

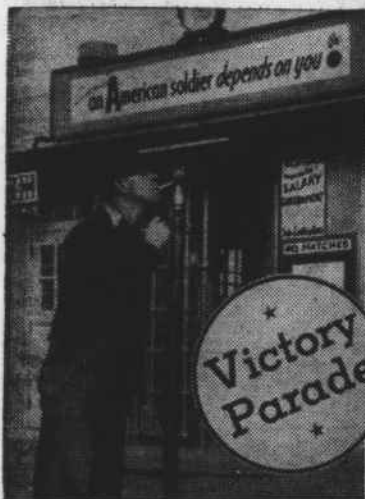
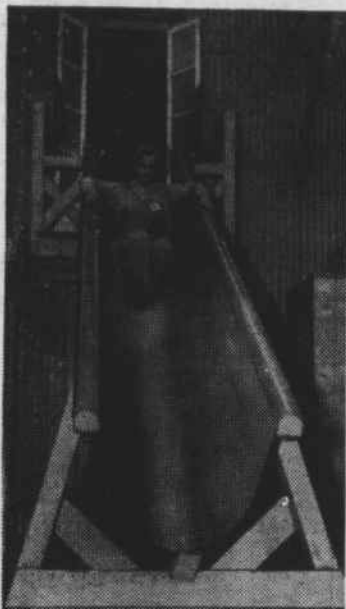
Making Gunpowder Is Dangerous; Yet Safer Than Taking a Bath

Making gunpowder has been called the most dangerous job in the world. Yet there is a higher percentage of accidents in the average home bathroom than in our plants where death to the Axis is cooked like macaroni. A glance at one plant in the southern Appalachian mountains will explain this paradox.

Every worker is carefully searched on entering the plant, which itself is separated into many units so that one unit can blow up without taking the others with it. A worker discovered carrying a safety match inside the plant is suspended for two weeks, and anyone found carrying an ordinary kitchen match is dismissed. Hundreds of signs constantly remind workers of how close they can be to eternity.

Here is made much of our smokeless powder which is the propellant that drives the shell containing the explosive charge of TNT.

This slide is not for recreational purposes. It is an emergency exit chute. There are several of these chutes throughout the plant spaced only a few yards apart. All can be reached by workers in a few seconds. A plant worker demonstrates a quick departure.



As no matches are allowed, the management provides an electric lighter in the one place smoking is allowed—the "bull pen."

Workers' shoes are made so that there is no danger of striking a spark. Soles and heels are glued on. Coveralls are fire-proofed.



The basic ingredient of smokeless powder is usually short-fibered cotton, or wood-pulp.

When cotton is used it is mixed with acids in the nitrator house. Then it flows like a stream of froth to the boiling tub house. In this form it is known as "nitro-cellulose slurry." After several more changes the cotton looks like macaroni. In the last process the strands of smokeless powder are snipped into various lengths for different caliber shells.

Above: Raw cotton at the start of its death dealing transformation. Left: Nearing the macaroni stage, the strands are forced through this press to get them even and smooth.

A young lady ballistics technician is shown at right about to fire a shell to test the projectile's velocity, hence the efficacy of the new powder. A wire, finer than a human hair, is stretched across the framework in foreground and another target, set a distance away, is also wired. The time she takes to travel between the two targets is electrically recorded by the wires.



TO YOUR Good Health

by DR. JAMES W. BARTON
Released by Western Newspaper Union.

FRESH AIR AND RAW VEGETABLES

It is unfortunate that just at the time when wartime gasoline rationing is making it necessary for many to do more walking, some of our health authorities are advising the middle-aged particularly, that they do not need daily exercise. As mentioned before, these health authorities have in mind that many of the middle-aged with failing hearts, high blood pressure and other ailments have also the idea that daily vigorous exercise is absolutely necessary for their health; in an endeavor to take this exercise they put a strain on heart and blood-vessels. These authorities would not suggest that the healthy man or woman of middle age should not take a daily walk at a leisurely rate.

Not only does the daily walk give the heart regular and rhythmical work to do, but it means the breathing in of more fresh air. Man was made to live outdoors, all his organs show this, but hours are spent indoors and minutes only are spent outdoors by most of us.

In the Journal of the Royal Institute of Public Health and Hygiene, Great Britain, Dr. Wilson Jameson, chief medical officer, ministry of health, says:

"Fresh air and fresh salads—take all you can of both should be a helpful maxim." Dr. Jameson urges people to spend as much time as possible in the open air in order that metabolism (the breaking down and building up process of the body) and bodily efficiency may be increased. The working processes of the body, the most efficient results from these processes, can be achieved without vigorous exercise. Thus another high authority warns against exercise, but here again it is against "vigorous" exercise. No Britisher "ever suggested that walking is not helpful to everybody."

