retained in a cooking vessel by keeping on the lid or allowed to escape by its removal; these are all parts of the science of cooking which should be carefully studied, as so much depends on the quality and condition of the food to be cooked. It is impossible to lay down hard-and-fast rules. For example, meat heavily frozen requires entirely different treatment from meat which has been hanging in a humid atmosphere for several days; pulse collected at medium growth requires different treatment in preparation and cooking from pulse collected when in the seed stage. The same remark applies to cabbage, potatoes and almost every kind of animal and vegetable food. The art of cookery depends, therefore, on the ability of a cook to recognize the quality of food and how to treat it.

## RECIPES

The following recipes and method of preparation have been compiled to supply meals for 100 men. The quantities given have been tested and found to be sufficient; there is, however, no margin for waste.

### SOUPS AND GRAVY

The ingredients for soups are standardized so as to provide 100 men with a pint each. With about 3 ounces of bread a pint of soup is a fairly substantial meal, suitable for men working in the open, to serve at 11 a.m., or for supper in the evening. Half the quantity served to precede the usual dinner meal is both beneficial and economically wise, as less meat and vegetables will be eaten; the meal as a whole will be of higher nutritive value and specially suitable to serve in cold weather. Peas, beans or lentils, etc., may be pulped after cooking if desired by the use of a vegetable masher. Use up any spare cooked vegetables suitable for the class of soup provided. Onions may be cut into rings about the thickness of a coin instead of small pieces, as stated in the following recipes.

The quantities of mixed vegetables and onions may be increased, but not to an extent which would destroy the flavour of the chief ingredient.

Where fresh stock is made for the soup to be served, and it is desirable to use the same boiler, the stock should be cleared of all bones, meat fragments and scum before the ingredients for soup-making are added.

Several soups, especially tomato, should be passed through a strainer before being served.

A little bottled sauce will improve the appetising value of gravies.

#### Pea Soup

*Ingredients.*—Split peas, 10 lb.; mixed vegetables, 7 lb.; onions, 3 lb.; flour, 3 lb.; mint, 1 packet; pepper, salt, stock.

*Method.*—Rinse the peas in cold water and drain. Soak in a fresh supply of cold water for about 12 hours. Steam or boil in a moderate quantity of stock or water till soft. Clean and cut up onions and vegetables into small pieces. Use 10 gallons of stock, add vegetables and onions, bring to the boil and let simmer till cooked. Make a thickening of flour and add pepper and salt. Place the thickening and peas



in the boiler and boil for 30 minutes. Stir well and add dried mint. Time about 3 hours.

NOTE.—The mint may be omitted if this flavouring is not required.

### Lentil Soup

*Ingredients.*—Lentils, 8 to 10 lb. ; mixed vegetables, 7 lb. ; onions, 3 lb. ; herbs, 2 packets ; pepper, salt, stock.

*Method.*—Rinse the lentils in cold water and drain. Soak in fresh supply of cold water for about 12 hours. Steam or boil in moderate quantity of stock or water till soft. Clean and cut up the onions and vegetables into small pieces. Use 10 gallons of stock ; add vegetables, herbs and onions ; bring to the boil and let simmer till cooked. Make a thickening of flour, add pepper and salt. Place the thickening and lentils in the boiler and boil for 30 minutes. Stir well. Time about 3 hours.

### Pea and Lentil Soup

*Ingredients.*—Lentils, 4 to 5 lb. ; peas, 4 to 5 lb. ; onions, 3 lb. ; mixed vegetables, 7 lb. ; flour, 3 lb. ; pepper, salt, stock.

*Method.*—Rinse the lentils and peas in cold water and drain. Soak for about 12 hours in a fresh supply of cold water. Steam or boil in a moderate quantity of stock or water till soft. Clean and cut up onions and mixed vegetables into small pieces. Use 10 gallons of stock, add vegetables and onions, bring to the boil, and let simmer until cooked. Make a thickening of flour ; add salt and pepper ; place the thickening, peas and lentils in the boiler and boil for 30 minutes. Stir well. Time about 3 hours.

### Barley Soup

*Ingredients.*—Barley, 8 lb. ; mixed vegetables, 7 lb. ; onions, 3 lb. ; flour, 3 lb. ; celery seed, 2 packets ; pepper, salt and stock.

*Method.*—Scald the barley and throw the water away. Clean and cut up the onions and vegetables into small pieces. Place 10 gallons of stock in boiler ; add the vegetables, barley and onions. Slowly bring to the boil and let simmer till cooked. Make a thickening of flour ; add pepper and salt ; add to contents of boiler and boil for 30 minutes. Stir well. Time about 3 hours.

### Tomato Soup

*Ingredients.*—Tomato purée, 8 lb. (or six 2-lb. tins) ; haricot beans, 8 to 10 lb. ; onions, 3 lb. ; salt, pepper, stock.

*Method.*—Rinse beans in cold water and drain. Soak haricot beans for 12 hours in fresh supply of cold water; then steam or boil till tender. Clean and cut up the onions. Add the tomatoes and onions to sufficient stock and let simmer till cooked. Pulp the beans. Make a thickening of flour and add pepper and salt. Add the whole to sufficient stock, bring to the boil and let simmer for 30 minutes. Stir well. Time about 3 hours.

### Gravy

Well-cooked meat and vegetables served with a badly made gravy are a meal spoilt. The chief faults are due to :—

- (a) a badly mixed paste and, after the addition of the thickening, not being allowed to simmer long enough to cook the flour so that no taste of it remains.
- (b) adding gravy salt, for the purpose of colouring, when salt is not required.
- (c) using over-burnt sugar, which gives the gravy an objectionable taste.

The basis of flavour and colouring should be obtained by frying onions and vegetables in a shallow pan till brown. If deeper colouring is required, use a moderate quantity of caramel. Where too much is used, or the sugar is allowed to burn in making, the taste of the burnt sugar is objectionable. Brown flour colouring is the safest for the amateur cook to use.

*Ingredients.*—Onions, mixed vegetables, flour, stock, dripping, pepper and salt.

*Method.*—Clean and cut up onions into thin rings and vegetables into small pieces; place a little dripping in a stew or frying pan; add vegetables and onions, and fry until nicely browned, and add to stock; next add a flour thickening, pepper, salt and colouring if required. Let simmer for 30 minutes. Strain and serve.

*NOTE.*—In every cookhouse a large pot or saucepan should be filled with stock or water and placed on the hot plate. Any spare bones and scrap meat not required for other purposes should be added and allowed to simmer during the morning. Remove scum as it rises. About one hour before the meal is to be served remove bones, etc., so as to leave a clear stock and add the ingredients as above stated.

The above recipe is gravy for general use with roast or baked meat, meat pies and meat puddings.



## Hotch Potch

*Ingredients.*—Blue peas, 6 lb. ; barley, 4 lb. ; mixed vegetables, 7 lb. ; onions, 3 lb. ; cabbage lettuce or cabbage, 8 heads ; sweet herbs, 1 packet ; bunch of parsley (small), pepper, salt, stock.

*Method.*—Rinse peas and barley in cold water and drain ; soak peas for about 12 hours ; scald the barley and throw the water away ; clean and cut up mixed vegetables and onions into small pieces ; wash and cut up the best part of the cabbage or lettuce into small pieces ; use 10 gallons of stock ; add the peas, barley, onions, vegetables, lettuce and parsley ; bring to the boil and let simmer till cooked. Make a thickening of flour ; add pepper and salt ; add the thickening and herbs, and stir well for 30 minutes. Time, about 3 hours.

NOTE.—The barley should not be rinsed through cold water and scalded until after the peas have been soaked as stated.

## SAUCES

### Onion Sauce

*Ingredients.*—Onions, 4 lb. ; margarine, 8 oz. ; milk, 8 pints ; flour, 8 oz. ; pepper, salt.

*Method.*—Peel the onions, cut them into quarters and cook in water with a little salt until tender ; drain and chop finely. Melt the margarine in a stew pan, stir in the flour and mix thoroughly ; add the milk and stir until it boils, then add the chopped onions, pepper and salt. Let simmer for 5 minutes and serve.

NOTE.—Usually served with boiled or roast mutton.

### Parsley Sauce

*Ingredients.*—Margarine, 8 oz. ; flour, 8 oz. ; milk, 8 pints ; chopped parsley, 4 oz. ; pepper and salt.

*Method.*—Melt the margarine in a stew pan ; stir in the flour and mix well ; add the milk and stir until it boils. Let simmer for 5 minutes ; add the chopped parsley, pepper and salt, and serve.

To be served with boiled mutton and boiled ham.

### Tomato Sauce

*Ingredients.*—Tomatoes, 4 tins (or purée, 2 tins) ; cornflour, 8 oz. ; onions, 2 lb. ; carrots, 2 lb. ; pinch of thyme ; margarine, 8 oz. ; pepper and salt. Stock, 4 to 6 pints.

*Method.*—Peel and cut up the onions and carrots in very thin slices ; melt the margarine in a stew pan ; add the onions and carrots and cook for about 5 minutes ; add the tomatoes, thyme, pepper and salt, bring to the boil, strain and re-heat ; add the cornflour (previously mixed into a paste with a little water), boil for 5 to 10 minutes and serve.

NOTE.—Serve with fried meat and bacon.

### Caper Sauce

*Ingredients.*—Flour, water, margarine, capers, vinegar, pepper and salt.

*Method.*—Melt margarine in a pan, stir in the flour and cook for a few minutes ; add hot water and bring to the boil, continually stirring ; let simmer for 20 minutes. Add capers, pepper, salt, and vinegar from the capers. Stir well and serve.

NOTE.—Serve with boiled mutton.

### Army Sauce

*Ingredients.*—Margarine, 8 oz. ; flour, 1½ lb. ; onions, 2 lb. ; tomatoes, 1 tin ; anchovy essence, 4 oz. ; stock, 6 pints ; chopped parsley, 4 oz.

*Method.*—Melt the margarine in a stew pan ; add the flour and stir over the fire for 5 minutes ; add the stock and allow it to boil ; put in the onions (sliced) and tomatoes, place on a slow fire to simmer for 15 to 20 minutes ; add parsley and anchovy sauce. Stir well and serve.

NOTE.—For rissoles and general use.

### Melted Butter

*Ingredients.*—Margarine, 8 oz. ; flour, 1½ lb. ; milk, 6 pints ; pepper and salt.

*Method.*—Melt margarine in a stew pan ; stir in the flour and cook for 5 minutes (do not let the flour brown) ; add the milk, bring it to the boil, stirring throughout, season with pepper and salt. Let simmer for 10 minutes and serve.

NOTE.—Serve with boiled and steamed fish.

### Risotto Sauce

*Ingredients.*—Rice, 1 lb. ; margarine, 8 oz. ; onions, 1 lb. ; tomatoes, 4 tins (or tomato purée, 2 tins) ; stock, 8 pints ; pepper, salt.



*Method.*—Melt margarine in a stew pan; add the onions (finely chopped) and fry for 5 minutes; do not brown them; add rice, and cook another 5 minutes; stir in the stock and cook until rice is tender; then add the tomatoes or purée, pepper and salt. Let simmer for 5 minutes and serve.

NOTE.—To be served with fish cakes, bacon and sausages.

### Mint Sauce

*Ingredients.*—Mint, sugar and vinegar.

*Method.*—Thoroughly wash mint and pick leaves from the stalks; chop very finely and place in a vessel; add sugar and vinegar, and stir until sugar is dissolved. Should be allowed to stand for several hours and frequently stirred.

### Sweet Sauce

*Ingredients.*—Sugar, 3 lb.; water, 8 pints; lemons, 3 (or essence); cornflour, 8 oz.

*Method.*—Boil the sugar and water for 10 minutes; mix the cornflour with a little water into a smooth paste; add it to the sugar and water and cook until it becomes thick; then add the juice of the lemons (or essence). Boil for 5 minutes and serve.

NOTE.—To be served with boiled or bread pudding.

### Marmalade Sauce

*Ingredients.*—Marmalade, 2 lb.; cornflour, 8 oz.; sugar, 1 lb.; rind and juice of 4 lemons; water, 8 pints.

*Method.*—Mix cornflour with water into smooth paste; place water on to boil, add sugar and rind of lemon (chopped very fine) and let simmer for 5 minutes; pour in the cornflour paste and boil for 5 minutes, stir in the marmalade and the juice of the lemons. Mix thoroughly and serve.

NOTE.—To be served with boiled or bread pudding.

### White Sauce

Make a smooth paste with the flour, mixing with water. Boil 16 pints of milk, add the margarine, pour it over the paste and stir well until quite smooth; put back into the saucepan and cook for a few minutes and season to taste. The sauce to be served should be cooked until the taste of the flour has disappeared. Time, about 20 minutes.

## VARIOUS METHODS OF COOKING

The various methods of cooking in the Army are roasting, baking, boiling, steaming, stewing and frying, and may be described as follows :—

### Roasting

Roasting may be performed in two ways : (1) with an open fireplace ; (2) in an oven.

(1) To roast meat is to cook it by exposing it to the direct heat of the fire (360° Fahr.). Authorities differ greatly as to the best mode of roasting, but all agree that the fire must be bright and fierce.

To preserve its nutritious matter, the meat should at first be placed close to the fire, basted and slightly dredged. Treated in this way the exterior of the meat becomes hard, which prevents the escape of the juices. Then withdraw it to a greater distance from the fire and baste until done.

The time required is 15 to 18 minutes for each 1 lb. weight, but this must be judged by the thickness of the joint and the quality of the meat. Young and fat meat requires longer than old and lean.

If on pressing the lean part with the flat portion of a knife the meat yields easily, or if the steam from the meat draws towards the fire, it is done.

The loss in roasting is from 30 to 35 per cent., being the greatest average loss in cooking.

Basting is pouring fat or dripping over the meat from a pan placed underneath.

Dredging is shaking over the meat dry flour or bread crumbs and salt mixed.

(2) Joints can only be indifferently roasted, however, in the Army, and the distinction between what is commonly called a roast and a bake is small. With the former the meat is resting on a trivet (as with a Yorkshire pudding) and to a certain extent the whole surface of the meat is exposed to the dry heat of the oven ; with a bake, a certain portion of the meat is resting on the potatoes and becomes partly cooked before being turned. The oven must be thoroughly hot before the dishes are placed in it, the joint turned, as found necessary, and the dishes moved in the oven so that each portion of the meat may be equally cooked. Baste and dredge frequently. The meat may be either larded or barded previous to cooking ; the former is the insertion of pieces of fat in the flesh or on the surface of the meat, the latter is covering lean meat with fat, to impart a richness it would not otherwise possess ; both processes are similar to basting.

## Baking

Baking is a most convenient, economical and satisfactory mode of cooking certain dishes, such as pastry, meat pies, pork, shoulder of mutton, etc., and it is popular with the troops.

The best oven for baking is one sufficiently ventilated to allow the steam rising from the dish to escape.

In the baking of pies, etc., they should, at first, be placed in the hottest part of the oven. When the paste is cooked it can be left on the bottom to simmer until done. Pork or other meats of a similar nature should be covered with a greased paper, to prevent the fat from melting too quickly.

The average loss in baking is 25 per cent.

The heat required to bake meat is at least 345° Fahr., but more is necessary should there be much stock or any potatoes in the dish.

## Boiling

The boiling point of water is 212° Fahr., but if salt be added 220° Fahr. will be obtained.

To boil a joint of meat for table, it should be placed in boiling water and allowed to boil quickly for 10 minutes; then bring it to a simmer and allow it to remain at a temperature varying from 180° to 190° Fahr. It should be surrounded with plenty of water and the lid of the vessel kept on, care being taken that the scum rising to the surface of the water is frequently skimmed off. This refers to meat properly defrosted; otherwise it is better to put into hot water and bring to boil.

When the meat is placed in boiling water the albumen becomes solid and prevents the escape of the juices.

If soup only is required, the meat should be cut into small pieces and placed in cold water and allowed to simmer slowly, in order to extract its juices, as in preparing beef-tea.

Salt beef or pork should be previously soaked and washed in cold water, then placed in a vessel containing cold water and allowed to boil slowly for one hour; the water in which it has been boiled should then be thrown away. Refill the boiler with fresh cold water, and let the meat simmer gently until it is done. Salt meat requires a little longer time for cooking than fresh. It is placed in cold water in order to extract the salt or brine; if put into boiling water the meat would become hard and indigestible.

The average loss in boiling meat is 15 or 20 per cent., and the time required to cook depends upon its weight and compactness: as a general rule 15 or 20 minutes for 1 lb. weight. If a piece of the flank weighing about 15 lb. were boiled as



issued it would require about one hour or so, but if boned and rolled it would require from 3 to 4 hours, and would then be sent up to the table as a very substantial joint.

### Vegetables

In boiling vegetables to be served separately, they should be placed in boiling water, with a little salt, and boiled quickly until tender, which will cause them to retain their saccharine juices ; but if for soup, they should be placed in cold water and boiled slowly in order to extract the juices.

Cabbages, greens, etc., should be thoroughly cleaned and allowed to remain for a short time in salt and water ; this will destroy any small insects that may remain. They should then be placed in boiling water with a little salt added, and boiled quickly until tender, then taken up and strained and served very hot. The boiler should be kept uncovered, as it not only helps to preserve their colour, but allows the indigestible part to pass away.

### Puddings

Puddings should also be placed in boiling water. The water should be kept at a steady boil. Flour, when used as a thickening in soup, requires boiling from 30 to 40 minutes, oatmeal from 50 minutes to 1 hour.

### Stewing

Stewing is considered the most profitable mode of cooking. If properly performed, tough meat is rendered tender and wholesome, and more nourishment is obtained than by any other process of cooking. It should be distinctly understood that stewing is not boiling ; all that is required is a gradual simmering, that is, a temperature of 170° to 180° Fahr., and by this process the coarsest and roughest parts of the beast will become soft, tender and easily digestible.

The best method of stewing is by steam, because with the apparatus now used in service kitchens it is nearly impossible to bring the contents of the dishes to boiling point.

Meat of a fibrous and coarse nature, such as legs, briskets, buttock, clods or necks of mutton, should be issued for stewing.

### Braising

Braising is stewing meat by placing it in an air-tight stew pan, with heat applied above as well as below, or it can be put in a very hot oven, with a small quantity of water in a dish. The average loss in braising is 10 per cent.

## Steaming

Steaming is usually performed by steam passing from a close boiler to a close chamber, or by placing a steamer over a boiler containing boiling water, or by placing a few bricks or stones at the bottom of the boiler, covering them with water and placing on them the dish containing the articles required to be cooked.

A steamer is a vessel the bottom of which is perforated with a number of small holes, and it should never be placed above a boiler until the water is at a sharp boil.

The articles of food usually cooked by steam are meat, potatoes, puddings, etc.

The average loss in steaming is 15 per cent.

About  $1\frac{1}{2}$  pints of water will accumulate from the condensed steam during the process of cooking about 18 rations.

## Frying

Frying is cooking with the aid of fats, such as butter, lard, dripping, suet, or olive or palm oil, etc., which should be sweet, clean, fresh and free from salt. With care the same fat should last a long time, but when it acquires a dark brown colour it is no longer fit for use.

It is customary to place in the pan only sufficient fat to cover the bottom of it, but, when possible, it will be found better to have sufficient fat to cover the article intended to be cooked; in other words, "Frying is simply boiling in fat."

The heat required for frying purposes is from  $350^{\circ}$  to  $400^{\circ}$  Fahr. A simple way to ascertain when the fat is sufficiently hot is to place in it a piece of bread for a few seconds; if this becomes a golden brown colour, the fat is ready; if the bread assumes a light yellow, it is not hot enough, but if the bread be burnt a dark brown colour, it is too hot.

The loss in frying depends on the quality of the meat and the mode of cooking. If the frying is properly performed there should be no loss.

## Broiling

Broiling is cooking over or in front of a fire, a gridiron being generally used. Care should be taken to see that it is perfectly clean and free from grease. It should be placed on the fire slantways, the lower part in front; this prevents the fat falling into the fire and causing it to smoke. The fire must be clear, bright and tolerably strong.

Meat for broiling should be cut thin and of an even thickness. The meat will then be equally cooked throughout.

Previous to cooking, the meat should be sprinkled with pepper, but not with salt. It should be frequently turned, and when firm to the touch on being pressed with the flat part of the knife it is done.

The average loss in broiling is 8 per cent. With a clean gridiron, a clear fire, close supervision and the exercise of a little judgment as to when it should be required, small dainty pieces of meat and fish may be cooked better by broiling than by any other process of cooking.

## RECIPES

### MEAT DISHES

#### Roast Meat with Baked Potatoes

*Ingredients.*—Meat, 65 lb. ; potatoes, 50 lb. ; onions, 6 lb. ; flour, 2 lb. ; pepper, salt, stock.

*Method.*—Wash, peel and re-wash potatoes, cutting the large ones into halves lengthwise, and place in a baking dish ; add a little stock ; peel and cut up the onions and place them in bay formation in centre of potatoes so as to prevent burning ; add pepper and salt, pour in more stock and fix trivet or stand in or on baking dish. Bone, roll, and tie up the meat with string in joints of about 6 to 8 lb. in weight ; cover with thin slices of fat and rest on trivet. Put dish into a fairly quick oven ; baste and add stock as necessary. Remove joint from oven when cooked, carve into thin slices, cutting against the grain, place the meat in the centre of the baking dish, cover with gravy and keep hot until required.

*NOTE.*—The time required to cook properly defrosted meat in a good working oven is 15 minutes for each pound. There are, however, many unforeseen contingencies in cooking which may upset calculations. Meat not properly defrosted should be put into a slow oven and the temperature raised, but fresh meat and meat properly defrosted should be put into a quick oven for a few minutes to close the tissues and coagulate albumen on the surface, which will form a crust and thereby retain the juices. The temperature of the oven should then be lowered. Basting will keep the meat moist, and the cook should carefully consider the necessity for regulating the heat of the oven in order to provide a perfectly cooked dish. Where the oven is inclined to give too much top heat, cover the joint with a sheet of greased paper to prevent burning.



When meat is cooked on a trivet the whole of the outer part of the meat is subjected to an equal temperature of dry circulating heat and does not, in a good oven, require turning as is the case with baked meat, which lies on the bottom of a baking dish. This method of cooking is adopted when baked potatoes or Yorkshire pudding are cooked with the meat.

### **Baked Meat with Baked Beans or Peas**

*Ingredients and Method.*—As stated for roast meat with baked potatoes.—Use 12 lb. of beans or peas in place of potatoes. Soak the beans or peas for 12 hours in cold water, rinse in fresh water and place in a baking dish; clean and cut up onions, place in a bay made in the centre of beans, add pepper, salt and stock.

NOTE.—The time required for soaking beans or peas will depend on their quality. The best quality dried pulse is of even size and colour and, when moisture with warmth is applied, slowly germinates. When advanced to a stage when the parrot beak formation of the seed commences to burst through the shell, the dried pulse will be nearly as tender when cooked as fresh pulse. Pulse partly cooked by boiling and then placed under the meat in a baking dish will more readily absorb the nutriment thrown off from the meat in cooking, and is found to be tender and more easily digested.

### **Roast Meat with Yorkshire Pudding**

*Ingredients.*—Meat, 65 lb.; flour, 16 lb.; egg powder, 12 packets; milk, 16 pints; pepper, salt, stock.

*Method.*—Bone, roll and tie the meat with string in joints of about 10 lb. in weight and cover with thin slices of fat. Place a little stock in the baking dish, cook in quick oven. Add stock when required and baste the meat occasionally with the liquid fat from the baking dish.

Place 16 lb. of flour, 12 egg powders, pepper and salt into a bowl and well blend together; make a bay in the centre; add milk by degrees and mix until a thick smooth batter is formed. Beat well for 10 minutes, then add the remainder of the milk and well mix.

About one hour before the meal is required remove the meat; pour away surplus fat from the baking dish, leaving only sufficient to grease sides and bottom; pour in the batter, distributing it equally over the bottom of the dish; replace the meat and return to moderate oven. Remove from oven when cooked. Cut the pudding into pieces of required size; take out the centre pieces and place on side so as to leave a

clear space for the meat when carved. Carve the meat; place in centre of baking dish; pour a little gravy over the meat and keep hot till required.

NOTE.—Test the pudding by inserting a dry skewer. If on withdrawal it is clean, the pudding is properly cooked. The time for cooking the pudding is 45 minutes in a moderate oven. A quick oven with excessive top heat will usually result in the exposed part of the pudding being burnt.

The pudding should not exceed 2 inches in thickness.

### Brown Stew

*Ingredients.*—Meat, 57 lb.; onions, 6 lb.; mixed vegetables, 7 lb.; flour, 2 lb.; pepper, salt, stock; 2 tins tomatoes.

*Method.*—Peel and cut up the onions and vegetables into small pieces; then fry in a shallow pan in fat till brown. Bone the meat and cut into pieces of a convenient size. Put sufficient flour, pepper and salt in a mixing bowl, well mix and dredge the meat, pour a little stock into a baking dish, add meat and vegetables, then cover with stock, stir well and cook in moderate oven. During the process of cooking add and stir in stock as required. Time, approximately 2½ hours.

NOTE.—The popularity of this savoury dish is due to the high extractive it contains. It derives its name from the method of increasing the flavour of the onions by frying until they are brown; further, any extract from the meat is passed into the small quantity of gravy in which it is made and is consumed. The meal is not of a bulky nature and the full value of the ration is available for physical development.

### Boiled Beef and Carrots

*Ingredients.*—Meat, 57 lb.; carrots, 50 lb.; flour, 2 lb.; pepper and salt as required.

*Method.*—Bone, roll and tie up the meat with string; dredge in 2 oz. of salt; place in boiler with sufficient water to cover the meat and bring to the boil. Boil rapidly for about 10 minutes to harden the surface of the meat, then allow it to simmer. Remove scum as it rises. Wash, scrape and re-wash the carrots—if large, cut into quarters lengthwise—put into the boiler and leave till cooked. Remove the meat; carve carefully against the grain, place in centre of baking dish surrounded by a layer of carrots. Make a flour thickening and add a sufficient quantity of the stock in which meat and carrots were cooked. Let simmer for 30 minutes to cook the

flour. Cover contents of baking dish with gravy and put in oven to keep hot until time to serve.

NOTE.—The smallest quantity of water possible should be used so that the gravy when served is of high nutritive value. It too frequently happens that a large quantity of weak stock is left which cannot be used with the meal, and the nutriment it contains, which has been extracted from the meat, is wasted.

Place meat in hot stock or water if properly defrosted ; or in chilled stock or water should it be necessary to cook meat which carries deposits of ice. Salt should be omitted if meat is taken from the brine tub.

### Steamed Meat

*Ingredients.*—Meat, 57 lb. ; mixed vegetables, 7 to 14 lb. ; onions, 6 lb. ; pepper, salt, stock.

*Method.*—Peel and cut up onions ; peel, wash and cut up the vegetables into small pieces ; bone, roll, and tie up the meat with string in joints of about 6 to 8 lb. in weight. Place a little stock in a steaming pan ; add vegetables, onions, pepper and salt ; lay in the meat, replace lid on dish and steam for 3 hours.

Remove the meat, carve thinly, cutting against the grain, place the meat neatly in dishes, garnish with mixed vegetables, cover with well-seasoned gravy and keep hot till required.

NOTE.—Steamed meat can also be served with beans or peas cooked in the same dish. After the usual period of soaking lay the meat in steaming pan and proceed as above.

This is not a popular dish when served hot, due chiefly to the dislike of many men to the flavour of carrots and the usual insipid taste of steamed meat.

Meat cooked in this way and served cold with sauce, pickles or salad, especially in hot weather, is usually appreciated.

These remarks apply equally to boiled beef.

### Curried Stew and Rice

*Ingredients.*—Meat, 57 lb. ; onions, 6 lb. ; flour, 3 lb. ; curry powder, 12 oz. ; sultanas,  $\frac{1}{2}$  lb. ; apples,  $\frac{1}{2}$  lb. ; desiccated cocoanut,  $\frac{1}{4}$  lb. ; pepper, salt, stock.

*Method.*—Remove the meat from the bone and cut into small cubes ; peel and cut up the onions into small pieces, prepare and chop up the apples or apple rings into small pieces ; pick over the sultanas and clean with a dry cloth ; place the desiccated cocoanut into a pot with four times its volume of cold water, bring to the boil and let simmer until



all the oil is extracted from it. Lightly fry the onions in shallow fat, add the curry powder and fry for a further five minutes, stirring all the time. Spread the meat out on a table and dredge with seasoned flour. Place a little stock into a baking dish, add the meat, onions and curry powder, apples, sultanas and the *liquid* only of the desiccated cocoanut. Add sufficient stock to barely cover, mix well and cook in a moderate oven for  $2\frac{1}{2}$  to 3 hours. Stir and skim frequently during cooking and replenish with hot stock as required.

NOTE.—This is a very mild though tasty curry and has proved very popular with young soldiers who could not eat the curry previously served. If desired, extra curry powder could be placed on the tables for men who prefer a stronger flavour. This stew is suitable for serving in barracks.

### Stewed Mince Meat

*Ingredients.*—Meat, 57 lb. ; mixed vegetables, 7 lb. ; pepper, salt, stock.

### Steamed Steaks and Vegetables

*Ingredients.*—Meat, 57 lb. ; mixed vegetables, 7 lb. ; onions, 6 lb.

*Method.*—Cut meat into steaks approximately 5–6 oz., partly fry, then place in vessel of boiling stock and braised vegetables and allow to simmer gently  $2\frac{1}{2}$  to 3 hours. A thickening of flour and water to be added 40 to 50 minutes before being served.

They may also be served for breakfast, the ingredients being as follows: meat,  $37\frac{1}{2}$  lb. ; mixed vegetables, 7 lb. ; onions, 6 lb. Method as above.

### Rice

*Ingredients.*—Rice, 10 lb. ; salt.

*Method.*—Wash rice in several waters and drain. Place water into a boiler, add salt, and bring to the boil ; sprinkle in the rice and keep stirring until the fire is withdrawn, which should be done immediately the rice is placed in the boiler. Replace lid, taking care that steam is not allowed to escape. Time, 45 minutes. Remove and strain.

NOTE.—The rice should be kept in bead form and when cooked should be placed in a dry heat to allow evaporation of moisture. Serve by lining the sides of a baking dish with about 2 inches of rice, leaving a well in the centre into which add the curried stew. Place in oven to keep hot till time to

serve. Rice should not be repeatedly stirred during cooking or allowed to boil rapidly, as this makes it pulpy and unappetizing.

### Plain Stew

*Ingredients.*—Meat, 57 lb. ; flour, 3 lb. ; onions, 6 lb. ; mixed vegetables, 7 lb. ; pepper, salt, stock.

*Method.*—Peel and cut up the onions. Peel, wash and cut up the mixed vegetables ; bone the meat and cut into small pieces ; well mix the flour, pepper and salt in a bowl, and dredge in the meat. Pour a little stock into a cooking vessel, add the vegetables, onions and meat, barely cover with stock, stir well, replace the lid and steam or boil for approximately  $2\frac{1}{2}$  hours. Remove scum and stir occasionally during the process of cooking.

NOTE.—Although this dish is frequently served it is not universally popular. It too often happens that a large quantity of stock or water is used, and, when the dish is served, stock is left over. As this stock contains valuable nutriment extracted from the meat during the process of cooking, part of the feeding value of the ration is lost. Cooks usually find this the easiest dish to make and often serve it from day to day unless a change of diet is insisted upon.

It is a false economy to put aside meat stock from the stew for the purpose of serving soup. There should be plenty of bone stock available for this purpose. This has been known to happen and at the same time uncooked bones have been sold to the contractor, as they command a higher price.

### Irish Stew and Hot-Pot

*Ingredients.*—Meat, 57 lb. ; potatoes, 50 lb. ; onions, 6 lb. ; pepper, salt, stock.

*Method.*—Wash, peel and re-wash the potatoes, and cut into rings of a quarter of an inch in thickness. Peel and cut up the onions into small pieces ; remove the meat from the bone and cut into small cubes. Place a little stock into a steaming dish, add the round ends of the potatoes. Spread the meat out on the table and add the onions, pepper and salt, and mix well. Add to the steaming dish, level off, and place the potatoes neatly in rows along the top. Add sufficient stock to barely cover the meat ; cover the dish with a lid and steam for 3 hours.

NOTE.—(a) A hot-pot is prepared in exactly the same manner, but a baking dish is used in place of a steaming dish. It is then placed into a moderate oven and cooked for  $2\frac{1}{2}$  to 3 hours.

(b) If the Irish stew is to be cooked in a pot or boiler the potatoes are left whole, and are added about 1 hour before the meal is to be served.

(c) Mutton, cut and chopped into small pieces, is excellent as an ingredient for hot-pot and Irish stew, and gives these dishes a flavour that beef does not impart.

### Meat Puddings

*Ingredients.*—Meat, 57 lb. ; flour, 16 lb. ; onions, 6 lb. ; dripping, 4 lb. ; pepper, salt, stock.

*Method.*—Remove the meat from the bone and cut up into small pieces ; place flour in mixing bowl, shred dripping and add with salt to the flour and well mix. Add water in small quantities and make into a stiff paste ; turn out on to a well floured pastry-board or slab, press out, cut into required portions, roll out to size required, grease and line the basins with paste. Divide the mixture of meat, etc., equally, barely cover with stock ; cover top of basin with paste and steam or boil for  $2\frac{1}{2}$  to 3 hours.

NOTE.—If steaming dishes are in use, place meat, stock, onions, pepper and salt in dish, cover with paste and place in steamer. Puddings made in basins may be cooked in steaming chambers, in which case pudding cloths need not be used, but thin white greased paper should be placed over the top of the basins.

If desired the meat and vegetables may first be partly stewed ; but not more stock or water should be used than can be completely used up in the pudding basins or dishes.

This is a very nourishing dish, as there is no loss of valuable nutriment from the ingredients used.

### Meat Pies

*Ingredients.*—Meat, 57 lb. ; flour, 16 lb. ; onions, 6 lb. ; dripping, 4 lb. ; pepper, salt, stock.

*Method.*—Place the flour in a mixing bowl, add salt, shred the dripping by cutting it thinly with a knife, distribute amongst the flour, mix well with the hands, add water in small quantities and press out until a thick paste is formed. Turn out on to a floured pastry-board or slab, divide into portions and roll out to size required. Remove the meat from the bone and cut up small, peel and cut up the onions into pieces about the thickness of a coin, place a little stock in the baking dish, add sufficient meat, onions, pepper and salt ; stir well together, lay over a cover of paste, which should have a hole made in the centre to allow the steam to escape ; place the



pie in a quick oven and let it remain till it browns, then remove to a cooler part of the oven and cover with greased paper ; add hot stock as required during process of cooking by raising one side of the paste with a knife. Time,  $2\frac{1}{2}$  hours.

NOTE.—The handling of the flour lightly for a time before making it into a stiff paste will usually result in the pastry being light when cooked. Select a clear atmosphere so that oxygen and other constituents of the air are freely admitted. Keep the centre of the crust of the pie raised by putting a cup or similar shaped article in the centre of the baking dish. Garnish the crust with an addition of ornamental pastry. The meat may, if desired, be partly cooked in the form of a stew, a moderately thick paste being placed over it and put into the oven to cook through.

### Sea Pies

*Ingredients.*—Meat, 57 lb. ; flour, 16 lb. ; onions, 3 lb. ; potatoes, 50 lb. ; mixed vegetables, 3 lb. ; dripping, 4 lb. ; pepper, salt, stock.

*Method.*—Peel and cut up onions and vegetables into small pieces ; wash, peel and re-wash potatoes and cut in halves or quarters lengthwise. Remove the meat from the bone and cut up small, place flour in mixing bowl, add salt and baking powder, shred dripping, add to flour and thoroughly mix. Add water in small quantities to make into a stiff paste, turn out on to a well-floured pastry-board or slab, press out, cut into required number of portions and roll to size required. Place a little stock in a steaming dish, add the meat, mixed vegetables, onions, potatoes, pepper and salt, and well mix. Cover with the paste, making a hole in the centre, and steam for 3 hours.

NOTE.—A very satisfactory meal and suitable for men engaged on heavy work in the open. It is not usually attractive to men following sedentary occupations. If it is cooked in a camp kettle the lid should be kept on.

### Toad-in-the-Hole

*Ingredients.*—Meat, 57 lb. ; flour, 16 lb. ; milk, 10 pints ; onions, 3 lb. ; egg powder, 10 packets ; pepper, salt, stock.

*Method.*—Remove the meat from the bone and cut it into small pieces. Peel and cut up the onions finely. Place 3 lb. of flour, pepper and salt in a mixing bowl and thoroughly mix. Dredge the meat well into the flour. Place a little stock into a baking dish ; add the meat and onions and stir well ; place in a moderately heated oven till nearly cooked.

Place remainder of flour, pepper, salt and egg powder in the mixing bowl and well blend together with the hands. Make a hole in the centre of the flour, add the milk by portions and thoroughly mix together until all lumps have disappeared.

Remove the dish from the oven when ready; remove all surplus gravy; then pour the batter over the meat, levelling off with a knife; replace in oven till cooked. To test, insert a dry skewer in the thickest part of the batter; if, on withdrawing, the skewer is clean the batter is cooked.

Time for meat, 2 hours. Time for batter, 40 minutes.

NOTE.—Make a separate gravy to serve with this meal, as it is frequently found to be a dry dish.

### Roast Mutton and Mint Sauce

*Ingredients.*—Meat, 65 lb.; salt, pepper, stock.

*Method.*—Prepare the meat. Pour a little stock into baking dish; lay the meat on stand or trivet; fix in or on the baking dish; place in a hot oven, add stock as required. Baste the meat occasionally with liquid fat or by laying slices of fat over joint. Time to cook, 15 minutes approximately per lb.

NOTE.—It may be convenient with certain joints of mutton to bone, roll or skewer; but this method is generally speaking considered to be wasteful. The rib bones are usually chopped through to facilitate distribution when carving. A few onions cut in thin rings may be added to the stock in the baking dish.

#### Mint Sauce

*Ingredients.*—Mint, sugar, vinegar.

