

## FOOD PREPARATIONS

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### BREAD

**W**HEAT flour is most suitable for bread as it contains gluten, which entraps gases, stretches as these expand and so causes the dough to rise. The flour is tested for its gluten content by making a small quantity (a tablespoonful) into a paste in water and washing away the starch through a small piece of muslin. An elastic mass of gluten remains. If sufficient gluten is not present to form an elastic mass the flour is not suitable for bread making.

The flour is sifted to remove foreign matter and well kneaded to form a dough that does not stick. Water is generally used for kneading. A teaspoonful of brown sugar and half a teaspoonful of powdered salt are added for every pound of flour. A tablespoonful of "potato yeast" or of "yeast sponge" or half a teaspoonful of dried baker's yeast is mixed with the dough to cause it to leaven. The dough is placed in a warm place and covered with a wet muslin cloth to prevent drying. It generally takes about 3 to 6 hours to rise to about twice its normal bulk. The general practice is to prepare the dough in the evening and leave it overnight to rise. The dough is then kneaded down lightly with some edible fat in the proportion of one ounce of it to every pound of flour used. The fat improves the flavour and texture. The dough is then turned into the required shape and placed in a greased bread pan and again allowed to rise for one or two hours. The bread is then baked in a hot oven (350–400°F.) for about 45 minutes, depending on the size of the loaf. The characteristics of good bread are as follows:—

(1) The crust should be a uniform golden brown on the top and a lighter brown on the sides and bottom. (2) The crumb should be soft and velvety, not soggy, dry or crumbly. (3) Bread of good texture should have small thin walled cells of uniform size and should rebound when pressed. (4) It should have a nutty aroma and be free from sourness.

Much of the success in bread making depends on the quality of the yeast used. "Potato yeast" is prepared by boiling half a pound of potatoes, removing the skins and washing the product. To this is added one ounce of brown sugar, one ounce of wheat flour and half a teaspoonful of salt. These are well mixed to form a stiff dough. To this is added one pint of a boiling extract of "hops" in water. A teaspoonful of "hops" for every pint of water is recommended. The extract should be strained through muslin before addition. The mixture is well stirred and allowed to cool. To this is added a teaspoonful of good baker's yeast. "Potato yeast" prepared in this manner is allowed to rise for about twelve hours before it is used. This product can be kept for about one week in a cool place. The presence of "hop" extract retards the growth of undesirable bacteria, which cause sour taste and off flavours.

“Yeast sponge” is prepared by making a cream with one table-spoonful of flour, half a teaspoonful of brown sugar, and boiled and cooled water. To this is added a pinch of dried baker’s yeast. The mixture is well stirred and allowed to rise for three to six hours. “Yeast sponge” should be prepared for immediate use. It does not keep well.

### BISCUITS

Biscuits can be prepared from almost any kind of flour. Wheat, maize, kurakkan and manioc flour are quite suitable for biscuits. The other essential ingredients are water and fat. Sugar, salt, eggs, milk, ginger and baking powder are added to improve the taste, consistency and nutritive value of biscuits. The flour is sifted and then gently roasted in an open pan with constant stirring for about five to ten minutes. To one pound of flour is added well beaten egg, three ounces of sugar and two ounces of edible fat. To this is added half a teaspoonful of salt and sufficient water or milk to form a soft dough on kneading. Lastly, a teaspoonful of baking powder is mixed with the dough. The dough is rolled out to a thickness of about quarter of an inch or less, according to the type of biscuit required. This can be conveniently done on a pastry board by means of a wooden rolling pin. The biscuits are then stamped out by means of a cutter to the required shapes. A few holes are made on the biscuits by means of a fork or any pointed instrument. The biscuits are placed on a baking pan and baked in a hot oven (350–400°F.) for about twenty minutes until they are quite crisp. About quarter ounce of dried ginger powder and four ounces of sugar per pound of flour are recommended for ginger biscuits.