Coming back to fresh air and fresh salads, this parting advice is given:

In view of the fact that if we were short of anything it is of vitamin C, it will be of great value if people will form the habit of eating a certain amount of raw vegetables with meals—almost any vegetable can be eaten raw provided it is finely chopped just before the meal.

While this raw vegetable daily, even though finely chopped, might not agree with nervous and emotional individuals, practically all others would be benefited by it.

Heart Murmur Not Important

Many practicing physicians can well remember the importance attached to heart murmurs during their student days in medicine and for some years afterward. Thus, in final examinations at college or for state board or provincial certificates, the location of the murmur on either side of breastbone, between what ribs, or distance from breastbone, whether murmur occurred during or after the first or second beat, were all considered vastly important, although the treatment of all murmurs was very much the same.

It was felt that after Dr. James Mackenzie pointed out that murmurs in themselves were not important, that it was the strength of the muscular walls of the heart that meant heart strength or weakness, the words "heart murmur" would gradually disappear. Not so, however, and today a physician mentioning the presence of a murmur always qualifies it by saying that a heart murmur always means just a small leak in one of the valves which will do no harm because the heart muscle is strong. Unfortunately this word "murmur" and "leaking heart" fastens itself on the mind of many patients and they begin to worry about their hearts.

It sometimes happens that a patient will consult a physician complaining about his heart and there are present also a murmur or some irregularity in the beat. He will complain of shortness of breath, pain under breastbone and a feeling of weakness. The physician examines the heart, notes the murmur or slight irregularity, and if not careful to make an exercise test, X-ray examination and an electrocardiogram, may treat the patient for serious heart disease. What the physician does not know is that the patient has been worrying about his heart for months, and may, unintentionally, exaggerate to some extent.

QUESTION BOX

Q.—What is the value of Thiamin, Riboflavin, Nicotinamide?

A.—These are forms of vitamin B. They increase appetite, relieve pain of neuritis.

Q.—Will you please tell me whether Alfamint tea is helpful or otherwise to a person suffering from arthritis.

A.—I'm sorry, but the preparation mentioned in your letter is not an official remedy and I do not know what it contains.

HOUSEHOLD MEMOS... by Lynn Chambers



Follow Rules to Make Canning Easy (See Directions Below)

Fruit Canning

It's time now to begin putting up fruits for next winter and fall to help stretch those ration points and to make sure your family is going to get the two fruits a day required by the nutritional yardstick.

Be wise and watch the fruit trees or berry vines or markets—wherever you get your fruit—to see that you get it for your canning at just the ripe stage. Fruits should be firm-fleshed, ripe but not over-ripe and in prime condition. Remember canning does not improve any product; it merely preserves it for later use, so it follows that you get out of the can only what you put into it.

Methods for processing fruit for canning in order of their desirability are hot-water bath, pressure cooker, steam cooker, open-kettle. Although many homemakers prefer the open kettle for the fruits, the degree of spoilage is so high and the vitamin loss so great that it is less desired than processing in the jars.

Hot Water Bath.

For a hot water or boiling water bath as it is sometimes called, utilize a large deep vessel. Fit it with a rack of some kind that will hold the jars 1/2 inch from the bottom of the canner. Be sure the vessel is deep enough so that when the jar is immersed in the boiling water, the water comes to within 1 to 2 inches over the top of the jar.

Place jars on the rack, allowing free circulation of air between the jars. The water should be kept boiling during the entire processing period. If it boils down, particularly during some of the lengthy processing times, add sufficient boiling water to keep it at the proper height.

Oven Canning.

Many homemakers like to use the oven for canning fruits and tomatoes. This can be successful if the oven you are using is thermostatically controlled and will keep the required temperature of 250 degrees. The jars should be set on a rack, at least 2 inches apart—starting with a cold oven. The jars should not be allowed to touch the sides of the oven. If a second batch of jars is going in after the first batch, the oven does not have to be cooled.

After the jars are placed on the rack, turn on the switch or light the oven. Start counting processing time as soon as the oven is

This Week's Menu

- Cold Cuts
- Old-Fashioned Potato Salad
- Sliced Tomatoes
- Radishes
- Garden Onions
- Hot Baking Powder Biscuits
- Cherry Pie
- Beverage

turned on. Temperature should never exceed 250 degrees. Higher temperatures cause liquid to boil out of jars and evaporate.