*Method.*—Thoroughly wash mint and pick the leaves from the stalk. Chop very fine and place in a vessel; add sugar and vinegar, and stir until sugar is dissolved.

NOTE.—The mint sauce should be made several hours before use and frequently stirred. This greatly improves the flavour.

### Boiled Mutton and Turnips

*Ingredients.*—Meat, 57 lb.; flour, 2 lb.; stock, pepper, salt; turnips, 50 lb.

*Method.*—Place sufficient stock in boiler to cover the meat; add salt and bring to the boil; put in the meat and boil rapidly for 10 minutes, then let simmer. Wash, peel and re-wash the turnips, and cut large ones into quarters; place them in the boiler until cooked. Remove joints and carve a little thicker than beef; place the meat neatly in the centre of dish surrounded by a layer of turnips.

Make a thickening of flour ; add pepper and salt and put into the stock in which meat has been cooked. Let simmer for 30 minutes ; cover contents of dish with gravy and keep hot till served. Remove scum as it rises during process of cooking.

Should it be desired to serve mashed turnips, drain and place them in a vessel ; add some dripping or margarine, pepper and salt ; thoroughly mash ; re-heat and serve.

### Broiled Beef Steak

*Method.*—As the success of a good broil so much depends on the state of the fire, see that it is bright and perfectly clear from smoke, and do not add any fresh fuel just before the gridiron is to be used. Sprinkle a little salt on the fire, put on the gridiron for a few minutes to get thoroughly hot, rub it with a piece of fresh suet to prevent the meat from sticking, and lay on the steaks, which should be cut an equal thickness—about  $\frac{3}{4}$  inch, or rather thinner—and level by beating them (as little as possible) with a rolling-pin ; turn them frequently with steak tongs (if these are not at hand, stick a fork in the edge of the fat so that no gravy escapes), and in 8 or 10 minutes the steak will be done. Have ready a very hot dish, into which put the ketchup, and, when liked, a little minced shallot ; serve the steaks, rubbing them over with butter, and seasoning with pepper and salt. They should not be cooked before the time required, as their excellence depends upon their being served very hot.

### Mutton Chops, Broiled

*Method.*—Cut the chops from the loin of mutton, remove a portion of the fat, and trim into a nice shape, slightly beat and level them, place the gridiron over a bright, clear fire, rub the bars with a little fat, and place on the chops ; while they are broiling turn them frequently, and in about 8 minutes they will be done. Season with pepper and salt, and dish up on a very hot dish. Rub a piece of butter on each chop and serve hot.

### Brawn

*Ingredients.*—1 bullock's head, 1 set of cow heels, 1 packet of spice, 1 oz. saltpetre, 2 lb. salt,  $1\frac{1}{2}$  oz. pepper, 2 gallons of water if boiled, 1 if steamed.

*Method.*—Trim the head, removing the skin round the outside of the mouth, also the nostrils, and well wash in cold water ; then saw it in two lengthways and through the lower part of the cheek bone ; also through the thick part of the



skull (avoid the use of the chopper, as it is nearly impossible afterwards to remove the small splinters from the bones), thus leaving the head in six pieces. Scald and clean the heels, splitting them lengthways, removing the large bone above the fetlock; place the whole in cold water in which 1 lb. of salt and 1 oz. of saltpetre have been dissolved and allow it to remain for 10 or 12 hours. Place 2 gallons of cold water in the boiler; add the head, heels and bones, and as soon as it boils allow it to simmer gently for 5 or 6 hours, the fat or scum being frequently skimmed off. Remove the bones from the liquid, and if necessary chop or mince any large pieces of meat that may remain; add the remaining salt, pepper and spice, stir the whole well together, seeing that the meat is equally mixed with the liquor. Serve in basins, baking dishes, etc., and allow it to cool. If the heels be tough or old, they may be left to simmer for 1 hour before the head is added.

### Faggots, Baked

*Method.*—Mix a mincemeat of calf's liver, or, if more convenient, pig's liver, and fresh fat pork. Chop very finely  $1\frac{1}{2}$  lb. of fresh fat pork. Season with onions, sage, thyme, salt and pepper.

Steam over boiling water, and throw off all the fat. When cold add a large cupful of breadcrumbs; mix all well together. Thoroughly flavour with nutmeg, and make up into round balls, which may be baked in a buttered dish, with a small quantity of good gravy, or, as is often done, wrapped separately in a piece of pig's caul. In either case they should be of a pale brown, and cooked very slowly. Time to steam mince meat, half an hour; to bake in a moderately hot oven, 45 minutes.

### Pork and Beans

*Ingredients.*—Pork or bacon,  $12\frac{1}{2}$  lb.; haricot beans, 16 lb.; pepper and salt as required.

*Method.*—Soak the beans for 12 hours, place in boiler or camp kettle, add salt, and boil until three parts cooked. Strain, place layer of beans in a baking dish, then a layer of very thinly sliced pork or bacon, another layer of beans, then pork or bacon; repeat until the baking dish is nearly full; sprinkle each layer with pepper and salt (also mustard if preferred), add stock or water, and bake in moderate oven for about 6 hours. Stir occasionally to prevent burning. Only sufficient stock should be used to keep the beans from burning. They should be cooked until well browned. A little molasses is sometimes added to the stock or water.

### Turkish Pilau

*Ingredients.*—Meat, rice, cayenne pepper, onions, salt, sweet herbs, flour, stock as required.

*Method.*—Peel and slice the onions ; separate the meat from the bones ; cut it into small pieces.

Place the flour, cayenne pepper and salt in a dish, mix well together ; rub the pieces of meat in dry flour. Pour a little stock into the bottom of the dish, add the meat, onions and sweet herbs, barely cover with stock, and stir the whole together.

Place in the oven, taking care that it is only moderately hot and the stew frequently stirred.

Boil the rice as directed for boiled rice, having it ready about 45 minutes before the dinners are served.

Line the sides of a separate dish with the rice, pour the pilau in the centre, then replace in the oven till time to serve.

### Ham Paste

*Ingredients.*—5 lb. cooked ham, 2½ lb. ground rice, 5 pints water, 10 teaspoonsful of pepper, 5 teaspoonsful of sauce, 5 lb. dripping.

*Method.*—Mince the cooked ham or bacon. Bring water to boil and stir in the ground rice, boil for ten minutes. Cream the dripping, add the ham, rice and seasoning, mix well and finally pass the whole through the mincer. Place the required quantity on a plate and shape into a neat pat.

### Potted Ham

*Ingredients.*—Bacon or ham (lean cut), 7 lb. ; cayenne pepper, ¼ oz., or as required ; bacon fat or margarine, 1 lb. ; ground mace, ¼ oz. ; salt as required.

*Method.*—Soak bacon or ham overnight, place in boiling water, and let steadily simmer until cooked. Allow to remain in its own stock until cold.

Remove the bone and rind, and cut into small pieces, place in a bowl, season with cayenne, mace, and well mix. Pass twice through mincing machine and add sufficient bacon fat to make into a creamy consistency, and well mix with spoon.

### Lorne Sausage

*Ingredients.*—Meat, 20 lb. ; fat or suet, 4 lb. ; bread (scrap), 8 lb. ; mixed herbs, 1 packet ; pepper, ½ oz. ; salt, 2 oz. ; flour, 2 lb.

*Method.*—Remove the meat from the bone and cut it up into small pieces. Remove the skin from the suet or fat and cut up small. Soak the bread in cold water, squeeze the water from the bread and crumble up. Place the whole of the above ingredients into a mixing bowl and well mix, then pass through a mincer. The mixed ingredients should be placed in a bowl and seasoned with  $\frac{1}{2}$  oz. pepper, 2 oz. salt, and 1 packet of herbs.

Shape similar to breakfast sausage, place in greased baking dishes and cook in a moderate oven.

When cooked, cut into portions of about 4 oz. and serve.

### Potted Meat (Beef)

*Ingredients.*—Lean meat, 8 to 10 lb. ;  $\frac{1}{4}$  oz. cayenne pepper ; 1 lb. dripping ;  $\frac{1}{4}$  oz. ground mace ; 1 oz. salt.

*Method.*—Place the meat in boiling water and let steadily simmer until cooked. Cut the meat into small pieces, place in a bowl, season with cayenne, mace, salt, and mix well. Pass twice through mincing machine, and add clarified dripping to make into a creamy consistency, and well mix with a wooden spoon. Place neatly on plates and serve cold.

### Fried Steaks and Onions

*Ingredients.*—Meat, 65 lb. ; onions, 50 lb. ; dripping, pepper, salt.

*Method.*—Remove meat from bone and cut into steaks ; place fat in the pan, and fry steaks on hot plate or open fire. Clean and cut up the onions into thin rings and fry until a golden brown colour. Serve with a thickened gravy.

NOTE.—When cooking onions for large numbers, partly fry and add a little hot stock in baking dish ; season with pepper and salt, add a thickening, and stir on hot plate till cooked.

## RABBIT DISHES

### Stewed Rabbit

*Ingredients.*—Rabbits, 70 lb. ; bacon, 6 lb. ; flour, 3 lb. ; onions, 3 to 6 lb. ; pepper, salt.

*Method.*—Carefully skin the rabbit and leave in salted water for 30 minutes ; cut into small joints and well wash in a fresh supply of water. Cut the bacon into slices. Clean and cut up the onions into small pieces. Place a little stock into a



steaming dish and add the onions. Place 3 lb. flour,  $\frac{1}{2}$  oz. pepper and 2 oz. salt into a bowl and well mix; add the rabbit and bacon, well flouring. Next place the rabbit and bacon in the dish with the onions, barely cover with stock, stir well together, replace the lid and steam for 2 hours. If this is cooked in a camp kettle or an ordinary boiler the flour, pepper and salt should be added as a thickening about 30 minutes before required.

### Rabbit Pie

*Method.*—Prepare the rabbits as explained under Stewed Rabbit, and cut into joints of convenient size. Cut the bacon into dice. Arrange in baking dishes, seasoning each layer with pepper and salt, and cover with stock. Cover the meat with a paste and bake in a brisk oven for about  $1\frac{1}{2}$  hours, then slowly for about 30 minutes. Add remainder of the stock and serve.

NOTE.—The heads, neck and liver should be put into a pan with seasoning and stewed to supply stock or gravy. The time for cooking is only approximate. When the crust becomes firm the pie should only be allowed to simmer gently until cooked; cover with greased paper if necessary to prevent the crust from being scorched. When cooking for large numbers it is more convenient partly to stew the rabbits. Put into baking dishes, add stock, cover with paste and cook as explained, but for a shorter time. For further information on the treatment of rabbits, see Appendix VII.

## FISH DISHES

### Fish and Potato Pie

*Method.*—Gently boil or steam the fish, remove the bone and flake into small pieces; put into baking dishes, well season, add a tablespoonful of chopped parsley to each and part of the white sauce over the fish. Mash and prepare the potatoes, cover the fish and score the surface with a fork. Bake in hot oven till browned.

### Fried Cod

*Method.*—Well wash the fish in salt and water; divide into cutlets about 1 inch thick; dip into batter of flour and water, and fry in boiling fat for 15 minutes.

## Baked Cod

*Method.*—Season with pepper and salt, coat the cutlets with a thin batter and dried breadcrumbs, arrange in well-greased baking dishes, and bake for 20 to 30 minutes. Turn cutlets at half-time.

## Boiled Fish

*Method.*—For haddock, cod, hake, skate and similar fish, after washing in salt and water, slice or cut up if large, put into cold water, bring to the boil, and allow to simmer for about 20 to 25 minutes. Cover with white sauce and serve.

## Fish Cakes

*Method.*—Cook the fish, remove skin and bone, flake the fish, well mash the potatoes till free from lumps, adding the milk, melt the dripping and mix potatoes and fish with sufficient seasoning. Make cakes into a flat oval shape about 1 in. thick, and of sufficient size to provide two for each man. Press in a light layer of breadcrumbs and dust with flour. Fry the cakes in hot fat till browned, or use double quantity of dripping in the preparation of the fish cakes, place in well-greased baking dishes and bake in moderate oven till browned.

### Fish Cakes (made with tinned Salmon and Rice)

#### *Breakfast Dish*

*Ingredients.*—Salmon, 12 to 14 tins ; rice, 5 lb. ; flour, 2 lb. ; ground nutmeg (2 nutmegs) or cayenne pepper as preferred ; dripping, 1½ lb. ; breadcrumbs as required ; salt and pepper as required.

*Method.*—Strain off liquor and remove large bones and dark skin from salmon, and place it in a bowl. Wash, strain and cook rice in boiling water for 12 to 15 minutes, and strain and mix with salmon ; season with salt and pepper, ground nutmeg ; bind with flour. Roll out, cut into portions, roll in breadcrumbs, place in greased tins, and bake in the oven till nicely browned.

## Fish Paste

*Ingredients.*—Pickled herrings, 30 ; margarine, ¾ lb. ; mace, ½ oz.

*Method.*—Soak the fish in cold water for 5 hours, then place in boiling water for 5 minutes (not to be boiled), remove the bones and skin, pound or pass through a fine mincer, mix in the margarine and mace.

## How to Prepare Frozen Fish for Cooking

Keep the fish frozen until ready for use.

Then put it in cold water long enough, but no longer than is necessary to take all the frost out.

It will then be ready to cook.

Do not thaw the fish out in warm or hot water.

Do not thaw the fish out in an oven, or by any artificial heat.

Do not thaw the fish out until ready to be cooked.

Do not cook the fish until after it has been thawed out in cold water.

## Meatless Dietary

The following meatless dietary is given in case it should ever be necessary to cater for troops when meat is unobtainable but there is at the same time a plentiful supply of other foodstuffs :

*Breakfast.*—Porridge with milk ; bread and butter or margarine, baked butter beans.

*Dinner.*—Vegetable soup ; cheese pudding ; fruit salad.

*Tea.*—Tea, bread, margarine, cheese and mixed salad.

*Supper.*—Soup, bread, cheese, cocoa.

## VARIOUS

### Paste for Pies

When preparing paste the cook should place his hands under a tap for a few minutes, so that they may be quite cold before touching the ingredients.

*Ingredients.*—Flour, dripping, salt and cold water.

*Method.*—Finely shred the dripping, should it be hard ; if soft, it must be broken into small pieces about the size of a walnut. Mix the flour and salt well together, add the dripping, which should not be rubbed into the flour but carefully mixed. Work the whole lightly into a smooth paste with the required quantity of cold water, turn out on the table, fold and roll about four times, or press lightly with the hands ; roll out, and it will then be fit for use.

Work in a well ventilated room with a clear light and facing the sun when possible.

The advantages of sending everything up to the rooms perfectly hot and well prepared should be impressed upon the cook. No dish looks so unpalatable as a meat pie carelessly made and baked. A pie with a light crust tastefully covered, and baked a nice brown even colour, is in itself an incentive



to the appetite. These remarks apply equally to every dish usually prepared in a regimental cookhouse, and the serjeant-cook should satisfy himself that all dishes that leave the cookhouse are properly served.

### Colouring for Gravies, Stews, etc.

Colouring should be as flavourless as possible so as not to leave an objectionable taste in the dish prepared.

The use of gravy salt is forbidden, as it adds salt where it is not required.

### Caramel

*Method.*—Put  $\frac{1}{2}$  lb. of sugar in a stewpan and place on hot plate; move the sugar about with a spoon and allow it to remain until it is of a medium dark brown colour; add about 3 pints of water and let simmer for a few minutes; when cool bottle for use.

### Brown Flour

*Method.*—Line a shallow baking tin with clean paper, spread about 1 lb. of flour over the paper. Put the tin into a moderate oven and thoroughly brown, moving the flour about as necessary. The flour should be sifted after browning and kept for use as required.

### Vegetables and Colouring

*Method.*—When some of the vegetables are fried till well browned and added to the dish in preparation, for flavouring, they also serve the purpose of colouring.

### To Brown Pastry and Cakes

*Method.*—Put  $\frac{1}{4}$  lb. brown sugar into  $\frac{1}{2}$  breakfast cup of milk. Put into small saucepan and slowly bring to boiling point, stirring all the time. With a small brush lightly coat the cake or pastry before cooking.

### Eggs

*Method.*—*Poached.* Break some fresh eggs into separate cups; then drop them one after the other into a stewpan containing boiling water mixed with a tablespoonful of white vinegar and a little salt; keep this mixture boiling while the eggs are dropped in at the side of the stewpan; when they have boiled for 2 minutes drain them on to a clean cloth; then place each one on a square or oval piece of dry toast or fried ham, bacon, etc.

*Boiled.* For breakfast the eggs should be placed in boiling water and allowed from 3 to 3½ minutes to set the whites nicely; if liked hard, 6 minutes will be long enough; for salad, they should be boiled for 10. If boiled for a long period they become discoloured.

### Stock Pot

A stock pot should be in use in all cookhouses. Usually a large boiler is provided for this purpose, in which bones are allowed to simmer for the purpose of extracting properties which are invaluable in the preparation of soup, gravies, meat pies, meat puddings, etc.

The bones should be put into cold water (add salt) in the proportion of one-third bones to two-thirds water, brought to the boil and allowed to simmer for about 7 hours. The bones should then be removed and dried, the stock strained and used as required.

Scum should be skimmed from the surface of the stock as it rises. It is a waste product, the presence of which frequently turns the stock sour, especially in hot weather when the fire has been drawn and the stock has been allowed to cool down.

Each night the boiler should be emptied and the liquid strained off into clean vessels. Then wash and air the pot.

### Sauces

*What to serve with Meat and Poultry.*—The following will be found a valuable little table for reference:—roast beef, horseradish sauce; grilled steak, mushroom or tomato sauce; roast mutton, red currant, rowan, or cranberry jelly, onion or soubise or brown caper sauce; boiled mutton, parsley or caper sauce; grilled or fried chops, tomato sauce; roast pork, apple sauce, piquant sauce, or thick brown gravy; pork cutlets, mustard sauce; boiled ham, parsley sauce; roast lamb, mint sauce; roast chicken, bread sauce or brown gravy; boiled chicken, chestnut sauce, egg sauce; grilled chicken, tartare sauce; roast goose, apple sauce; roast duck, apple sauce or orange sauce; roast turkey, cranberry or bread sauce; boiled turkey, celery or egg sauce; boiled rabbit, onion or mushroom sauce; roast rabbit, bread sauce. Trained cooks invariably keep by them the ingredients with which to make these sauces.

### Baked Bread Pudding

*Ingredients.*—Bread, 10 lb.; biscuit, 5 lb.; raisins, 2 lb.; peel, ¼ lb.; spice, 3 packets; nutmeg, 1; treacle, 1 to 2 lb. salt; dripping, 2 lb.; baking powder, ¼ lb.

*Method.*—Soak the bread and biscuits in cold water, place both ingredients in a bowl, add dripping and rub it well into the bread and biscuits. Add the remaining ingredients and mix well together. Add sufficient water and mix into a smooth mixture. Place in greased dishes and bake in a moderate oven for 50 to 60 minutes.

### \* Royal Pudding

*Ingredients.*—Bread, 12 lb. ; flour, 6 lb. ; dripping, 2 lb. ; jam, 3 lb. ; sultanas, 2 lb. ; sugar, 2 lb. ; spice, 2 packets ; baking powder,  $\frac{1}{2}$  lb. ; salt.

*Method.*—Place the breadcrumbs, flour, salt and baking powder in a mixing bowl and mix well together. Add the dripping and rub well into the bread and flour, then add the remaining ingredients and thoroughly mix. Add sufficient water and mix into a smooth mixture. Place in greased basins, and boil or steam for 2 to  $2\frac{1}{2}$  hours.

### \* Treacle Pudding

*Ingredients.*—Breadcrumbs, 18 lb. ; flour, 5 lb. ; suet, 4 lb. ; sugar, 2 lb. ; treacle, 6 lb. ; baking powder, 2 oz. ; salt.

*Method.*—Place the breadcrumbs, flour, salt and baking powder in a bowl and mix well together, add the grated suet and re-mix, add remaining ingredients and mix into a stiff mixture, cut into portions required, mould into shape and place in greased basins or steaming dishes. Steam for 2 to  $2\frac{1}{2}$  hours.

A white sauce should be served.

Or

Instead of treacle use 7 lb. marmalade and call it GOLDEN PUDDING.

Or

Instead of treacle use 10 lb. dates and 1 nutmeg and call it DATE PUDDING.

Or

Instead of treacle use the grated rind and juice of 8 lemons and call it LEMON POG.

Or

Instead of treacle use the grated rind and juice of 8 oranges and call it ORANGE POG.

NOTE.—In each case all other ingredients stand.

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\* Biscuits may be substituted for bread, breadcrumbs or flour.



### \* Railway Pudding

*Ingredients.*—Flour, 8 lb. ; bread, 8 lb. ; dripping, 4 lb. ; sugar, 2 lb. ; sultanas, 2 lb. ; raisins, 2 lb. ; jam, 2 to 3 lb.

*Method.*—Place the flour, breadcrumbs, sultanas, and baking powder in a bowl and mix together. Add the dripping and rub well into the flour. Add the remaining ingredients with a little water, and mix into a smooth mixture. Boil or steam for 2 to 2½ hours.

### \* Sultana Roll

*Ingredients.*—Flour, 12 lb. ; bread, 6 lb. ; suet, 4 lb. ; sultanas, 5 lb. ; sugar, baking powder, salt.

*Method.*—Place the flour, salt and baking powder in a mixing bowl and mix well together ; add the breadcrumbs, then the suet and the remaining ingredients and thoroughly mix together. Add sufficient water and mix into a smooth mixture, cut into the portions required, mould into shape, and place in steaming dishes which have been lined with grease-proof paper, and steam for 2 to 2½ hours.

(To be served with a white sauce.)

### \* Snowden Pudding

*Ingredients.*—Flour, 8 lb. ; bread, 8 lb. ; raisins, 3 lb. ; suet, sugar, marmalade, 3 lb. ; milk, 3 tins ; baking powder, salt.

*Method.*—Place the flour, breadcrumbs and salt, also baking powder and grated suet into a mixing bowl and mix well together, add the remaining ingredients and mix into a smooth mixture, cut into portions required, mould into shape, and place in steaming dishes lined with grease-proof paper, and steam for 2 to 2½ hours.

### \* College Pudding

*Ingredients.*—Biscuits, 8 lb. ; flour, 8 lb. ; suet, 4 lb. ; currants, 4 lb. ; peel, 1 lb. ; nutmeg, one ; spice, 1 packet ; baking powder, salt, 3 lemons.

*Method.*—Place the crushed biscuits, breadcrumbs, grated suet, baking powder and salt into a mixing bowl and mix well together, add the finely chopped lemons and remaining ingredients, mix well together, add sufficient water and mix into a smooth mixture, cut into portions required and place in dishes lined with grease-proof paper and steam for 2 to 2½ hours.

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\* Biscuits may be substituted for bread, breadcrumbs or flour.

### \* Crecy Pudding

*Ingredients.*—Flour, 16 lb. ; dripping, 4 lb. ; raisins, 4 lb. ; carrots, 2 lb. ; sugar, 2 lb. ; baking powder and salt.

*Method.*—Place the flour, salt and baking powder in a bowl and mix well together, add the grated dripping or suet, also the remaining ingredients, and mix into a smooth mixture, cut into portions required, mould into shape and place in steaming dishes lined with grease-proof paper and steam for 2 to 2½ hours.

### \* Buller Pudding

*Ingredients.*—Breadcrumbs, 8 lb. ; Lyle's Golden Syrup, 8 lb. ; flour, 8 lb. ; shredded suet, 4 lb. ; sugar, 2 lb. ; rind of 8 lemons ; baking powder, ½ lb.

*Method.*—Place the breadcrumbs in the mixing bowl, add flour, sugar, grated lemon rind, baking powder and shredded suet, and mix well together. Add half syrup to the pudding mixture and rub well in. Place remainder of syrup on bottom of each basin, add milk or water to bind ingredients together, divide amongst the basins, cover with grease-proof paper and steam for 2 hours. Serve with lemon sauce made from force of lemons used in the puddings.

### † Raisin Pudding

*Ingredients.*—Flour, raisins, dripping, egg powder, baking powder, salt.

*Method.*—Stone and chop up the raisins if time will allow ; if not, use sultana raisins ; shred the dripping ; then mix the flour, baking powder, egg powder, salt, and dripping ; add the raisins, and mix well together ; add sufficient water to make a rather stiff paste, divide it into equal portions, tie in a cloth, and boil for 4 hours ; if rolled as in a plain suet pudding, 3½ hours will be found sufficient.

### † Date Pudding

*Ingredients.*—Dates, flour, sugar, dripping, salt, nutmegs.

*Method.*—Stone the dates, shred the dripping, place the flour, salt, sugar, and grated nutmeg in a dish ; mix together ; add the dates and dripping, mix the whole well together ; moisten with sufficient cold water (mixing lightly) to make a tolerably soft dough.

Tie up in cloths as in plain pudding, and boil gently for 3½ hours.

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\* Biscuits may be substituted for bread, breadcrumbs or flour.

† For ingredients, see page 133.

### \* Bread and Butter Pudding

*Ingredients.*—Bread, sugar, currants, margarine, milk.

*Method.*—Cut the bread into moderately thin slices (remove any hard crust), butter it; wash, dry and carefully pick the currants; free the suet from skin and chop fine; place a layer of bread at the bottom of the dish, a layer of currants and sugar and suet, then another layer of bread, and so on alternately till the dish is nearly full. Pour in the milk at the side of the dish until it appears on the surface. Bake to a nice brown colour in a moderate oven. It will require  $1\frac{1}{2}$  hours.

### Apples and Apple Rings

Fresh apples should be used at the rate of 25 lb. per 100 men for apple pies, puddings, tarts, or if stewed and served with custard.

Dried apple rings should be issued at the rate of 6 lb. per 100 men for the above purposes. These, when soaked, absorb approximately three times their own volume of water, and so become equivalent in weight and volume to 24 or 25 lb. of fresh apples.

*Method.*—Apples, apple rings, or any fruit from which the moisture has been evaporated, should first be rinsed in cold water and then soaked in fresh water for at least 12 hours. They are then used as detailed for apple tarts, care being taken, however, to see that they do not get dry during the process of cooking. Dried or evaporated fruits require more time to cook and absorb more water than fresh fruit.

### \* Apple Pies or Tarts

*Ingredients.*—Flour, apples, dripping, baking powder, sugar, cloves.

*Method.*—Make the paste, peel, core and cut the apples into slices; place a thin border of paste round the sides of the dishes, and add the sugar and cloves, with sufficient water to cover the bottom of the dish; cover with paste, and bake in a quick oven for 1 hour.

### \* Apple Pudding

*Ingredients.*—Flour, apples, baking powder, sugar, cloves, salt, dripping.

*Method.*—Make the paste, peel, core and cut the apples into slices. Line the inside of a cooker with a portion of the paste. Place in the apples, sugar, and cloves; well cover the

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\* For ingredients, see page 134.



bottom of the cooker with water ; cover with the remainder of the paste ; with a moderate steam the pudding will require from 2 to 2½ hours to cook.

### \* Dried Figs and Prunes

*Method.*—If for stewing, they should be separated and picked over, then soaked overnight in sufficient water to cover them. Figs or prunes may be stewed by means of steam, or in a covered dish in an oven. Sufficient sugar to sweeten them should be added and, if required, a little lemon flavouring.

Figs for puddings should be prepared as for stewing, the hard stems removed and the fruit cut into small pieces ; then proceed as for date pudding.

### \* Treacle Pudding

*Ingredients.*—Flour, treacle, baking powder, egg powder, salt, dripping.

*Method.*—Place the flour, baking and egg powders, with salt, in a dish ; mix well. Put in the chopped dripping, add sufficient cold water to make a tolerably stiff paste. Roll out about half an inch thick, spread the treacle over the surface of the paste, damp the edges, roll round, taking care that the ends adhere to each other to prevent the treacle from boiling out. Tie in a cloth, and boil gently from 2½ to 3 hours.

### \* Treacle Tarts

*Ingredients.*—Flour, treacle, dripping, baking powder, and breadcrumbs.

*Method.*—Make the paste. Grease the inside of a pie dish. Roll out the paste to about one-eighth of an inch thick ; line the inside of the dish ; spread a thin layer of treacle at the bottom ; sprinkle on the breadcrumbs. Cut a piece of paste the size of the dish. Place this on the top, add another layer of treacle, then a layer of paste, and so on till the dish is nearly full ; bake in a moderate oven till done. Time required for baking depends upon the size of the dish ; an ordinary dish requires about 1½ hours.

### Open Custard Tart

*Ingredients.*—Flour, 12 lb. ; dripping, 3 lb. ; custard powder, 3 lb. ; sugar, 2 lb. ; milk, 3 tins ; baking powder, 2 oz.

*Method.*—Place flour, salt and baking powder in a mixing bowl and aerate ; then add the dripping and rub well into the

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\* For ingredients, see page 134.

flour. Add sufficient water and mix into a stiff paste. Cut into the portions required and roll out to the size of the dish. Place the pastry in greased dishes and bake in a moderate oven for about 30 minutes.

Meanwhile prepare and cook the custard in the usual manner, then pour over the pastry in the dishes and cook for a further 15 to 20 minutes.

### Tapioca Pudding

*Method.*—Soak the tapioca for 2 hours in cold water, then strain. Mix the tapioca, milk and sugar in baking dishes, margarine being broken up and placed on top of the mixture; then grate nutmeg over the surface. Place in hot oven till nearly browned and remove to cooler part till cooked.

### Oatmeal Porridge

*Ingredients.*—Scotch oatmeal, 6 lb. ; milk, 1 to 3 quarts ; salt, 1 oz. ; sugar as required.

*Method.*—Boil the water and sprinkle in the oatmeal, add the salt, stir till it boils, then let simmer for about one hour, stirring all the time to prevent burning; add the milk and sugar and serve. Golden syrup may be used if preferred, in which case both sugar and milk can be dispensed with.

### Apple Rings and Rice

*Ingredients.*—Rice, 8 lb. ; apple rings, 3½ lb. ; sugar, 3½ lb. ; suet, 1 lb. ; dripping, ½ lb. ; ground cloves, 1 oz.

*Method.*—Wash and re-wash the rice, rinse the apple rings and soak with the rice in sufficient cold water to cover them for 6 to 8 hours. Put the apple rings, rice, and water in which they were soaked into a cooking vessel and let simmer for 1½ hours. Remove the skin from the suet, pass through a mincer or chop very fine, and add, with the sugar and ground cloves, to the other ingredients. Put in greased baking dishes with a few pieces of well shredded dripping on top and bake in a quick oven till nicely browned.

### Sea Pie (Supper Meal)

*Ingredients.*—Meat, 25 lb. ; mixed vegetables, 7 lb. ; flour, 14 lb. ; dripping, 3½ lb. ; pepper and salt.

*Method.*—Prepare the vegetables and cut into small pieces. Cut up the meat and arrange in a cooking vessel in alternate layers with the vegetables. Add stock or water, season; and allow to simmer for about 1½ hours. Make a paste as

for plain pudding, roll out to about  $\frac{1}{2}$  inch thick and lay on contents of the cooking vessel and cook slowly for about  $1\frac{3}{4}$  hours. Time, 3 hours.

### Ox Heart Pie (Supper Meal)

*Ingredients.*—Ox heart, 16 lb. ; bacon, 2 lb. ; flour, 14 lb. ; onions, 2 lb. ; dried mixed herbs,  $\frac{1}{2}$  packet ; pepper and salt.

*Method.*—If the ox hearts are frozen, defrost and stew in water for about 3 hours or until tender. Cut up into small pieces, the bacon into thin slices, and put in baking dishes. Sprinkle with pepper, salt, finely chopped onions and herbs. Fill the baking dishes with stock, make a paste as for plain pudding, roll out, cover the contents of the baking dish and bake in a fairly hot oven for 2 hours. Cooked vegetables may be included with the other ingredients.

### Meat Roly-Poly (Supper Meal)

*Ingredients.*—Meat, 25 lb. ; flour, 18 lb. ; dripping,  $4\frac{1}{2}$  lb. ; onions, 3 lb. ; mixed herbs, 1 packet ; pepper and salt.

*Method.*—Mince and cook the meat with finely chopped onions and herbs, pepper and salt. Make a paste as for plain pudding, roll out, cover with minced meat, roll, tie up in cloths and boil for about 3 hours. Cooked meat left over from any meal may be used up in this preparation.

### Cornish Pasties

*Ingredients.*—Flour, 12 lb. ; meat,  $12\frac{1}{2}$  lb. ; potatoes, 18 lb. ; onions, 2 lb. ; dripping, 4 lb. ; pepper and salt.

*Method.*—Prepare the vegetables and meat, cut into very small pieces ; place into a mixing bowl, season with pepper and salt, and mix well together.

Then place flour in a bowl, add a little salt and aerate, then rub dripping well into the flour, add sufficient water and mix into a stiff paste.

The pastry should then be rolled out and cut into portions (each portion to be about 3 inches square). Place a portion of the mixed meat and vegetables in the centre of each piece of pastry, fold the ends of the pastry together and seal the edges.

Place in greased baking dishes and cook in a moderate oven for about 50 to 60 minutes.

(The appearance of the pasties can be improved by washing them over with milk before they are cooked.)



### Scotch Oatcakes

*Ingredients.*—Oatmeal (medium), 8 lb. ; flour,  $\frac{1}{2}$  lb. ; dripping, 2 lb. ; salt, 2 oz. ; boiling water.

*Method.*—Finely shred the dripping and rub into the oatmeal, add the salt and well mix. Add boiling water and mix to a stiff dough, roll out thin, lightly sprinkle with flour, cut quickly into shapes and bake in a brisk oven for about 20 minutes.

### Oatmeal Scones

*Ingredients.*—Oatmeal, 8 lb. ; flour,  $1\frac{1}{2}$  lb. ; dripping, 2 lb. ; baking powder, 3 packets ; milk, 4 pints ; sugar, 1 lb. ; salt, 1 oz.

*Method.*—Put the oatmeal, flour, baking powder, sugar and salt into a mixing bowl and well mix. Finely shred the dripping and rub into the mixed ingredients ; make a light dough, adding the milk ; cut into shapes and bake in a quick oven for about 20 minutes.

### Barley Scones

*Ingredients.*—Barley meal, 8 lb. ; flour, 2 lb. ; dripping,  $2\frac{1}{2}$  lb. ; baking powder, 3 packets ; salt, 1 oz. ; milk, 6 pints.

*Method.*—Put the barley meal, flour, baking powder and salt into a mixing bowl ; finely shred and rub in the dripping ; gradually add the milk and mix into a light dough with a spoon. Roll out on a board to about  $\frac{1}{2}$  inch thick ; cut into shapes and bake in a hot oven for about 20 minutes. Should husks be present in the meal pass through a sieve before using.

### To Make Baking Powder

*Ingredients.*—Cream of tartar,  $\frac{1}{2}$  lb. ; carbonate of soda, 1 lb. ; ground rice,  $\frac{1}{2}$  lb. ; tartaric,  $\frac{1}{2}$  lb.

*Method.*—Mix together and keep in airtight tins.

### Minced Meat and Pease Pudding

*Ingredients.*—Cooked meat, about 20 lb. ; fat meat, 4 lb. ; flour,  $1\frac{1}{2}$  lb. ; peas, 15 lb. ; pepper and salt.

*Method.*—Pass the meat through the mincer and season with pepper and salt. Put in a baking dish with a little stock and place in a moderate oven for about 20 minutes. Make a thickening with  $1\frac{1}{2}$  lb. of flour, mix with  $1\frac{1}{2}$  oz. of pepper and 2 oz. salt. Remove the meat from the oven, pour off the fat ; add the thickening, and replace in the oven till the mince sets.

Soak the peas for 8 to 10 hours. Tie loosely in cloths so that the peas may be allowed to swell; place in boiling water and boil for 3 to 4 hours. Mash. Add pepper and salt to taste. Place in a hot baking dish, make a well in the centre, put in the minced meat and serve. If split peas are used they should not be soaked before being cooked.

### Ham and Beef Roll

*Ingredients.*—Beef, 10 lb.; ham or bacon, 8 lb.; bread, 7 lb.; seasoning as required.

*Method.*—Remove all bone from the meat and bacon, cut the meat and bacon into strips and pass through a fine mincer. Soak the bread for 30 minutes in cold water, then squeeze out as much moisture as possible and pass through the mincer. Then mix all ingredients together, adding the seasoning at the rate of  $\frac{1}{2}$  oz. to every pound of pulp. Pass the mixture through the mincer again. Make out in portions, and roll into shape, tie the mixture up *tightly* in pudding cloths and boil or steam for  $1\frac{1}{2}$  hours. Remove from the boiler or steamer and place in a press, or between cutting boards, and allow to remain until cold. It is then ready for carving. Serve with a piquant sauce.

### Galantine of Beef

*Ingredients.*—Meat, 18 lb.; bread, 7 lb.; seasoning as required.

The method of preparation and cooking is the same as for Ham and Beef Roll.

### Beef Sausages

*Ingredients.*—Meat, 24 lb.; bread, 8 lb.; seasoning as required; sausage skins; salt,  $\frac{1}{2}$  oz. to every lb. of pulp.

*Method.*—Remove the meat from the bone, cut into strips and pass through the mincer. Soak the bread in cold water, then squeeze out as much moisture as possible, and pass through the mincer. Mix the whole of the ingredients and add the seasoning. Adjust sausage filler to the mincer and pass the mixture through the mincer into the skins, tie up into suitable sizes, either 6 or 8 to the lb., and cook when required.

### Sausage Seasoning

*Ingredients.*—Common salt, 14 lb.; ground ginger, 2 oz.; pepper, 7 lb.; mustard, 2 oz.; ground mace, 2 oz.; ground nutmeg, 2 oz.; sage, 8 oz.

*Method.*—Thoroughly mix all the ingredients, and if possible pass through a fine sieve; then place into a container with an airtight lid, and use as required, at the rate of  $\frac{1}{2}$  oz. to every pound of pulp.

