

HOME DEFENSE GUIDE



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SECTION OF

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President Roosevelt's Code for Americans

- 1 We shall not stop work for a single day. If any dispute arises we shall keep on working while the dispute is solved by mediation, conciliation or arbitration—until the war is won.
- 2 We shall not demand special gains or special privileges or advantages for any one group or occupation.
- 3 We shall give up conveniences and modify the routine of our lives if our country asks us to do so. We will do it cheerfully, remembering that the common enemy seeks to destroy every home and every freedom in every part of our land.

—Washington's Birthday Address, February 22, 1942

THE Inquirer Home Defense Guide supplies you with a blueprint of how a patriotic American should conduct his life. In addition, it gives all the proven air raid precautions and the proper air raid behavior. It tells what we as civilians should conserve, how we should save and why we should be thrifty in order to do our share in guaranteeing the continuance of our American way of life.

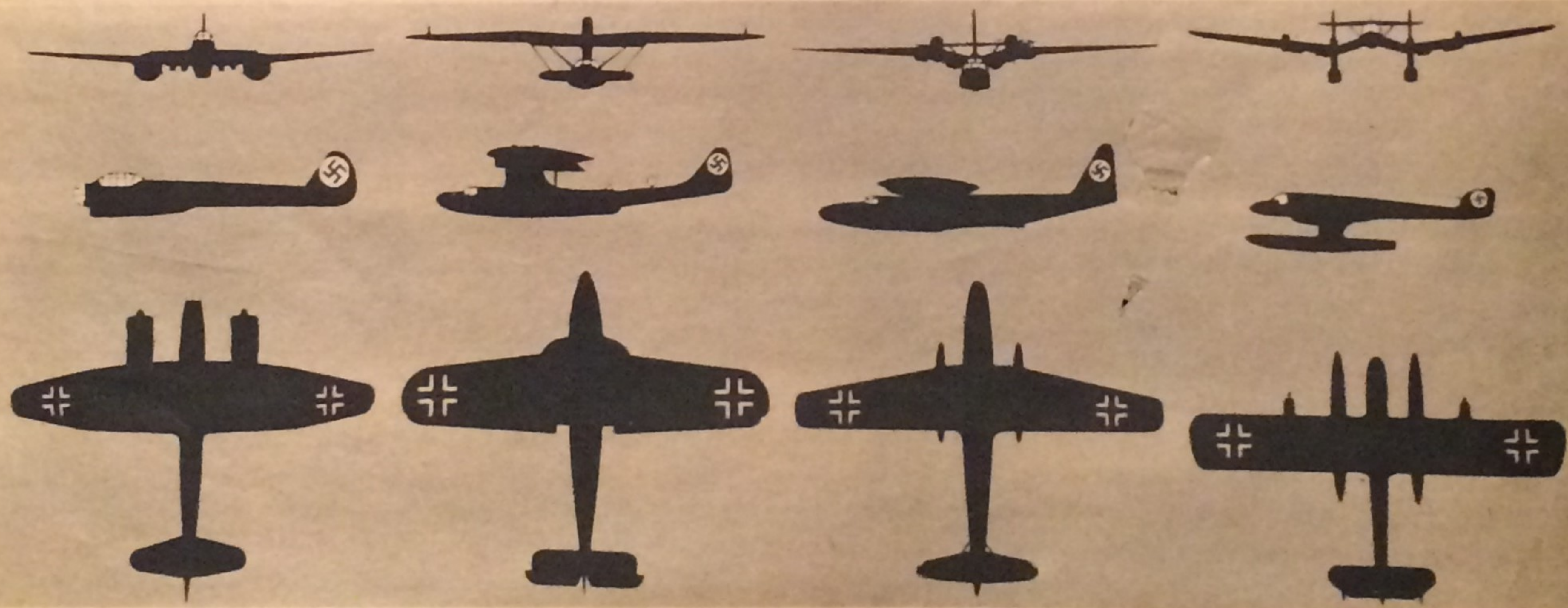
The military forces are doing their part, as is shown by the four pages devoted to the exploits of General MacArthur and other heroes of the war.

We can be assured that American armed forces will take the offensive against our enemies. But an offensive must get its start by the direct effort of every man, woman and child in America. It is an aim of this supplement to show American civilians how they can hasten and strengthen our military offensives by aggressively producing war supplies and voluntarily curbing home use of materials that go into them.

CONTENTS

Advice for Civilians	10, 11	MacArthur Biography	17, 18
Air Raid Precautions	6	Metal Salvage	9
America's War Heroes	19	Paper Salvage	9
Babies in Raids	6	Pets in Raids	6
Blackout Methods	3	Posters in Color	10, 11
Bombs, Safety from	4	Preserving	12
Canning	12	Rag Salvage	9
Cars, Care of	8	Refuge Rooms	3
Citizens' Defense Corps	20	Rubber Articles	15
Dried Foods	12, 14	Rubber Salvage	9
First Aid	7	Saving for Victory	9, 14
Foodstuffs	12, 14	School Children	6
Fragmentation Bombs	4	Shelters	5
Fuel Saving	14	Soap	15
Gardens for Victory	13	Sugar	9, 14
Gas Bombs	4	Tea	9, 14
House Repairs	15	Tin Salvage	9
Incendiary Bombs	10, 11	Tires, Care of	8
MacArthur Color Portrait	16	Waste Materials	9

Silhouettes of Long-Range German Warplanes



The Junkers 88

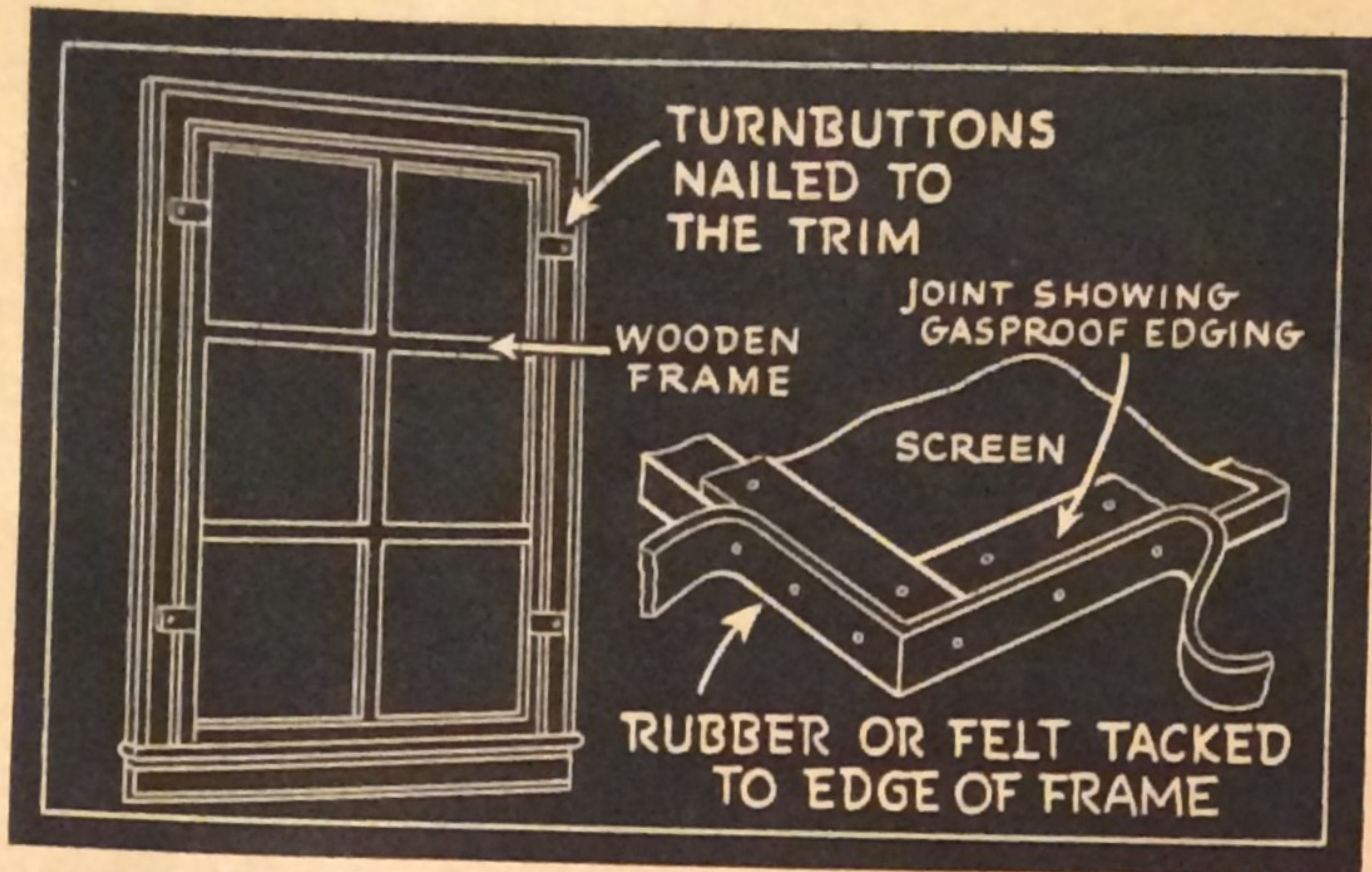
The Dornier 18K

The Dornier 26

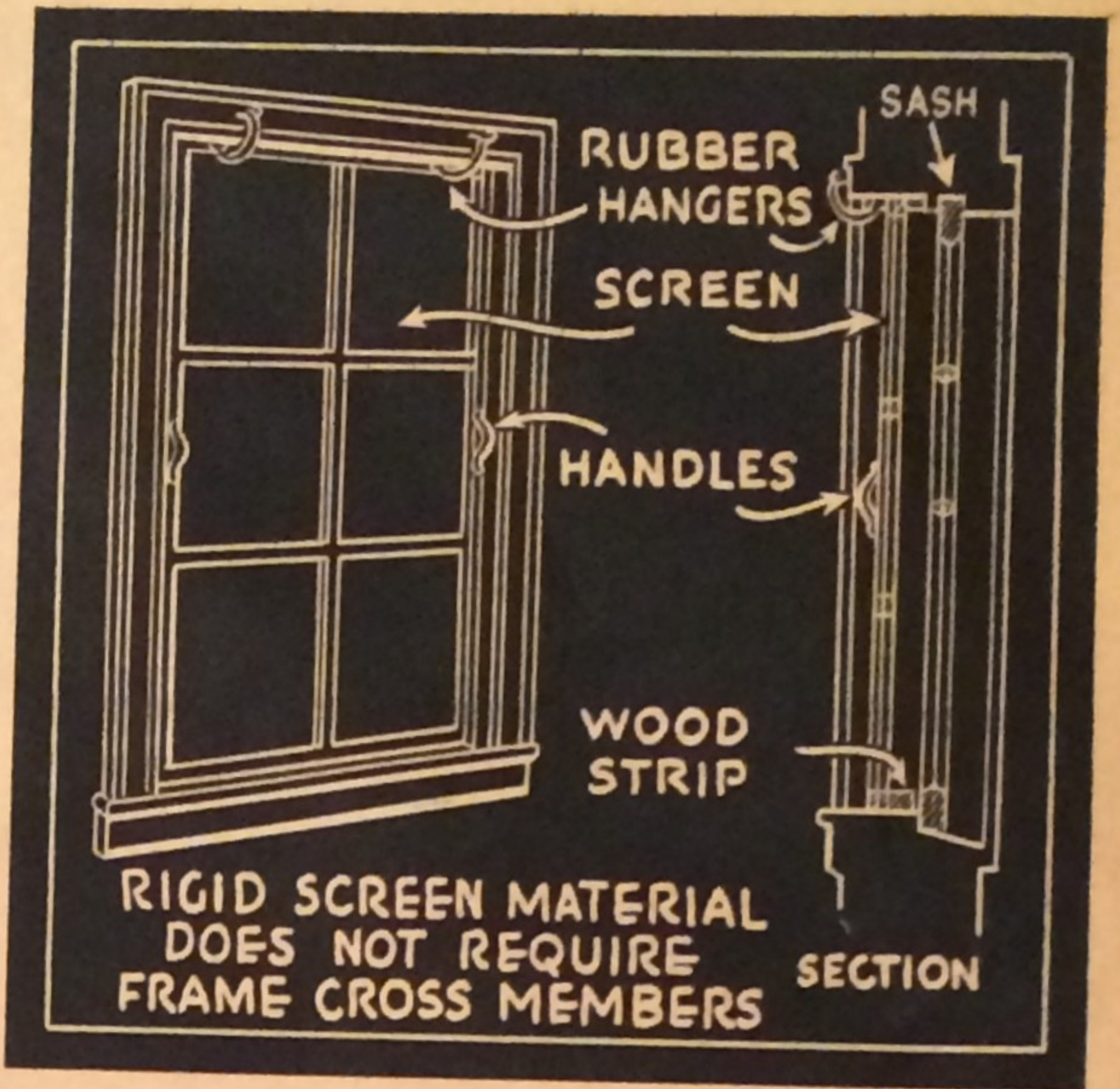
The Blohm-Voss 139

SO FAR as is known, the Nazis have four types of warplanes with sufficient range to fly the Atlantic nonstop from bases in France. Their silhouettes are shown above. The Junkers 88 is a two-motor, low-wing

monoplane designed for dive-bombing. The Dornier 18K is a flying boat carrying bombs beneath its wings. The Dornier 26, with a 5600-mile range, can be catapulted from a ship. The Blohm-Voss 139 is a four-motor seaplane.



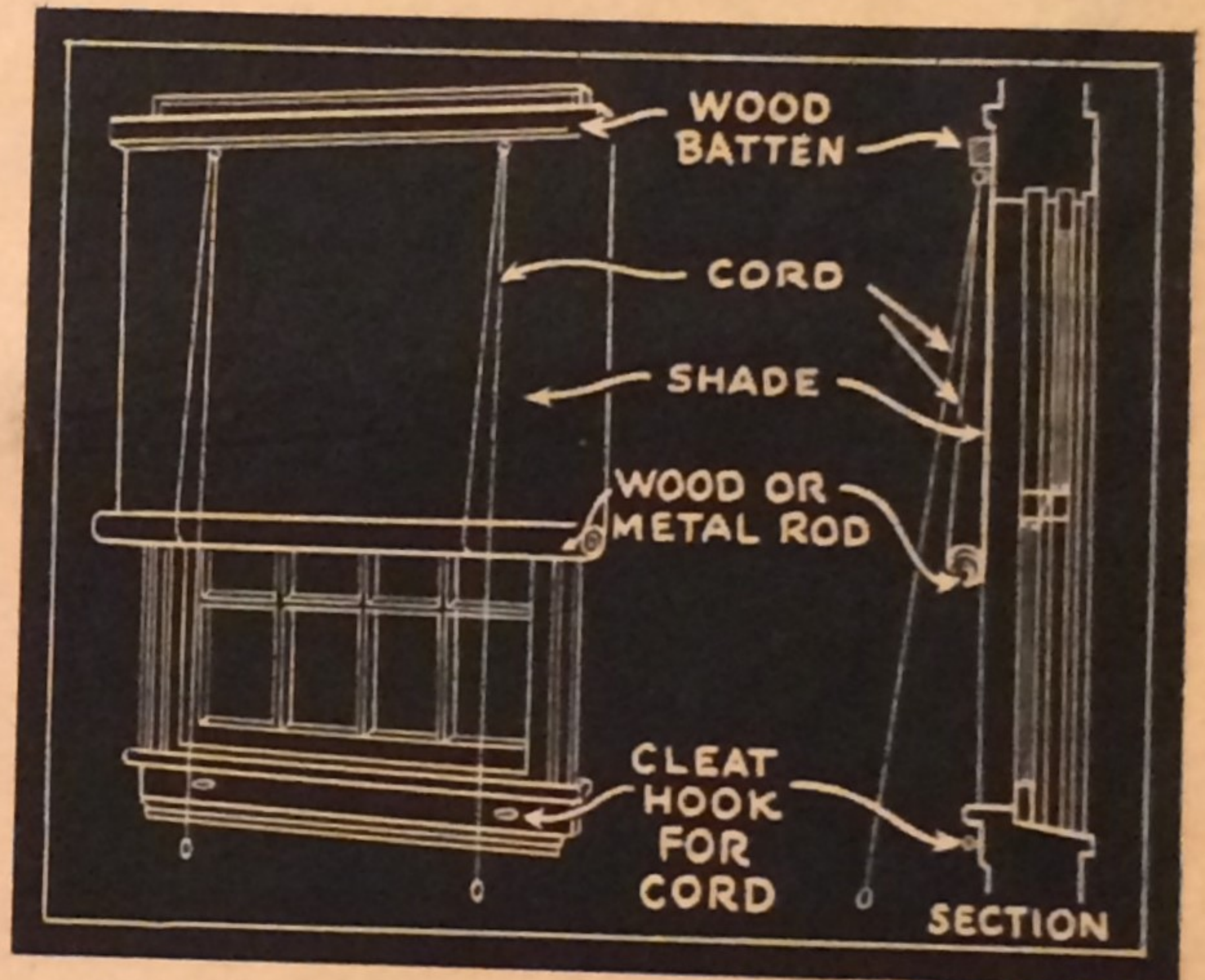
A typical screen for a window six feet high by four feet wide can be framed with one-by-two-inch wood. Strong sheet material can be nailed right to the frame; weaker ones should be held by plywood strips or laths. Turnbuttons should be loose, so they will yield to blast. A strip of rubber or felt will provide a close fit.



Rubber hangers allow this screen to give to a blast without falling to the floor. Handles make it easier to lift into place. Wood strips nailed to the lintel and the sill keep it away from the window sash.

Blackout Methods For Home Windows

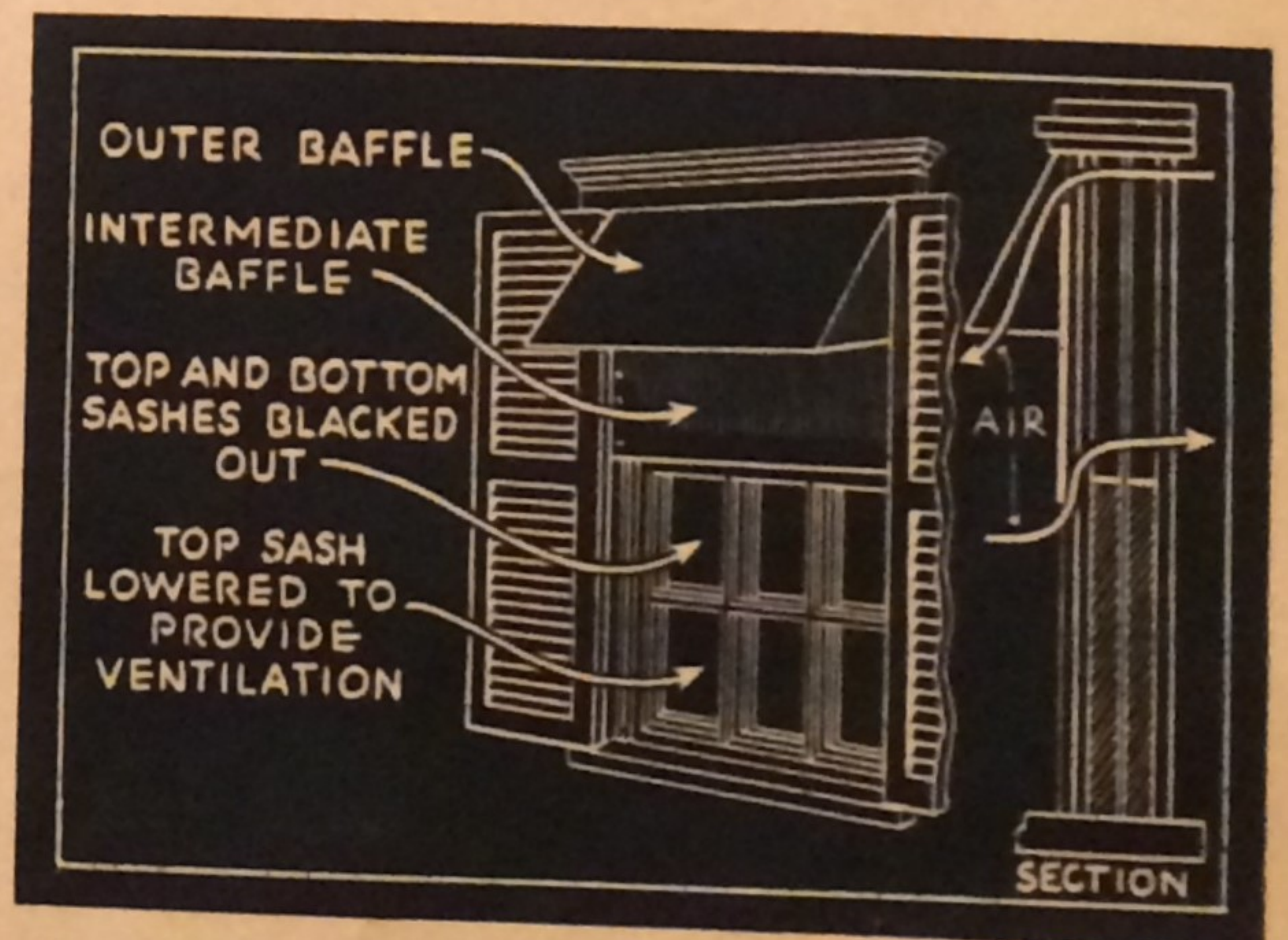
WHEN the sirens wail, a makeshift blackout may be obtained in the home by hanging blankets or heavy draperies over windows. A more permanent method is the use of lightweight screens in a group of connected rooms, so that a nearly normal life may be led during blackouts. The screens should fill the window openings completely to prevent the escape of any light, but they should not fit so tightly that they will not yield to blast. Placed internally, such screens arrest flying glass and when blown down they can quickly be put back again. They may be covered with any inexpensive, lightweight, sheet material that is not likely to warp, such as corrugated fiberboard, thick cardboard, building board, plywood, bituminous sheeting or strong liner paper. Rainproofing with paint is advisable. Weight and strength in the frame to which the material is fastened are not desirable, a simple test being "if the frame can be carried in the hands without flapping it is strong enough." A rigid covering requires less strength in the frame.