Cooling and Testing Jars.

If you have used a self-sealing lid on the jars canned, do not invert them after taking from the canner. Instead, set them upright on several thicknesses of newspaper or clean towels, away from drafts and let them cool. After the jar has thoroughly cooled, remove the screw band and re-use it again and again. To test for seal, tap the lid of the jar with a spoon, and if you get a clear, high ringing note you can be certain that the jar is well sealed.

Fruits for canning are most often cold-packed, rather than hot-packed as are non-acid vegetables. Select fruit only in prime condition, ripe rather than over-ripe. Wash it thoroughly, then prepare as for table and pack in jars. Fill with hot syrup to within 1/2 inch of the top. Process according to the time table:

Fruit Canning Timetable.

Fruit	Hot Water Bath	Oven
Apples*	25	75
Apricots	20	68
Berries	20	68
Cherries	20	68
Figs	30	90
Fruit Juices	20	68
Grapes	20	68
Peaches	20	68
Pears*	25	75
Pineapple**	30	90
Plums	20	68
Quinces*	35	75
Rhubarb	10	68
Tomatoes	35	75

*Pre-cook fruit in light syrup (3 cups water and 1 cup sugar boiled together 5 minutes), for 3 to 5 minutes before packing in jar.

**Precook fruit 5 to 10 minutes in syrup before packing in jar.

Many homemakers who will be unable to put up all the jellies they would like this summer may put up fruit juices and make them into jelly later. Canning fruit juices either for jelly or other uses is a fairly simple matter, and processing is usually done in a hot water bath, at a simmering temperature, 180 degrees F.

Flavor of the fruit juices depends upon the fruit selected. The juice of fully ripened fruit should be used. Partially ripened fruit lacks flavor whereas over-ripe or bruised or decayed fruit will make sterilization more difficult.

Extracting Juice.

The cold process method must not be used if the fruit is extracted for jelly making. It is far better to heat the fruit or berries. Do not add much water, particularly for soft fruits and berries. Simmer at very low heat—do not boil—until the juices start running.

Strain the fruit juices through a cotton flannel bag, and fill sterile jars to within 1/2 inch of the top. Adjust cap, and process in hot water bath for 30 minutes.

Working as quickly as possible will save the flavor of the juices and make it more desirable for jelly-making.

If you have a canning problem, write to Miss Lynn Chambers, Western Newspaper Union, 210 South Desplains Street, Chicago, Ill. Please enclose a stamped, self-addressed envelope for your reply. Released by Western Newspaper Union.

PATTERNS SEWING CIRCLE



Little Belle

ANY little girl would be happy as a lark in a dress like this. Note the sweetheart neck and perky sleeves.

Barbara Bell Pattern No. 1796-B designed for sizes 6, 8, 10, 12 and 14 years. Size 8 requires 2 1/2 yards 35-inch material.

1796

1802

Bright Basque

YOUNG set favorite—the basque topped dirndl that will be seen everywhere this summer. Gay, cool, becoming.

Barbara Bell Pattern No. 1802-B designed for sizes 10, 12, 14, 16, 18 and 20. Corresponding bust measurements 32, 30, 32, 34, 36 and 38. Size 12 (30) requires 3 1/2 yards 35-inch material; 6 yards ric-rac.

Due to an unusually large demand and current war conditions, slightly more time is required in filling orders for a few of the most popular pattern numbers. Send your order to:

SEWING CIRCLE PATTERN DEPT.
186 Seventh Ave. New York
Enclose 20 cents in coins for each pattern desired.
Pattern No. Size
Name
Address

Varieties of Fish

If a family eats fish once a week every week, it will take three years and four weeks to sample each of the varieties of fish and shellfish produced commercially in the United States.

NO ASPIRIN FASTER
than genuine, pure St. Joseph Aspirin. World's largest seller at 104. None safer, none surer. Demand St. Joseph Aspirin.

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Halcyon House in Washington's Georgetown attracts the eye of every passerby, for trees grow out of its walls. It was built in 1700 by Benjamin Stoddard, first secretary of the navy.

Kool-Aid
Makes 10 BIG, COOL Drinks!
5c
7-FLAVORS

WHOLE GRAIN

Kellogg's Corn Flakes are restored to whole grain nutritive value of Thiamin (Vitamin B₁), Niacin and Iron, as recommended by the U. S. Official Nutrition Food Rules.

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