### Salmon and Anchovy Paste

*Ingredients.*—Salmon, 8 tins; margarine, 2 lb.; cooked potatoes, 2 lb.; anchovy essence, 1 bottle; cayenne pepper,  $\frac{1}{4}$  oz.

*Method.*—Cream the margarine and cold potatoes. Open the tins of salmon and remove all liquor and black skin, also large bones, then pass through a fine mincer.

Mix the salmon and creamed potatoes and margarine together, add the anchovy essence and pepper, and when mixed, pass the whole through the mincer again to ensure thorough mixing. Make out into the required number of messes and serve.

### Galantine of Preserved Meat

*Ingredients.*—Preserved meat, 16 lb.; bread, 7 lb.; seasoning as required.

*Method* is the same as for Ham and Beef Roll.

### Mixed Fruit Preserve

*Ingredients.*—Fruit salad, 5 lb.; lemons, 3; sugar or golden syrup as required (this will depend upon the quantity of sugar contained in fruit in the mixed salad); about 3 oz. of bruised ginger.

*Method.*—Wash, stone where necessary, cut up finely, and soak in sufficient water barely to cover 5 lb. of mixed fruit salad for 8 hours, turn into a stewpan or camp kettle with sugar (or golden syrup), add the juice of 3 lemons with the rind cut up into sections, and bruised ginger. Boil for  $1\frac{1}{2}$  hours or until the fruit sets, stirring throughout. When cold serve as jam.

### Rhubarb and Dates

*Ingredients.*—Rhubarb, 18 lb.; dates, 6 lb.; water, 6 gallons, or as required.

*Method.*—Stone and chop the dates into small pieces; place in cooking vessel with water, and boil for 10 minutes. Remove leaves from the rhubarb and wipe with a cloth; cut into pieces of even size, add to dates and cook till tender (10 to 15 minutes), taking care that the rhubarb is not broken.



### Rhubarb and Golden Syrup

*Ingredients.*—Rhubarb, 18 lb. ; golden syrup, 5 lb. ; water, 4 gallons or as required.

*Method.*—Place water and golden syrup in a cooking vessel, bring to the boil, and treat rhubarb as explained for rhubarb and dates.

### Rice and Apple Pudding

*Ingredients.*—Fresh apples, 12½ lb. ; rice, 6¼ lb. ; sugar, 1½ lb. ; milk or water as required ; margarine, ¾ lb. ; nutmegs, 2 ; ground cloves, ½ oz.

*Method.*—Core, peel, quarter and cook apples with the ground cloves in a small quantity of water, then pass through a sieve. Boil rice in milk or water until tender ; add apples and sugar, and mix well. Place in a baking dish ; grate nutmeg over surface and break small pieces of dripping on top, and brown in a hot oven.

NOTE.—If milk is not used add about ¾ lb. of finely chopped suet before putting into the oven.

### Rice and Pear Pudding

*Ingredients.*—Pears (dried), 6¼ lb. ; rice, 6¼ lb. ; sugar, 1½ lb. ; water or milk, 25 quarts ; margarine, ¾ lb. ; nutmegs, 2 ; ground cloves, ½ oz.

*Method.*—Wash and soak pears overnight in sufficient water to cover the fruit. Cook in same water with ground cloves ; then pass through a sieve. Boil rice in milk or water until tender. Add pears and sugar, and well mix. Place in a baking dish. Grate nutmeg over surface and break small pieces of dripping on top, and brown in a hot oven.

### Prune Jelly

*Ingredients.*—Prunes, 12½ lb. ; water, 18¾ quarts ; leaf gelatine, 1½ lb. ; sugar, ¾ lb.

*Method.*—Wash, soak and stone prunes ; place in a saucepan, add water and sugar, and gently let simmer for about 20 minutes or until cooked. Wash gelatine in cold water, then strain and place with the prunes, stirring until the gelatine has melted.

Place in moulds or basins and put in a cool place to set. When firm dip mould in hot water, turn out and serve.

### Mixed Fruit Jelly

*Ingredients.*—Fruit salad,  $6\frac{1}{4}$  lb. ; water,  $18\frac{3}{4}$  pints ; leaf gelatine,  $12\frac{1}{2}$  oz. ; sugar,  $\frac{3}{4}$  lb.

*Method.*—Wash and soak fruit overnight. Place in a saucepan, add water and sugar and gently let simmer until cooked. Wash gelatine in cold water and strain and place with the fruit, stirring until the gelatine has melted. Place in moulds or basins, and put in a cold place to set. When firm dip mould in hot water, turn out and serve.

### Apple and Currant Pudding

*Ingredients.*—Apple rings, 3 lb. 2 oz. ; currants, 3 lb. 2 oz. ; flour, 12 lb. ; dripping,  $1\frac{1}{2}$  lb. ; spice, 2 oz. ; sugar,  $1\frac{1}{2}$  lb. ; salt ; water.

*Method.*—Wash and soak apple rings overnight, then chop up fine. Wash, dry and pick over currants. Shred the dripping. Place flour, currants, apples, dripping, sugar, spice, and a pinch of salt into a bowl and well mix. Make a bay in centre, add sufficient water to make a firm consistency. Place the mixture into a greased basin, cover securely with scalded pudding cloth, and boil or steam for 3 hours. Fresh fruit may be used in place of apple rings. The apples need not be soaked as in the case of apple rings.

### Rice Rock Cakes

*Ingredients.*—Rice flour, 4 lb. 2 oz. ; barley flour, 4 lb. 2 oz. ; currants, 2 lb. ; sugar, 2 lb. ; baking powder, 2 oz. ; dripping, 2 lb. ; milk or water ; pinch of salt.

*Method.*—Wash, dry and pick over currants. Shred the dripping. Place all dry ingredients in a bowl and well mix. Make a bay in the centre, then add sufficient milk to form a stiff consistency.

Drop the mixture as roughly as possible on to a greased baking tin, and bake for about 15 to 20 minutes.

### Apple and Sago Jelly

*Ingredients.*—Apple rings, 3 lb. ; water, 15 quarts or as required ; sago, 3 lb. ; sugar, 2 lb. ; vanilla essence.

*Method.*—Wash, soak, cook and strain the apple rings. Place the liquor in a saucepan and add sufficient water to make 15 quarts ; bring to boiling point, sprinkle in the sago, and let gently simmer until cooked. Time, about 20 minutes. Flavour with sugar and essence. Lightly stir in the apple

rings and then place in moulds or basins which have been previously rinsed with cold water. Put in a cool place. When firm turn out and serve.

### Oatmeal Currant Cakes

*Ingredients.*—Cold porridge, 12 lb. ; sugar, 1 lb. 8 oz. ; currants, 1 lb. 8 oz. ; flour, 4 lb. 8 oz., or as required ; baking powder, 3 oz. ; dripping, 1 lb. 8 oz.

*Method.*—Shred the dripping. Wash, dry and pick over currants. Place porridge in a bowl ; add flour, dripping, sugar, currants and baking powder ; mix well together. Place in a greased baking tin about 1½ in. in depth and cook in a quick oven.

Time, about 30 minutes.

This cake is for using up any porridge that may be left. More flour may be needed to bind if the porridge is very thin.

### Date Pudding

*Ingredients.*—Flour, 16 lb. ; dripping, 4 lb. ; dates, 12 lb. ; water ; pinch of salt.

*Method.*—Stone and chop up the dates, shred the dripping, place all dry ingredients in a bowl and well mix. Make a bay in the centre, and add sufficient water to form a stiff dough. Place in a greased basin, cover securely with scalded pudding cloth, and boil or steam for about 3 hours, or roll in a scalded pudding cloth, tie up with string and steadily boil for about 3 hours.

### Currant Pudding

*Ingredients.*—Flour, 18 lb. ; currants, 6 lb. ; sugar, 3 lb. ; dripping, 4½ lb. ; water ; pinch of salt.

*Method.*—Wash, dry and pick over currants, shred the dripping. Place all dry ingredients in bowl and well mix. Make a bay in centre and add sufficient water to form a stiff dough. Place in greased basins, cover securely with scalded pudding cloth, and boil or steam for about 3 hours, or roll in a scalded pudding cloth, tie up with string and steadily boil for about 3 hours.

### Mock Mince Pies

*Ingredients.*—Apple rings, 2 lb. ; sugar, 10 oz. ; currants, 1¼ lb. ; spice, ½ oz. ; flour, 12 lb. ; dripping, 3 lb. ; baking powder, 3 oz. ; water ; pinch of salt.

*Method.*—Wash, soak and cut apple rings into small dice. Place in a bowl, add currants (washed and picked over), sugar, spice, and well mix. Shred the dripping, place flour, dripping



and salt in a bowl and well mix. Make a bay in the centre, and add sufficient water to form a stiff dough. Grease patty tins and line with paste, fill with mincemeat, damp the edges, cover with paste, then bake in a quick oven. Time, about 20 to 25 minutes.

### Apple Pie

*Ingredients.*—Apple rings, 7 lb.; sugar,  $1\frac{1}{2}$  lb.; cloves, 1 oz.; flour, 14 to 16 lb.; dripping,  $3\frac{1}{2}$  lb.; baking powder, 3 oz.; water; pinch of salt.

*Method.*—Wash and soak apple rings overnight. Shred the dripping. Place the flour, dripping and salt in a bowl, and well mix. Make a bay in centre and add sufficient water to form a stiff paste. Place apple rings in pie dish, add the sugar, cloves and a little water. Roll out and cover pie dish with pastry; bake in a quick oven till cooked. Time, 1 hour.

If fresh apples are used, first prepare, and then proceed as explained. Use 25 lb.

### Apple Pudding

*Ingredients.*—Apple rings, 6 lb.; sugar,  $1\frac{1}{2}$  lb.; cloves, 1 oz.; flour, 14 lb.; dripping,  $3\frac{1}{2}$  lb.; water; pinch of salt.

*Method.*—Wash and soak apple rings overnight. Shred the dripping. Place the flour, dripping and salt in a bowl and well mix. Make a bay in centre and add sufficient water to form a stiff paste. Lightly grease and line basins with pastry and fill with apples. Add a little water, sugar and cloves. Damp the edges and cover with pastry. Tie scalded pudding cloth securely on, and boil or steam for 2 to 3 hours.

If fresh apples are used, first prepare, and then proceed as explained.

### \* Windsor Pudding

*Ingredients.*—Breadcrumbs, 12 lb.; flour, 6 lb.; suet (shredded), 6 lb.; peel,  $1\frac{1}{2}$  lb.; currants, 4 lb.; raisins, 4 lb.; sugar, 6 lb.; potatoes (shredded), 8 lb.; carrots (shredded), 6 lb.

*Method.*—Place the whole of the ingredients in a mixing bowl and mix well together, then add sufficient water and mix into a stiff batter, cut into portions required, mould into shape and place into greased basins or steaming dishes and steam for 2 to  $2\frac{1}{2}$  hours.

(NOTE.—Fruit should be picked over and cleaned before being used.)

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\* Biscuits may be substituted for bread, breadcrumbs or flour.

### \* Isle of Wight Pudding

*Ingredients.*—Flour, 12 lb. ; breadcrumbs, 6 lb. ; suet, 3 lb. ; syrup, 6 lb. ; currants, 3 lb. ; baking powder, 2 oz.

*Method.*—Place the flour, salt and baking powder into a bowl and aerate ; mix in the suet, and add sufficient water and mix into a stiff paste.

Put the remaining ingredients into a mixing bowl and mix into a pulp. Then cut the pastry into portions required, roll out to size and place a layer of the pulp evenly over the surface of the pastry. Roll neatly from top to bottom, seal the edges, then tie in pudding cloths or put into steaming dishes and boil or steam for 2 to 2½ hours.

(A sweet white sauce may be served with this pudding.)

### Prune Pie

*Ingredients.*—Prunes, 12½ lb. ; sugar, 1½ lb. ; flour, 14 lb. ; dripping, 3½ lb. ; baking powder, 3 oz. ; water ; pinch of salt.

*Method.*—Same as for apple pie.

### Peach Pie

*Ingredients.*—Peaches (dried), 9 lb. ; sugar, 2 lb. ; flour, 14 lb. ; dripping, 3½ lb. ; baking powder, 3 oz. ; water ; pinch of salt.

*Method.*—Same as for apple pie.

### Pear Pie

*Ingredients.*—Pears (dried), 9 lb. ; sugar, 2 lb. ; flour, 14 lb. ; dripping, 3½ lb. ; baking powder, 3 oz. ; water ; pinch of salt.

*Method.*—Same as for apple pie.

If fresh fruit is used, prepare, and then proceed as explained.

### Shepherd's Pie (using rice and vegetables as a substitute for potatoes)

A suitable dish for using up cooked meat.

*Ingredients.*—Meat, cooked, 40 lb. ; onions, 6 lb. ; rice, 10 lb. ; carrots, 6 lb. ; turnips, 6 lb. ; flour, 1½ lb. ; salt and pepper as required ; stock or water as required ; dripping, ¾ lb.

*Method.*—Clean, chop up fine, dry and strain the onions, mince the meat. Place meat and onions in baking dishes,

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\* Biscuits may be substituted for bread, breadcrumbs or flour.

season with salt and pepper, and well mix. Add sufficient cold water or stock to moisten the meat, etc.; cook rice in plenty of boiling water, with a pinch of salt, for 15 minutes; strain, clean, cut up and cook vegetables; strain and mash. Put the rice and vegetables into a bowl, season with salt and pepper, bind with flour and well mix. Cover meat, etc., with the mixture and bake in a moderate oven till nicely browned.

## Baked Rice and Bacon

### *Breakfast Dish*

*Ingredients.*—Bacon, 15 to 25 lb.; rice, 6¼ lb.; onions, 3 lb.; stock or water, 25 pints; salt and pepper as required.

*Method.*—Wash and pick over rice. Clean and chop up onions; put the cold stock or water into camp kettles or other vessels; add onions, season with salt and pepper. Bring same to boiling point, sprinkle in the rice and allow to simmer gently for 12 to 15 minutes, then place in baking dishes and lay the bacon, cut into thin rashers, over the surface, then bake in a moderate oven till the bacon is cooked.

## Potato Scones

*Ingredients.*—Potatoes (cooked and cold), 16 lb.; flour, 4 lb.; margarine or dripping, 1 lb.; pepper and salt to taste.

*Method.*—Mash the potatoes, then place into a bowl, add the remaining ingredients and thoroughly mix. Roll out very thinly and place in greased baking dishes, bake in a quick oven till brown.

(NOTE.—The dish should not be greased in excess, otherwise the scones are likely to be burnt underneath.)

## Australian Flap Jack

*Ingredients.*—Rolled oats, 7 lb.; margarine, 3½ lb.; sugar, 1½ lb.; syrup, ½ lb.; baking powder, 2 oz.; salt.

*Method.*—Place the oats in a bowl, add the margarine and rub well into the oats. Then add the remaining ingredients and mix into a stiff paste, cut into portions required and place into greased dishes and bake in quick oven till brown.

## Oatmeal Pudding (Savoury)

*Ingredients.*—Oatmeal, 8 lb.; dripping, 4 lb.; onions, 3 lb.; pepper and salt to taste; water, about 8 pints.



*Method.*—Place the oatmeal into a mixing bowl, add dripping and rub well into the oatmeal. Then add seasoning and grated onions and mix well together, add sufficient water and mix into a stiff paste. Cut into portions required, mould into shape, place in greased basins or steaming dishes, and steam for  $1\frac{1}{2}$  to 2 hours.

(NOTE.—The above may be served with a plain stew.)

## Welsh Rarebit

### *Tea Meal*

*Ingredients.*—Cheese,  $6\frac{1}{2}$  lb. ; milk, 6 pints ; water, 6 pints ; margarine, dripping, or lard, 1 lb. 8 oz. ; flour, 1 lb. 8 oz. ; mustard or bottled sauce ; salt and pepper as required.

*Method.*—Remove rind from cheese and cut into small pieces ; cover bottom of camp kettle or other cooking vessel with cold water, add cheese and allow to melt slowly without boiling. Meanwhile bring milk and water to the boil, place fat in pan and allow to get hot ; add flour and cook same for a minute (keeping white), gradually add the boiling milk and water, removing all lumps, let simmer for 5 minutes and gradually stir into the melted cheese ; season with salt and pepper, also mustard or sauce if desired. Spread the mixture on pieces of toast ; brown in a hot oven and serve.

## Minced Meat and Rice

### *Supper Meal*

*Ingredients.*—Meat (beef), 20 lb. ; rice,  $6\frac{1}{4}$  lb. ; onions,  $6\frac{1}{4}$  lb. ; stock or water, 25 pints ; salt and pepper as required.

*Method.*—Clean and chop up the onions. Chop or mince the meat. Put the meat and onions into camp kettles or other vessel, cover with cold water or stock. Season with salt and pepper, bring to a simmer, wash, pick over and sprinkle in the rice and let simmer gently for 30 to 40 minutes.

## Dried Milk Powder

This should be used in the preparation of the undermentioned dishes : cornflour, blanc-mange, custard, rice, sago and tapioca pudding, scones, oat cakes, porridge and similar dishes.

*Method.*—To the required quantity of powder add a little warm water—not boiling. Stir into a thick paste, keep adding water in small quantities, stirring continuously.

Only the very best quality is suitable for tea, owing to the greasy nature of powders, which render tea unappetizing.

*Dilution.*—1 gallon of water to 1 lb. of milk powder.

## Tripe and Onions

### *Supper Meal*

*Ingredients.*—Tripe, 14 lb. ; onions, 4 lb. ; flour, 1 lb. ; pepper and salt as required.

*Method.*—Defrost by placing tripe in cold water for 1 hour. Cut into small pieces. Clean, peel and ring the onions ; place with tripe in sufficient stock or water ; season to taste ; bring to boiling point and let simmer till tender (about 2 hours). Add flour thickening, stir well and let simmer for 30 minutes.

## Curried Liver and Potatoes

### *Supper Meal*

*Ingredients.*—Liver, 8 to 12 lb. ; root vegetables (turnips and carrots), 20 lb. ; onions, 1 lb. ; curry powder, 8 oz. ; flour, 1½ lb. ; dripping, 1 lb. ; stock or water ; pepper and salt.

*Method.*—Defrost the liver and cut into small pieces, after removing any green matter, which when cooked would be bitter to the taste. Clean and prepare the vegetables, cut turnips and carrots into small pieces and place in a boiler with sufficient stock to well cover ; add a little seasoning and let simmer for 45 minutes. Add the liver and cook for 30 minutes ; stir to prevent burning. Ring and braise the onions with dripping and curry powder ; cook and add flour thickening and mix with the liver and root vegetables. Cook and mash the potatoes ; place in a baking dish ; make a bay in the centre ; add the curried liver and serve.

## Cottage Pie (Tripe and Potatoes)

### *Supper Meal*

*Ingredients.*—Tripe, 14 lb. ; onions, 3 lb. ; potatoes, 25 lb. ; pepper and salt as required.

*Method.*—Defrost the tripe ; cut into small pieces and chop the onions very fine ; place in a boiler with sufficient water to well cover ; bring to the boil and let simmer for 1¾ hours. Place in baking dish with mashed potatoes and brown in oven. Make a little flour thickening, cooked separately, and mix well with tripe when it has simmered for 1½ hours.

## Ginger Pudding

*Ingredients.*—Flour, 16 lb. (or less quantity if breadcrumbs are available) ; dripping, 4 lb. ; ginger, ¾ lb. ; golden syrup, 4 tins ; baking powder, 3 oz. ; salt.

*Method.*—Mix flour, breadcrumbs, ginger, baking powder and salt. Thin the syrup by warming it and mix with a small quantity of milk or water and add to the other ingredients. Then proceed as for plain pudding. Serve with a sweet sauce.

### Use of Potatoes in Flour

Cooked potatoes, strained and mashed, when cool, may be added to flour in the proportion of  $\frac{1}{4}$  lb. of the former to 1 lb. of the latter for sea pies, meat puddings, and similar dishes.

### Stuffed Ox Heart

*Ingredients.*—Ox heart, 1; fat for basting; stock,  $\frac{1}{2}$  pint.

*For Stuffing.*—Breadcrumbs,  $\frac{3}{4}$  lb.; chopped suet, 2 oz.; chopped parsley, 1 tablespoonful; small chopped onion (cooked); a little flour to bind; salt and pepper as required.

*Weight.*—

Weight of ox heart	...	...	5 lb.	2 oz.
„	„	trimmed	4 lb.	8 oz.
„	„	stuffed ...	5 lb.	10 oz.
„	„	cooked ...	4 lb.	

Served as a breakfast dish (18 portions).

*Method.*—Make a stuffing by putting the above ingredients into a bowl, well mix, and add a little cold milk or water to the mixture, if too stiff. Wash the heart in several waters, cut away any gristle, remove the lobes, membrane and separate the cavities inside. Drain, dry, stuff and tie securely with tape or string. Barely cover a baking dish with hot fat; put in the heart; baste and cover with greased paper. Cook in a moderate oven for 3 hours; remove paper and baste occasionally. Serve hot, with gravy.



## SECTION III

## BRINE TUB

*Ingredients.*—8 to 10 gallons of water; 14 lb. common salt; 8 oz. saltpetre.

*Method.*—Place the water in the tub, and add the common salt. Dissolve the saltpetre in a little warm water and add to the other ingredients in the tub. Stir well to mix thoroughly all ingredients.

*To test Strength of Brine.*—Place in a raw potato or a raw egg; if either floats, the brine is ready for use, if not, add more salt until potato or egg floats.

Minimum period for pickling—5 days.

During thundery weather, the brine should be changed before it turns.

## VEGETABLE AND HERBS

The vegetables in use by the troops are potatoes, carrots, turnips, onions, vegetable marrow, beans, turnip tops, greens and cabbages, and should be prepared as follows.

## Value of Vegetables

As stated in Section II, vegetables are of extreme importance in dietary and serve the purpose of supplying the blood with alkaline salts and other accessory substances (vitamins). While they are not productive of either energy or muscular development, they provide a considerable proportion of waste or roughage, which is of value in ensuring a regular action of the bowel, without which foodstuffs cannot be satisfactorily assimilated into the system.

## Potatoes

Potatoes are best when baked under meat, as they absorb much of the nutriment thrown off from the meat in cooking. They should be peeled as thinly as possible, as the best part of the potato is that nearest the skin. After peeling they should be kept in cold water till required for use. This, however, should only be for a brief period, as long soaking

will extract the salts and the potatoes will become soft and tasteless. If any be spotted in the inside, they should be rejected, as their flavour and the best part of the nutriment have been lost. If for boiling, a little salt should be dissolved in the water before the potatoes are placed in it. They may be steamed, but in this process salt or other seasoning cannot be added as when they are boiled. New potatoes should always be placed in boiling water with a little salt, and not steamed.

Potatoes with rough skins are best for boiling, smooth ones for baking, and as a general rule the smaller the eye of the potato the better is their quality.

### Carrots

Carrots should always be sent up to table with boiled beef. They vary much in quality, but should be quite firm, and have a crisp appearance when broken. Young carrots should be washed before being cooked; old ones will require scraping and cutting into quarters lengthwise. A little salt should always be boiled with them.

### Parsnips

Parsnips, which should be served in the same manner as carrots, are excellent for flavouring, and contain a great amount of nourishment.

### Turnips

Turnips may be used in all stews, and should be mashed to flavour soups, etc. After boiling, they should be thoroughly drained; a little dripping, pepper, and salt must be added to taste, and they should then be mashed with the ordinary vegetable masher. The turnips should be small, finely grained, juicy, smooth, and sound, and should be peeled, as the part next the skin is fibrous and indigestible.

### Onions

This well-known vegetable may be regarded either as a condiment or an article of real nourishment. By boiling it is deprived of much of its pungent, volatile oil, and becomes agreeable, mild and nutritious. As a slight flavouring it is considered an improvement to nearly all made dishes. In pies, etc., it will be found better first to place the onions in a little boiling water, and allow them to remain there for 10 minutes. The water, which will then be found quite green,

should be thrown away, as it contains the indigestible part of the onion.

For stews and gravies they should be cut into thin rings and fried to a light brown in a shallow pan. The meal will then be more appetizing and less onions will be required, thereby effecting economy.

Garlic, shallots, chives and leeks are more pungent than onions, and should be sparingly used.

The Spanish onion is larger than the English, and is considered milder in flavour.

### **Peas and Beans**

Peas, beans and fresh pulse of all kinds should be boiled by placing them in boiling water without salt.

The quicker they are cooked, strained and served, the more tender they become.

### **Green Vegetables**

Turnip tops, greens, cabbages, savoys, kale, etc., should be first well picked, washed, and left in salt and water for a short time to drive away any insects that may remain. They should then be placed in plenty of boiling water, with a little salt added, and boiled quickly, with the boiler uncovered; this not only helps to preserve their colour, but allows the indigestible part to pass away. As soon as they are done they will sink to the bottom, and should be taken up at once, well strained, and kept warm until served. If this is done they become mellow and preserve their flavour.

### **Vegetable Marrow**

Vegetable marrows should be peeled, quartered, and the seeds removed (these are very good if added to a soup); they should then be placed in boiling water with a little salt and boiled until tender. They are also very good mashed, for which they must be boiled, drained thoroughly, and mashed smoothly, with the addition of a little dripping, pepper and salt to taste.

### **Dried Pulse**

Dried pulse, such as the large blue pea, haricots, lentils, etc., should be placed in four times their quantity of water, without salt, and boiled from 2 to 3 hours, until tender, when they will have absorbed all the water, and then seasoned to taste. 1 lb. of good dried haricots makes 4 lb. when cooked. Peas and haricots are a favourite dish when baked or steamed, with meat, for which purpose they must be previously soaked in cold water from 12 to 24 hours.



## Nettles and Sweet Docks

Nettles and sweet docks are excellent vegetables in the spring, two-thirds of the former being mixed with one-third of the latter. They should be boiled in plenty of boiling water. When they are cooked, drain well, and chop them up as you would spinach ; then place them in the dry boiler with some gravy or dripping, salt, and pepper. Stew for about 5 min. and serve. There are various ways of cooking them, and they are a good substitute for other vegetables in soup.

The young leaf of the mangold wurzel is also excellent when cooked as above. Both should be served with roast meat. Wild sorrel added to pea soup in the spring makes a pleasant change.

## Seasoning Herbs, etc.

A faggot of herbs usually consists of 2 sprigs of parsley, 4 of savory, 6 of thyme, and 2 small bay leaves tied together. In making soup, the herbs should be sunk by means of a small flint stone. Many of these herbs are found growing wild in this country and in Gibraltar, but it will generally be found advisable to use instead a packet of mixed herbs. A cook should be very careful in detecting the commonest of all herbs, parsley, it being often mistaken for fools' parsley, or lesser hemlock, which is of a poisonous nature. This may be detected by bruising the leaves, when they will emit an unpleasant smell, unlike parsley.

## Celery

The red variety is best for soup, being stronger in flavour.

## Savory and Thyme

Savory and thyme, when not required for use in soups, should be dried, powdered and bottled.

## Mint

Mint, when dried, is used for pea soup. When fresh it should be chopped up and mixed with vinegar and sugar, which forms a refreshing seasoning for cold lamb.

## Sage

Sage, a garden plant, should only be used with meats of a strong-flavoured, oily nature, such as pork or goose.

Its aromatic qualities promote the digestion of fatty matter.

## BEVERAGES

### Making of Tea

*Ingredients.*—Tea, 1 lb. ; sugar, 4 lb. ; milk, 5 pints or 2 tins ; or 4 pints fresh milk and 1 tin condensed.

*Method.*—Weigh out the ingredients required for number in mess.

Place the dry tea into muslin bags and tie loosely, allowing sufficient room for the expansion of the tea during infusion.

Rinse out the tea buckets with boiling water to ensure cleanliness and to heat the buckets, then place the bags containing the tea into the buckets and fill with boiling water. Stand buckets near a hot stove from 8 to 10 minutes, then remove the bags and squeeze fairly dry, add sugar and milk. Tea is then ready for serving.

#### *Common faults in tea-making*

- (1) Water not at boiling point when poured over the dry tea.
- (2) Water boiling for a long period before required.
- (3) Buckets not heated before brewing.
- (4) Tea bags tied tightly, preventing water from penetrating the tea and extracting the flavour.
- (5) Tea brewed with a small quantity of water hours before required. This is a common fault, as is also the placing of sugar in with the tea when brewing, thereby losing a great deal of the sweetening by the tea leaves absorbing the sugar.

### Coffee

*Ingredients.*—Coffee, 3 lb. ; sugar, 4 lb. ; fresh milk, 8 pints or 4 tins condensed ; water, 8 gallons ; pinch of salt.

*Method.*—To prevent adulteration, coffee should be bought in the bean and ground. The beans should be of a bright chestnut brown colour. Care should be taken that only sufficient coffee is ground for the next day's consumption, for when the bean is broken the aroma quickly escapes. Coffee of an inferior quality may be improved by the addition of chicory, but it should not be used in greater quantities than 2 oz. to 1 lb. of coffee. Beans and chicory are used in adulterating coffee. The presence of the latter may be detected by sprinkling a little of the mixture on some water in a glass. If chicory be present it will at once sink to the bottom, whereas coffee will float for a time. Some should also be shaken up with the water, when the coffee will rise to the surface, and the chicory will sink. In preparing coffee, care should be taken

to see that it is not allowed to boil ; if boiled, its aroma is partly dissipated. It should, if possible, be first warmed, which causes each grain of the powder to separate ; then the amount of boiling water required should be poured on it.

All boilers and cans should be rinsed with hot water ; the dry coffee should then be placed in them, and the boiling water added gradually, so as to extract its strength thoroughly. It should be made immediately before being required, and served up as hot as possible.

### Cocoa

*Ingredients.*—Cocoa, 2 lb. ; sugar, 3 lb. ; fresh milk, 5 pints or 2½ tins condensed ; water, 8 gallons.

*Method.*—Concentrated cocoa should be prepared as follows :—Put the cocoa and sugar into a cup or basin, mix together with a spoon, pour on the boiling water, stirring the whole well, add the milk and serve hot. When cocoa is to be prepared in large quantities, it will be found better to mix the cocoa and sugar into a thin paste with the milk ; then add the boiling water, boil the mixture for 3 minutes, keeping it well stirred, then serve. The boiling develops more fully the flavour and aroma of the cocoa.

A teaspoonful of cocoa for each man will be found sufficient ; sugar, the same amount as laid down for coffee ; milk, as allowed for tea.

## DESCRIPTION OF HERBS AND SPICES, ETC., USED IN COOKING PRINCIPALLY FOR THEIR FLAVOURING QUALITIES

*Allspice.*—The dried unripe berry of a tree cultivated in the West Indies, called pimento. So named, allspice, as being regarded as combining many different flavours. Ground into powder and used for flavouring pickles and sauces.

*Bay leaves.*—The dried leaves of a small evergreen tree used principally for flavouring stews, pickles, etc.

*Capers.*—The dried flower bud of the caper-shrub ; much used in sauces. They are sold in a dry state, or pickled in brine.

*Caraway seeds.*—A small, elongated, dried seed, used principally to flavour cakes and buns.

*Celery seed.*—The seeds of celery plant, used for flavouring soups, etc.

*Chervil.*—A garden herb similar to parsley, and used to flavour soups.



*Chicory*.—A plant whose root is ground up and used in the adulteration of coffee in order to give it a bitter taste.

*Chillies*.—The pod of a specimen of pepper plant which when ripe turns red, employed usually to flavour pickles. Cayenne pepper is produced from the pod.

*Chives*.—A species of the onion plant, used for salads, etc.

*Cinnamon*.—The dried bark of the cinnamon tree grown in Ceylon. Finely ground and used as a spice for flavouring cakes and such dishes as custard, rice, etc.

*Cloves*.—The dried flower-buds of the clove tree ; used for flavouring many foods and pickles. The best cloves are grown in the Straits Settlements.

*Curry-powder*.—A yellow condiment powder made by crushing various spices and peppers ; used in the preparation of many curried dishes.

*Fennel*.—A garden herb, the leaves of which are used in sauce generally served with fish.

*Garlic*.—A bulbous vegetable similar to a small onion or shallot ; it has a very pungent flavour and should be sparingly used for flavouring dishes.

*Gelatine*.—A form of dried jelly, sold in leaf form ; used for stiffening fruit jellies, pies, etc. Also sold in powder form.

*Ginger*.—The root of a plant grown in the East and West Indies ; when ground into powder used sparingly for flavouring cakes, puddings, etc.

*Herbs, sweet*.—A bunch of sweet herbs for flavouring, mentioned in many cookery books, consists of the following : a sprig of thyme, sage, mint, parsley, and a bay leaf.

*Horse-radish*.—A plant with a pungent root, which when cleaned and scraped is used for garnishing, and served as a condiment with roast beef ; also used in making an appetizing sauce.

*Isinglass*.—A dried gelatine substance, obtained principally from fresh-water fish ; used for clarifying soups, wines, etc.

*Mace*.—A spice made from the external envelope of the nutmeg ; is more expensive than the nutmeg and is considered far better for flavouring various dishes.

*Mint*.—An aromatic green-leaved herb, the leaves of which, when chopped and mixed with vinegar and sugar, form mint-sauce—served with mutton and lamb, either hot or cold. It is also sparingly used as a flavouring in cooking new potatoes, peas, etc. Can be used in both a fresh and dry state.

*Mustard*.—The seed of the mustard plant, ground to a fine powder after most of the oil, which is very pungent, has been extracted. Is prepared for use by the addition of a little water, and made into paste.

*French mustard*.—Is prepared by adding salt, sugar, vinegar and spice.

*Nutmeg*.—The aromatic kernel of an East Indian tree, used for flavouring rice, tapioca, sago puddings, etc. Should be finely grated and used sparingly.

*Parsley*.—A green garden herb, used a great deal in English cookery for flavouring, garnishing and for sauces.

*Pepper*.—The dried berries of the pepper plant, cultivated in the West Indies and tropical countries. Used for flavouring pickles, and when ground used for seasoning both in cooking and for table use.

*Cayenne pepper*.—A very pungent red pepper made from several species of capsicum. Should be sparingly used.  
*See Chillies.*

*Saffron*.—A yellow powder prepared from the saffron flower, a bulbous plant of the crocus kind. Used principally for colouring cakes, etc.

*Sage*.—A garden herb. The leaves are dried and used for flavouring and seasoning many meat dishes; also for stuffing for pork or geese, duck, etc.

*Salt*.—A fine, white salt, used for cooking and table use, is obtained principally from evaporated salt brine pumped from salt mines in Cheshire and Worcestershire.

*Bay Salt*.—Coarse salt obtained from evaporated seawater, used the same as ordinary salt.

*Celery salt*.—Fine table salt, to which has been added the powdered celery seed; used for flavouring soups, etc., and for use at table.

*Saltpetre*.—A coarse, acrid kind of salt, used in conjunction with table salt in making brine for pickling meat.

*Spice*.—A mixture of various seeds and plants, ground into a powder; generally used for flavouring.

*Mixed spice*.—A term given to a mixture of various seeds and plants generally used for pickling.

*Tarragon*.—A herb used for flavouring vinegar, sauces, etc.

*Thyme*.—A small-leaved garden herb used in seasoning various dishes, such as veal, poultry, etc.

*Truffles*.—A fleshy species of fungus. Grows just below the surface of the ground and found in the forests of France. Used in high-class cookery for flavouring various dishes. Can be purchased in bottles.

*Turmeric*.—Part of the pepper plant ground to powder and sometimes used for adulterating pepper—an illegal practice.

## Sugar

The descriptions of sugar usually used in the service are the white crystal or granulated. They are nearly free from adulteration, and generally used with tea or coffee.

The Demerara is the best description of brown sugar, and should be dry to the touch and not sticky or clammy.

Coarse brown sugar sometimes contains sugar mites, which may be detected by dissolving a little of the sugar in a glass of tepid water, when they will in a short time float on the surface. It is often adulterated with flour, maize, etc.

Sugar is used to preserve fruit, etc., and as a sweetener to many kinds of food and beverages it is very appetizing and nutritious.

## Rice

Rice varies greatly in quality. Carolina is the best, largest, and most expensive. Patna is almost as good; the grains are small, long, and white; it is used chiefly for curries.

Madras rice is the cheapest and yields plentifully. It forms a most valuable article of farinaceous food; it is light, nourishing, easy of digestion and cheap. It should be kept closely covered to keep insects from it.

### *Boiling rice in small quantities*

Wash the rice in several waters, picking out the discoloured and unhusked grains, and place it on to boil in plenty of cold water. This is the secret of having the rice whole, the water keeping the grains separate; leave it uncovered and bring slowly to the boil; shake it occasionally to prevent burning, but do not stir it if this can be avoided. When it has simmered gently from 20 to 25 minutes it should be tender. Patna rice will not require quite so long to cook as many of the other varieties. Shake in a little salt, and drain it in a colander, when the grain will separate and be of the finest flavour.

### *Boiling rice in large quantities*

As it is impossible to cook rice in large quantities in the Dean's and other boilers in use by the above recipe, the following method has been found very good. Prepare the rice for



boiling as already directed. Have ready a boiler containing 8 times more water than there is rice, bring to a sharp boil, throw in the rice, draw the fire at once ; damp the boiler down, place on the lid, allow to stand for 10 minutes ; remove the lid, gently stir the rice, replace the lid ; allow to remain for 10 minutes more, and, if the rice is cooked, strain off the water and serve. Care should be taken that the rice is not allowed to remain too long in the boiler ; rice should never be over-cooked.

## SECTION IV

### THE MEAT RATION

Every care should be taken to defrost meat without cutting it, so as to avoid draining the meat of its chief nutriment (the residue of the blood), which drains away through the cut with the fluid thrown off.

In any case of frozen meat of doubtful quality being issued to the troops the officer in charge of supplies (R.A.S.C.), and, if necessary, the medical officer, should be consulted before rejection.

#### Frozen Beef

Frozen beef is imported primarily from South America, New Zealand and Australia. This beef has been frozen hard in a temperature from 10° to 15° Fahr. as soon as the animal heat has left the carcasses; the length of the voyage and the fact that the tropics must be passed through necessitating a higher degree of protection than that given by the chilling process.