A screen made from opaque window-shade material has its roller at the bottom to give weight. The wood batten is fastened to the inside wall and is long enough to give the necessary overlap.



If only one room in the house is blacked out for use as a refuge room during raids, it should be a comfortable place with as little glassed window exposure as possible. The equipment should include drinking water, food if desired, flashlight, radio, a sturdy table, toilet facilities, reading matter and games for recreation.



In hot weather some means must be found to obtain adequate ventilation without letting light escape. On double-hung windows this is done with a light trap. The baffles, of course are opaque.

Safety from Bomb Fragments and Gas

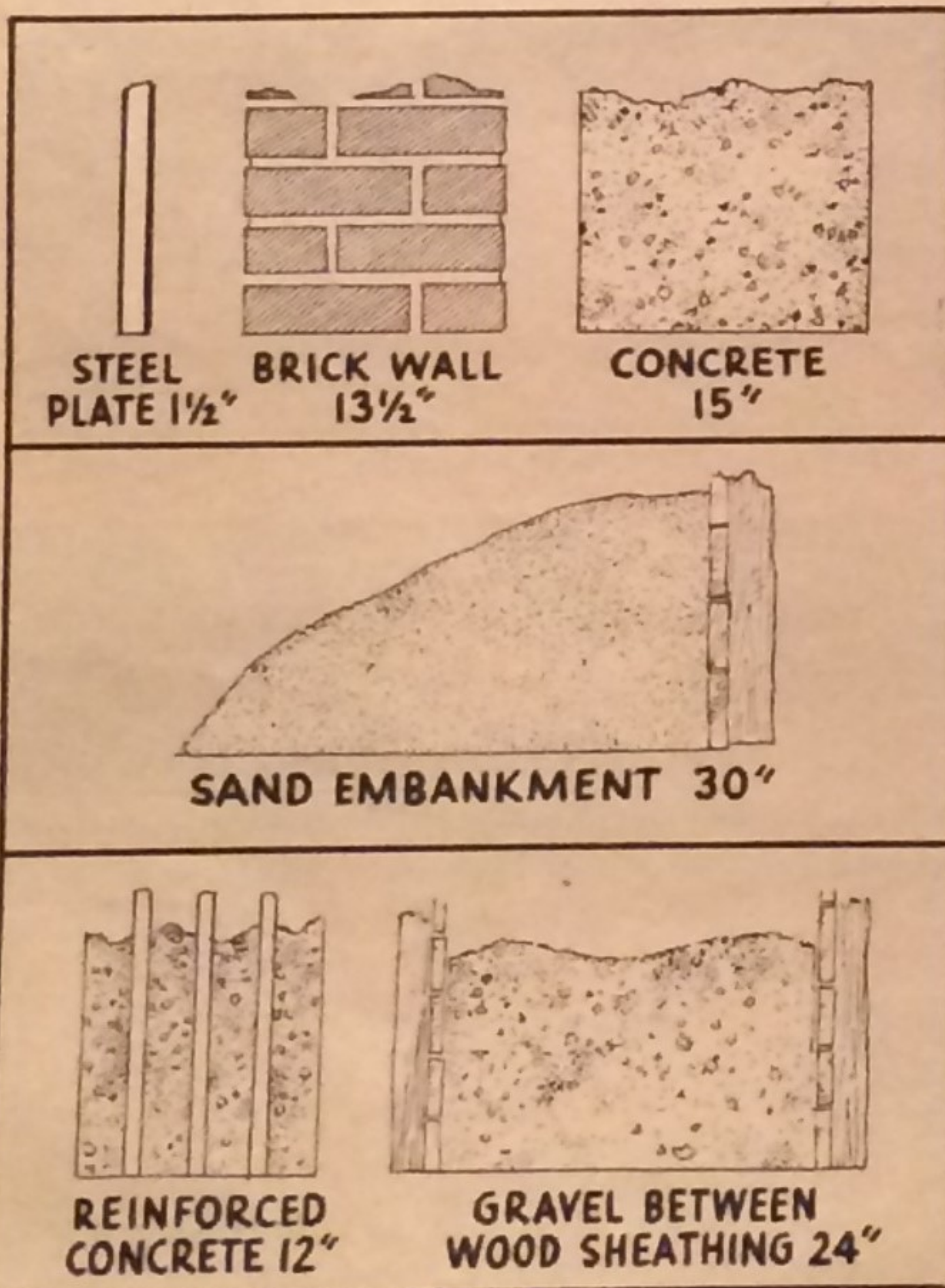
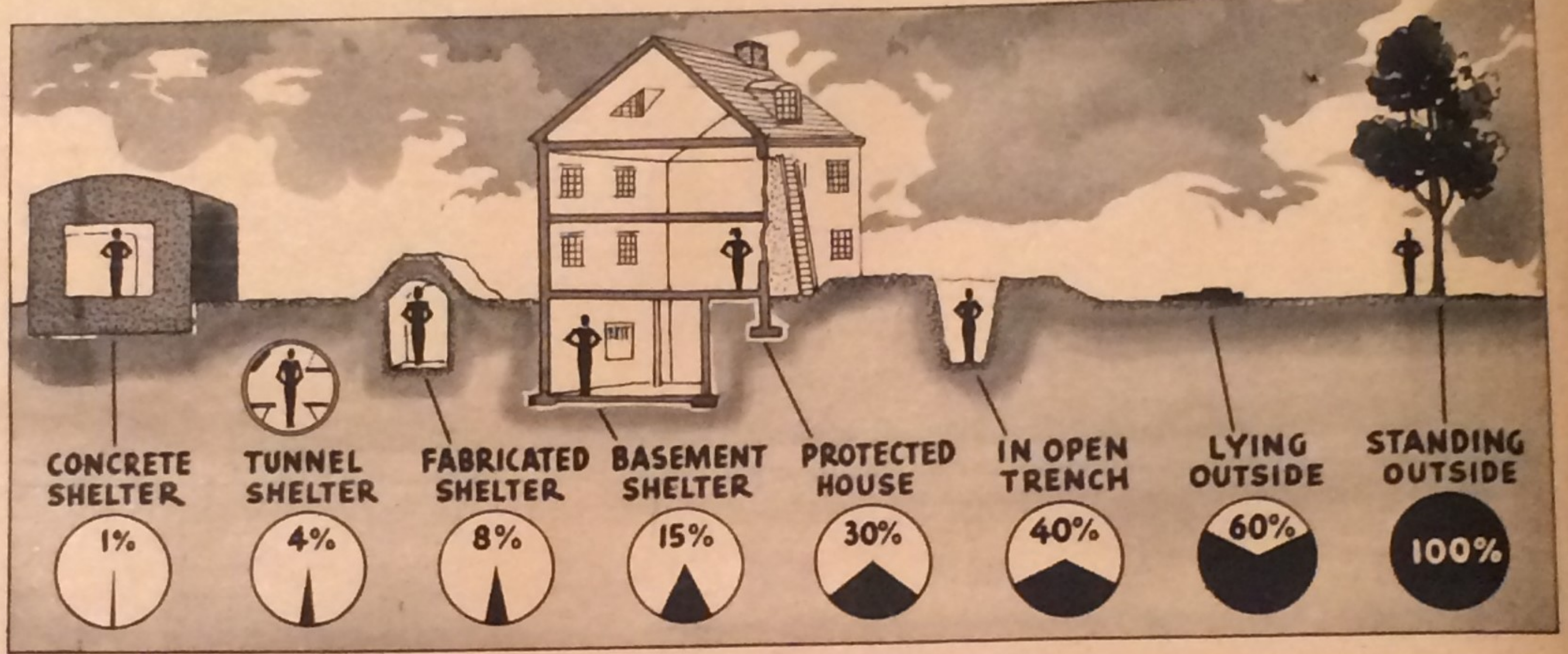


THE four main types of bombs are:
 Demolition
 Fragmentation
 Incendiary
 Gas

About the first, the householder can do little; a direct hit will smash his home; a near miss cause it to crumble. He can, however, protect himself from the jagged fragments and sharp splinters of exploding bombs, from gas and from incendiaries. The effects of fragmentation and gas are illustrated here; control of incendiaries is shown on Pages 8 and 9

Fragments of bombs dropping in the open may cause casualties up to 200 yards. Because the pieces fan out and upward, the ground is a fairly safe area if not too near the blast. Ditches, walls and doorways also give valuable protection.

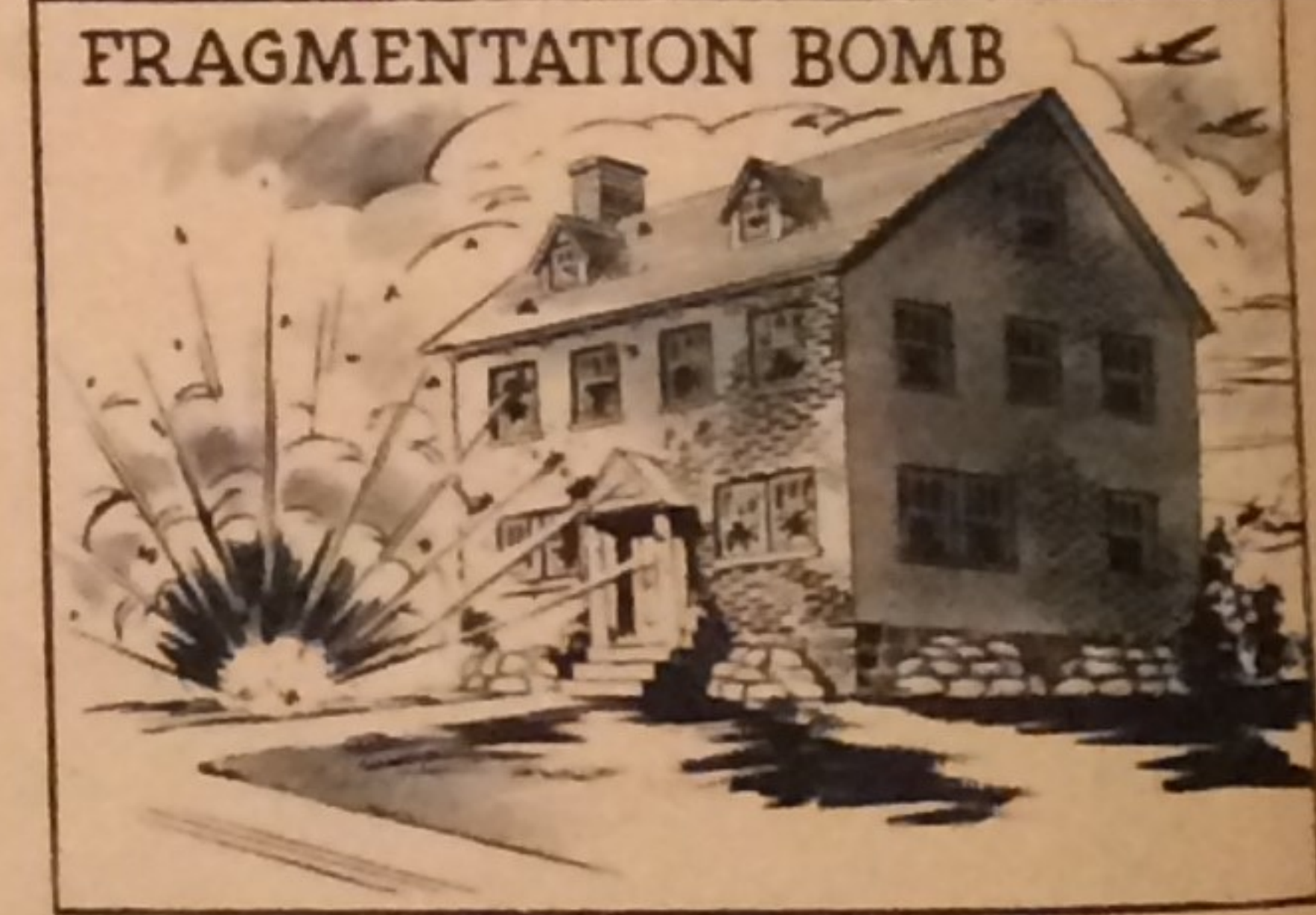
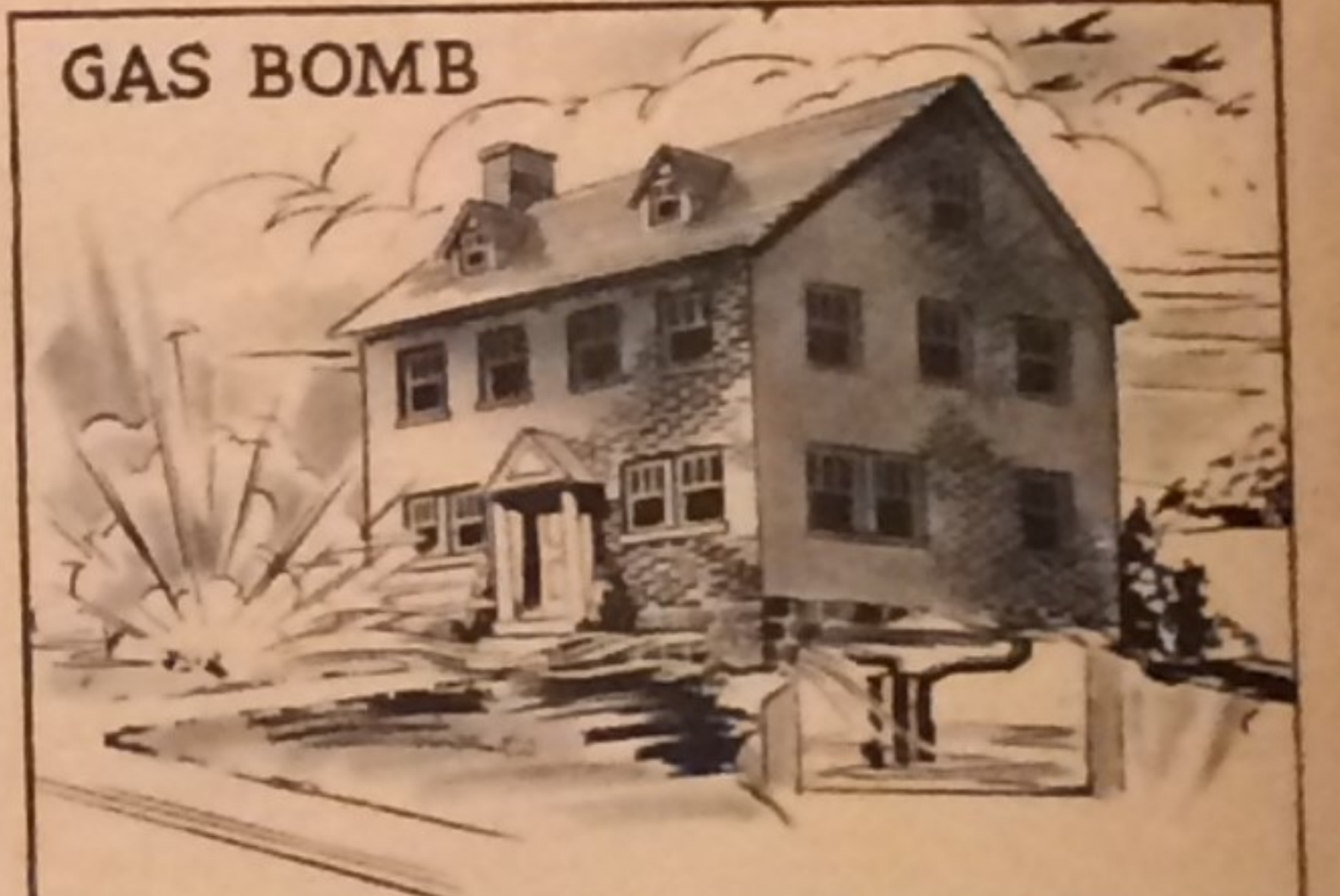
Based upon English experience, the chart at the right shows, by percentages, the relative safety of certain areas when bombs are falling. One per cent indicates the place of least danger, 100 per cent the most dangerous spot.



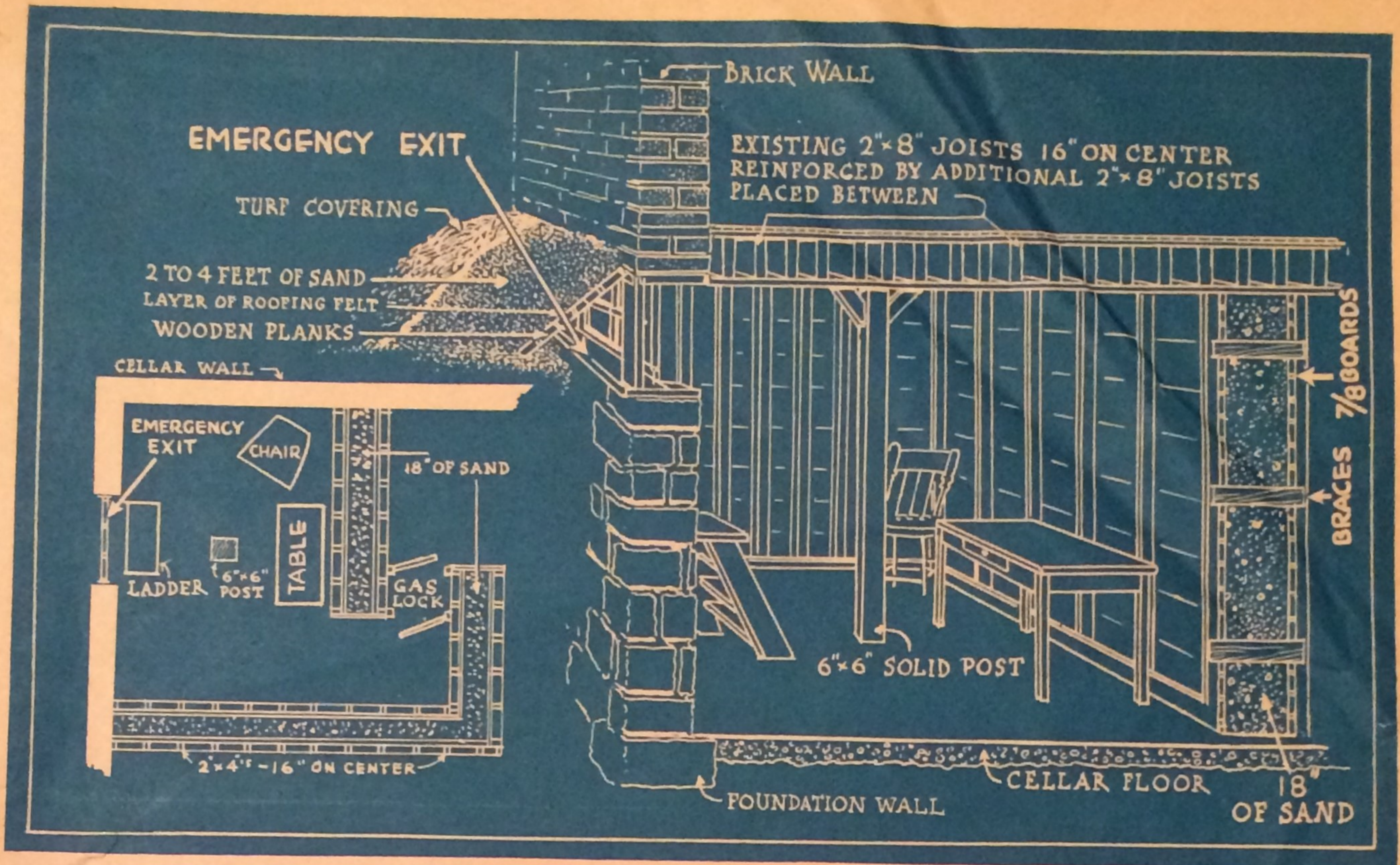
A 500-lb. bomb, dropped from 20,000 feet, strikes with a velocity of more than 10 miles a minute. Its fragments scatter at a greater speed than rifle bullets. The thickness of various materials required for protection against them at a distance of 50 feet is depicted above.

Identifying War Gases

ODORS GARLIC HORSE RADISH MUSTARD	MUSTARD GAS Has delayed effect. Burns skin, even through clothing. Causes respiratory inflammation, leading to pneumonia. Irritates eyes.
GERANIUMS	LEWISITE Effects are similar to Mustard Gas, but action is quicker. Also produces arsenical poisoning by absorption into the bodily system.
FLYPAPER-LICORICE	CHLORPICRIN Is a lung irritant, causing severe coughing; also crying and vomiting. Produces a water-logged lung condition, retarding respiration.
GREEN CORN	PHOSGENE Is a lung irritant, with effects similar to Chlorpicrin. Symptoms are sometimes delayed, followed by collapse and heart failure.
APPLE BLOSSOMS	CHLORACETOPHENONE Is a tear gas. Makes eyes smart, flow copiously and shut tightly. The effect is temporary. In hot weather also causes skin irritation.
SOFT COAL SMOKE	ADAMSITE Is a nose and throat irritant. Symptoms are headache, nausea and severe mental depression. Injuries from this gas are rarely fatal.