### BREAKFAST FOODS

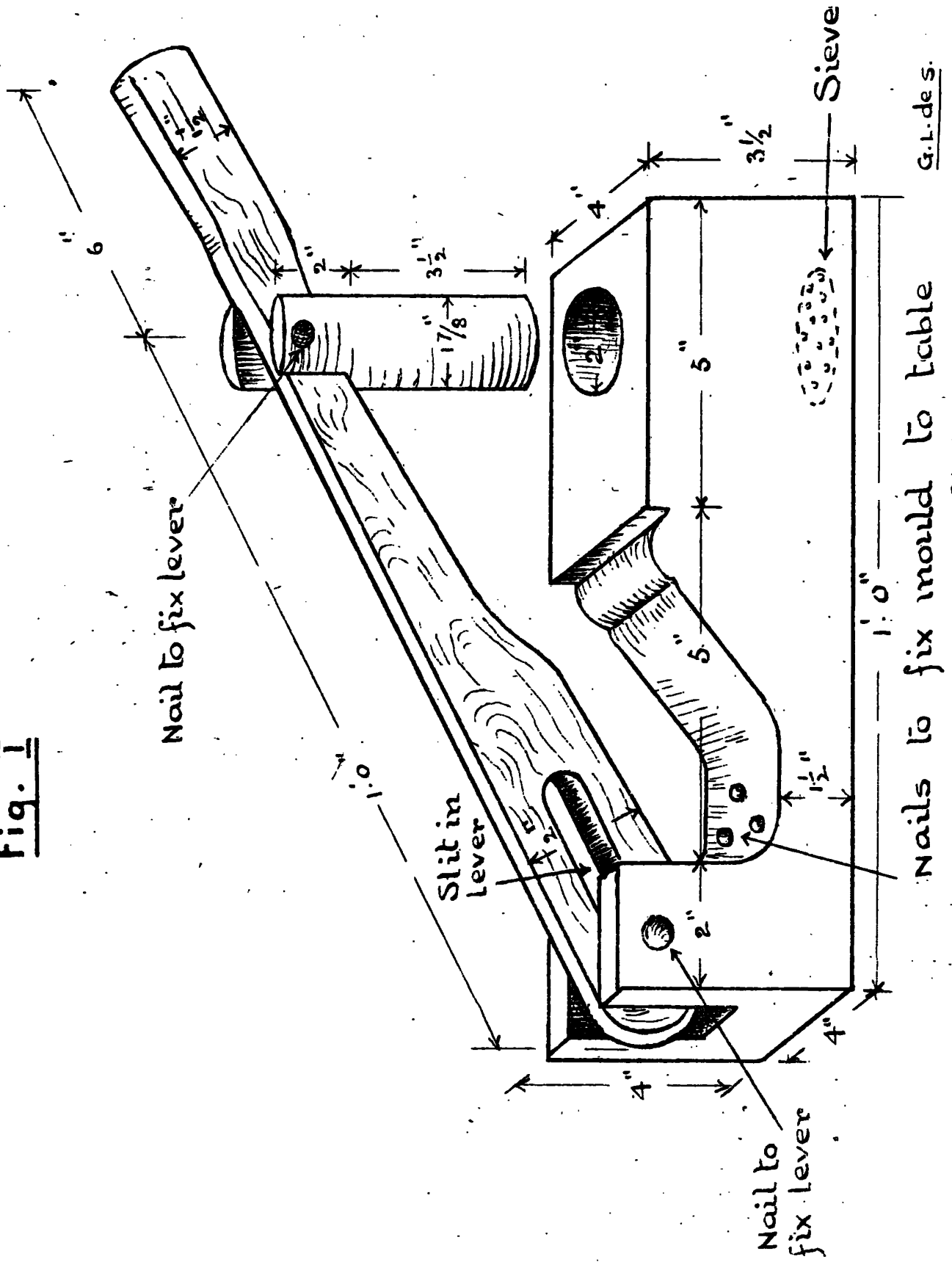
Breakfast foods can be prepared from almost any kind of cereal or millet. While there are many ways of preparing breakfast foods, the most convenient and satisfactory method is to mix the flour in boiling water to form a soft dough. Salt is added at the rate of half a teaspoonful for every pound of flour. The dough is then pressed through a stringhopper mould on to baking pans in thin layers. The product is then baked in a hot oven (350–400°F.) for about twenty minutes until quite crisp. The material is finally broken up into particles of suitable size, as desired. A sketch of a suitable stringhopper mould is shown in Fig. I.