This extreme degree of frost renders the meat so hard that it cannot be cut by a knife in the frozen state. Whilst in this condition it is not only very hard, but the quarters are white in external appearance; the fat is very distinct from the lean, and in some parts appears crumbly.

It is, of course, very cold to the touch, and particles of ice may be seen on cutting into the meat with a saw. The bark is generally torn and chipped. As the meat is thawed it attains the characteristics of chilled beef, and, except in very cold weather, to an exaggerated degree. That is to say, the flesh is generally very sodden and the fat discoloured, the exterior of the carcass will sweat considerably, and the appearance of the whole carcass is watery.

The following special points should be noted in the inspection of frozen meat:—

Care should be taken to see that no damaged meat is issued, *i.e.* meat that has deteriorated from being kept too long in store, damaged during a voyage, or from any other cause. Such meat may be detected as follows:—

- (a) By its discoloration. The fat of beef will be of a very pale colour, and the lean parts dark brown or black. Mutton, when in the hard frozen state, will be misshapen and will have lost that external brightness which is easily observable in its normal condition.

- (b) By rubbing the palm of a warm hand on the fat of either beef or mutton for a few seconds, when, if the meat is stale, there will be a distinct tallowy smell.
- (c) By the presence of bruises. If these are noticed in any quarters of beef, the latter should be cut in order to test whether the bruises extend internally, particularly in the hindquarters.

*Defrosting.*—Defrosting should be done gradually and, if possible, without cutting, at a temperature not exceeding 50° Fahr. In hot weather a quantity of beef, on being put in an airtight room, will of itself bring down the temperature to the required degree if the size of the room is in proportion to the beef to be defrosted.

When the carcass is frozen hard the fat is of a white colour and not stained, and the flesh is of a pale uniform colour. If the meat is cut with a saw, particles of ice will be seen. The meat handles cold, and if a warm hand is kept on the meat for a few seconds it becomes wet.

Frozen meat is inclined to “sweat” when brought into normal atmosphere. The exterior of the carcass lacks the bright colour characteristics of fresh-killed beef. The bark is often chipped and torn from constant handling.

When thawed out the quarter appears dirty and untidy, the chine-bones become very dark, almost black in colour. The meat on section is dull and pale and may be very soft. It will “pit” if pressed with the finger. The fat looks as though it had been partly cooked and has often a somewhat yellow colour and a tallowy taste and smell. The fat will be stained by the juices of the meat, but often not to the same extent as in the case of chilled or refrigerated beef, provided that it is carefully thawed out before being cut. If, however, frozen meat is cut off with the frost in it, the fat will become very pink, especially in mutton.

The vertebræ are sawn, not chopped. The hindquarter usually contains three ribs instead of one.

The prejudice against meat preserved by the influence of cold in any degree, and particularly that degree which produces what is known as frozen beef, has died very hard; but the use has now become well established, and it is generally admitted that frozen beef is, in nourishment and digestibility, equal to home-killed beef. The freezing process robs meat of none of its nutritive qualities and, moreover, gives to it a mellowness and tenderness which often make it far more palatable than any but the highest grades of home-killed meat. Bad cooking alone can make frozen meat appear at a disadvantage in comparison with home-killed meat. Perhaps the best and most



practical proof of the popularity of frozen meat is to be found in the steady increase in its consumption throughout the country.

### Frozen Mutton

Frozen mutton is imported principally from the River Plate, New Zealand and Australia. At present the largest imports are from New Zealand.

As regards quality, the best comes from New Zealand, and is known as "Canterbury mutton." This is considered equal to our English Southdown or Welsh mutton. That from Australia and the River Plate is on a par with average English mutton, such as that contributed by Hampshire, Lincoln or Suffolk sheep.

The characteristics of frozen mutton are a cold and damp exterior, the fat white, distinct from the lean, and generally crumbly at the cod. The flesh is not so bright as in home-killed mutton, and the bark is without the shine of fresh-killed mutton and often dirty-looking. It is invariably chipped and torn owing to the rough handling the carcasses receive from transshipment in the frozen state. The shank-bones are very brittle, a natural result of hard frost, and are often snapped asunder.

As thawing proceeds, the fat which lies close to the lean becomes discoloured by the juices of the meat, as happens to the fat of frozen and chilled quarters of beef, and the flesh becomes wet and sodden. The exterior of the carcass sweats a great deal in warm weather. The conditions of contract require that the kidney fat shall be removed if the kidneys are absent.

To examine the carcass carefully, probe a skewer or knife in the region of the pelvic bone and through the thickest part of the leg; if there is any bone taint it will be found there. Although the outside of the carcass may be perfectly sweet, the inside may occasionally be found bad, owing to the animal heat not having been thoroughly expelled before freezing.

It sometimes occurs that mildew spots make their appearance inside the ribs.

Mildew or mould is due to storage in damp, badly ventilated stores, or subjection to extensive variations of temperature.

In the early stages this mildew is recognized by a white, furry, damp appearance on the surface of the meat, which, as the mould advances, gets darker in colour, eventually taking the appearance of black or dark-coloured patches.

In the early stages no harm is done. The mould can be wiped off with a cloth and the meat will then be quite fit for food.

In the advanced stages, however, the mould eats into the tissue and renders the meat unwholesome. If the affection is local the part can be cut off and the remainder will be found fit for food.

### Issue of Frozen Meat to Troops

1. Units will indent weekly in advance on supply officers according to their actual net weekly requirements, stating the amounts required and the date and place for the delivery of each consignment. The indents will be made for the delivery of 1, 2 or 3 days' requirements in one consignment, according to the available storage accommodation, but for the sake of economy in transport consignments will be as large as practicable.

2. Meat issued by contractors is gross store weight, *i.e.* it includes the weight of wrappers (2 lb. to each quarter) and waste bone above the knee and hock joints (2 lb. to each fore or hind quarter). Contractors will be paid for gross store weight less 4 lb. to each fore and hind quarter (*i.e.* 2 lb. for wrappers and 2 lb. for waste bone), and, in the case of crops, less 2 lb. for the weight of wrappers only.

3. The following allowances will be admissible:—

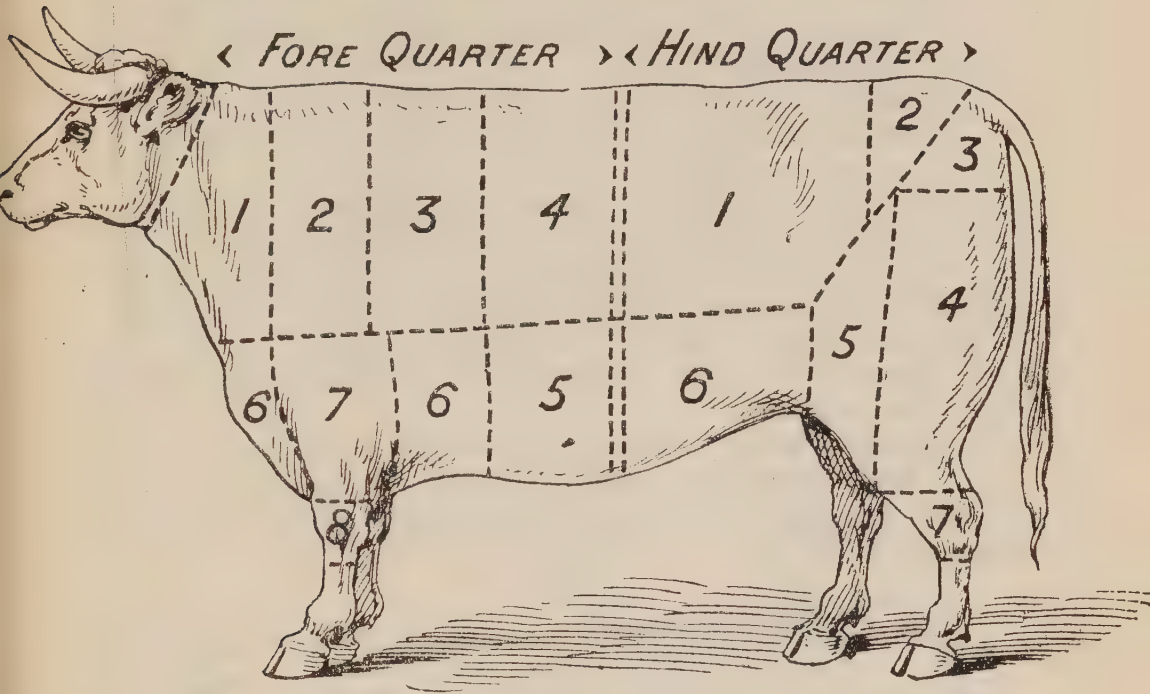
- |   |                              |
|---|------------------------------|
| (a) 2 lb. to each forequarter or hind-<br>quarter or crop for wrappers. | } on gross store<br>weights. |
| (b) 2 lb. to each forequarter or hind-<br>quarter only for waste bone.  |                              |

(c) For losses incurred in cutting up meat:—1 per cent. of issues as accounted for by R.A.S.C. Of this 1 per cent., allowances will be due to units on each issue at the scale laid down in Allowance Regulations, 1930, para. 31. In cases where headquarter units receive meat for distribution to other accounting units, the allowance at the scale referred to will be calculated on the total bulk issue, and will be inclusive of the allowances due to the other units concerned.

### Jointing Meat and how Cooked

The following paragraphs explain how the various cuts from the carcass should be treated in cookery. Those mentioned as being suitable for boiling and stewing are in nearly every case, when properly treated, excellent for meat pies, meat puddings, brown (baked) stew and other similar dishes.

*To joint beef.*—After slaughter the ox is chopped down, *i.e.* divided into two sides. Each side is subsequently divided into two quarters, the divisions taking place between the twelfth and thirteenth ribs.



The usual custom in the service is to “joint” the quarters as follows (*see* plate):—

In the forequarter—

1. Clod or sticking piece—five joints of the cervical vertebræ. Should be stewed.
2. Chuck rib—three dorsal vertebræ, top ends of three ribs, bottom end of scapula, two cervical vertebræ. Should be boned and stuffed, or may be baked and roasted.
3. Middle rib—four dorsal vertebræ, top ends of four ribs, remainder of scapula. Should be baked or roasted.
4. Fore rib—five dorsal vertebræ, top ends of five ribs. Should be baked or roasted whole.
5. The Plate—lower ends of four ribs. May be boned and stuffed, or stewed, but should not be baked.
6. Brisket—Sternum and lower ends of eight ribs, is best salted, but may be treated as the “Plate.”
7. Shoulder, or leg of mutton piece. The whole of the humerus, top of radius and ulna. Should be roasted, baked or stewed.

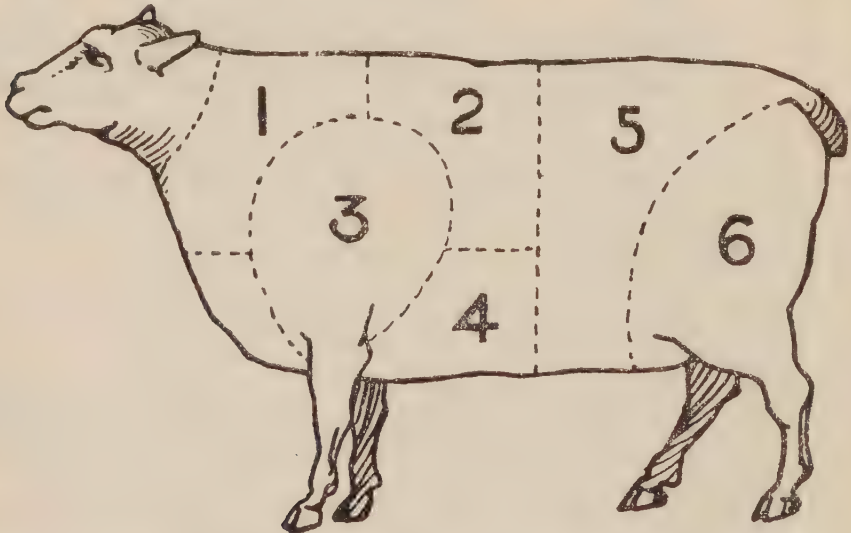


8. Shin—remainder of radius and ulna, less 4 inches, which under terms of contract must be removed from bottom end. Should always be used for soup or stew.

In the hindquarter—

1. Loin—six lumbar vertebræ, one dorsal vertebra, top end of one rib and portion of ilium. Should always be roasted or baked.
2. Rump—top part of ilium and sacrum. May be roasted, baked, braised, stewed, or cut into steaks, which may be broiled or fried.
3. Aitch bone—ischium, lower part of ilium, top of femur.
4. Buttock—which is itself divided into two, namely the “top side,” inside portion of femur, and the “silver side,” outside portion of femur. Should be stewed.
5. Thick flank—patella. Should be stewed.
6. Thin flank—end of thirteenth rib. Should be boned and stewed.
7. Shank—whole of tibia except lower 4 inches, removed under terms of contract. Should always be stewed.

*To joint mutton.*—The sheep is not divided into sides or quarters as is the ox.



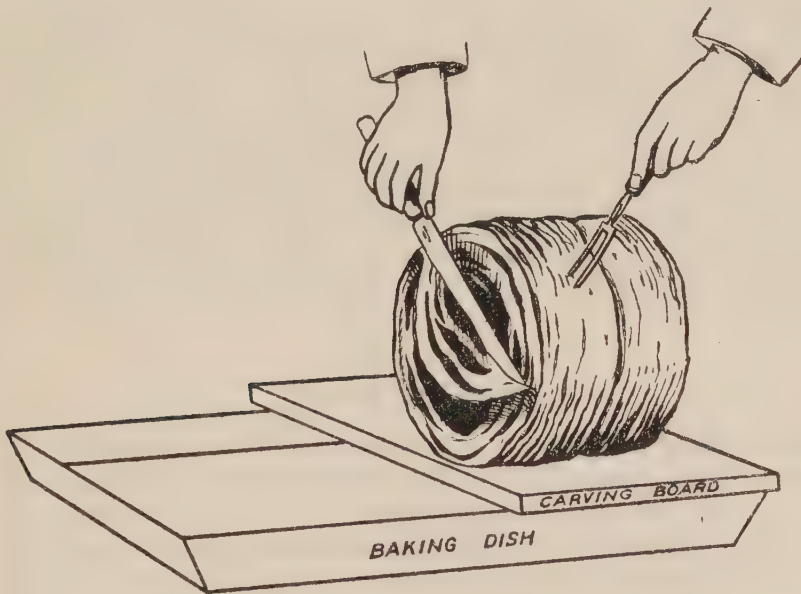
When cut up for issue, the joints are as follows (*see plate*) :—

1. Neck, scrag-end. Should be boiled or stewed.
2. Neck, best end. Should be boiled or stewed.
3. Shoulder. Should be baked or roasted whole, or the blade-bone may be taken out and the meat stuffed and roasted, or it may be cut with bone in it and stewed.
4. Breast. Should be boiled or stewed.
5. Loin. Should be baked or roasted in one piece, or may be cut into chops and stewed.
6. Leg. May be roasted, baked or boiled.

## Carving

Good carving is necessary if economy is to be effected and the value of the appetizing appearance of food considered. Meat thinly cut against the grain is more easily masticated, as the fibres are repeatedly cut through. Where meat is cut with the grain bundles of fibres remain undivided and require thorough mastication to dissolve them, otherwise much of the nutriment is not assimilated by the tissues of the body, and the period of digestion will be much longer.

As beef is generally boned before cooking it will usually be sufficient to instruct the students in carving a solid joint of meat without bone. When the joint has been removed from the oven it should be placed on a small cutting-up board about 9 inches wide arranged across the narrower sides of a baking dish, as shown below :—



Fix the fork firmly in the meat at the top and cut away in thin slices, allowing them to fall into the dish. Avoid cutting small thick slices as far as possible, and try to cut the meat into two or three ounce pieces with as large a surface as possible. This method of carving will be generally suitable for round of beef and similar joints, but sirloin, which is more frequently cooked without removing the bone, should be carved as follows :—

Slice the fillets, cutting across the joint and carefully remove all meat up to the bones ; turn the joint over and carve the top, cutting the meat in the direction of the bone with the point of the knife towards the thick end of the joint. Stand the bones

on end, when the mass of flesh has been removed, and cut away all meat from between and round the bones until they are stripped clean.

A carving knife and fork should invariably be used. The butcher's or cooks' knives and flesh forks are not suitable for the purposes of good carving; their shape and thickness make them unadaptable for removing from the joint an evenly cut slice of meat. The carving fork is so shaped as to enable the carver to get a firm grip on the meat which cannot be done with a flesh or cooks' fork. The knife should be sharp and frequently steeled. Cooks usually bear too hard on the knife and fail to allow the blade to travel the full length backwards and forwards in a straight or curved line. A brief guidance under the supervision of an instructor and a little practice is all that should be necessary to make a man proficient in the art of carving.

Mutton is not boned before being cooked, but is jointed so as to permit of bone and meat being easily removed when carving. The shoulder and leg are, however, differently treated. Each has a fleshy side which should be carved first; the side referred to can be determined by inserting the fork in each side. The joint should be cut in the middle and carved outwards until all the meat has been removed, the blade of the knife being moved across the leg or shoulder bone, then turned over and the meat from the other side removed from the bone.

### **Boning Meat**

Boning meat requires much practice and the wise cook would always use his special knife for this purpose. Practice makes perfect, but usually the cook who frequently changes his knife never succeeds. To bone well is to remove the meat (say from a rib) in one piece and not in several pieces. There will generally be small cuttings from the bone after the bulk portion has been cut away; these should be placed inside the joint when rolled.

### **Ham (boiled)**

4 to 5 hours. About 20 minutes for each pound in weight. The ham should be soaked in cold water for several hours before cooking. During cooking it should be allowed to simmer gently. Ham should be allowed to cool off in the juice in which it is cooked, the rind should be removed and the ham sprinkled with bread raspings or browned breadcrumbs. Care should be taken that the meat does not boil or it will become hard.



## SECTION V

## COOKING IN THE FIELD AND ON THE LINE OF MARCH

## GENERAL INSTRUCTIONS

The Kitchen, Travelling, has brought the system of providing hot meals for troops when away from their permanent stations to a very simple and satisfactory stage. Full instructions for its management will be found on page 95. It is not intended for use in standing camps of long duration at home ; in such cases Aldershot ovens and service camp kettles should be obtained from ordnance store and taken into use.

There are many types of improvised ovens suitable for use in the field and in trench warfare, but a general principle is followed in their construction. The oven, consisting of a box compartment and flues, is built so that the draught to the chimney causes heat to circulate on three sides of the oven (*see* plate 2, page 125). In combination cookers the flues near the fireplace should be so arranged that the flame is carried under a single kettle trench for the purpose of boiling water in the service camp kettle, which may also be used as a stock pot and for providing tea, coffee, etc. This class of improvised cooking range is specially suitable for small messes, such as officers' and serjeants' messes. A hot plate can be constructed by fixing a sheet of iron supported by bricks above the ground, under which burned ashes from cooking furnaces should be strewn. A little wood added will keep the sheet of iron hot, and the plate is suitable for many forms of heating and finishing off cookery where only a moderate heat is required.

The Aldershot ovens are, in many instances, so arranged that the flame from a specially constructed fire-place in front or at the side passes under the iron ground sheet with a chimney at the back or side, thereby, with the aid of fuel and stoking, providing a continual bottom heat. Bottom heat or, in other words, heat suitable for frying, is the result ; and, in the case of cooking meat by frequently turning, the results achieved are usually satisfactory.

The importance of erecting improvised ovens is to be able to serve baked meat, etc., as a change from the ordinary stew provided by the field cooker.

Cooking in the field must of necessity at times be considered

as amateur cookery. During the training season, therefore, it would be instructive for a C.O. to put all cooks out of action and call upon volunteers from a unit to cook the dinners, or to give orders that all men are to draw their rations in the raw state and cook them in their mess tins.

The serjeant-cook should give demonstrations in mess-tin cookery to all ranks during the training season, the dishes selected being sea pie, Irish stew, stewed steak, soup from prepared peas-flour, use of emergency ration, cocoa, tea, coffee and baking-powder bread. A soldier having a knowledge of how to cook such dishes will be able to provide for himself temporarily when detached from the field cooker or permanent cooking appliances.

Cooking in camp kettles is carried out in standing camps on a kettle trench similar to that shown at plate 4, page 126.

In temporary or bivouac camps, service camp kettles may be arranged over an open wood fire as shown at plate 1, page 124.

### Mutton



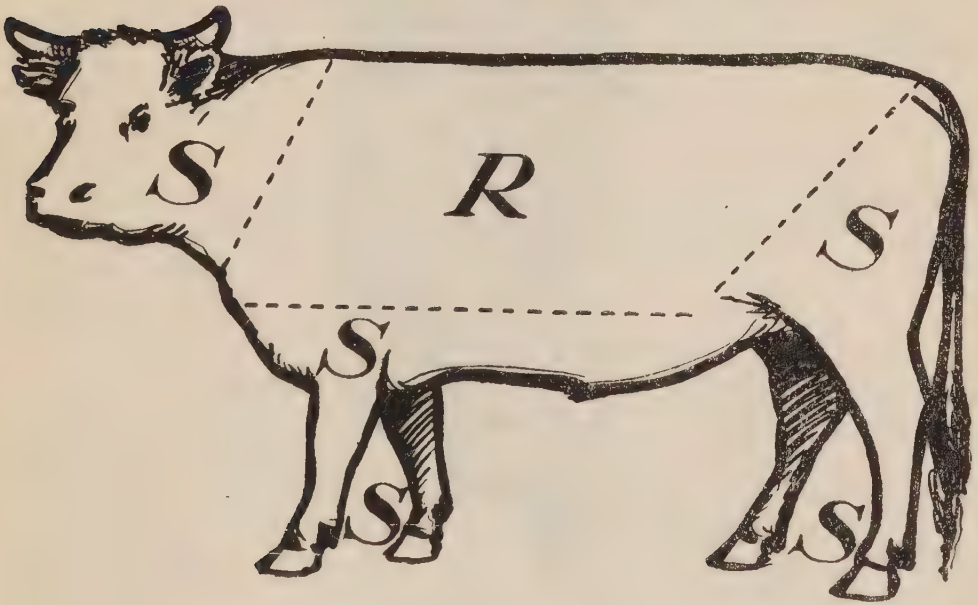
A similar system may be adopted for mess-tin cookery, but a brazier, as shown at plate 3, page 126, is more suitable; or the mess tins may be piled round and on a tin or bucket well perforated under which a clear fire has been made.

On active service in the field it may be necessary for troops to secure and butcher their own meat ration. The following is a rough and ready guide to such work :—

Every edible portion of the animal is available for stewing purposes, but to ensure an even distribution of ration meat, units should always be given an equal share of roasting and stewing joints, as shown in the diagrams, the letter " R " indicating roasting portions, and the letter " S " the boiling or stewing joints. Regimental quartermasters, butchers and cooks should be conversant with these diagrams and cut up and distribute meat accordingly.

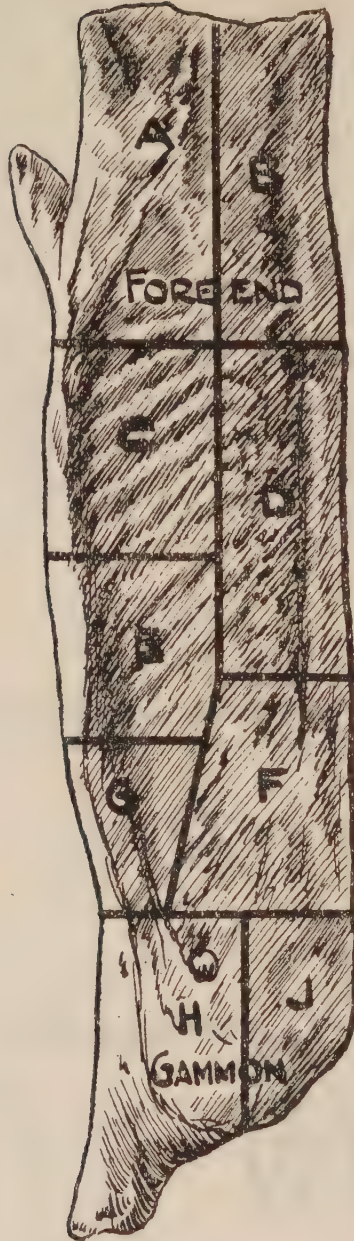
To cook rapidly and well for troops in the field is an art which can be easily acquired, and which every soldier should learn. It is a matter of paramount importance that soldiers' food be carefully looked after, and this duty should be *attended to by the officers themselves*, who should also understand the construction of improvised cooking ovens, etc.

### Beef





## Bacon



SIDE OF BACON

A. Fore hock; B. Collar; C. Thick streaky; D. Back and ribs; E. Thin streaky; F. Long loin; G. Flank; H. Gammon hock; J. Corner gammon.

*Bacon.*—No food requires more careful treatment than the bacon ration. When cooking, the tendency should be to warm through the rashers instead of applying extreme heat and thereby extracting a large quantity of fat. Where this cannot

be avoided slices of stale bread should be lightly fried in the fat and served with the bacon. A bacon breakfast is intended to provide a high standard of energy. Its chief value lies in the fat, which should be eaten.

Boiled bacon should be substituted for fried bacon if the bacon ration consists of hams or hocks.

The most economical way to purchase bacon is in whole sides, as this ensures that hams and forearms are included.

It is compulsory to purchase at least 8 oz. of bacon for each man every week.

## ALDERSHOT OVEN

The Aldershot oven consists of :—

2 sections or arches.

2 ends.

1 bottom.

4 bars.

9 tins.

1 peel.

Total weight, 374 lb. (about  $3\frac{1}{4}$  cwt.).

The bottom can usually be dispensed with, in which case the above weight is reduced by 66 lb.

The length of the two sections when up is 5 ft. 1 in. ; width 3 ft. 6 in.

*Capacity.*—Each oven will bake 54 2-lb. or  $2\frac{1}{2}$ -lb. loaves (108 rations) in each batch, or if used for cooking, will cook dinners of meat and potatoes for about 220 men.

See plate 5.

### How to Erect the Oven

Select a gentle slope on clay soil, if possible, and avoid marshy or sandy ground. The mouth of the oven should face the prevailing wind.

The site should be cleared and smoothed, and sods should be cut to build up the back, front, and sides of the oven. The bars are then placed over the site already prepared, the back one overlapping the front, the back of the oven placed in position, the plate forming the bottom of the oven is then placed against the front portion and firmly fixed ; the sods are then built round the front, back and sides ; a trench is next cut for the cook to work in, which is 18 in. deep, 2 ft. wide, and 6 ft. long, leaving a space of 12 in. between it and the oven. The clay or soil from the trench being mixed with water and grass, rushes, etc., to assist in binding it, is then thrown on the oven and well beaten down. The depth of clay

or earth should be at least 6 in. The roof should slope backwards slightly, to carry off the rain.

Kettles, portable cookers and ovens form the usual field outfit. When these are not to hand, the ingenuity of officers and men is tested to improvise substitutes.

Beer barrels make excellent ovens ; one end is knocked out, the ground slightly sloped, so that it may rest firmly, the sides, back and top being covered with clay, well wedged downwards, to become quite hard ; the fire is then lit and allowed to burn until the whole of the barrel is consumed ; the hoops will then support the clay, and the oven may be safely used. Where the clay is good a small oven may be built by it alone. Build two walls the required distance apart, about 6 in. high, with clay that has been well beaten and mixed, the back being joined to the walls ; then, with one hand on either side, gradually build the walls a few inches higher, the tops slightly sloping towards each other, leaving an interval in the form of a V in the centre ; then mould a piece of the clay large enough to fill the space, and place it in, care being taken to join well the edges with the walls both inside and out ; a small fire should then be lit and allowed to burn slowly until the clay is dry ; it will then become baked and quite firm, and may be used as other ovens.

### **Directions for Working Ovens of the Aldershot Mud- or Clay-covered Type**

1. Every night wood should be laid in the oven ready for lighting in the morning. It is thus kept dry.

2. When the oven is heated the embers are drawn out with a rake, and a small quantity of ashes left and raked even with the floor.

3. The tins containing dough should not be put in till 20 minutes or half an hour after the fire is drawn, as otherwise the top heat is so fierce that it would burn the upper part of the bread.

When meat is to be cooked it may be put in immediately the fire is drawn.

### **Time for Heating, Baking, Cooking, etc.**

1st heating 1st day	...	...	4 hours.
1st heating 2nd day	...	...	2 hours.
2nd and subsequent heating	...	...	1½ hours.
Baking	...	...	1 to 1¼ hours.
Cooking	...	...	Up to 2½ hours.



### Fuel Required for each Oven

1st heating 1st day	... ..	300 lb. wood.
1st heating 2nd day	... ..	150 lb. wood.
2nd and subsequent heating	... ..	75 lb. (baking).
2nd and subsequent heating	... ..	Up to 150 lb. (cooking).

A rough heating rule for baking bread is to allow 1 lb. of wood for each pound of bread required.

4. Immediately the oven is filled the door should be put up and wedged tightly with a piece of wood, the end of which should rest on the outer edge of the trench in front.

The crevices round the end should then be filled in with wet clay to prevent any steam escaping. If this is properly done the steam providing the necessary moisture is retained, and the bread or dinners will not be burnt.

Tin biscuit boxes filled with earth are a good substitute for other material used in the construction of the Aldershot oven. They may be used as follows: melt one side of the solder and form it into an oval shape; lay it on the ground, and cover it with a few inches of clay or soil sufficient to retain the heat; light the fire, and proceed as with the Aldershot pattern.

Small joints of meat may also be baked in the service camp kettle. A small amount of fat should be placed in the bottom, then a few clean pebbles large enough to cover the fat, the joint placed on the pebbles, and the lid put on. It requires a little longer to cook than the ordinary oven, and it is hardly possible to perceive any difference in the taste. The camp kettles are, however, to a great extent damaged, and their use for this purpose should, if possible, be avoided. Ant-heaps can also be used as ovens, the insides being scooped out and the fire lighted as in the Aldershot oven.

Another method is to dig into the side of a bank or trench and improvise a door with any old sheets of tin or iron to hand, plugging up the crevices when cooking, as with the Aldershot oven.

### Cooking in Mess Tins, Camp Kettles, etc.

The mess tins or camp kettles should be placed on the ground as shown on plan, plate 1, page 124, with the opening facing the direction of the wind.

Eight is a convenient number of tins to form a "kitchen," but any number from 3 to 10 or 11 can be utilized.

The handles of the vessels should be kept outside.

Mess tins should be well greased on the outside before being placed on the fire; if this is done and they are cleaned soon after being used they will suffer no damage. The tins when they are hot can be cleaned in a few minutes with turf, soil or rag.

Only a small quantity of wood is required for each "kitchen," a good draught being the object to be kept in view. The fuel used should be that obtainable in the vicinity of the "kitchens," and when mess tins are used each man should be instructed to prepare his own food, but when once the "kitchen" is formed and the fuel collected, one man only need remain with each fire.

The position of the tins in each "kitchen" will require to be changed from time to time, as some will be cooked sooner than others. It will be the duty of the man in charge to regulate this.

The dinners can be cooked in  $1\frac{1}{2}$  hours from the time they are placed on the fires.

The following dishes are suitable for this method of cooking:—

Plain stew, Irish stew, curried stew, sea pies, meat puddings.

It is estimated that dinners of a battalion of 1,000 men can be arranged in a space of 40 yards by 30 yards, allowing an interval of 2 feet between the "kitchens." When possible more room should be given, as the men attending the fires are then less inconvenienced by the smoke.

## PETROL-BURNING KITCHEN TRAILERS

Various types of petrol-burning kitchen trailers are undergoing experimental trials, but as finality has not yet been reached it has not been found possible to publish details.

## COOKING BY MEANS OF WASTE OIL AND WATER

(See plate 8)

This form of cooking is most suitable when other types of fuel are unavailable. Any kind of crude oil or waste oil from lorry sumps may be used.

Pass the oil through a filter or piece of muslin, and pour into a container. Fill another container with water. Petrol cans or drums are suitable for this purpose.

Place a handful of cotton waste or rags, soaked in oil, in the flash pan, and set alight. Allow this to burn for a minute

or two, until the pan is warm. Turn on the oil and water together, in the proportion of one drop of oil to two drops of water. If too much oil is released, a heavy smoke accompanied by excessive soot will be evacuated. If the correct proportions are used, little or no smoke will be apparent, and a sharp and continuous crackling noise will be heard from the flash pan.

Water may be brought to the boil in 20 minutes by this method. This system can be adapted to most types of improvised field kitchens.

## KITCHENS, TRAVELLING

(See plate 7)

The travelling kitchen consists of two main parts, viz., the limber (or front part), the body (or back part).

### The Limber (Front Part)

The limber is constructed with four compartments lined with a packing of asbestos; these can be hermetically sealed by closing the lids, which have a lining of the same material. These compartments contain four boilers, fitted with anti-splash plates and lids. When food at boiling point is placed therein it will remain hot for six or eight hours. Tea is usually quite hot after five hours; and ordinary stew will, as indicated above, retain a good heat considerably longer, but in all cases the weather must be taken into consideration.

### Frying Pans

Four frying pans are carried, two on the "near" and two on the "off" side of the limber. These fit the openings over the fire in the body of the cooker. Each pan is provided with a cover, so that cooked food can be kept hot till served. Joints of suitable size can be baked in these pans.

### Compartments

There are two compartments in the rear of the limber, "near" and "off." In the "near" compartment cook's implements should be stored, such as hand axe, holdall, with knives, etc., and in the "off" compartment the inventory board; also any spare cook's implements.

### Drawers

The four drawers at the back part of the limber are to be used for the storage of sugar, tea, salt, and other condiments.



## Lockers

There are also two lockers under the rear of the limber, "near" and "off." In the "off" locker should be stored such accessories as spanners, washers, box of candles, lantern and holdall for small stores, and in the "near" compartment brake blocks, water brushes, canvas buckets and cordage.

## Rake

A rake is supplied with each cooker and carried on the "off" side of the body.

## The Body (Back Part)

### Boilers

The body has compartments for five boilers. Four boilers, each with anti-splash plate and lid, are used for the cooking of stews, puddings, soups, vegetables, tea, coffee, etc. There is also a boiler, fitted with a tap and an anti-splash plate and lid, for stock or boiling water, to make up the loss in cooking boilers due to evaporation.

### Fireplace

The fireplace contains a "heat-regulator" and two "gratings," the correct adjustment of which should not be disregarded. The "heat-regulator" is moved by means of the rake to a "forward position" when heat is required in the direction of the rear boilers and pulled back over the entrance to the fireplace when forward heat is required, and placed in a central position for equal distribution of heat to all boilers.

### Gratings

Both gratings should be fixed on the lower rests when wood fuel is used, and on the top rests if a steady coal fire is required, and when all pots are boiling push the bright embers forward and damp down to retain a steady heat. This kind of fire is also suitable for frying. When mixed fuel is in use it is usual to fix the back grating (farthest from the entrance to the fireplace) on the upper and the front grating on the lower rests.

### Dampers

There are two dampers. These are used to regulate the draught and should remain open until the fuel has well burnt through and a clear fire remains.

*Dampers Down.*—This is a common expression and means that the flues are partly or wholly closed when a small clear fire is burning, thereby retaining a good heat in the body of the cooker, and at the same time effecting a greater economy in the use of fuel than would be the case if the flues were kept free.

### **Chimney**

The chimney is retained in a vertical position by means of three bolts. It should be lowered to a horizontal position and supported by the rest when the cooker is not in use and when travelling over broken ground. The cowl of the chimney, when in use, can be adjusted to suit the prevailing wind.

### **Soot Doors**

There are four soot doors, three at the front and one at the rear of the body. They should be opened for the purpose of removing soot deposits from the floor of the cooker.

### **Foot Rests**

The foot rests on either side of the cooker are for the cooks to stand on for the purposes of cleaning, also for making up, skimming and stirring the contents of the boilers.

### **Carrying Poles**

The carrying pole is in two parts, each 5 ft. long, with two hanging hooks. The two parts are connected by means of a socket and are to be used to remove the boilers, which should never be removed by hand.

### **Fuel Carriers**

Two fuel carriers are situated at the rear of the body. Each has a holding capacity of  $1\frac{1}{2}$  cwt. of coal.

The components, accessories, spare parts, equipment stores, etc., appertaining to a travelling kitchen are enumerated on A.F. G 1096-7.

### **Preparing the Breakfast Meal**

When the last meal of the day has been served the flues and fireplace should be cleaned out, the boilers washed, filled with water, and the breakfast meal prepared ready for cooking. The fire is then laid. Where fresh water is easily obtainable the boilers should be filled early the following morning.

Each boiler holds 8 gallons of water, and is usually sufficient to serve a pint of tea to the men of a platoon, or four boilers

to a company, but as units vary in strength, extra boiling is sometimes necessary, in which case the first boiling should be placed in the sealed compartments in the limber while the second boiling takes place. Make the tea 30 minutes later.

### Preparing the Dinner Meal

Wash the potatoes, put them into four boilers, fill with water and place in the compartments of the limber. Next cut up the meat and put into the remaining four boilers, add vegetables, pepper, salt, etc., and after the fire gratings have been raked free from ash, place the boilers in the compartments ready for cooking. Lay the fire.

Three to four hours before dinners are required for issue, light the fire, bring to the boil, and cook steadily. Change over the meat boilers to the limber, and the potato boilers to the body, about one hour before the meal is to be served.

During the process of cooking, occasionally skim, stir and add stock as required.

### The Tea Meal

After dinners have been served, thoroughly wash out all boilers and prepare for the tea meal. Then proceed as for the breakfast meal.

### General Notes on Travelling Kitchens

Wash thoroughly and use muslin in which the meat is delivered as bags for holding sufficient tea for each boiler. It is usually available on active service.

Usually in one hour from the time the fire is lighted breakfast should be served. Where bacon has to be fried,  $1\frac{1}{2}$  hours should be allowed.

The cookers are suitable to give stew and fry, but it is necessary that the full complement of boilers should first be placed in the compartments (two for stew and two for water). When these have been brought to the boil, lower the fire, remove the two containing water and put on the frying pans.