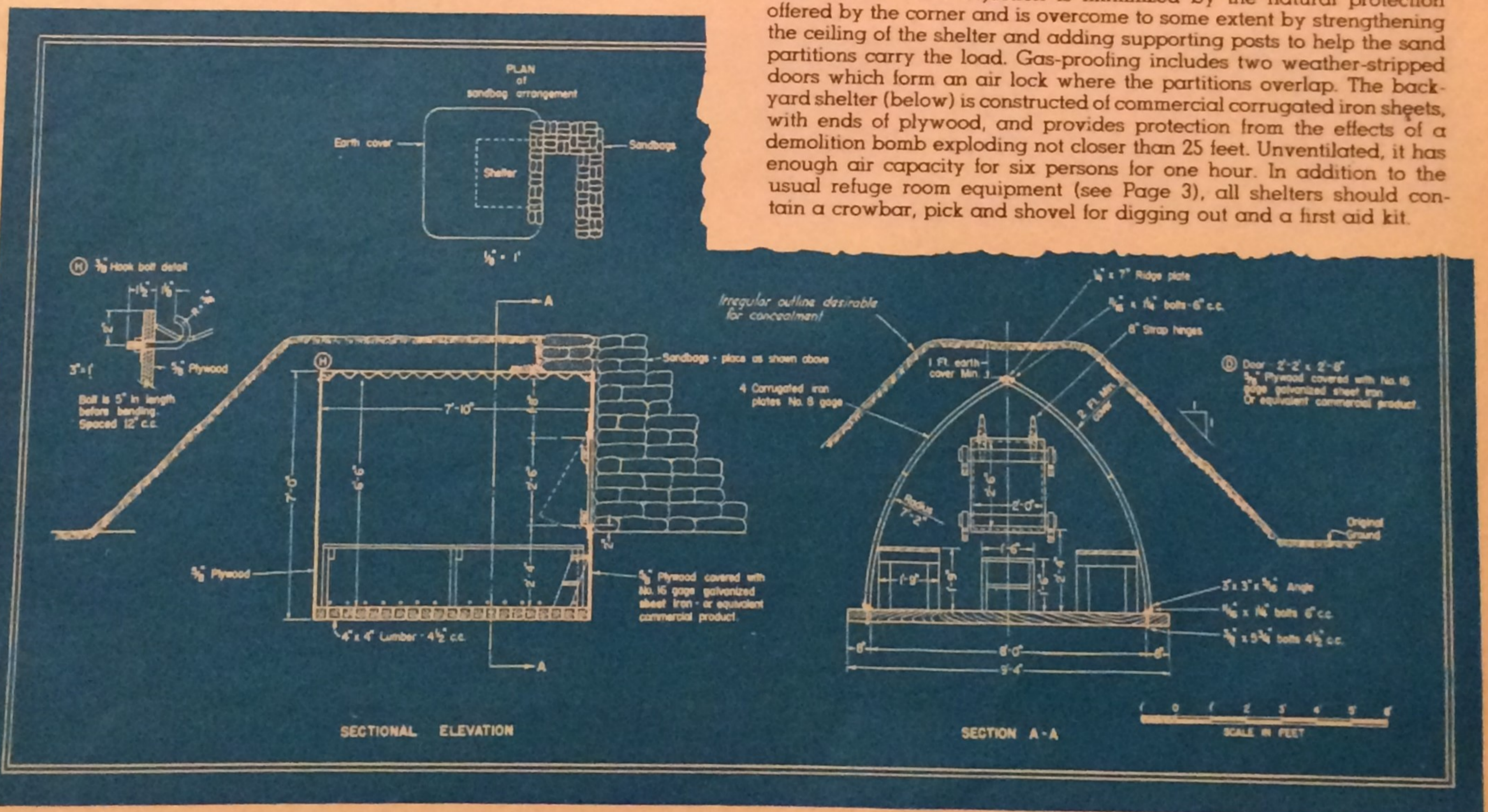


Splinters from fragmentation bombs will pierce the walls and windows of a house. Gas bombs are more insidious. The gas settles, flooding unprotected cellars. Upper stories are safest, but all windows should be closed tightly and all cracks and chimneys stuffed.



Air Raid Shelters For Family Refuge

TWO types of splinter-proof air raid shelters are illustrated on this page; one constructed in a corner of the cellar, the other partly buried in the yard. The walls of the internal shelter (above) consist of two strong foundation walls and two partitions filled with sand. An emergency exit (important!) is afforded through the cellar window, which is shielded on the outside. An advantage of a basement shelter is that it gives the greatest lateral protection from blast and splinters, a disadvantage that it is subject to the weight of debris from falling floors above. This objection is minimized by the natural protection offered by the corner and is overcome to some extent by strengthening the ceiling of the shelter and adding supporting posts to help the sand partitions carry the load. Gas-proofing includes two weather-stripped doors which form an air lock where the partitions overlap. The backyard shelter (below) is constructed of commercial corrugated iron sheets, with ends of plywood, and provides protection from the effects of a demolition bomb exploding not closer than 25 feet. Unventilated, it has enough air capacity for six persons for one hour. In addition to the usual refuge room equipment (see Page 3), all shelters should contain a crowbar, pick and shovel for digging out and a first aid kit.





What to Do When The Alarm Comes For an Air Raid

Take the baby to the safest room in the house, to a closet under the stairs, or under a table or bed. Block the baby's ears with cotton to minimize effects of concussion, leaving plenty outside to assure easy withdrawal. If caught outdoors, follow directions below.



Keep pets under strict control. They should always wear identification tags. For minor burns, apply strong cold tea as shown. In mild cases of fear 1 to 2 grains of sodium bromide or 2 grains of aspirin may be given to pets. Keep cats in a box or basket.



If out of doors with the baby, find the nearest wall or ditch, place baby on the ground, well covered, and lie quietly beside him.

PROTECTING THE SCHOOL CHILDREN



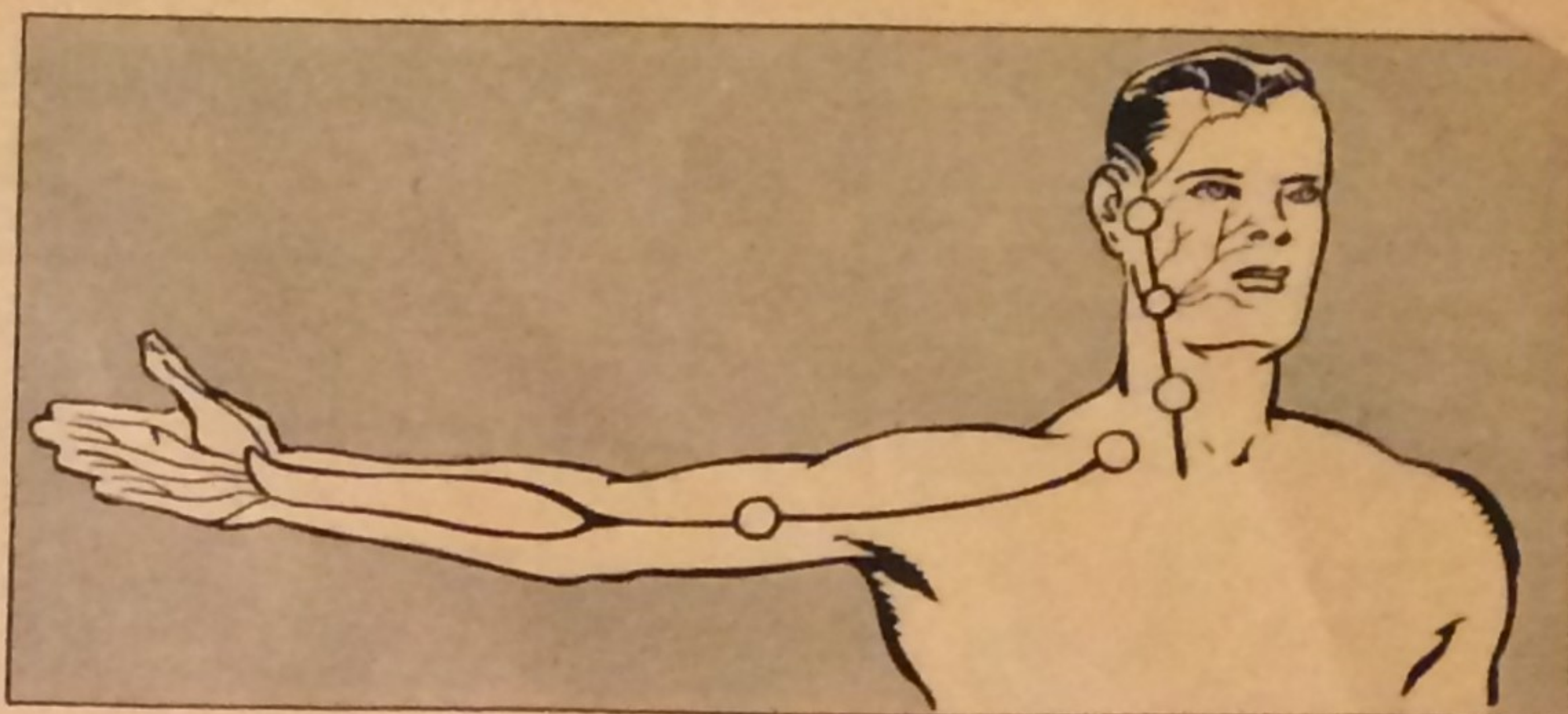
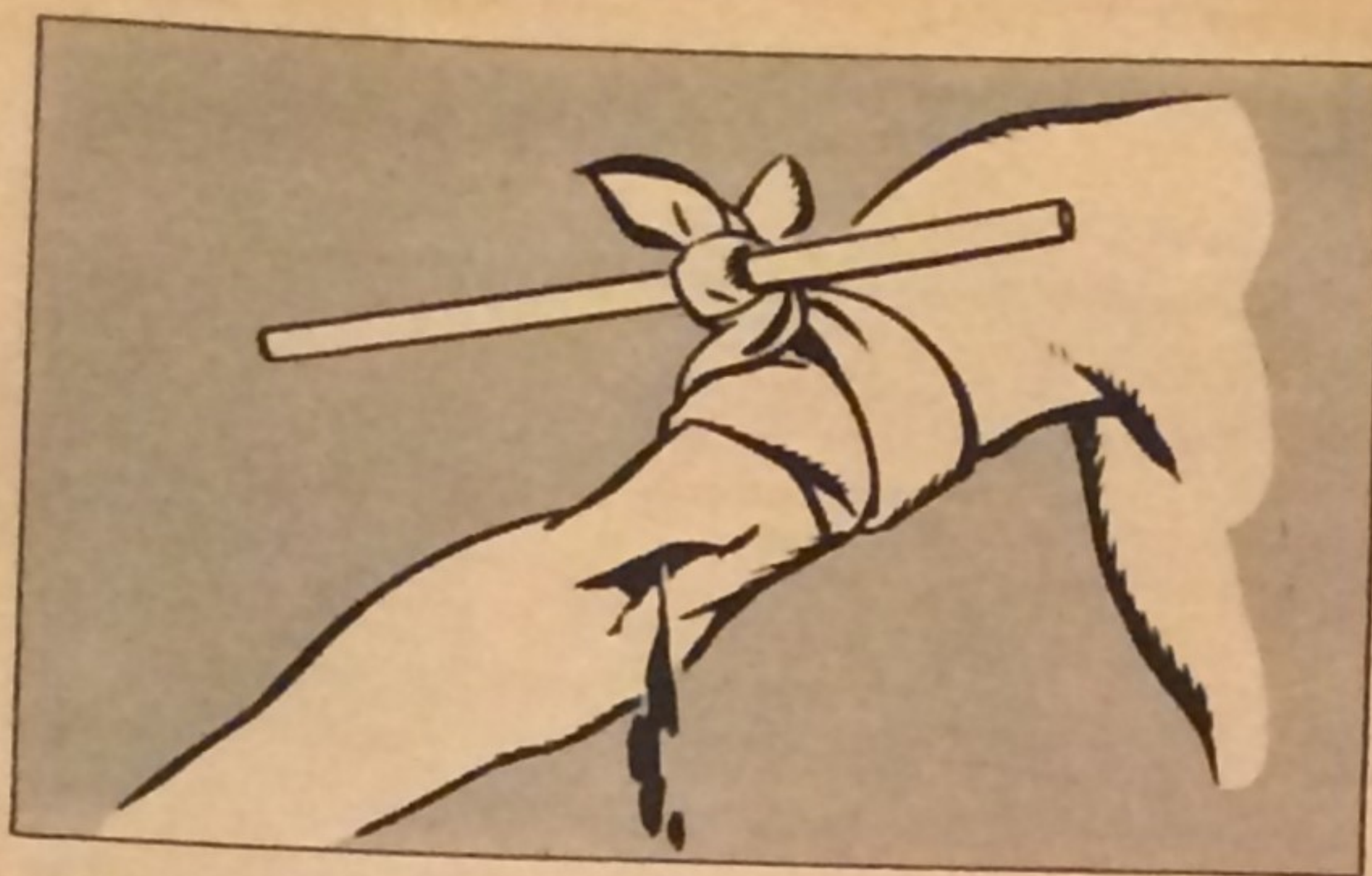
Children who are in school during an air raid are under care of the school authorities. Parents can co-operate in the protection of their children by observing the following requests made by the Superintendent of Schools.

1. If your small child must wear clothing difficult to put on, give him additional training in handling it or make minor alterations in the clothing.
2. Under certain conditions, it may be advisable for children to be seated on the floor, perhaps in a shelter where conditions are cooler than in the average classroom. These possibilities should be considered when planning outfits for your children.
3. Plain identification of each owner of outer garments, overshoes, and the like, is necessary.
4. Notify principals of schools concerning homes to which your children are to go in emergencies if the parent is not at home.
5. Inform your child when you know you are not going to be at home during a school day.
6. Do not telephone the school or come to the school buildings during an air raid emergency. School authorities will take every precaution for the protection of pupils.
7. Calm, business-like, planned procedure must be followed in the face of emergency.

Alexander J. Stuppard
Superintendent of Schools.



Get under a heavy table or overturned davenport if bombs fall close by. Government experts say: Turn off gas stove burners, but leave pilot lights, electricity, furnace and water alone.

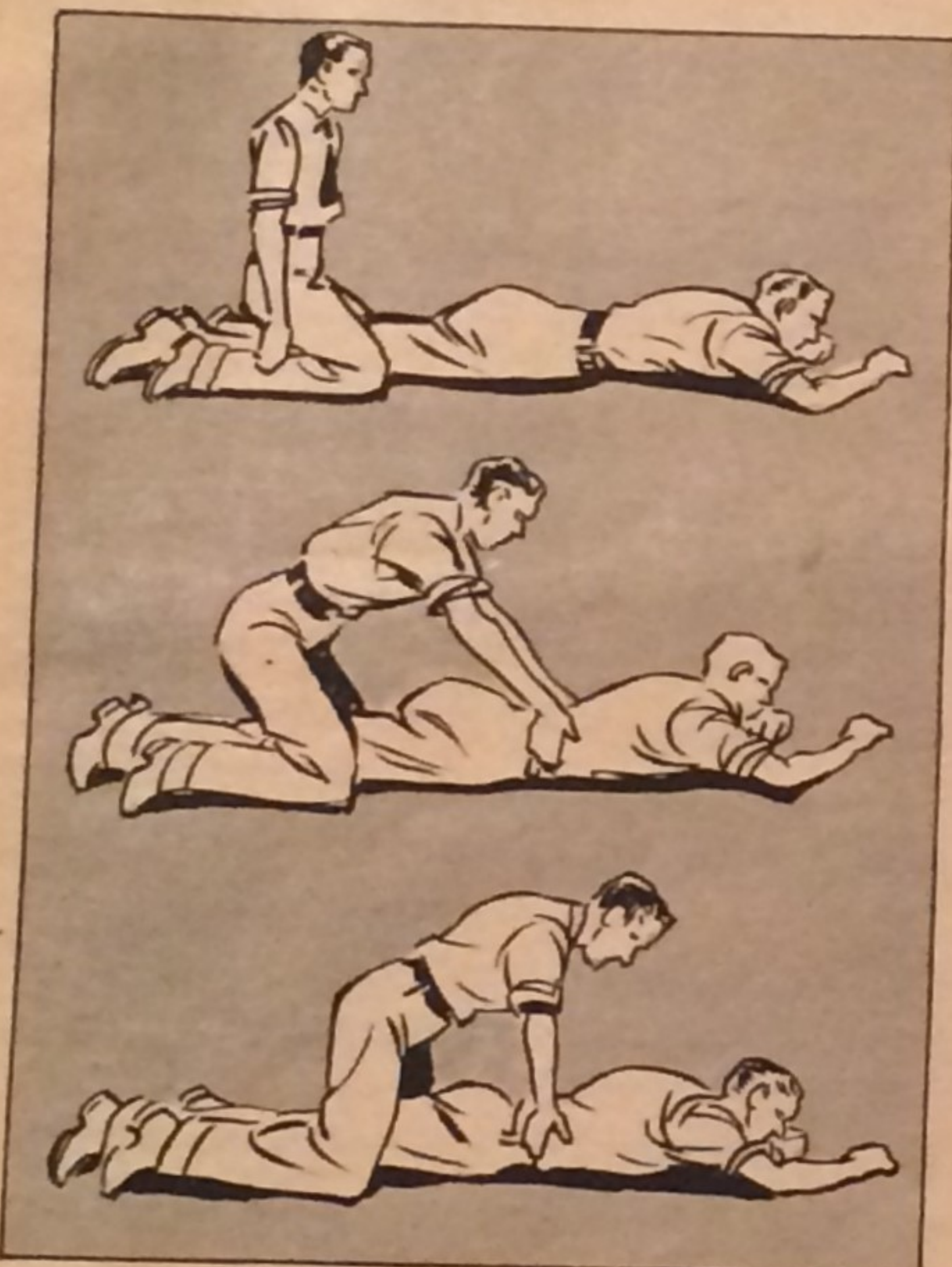


If arterial bleeding in an arm or leg cannot be checked otherwise, apply a tourniquet a hand's breadth below the armpit or around the leg a hand's breadth below the groin. Precaution: Loosen and re-tighten every 15 minutes.

In all serious bleeding, immediately apply hand pressure between the cut and heart at the proper one of 5 points (above) where main arteries lie close to a bone. For leg bleeding, the pressure point is the femoral artery in the groin.

A Knowledge of First Aid May Save Lives

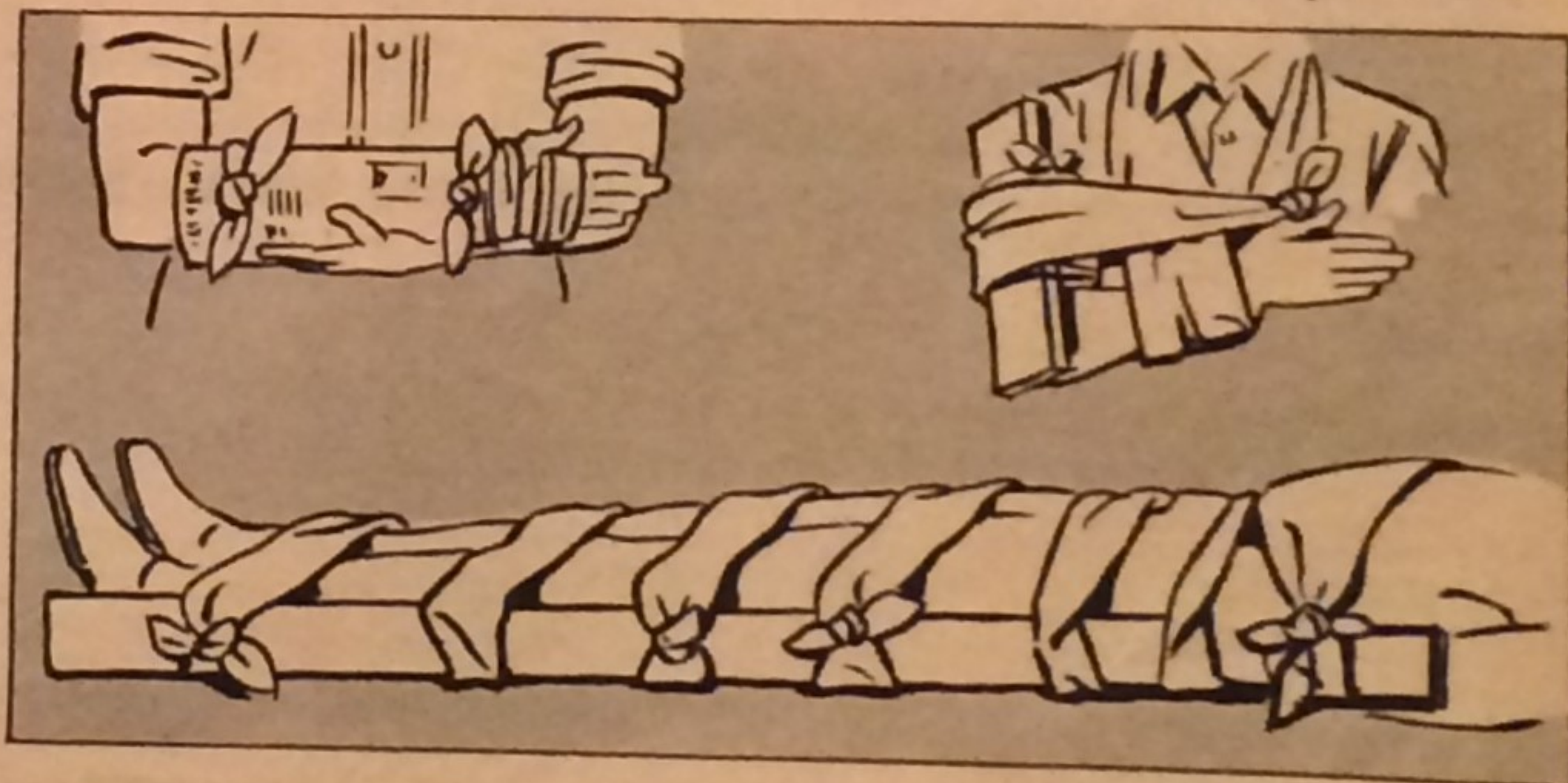
FIRST AID, the immediate, temporary care of an injured person before a doctor's services can be secured, is given to prevent death or further injury, to relieve pain and to counteract shock. General rules which should always be followed: Keep the victim lying down, warm, comfortable; give immediate attention to serious bleeding or stoppage of breathing; do not give an unconscious person liquids; keep crowds away. Get trained medical help as soon as possible.