This stringhopper mould can be fixed to the table and operated by means of a lever, as shown in the diagram. The material that passes through the sieve fixed at the bottom of the mould in the usual manner, can be collected by holding the receptacle below.

### MEAT SUBSTITUTES

The protein in legumes and pulses (*e.g.*, dhal, green gram, black gram, soya-bean and cowpea) can be suitably treated so as to appear like meat, when cooked. The seeds are soaked overnight in water and the skin rubbed off. The decorticated seeds are then ground into a thin paste and treated

Fig. I



with salt to taste. The material is then steamed on a piece of muslin cloth tied to a vessel containing water. The vessel is heated to cause the water to boil and the steam is retained by covering the mouth of the vessel with another vessel. The material becomes quite hard after steaming till it is well cooked for about half an hour. The hard mass is then cut into small pieces and fried in oil. The product can then be cooked like meat. The product can also be dried instead of frying and kept for a considerable period. It can be soaked in water and then fried and cooked as before.

#### MALTED GRAINS

Grains like kurakkan, sorghum and maize can be easily malted by allowing them to sprout till the radicals are about twice the size of the grain. This is done by washing the grains in several changes (five changes) of water to aerate them and then soaking them for about three hours in a weak solution of lime water. The lime water is prepared by adding an excess of well burnt lime to water and after stirring, the insoluble excess of lime is allowed to sediment for about an hour. The clear solution is taken and diluted ten times. The grains are allowed to sprout after soaking in lime water, by spreading them out and covering them with a wet cloth or jute hessian. Water is sprinkled every 12 hours for three to four days until the sprouts are about twice the size of the grains. The sprouted grains are then spread out in the shade to wilt for 12 hours. They are then dried in the sun or in a drier. The sprouts and the husk are removed by gentle pounding and winnowing. The dehusked grains are roasted gently in an open pan with constant stirring until they develop a malted flavour. The malted grains are then pounded or ground into flour. This flour is more nutritious than the ordinary flour as it contains malt which is good for invalids when prepared in the form of a gruel with milk.