The frying pans are also suitable for cooking on the ground over a clear trench fire.

The lids should not be removed from the boilers too frequently while the dinners are cooking.

The fire, after the dinners have been brought to boiling point, should not be too fierce.

In camp or bivouac do not cut up the meat in small pieces the night before and put into the boilers. It will probably sweat, and that portion at the bottom of the boilers may



turn rancid and become unfit for consumption when cooked the following day. When troops are on the march and every available space of the cooker has to be used the meat may be stored there in large pieces and cut up the following day.

The position of the fireplace, where possible, should face the prevailing wind.

Always carry a small reserve ration of tinned meat to supply men who missed the dinner meal through being on duty. A little food cannot be kept hot in an 8-gallon boiler over a fire without destroying the boiler.

Remove the soot deposit from the outside of the boilers frequently and occasionally cover with grease. Always grease the outside of the boilers when new.

Boards on which meat has been cut up should be burnt if they cannot be scrubbed, as is frequently the case on active service.

Carry four camp kettles, if available, with each cooker for the purpose of carrying water, etc. They are also useful for serving cooked food for small messes.

Always fill your boilers overnight in case fresh water is not easily obtainable early the following morning, as you may have to move at short notice.

With a very fierce fire the contents of the fuel carriers have been known to take fire.

The continued use of a roaring or fierce fire will considerably shorten the life of the cooker by burning away the body and boilers.

## VARIOUS USEFUL RECIPES, PRESERVED MEAT, ETC.

### Bread made with Baking Powder

The advantage of using baking powder is the saving of time effected in the production of bread, a feature which may sometimes render this process useful on active service when bread has to be produced at short notice. The method of using baking powder is as follows :—

Spread the flour evenly at the bottom of the trough, sift the baking powder over the flour, taking care to break up any small lumps, which, if left, would cause a yellow stain in the bread. The dry powder and flour should then be thoroughly mixed.

Dissolve salt, at the rate of  $2\frac{1}{2}$  lb. for each sack of flour only, as a considerable quantity of saline matter is contained in all baking powders; use the softest and coldest water

obtainable ; water which has been boiled and allowed to get cool is the best for the purpose.

Mix the flour, baking powder and water thoroughly with a rotary motion, constantly stirring up from the bottom. The dough being properly mixed should be scalded, moulded and placed in a quick oven. To make a good loaf with baking powder the bread should be in the oven within thirty minutes of adding the water to the flour. If the dough is allowed to lie about the effervescence is finished before it is put in the oven.

Small loaves of bread made in this manner can be baked in empty tins, mess-tins or mess-tin lids with a fire lit all round them. Dried grass, wood or peat are the most suitable fuels for the purpose.

### **Soup with Preserved Meat**

*Ingredients.*—Meat, mixed vegetables, flour, pepper, salt, barley, water.

*Method.*—Place the water in the camp kettle, scrape and clean the vegetables, add them to the cold water ; when the water boils, shake in the dry barley. When the vegetables are cooked, take them out and pulp them ; mix the flour into a smooth batter with cold water ; add it to the vegetables with salt and pepper and put the whole into the camp kettle, keeping it well stirred to prevent burning ; allow it to simmer gently for 30 minutes, then open the tins of meat and add the contents to the soup ; stir well ; let simmer for 10 minutes, and serve.

### **Stew with Preserved Meat**

*Ingredients.*—Meat, potatoes, onions, pepper, salt and water.

*Method.*—After preparing the onions and potatoes put them in the camp kettle, season with pepper and salt, pour in sufficient water to cover them, and stew gently, keeping the lid of the vessel closely shut until the potatoes are nearly cooked ; then open the tins of meat and cut up the contents and put them in the kettle with the potatoes, and let the whole simmer for 10 minutes ; then serve.

### **Brown Stew with Preserved Meat**

Peel and slice some onions, melt the fat of the meat in the camp kettle ; add the onions and fry them till brown ; mix a little flour into a smooth batter with cold water, season with pepper and salt, and pour it into the camp kettle ; stir the whole well together, cut up the meat into slices ; put it into the kettle, and when warmed through, serve.

### Preserved Meat Fritters

*Ingredients.*—Half a pound of beef or mutton,  $\frac{3}{4}$  lb. of flour, half a pint of water, 2 oz. of butter, the whites of two eggs.

*Method.*—Make a smooth batter with the flour and water, stir in 2 oz. of butter, which must be melted but not boiled, and, just before it is to be used, add the whites of two well-whisked eggs. Should the latter be too thick, more water must be added. Pare down the beef into thin shreds, season with pepper and salt, mix it with the batter. Drop a small quantity at a time into a pan of boiling fat, and fry from 7 to 10 minutes, according to the size. When done on one side, turn and brown them on the other; let them dry for a minute or two, and serve.

A small quantity of finely minced onions mixed with the batter is an improvement.

### Curried Stew

*Ingredients.*—The same as for stew, with 1 oz. of curry powder and 1 lb. of flour added.

*Method.*—Prepare as for stew; mix the curry and flour with cold water into a smooth batter, and add it to the stewed vegetables with the meat; let the whole simmer for 10 minutes, and serve.

NOTE.—This stew is suitable for serving on the line of march.

### Sea Pie

*Ingredients.*—The same as for stew, with 5 lb. of flour and  $1\frac{1}{2}$  lb. of suet or dripping added.

*Method.*—Make the paste; prepare and cook the vegetables and onions, as for stew; when the vegetables are tender add the meat; cover the whole over with a light paste, and boil or steam for 20 minutes. A thickening of flour added is an improvement.

### Toad-in-the-Hole (Baked)

*Ingredients.*—Meat, flour, suet or dripping, salt, pepper, onions, eggs or egg powder.

*Method.*—Cut up and cook the onions; prepare the batter with eggs and milk if possible; if not, with egg powder and water; season it with pepper and salt; grease the inside of a baking dish; pour into it half the batter, and place it in the oven; when the batter sets, place on the meat (cut up) and the cooked onions; cover with the remainder of the batter, and bake from 15 to 20 minutes in a quick oven.



### To make Stale Bread New

Cut the bread into fairly thick slices. Have ready a mess-tin of boiling water. Remove the lid and place a slice of bread over the steam for a few seconds; then turn it to the other side for the same amount of time. Remove quickly and butter. Bread treated in this way is as tasty as hot rolls, and it makes no difference how stale the bread is.

### Fried Eggs and Rice

Parboil some rice in salted water. Then let simmer till quite cooked in some good gravy; add half a teaspoonful of curry powder when done. Keep hot in a camp kettle or mess-tin. In the meantime fry as many eggs as required in hot fat, taking care not to break the yolks; lift them out and place on the rice, scatter some finely chopped parsley over all if procurable, and serve hot.

### Trooper's Steak

Put the quantity required of thick steak into a mess-tin or camp kettle, leaving only a little of the fat; pour on enough water to come half-way over the steaks. They should fit closely together in the vessel. Sprinkle with finely minced shallot, onion or chopped celery, flavour with pepper and salt. Cover the pan closely for an hour, let simmer gently, but never boil; dredge any vegetables to hand with flour after the meat is removed from the mess-tin or kettle; boil them up in the liquid and serve on top of the steaks with the gravy.

### Tomato Cheese

*Ingredients.*—Fresh tomatoes, strong cheese (any kind will do), salt, pepper and breadcrumbs.

*Method.*—Slice the tomatoes and finely grate the breadcrumbs and cheese. Put a layer of tomatoes into a camp kettle, mess-tin, or empty beef tin (previously greased and sprinkled with breadcrumbs); then pepper and salt, and a layer of breadcrumbs and cheese, and so on, until the vessel is full. The top layer should be of breadcrumbs. Dot with bits of butter, fat or dripping, and bake in a quick oven for half an hour.

### Curried Fish

Take any cold cooked fish, some good dripping, flour and rice, some milk, hard-boiled eggs, and some curry powder and chutney. Remove all the skin and bone from the fish; boil the eggs for a quarter of an hour; then melt the dripping in

a saucepan, and stir the flour in smoothly over the fire for a few minutes, after which add the curry powder and chutney. Pour the milk into this, and then stir over the fire until it boils. Next cut the eggs into slices, and put them, also the fish, into the sauce, and mix all well together, seasoning it the while with salt. The mixture should be piled for serving on a hot dish, with boiled rice arranged round it as a border.

The following recipes for 100 men were finally compiled, after many tests had been made in the field during the Great War, for making the best possible use of preserved beef, pork and beans, biscuits, cheese and other standard rations, which when issued to the troops from day to day create monotony of dietary unless treated in different ways to give variety.

## SOUPS

Dish.	Ingredients.	Method.
JULIENNE SOUP.	12 gallons stock. 8 lb. Julienne (dried vegetables). Fresh vegetables if available. 4 lb. onions. Seasoning.	Soak the dried vegetables 12 hours; cut up onions and fry a light brown colour in a little dripping; place stock in a boiler, together with the dried vegetables and onions; season to taste; bring to the boil, and then allow to simmer for 2 hours; skim frequently. A few green peas and beans should be added when available.
RICE SOUP.	12 gallons stock. 8 lb. rice. 12 lb. mixed fresh vegetables. Seasoning.	Sprinkle the rice into boiling water and let it cook rapidly for 5 minutes; then wash and drain well. Bring stock to the boil; add seasoning; put in rice and finely chopped vegetables; let simmer steadily until rice and vegetables are thoroughly cooked. Time about 1 hour.
SPRING SOUP.	12 gallons stock. 12 tins preserved beef (put through mincer). Mixed herbs. 12 lb. mixed vegetables. 4 lb. onions. Seasoning.	Cook vegetables in salted water; cut up onions and partly fry them; chop up the cooked vegetables, add all to stock, and simmer about 1 hour; season to taste.
BREAD SOUP.	12 gallons stock. 12 lb. waste bread, crusts, etc. 12 tins preserved beef (put through mincer). Seasoning.	Boil up the stock and pour it over the bread. Let it remain closely covered until the bread is soft, then stir it until it is all well mashed up, add seasoning, a few herbs and minced beef. Let simmer steadily for 30 minutes.



## POTATO SOUP.

12 gallons stock.  
2 tins milk (this can be omitted).  
48 lb. potatoes.  
4 lb. onions.  
Celery (if obtainable).  
Seasoning.

Boil and mash potatoes (press through a sieve or colander, which can be made by punching small holes in a tea tin); add all ingredients to the stock. Season, and let simmer for about 1 hour.

## BEAN SOUP.

16 tins pork and beans.  
12 gallons stock.  
4 lb. onions.  
Pepper and salt.

Remove the fat and pork from the tins. Chop the onions up small and boil with stock, adding beans. Let simmer gently for 1½ hours, adding pepper and salt to taste.

## CHESTNUT SOUP.

12 gallons stock.  
4 tins milk.  
2 lb. crushed biscuit.  
20 lb. chestnuts.  
A little dripping.  
2 oz. sugar.  
Seasoning.

Boil the chestnuts until they burst open, then throw them into cold water, peel, and crush to a paste or put through a sieve. Put stock, chestnuts, salt and pepper into a boiler and simmer for 45 minutes. Knead the dripping and biscuit flour together, add milk, and put mixture into soup and stir until it becomes well mixed. Add sugar and let simmer for 1 hour.

MULLIGATAWNY  
SOUP.

12 gallons stock.  
10 tins preserved beef (put through mincer).  
4 lb. onions.  
4 lb. carrots and turnips (or soaked dried vegetables).  
4 lb. apples and 3 lemons (if obtainable).  
4 lb. crushed biscuit.  
A few mixed herbs.  
Curry powder and salt.

Cut up the vegetables and apples in small pieces and fry in a little fat till brown; add the biscuit flour and curry powder to taste. Fry for a few minutes with sufficient fat to soak up the biscuit; then, add all to stock with minced preserved beef, and stir all the time until it boils and is fairly thick. Then allow to simmer for 2 hours.

## DIETARY PREPARED FROM PRESERVED BEEF

Dish.	Ingredients.	Method.
MINCED MEAT.	25 tins preserved beef. 1 oz. pepper. Stock. 3 lb. onions.	Boil and chop the onions, mince the meat, add onions and pepper, cover with stock and let simmer for 20 minutes.
RISSOLES.	20 tins preserved beef. 5 lb. biscuits. 1 oz. pepper. 2 lb. onions.	Boil and chop the onions, mince the beef, powder and add the biscuit and seasoning. Mix well, make into balls and bake or fry. Serve hot with gravy.
GALANTINE OF BEEF.	18 tins preserved beef. 6 lb. bacon. 8 lb. biscuits. Stock. Mixed herbs. 1 lb. pickled gherkins or walnuts. Pepper.	Put all through mincer and mix with sufficient good stock. Shape into a nice roll, with the pickles put whole into the centre; tie in a greased pudding cloth and boil for 2 hours. Take out, place on a board, and put another board or a piece of tin on the top and a weight. Let stand till cold and set, then take out of cloth and serve cut up in slices.
POTTED MEAT.	16 tins preserved beef. 4-6 oz. pepper. Margarine. Dripping.	Put the meat three times through the mincer; add a little margarine and plenty of pepper; press well down into a dish and cover with a little melted margarine or dripping.
PRESERVED MEAT PIE.	35 tins of preserved beef. 6 lb. of biscuits. 2 lb. flour. 4 lb. onions. 2 lb. dripping. Seasoning. 1 gallon stock.	Chop up onions as for stew and fry till brown. Remove meat from tins and cut up into small cubes. Soak the biscuits and pass through mincer; add dripping and make paste. Place a little stock in baking dish; add meat and onions; cover with stock, season, and mix well together. Add paste covering and bake till brown. Time about 40 minutes.

Wash, peel and rewash potatoes and cook them. Remove preserved meat from tins, cut into cubes and pass through mincer. Allow the cooked potatoes to cool and then again pass the preserved meat together with the potatoes through the mincer. Season the mincemeat as required (a little onion may be added if desired).

Make an ordinary quarter paste with the flour and dripping, roll out and cut into the required number of squares, place the mincemeat in position, fold the pastry over, making sure the edges are securely joined.

Make a smooth batter with the flour and water. Cut the meat into slices. Prepare some breadcrumbs. Dip the meat slices into the batter and roll in the crumbs. Fry in hot fat until brown.

Cut the beef into cubes. Place dripping in camp kettle and melt; add sufficient biscuit dust to form a stiff paste, stirring over fire all the time. Fry the onions; add to the paste, with sufficient stock to nearly fill the camp kettle. Stir altogether until well mixed, and add curry powder and seasoning. Divide the cubes of meat and chopped vegetables into dishes and cover with prepared mixture. Let simmer gently for  $1\frac{1}{2}$  hours. Boil and drain rice in usual way. Place rice round the dishes leaving centre empty. Pour in the curried meat and serve.

10 lb. preserved meat.  
10 lb. cooked potatoes.  
Seasoning.  
10 lb. flour.  
Dripping.  
Salt, 1 oz.

\*PRESERVED MEAT  
ROLLS.

35 tins preserved beef.  
Flour }  
Dripping } As required.  
Water }

PRESERVED BEEF  
FRITTERS.

30 tins preserved beef.  
10 lb. rice.  
2 lb. biscuit dust or flour.  
4 lb. mixed vegetables.  
1½ lb. dripping.  
2 gallons stock.  
3 lb. onions.  
10 oz. curry powder.  
Seasoning.

PRESERVED BEEF  
CURRY.

\* Suitable for teas, suppers or haversack ration.



## TINNED MEAT AND VEGETABLE RATIONS AND PORK AND BEAN RATIONS

Dish.	Ingredients.	Method.
COTTAGE PIE.	35 tins M. & V. 15 tins P. & B. 2 gallons stock. Seasoning.	Remove meat from the tins and take away the fat; pass through mincer and place in dish with a little stock added and seasoning. Remove fat from beans and mince, and make covering; place in a moderate oven and bake till brown. (Mashed potatoes can be used instead of beans.) Time about 40 minutes.
M. & V. CROQUETTES.	18 tins M. & V. 9 tins P. & B. 4 lb. flour (or 5 lb. biscuits). Seasoning.	Having removed the fat from the M. & V. and P. & B. tins, pass contents through mincer; add pepper, salt, flour (or biscuit dust with a little flour to bind). Mix well together, shape in 2 oz. croquettes, roll them in biscuit dust, and fry in hot fat until brown. Serve two for each man.

## THE USE OF OATMEAL

Dish.	Ingredients.	Method.
OAT CAKES.	12½ lb. oatmeal. 3 lb. dripping. 1 lb. sugar. Salt.	Place meal in a mixing bowl and add pinch of salt, dripping and sugar; mix well together and leave for 2½ hours. Shape into three-cornered cakes of 2 oz. each and bake until brown. Serve two for each man.

OATMEAL CHEESE CAKES.	12½ lb. oatmeal. 12½ lb. cheese. A little dry mustard. Pepper and salt to taste.	Cut up cheese into small pieces and pass through mincer; add meal and work into a stiff dough; roll out into a paste, and cut into circular cakes; bake in hot oven for 15-20 minutes.
SCOTCH CAKES.	6½ lb. oatmeal. 20 oz. milk. 5 lb. flour. 2 lb. dripping. 2 lb. sugar. Salt. 9 oz. baking powder.	Sieve the flour and mix in the oatmeal, then thoroughly rub in the dripping. Add the remaining dry ingredients and mix well with milk to attain the correct consistency. Roll out and shape into rounds, each round being marked into 4 scones.
RICE AND OAT- MEAL PUDDING.	7 lb. rice. 7 lb. oatmeal. 2 lb. currants. 2 lb. sugar. 3 nutmegs (if desired) or mixed pudding spice. 1 lb. dripping.	Wash the rice and pick out discoloured grains. Wash and pick over currants. Place oatmeal, rice, sugar, currants and dripping into mixing bowl and mix thoroughly. Place into well-greased baking dish and cook in moderately heated oven for 1½ hours.
PORRIDGE.	12½ lb. oatmeal. 25 quarts water. 4 oz. salt.	Bring water to the boil, add salt and sprinkle in oatmeal, stirring all the time until desired consistency is obtained. Draw off fire and allow to simmer for 20 minutes, stirring occasionally. If sugar and milk are served with the porridge use 2 tins milk and 2 lb. sugar. If jam or syrup, omit milk and sugar and use 8 tins jam.

**THE VARIOUS METHODS OF USING UP SPARE BISCUITS**

Dish.	Ingredients.	Method.
* PLAIN SUET PUDDING.	16 lb. biscuits. 4 lb. suet or dripping. 1 oz. salt.	Powder or soak the biscuits, add the salt and chopped suet, and mix well. Add sufficient water to make into fairly stiff dough, tie in cloths and boil for 2½ hours. Serve hot with jam or marmalade. The above, if desired, may be placed in a greased baking dish and baked in a moderate oven for 1½ hours. The same mixing should be used for jam rolls.
* FRUIT AND BISCUIT PUDDING.	As above, with the addition of dried fruit.	Thoroughly clean and cut the fruit into small pieces and proceed as above.
* DUMPLING.	As for a plain suet pudding.	Proceed as for plain suet pudding, but make the dough into small balls, and place in the stew 40 minutes before serving.
* BISCUIT PASTRY.	12 lb. biscuits. 3 lb. dripping. ½ oz. salt. 6 lb. jam.	Powder the biscuits, add salt and pinch in the dripping. Mix lightly into a medium paste with cold water. Roll out to a thickness of ½-inch and place in well-greased dixie lids or baking dishes. Partly bake, then spread on sufficient jam and return to oven to finish baking. Time about 35 minutes. This pastry without the jam can be used for meat pies and puddings.
* SCONES.	16 lb. biscuits. 4 lb. dripping. 4 lb. sugar. 8 oz. baking powder. 3 tins milk.	Powder the biscuits, add the baking powder and sugar, shred in the dripping, and mix well. Add sufficient milk to make a pliable paste, and break into 1 lb. pieces. Roll out and divide into 4 pieces. Bake in a moderate oven for 20 minutes. Scones should be served hot. They are improved by adding a little dried fruit.



\* ROCK CAKES.

- 16 lb. biscuits.
- 4 lb. dripping.
- 3 lb. sugar.
- ½ oz. salt.
- 6 oz. baking powder.
- 3 tins milk.
- 2 lb. currants.

Powder the biscuits, wash and pick the currants. Place dripping and sugar into a bowl and beat it up until it becomes soft and light. Add the remainder of the ingredients, and use sufficient milk to make a stiff paste. Divide into small rock cakes, and bake from 10 to 15 minutes in a fairly hot oven.

\* GOLDEN PUDDING.

- 16 lb. biscuits.
- 4 lb. suet or dripping.
- 6 lb. marmalade.
- 2 tins milk.

Crush the biscuits. Shred in the dripping. Mix in part of the marmalade, a little milk and baking powder, until all becomes a stiff dough. Cut up into 5-lb. pieces. Tie up tightly in a wet cloth. Place in boiling water and boil for 2½ hours. When taken out, allow to remain in the cloth for 10 minutes. Make a sauce with the remainder of the marmalade by adding hot water and letting it simmer. Serve with pudding.

BISCUIT PORRIDGE.

- 12 lb. biscuits.
- 1½ lb. sugar.
- 3 tins milk.
- 30 pints water.

Boil the water in the camp kettle. Crush the biscuits, and add to the boiling water, stirring until it becomes quite thick. Remove from the fire. Stir in the sugar and milk. Time required, 20 minutes.

\* BISCUIT AND RICE PUDDING.

- 12 lb. biscuits.
- 6 lb. rice.
- 1 lb. sugar.
- 2 tins milk.
- 8 tins jam.

Cook rice in usual way, and sweeten to taste. Soak, squeeze and pass biscuits through mincer. Well grease a baking dish and put in a layer of rice, a layer of jam and a layer of biscuit. Add sugar to the milk and barely cover the whole. Place in a moderate oven until milk is absorbed and pudding brown. Cut into squares and serve.

\* BISCUIT DOUGH-NUTS.

- 12 lb. biscuits.
- 3 lb. dripping.
- 2 lb. sugar.
- 1 tin milk.
- ½ oz. salt.
- Lime-juice to flavour.
- A little flour.

Powder the biscuits, and add salt, dripping, sugar and flour, and mix well together. Make a hollow in centre, and add milk and lime-juice flavouring. Mix into a stiff dough. Roll out and cut into round cakes. Fry in hot fat till brown. Jam should be served with them for tea meal.

\* Flour may be used instead of biscuits.

THE VARIOUS METHODS OF USING UP SPARE BISCUITS—continued

Dish.	Ingredients.	Method.
* YORKSHIRE PUDDING.	12 lb. biscuits. Stock. Pepper.	Strain off some good stock, bring to the boil and pour over biscuits, and allow to soak for 1 hour. Pass through mincer twice, adding a little more stock as required, to reduce the consistency to batter. Mix in pepper and pour into well-greased baking dish and bake till brown.

\* Flour may be used instead of biscuits.

CHEESE DISHES

Dish.	Ingredients.	Method.
CHEESE SAVOURIES.	8 lb. cheese. 1 lb. dripping. Salt. Pepper. 2 lb. of flour. 2 lb. biscuit dust.	Shred the cheese and the dripping. Add the biscuit dust and flour, pepper and salt, and sufficient water to make into a stiff paste. Cut into squares and bake in a moderate oven.
FRIED CHEESE.	10 lb. cheese.	Cut the cheese into slices and fry. Serve hot.
WELSH RAREBIT.	8 lb. cheese. 4 lb. biscuits or breadcrumbs. 3 oz. dry mustard. 2 oz. salt. 1 oz. pepper. 1 tin milk.	Grate the cheese and crush the biscuits. Place all the dry ingredients into a mixing bowl and mix well together. Place the mixture in a baking dish, barely cover with milk, and bake for 45 minutes.

## MISCELLANEOUS RECIPES

Dish.	Ingredients.	Method.
BRAWN.	20 lb. meat. 3 oz. pepper. Stock. 5 lb. bacon rinds.	Boil bacon rinds in stock till tender and pass through mincer. Cut up meat into small cubes and mix with minced rinds and pepper. Return to the stock and allow to simmer for 1½ hours. Place in a clean mould with sufficient stock to form a jelly. Put in a cold place and allow to set.
FRUIT PUDDING.	18 lb. bread. 4 lb. dripping. 4 lb. dried fruits. Flour. Milk. Flavouring.	Soak bread, squeeze dry and pass through mincer. Add a pinch of salt and dripping. Mix well and add cleaned fruit, flour, and a little milk and flavouring. Mix well again, cut into required portions, tie up in damp floured cloths and boil for 2 hours. If dates are used they should be thoroughly washed and stoned. Figs should be thoroughly washed and chopped fine.
FISH CAKES.	10 tins preserved beef. 10 tins herrings. 4 lb. breadcrumbs. 4 lb. potatoes. 2 oz. pepper. A little stock.	Pass the meat and herrings through the mincer. Add breadcrumbs, pepper and mashed cooked potatoes, and mix with a little stock. Shape into cakes, roll in breadcrumbs or flour, and fry in hot fat.



## RECIPES FOR CAKES

### Fruit Cake

*Ingredients.*—Flour, 8 lb. ; margarine, 4 lb. ; sugar, 4 lb. ; currants, 3 lb. ; cream of tartar, 2 oz. ; bicarbonate of soda, 2 oz. ; milk, 3 tins ; mixed peel, 1 lb. ; sultanas, 3 lb. ; salt, 2 oz.

### Currant Cake (cheap)

*Ingredients.*—Flour, 12 lb. ; dripping,  $3\frac{3}{4}$  lb. ; sugar,  $3\frac{1}{2}$  lb. ; currants, 4 lb. ; mixed peel, 1 lb. ; baking powder, 3 oz. ; milk, about 7 pints ; salt, 2 oz.

### Cocoanut Cake

*Ingredients.*—Flour, 12 lb. ; dripping,  $3\frac{3}{4}$  lb. ; sugar, 4 lb. ; desiccated cocoanut, 4 lb. ; milk, about 7 pints ; baking powder, 4 oz. ; salt, 2 oz.

### Raisin Cake

*Ingredients.*—Flour, 12 lb. ; dripping,  $3\frac{3}{4}$  lb. ; sugar, 4 lb. ; raisins, 5 lb. ; milk, about 7 pints ; baking powder, 4 oz. ; salt, 2 oz.

### Seed Cake

*Ingredients.*—Flour, 12 lb. ; sugar, 4 lb. ; dripping,  $3\frac{3}{4}$  lb. ; caraway seeds, 3 oz. ; baking powder, 3 oz. ; milk, about 7 pints ; salt, 2 oz.

*Method.*—Place flour, salt and baking powder into a mixing bowl, and thoroughly mix and aerate. Add the sugar and dripping, or margarine, and rub lightly until the fat is ground fine and the mixture takes on the appearance of fine bread-crumbs. Add the remaining ingredients, and thoroughly mix. Make a bay in the centre and add the milk, then mix into a stiff batter or dough. Place in baking tins, which have been lined with greased grease-proof paper, then bake in a moderate oven until done. Time, two or three hours, which depends on the consistency of the mixture.

*NOTE.*—Currants should be well picked over, washed and dried with a clean cloth before mixing. Raisins should be picked over and stoned. Sultanas should be picked over thoroughly and cleaned with a dry cloth.

### Baking Powder

Can be made in the proportion of 1 lb. cream of tartar to  $\frac{1}{2}$  lb. bicarbonate of soda. Mix well together and keep in an air-tight tin. Use sparingly.

### Short Pastry

The proportions are 1 lb. flour or biscuit dust to  $\frac{1}{4}$  lb. best dripping, a pinch of salt and baking powder. Mix lightly with cold water into a medium paste. (Baking powder should be omitted when biscuit dust only is used.)

### Orange Flavouring

Thoroughly rinse orange skins in boiling water and dry on rack over fire or in an oven. When brittle break into small pieces and pass through mincer and powder.

## SPECIMEN DIET SHEET SUITABLE FOR FIELD COOKERY

Week Ending.....

Meal.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
BREAKFAST.	Tea. Porridge. Fried bacon. Bread.	Tea. Rissoles and gravy. Bread.	Tea. Porridge. Fried bacon and onions. Bread. Marmalade.	Tea. Fried bacon. Baked beans. Bread.	Tea. Porridge. Rissoles. Bread. Marmalade.	Tea. Porridge. Bacon brawn and sauce. Bread.	Tea. Meat croquettes. Gravy. Bread.
Half Company.	Roast meat. Vegetables. Gravy. Buller pudding.	Brown stew. Vegetables. Golden pudding.	Braised meat. Potatoes. Beans. Bread pudding.	Curried stew. Rice. College pudding.	Roast meat. Gravy. Baked onions. Potatoes. Jam roll.	Sea Pie. Rice pudding and fruit.	Roast mutton. Onion sauce. Potatoes. Fruit and biscuit fritters.
DINNER.	Brown stew. Vegetables. Golden pudding.	Roast meat. Gravy. Vegetables. Buller pudding.	Curried stew. Rice. College pudding.	Braised meat. Potatoes. Beans. Bread pudding.	Sea pie. Rice pudding and fruit.	Roast meat. Gravy. Baked onions. Potatoes. Jam roll.	Cottage pie. Beans. Suet pudding. Syrup or jam.
Half Company.	Tea. Bread. Butter. Oat cakes.	Tea. Bread. Dripping. Meat paste.	Tea. Bread. Butter. Sardines.	Tea. Bread. Butter. Scones. Jam.	Tea. Bread. Dripping. Fish cakes.	Tea. Bread. Butter. Jam.	Tea. Bread. Butter. Rock cakes.
TEA.	Julienne soup. Bread and cheese. Pickles.	Bread soup. Cheese fritters.	Lentil soup. Brawn.	Pea soup. Welsh rarebit.	Potato soup. Galantine of beef.	Vegetable soup. Meat croquettes.	Rice soup. Potted meat. Pickles.
SUPPER.							



## HAY BOX COOKERY

A specimen hay box has been provided at the School of Cookery, the detailed measurements as follows :—

Length	...	...	...	27 inches
Breadth	...	...	...	20 „
Height	...	...	...	22 „

It is constructed of  $\frac{3}{8}$ -inch tongued and grooved timber with corner battens of 2-inch by  $\frac{1}{2}$ -inch material.

It is fitted with :—

1. A drop-on lid, packed with two inches of hay and covered with canvas.
2. A metal frame to fit the boiler for the purpose of keeping the walls of the hay packing in position.
3. A canvas frame to cover the hay to protect the food from hay seed and dust.

This box is sufficiently large to allow at least 3 inches of hay to be packed on the bottom and sides and a cushion of hay on top.

The experimental box made at the School of Cookery weighs 140 lb. when packed with container filled ; therefore, 16 boxes would weigh one ton. Hay for packing weighs about 25 lb. and the hay and box without food container weigh 60 lb.

A tea chest packed with hay weighs 40 lb. and when packed with food 120 lb. 18 of these can be carried on a light six-wheeler, the load being approximately one ton.

The hay used must be perfectly dry, and should be pressed firmly into the bottom of the box to a depth of 3 inches. Then place the metal frame and boiler into the centre of the box and press hay all round it level with the top of the boiler. Finally remove the boiler, leaving the metal frame in the mould. Place the prepared food in the boiler and bring to the boil on an ordinary fire. After it has boiled the necessary time, see that the lid is tightly secured and without delay place the boiler into the mould whilst the contents are still on the boil. Now fill in the top with a cushion made by placing hay in a sack and press tightly. Put on the lid, which should fit closely.

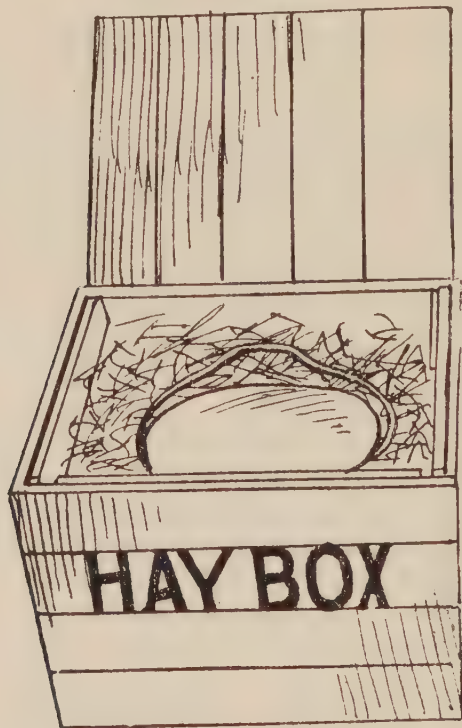
Special points which must be strictly observed are :—

- (a) Hay must be pressed tightly all over. If the hay is loose in any part of the box the heat can escape and the temperature of the food will quickly fall.
- (b) If the boiler is taken out of the box for any reason before the food is required, it must always be brought to boiling point before being returned to the box.

- (c) All foods must be placed in the box at boiling point, 212° F.
- (d) When the temperature drops to 130° F. it will fall quickly, and such food as stewed meat with vegetables (also porridge) will begin to ferment. Only food at a temperature of 140° F. or over can be described as a hot meal.
- (e) The hay box will not cook any foodstuff which requires top heat or rapid boiling all the time; therefore it will not roast or fry, and it will not boil flour puddings or cabbage. Roast and fried meat and boiled puddings must be completely cooked before being placed in the box. If left in the box for a long time, roast meat will become stringy and flavourless, and boiled puddings will become soggy.

Provided the food is boiling when placed in the hay box, and the box properly packed, it will remain hot for 20 hours. In summer time, when the temperature of the atmosphere is

### HAY BOX



high, the food will remain hot for a longer period. The containers must always be full when placed in the hay box.

The hay box will keep food hot for a considerable time. Certain food will continue to cook if put in the hay box at

boiling point. It will not cook pastry, which requires the top heat of an oven, or pudding, which requires the contents of a cooking vessel to be kept at boiling point. It will not cook cabbage or certain vegetables which should boil rapidly. There is a great saving of fuel, and the hay box should invariably be used when cooking for small units, detachments, guards, picquets, etc. A pad made of hay should be placed on top of the cooking vessel before the lid is closed.

The following Time Table for hay box cookery has been compiled from experience gained in the treating of various foodstuffs in an ordinary service camp kettle.

Article.	Men.	Soaking.	Boiling on a fire.	Minimum time in box.
		Hours.		Hours.
IRISH STEW AND DUMPLINGS.	15	—	Bring to boil and boil for 10 minutes. Add dumplings and boil another 8 minutes.	3
STEWED STEAK ...	30	—	20 mins. after frying	2
BOILED HAM OR BACON	10	12	30 minutes ... ..	6
MEAT PUDDINGS	20	—	As for Irish stew ...	3
SEA PIE ... ..	15	—	Do. ... ..	3
BOILED BEEF AND CARROTS	15	—	30 minutes ... ..	3
POTATOES ... ..	30	—	5 minutes ... ..	1½
GREEN PEAS ...	30	—	Bring to boil only	1
BLUE PEAS ...	20	12	30 minutes ... ..	3
HARICOTS ... ..	20	12	30 minutes ... ..	3
BUTTER BEANS ...	20	12	30 minutes ... ..	3
STEWED PRUNES	30	12	5 minutes ... ..	1½
STEWED FIGS ...	30	12	5 minutes ... ..	1½
MIXED FRUIT ...	20	12	Bring to boil only ...	1½



## IMPROVISED PACK CONTAINER, FOR CARRYING HOT SOUP, TEA, ETC., TO THE TRENCHES

### *Requirements—*

- 1 pack.
- 1 2-gallon petrol or lubricating oil tin.
- 5 lb. hay.

*Method.*—Place the hay in the bottom of the pack and firmly press in to a depth of 2 inches. Place the empty petrol or oil tin (which has previously been thoroughly scalded out) on the top of the hay, and then proceed to press hay very tightly all round the tin until the pack is full. There should not be less than  $2\frac{1}{2}$  inches of hay evenly pressed all round the tin. There should now be sufficient room left to place a good wad of hay on the top of the tin at least 2 inches thick. Pour the *boiling* soup or tea into the tin and screw on the cap. Place the wad of hay on the top and securely strap the pack. The tin is now thoroughly encased in about 2 inches of hay tightly pressed, and is ready to be sent to the men in the front line. It will keep very hot for 12 to 24 hours.

### *Points to Notice*

- (i) Keep the hay as dry as possible.
- (ii) The soup or tea must always be poured into the prepared tin boiling hot.
- (iii) The tin must be scalded out each time it is used. This can be done without removing it from the pack.
- (iv) The same pack and hay will last for weeks.
- (v) If hay should get wet it must be dried and repacked before being used again.
- (vi) Tea leaves must be carefully strained off and none allowed to get into the tin with the tea.
- (vii) Each tin will take 16 pints. Two tins should be sufficient for a platoon.
- (viii) The lubricating oil tins "Mobiloil B.B." are the best for the purpose; the handle is movable and allows for pressing the hay better.
- (ix) The pack must not be opened until actually required for use.
- (x) The total weight is 28 lb. when full.
- (xi) Waste hay which is not quite good enough for feeding purposes should be used; straw or clover will not do.

## INVALID DIETARY

*When soldiers are required to attend their sick or wounded comrades, pending their admission to hospital, the following simple recipes are useful :—*

### Barley Water

Two ounces of pearl barley boiled in a quart of water for 20 minutes and afterwards allowed to stand until it becomes cold ; it must then be strained through a sieve into a jug, and a small piece of lemon peel added.

### Toast and Water

Boil a quart of water and pour it on a good-sized piece of crumb of bread which has been well toasted before a clear fire until it becomes nearly crisp and of a dark brown colour ; allow this to steep for half an hour ; it is then ready.

### Sugar Water

To a pint of cold spring water add an ounce of lump sugar and a tablespoonful of orange or lemon juice ; mix. This is a very refreshing drink in summer, and is, besides, perfectly harmless.

### Arrowroot

To half a pint of boiled water add rather more than half an ounce of arrowroot, previously mixed in a teacup with a wine-glassful of cold water. Stir this on the fire until it boils for a few minutes ; pour it into a basin ; flavour with a little sugar, and a small spoonful of brandy or a little red or white wine, or else with a little piece of orange or lemon peel, which may be boiled with the arrowroot.