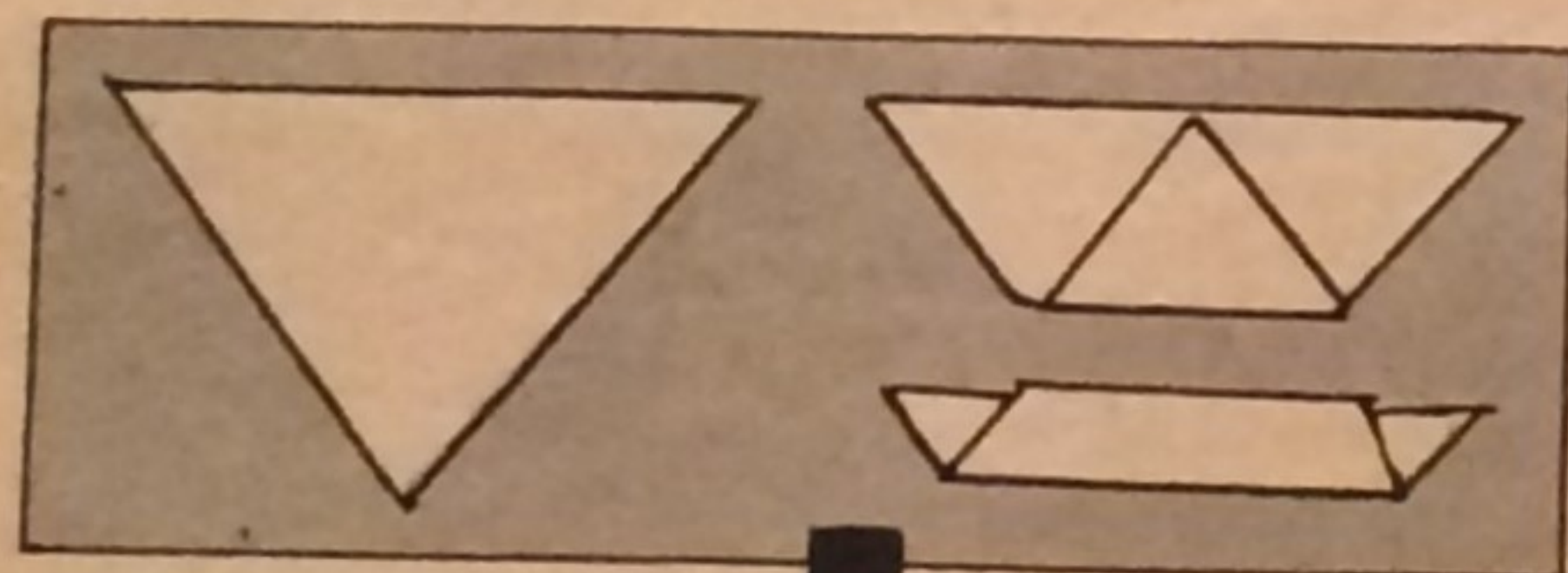
Use the prone pressure method of artificial respiration (left) at once for arrested breathing caused by any of the following: Electric shock, gas poisoning, drowning, concussion from explosions, foreign bodies in the throat or windpipe. Apply pressure with the hands to the victim's lowest ribs by swinging completely back and forth every two seconds.

Shock, present to some extent in all injuries, can be fatal unless proper first aid care is given. Lay the victim flat with head low; put blankets under and over him; apply hot water bottles; if he is conscious give hot tea or coffee.

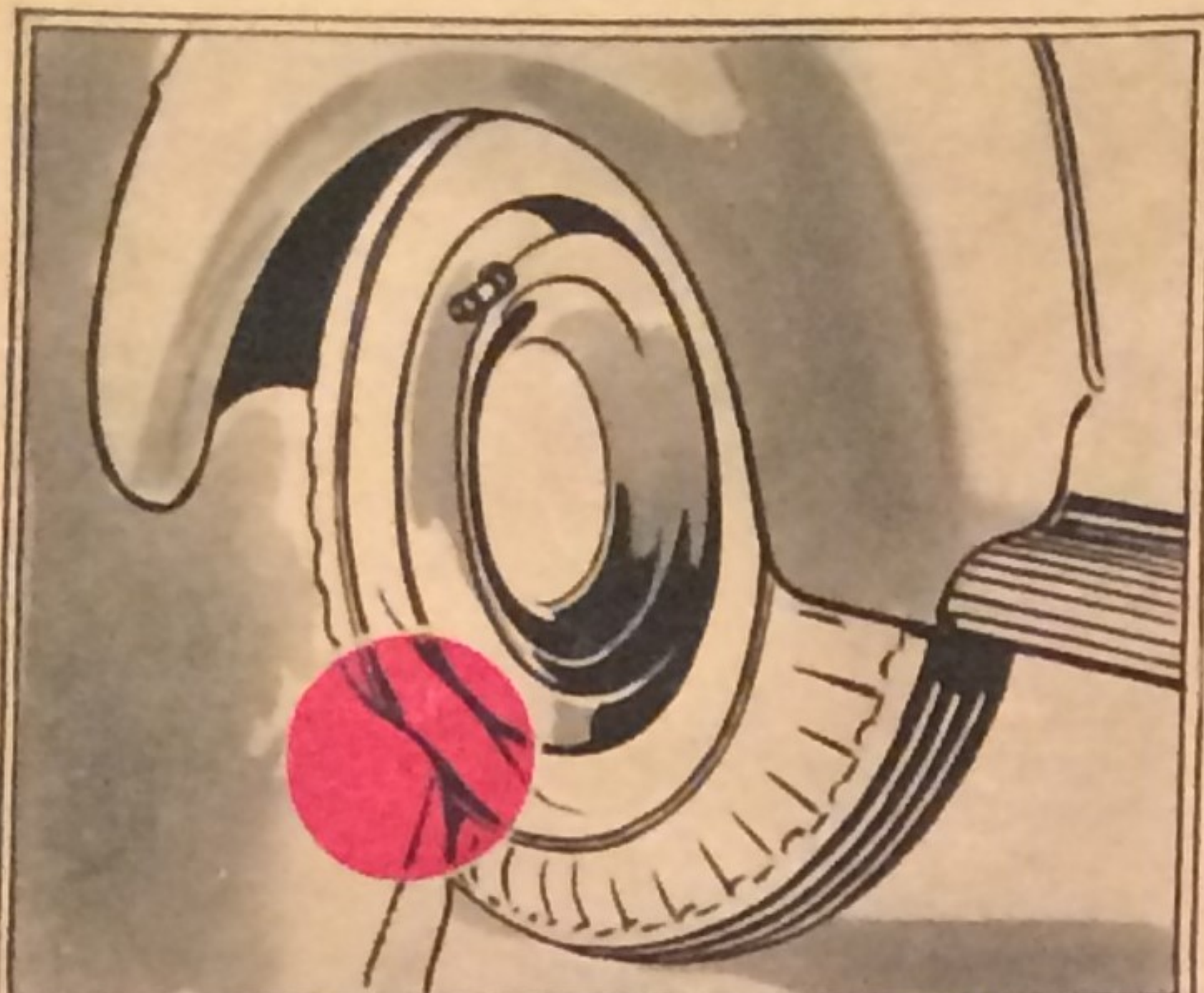
The triangle bandage (below) is most useful in first aid. It stays on well without adhesive tape and is easy to improvise from any kind of cloth. By cutting a 40-inch square of cloth diagonally, two triangle bandages are made, to be used open or folded as needed. Shown below are the correct methods for bandaging wounds of the chin and side face (first two), scalp (second three), one eye and the shoulder. The triangle bandage may be used for most other parts of the body, also to keep splints in position, as a sling or as a tourniquet. First, cover wound with a dressing.



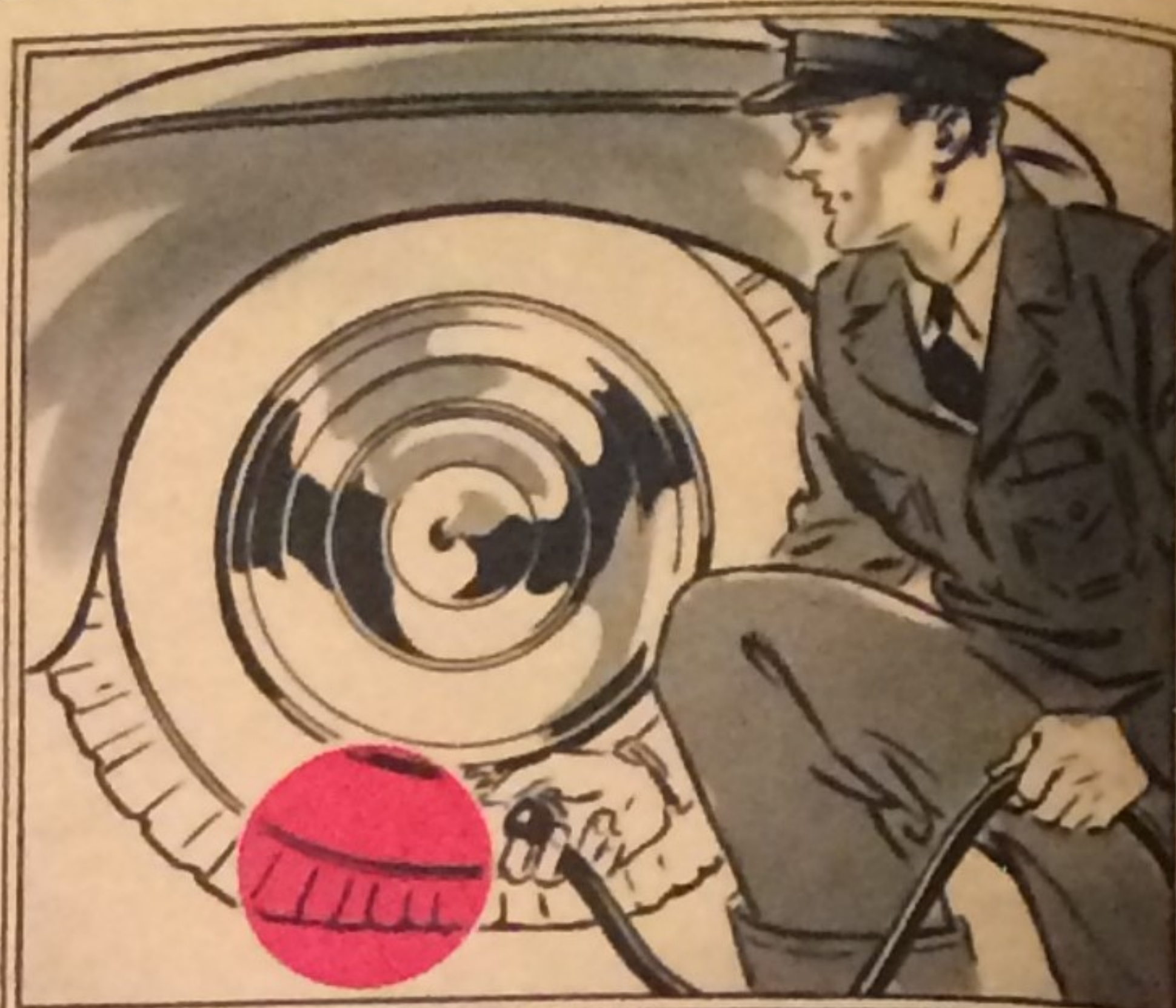
For broken bones in the arm, a folded newspaper or magazine may be used as a temporary splint. For leg fractures, a splint can be made of a bed slat, a pillow or, if necessary, the victim's unbroken leg. Be very gentle.



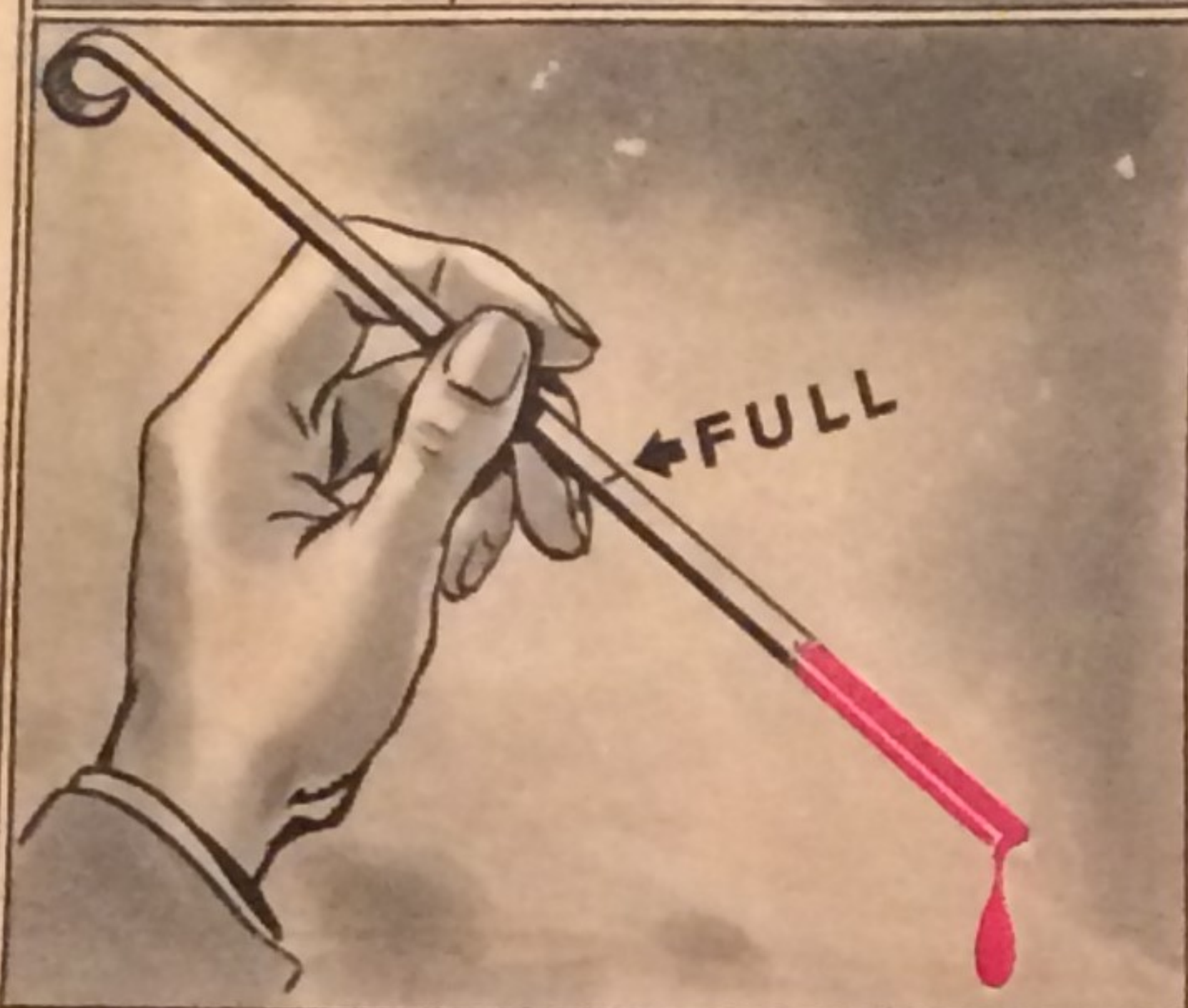
Take the Best Possible Care of Your Car



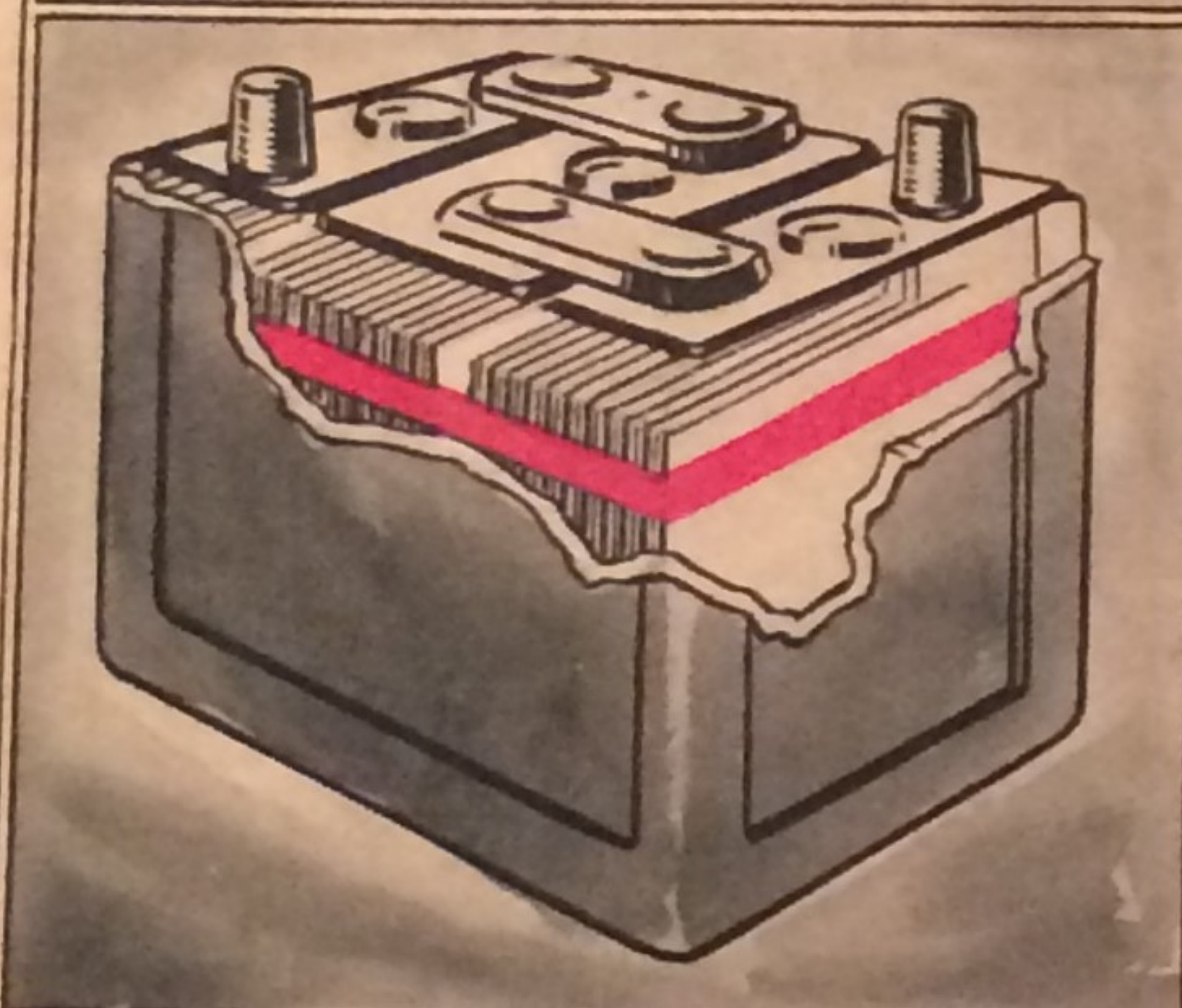
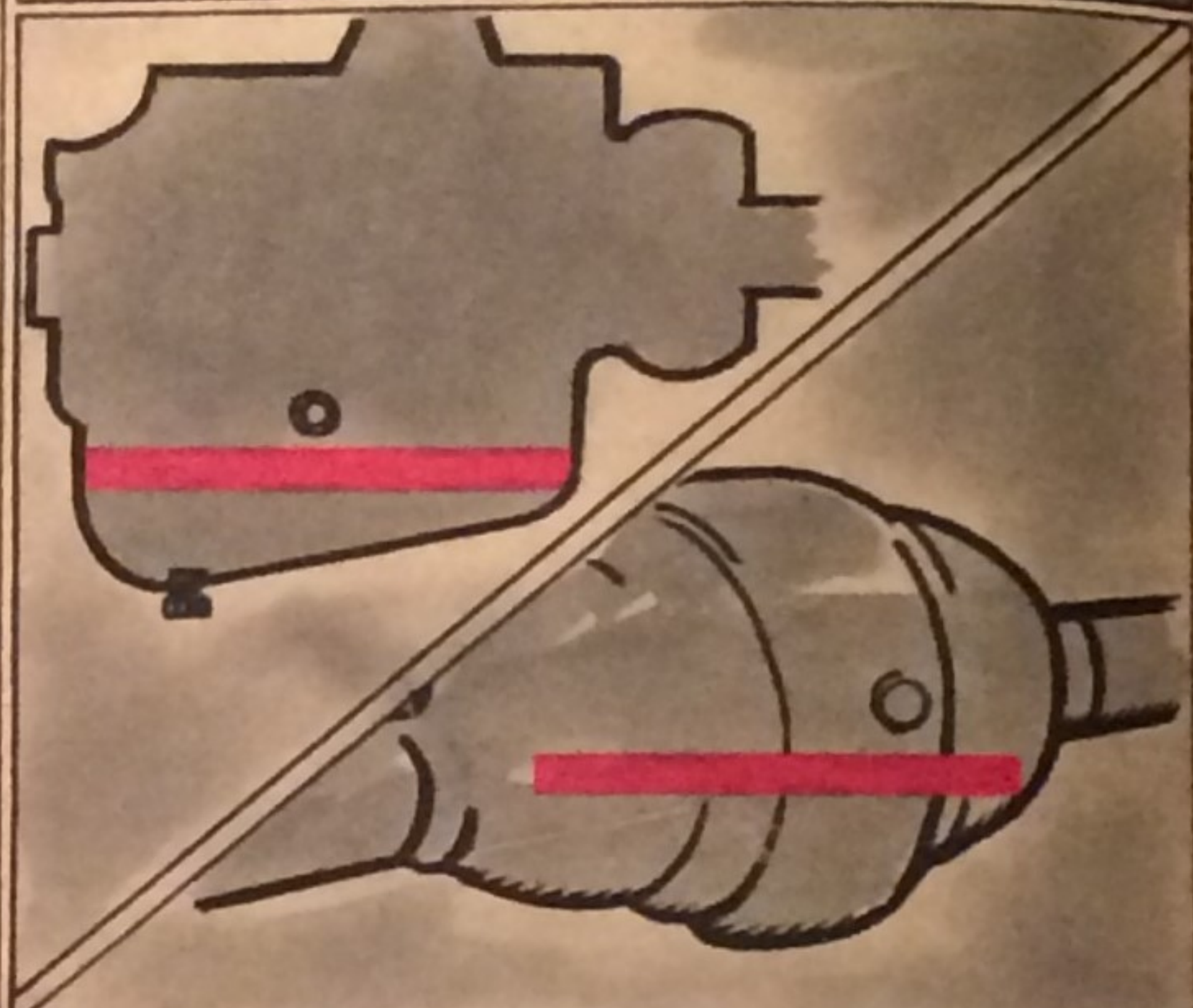
TIRES: Take curves slowly and avoid road bumps. Don't back into curbs (left), use brakes with care, don't let under-inflation (right) ruin your tires, but keep them inflated by checking weekly. Keep brakes equalized and wheels aligned. Cross-switch tires, including the spare, every 5000 miles.