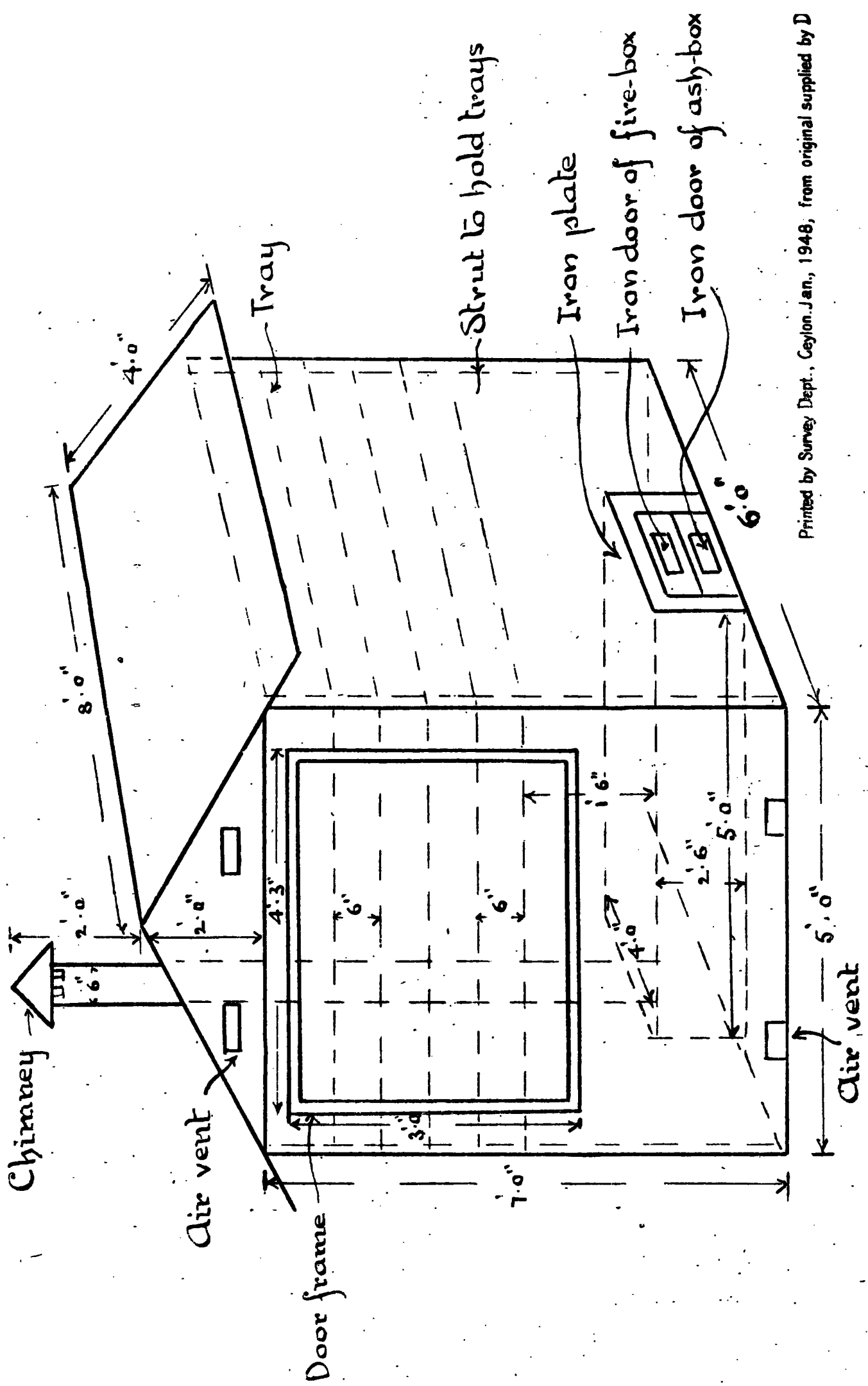
#### DEHYDRATED VEGETABLES

Vegetables lose much of their taste and nutritive value by haphazard methods of drying. Sundrying is generally not suitable in places where wet weather prevails. Moreover, the material to be dried is exposed unduly to dust and other forms of contamination. The only alternative to this is to dry vegetables in a suitably-constructed drier. A simple drier for this purpose consists of a dehydration chamber made of bricks and is 6 ft. long, 5 ft. broad and 7 ft. high at the sides. The roof is made of corrugated galvanized iron sheets. The single door is 4 ft. 3 in. by 3 ft. On each of the two side walls are fitted wooden struts over which five bamboo slat bottomed trays can be stacked in layers in a staggered form. The drier is heated by means of a fire box to which is fitted an iron plate one eighth of an inch thick with a layer of sand half to one inch thick on the top, to radiate the heat evenly into the drying chamber. A brick chimney is connected to the fire-box to provide an outlet for the smoke. Two air vents are provided at the base of the front and back walls and two vents each are provided at the

top as well. These air vents are provided with adjustable panels to control the passage of air in and out of the drier. A sketch of the drier is shown in Fig. II.

The vegetables are sliced and immediately placed in a weak solution of salt ( $\frac{1}{8}$  lb. of salt per gallon of water). They are then blanched in boiling water for about 3 to 5 minutes. By this treatment the vegetables are prevented from undergoing discolouration on drying. The blanched vegetables are allowed to drain free of water and then spread out in thin layers on to the bamboo slats and dried at  $70^{\circ}$  c. to  $50^{\circ}$  c. for four to six hours to a moisture content of about 8 per cent. to 10 per cent. The temperature inside the drier could be determined by suspending a thermometer. The temperature can be controlled by adjusting the air vents and the rate of firing.

Fig: II



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