### Sago or Tapioca

Boil 2 oz. of either in a pint of water for 20 minutes, and flavour as directed for arrowroot ; sago may also be boiled in mutton, chicken or veal broth, or in beef tea.

### Gruel

Take one teaspoonful of oatmeal and mix with a wineglassful of water, and having poured this into a stewpan containing a pint of boiling water, stir the gruel on the fire, to boil 10 minutes ; pour it into a basin, add salt and butter, or, if more agreeable, rum, brandy, or wine and sugar.

### Oatmeal Porridge

Boil a quart of water in a saucepan; as soon as it boils sprinkle slowly in a cupful of coarse oatmeal, stirring gently until it is thick and smooth enough, pour it at once on to plates, and serve with milk or treacle.

### Calves-foot Jelly

Put an ox foot into two quarts of water and let gently simmer all day. Strain it and next day remove the fat; cut it into four parts and put it into a saucepan with  $\frac{3}{4}$  lb. moist sugar, the juice and peel of two lemons (or one orange, if preferred) and two eggs. The whites, yolks, and shells are beaten together. Put it on the fire, and bring it slowly to the boil, and boil quickly for five minutes. Then put in half a pint of cold water, let it stand for a little while, and strain through a sieve or muslin.

### Beef Tea

To each pound of beef allow one quart of water. Pare away every particle of fat and cut the meat (which should be cut from the rump or gravy piece) into very small squares of mince, and put this into a clean stewpan, add the water and set it on the fire to boil, remembering that as soon as the scum rises to the surface it should be removed with a spoon, and a very small quantity of cold water and salt should be poured in at the edge of the stewpan in order to facilitate the rising of the albumen in the form of scum. Unless the skimming is properly done, the broth, instead of becoming clear and bright, becomes thick and *turbid*, and thus presents an unappetizing appearance to the eye of the patient.

When beef tea has boiled gently for about half an hour and has become reduced to about half its original quantity, let it be strained through a clear sieve or napkin into a basin, and serve with dry toast and salt. The foregoing is intended for patients whose case may require comparatively weak food; in cases where food of a more stimulating character is needed in the form of extract of beef, it will be necessary to double the quantity of meat, and when it happens that beef tea is required in a hurry the meat should be chopped as finely as sausage meat, put into a stewpan with boiling water, stirred on the fire for 10 minutes, and then strained through a napkin for use.

### Mutton Broth

To each pound and a half of stewing mutton add one quart of water, a little salt, 2 oz. of pearl barley. Chop the mutton.



into small pieces and add with the water in the stewpan ; set it to boil, skim it well, add a little salt and the barley ; boil gently for one hour ; strain off the broth through the sieve into a basin, and serve with dry toast ; a turnip and half a head of celery may be added where vegetables are not objected to.

### **Chicken Broth**

Clean the chicken, scale the legs, and remove the cuticle which covers them ; cut up the fowl into members or joints, leaving the breast whole ; put the pieces of chicken into a clean stewpan, with a quart of water, a little salt, and 2 oz. of washed rice ; boil very gently for one hour, and when done serve the broth with or without the rice, according to taste.

### **Rice Water**

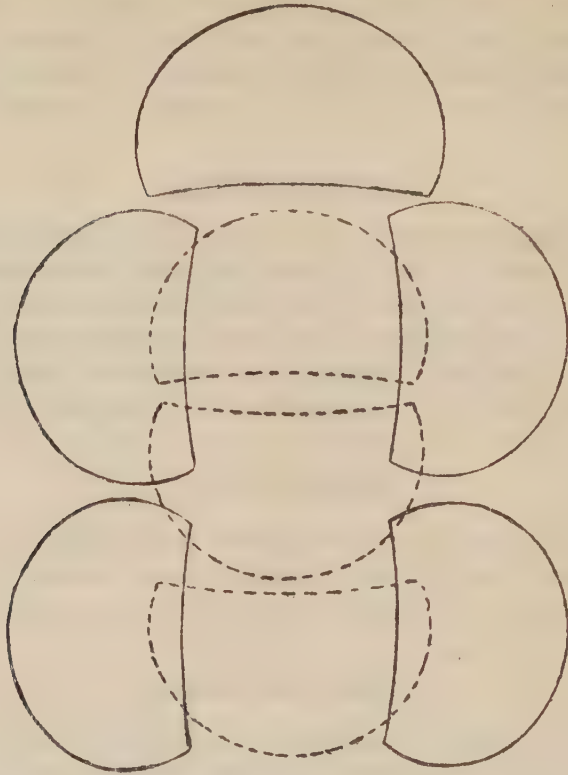
Wash 3 oz. of rice in several waters and then put into a clean stewpan with a quart of water and 1 oz. of raisins ; boil gently for half an hour, and strain through a coarse hair sieve into a jug.

### **Onion Porridge**

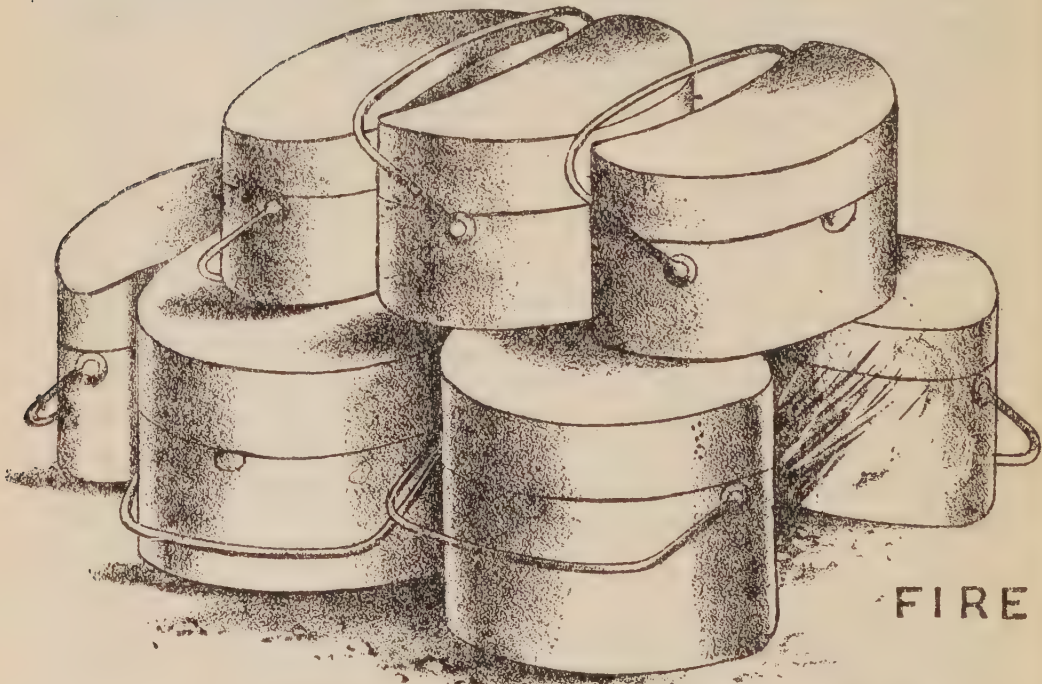
Take a large Spanish onion, peel and split it into quarters, and put these into a small saucepan with a pint of water, a pat of butter and a little salt ; boil gently until cooked ; add a pinch of pepper ; thicken with flour, sago, or cornflour ; reboil and eat the porridge just before retiring for the night. This is an excellent remedy for colds.

## PLATE 1.—COOKING IN CAMP KETTLES AND MESS TINS

## PLAN.

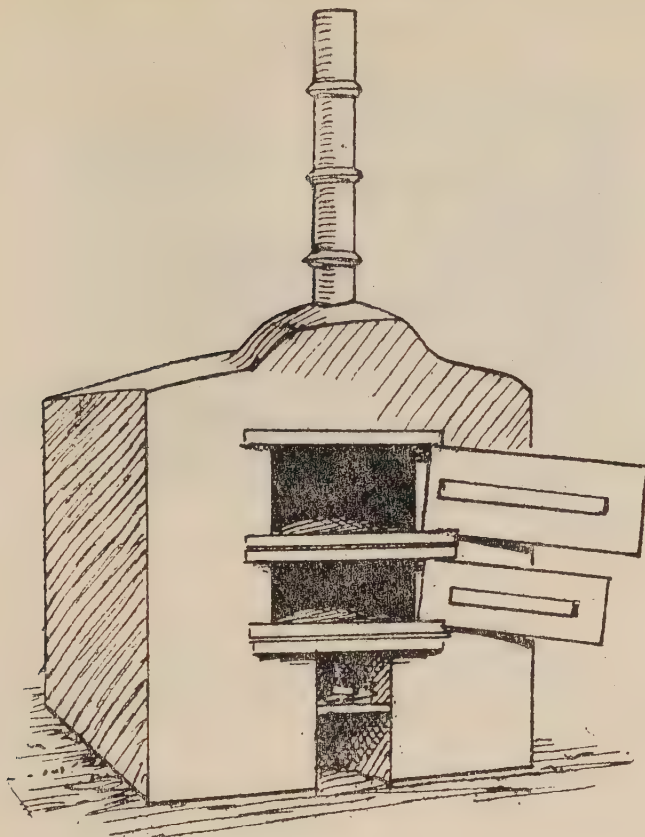


## ELEVATION

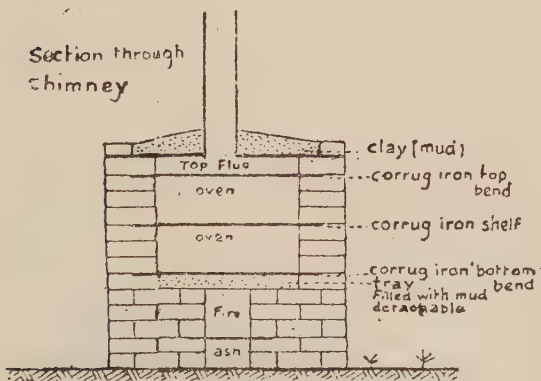


NOTE.—This method of cookery should only be used temporarily owing to the extravagant use of fuel. In standing camps the kettle trench (*see* plate 4, page 126) should be constructed.

PLATE 2.—CHAMBER OVEN



Section through  
Chimney



Side view

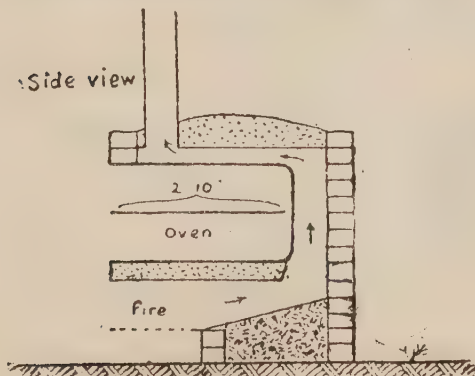




PLATE 3.—BRAZIER FOR MESS TINS

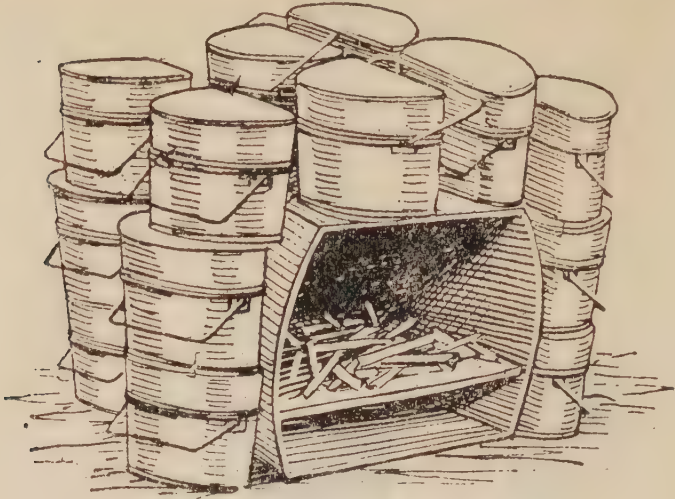
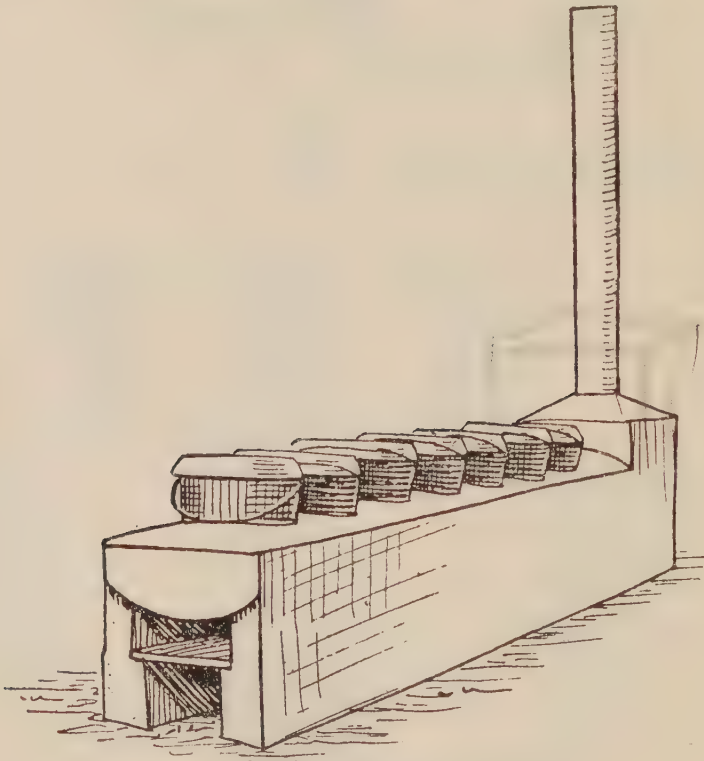


PLATE 4.—KETTLE TRENCH FOR 150 MEN

*Construction of Kettle Trench*

Camp kettle or dixie trenches can be constructed with bricks or tea or biscuit tins filled with mud. Build with bricks or lay the tins in two rows 9 or 10 inches apart, joining well together with clay, and put one tin at the end. Cover to a depth of 1 tin only from the mouth of the trench with a well perforated sheet of iron and lay on a second row of tins as before, cutting the front out of the tin to be placed at the end. Cover the whole length with another sheet of iron, having previously cut out the holes to fit the dixies, or lap strips of iron across as supports. Place the dixies in position, and cover well round with clay, sloping off slightly towards the sides to let the rain run off. Fit a chimney into the tin at the end, and cover well round with clay. The bed of the trench should slope gradually towards the chimney. The fire is only required at the mouth, and should not extend beyond the depth of one tin.

The service camp kettle will cook comfortably for the following :—

	Men.
Potatoes ... ..	32
Stewed meat with ingredients for plain stew, tomato stew, etc. ... ..	32
Sea pies ... ..	16
Meat puddings ... ..	16
Plain stew and dumplings ... ..	16
Green vegetables ... ..	16

## SECTION VI

## Appendix I

## SANITARY RULES FOR COOKHOUSES

1. No one will be employed in any capacity in a cookhouse or in handling the food of the troops who has suffered from enteric fever, paratyphoid fever or dysentery, or who is suffering from or under treatment for a venereal or infectious disease.

Before men are so employed they and their Medical History Sheets (A.F. B 178) will be inspected by a medical officer, who will certify that the men are fit for the purpose.

2. A nominal roll of all men employed will be hung up in the cookhouse. This roll will contain columns for (a) the date on which the men were taken on for or struck off these duties ; (b) the dates of the men's vaccination and inoculation ; (c) the initials of the medical officer who passed the men fit for the duties ; and (d) a record as to whether or not the men have passed the Army School of Cookery.

3. The diet sheet for the week will be hung up for reference in the cookhouse.

4. Each cook and man employed in handling the food of the troops will be provided with sufficient washable overalls and caps to ensure cleanliness at all times. These will always be worn when the men are at work and changed when dirty.

5. No personal clothing, necessaries or private property of men employed in the cookhouse will be kept there, nor will men perform their toilet or wash and dry their underclothing in the cookhouse.

Greatcoats, jackets and trousers which are taken to the cookhouse and removed before overalls are put on will be kept in a special place provided for the purpose.

6. A basin and clean water, soap, nail-brush and clean towels will be provided in each cookhouse. All men employed as cooks and in the handling of food will keep their nails trimmed and will invariably wash their hands before they handle the food and after visiting the latrine or urinal.

7. A sufficient supply of clean cloths for washing and drying dishes and cooking utensils must always be available. Cloths used for handling cooking pots must be kept separate and distinctly marked. After the last meal dirty cloths must be boiled in water containing washing soda and hung up to dry.

8. The cookhouse, sinks, tables, mincing machines, chopping blocks, cutting-up boards, pastry slabs, and all other utensils and cutlery will be kept as clean as possible when in



use, and thoroughly cleaned after the last meal. All utensils not in use will be kept in the places allotted to them, and be available for inspection at any time; the cooking pots should be resting on their sides with their interiors exposed to the air and to view. All boilers and steamers will be washed out daily, after use, with soda and hot water.

9. Only food which is to be used during the current day will be kept in the cookhouse. When not in process of cooking or preparation it will be kept in fly-proof safes.

10. Vegetables should never be prepared in the same sink in which pots and pans are cleaned.

11. Vegetable peelings, food scraps and other refuse must not be thrown on the floor but placed in the covered receptacles provided for the purpose.

These receptacles will be kept on a concrete platform and will be scrubbed out with hot water and soda daily when emptied. The platform will at all times be kept clean and free from refuse.

12. All cutting up of pastry, meat, etc., will be done on the pastry slabs and cutting-up boards for meat, etc., and not on the cookhouse tables.

13. Any defect in the cooking apparatus or in the utensils will be reported at once by the cook in charge to the unit quarter-master, who will take the necessary steps to have the defects remedied.

14. When possible, coal will be kept in a store outside the cookhouse. Where only old pattern coal boxes inside the cookhouse are available, they must be covered.

15. The floors of cookhouses will be cleaned by scrubbing with hot water containing soda or soap and cresol solution. All excess of water must be dried up after scrubbing.

16. Windows of cookhouses will be opened at the top immediately work commences in the morning and kept open during the day unless dust or other local conditions make this undesirable.

17. The walls of cookhouses will be cleaned down in the early morning before work commences and before the walls become wet from steam.

18. Preparation rooms must be well ventilated and fly-proof.

19. Bread and meat stores should face north, be well ventilated and fly-proof. Loaves will never be stacked more than four high, in order to allow of free circulation of air between them.

20. Smoking in the cookhouse is forbidden.

## Appendix II

From the following, commanding and other officers will be able to make a varied selection when compiling a weekly Diet Sheet :—

## BREAKFAST

Margarine.	Faggots and gravy.
Dripping.	Rissoles and gravy.
Porridge, with milk.	Meat croquettes.
"    "    sugar and milk.	Beef, pickled, cold with sauce.
"    "    golden syrup.	"    pressed, and sauce.
Bacon, fried, and eggs.	Baked brown stew.
"    baked.	Pork and beans (Canadian).
"    boiled, cold with sauce.	Steak, fried.
"    steamed, cold with sauce.	"    stewed.
"    fried, and sausages.	"    curried.
"    "    "    liver.	"    steamed, and vegetables.
"    "    with fried bread.	Mutton chops.
"    "    "    "    vegetables.	"    curried.
"    "    "    tomatoes.	Sausage, breakfast, with sauce.
"    "    "    baked beans.	Tripe and onions, curried.
"    "    "    "    cheese.	"    "    "    stewed.
"    and croquettes.	Fish, fried.
"    baked with liver.	"    baked.
"    and liver, curried.	"    kedgeree.
"    "    beef or mutton, curried.	"    cakes.
"    fried, with ox hearts.	Herrings, fresh, fried.
Sausages, fried, and onions.	"    "    baked.
"    baked.	"    "    soused.
"    and mash.	Bloaters.
"    baked without skins.	Kippers.
Liver, curried.	Haddock.
"    stewed.	Whiting.
"    fried.	Cheese pie.
Brawn and sauce.	Welsh rarebit.
Cold ham and sauce.	

*Extra* : Marmalade.

## DINNER

Cold pressed beef.	Stewed mince meat.
Beef, baked.	Hot-pot.
"    roast.	Stew, Irish.
"    braised.	Meat pies.
"    boiled.	"    puddings.
"    stewed.	Sea pies.
Steak, fried.	Turkish pilau.
"    stewed.	Toad-in-the-hole.
"    steamed, and vegetables.	Rabbit, baked.
Mutton, roast.	"    stewed.
"    baked.	"    pies.
"    curried.	"    curried.
"    stewed.	Fish, baked.
Stew, brown, tomato.	"    fried.
"    curried, and rice.	"    boiled.
"    plain, and dumplings.	

Brown gravy should be served with all dinners except stews.

## VEGETABLES SERVED WITH THE DINNER MEAL

*First Vegetables*

Potatoes, baked.	Potatoes, fried.
„ boiled.	„ mashed.
„ in jackets.	Potato substitutes ( <i>see</i> Appendix VI).

*Second Vegetables*

Cabbage.	Beans, butter.
Curly kale.	Peas, blue.
Turnip tops.	Carrots.
Winter greens.	Turnips.
Vegetable marrows.	Parsnips.
Broad beans.	Swedes.
Onions.	Mixed vegetables (fresh).
Beans, haricot.	„ „ (dried).
„ Rangoon.	

## PUDDINGS AND SWEETS

Plain pudding (dripping).	Buller pudding.
Suet pudding.	Jam rolls, steamed or baked.
„ dumplings.	Sultana roll.
Lemon Pog.	Raisin pudding.
Orange Pog.	Apple pies, puddings, or tarts.
Currant pudding.	Prunes and rice.
Date „	Stewed apples.
Fig „	„ figs.
Treacle „	Rice pudding.
Golden „	Tapioca „
Bread „	Macaroni „
„ and butter pudding.	Fruit salad.
Snowden pudding.	Stewed fruit (fresh).
College „	Apple and rice pudding.
Crecy „	Dates and rhubarb.
Baked bread „	Plum pudding (biscuit 50/flour 50).
Royal „	Syrup rolls.
Railway „	

## TEA MEAL

Margarine.	Lettuce salad.
Dripping.	Tomato salad.
Toast and dripping.	Stewed prunes.
Kippers.	„ bananas.
Bloaters.	„ figs.
Fish cakes.	„ apples.
Herrings, soused.	„ fruit (any kind in season).
Fish in oil, tinned.	Fruit salad.
Macaroni cheese.	Plain cake, various.
Lettuce.	Rice cakes.
Spring onions.	Seed cakes.
Radishes.	Potato scones.
Watercress.	Oatmeal scones.
Beetroot salad.	Jam.
Mixed salad.	Marmalade.
Cucumber salad.	Ham Paste.
Butter.	Salmon and anchovy paste.
Watercress salad.	Salmon fish paste.



## SUPPERS

Soup, barley, and bread.	Cold meat, curried.
„ pea, and bread.	Fresh herrings, baked.
„ lentil, and bread.	Herring pie.
„ lentil and pea, and bread.	Cheese, bread and onions.
„ vegetable, and bread.	Cheese pudding.
„ haricot bean, and bread.	Faggots and gravy.
„ tomato, and bread.	Welsh rarebit.
Hot-pot.	Tripe and onions.
Sea pie.	Pork and beans (Canadian).
Minced meat.	Bubble and squeak.
Cottage pie (meat and potatoes).	Oatmeal porridge and golden syrup.
„ (tripe and potatoes).	Preserved meat rolls.
Curried liver and potatoes.	Galantine of beef.
Ham and beef rolls.	Cold ham and sauce.
Cornish pasties.	Galantine of preserved meat.
Fish cakes and potatoes.	

## Appendix III

SCALE OF INGREDIENTS REQUIRED FOR  
100 MEN

1. <i>Baked meat and potatoes</i> ...	Meat, 65 lb. ; potatoes, 50 lb. ; onions, 6 lb. ; pepper, 1 oz. ; salt, 2 oz.
2. <i>Baked meat and haricot beans</i>	Meat, 65 lb. ; haricot beans, 10 lb. ; onions, 6 lb. ; pepper, 1 oz. ; salt, 2 oz.
3. <i>Baked meat and blue peas</i> ...	Meat, 65 lb. ; blue peas, 10 lb. ; onions, 6 lb. ; pepper, 1 oz. ; salt, 2 oz.
4. <i>Roast meat and Yorkshire pudding.</i>	Meat, 65 lb. ; flour, 16 lb. ; egg powder, 12 packets ; milk, 16 pints ; pepper, $\frac{1}{2}$ oz. ; salt, 2 oz.
5. <i>Meat pies</i> ... ..	Meat, 57 lb. ; flour, 16 lb. ; onions, 6 lb. ; pepper, 1 oz. ; salt, 2 oz. ; dripping, 4 lb.
6. <i>Brown stew</i> ... ..	Meat, 57 lb. ; flour, 3 lb. ; mixed vegetables, 7 lb. ; onions, 6 lb. ; pepper, 1 oz. ; salt, 2 oz. ; 2 tins tomatoes.
7. <i>Plain stew</i> ... ..	Meat, 57 lb. ; flour, 3 lb. ; mixed vegetables, 7 lb. ; onions, 6 lb. ; pepper, 1 oz. ; salt, 2 oz.
8. <i>Irish stew</i> ... ..	Meat, 57 lb. ; potatoes, 50 lb. ; onions, 6 lb. ; pepper, 1 oz. ; salt, 2 oz.
9. <i>Curried stew</i> ... ..	Meat, 57 lb. ; flour, 3 lb. ; mixed vegetables, 7 lb. ; onions, 6 lb. ; curry powder, 12 oz. ; pepper, 1 oz. ; salt, 2 oz.
10. <i>Steamed meat</i> ... ..	Meat, 57 lb. ; mixed vegetables, 7 lb. ; onions, 6 lb. ; pepper, 1 oz. ; salt, 2 oz.
11. <i>Steamed meat with peas</i> ...	Meat, 57 lb. ; blue peas, 10 lb. ; onions, 6 lb. ; pepper, 1 oz. ; salt, 2 oz.

12. *Steamed meat with haricot beans.* Meat, 57 lb.; haricot beans, 10 lb.; onions, 6 lb.; pepper, 1 oz.; salt, 2 oz.
13. *Meat puddings* ... .. Meat, 57 lb.; flour, 16 lb.; onions, 6 lb.; dripping, 4 lb.; pepper, 1 oz.; salt, 2 oz.
14. *Sea Pies* ... .. Meat, 57 lb.; flour, 16 lb.; potatoes, 50 lb.; mixed vegetables, 3 lb.; onions, 3 lb.; pepper, 1 oz.; salt, 2 oz.; dripping, 4 lb.
15. *Turkish pilau* ... .. Meat, 57 lb.; rice, 10 lb.; onions, 6 lb.; flour, 3 lb.; sweet herbs, 1 bunch; salt, 3 oz.; cayenne pepper,  $\frac{1}{4}$  oz.
16. *Toad-in-the-hole* ... .. Meat, 57 lb.; flour, 16 lb.; milk, 10 pints; onions, 3 lb.; egg powders, 10; pepper, 1 oz.; salt, 3 oz.

## SOUP

1. *Barley soup* ... .. Barley, 8 lb.; mixed vegetables, 7 lb.; onions, 3 lb.; flour, 3 lb.; celery seed, 2 packets; pepper,  $1\frac{1}{2}$  oz.; salt, 3 oz.
2. *Pea soup* ... .. Split peas, 10 lb.; mixed vegetables, 7 lb.; onions, 3 lb.; dried mint, 1 packet; pepper,  $1\frac{1}{2}$  oz.; salt, 4 oz.; flour, 3 lb.
3. *Lentil soup* ... .. Lentils, 8 lb.; mixed vegetables, 7 lb.; onions, 3 lb.; herbs, 2 packets; pepper,  $1\frac{1}{2}$  oz.; salt, 4 oz.; flour, 3 lb.
4. *Pea and lentil soup* ... .. Lentils, 6 lb.; split peas, 4 lb.; mixed vegetables, 7 lb.; onions, 3 lb.; flour, 3 lb.; pepper,  $1\frac{1}{2}$  oz.; salt, 4 oz.
5. *Hotch Potch* ... .. Blue peas, 6 lb.; barley, 4 lb.; mixed vegetables, 7 lb.; onions, 3 lb.; flour, 3 lb.; cabbage lettuce or cabbages, 8 heads; sweet herbs, 1 packet; bunch of parsley (small), 1; pepper, 1 oz.; salt, 4 oz.

## PUDDINGS

- \* 1. *Plain suet pudding* ... .. Flour, 18 lb.; dripping,  $4\frac{1}{2}$  lb.; salt,  $1\frac{1}{2}$  oz.
- \* 2. *Plum pudding* ... .. Flour, 16 lb.; dripping, 4 lb.; raisins, 4 lb.; currants, 3 lb.; sugar, 2 lb.; mixed peel, 1 lb.; spice, 1 packet.
3. *Jam rolls* ... .. Flour, 16 lb.; dripping, 4 lb.; jam, 6 lb.; salt, 1 oz.
4. *Currant rolls* ... .. Flour, 16 lb.; currants, 5 lb.; dripping, 4 lb.; mixed peel, 1 lb.; sugar, 3 lb.; salt, 2 oz.
- \* 5. *Plain raisin pudding* ... .. Flour, 16 lb.; dripping, 4 lb.; raisins, 6 lb.; sugar, 3 lb.; salt, 1 oz.
- \* 6. *Date pudding* ... .. Flour, 16 lb.; dripping, 4 lb.; dates, 10 lb.; sugar, 2 lb.; salt, 2 oz.; nutmeg, 1.

---

\* Biscuits may be substituted for bread, breadcrumbs or flour.

PUDDINGS—*continued*

- |                                    |     |     |  |
|------------------------------------|-----|-----|--|
| 7. <i>Rice pudding</i>             | ... | ... | Rice, 8 lb. ; milk, 16 pints ; sugar, 3½ lb. ; nutmegs, 2.   |
| 8. <i>Bread and butter pudding</i> |     |     | Sliced bread, 14 lb. ; currants, 4 lb. ; margarine, 2 lb. ; milk, 16 pints ; sugar, 3½ lb. ; nutmegs, 2. |
| 9. <i>Tapioca pudding</i>          | ... | ... | Tapioca, 8 lb. ; milk, 16 pints ; sugar, 3½ lb. ; nutmegs, 2.  |
| 10. <i>Apple tarts</i>             | ... | ... | Flour, 14 lb. ; dripping, 3½ lb. ; apples, 25 lb. ; sugar, 4 lb. ; cloves, ½ oz. ; salt, 1 oz.           |
| 11. <i>Apple pudding</i>           | ... | ... | As stated at 10.   |
| * 12. <i>Treacle pudding</i>       | ... | ... | Flour, 16 lb. ; dripping, 4 lb. ; treacle, 6 lb. ; salt, 1 oz. ; sugar, 2 lb.                            |

NOTE.—Two packets of baking powder or 2 oz. of bicarbonate of soda may be added to the ingredients mentioned at 1 to 6 inclusive. When suet is used in place of dripping one-third increase in weight should be used.

## Appendix IV

## USE OF DRIED BREADCRUMBS

In addition to the making of bread puddings, a good way of dealing with scrap bread is shown in the following recipes. If the bread is dried on a hot-plate or in an oven before being crumbed, it will keep wholesome indefinitely.

## INGREDIENTS FOR 100 MEN

- |                          |     |     |   |
|--------------------------|-----|-----|---|
| * <i>Fig pudding</i>     | ... | ... | Breadcrumbs, 18 lb. ; figs, 6 lb. ; flour, 5 lb. ; sugar, 3 lb. ; dripping, 2 lb. ; a teaspoonful of spice and a little salt. |
| * <i>Golden pudding</i>  | ... | ... | Breadcrumbs, 18 lb. ; flour, 5 lb. ; sugar, 2 lb. ; marmalade, 8 lb. ; dripping, 2 lb. ; a little salt.                       |
| * <i>Treacle pudding</i> | ... | ... | Breadcrumbs, 18 lb. ; flour, 5 lb. ; sugar, 2 lb. ; dripping, 2 lb. ; treacle, 8 lb. ; a little salt.                         |
| * <i>Prune pudding</i>   | ... | ... | Breadcrumbs, 18 lb. ; flour, 5 lb. ; sugar, 3 lb. ; dripping, 2 lb. ; prunes, 8 lb. ; a little salt.                          |
| * <i>Date pudding</i>    | ... | ... | Breadcrumbs, 18 lb. ; flour, 5 lb. ; sugar, 3 lb. ; dripping, 2 lb. ; dates, 8 lb. ; a little salt and a little nutmeg.       |

---

\* Biscuits may be substituted for bread, breadcrumbs or flour.



## METHOD

The bread should be dried throughout (in an oven or on a hot-plate) and crushed to crumbs. This can be done in a mincing machine, or placed in a clean sack, crushed with a mallet and put through a sieve.

\* *Golden Pudding*.—Place flour, breadcrumbs, sugar, dripping and salt into a mixing bowl, and mix well. Stand the tins of marmalade in hot water to thin out, and when ready add the other ingredients and mix well. Add sufficient water or milk to make into a soft mixture. Fill the basins (which have been already greased) with the mixture and cloth down. Time to steam or boil, 3 hours.

\* *Fig, Date and Prune Puddings*.—Soak and cut up figs, dates or prunes into small pieces, and put all ingredients into a mixing bowl, and mix well. Add milk or water to make the mixture soft. Fill well-greased tins with the mixture and cloth down. Time to steam or boil, 3 hours. It is unnecessary to soak dates.

\* *Treacle Pudding*.—Place breadcrumbs, sugar, flour, dripping and salt in a mixing bowl, and mix well. Add sufficient milk or water to make a soft mixture. Fill well-greased basins, cover and tie down. Cook for  $2\frac{1}{2}$  to 3 hours. Half an hour before the puddings are to be served, stand the tins of treacle in hot water, and when ready pour over the puddings.

NOTE.—If basins are not available and the puddings are tied in cloths and boiled, the quantity of breadcrumbs and flour used should be equal. Biscuit crumbs can be used in the proportion of one-third to two-thirds breadcrumbs or flour.

In addition to the above quantities of foodstuffs required for meals referred to in the preceding tables, the following detail of quantities for 100 men will be found useful for reference when calculating supplies and purchased commodities for soldiers' messing :—

---

\* Biscuits may be substituted for bread, breadcrumbs or flour.

## FOOD QUANTITIES FOR 100 MEN

Apples, preserved, for pies or puddings	...	...	...	6 lb.
"    "    for stewed fruit	...	...	...	7 to 8 lb.
Bacon, for breakfast, fried, baked or steamed	...	...	...	25 lb.
"    boiled, hocks and fore-hands	...	...	...	30 lb.
Beans, Rangoon, for breakfast	...	...	...	7 lb.
"    "    for dinner	...	...	...	12 lb.
"    Butter, for breakfast	...	...	...	6 lb.
"    "    for dinner	...	...	...	10 to 12 lb.
Bloaters	...	...	...	100
Brawn	...	...	...	25 lb.
Cabbage, or Greens in season	...	...	...	50 lb.
Carrots	...	...	...	50 lb.
Cheese	...	...	...	6 $\frac{1}{4}$ lb.
Coffee (for each meal)	...	...	...	1 $\frac{3}{8}$ lb.
Corned Beef, for breakfast, tea, supper or haversack ration	...	...	...	20 lb.
Eggs, with bacon	...	...	...	100
"    with bread and margarine	...	...	...	200
Fish, fresh, salted or dried (breakfast)	...	...	...	37 $\frac{1}{2}$ lb.
"    "    "    "    (dinner)	...	...	...	45 lb.
"    "    "    for fish cakes	...	...	...	20 lb.
Fruit Salad	...	...	...	10 to 12 lb.
Golden Syrup (in place of jam)	...	...	...	12 lb.
"    "    (with porridge)	...	...	...	3 to 4 lb.
"    "    (with plain pudding)	...	...	...	5 lb.
Haddocks (small)	...	...	...	100
Herrings	...	...	...	100
Jam	...	...	...	10 to 12 $\frac{1}{2}$ lb.
Kippers	...	...	...	37 $\frac{1}{2}$ lb.
Liver	...	...	...	25 lb.
"    with bacon	...	...	...	12 $\frac{1}{2}$ lb.
Luncheon Sausage (for breakfast, tea or haversack ration)	...	...	...	20 lb.
Margarine (for breakfast or tea)	...	...	...	3 $\frac{1}{8}$ lb.
Marmalade	...	...	...	10 to 12 $\frac{1}{2}$ lb.
Meat, Beef, for roast or bake	...	...	...	65 lb.
"    "    for stew, pies or puddings	...	...	...	57 lb.
"    "    fried or served as stewed steak for breakfast	...	...	...	37 $\frac{1}{2}$ lb.
Meat, for rissoles or croquettes, including fat	...	...	...	24 lb.
Milk (for tea, coffee or cocoa each meal)	...	...	...	5 pts.
"    tins, 1 lb. for porridge	...	...	...	1 tin to 60 men
Mutton, will depend on the quantity of fat contained in the carcass and removed before cooking	...	...	...	60 to 65 lb.
Mustard, for table	...	...	...	2 oz.
Oatmeal (Scotch or Canadian) for porridge	...	...	...	8 lb.
Oats, rolled for porridge	...	...	...	8 lb.
Peas, blue	...	...	...	12 lb.
Pepper, for table	...	...	...	2 oz.
*Potatoes (when a 2nd vegetable is not served)	...	...	...	75 to 85 lb.
"    (as one of two vegetables)	...	...	...	50 to 65 lb.
Prunes, for stewed fruit	...	...	...	12 lb.
Salmon, tins, for tea	...	...	...	25 tins
"    tins, for fish cakes	...	...	...	14 tins
†Sausages	...	...	...	25 lb.
"    with bacon	...	...	...	12 $\frac{1}{2}$ lb.
Sugar (breakfast or tea)	...	...	...	3 $\frac{3}{4}$ lb.
Swedes	...	...	...	60 lb.
Tea (breakfast or tea)	...	...	...	1 lb.
"    (early tea)	...	...	...	$\frac{1}{2}$ lb.
Turnips	...	...	...	60 lb.