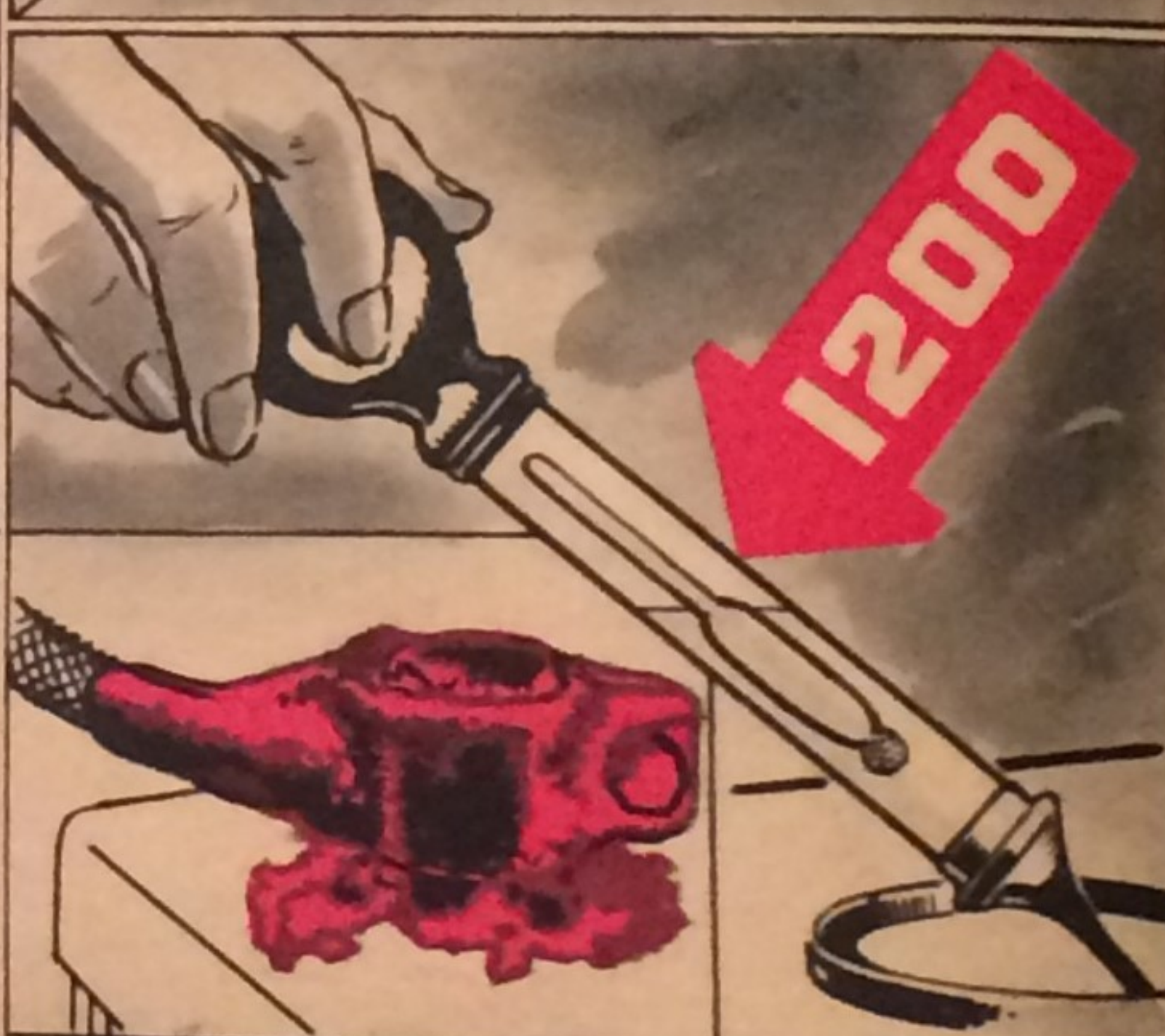
YOU will do well to treat your passenger automobile with consideration, because you are not going to be able to replace it for a while. Authorities have estimated that every car built in the last decade can be kept in operation if its owner is willing to devote just a little personal attention to it each day. Prescribed rules for maintenance include special attention to tires, battery, cooling system and lubrication, besides periodic readjustment of the carburetor, minor tune-ups and general body care. Use your car sparingly. When possible use public transportation. Double up with the neighbors on shopping expeditions and driving to work. Above all—**DON'T DRIVE TOO FAST!**



LUBRICATION: Keep engine oil at the proper level and change regularly. Make sure transmission and differential (right) have enough lubrication. Spark plugs and distributor points should be checked every 10,000 miles. Numerous other recommendations will be found in manuals issued by car manufacturers.

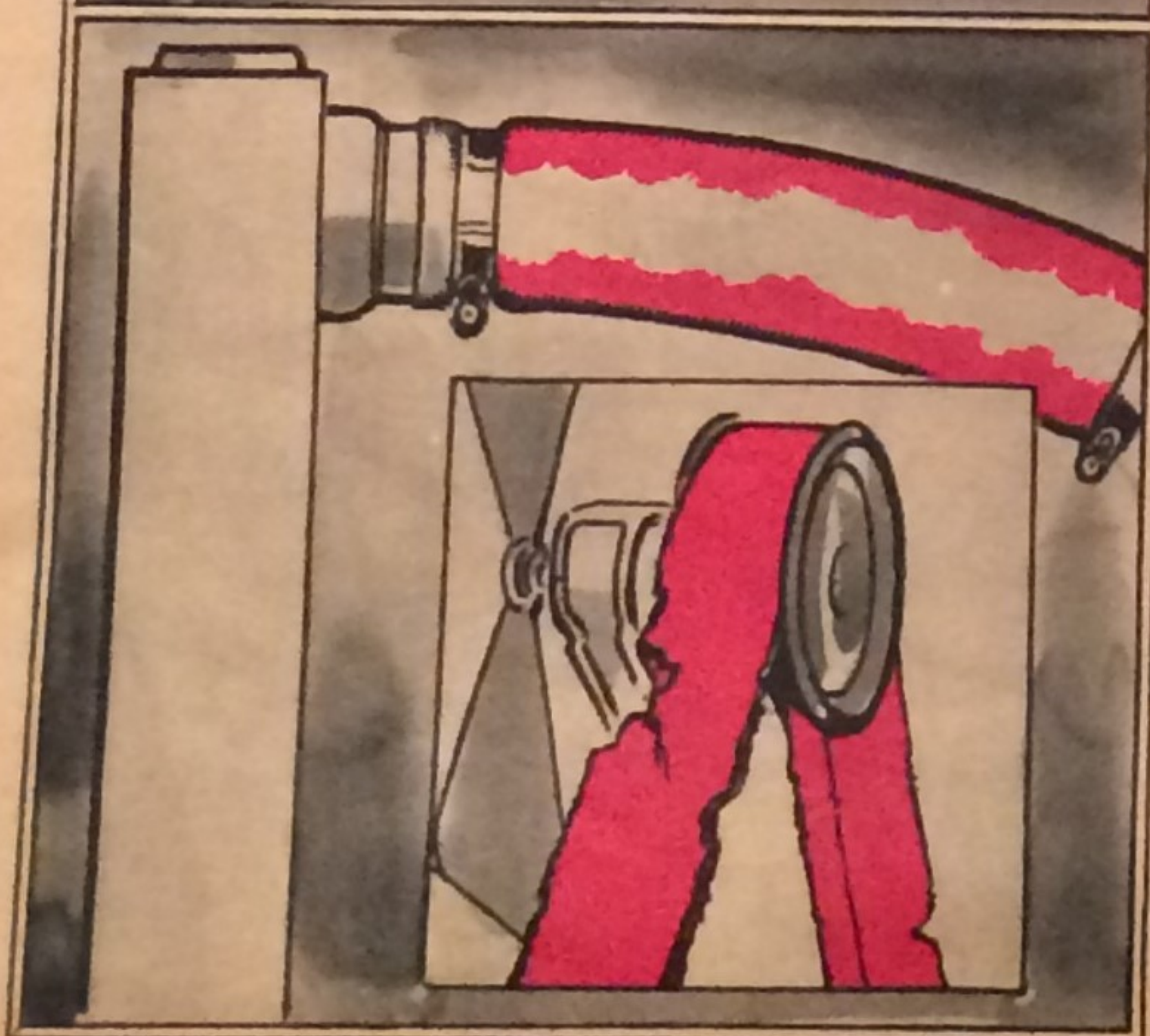


BATTERIES: Keep battery plates covered at all times with distilled water (left). Have the specific gravity tested frequently; if it has dropped below 1200 (right) have the battery recharged. If the terminals show corrosion, have them brushed and coated with heavy grease.

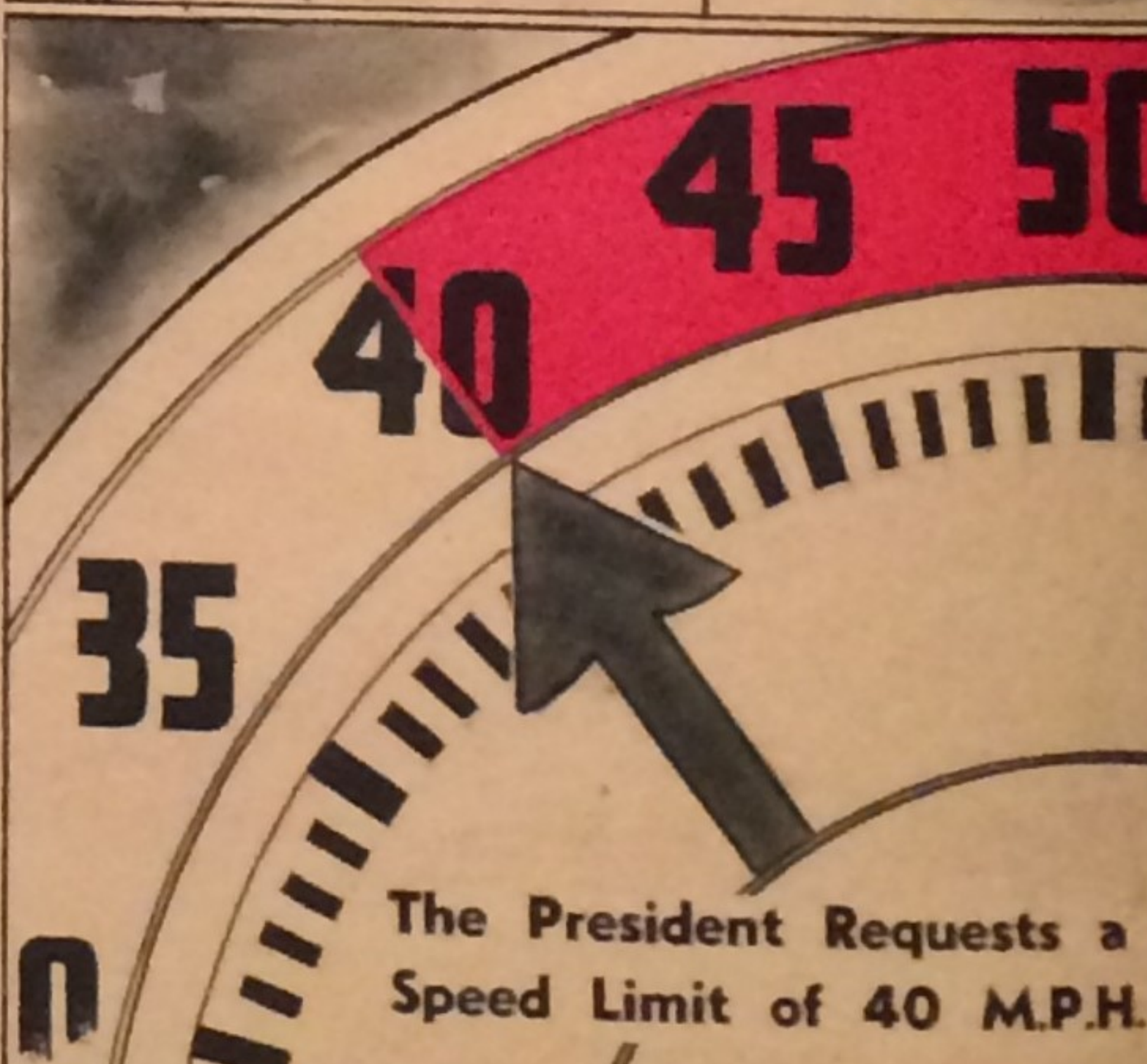


If You Store Your Car

DRAIN gas tank and cooling system. Drain crankcase and fill with very light oil. Take out battery and place on recharging service. Block or jack up car, so weight is off tires. Keep tires inflated to prevent folds in tubes. Protect car finish with a paper cover-all. Keep your fire insurance.



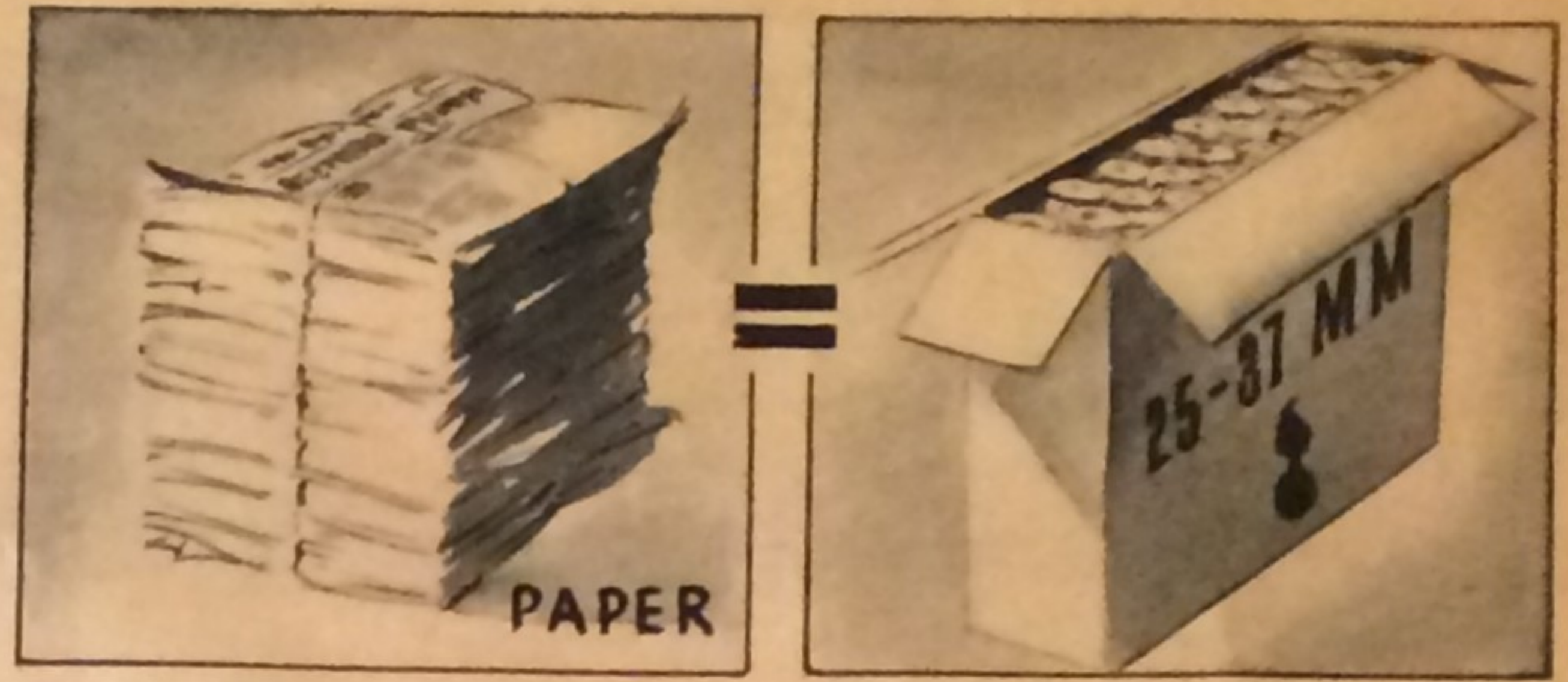
COOLING SYSTEM: If the water temperature is persistently high, have the entire cooling system inspected. See that the fan belt isn't slipping or about to let go; keep water circulating line free of corrosion (left). A broken fan belt could twist the fan blades into uselessness, and a torn one indicates a point of danger.



The President Requests a Speed Limit of 40 M.P.H.

Turning Domestic Waste Into the Sinews of War

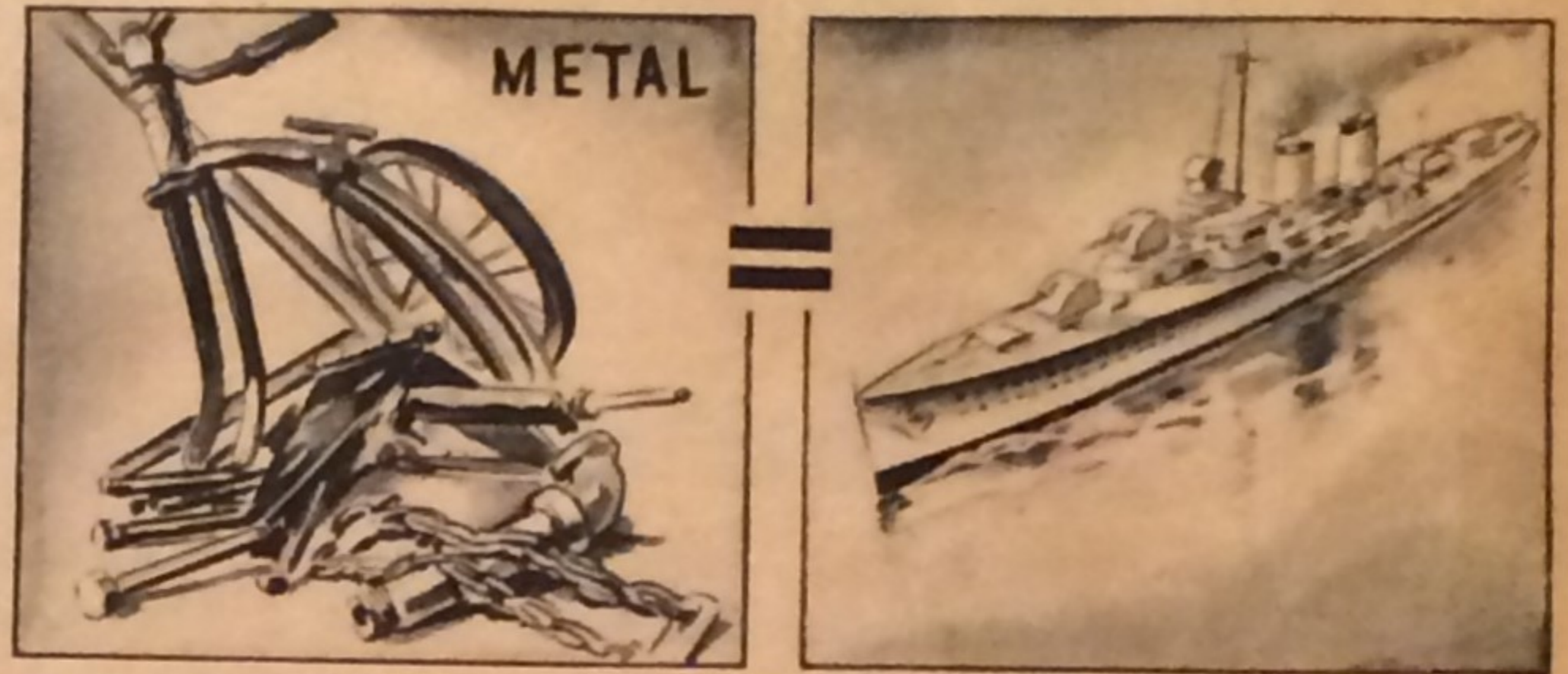
THE sinews of war lie neglected in cellars, attics, backyards almost everywhere. They are waste materials, but when salvaged and collected throughout the country their totals run into tremendous amounts. Scraps of ferrous metal—broken pipes, discarded bedsteads, worn tire chains, endless knickknacks—are needed to make steel. Old tin, reclaimed, has many war uses. Waste paper, old rags and old rubber can be converted into new materials to defeat the Axis. All these things, properly segregated and wrapped, can be sold, or given to charitable organizations that direct them into war channels.



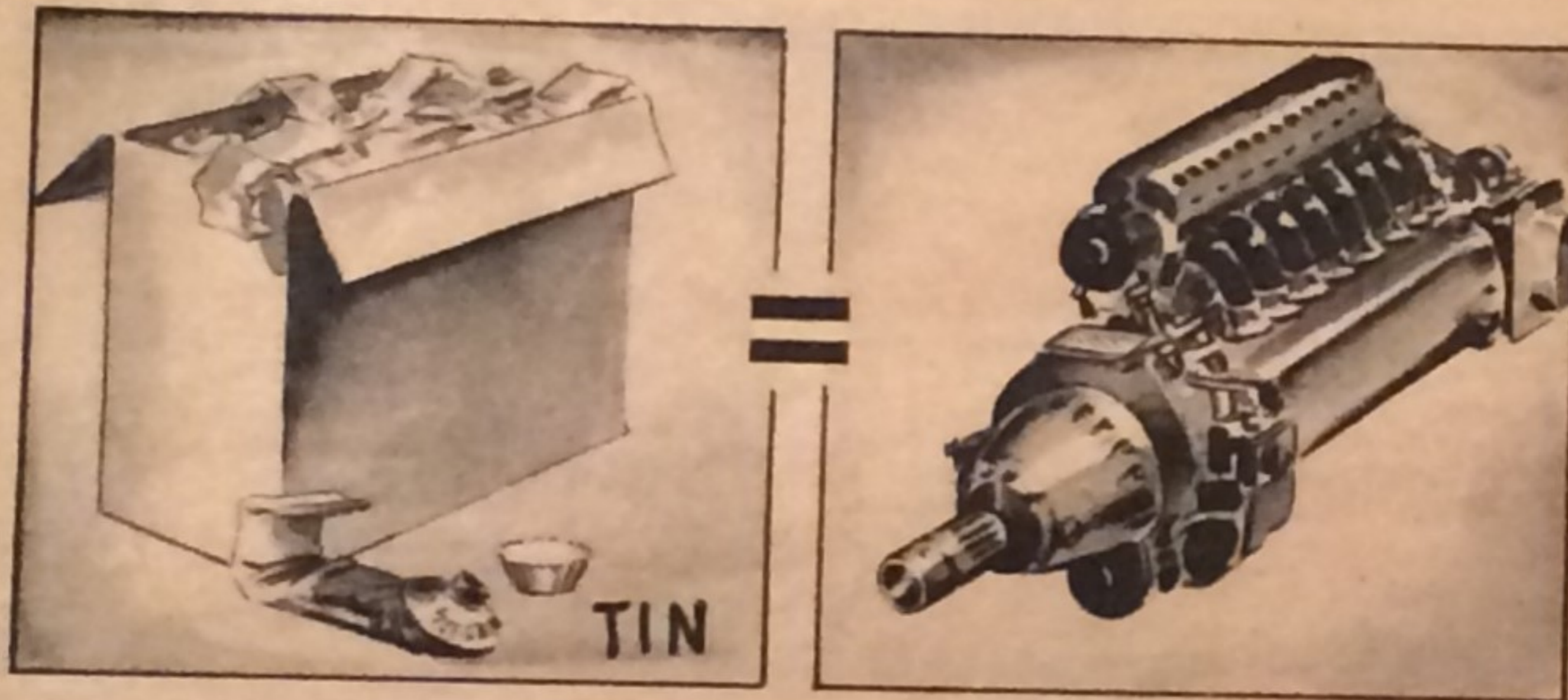
Newspapers, magazines and brown paper should be bundled flat. Waste paper is turned into cardboard for wrapping shells and many other articles.



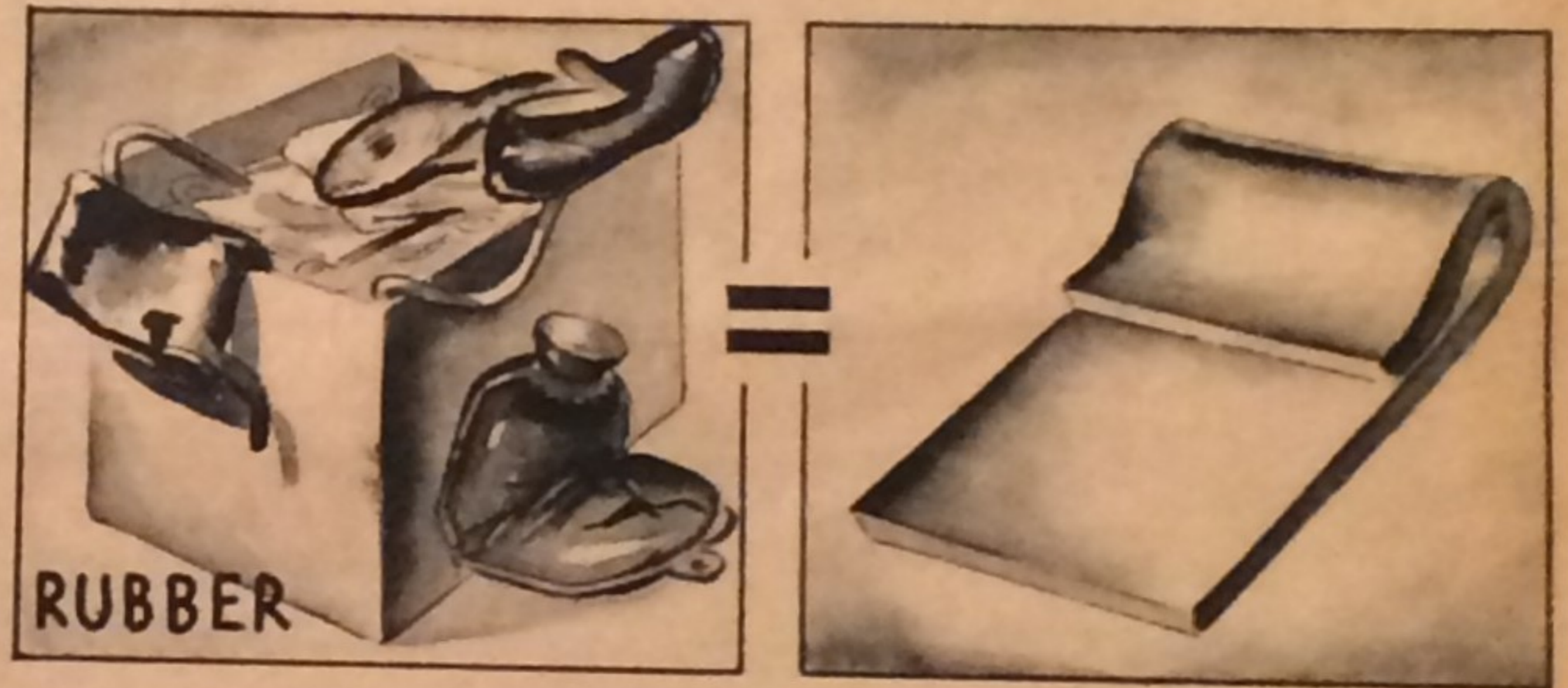
All the rags in the world are not too many for the uses of war. They clean machines and guns, pack up fine instruments and parts, protect munitions.



Scrap metal for conversion into steel is a crying need in the war effort. It enters into many hundreds of items, from rifles to destroyers.

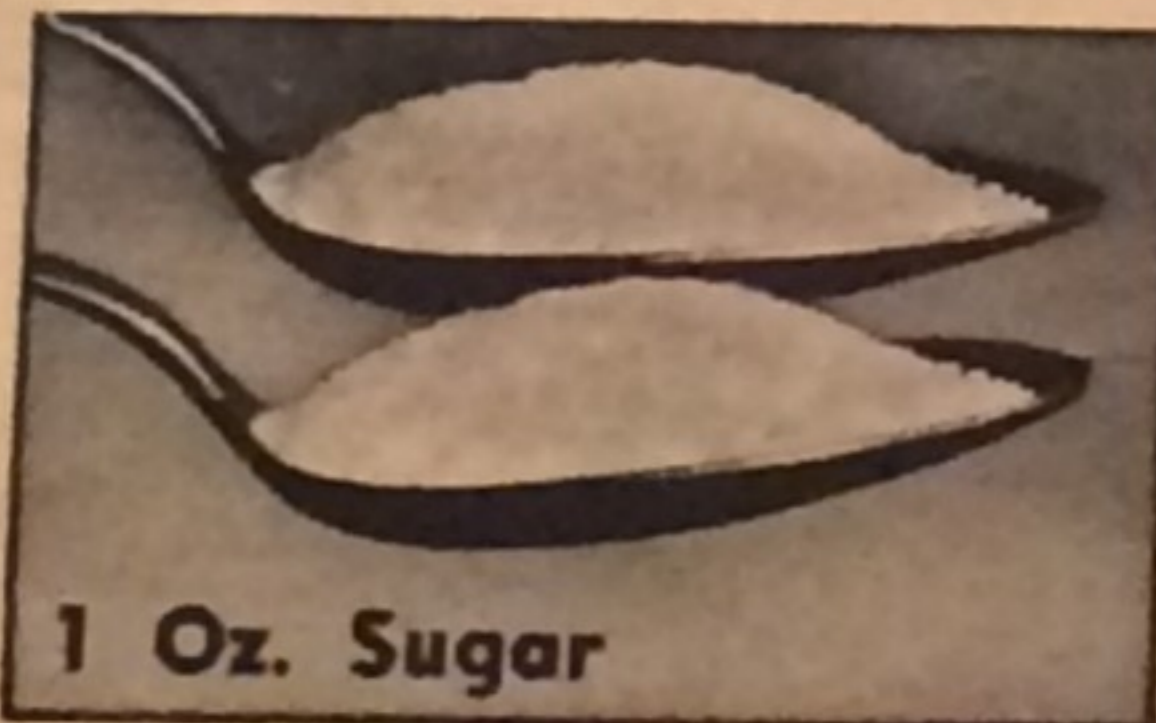


Tin, the principal component of the collapsible tubes in which toilet articles are packed, is indispensable in the manufacture of airplane engines.



Worn-out rubber articles can be processed into sheet rubber, to release every possible pound of new rubber for the vital uses of war alone.

Great Weapons of War from Little Savings Grow



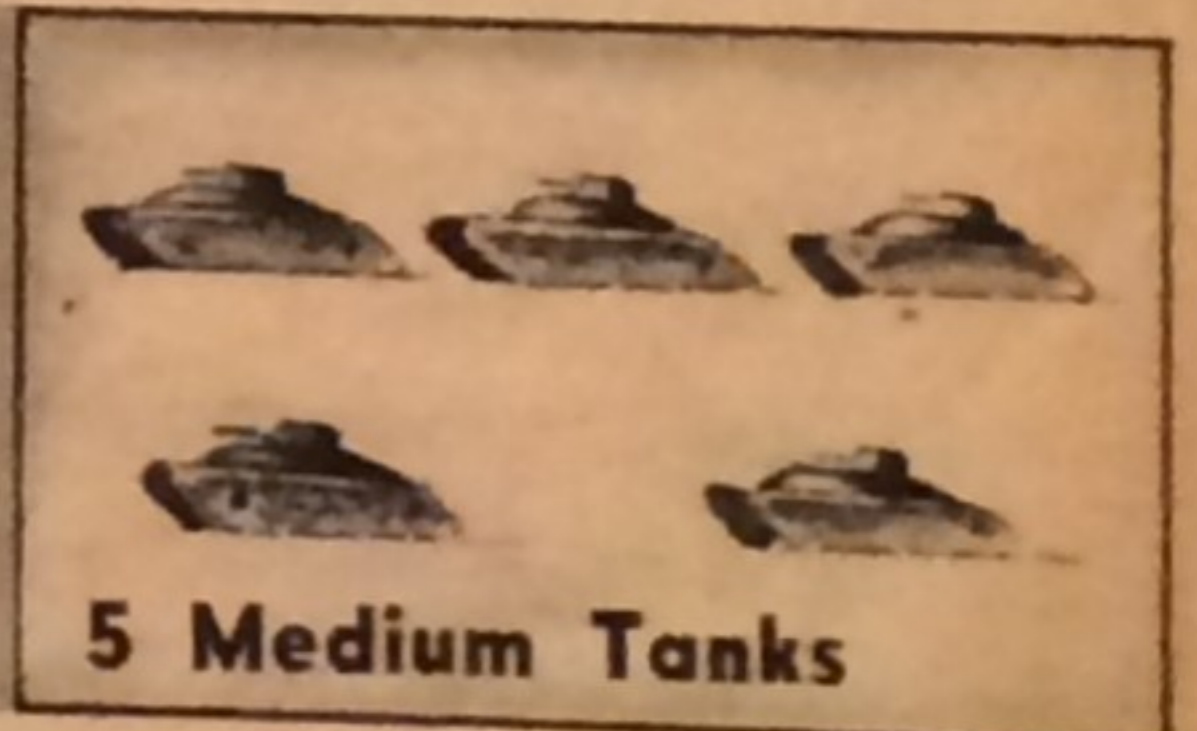
1 Oz. Sugar

If each family in the U. S. saved one ounce of sugar a week, the total weekly saving would be 2,178,852 pounds, valued at \$152,520. This amount, invested in Defense Stamps, would purchase for Uncle Sam →



1 Long-Range Bomber

OR

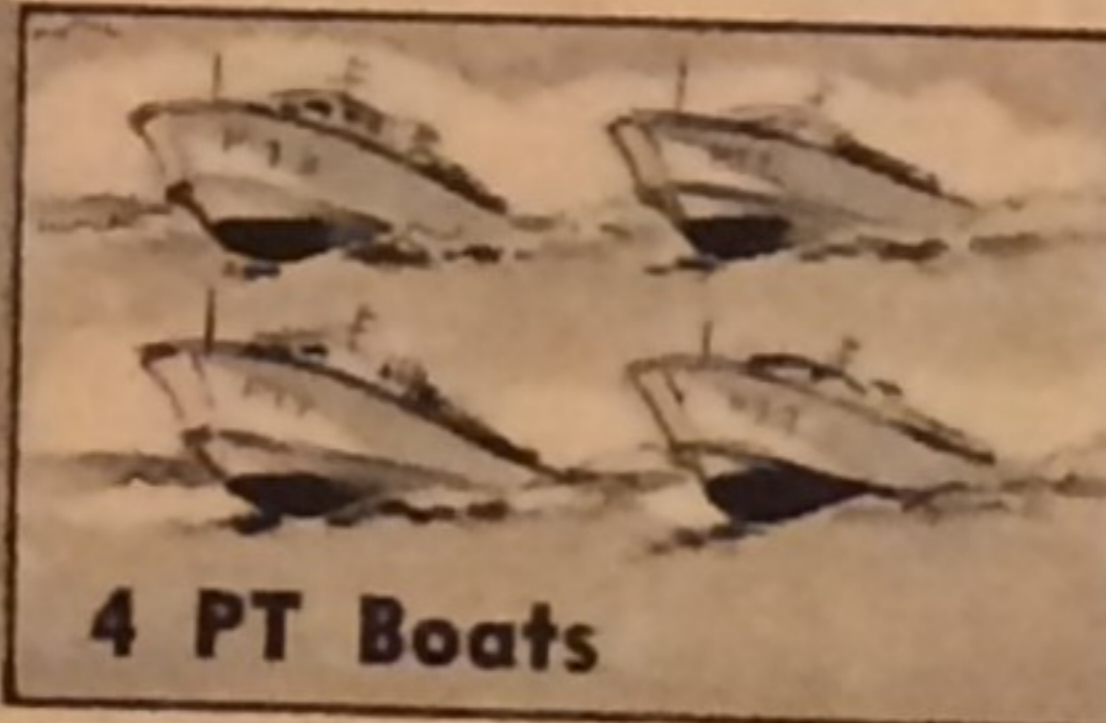


5 Medium Tanks



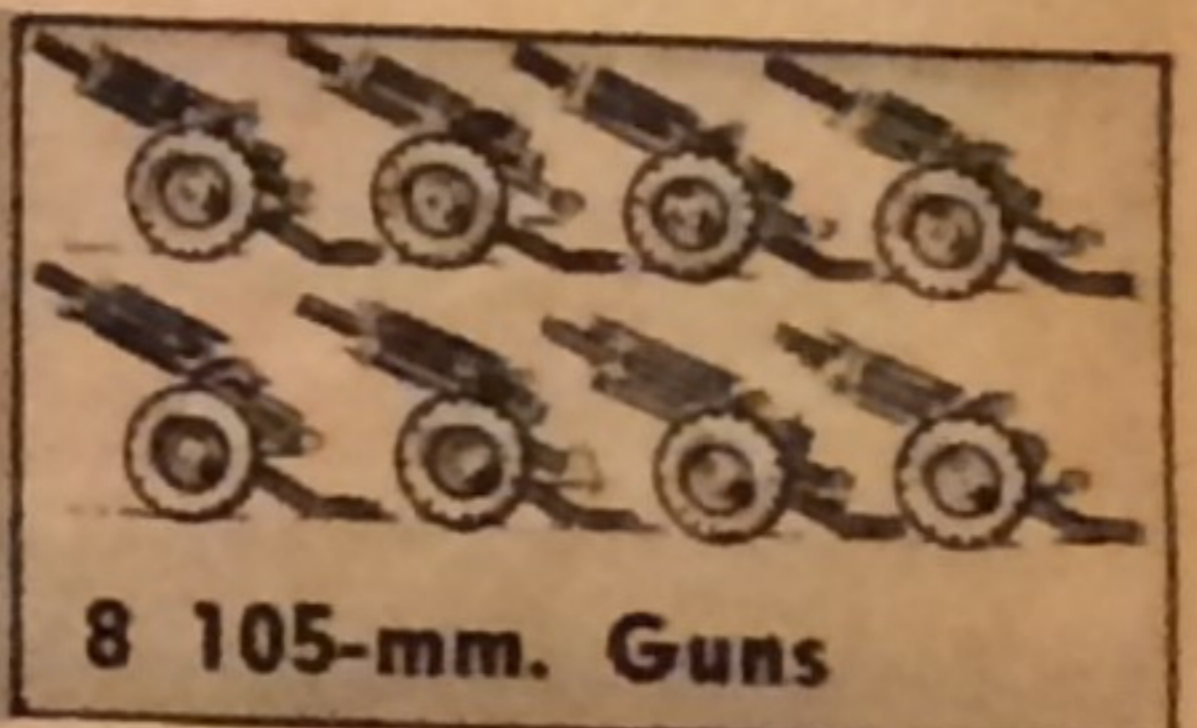
1/2 Oz. Lard

If each of the 34,861,625 U. S. families saved one-half ounce of lard a week, the total would be 1,089,426 pounds weekly, with a value of \$206,991. Translated into weapons of war, this national saving would buy →



4 PT Boats

OR

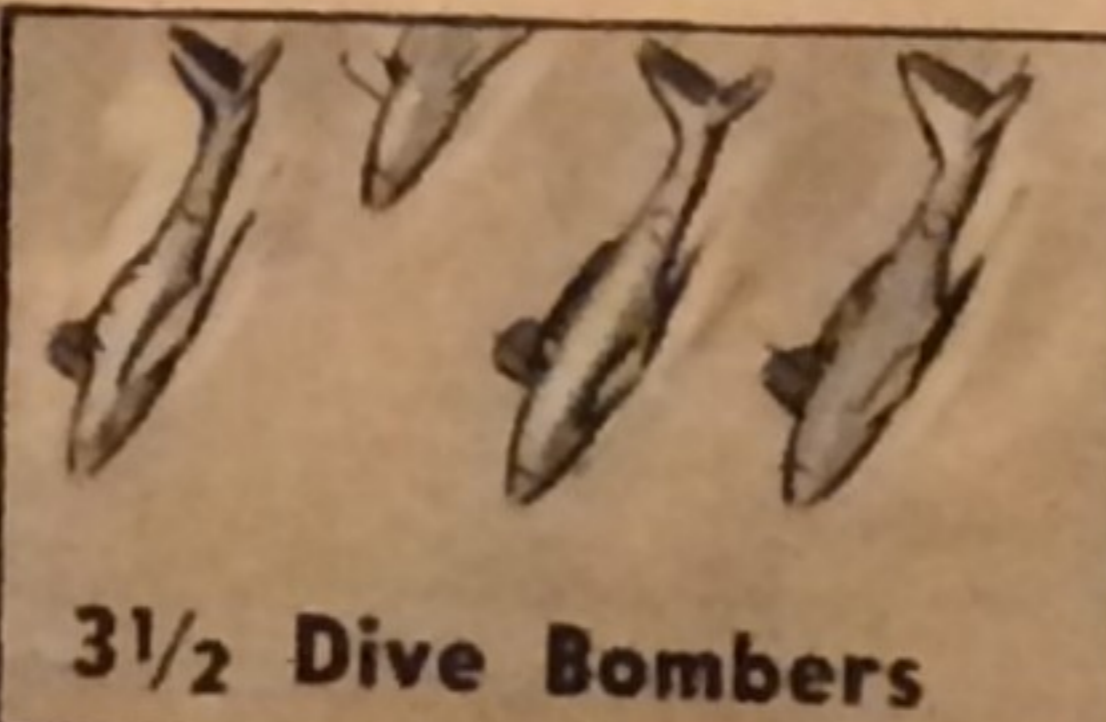


8 105-mm. Guns



1/8 Oz. Tea

If each family, by careful use, saved a mere one-eighth ounce of tea a week, the saving in the seven days would mount to 272,357 pounds, valued at \$217,886. The money thus saved would equal the cost of →