\* The quantity will depend upon the season of the year and the quality of the supplies.

† Made up so as to average eight to 1 lb.

## Appendix V

The following is considered the best method of treating rations when the rations are to be carried on the man.

The chief essentials in view are :—

1. That the rations should be prepared so as to prevent them going bad before they are required for consumption.
2. That the rations should be so divided that their carriage by the soldier entails an even distribution of weight on each individual.
3. That the preparation of the rations before issue should be advanced to such a state that their subsequent treatment before they are ready for consumption is reduced to a minimum.
4. That the rations, as carried by the soldier, should be capable either of being cooked in the mess tin or collected and dealt with by the company cooks.

The following methods of dealing with rations are suggested :—

(A) Method of dealing with full meat rations.

Breakfast (stew) ; mid-day meal (haversack ration of bread and cheese) ; evening meal (steak).

The meat ration, when received, should be cut up into portions corresponding to the number of squadrons, troops or companies.

The company cooks should then remove the meat from the bone.

The best portion of the meat should then be selected and cut up into thin steaks consisting as near as possible of portions each weighing 6 oz. If the weather is hot these steaks should be fried in fat until partially cooked. They should then be allowed to cool. The remainder of the meat should be prepared for making stew. The stew should be cooked in the morning and issued for breakfast. The steaks should be laid on two clean waterproof sheets, and the company should be formed up in two ranks with their mess tins. Both ranks should then file past, each man receiving his ration of meat and the necessary condiments.

For the mid-day meal the haversack ration of bread and cheese should be utilized.

On arrival in camp, if it is proposed that the men should cook their own dinner, all that is necessary is to add a little water to their mess tins, stir well and go on with the cooking ;



or the meat can be fried if sufficient fat is available. Otherwise the meat can be dealt with as follows:—

One camp kettle for every 15 men, containing a little water, should be placed on the flanks of the company; the men should then file past, emptying the contents of their mess tins into the kettles. The company cooks can then deal with the meat in the ordinary way.

This method will save time, besides leaving the men free for other work.

(B.) Method of dealing with fresh meat rations.

Breakfast (fried steaks); mid-day meal (haversack ration of bread and cheese); evening meal (stew).

As in (A), the company cooks should cut up the meat. The best portions should be cut into steaks, each weighing as near as possible 6 oz. These steaks should be fried and issued for breakfast. The remainder of the meat should be cut into small cubes, sprinkled with flour, pepper and salt, and placed on clean waterproof sheets and divided up into portions. The company should then file past with their mess tins, each man receiving his portion together with a piece of onion. The meat can be collected on arrival in camp and dealt with by the company cooks, or, if desirable, the men can cook the meat in their mess tins.

In the latter case, the men should add enough water barely to cover the meat, stir well and cook over a small fire for about 1½ hours.

(C.) Method of dealing with meat rations when they consist of half fresh meat and half preserved meat.

When the meat ration consists of half fresh meat and half preserved meat, the preserved meat can be divided into two portions: (1) For breakfast; (2) for the mid-day meal, the half-ration of fresh meat being prepared by the company cooks, either for frying (when suitable portions are available) or for stewing. On arrival in camp, the fresh meat can either be cooked by the men in their mess tins or collected and dealt with by the company cooks, or the fresh meat can be made into stew or cut into steaks and fried for breakfast, the preserved meat being issued to the men, one portion being used for the mid-day meal and the remainder for the evening meal. The latter could be heated up if desired. By the adoption of the former method the men are enabled to obtain their evening meal without delay, and without the necessity of waiting while the meat is cooking; on the other hand, it is desirable to give men a hot evening meal when possible.

When both fresh meat and preserved meat are carried in the mess tin, the former should be placed at the bottom and well pressed down. The preserved meat should be put on top.

When preserved meat is issued in small tins, it will be unnecessary to remove the meat from the tins until required.

Preparation of haversack rations, consisting of meat, for use when bread and cheese is not available :—

Take one-third of the issue of meat, cut into joints, and boil them until tender, which will take about  $2\frac{1}{2}$  hours. Remove from the liquid and allow to cool. Cut into thin slices and issue. The remaining two-thirds of the issue can be treated as already described for stews, etc.

## Appendix VI

### USE OF RICE, DRY PULSE AND VEGETABLES IN PLACE OF POTATOES FOR 100 MEN

The following recipes were compiled during the Great War, when there was a shortage of potatoes. These preparations have a much higher nitrogenous value than potatoes, and it is not only from their appetizing value that they can be used as substitutes.

1. *Bean Croquettes*.—Ingredients : beans, 15 lb. ; flour, 2 lb. ; stock or water, pepper, salt.

*Method*.—Soak the beans overnight in cold water. Boil the beans in stock or water until tender and the skins burst, drain and mash them. Add the flour and seasoning, mix well, make into shapes. Place them in baking dishes with sufficient dripping to cover the bottoms and bake in a quick oven until brown.

2. *Rice Croquettes*.—Ingredients : rice, 10 lb. ; flour, 2 lb. ; stock or water, pepper, salt.

*Method*.—Wash and re-wash the rice. Cook until tender in stock or water, and drain. Dredge in flour, season to taste and make into shapes. Place these in baking dishes with sufficient dripping to cover the bottoms, and bake in a quick oven until brown.

3. *Rice and Vegetable Croquettes*.—Ingredients : rice, 7 lb. ; beans, 3 lb. ; flour, 2 lb. ; carrots, 7 lb. ; turnips, 7 lb. ; stock or water, pepper, salt.

*Method.*—Wash and re-wash and boil the rice in stock or water until tender. Prepare and cook the beans as explained in para. 1. Prepare, wash and cut up the carrots and turnips into small pieces, fry in hot dripping until brown, or boil and mash. Mix the rice, beans, carrots, turnips and flour together, season to taste, add a little stock or water, and mix into a stiff paste. Make into shapes, place in baking dishes with sufficient dripping to cover the bottoms, and bake until brown.

4. *Bean and Vegetable Croquettes.*—Ingredients: beans, 8 lb. ; rice, 2 lb. ; flour, 2 lb. ; carrots, 7 lb. ; turnips, 7 lb. ; stock or water, pepper, salt.

*Method.*—As for Rice and Vegetable Croquettes.

5. *Savoury Rice, Boiled.*—To serve with hot meat.—Ingredients: rice, 10 lb. ; onions, 2 to 5 lb. ; dripping, 1 lb. ; stock or water, pepper, salt.

*Method.*—Wash and re-wash the rice, then plunge into 6 to 8 gallons of stock or water, cook and cut up onions into small pieces, add them to the rice, season with pepper and salt. When the rice is cooked and has absorbed the water, add dripping and stir well.

6. *Pea Croquettes.*—Ingredients: peas, 20 lb. (or as required) ; dripping, 2 lb. ; pepper, salt.

*Method.*—Soak all night. Tie in loose cloths so that the peas may be allowed to swell ; place in boiling water for 3 or 4 hours. Mash, add pepper and salt to taste and mix with 2 lb. of dripping. Shape into balls and place in greased baking dishes and bake in a quick oven.

7. When the ingredients mentioned at 1, 2, 3, 4, 5 and 6 have been prepared and cooked, instead of making croquettes the material may be used in any of the following ways:—

- (1) As a cover for cooked meat in baking dishes similar to a potato pie.
- (2) Place in dishes and bake in a quick oven until the top is browned.
- (3) Place in baking dishes with layers of meat and gravy underneath, put on hot-plates, and cook in the same way as Bubble and Squeak. Onions may be used with any of these preparations and may be fried before use if preferred.

If any of the above preparations have not been properly cooked before being shaped into croquettes or placed in baking dishes, a slow oven should be used, and they should be left to cook for a longer time.



## Appendix VII

## TREATMENT OF RABBITS

(a) Carefully skin the rabbits (if frozen defrost) and leave them in salt and water for 30 minutes. Divide into joints and re-wash in a fresh supply of salt and water and dry them.

(b) The heads, necks and livers should be removed and put into a separate cooking vessel with seasoning to supply stock or gravy.

(c) It is necessary that the foregoing instructions should be carefully followed before rabbits are cooked.

(d) There is an absence of fat in rabbit meat, and it is necessary either to dredge in flour, fry in fat, add bacon or stew in onion stock with flour thickening.

(e) If cooked in water without the usual condiments and seasoning the dish will be insipid and waste follows.

The following recipes, where care is taken in preparation and cooking, will provide attractive meals.

## QUANTITIES FOR 100 MEN

1. *Stewed Rabbits (cook in steaming apparatus).*—Ingredients: rabbits, 70 lb.; bacon, about 20 lb.; flour, 3 lb.; onions, 3 to 6 lb.; pepper, salt.

*Method.*—Carefully skin the rabbits and leave in salted water for 30 minutes; cut into small joints and well wash in a fresh supply of salted water and partly dry with a cloth. Cut bacon into thin slices. Clean and cut up onions into small pieces. Place a little stock in a steaming dish; add the onions. Place flour, pepper, and salt into a mixing bowl and well mix, add the rabbit and bacon, well flouring. Next put the rabbits and bacon into the steaming dish with the onions; barely cover with stock; stir well together, replace the lid, and steam for 2 hours.

2. *Stewed Rabbits (cooked in camp kettles).*—Ingredients: as for 1.

*Method.*—Prepare the rabbits as explained in Diet 1, partly dry with a cloth, and dredge in flour. Place a little stock in a camp kettle, put in a layer of rabbit, thin rashers of bacon, a few finely cut onions, pepper and salt and repeat until camp kettle is three parts full. Add stock or water as required, bring to boil, and let simmer for 2 hours.

3. *Rabbit Pudding.*—Ingredients and preparation: as for 1 and 2. Make a paste and cover the meat in the steaming pans or camp kettles, replace the lid and let simmer till paste is cooked.

4. *Baked Rabbit*.—Ingredients : as for 1, except for bacon, which is not used.

*Method*.—Prepare the rabbits as explained in Diet 1. Cut into convenient size and put into boiling fat till half cooked. Ring 3 lb. of onions and fry till golden brown. Arrange the rabbit with the onions in baking dishes and add pepper and salt as required, barely cover with stock, and bake for about 45 minutes. A little flour thickening may be added to the onions after frying or to the stock as preferred.

5. *Rabbit Pies*.—Ingredients : rabbits, 70 lb. ; bacon, about 40 rations ; flour, 16 lb. ; dripping, 4 lb. ; pepper and salt as required.

*Method*.—Prepare the rabbits as explained in Diet 1. Cut the bacon into small pieces. Arrange in baking dishes, season with pepper and salt and cover with stock. Cover the meat with a paste and bake for about 2 hours. Add the remainder of the stock and serve. The time for cooking is approximate. When the crust is firm the pies should be allowed to simmer gently until cooked. Cover with greased paper if necessary to prevent the crust being scorched. When cooking for large numbers it is more convenient to partly stew the rabbits as explained in Diet 1. Put into baking dishes, add stock, cover with paste and cook as explained.

6. *Baked Rabbits, with Savoury Rice*.—Prepare and partly cook the rabbits as in 4, put into baking dishes. Prepare savoury rice, cover the meat as for potato pie and put into oven till browned.

7. *Curried Rabbits*.—Ingredients : as for 1, with an addition of 12 oz. of curry powder and 3 lb. of apples.

*Method*.—Prepare the rabbits as in 1. Cut into neat joints, dry them and rub with flour. Peel and chop the onions and apples. Make some dripping hot, put in the onions and curry powder and fry the rabbits on hot plates till three-parts cooked. Take away the fat, add stock and apples, and let simmer for about 1 hour.

8. *Rabbit Croquettes*.—

*Method*.—Mince the meat of cooked rabbits and bacon in the proportion of three-fourths rabbits and one-fourth bacon. Soak sufficient bread and squeeze out the water, pass through mincing machine or crumble up. Place the whole of the ingredients into a mixing bowl and well mix with seasoning of pepper, salt and chopped parsley. Make into shapes and bind by lightly dredging with flour, or, if dried breadcrumbs are used, with thick white sauce. Arrange in greased baking dishes and bake in oven for 30 to 45 minutes.

## Appendix VIII

## TREATMENT OF BULLOCK'S HEAD

1. *Brawn*.—Ingredients : bullock's head, 1 ; bay leaves, 6 ; Jamaica pepper,  $\frac{1}{2}$  oz. ; or ordinary pepper, 1 oz. ; ground mace,  $\frac{1}{8}$  oz. (brine water,  $11\frac{1}{2}$  galls. ; salt, common, 14 lb. ; saltpetre, 6 oz.).

*Weight* :—

Bullock's head	...	...	...	$30\frac{3}{4}$ lb.
Bones in head	...	...	...	$15\frac{1}{2}$ lb.
Meat in head	...	...	...	13 lb.
Brains in head	...	...	...	1 lb.
Trimmings in head	...	...	...	$1\frac{1}{4}$ lb.

Brawn when made = 14 lb.

*Method*.—Thoroughly wash, trim and cut out the eyes ; saw the head in half lengthways ; remove the brain and place in cold water. Bone and place the meat in brine for 8 hours. Next remove the nostrils ; well wash the bones in cold water ; then saw through each half head at the back of the eye sockets. Remove meat from the brine ; wash thoroughly in tepid water ; cut into cubes about  $1\frac{1}{2}$  inches square ; place in a deep cooking vessel with the bones and  $1\frac{1}{2}$  gallons of water ; add ground mace, bay leaves and Jamaica pepper, also any spare fat or meat from the root of the tongue. The bay leaves and Jamaica pepper should be placed in a muslin bag. Bring to the boil, skim, then allow to simmer for 5 or 6 hours. Remove the muslin bag with its contents, also the bones, which should be well scraped and the meat returned to the cooking vessel. Skim off the fat ; place the mixture into china or enamel basins ; stand in a cool place ; when set dip the outside of the basins in hot water, turn out and serve cold.

2. *Ox Brains and Parsley Sauce*.—Ingredients : ox brains ; vinegar ; salt ; water ; parsley sauce.

Weight of ox brain before cooking	...	1 lb.
Weight of ox brain after cooking	...	12 oz.

*Four Portions*.

*Method*.—Remove the brains and cleanse in cold water. The skin is then carefully taken away under a slow running tap of cold water. When thoroughly washed and skinned, place in boiling water with a good pinch of salt, a teaspoonful of vinegar, and let gently simmer or poach for about 10 to 15 minutes. Remove and thoroughly drain on a cloth and serve with the parsley sauce.



*Another method (Brain Cutlets).*—Prepare as before, poach for 5 minutes. Remove and place in cold water until cold; drain, cut into halves lengthways, dip in milk, flour and breadcrumbs and fry in hot shallow fat until nicely browned and serve.

3. *Ox Tongue and Parsley Sauce.*—Ingredients: ox tongue, 1; carrot, 1; onion, 1; salt, peppercorns and cloves as required; parsley sauce.

Weight of ox tongue           ...     ...     ...     7 $\frac{1}{4}$  lb.

Weight of ox tongue, after cooking     ...     5 $\frac{1}{4}$  lb.

Weight of tongue, trimmed after cooking     3 $\frac{3}{4}$  lb.

Weight of trimmings of cooked tongue ...     1 $\frac{1}{2}$  lb.

*Method.*—Well wash the tongue, place in boiling water, with 1 carrot, 1 onion, salt, peppercorns and cloves. Boil quickly for a quarter of an hour, then let steadily simmer until cooked. Time, 2 $\frac{1}{2}$  to 3 hours. Remove and skin the tongue whilst hot, commencing at the back. Cut into thin slices and serve hot with parsley sauce.

*Another method.*—Place tongue in brine for 4 days. Remove tongue, soak for 12 hours in cold water. Place in fresh cold water, gradually bring to the boil, skim and let steadily simmer until cooked. Time, 2 $\frac{1}{2}$  to 3 hours. Remove and skin whilst hot. Cut into thin slices and serve hot, with thin parsley sauce.

## Appendix IX

### BY-PRODUCTS OF THE MEAT RATION

The main considerations governing the recovery of by-products from the meat ration must be as follows:—

1. The man should have from his meat ration all that he requires or wants.
2. The remaining by-products should be sold for the benefit of the messing account.
3. No part of the meat ration should reach the swill tub.

The most important by-product is, of course, dripping, which is the oil extracted from the fat of all kinds of meat during the process of cooking. Dripping forms a valuable aid to military cookery, and after providing all the fat required for—

- (1) Preparation of all paste.
- (2) Puddings.
- (3) Issues in lieu of margarine for breakfast and tea.
- (4) Frying purposes.

There may be a surplus for sale, but it is compulsory that at least 50 per cent. of the dripping saved be used in the dietary of the men.

A cook should extract not less than 1 oz. dripping from each 1 lb. meat used, a record of which should be kept.

Dripping should be issued, as far as possible, according to the following scale :—

For what purpose	Amount	Quality
Tea or breakfast ... ..	5 lb. for every 100 men ...	} First Class.
Plum puddings ... ..	4 oz. to each lb. of flour ...	
Currant rolls ... ..	„	
Jam rolls ... ..	„	
Currant pudding ... ..	„	
Raisin pudding ... ..	„	
Date pudding ... ..	„	
Treacle pudding ... ..	„	
„ tarts ... ..	„	
Jam tarts ... ..	„	
Apple or fruit tarts ... ..	„	
Bread puddings ... ..	2 oz. to each lb. of pulp ...	
Plain suet puddings ... ..	4 oz. to each lb. of flour ...	
Meat pies ... ..	„	
Sea pies ... ..	„	
Meat puddings ... ..	„	} Second Class.
Dumplings ... ..	„	
Frying fish, deep frying ...	About 4 lb. for every 100 men	
„ „ dry frying ...	„ 2 lb. „	
„ liver, without bacon ...	„ 1 lb. „	
„ eggs, without bacon ...	„ 1 lb. „	
„ „ with bacon ...	„ ½ lb. „	

Dripping should all be removed from the cookhouse and weighed into store. The receptacles should be carefully ticketed, showing the quality and the purpose for which the dripping is intended.

Issues, whether for cooking in lieu of margarine or for sale, will be made from the store. A convenient form of keeping a check and record of recoveries will be found on page 153. If this by-product diary is systematically entered up, the figures required in AB. 48 and for the monthly economy return will be readily accessible.

A chart is given on pages 150–152, showing the source and method of treatment and disposal of products which should be recovered in the treatment of the meat ration from the time it reaches the unit to the point where it is finally disposed of.

In Section A of the chart it should be noticed that meat is issued in sides or quarters. It follows that in the process of cutting up the meat considerable quantities of fat will be left over. This fat is known as “butcher’s fat,” so called because

the ordinary butcher disposes to the trade of this surplus which arises in the reduction of meat bought wholesale to joints and stewing meat which are sold to the general public.

It is of importance that roasting joints should not be denuded of fat; on the contrary, such joints should have plenty of fat to assist the process of roasting and to prevent the meat from becoming dried up.

The surplus collected should be cut up into small pieces, the smaller the better, or passed through a mincer; then put into a dish or pot, barely covered with water, and placed in an oven or over a fire and allowed to boil rapidly until the water has evaporated and the pieces of fat become a light brown colour; then allowed partly to cool, strained through a colander into a clean dish, allowed to harden, turned out and scraped clean.

First-class dripping should be firm, and vary in colour from white to pale straw. If dirty or dark brown in appearance, it has either been indifferently clarified or burnt. Fat that is the least scorched should not be accepted, as it will taint everything it may be mixed with.

In Section B of the Chart a description of some of the sources of fat recovered during the process of cooking is given. Naturally, such a chart cannot, without undue length, give particulars of all such sources.

The liquid fat that accumulates on the surface of stocks, stews, bakes, pies, etc., and that which settles on the bottom of the dishes when roasting, must be carefully removed before the dishes leave the kitchen, not only to provide dripping, but to render the food appetizing, palatable and easily digested. Dripping is clarified in the following manner:—

The liquid fat, when skimmed off the dishes, is put into a dish to cool and harden into a solid cake. It is then cleaned, broken up into pieces, put into a dish with about one quart of water, placed in an oven or on a hot plate, and allowed to boil rapidly, all scum being removed as it rises to the surface. When the water has evaporated, and the fat becomes clear, strain it into a clean dish and allow to cool; when firm, turn it out in a solid block and carefully scrape away any particle of dirt or impurity that may be adhering to the bottom.

In Section C of the Chart the method of recovering fats from refuse is given.

Precautions must, of course, be taken that fats recovered from plates, etc., do not come into contact with those destined for re-issue for cooking or edible purposes. Materials that are in any way offensive must not be treated in the cookhouse.

Extra men must not be employed on the work of recovering by-products. The extra payment of cooks was sanctioned on



the basis of the existing establishment, and on the understanding that cooks would receive extra payment for extra duty on this work.

It should be borne in mind that it is not financially sound from the national point of view to carry out work laboriously by elementary methods, when such work can be done quicker and better by the contractors' machinery.

For instance, second-rate material may produce a brown dripping which can readily be sold as such. It may be possible by the expenditure of labour and fuel to produce an article which will pass for white and realize a higher price, but actually it will be found that the extra money realized by the unit will be outweighed, from a national point of view, by the extra expenditure of labour and fuel involved.

Under Section D of the Chart bones are dealt with. All meat must be removed from raw bones. No bones are to be sold raw ("green"), unless there is plenty of good stock for soup and for stews. It should seldom, if ever, be necessary to make stews with water. As a general rule, bones should be removed before the meat is cooked, but when this is found to be impracticable, as with mutton, they should be used for stock before being sold. This does not refer to bones collected from the men's plates after the dinner meal. All cooked bones should be collected and sold—first from the stock pot and afterwards from the dining-rooms. Under no circumstances are bones of any description to be put into the refuse (swill) tubs.

Bones awaiting despatch or collection by the contractor should be stored away from the cookhouse in a cool airy place. Stacking or covering up will cause heating and decomposition. If bones are kept in the dark they will not be attacked by flies.

## BY-PRODUCTS

The term by-product refers to the residue of the meat and bacon ration and includes—*suet, butcher's fat, trimmings, cracklings, pressed scrap, skimmings, baking fat residue, bacon fat, refuse fat, marrow bones and other bones.*

*Suet.*—The large block of fat removed from the hind-quarters of a carcase. It is light and crisp. There is scarcely any fibre, and the fat is held together by a tight skin and framework. It is easily cooked and is a valuable ingredient for suet puddings and should be used in its raw state.

*Butcher's Fat.*—The superfluous fat from a carcase which the butcher removes before issuing the meat from the butcher's shop. This fat should be cut into strips and passed through

a mincer, then put into a clean dish with a little water and put into an oven or over the fire and allowed to boil rapidly till the water is evaporated and the pieces of fat are crisp and of a golden brown colour, allowed to cool and strained off into a clean dish. When set it should be handed into store for re-issue. This becomes 1st class dripping and can be used for all purposes.

*Trimnings.*—The fats collected during the process of preparation of the various meals by the cooks. They are treated in the same way as butcher's fat. It is neither necessary nor desirable to take every piece of fat off the meat to render down to dripping. When rendered down to dripping this fat can be used for all purposes.

*Cracklings.*—The residue of fats that have been rendered down to dripping. They should if possible be used for the making of rissoles or meat croquettes; but if not required for this purpose they should be sold to the contractor.

*Skimmings.*—The fats collected from all stews and stock during the process of cooking. They should be placed in a clean dish with a little water, put on the hot plate or in the oven and allowed to boil rapidly until the water is evaporated. They should then be allowed to set. All sediment which has collected at the bottom of the fat should be scraped off and the fat broken into small pieces and put into a clean dish with water, allowed to boil rapidly till the water has evaporated. It should then be strained off into a clean dish, allowed to set and handed into store for re-issue. It is classified as 2nd class dripping, and can be used for the making of all savoury pastry, *i.e.* meat pie covers, etc. To remove the flavour of onion from 2nd class dripping, plunge it into boiling water, allow it to set, then scrape the scum from the bottom.

*Residue Fat.*—The fat obtained from joints of meat during the process of cooking. This is a valuable by-product. If badly discoloured it should be clarified. It may become discoloured if left in a hot oven too long. This type of dripping is valuable for issue in lieu of margarine for a tea meal. If the quantity is not sufficient to be issued alone it should be mixed with a little 1st class dripping.

*Bacon Fat.*—This fat is also valuable as a by-product. It is obtained when frying or boiling bacon, and can be clarified and used for lard for making pastries and cakes. It is much lighter than beef or mutton dripping, hence its value for this purpose. It is preferable, however, to serve fried bread and so utilize this valuable fat in this manner.

Bacon rind from hams should be rendered down for lard and used for pastries and the remaining rind after all fat is extracted can be sold as crackling.

*Refuse Fat.*—Another by-product, consisting of pieces of fat, bacon rind and greasy material collected from the men's plates, baking dishes and washing-up water, etc. This becomes a source of income into the B.P. account, and helps to keep the cooks on the lines of strict economy.

An account of all dripping saved, issued or sold should be kept. Issues for any purpose should be supported by entries in the dripping book. The master cook should also keep a daily account of dripping. He is responsible for the amount saved, and on handing it over to the N.C.O. i/c store he should obtain a signature for the amount.

*Marrow Bones.*—Leg, buttock, shin and clod bones. They are more valuable to the trade than other types of bones owing to their thickness and quality. Many articles, such as tooth brushes, etc., are produced from them. They are also of greater value to the trade when obtained uncooked and uncut. The marrow which these bones contain is a valuable food and cannot be easily extracted unless the bones are broken and cooked. It therefore depends on local consideration and the by-product contract which method is the most suitable, *i.e.* sold raw or broken up and cooked.

*Other Bones.*—These should be used for the making of stock, which is the foundation of all good cooking.

A stock pot should be in use in all well-organized kitchens. There is hardly a meat dish prepared when stock is not required for use. To make the stock, place the bones into a clean pot, add the required amount of water and a little salt, bring to the boil and allow to simmer gently for about 8 hours. During the process of cooking all scum should be skimmed off the top as it arises.

Each night the stock should be strained off into clean vessels, the bones removed from the pot and the pot thoroughly cleaned with hot soda water and rinsed with warm water, the pot dried, after which it is ready for further use.

*Bread.*—There is scarcely any justification for bread to reach the waste-bread bin except in very small quantities. The actual amount sold to the contractor should, therefore, be almost negligible.

*Swill.*—Includes all vegetable cuttings, potato jackets, etc., and any waste food unfit to be eaten by the troops.

Tea leaves, ashes, broken glass, nails, etc., should not, in any circumstances, find their way into the swill tubs.



**CHART SHOWING RECOVERY AND UTILIZATION OF BY-PRODUCTS**

Source	Explanation	Treatment	Classification	Utilization	Remarks
<b>A.—Fats from Raw Meat—</b>					
1. Suet ...	...				
2. Butcher's fat	Surplus fat from the carcass which a trade butcher removes in preparing meat for sale.	Cut into small pieces, or put through mincer, rendered down and clarified.	1st class "white" dripping.	(i) For cooking purposes. (ii) For issue in lieu of margarine. (iii) For sale.	Suet should, where possible, be used raw for suet puddings. It is better and more economical for that purpose than dripping. NOTE.—Fat is an essential article of diet. Meat and joints must not be spoiled by over-trimming.
3. Trimmings ...	Further surplus in cutting up meat for stews.				
<b>B.—Fats Recovered in Process of Cooking—</b>					
4. Cracklings ...	The fibrous residue left after rendering down raw fat.	(i) Leave as cracklings. (ii) Put through a lard press while still hot.	Cracklings ...  Dripping and pressed scraps.	(i) Mince as an ingredient for rissoles, etc. (ii) For sale. As above.	
5. Bacon rind ...	Remove before cutting up.	(i) As for cracklings (i). (ii) Boil up with water, skim, thoroughly clarify the fat.	—  Lard ...	As above. Cracklings (i). (ii) For pastries, etc. Residue a valuable ingredient in rissoles, &c.	Bacon rind should be removed before serving bacon. It can be utilized in a variety of ways. After the extraction of the fat, the residue yields, after boiling, a jelly, valuable in making brawn.

6. Skimmings ...	The grease which rises to the surface of stews, stock pots, etc., and which should be skimmed off.	Clarify, and, if discoloured, break into fresh water and clarify again.	1st class "white" dripping, or, if discoloured, "brown" dripping.	(i) "White"; as above. (ii) "Brown"; 2nd class cooking purposes or sale.	All stews, soups, etc., should be well skimmed.
7. Baking dishes residue.	The fat which a joint loses in process of cooking.	Clarify ...	Generally brown, through burning.	As above ...	If unburnt, this dripping has the flavour of the meat, and an admixture will improve dripping issued in lieu of margarine.
8. Bacon fat ...	The large amount of melted fat left after frying.	(i) Clarify and re-clarify. (ii) Clarify ...	(i) Lard ... (ii) "Brown" dripping.	(i) For pastries, etc. (ii) For sale as "brown" dripping.	
<b>C.—Fat Recoveries from Refuse—</b>					
9. Refuse fat ...	All pieces of fat, greasy material should be kept and not thrown into the swill.	Boil up in water; skim.	1st and 2nd class dripping, according to material.	For sale ...	Special utensils should be kept for refuse recoveries. In the dining-rooms a small utensil should be kept in which greasy material is placed and kept separate from other leavings.
10. Washing-up water.	Water in which greasy plates, dishes, etc., are washed should be allowed to cool, and the grease collected from the surface.	Boil up with clean water and clarify once or twice, or add to No. 9.	2nd class dripping.	For sale ...	If the instructions at 9 and 10 are carried out, there should be very little from this source.

CHART SHOWING RECOVERY AND UTILIZATION OF BY-PRODUCTS—*continued*

Source	Explanation	Treatment	Classification	Utilization	Remarks
C.— <i>Fat Recoveries from Refuse—contd.</i>					
11. Grease trap skimmings.	Skim daily, but do not attempt to treat sludge.	Add to No. 10 ...	2nd class dripping.	For sale ...	No. 11 material must not be treated in the cookhouse.
D.— <i>Bones—</i>					
12. Marrow bones	Leg, buttock and shin bones.	(i) Untreated. Should be well stripped of meat. (ii) Break up, and add to stock pot.	(i) Marrow bones (ii) "O t h e r" bones.	(i) For sale ... (ii) For sale ...	To command the higher price, marrow bones must be uncooked and uncut. Marrow bones yield a considerable quantity of rich fat. Bones should only be sold uncooked when all requirements of stock for soup and stews have been fulfilled.
13. Green bones... <i>i.e.</i> Uncooked ...		Well stripped of meat.	"Other" bones...	For sale ...	This also applies to marrow bones. Bones should only be gently simmered; if violently boiled, the glue-contents are released, and the residue is fit only for manure, and will command a low price only.
14. Cooked bones	From joints, from stock pots, and left on plates.	—	"Other" bones	For sale ...	





## Appendix X

### COMPILATION OF DIET SHEETS

1. In the compilation of the weekly diet sheet it is important that the rations in kind from R.A.S.C. are given first consideration, and utilized to the best advantage in the dietary.

2. The dietary should be varied according to the season as much as possible, repetition of dishes in the one week to be avoided.

3. Do not give two flour puddings or pies with the one dinner meal, *e.g.* after meat puddings give a milk pudding or fruit as a sweet, *not* a jam roll.

4. Rice or milk pudding should not be served as a sweet when curry and rice are given for the dinner meal.

5. Keep to the scale of ingredients laid down in Appendix III, as shortage of ingredients will frequently lead to dissatisfaction and complaints, and overdrawals lead to waste.

6. Include salads, fresh fruit and fish when in season. They are then usually cheap, and should form part of the dietary. Watercress is available also in winter.

7. Reduce stodgy foods in hot weather, such as suet puddings, and give milk puddings and fruit in season. Fatty foods should be included in the dietary during the winter months.

8. It is important that dried fruits, such as figs, prunes, apple rings, etc., should be included at least once weekly during the winter months, as these fruits act as a laxative.

9. Do not include perishable foods in the diet, such as liver for breakfast on Mondays or Tuesdays. It is difficult for N.A.A.F.I. to meet the demands so early in the week.

10. Make arrangements for the provision of a supper meal.

11. The annexed diet sheet (Appendix XI), compiled for the troops at home, is intended to act as a guide in assisting the messing officer in the compilation of a diet sheet for his unit.





# SPECIMEN DIET SHEET FOR GUIDANCE ONLY

Issued January, 1933

For Troops at Home Stations

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	QUANTITIES FOR 100 MEN FOR ONE WEEK								
Breakfast.	Tea. Bread. Bacon and tomatoes. Gravy.	Tea. Bread. Margarine. Fried bacon. Baked beans.	Tea. Bread. Stewed steak and onions. Brown gravy.	Tea. Bread. Margarine. Ox heart and bacon. Tomatoes.	Tea. Bread. Margarine. Sausages and onions. Marmalade. Gravy.	Tea. Bread. Margarine. Fish available. Parsley sauce.	Tea. Bread. Bacon and sausage. Gravy.		R.A.S.C. SUPPLIES							
								Bread, 505 lb. ... .. at .98d. lb. ... ..	£	s.	d.	£	s.	d.		
Dinner, 50 men.	Roast meat. Baked potatoes. Green vegetables. Yorkshire pudding. Macaroni.	Boiled beef (preferably salted) or stewed steak. Carrots. Boiled or mashed potatoes. Apple pie.	Meat pies. Mashed potatoes. Haricot beans. Rice pudding or macaroni and prunes.	Curried stew, rice. Boiled potatoes. Blue peas. Boiled jam roll.	Roast meat. Baked potatoes. Green vegetables. Boiled currant roll. Sweet sauce.	Sea pie. Potatoes in pie. Rangoon beans. Fruit salad. Custard.	Hot-pot or brown stew. Boiled potatoes. Green vegetables. Raisin pudding.		Meat, 538 lb. ... ..	„	3.49d. lb. ... ..	7	16	5		
								Preserved meat, 24 tins ... ..	„	6.36d. lb. ... ..	0	9	6½			
Dinner, 50 men.	Steak pie. Green vegetables. Mashed potatoes. Fruit Salad (mixed). Custard.	Hot-pot or brown stew. Boiled potatoes. Haricot beans. Golden pudding.	Boiled beef (preferably salted). Carrots. Boiled or mashed potatoes. Apple pie.	Roast meat. Sauté potatoes. Blue peas. Fig or date pudding or dessert fruit in season.	Sea pie. Potatoes in pie. Green vegetables. Milk pudding.	Roast meat. Baked potatoes. Rangoon beans. Rice pudding. Jam.	Curried stew. Rice. Boiled potatoes. Baked jam roll.		Flour, 120 lb. ... ..	„	1.30d. lb. ... ..	0	13	0		
								Biscuit, 18¼ lb. ... ..	„	2.76d. lb. ... ..	0	4	3¾			
Tea.	Tea. Bread. Margarine. Fruit or seed cake.	Tea. Bread. Margarine. Galantine of preserved beef. Pickles or salad.	Tea. Bread. Margarine. Salmon fish cakes.	Tea. Bread. Margarine. Fried herrings. Bloaters or kippers.	Tea. Bread. Margarine. Cottage pie.	Tea. Bread. Margarine.	Tea. Bread. Margarine.		Tea, 14 lb. ... ..	„	6.17d. lb. ... ..	0	7	2¼		
								Sugar, 73 lb. ... ..	„	1.94d. lb. ... ..	0	11	9½			
Supper.	—	Cheese. Bread and biscuit.	Vegetable soup. Bread and biscuit.	Cheese. Bread and biscuit.	Vegetable soup. Bread and biscuit.	—	—	Salt, 11 lb. ... ..	„	.24d. lb. ... ..	0	0	2¾	12	3	8½
								N.A.A.F.I. ARTICLES AT WHOLESALE RATES (No rebate)								
								Margarine, 43½ lb. ... ..	at	3½d. lb. ... ..	0	12	8½			
								Bacon, 70 lb. ... ..	„	7½d. lb. ... ..	2	3	9			
								Marmalade, 11 lb. ... ..	„	3.64d. lb. ... ..	0	3	4			
								Cheese, 19½ lb. ... ..	„	7¼d. lb. ... ..	0	11	9½			
								Jam, 20 lb. ... ..	„	3.64d. lb. ... ..	0	6	0¾	3	17	7½
								PURCHASES FROM N.A.A.F.I. (Rebate allowed)								
								Potatoes, 32 stone ... ..	at	9½d. stone ... ..	1	5	4			
								Onions, 48 lb. ... ..	„	1¼d. lb. ... ..	0	7	0			
								Milk, 13 galls. ... ..	„	1s. 10d. gall. ... ..	1	3	10			
								Green vegetables, 125 lb. ... ..	„	1¼d. lb. ... ..	0	15	7½			
								Root vegetables, 52 lb. ... ..	„	1¼d. lb. ... ..	0	5	5			
								Sausages (8 to the lb.), 37½ lb. ... ..	„	6d. lb. ... ..	0	18	9			
								Rangoon beans, 18 lb. ... ..	„	1¼d. lb. ... ..	0	2	7½			
								Haricot beans, 12 lb. ... ..	„	1¼d. lb. ... ..	0	1	9			
								Blue peas, 12 lb. ... ..	„	4d. lb. ... ..	0	4	0			
								Herrings, 36 lb. ... ..	„	5½d. lb. ... ..	0	16	6			
								Flour, 16 lb. ... ..	„	5½d. lb. ... ..	0	6	5			
								Salmon, 14 tins ... ..	„	5½d. tin ... ..	0	6	5			
								Fish, available, 38 lb. ... ..	„	5d. lb. ... ..	0	15	10			
								Fruit salad, 12 lb. ... ..	„	7d. lb. ... ..	0	7	0			
								Apple rings, 8 lb. ... ..	„	8d. lb. ... ..	0	5	4			
								Rice, 14 lb. ... ..	„	2d. lb. ... ..	0	2	4			
								Currants, 7 lb. ... ..	„	6d. lb. ... ..	0	3	6			
								Figs, 5 lb. ... ..	„	4½d. lb. ... ..	0	1	10½			
								Prunes, 6 lb. ... ..	„	6d. lb. ... ..	0	3	0			
								Tapioca, 4 lb. ... ..	„	2½d. lb. ... ..	0	0	10			
								Baking powder, loose, 24 oz. ... ..	„	8d. lb. ... ..	0	1	0			
								Custard powder, loose, 3 lb. ... ..	„	6d. lb. ... ..	0	1	6			
								Curry powder, loose, ½ lb. ... ..	„	1s. lb. ... ..	0	0	6			
								Carrots, 50 lb. ... ..	„	1¼d. lb. ... ..	0	5	2½			
								Cornflour, loose, 5 lb. ... ..	„	2½d. lb. ... ..	0	1	0½			
								Tomatoes, 10 tins ... ..	„	8d. tin. ... ..	0	6	8			
								Mustard, loose, ½ lb. ... ..	„	2s. 0d. lb. ... ..	0	1	0			
								Pepper, ½ lb. ... ..	„	1s. 4d. lb. ... ..	0	0	8			
								Nutmegs, 2 lb. ... ..	„	... ..	0	0	2			
								Cloves, 2 oz. ... ..	„	1s. 8d. lb. ... ..	0	0	2½			
								Herbs, 3 pkts. ... ..	„	... ..	0	0	4½			
								Beetroot, 16 lb. ... ..	„	1¼d. lb. ... ..	0	1	8			
								Pickles, 1 large jar ... ..	„	5s. ... ..	0	5	0			
								Mixed peel, 1 lb. ... ..	„	6d. lb. ... ..	0	0	6			
								Raisins, 4 lb. ... ..	„	5d. lb. ... ..	0	5	2½			
								Egg powder, 6 pkts. ... ..	„	1½d. pkt. ... ..	0	0	9			
								Macaroni, 4 lb. ... ..	„	3½d. lb. ... ..	0	1	2			
								Raisins, 4 lb. ... ..	„	6d. lb. ... ..	0	2	0			
								TOTAL ... ..			26	2	11½			
								Income—100 men in mess, 7 days at 8.98d. each man per diem which includes ration in kind, cash and commuted cash allowances ... ..			26	3	10			
								Extra credit preserved beef and biscuits ... ..			0	4	10			
											26	8	8			
								Balance Cr. ... ..			0	5	8½			

Note.—Any flavouring essences, etc., not shown in the diets may be purchased from cash available. This specimen diet sheet has been estimated to contain approximately the following average daily food values for each man:— Protein, 136.5 grammes; Fats, 155.46 grammes; Carbohydrates, 407.90 grammes; Calories, 3,696.