3 1/2 Dive Bombers

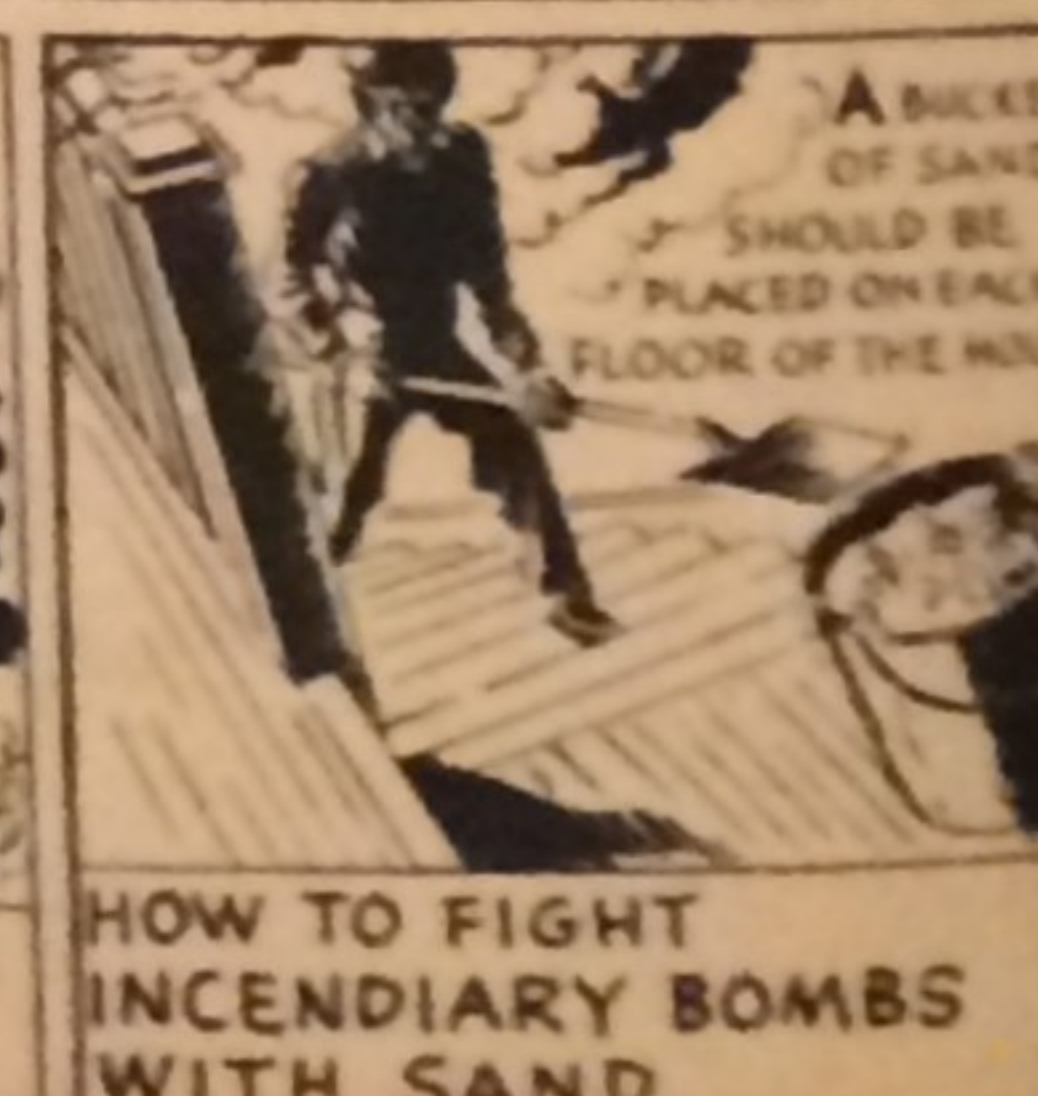
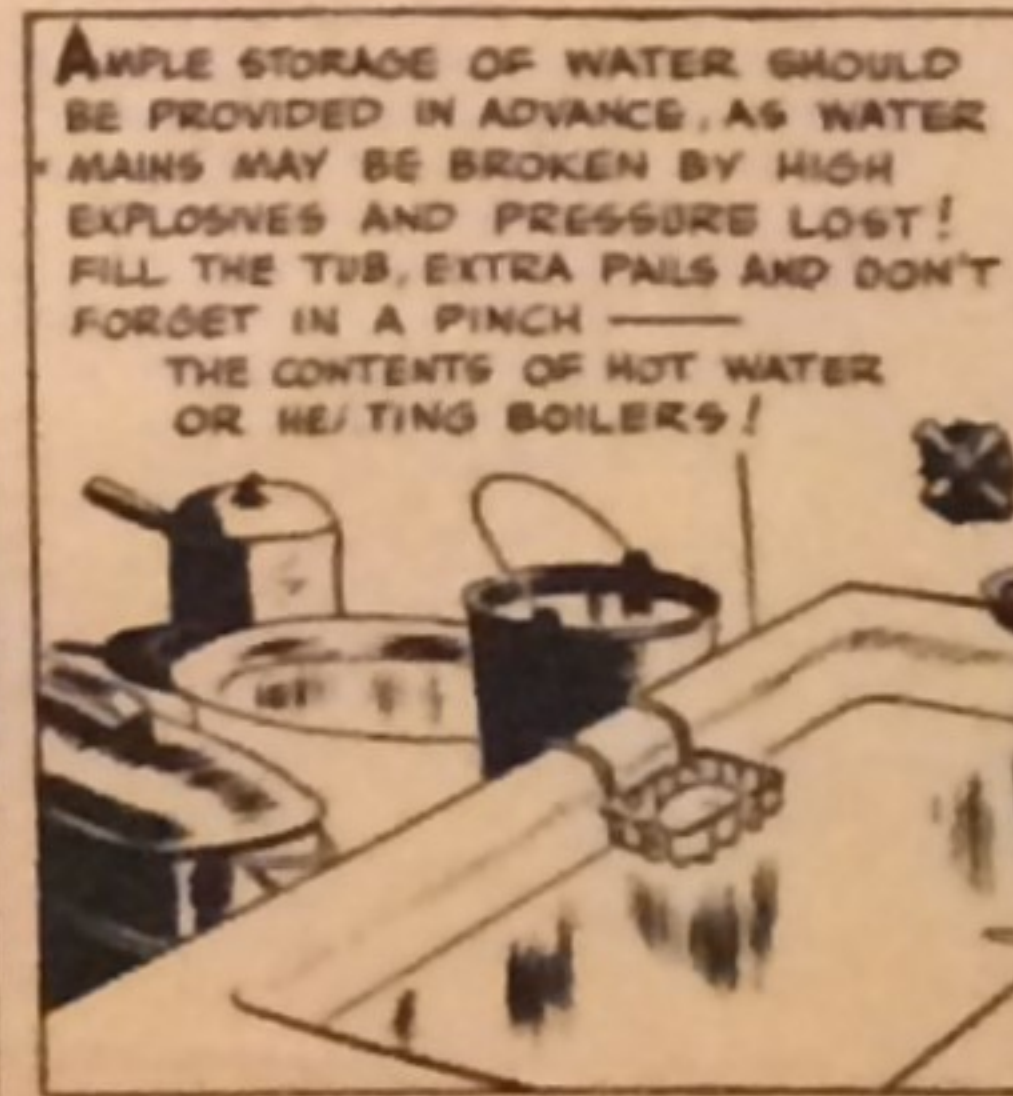
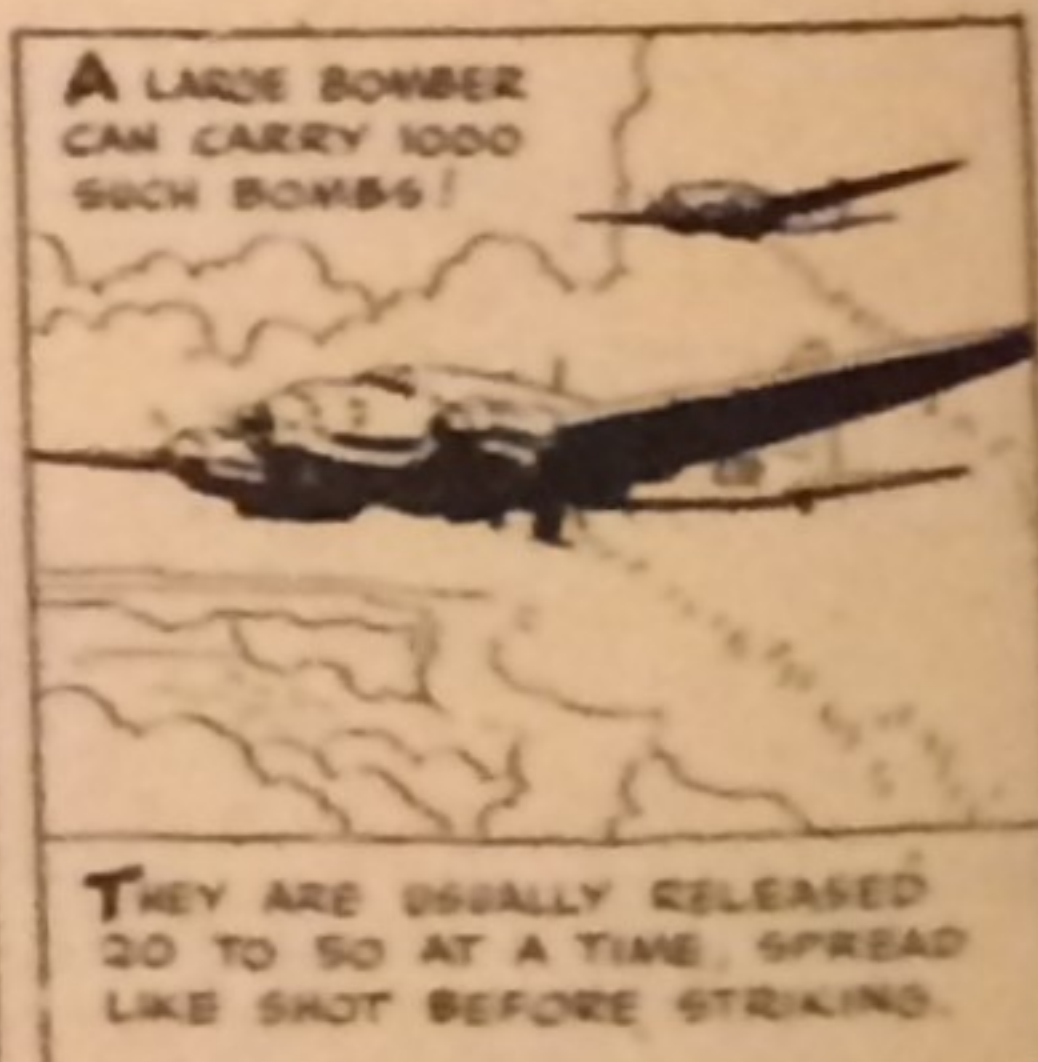
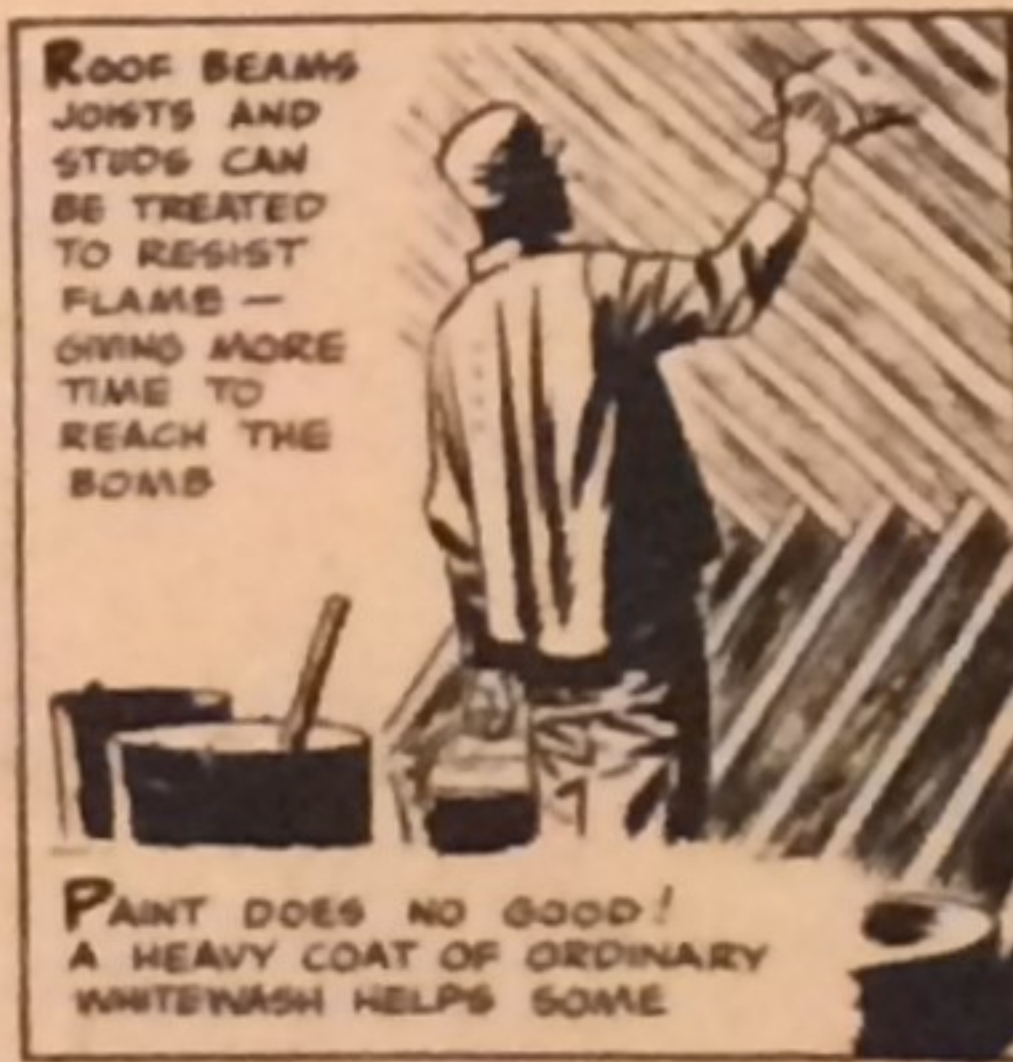
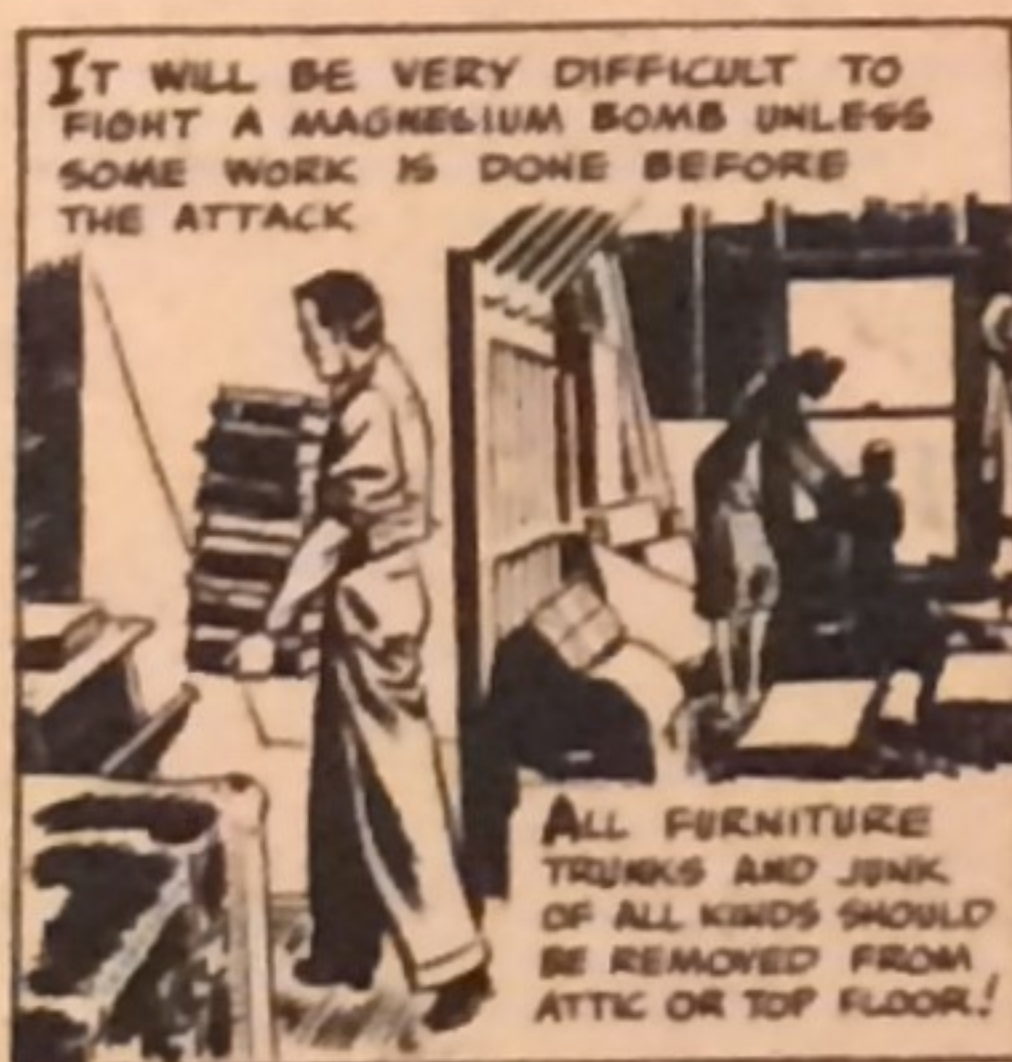
OR



300 Machine Guns



How to GUARD YOUR HOME AGAINST INCENDIARY BOMBS



CIVILIANS

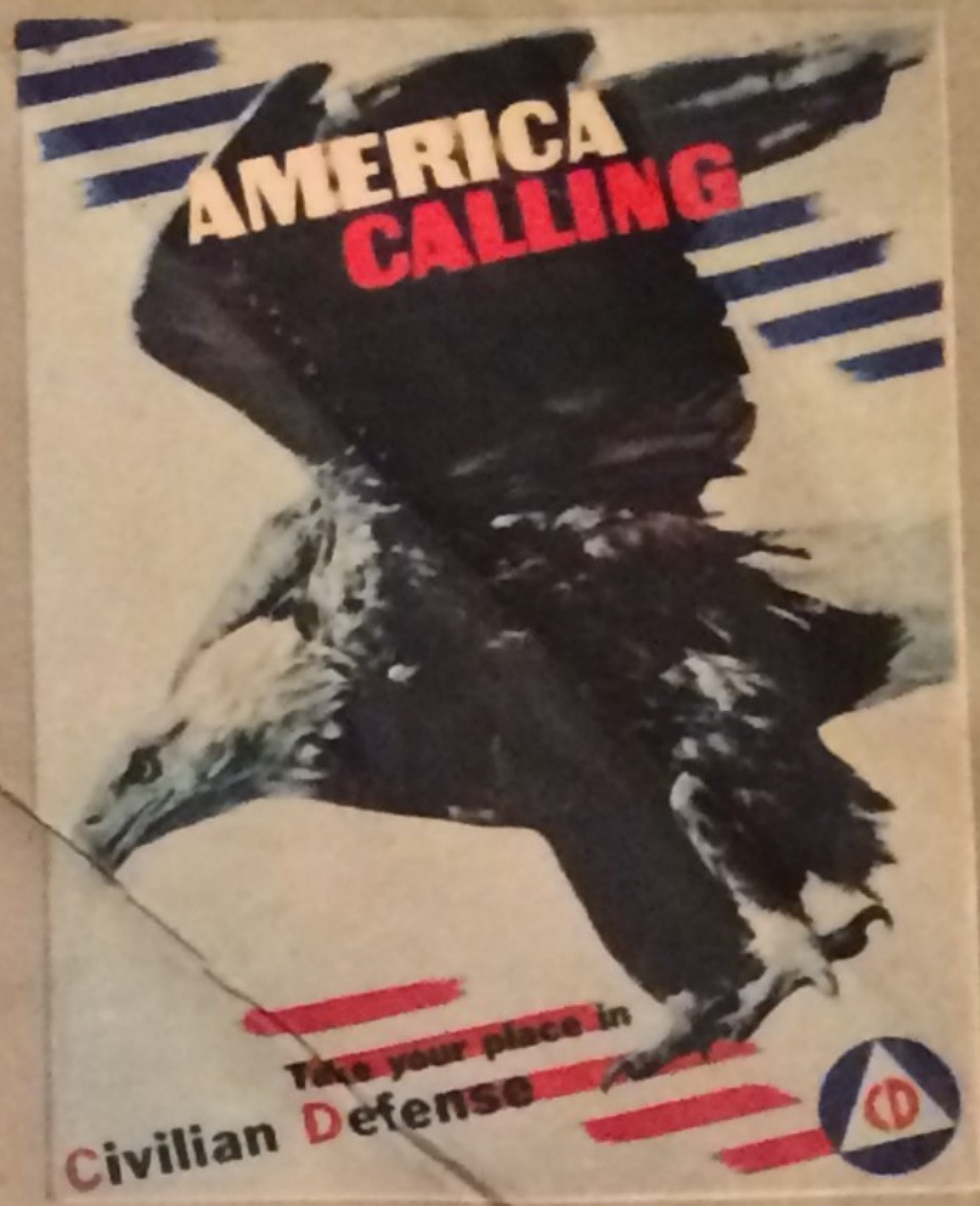
Don't
Him
!