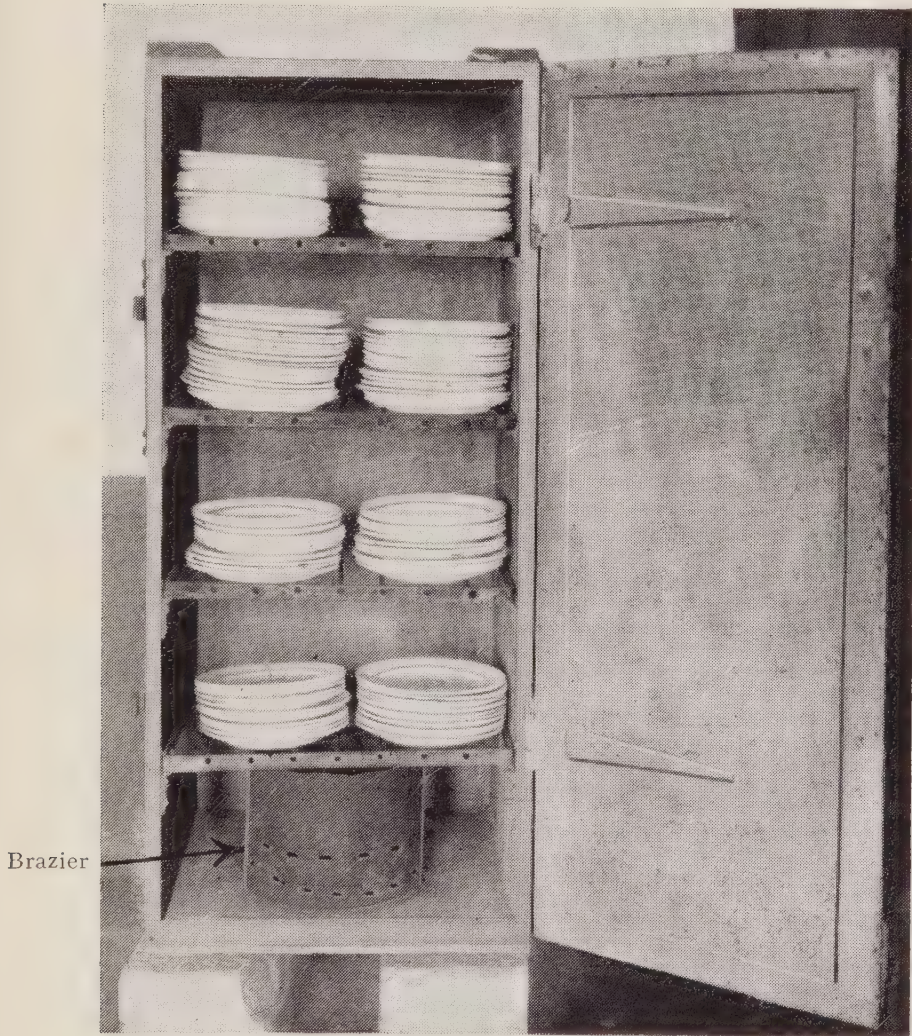
\* ¼ ration of biscuit, i.e. 3 oz. each man, must be drawn for each man in mess weekly.





## Appendix XII

## CUPBOARD FOR HEATING PLATES



A cupboard for heating plates can be made from an ordinary wooden box, lined with tin, and fitted with gridiron shelves, a tight-fitting door and perforated at the top to allow the fumes to escape. The small brazier as shown is fitted with charcoal, lighted, swung in the open air until it freely burns, then put on the bottom shelf. Close the door and allow to burn for one hour.

## Appendix XIII

## HOLE IN THE GROUND

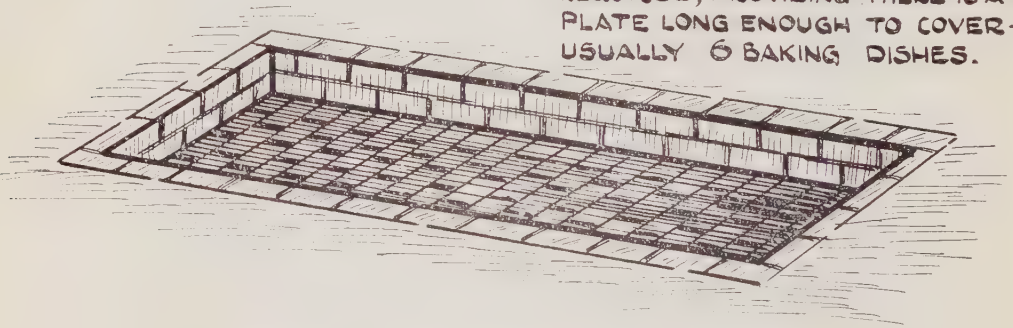
Dig a hole about 1 foot deep and line the bottom and sides with bricks. The hole should be wide enough to take the cooking utensils in use, side by side, if necessary. Light a fire at the end of the hole nearer the prevailing wind. When hot enough to cook, remove the large embers on a metal plate, leaving the small embers on the bottom of the hole.

Place the foodstuffs in the hole and lay the metal plate with hot embers over the top of the hole.

**HOLE IN THE GROUND.**

FOR HIGH GROUND.

BUILT LARGE ENOUGH TO TAKE DISHES REQUIRED, PROVIDING THERE IS A TIN PLATE LONG ENOUGH TO COVER — USUALLY 6 BAKING DISHES.



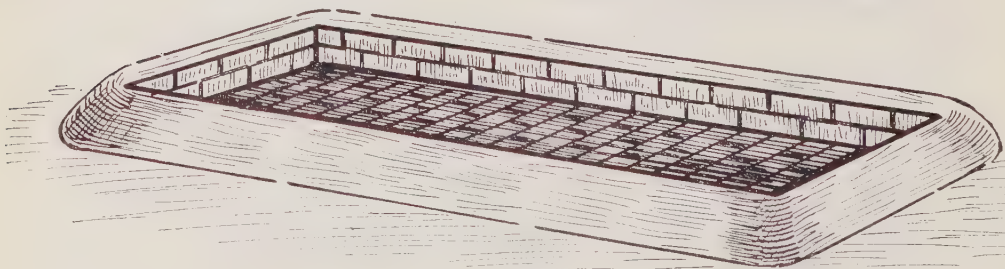
## HOLE ABOVE THE GROUND

In low-lying country it is not always possible to dig a hole in the ground trench. The hole above the ground is constructed as above, except that it is built up and banked with earth.

**HOLE ABOVE THE GROUND.**

FOR LOW LYING AND SANDY COUNTRY.

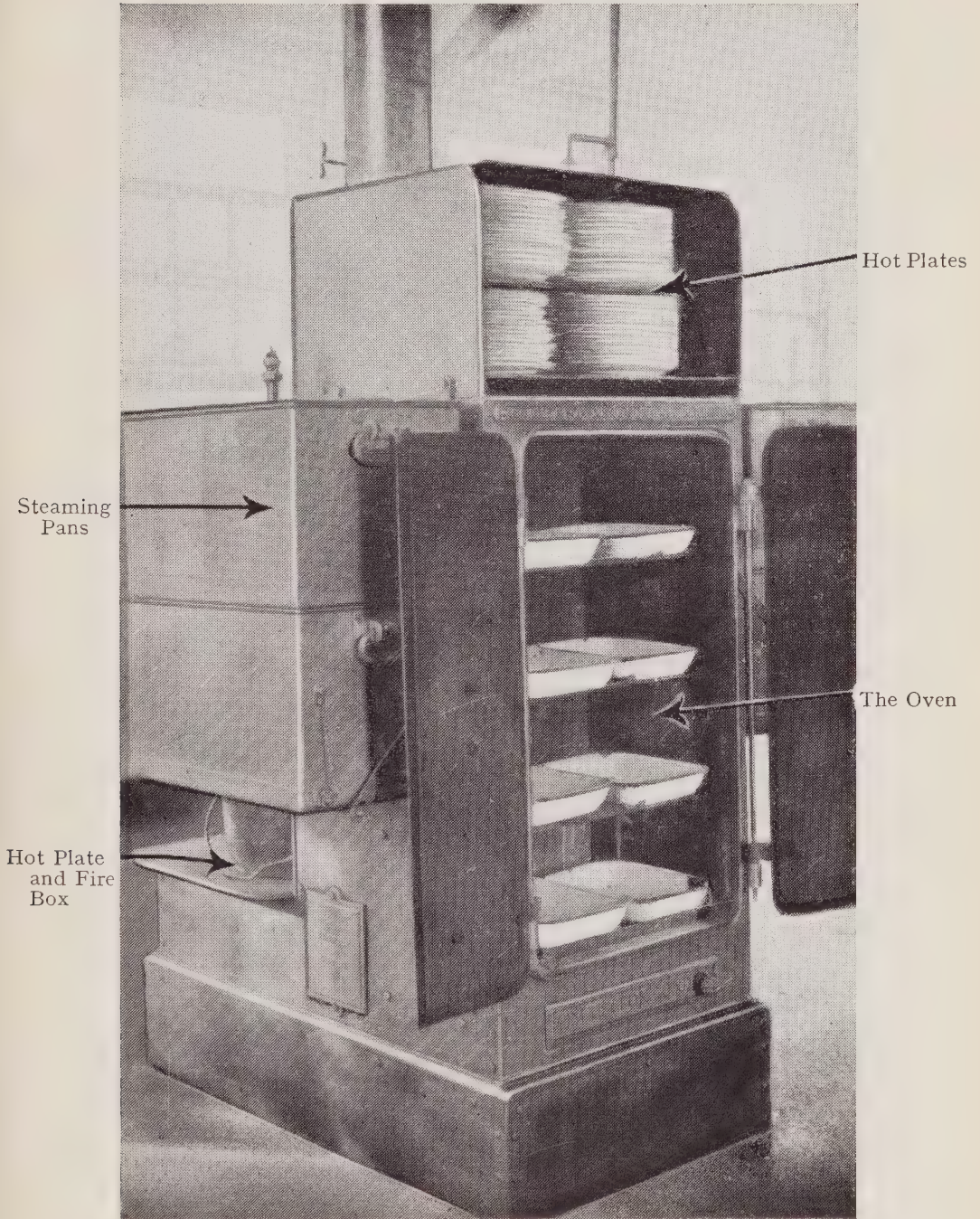
BUILT LARGE ENOUGH TO TAKE DISHES REQUIRED, PROVIDING THERE IS A TIN PLATE LONG ENOUGH TO COVER — USUALLY 6 BAKING DISHES.





Appendix XIV

THE (WARREN) COMBINED COOKING  
APPARATUS



## Appendix XV

**METHOD OF USING PEAS, LENTILS, BEANS,  
OR OTHER PULSES FOR THE PREVENTION  
OF SCURVY, IN THE ABSENCE OF FRESH  
VEGETABLES.**

(1) The dry seed must be whole, retaining the original seed-coat, not milled or decorticated.

(2) They must be soaked in water for several hours; the time necessary depends on the temperature, twenty-four hours at 50° F. to 60° F., and twelve hours or less at 90° F.

(3) The water must then be drained away, and the peas, beans, etc., allowed to remain in the moist condition with access of air. They will then germinate and the small rootlet grow out. This germination will take forty-eight hours at 50° F. to 60° F., and twelve to twenty-four hours at 90° F.

(4) The operations described in (2) and (3) could conveniently be done under active service conditions in such manner as the following:—

*Soaked.*—The peas, beans, or other pulses, placed in a *clean* sack, should be steeped in a trough, barrel, or other suitable vessel, full of clean water, and should be occasionally stirred. The sack and trough, etc., should be large enough to allow for the swelling of the peas to about three times their original size. In a hot climate six to twelve hours should suffice for this soaking.

*Germination.*—The peas should be lifted out of the water and spread out to a depth not *exceeding two or three inches* in a trough or other vessel with sides and bottom porous or well perforated with holes. This is to allow complete access of air. *The seeds must be kept in a moist atmosphere.* This is done by covering with damp cloth or sacking, which is sprinkled (by hand or automatically) as often as is required to keep the peas or beans thoroughly moist underneath. The germination should reach the stage mentioned in (3) above within twenty-four hours in a hot climate.

*All the vessels should be clean.*

(5) It is important that the germinated pulses should be cooked and eaten as soon as possible after germination, and should not be allowed to become dry again, as in that case the anti-scorbutic properties, acquired during the process of germination, will again be destroyed. The pulses should not be cooked longer than necessary, and in no case for a longer period than 15 minutes.



PLATE 5.—THE ALDERSHOT OVEN

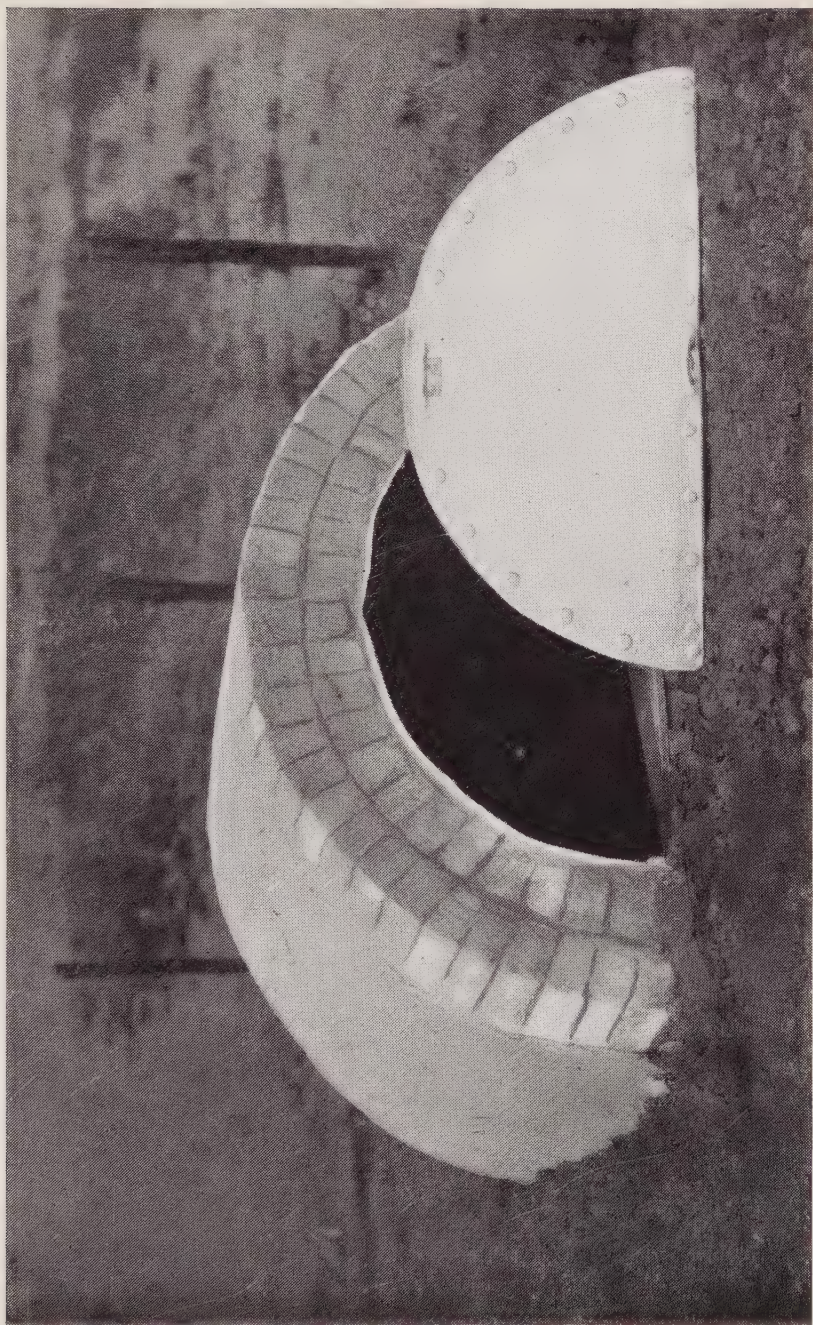
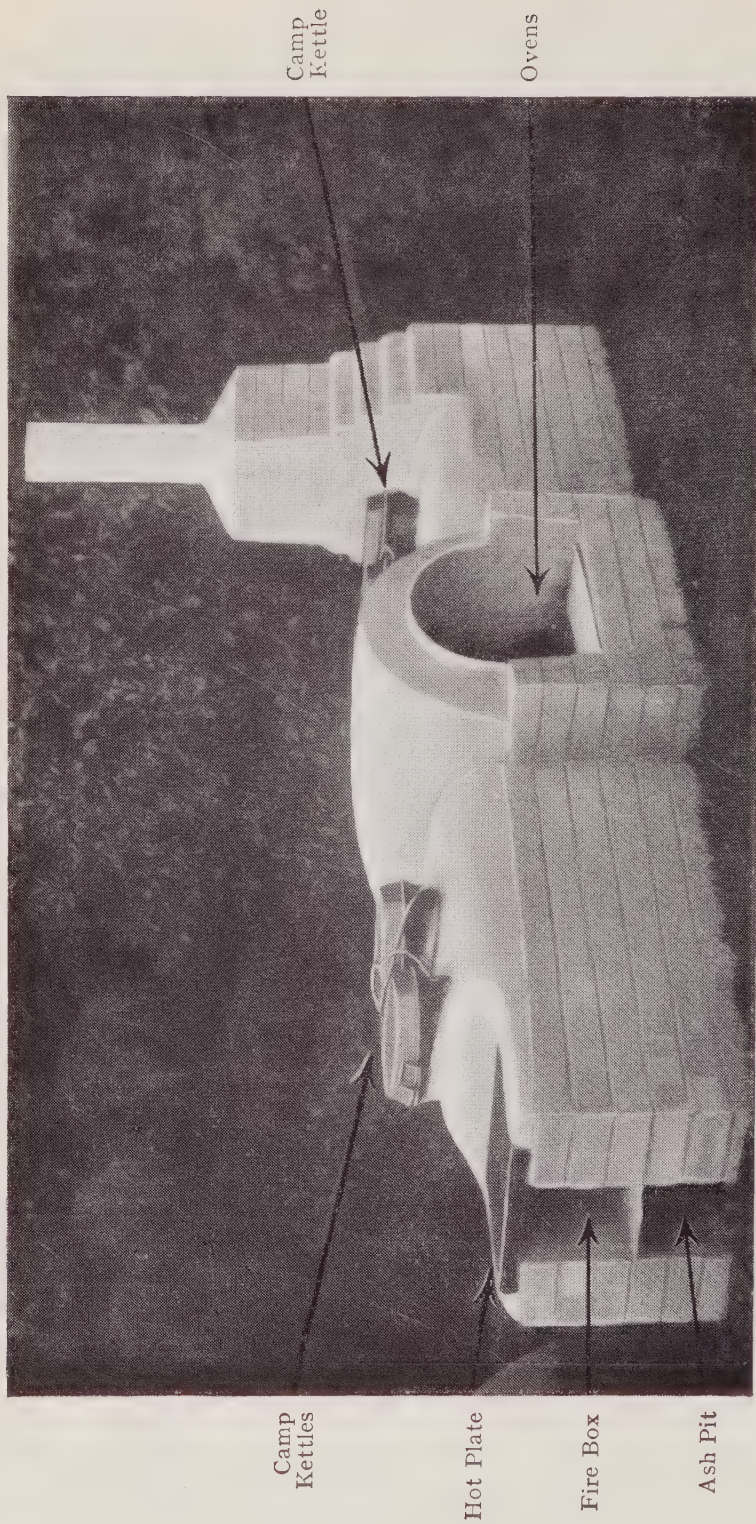




PLATE 6.—COMBINED FIELD COOKING RANGE



In constructing this range the flues should be so arranged that the heat from the fire box passes above and below the oven. The camp kettles near the entrance to the fire box will be the first to boil, and should then exchange places with the one near the chimney. This range is especially suitable for officers', serjeants', and similar messes.



PLATE 7.—THE TRAVELLING FIELD KITCHEN.

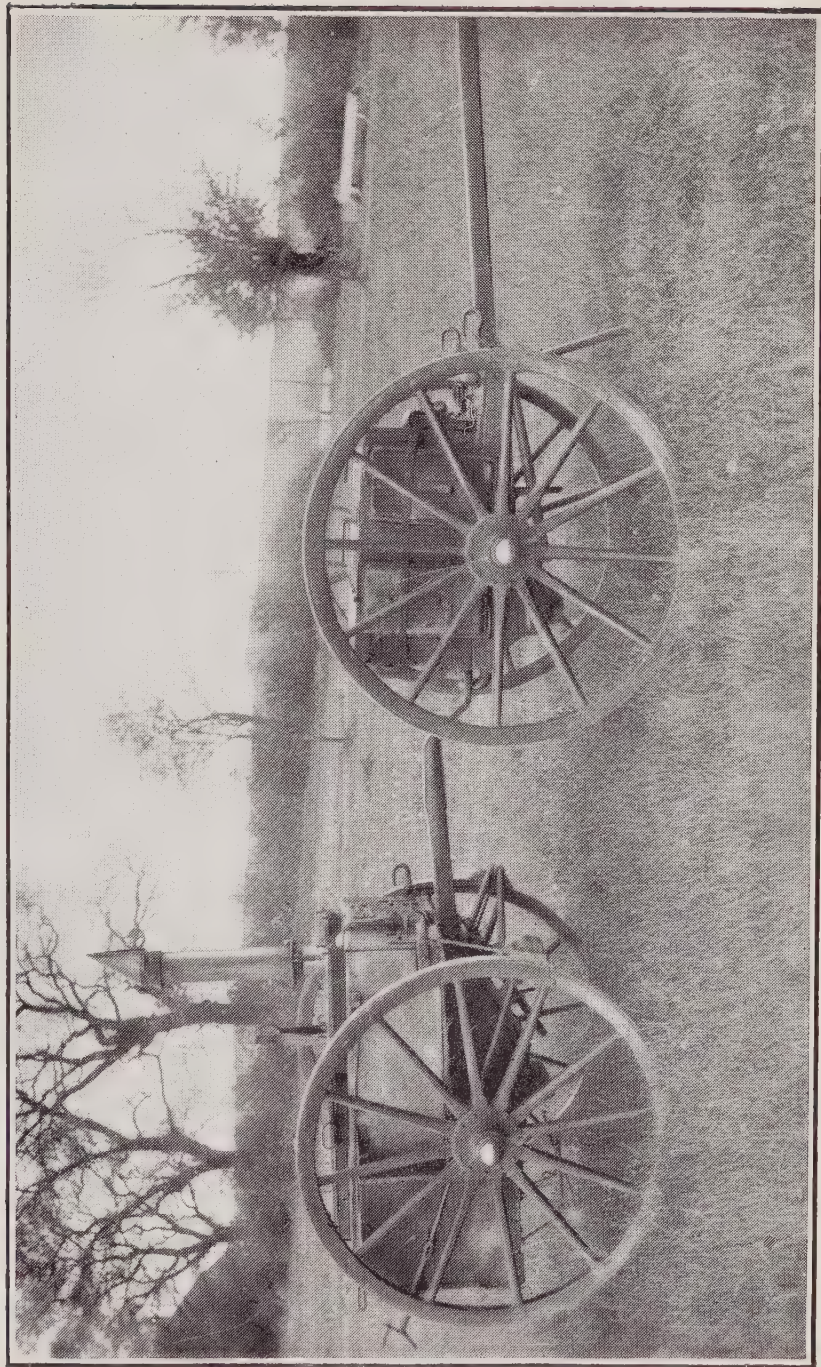
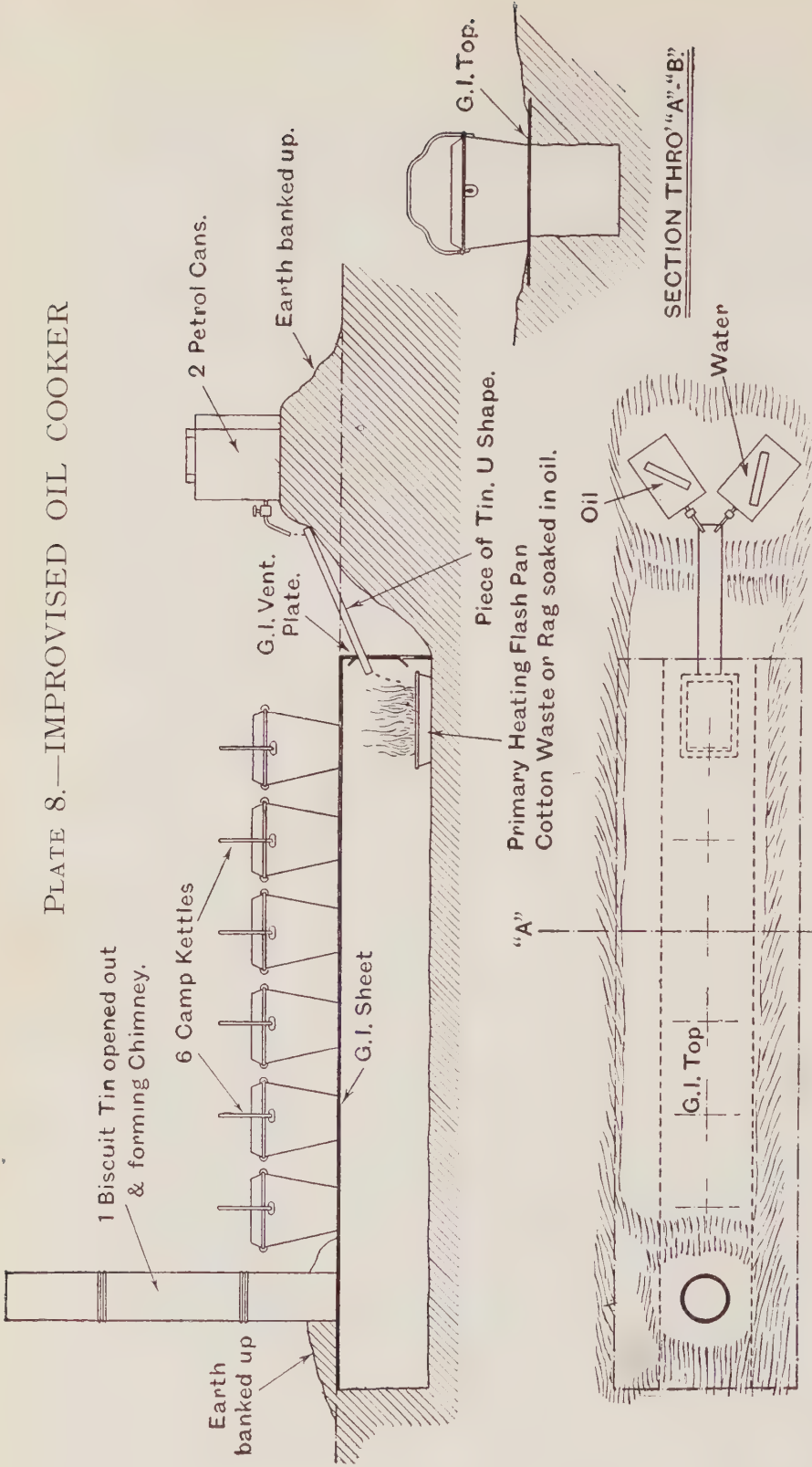


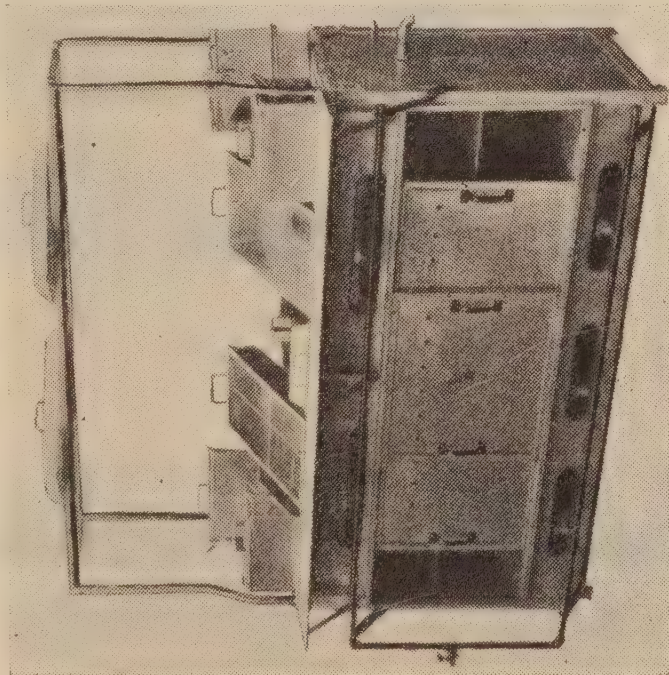
PLATE 8.—IMPROVISED OIL COOKER



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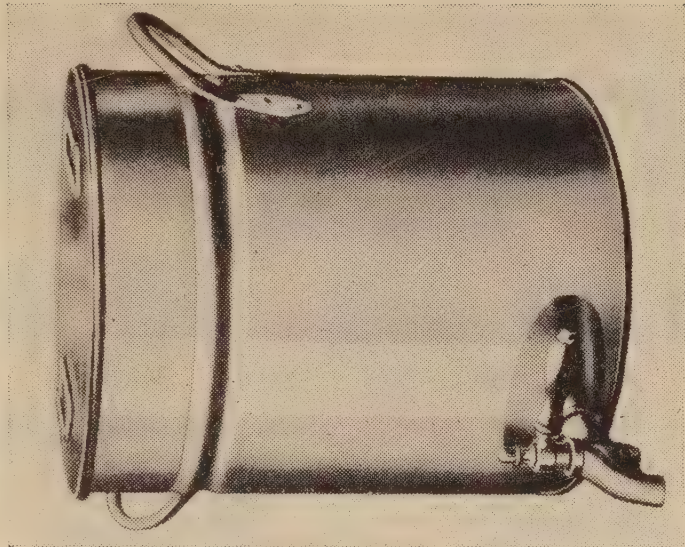
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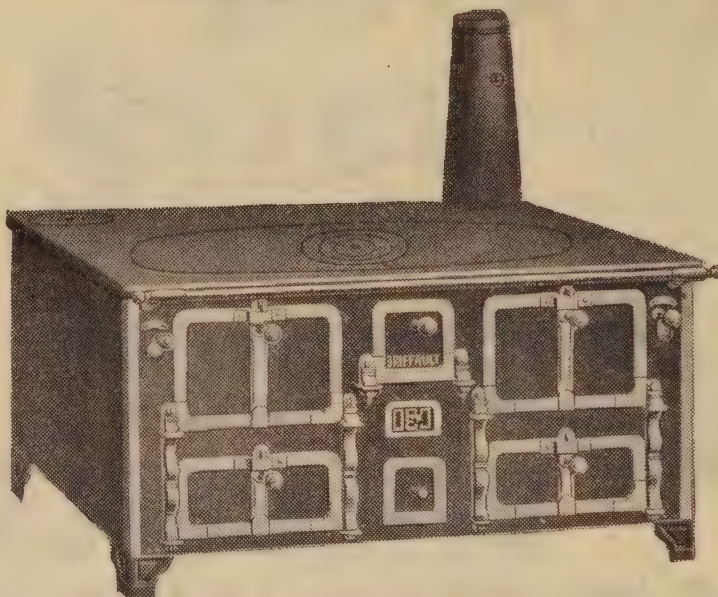
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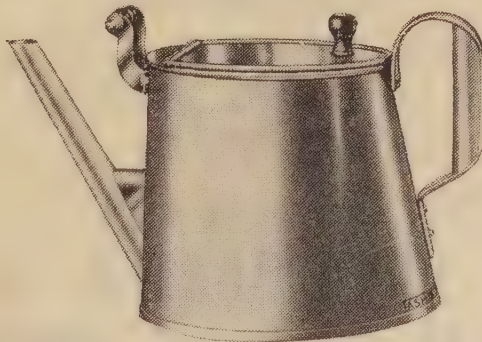
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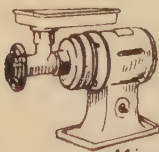
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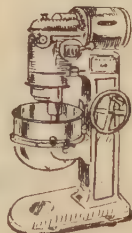
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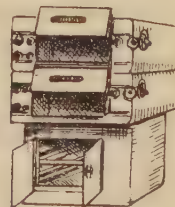
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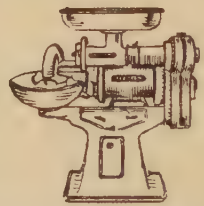
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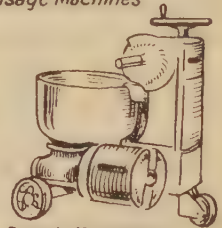
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# INDEX TO ADVERTISERS

	PAGE
ARMOUR & COMPANY, LTD. . . . .	<i>Outside back cover</i>
ASH'S MANUFACTURING COMPANY . . . . .	xxxii
BERKEL & PARNALL'S SLICING MACHINE MFG. COMPANY, LTD. . . . .	xv
BORTHWICK, THOS., & SONS, LTD. . . . .	xxxiii
BORWICK, GEORGE, & SONS, LTD. . . . .	xxxii
BRIFFAULT RANGE COMPANY, THE . . . . .	xxx
BROWN & POLSON, LTD. . . . .	viii
CORFIELD, LTD. . . . .	xviii
CUISINE (1909), LTD. . . . .	xxxv
DEWHURST, J. H., LTD. . . . .	xxiv
EASIWORK, LTD. . . . .	i
FARQUHARSON, JAMES, & SONS . . . . .	xxxii
FOWLER, LTD. . . . .	x
FRENCH, J. W., & COMPANY, LTD. . . . .	xxii
GLOVER, J., & SONS (1931), LTD. . . . .	xix
GREEN, WM., & COMPANY (ECCLESFIELD), LTD. . . . .	xxxiv
HANSON, SAMUEL, & SON, LTD. . . . .	xi
HAYWARD BROS., LTD. . . . .	xiv
HEINZ, H. J., COMPANY, LTD. . . . .	xv
HERBERT & SONS, LTD. . . . .	xxviii
HOBART MANUFACTURING COMPANY, LTD., THE . . . . .	v
HOTLOCK, LTD. . . . .	xiv
KEEVIL, PETER, & SONS, LTD. . . . .	ii
KEMP, GEORGE, LTD. . . . .	vii
LANE, HENRY A., & COMPANY, LTD. . . . .	ix
LIBBY, MCNEILL & LIBBY, LTD. . . . .	xiii
MCDUGALL'S, LTD. . . . .	<i>Inside front cover</i>
MAGRINI, FRANK V., LTD. . . . .	xxiii
MARSH & BAXTER, LTD. . . . .	xxi
MASON, GEORGE, & COMPANY, LTD. . . . .	xxx
MAZAWATTEE TEA COMPANY, LTD. . . . .	x
MORTON, C. & E., LTD. . . . .	xvii
NESTLE & ANGLO-SWISS CONDENSED MILK COMPANY . . . . .	xvi
PEERLESS ELECTRICAL MANUFACTURING CO., LTD., THE . . . . .	xxxiv
RANK, JOSEPH, LTD. . . . .	xxxv
RUSHBROOKE, G., (SMITHFIELD), LTD. . . . .	xxvi
SILENT MACHINE AND ENGINEERING COMPANY, THE . . . . .	xxvii
SPENSERS (LONDON), LTD. . . . .	xii
SPILLERS, LTD. . . . .	<i>Inside back cover</i>
SUMERLING & COMPANY, LTD. . . . .	vi
TABOR, GEORGE, LTD. . . . .	iv
WALL, T., & SONS, LTD. . . . .	xi
WEDDEL, W., & COMPANY, LTD. . . . .	xxv
WESTERN MARGARINE, LTD. . . . .	iii
WILSON MEATS, LTD. . . . .	xxix





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