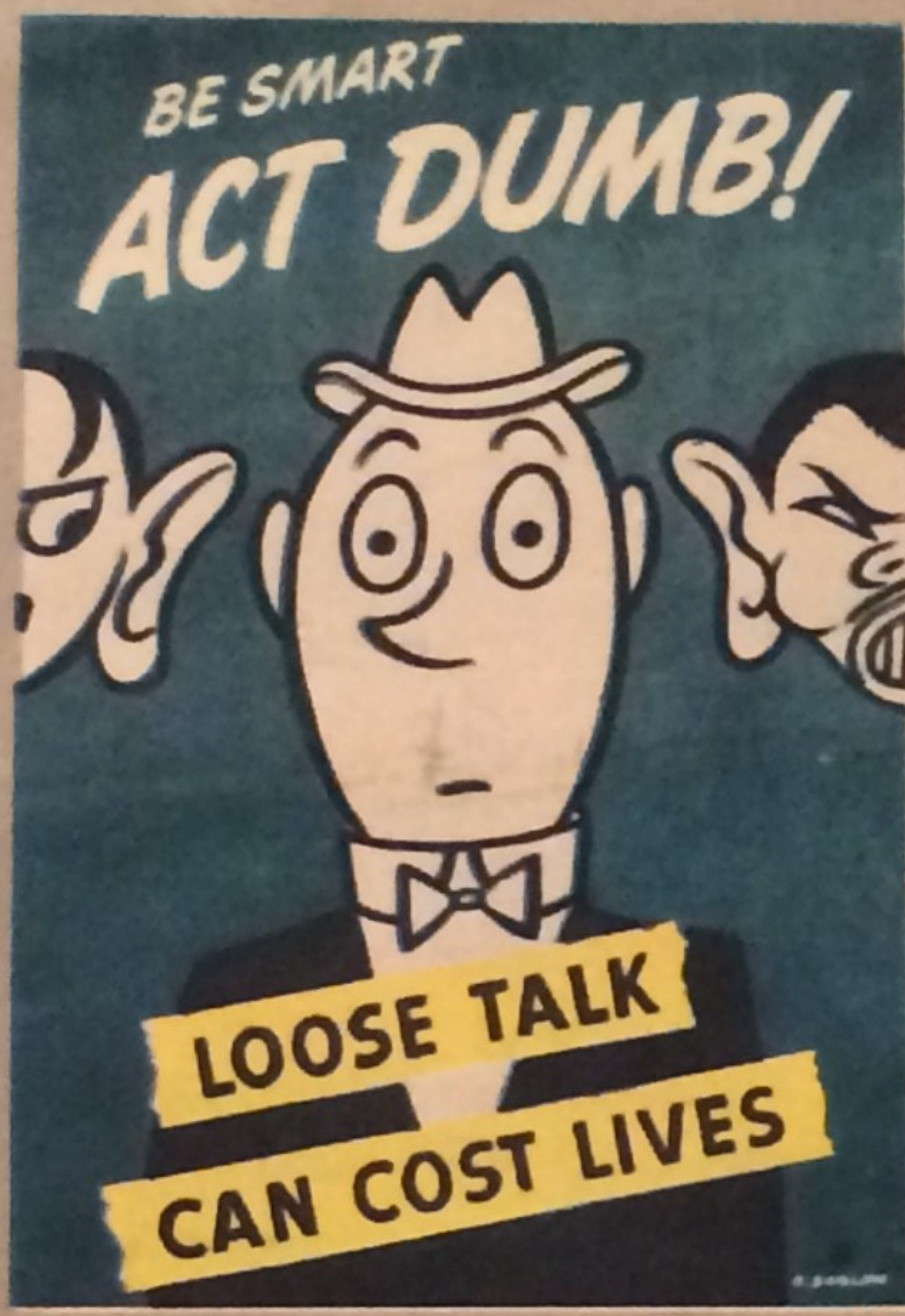
DEFENSE
needs RUBBER



YOUR PART ▶ GET THE MOST OUT OF YOUR TIRES
ASK ATTENDANT TO TELL YOU HOW



Take your place in
Civilian Defense



BE SMART
ACT DUMB!

**LOOSE TALK
CAN COST LIVES**

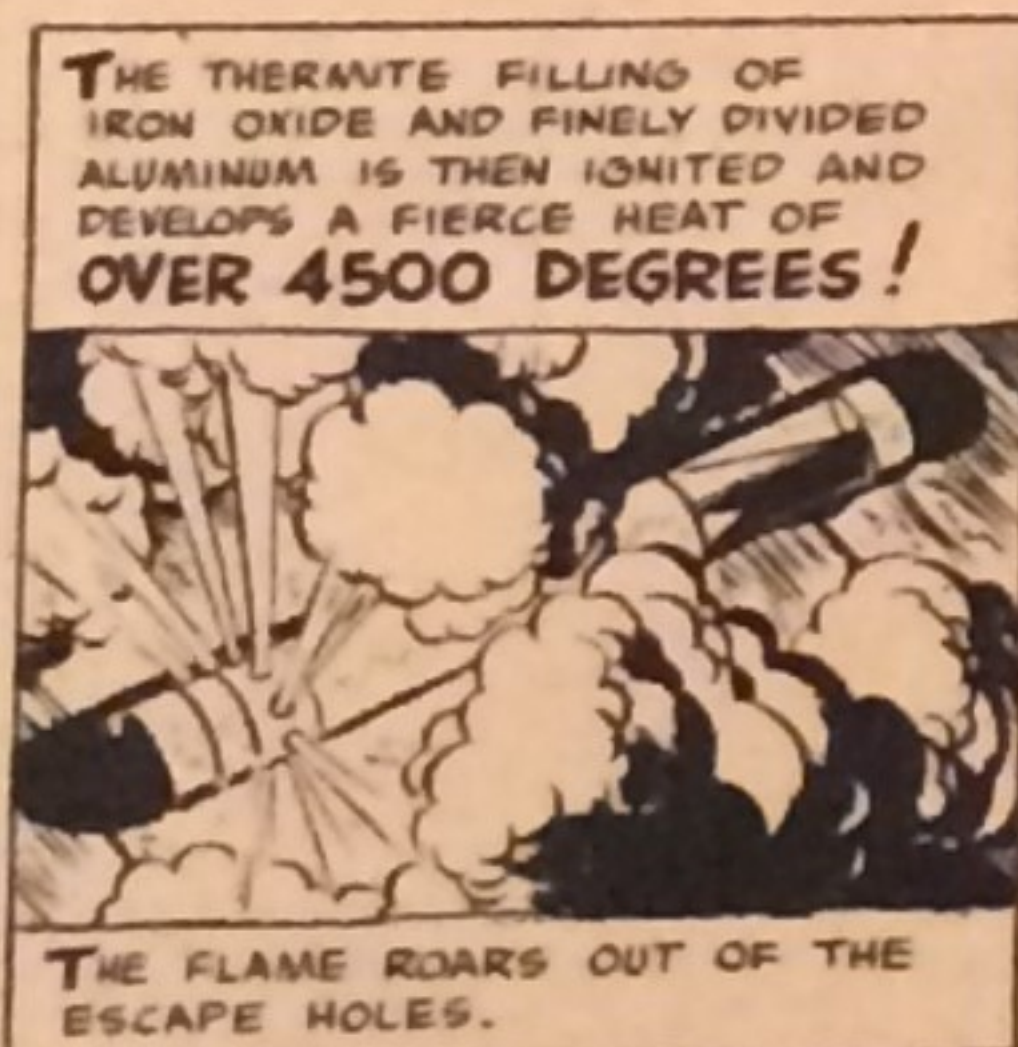


Don't burn
WASTE PAPER
Our war effort needs it
Call A Collector!

REPRODUCED FROM POSTERS DISTRIBUTED BY THE OFFICE OF EMERGENCY MANAGEMENT AND BY BRITISH AND AMERICAN AMBULANCE CORPS, INC.



... FROM A HEIGHT OF 20,000
... THEY DEVELOP ENOUGH FORCE
... TO PENETRATE AN AVERAGE ROOF...
... THEY USUALLY START BURNING
... IN THE STORY OR ATTIC



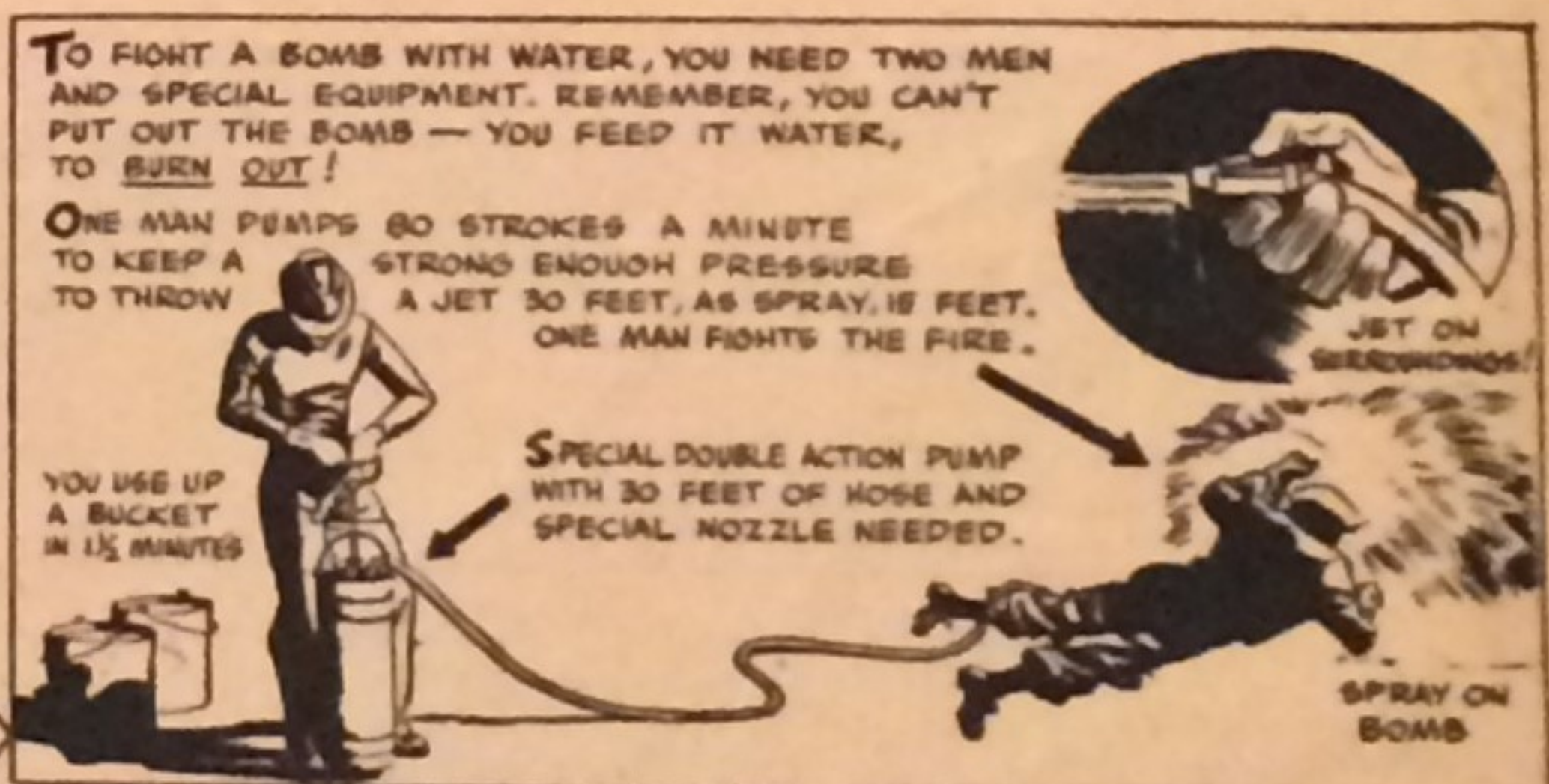
THE THERMITE FILLING OF
IRON OXIDE AND FINELY DIVIDED
ALUMINUM IS THEN IGNITED AND
DEVELOPS A FIERCE HEAT OF
OVER 4500 DEGREES!
THE FLAME ROARS OUT OF THE
ESCAPE HOLES.



THE MAGNESIUM
CASING CATCHES
FIRE, WITH A
SPUTTERING ACTION...
...FLAMING MOLTEN METAL IS THROWN
ABOUT AND SURROUNDING INFLAMMABLE
MATERIAL CATCHES FIRE



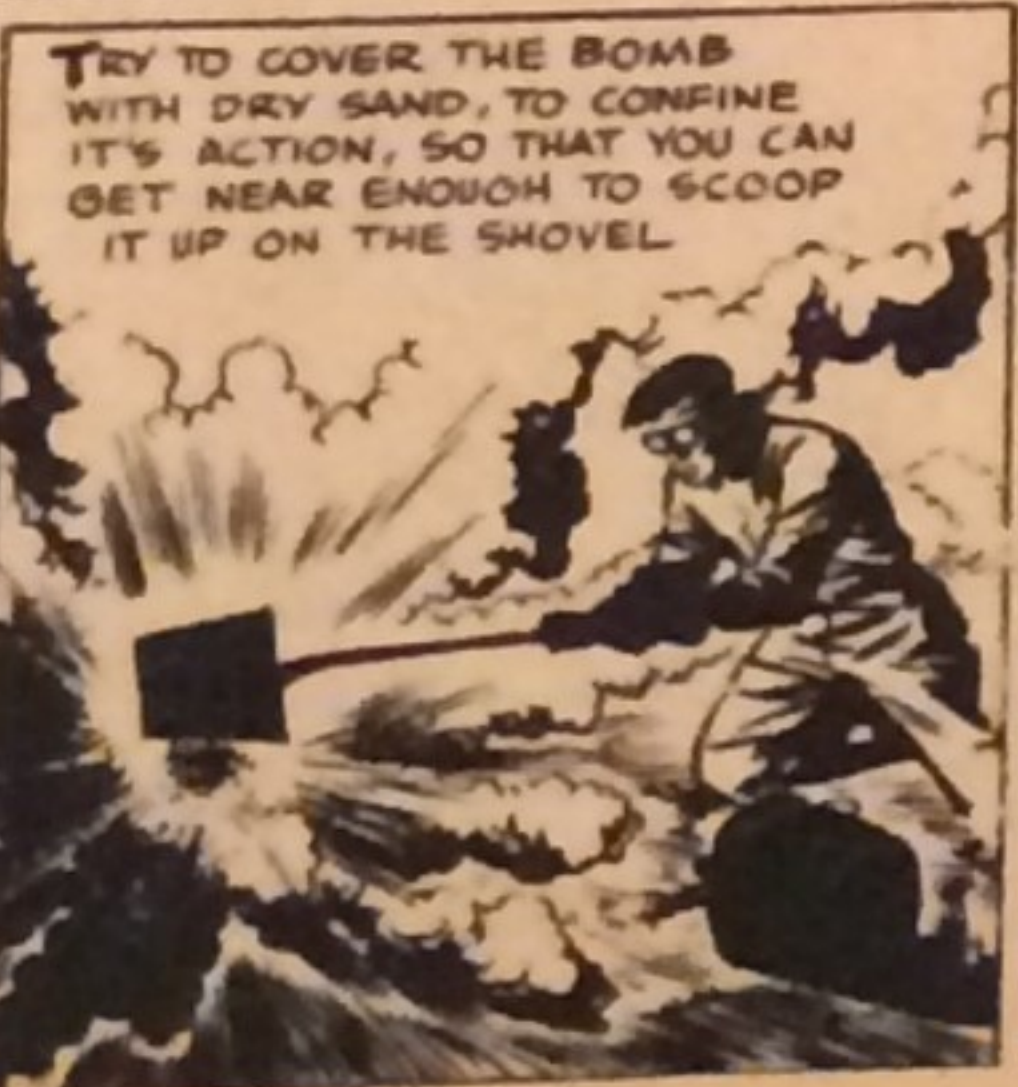
IF NOT QUICKLY
QUENCHED, THE
BOMB WILL BURN
THROUGH THE
FLOOR, GETTING
ADDITIONAL
FIRES ON
THE FLOOR
BELOW...
**BUT, WITH PROMPT
ACTION AND SIMPLE
TOOLS, A MAGNESIUM
BOMB CAN BE QUENCHED!**



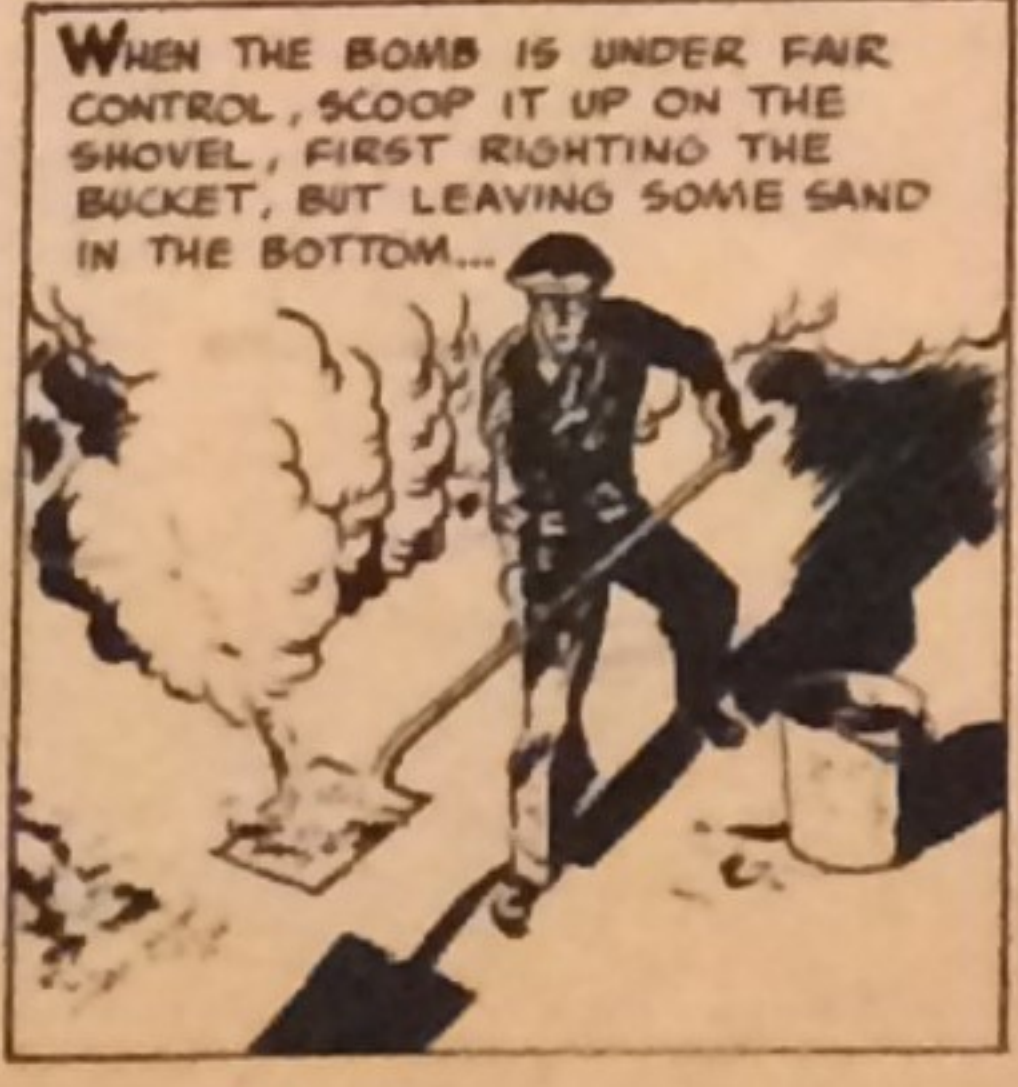
TO FIGHT A BOMB WITH WATER, YOU NEED TWO MEN
AND SPECIAL EQUIPMENT. REMEMBER, YOU CAN'T
PUT OUT THE BOMB — YOU FEED IT WATER,
TO **BURN OUT!**
ONE MAN PUMPS 80 STROKES A MINUTE
TO KEEP A STRONG ENOUGH PRESSURE
TO KEEP A JET 30 FEET, AS SPRAY, 18 FEET.
ONE MAN FIGHTS THE FIRE...
YOU USE UP
A BUCKET
IN 1 1/2 MINUTES
SPECIAL DOUBLE ACTION PUMP
WITH 30 FEET OF HOSE AND
SPECIAL NOZZLE NEEDED.
JET ON
BOMB
SPRAY ON
BOMB



... THE BOMB IN A CROUCHING OR
... POSITION. PLACE THE SAND
... SPRAY TO ALLOW A FULL-ARM
... SPRING TOWARD THE BOMB



TRY TO COVER THE BOMB
WITH DRY SAND, TO CONFINE
IT'S ACTION, SO THAT YOU CAN
GET NEAR ENOUGH TO SCOOP
IT UP ON THE SHOVEL



WHEN THE BOMB IS UNDER FAIR
CONTROL, SCOOP IT UP ON THE
SHOVEL, FIRST RIGHTING THE
BUCKET, BUT LEAVING SOME SAND
IN THE BOTTOM...



... IF THE BOMB CAN BE DROPPED
FROM A WINDOW TO SOME
PLACE WHERE IT CAN BURN OUT
WITHOUT HARM —
**GET RID
OF IT
THAT
WAY!**



... OTHERWISE, PUT IT IN THE
BUCKET ON TOP OF SAND, COVER
IT WITH MORE SAND...



... THEN, HOLDING THE BUCKET
ON THE SHOVEL, CARRY IT OUT
OF THE HOUSE...

ADVICE for CIVILIANS



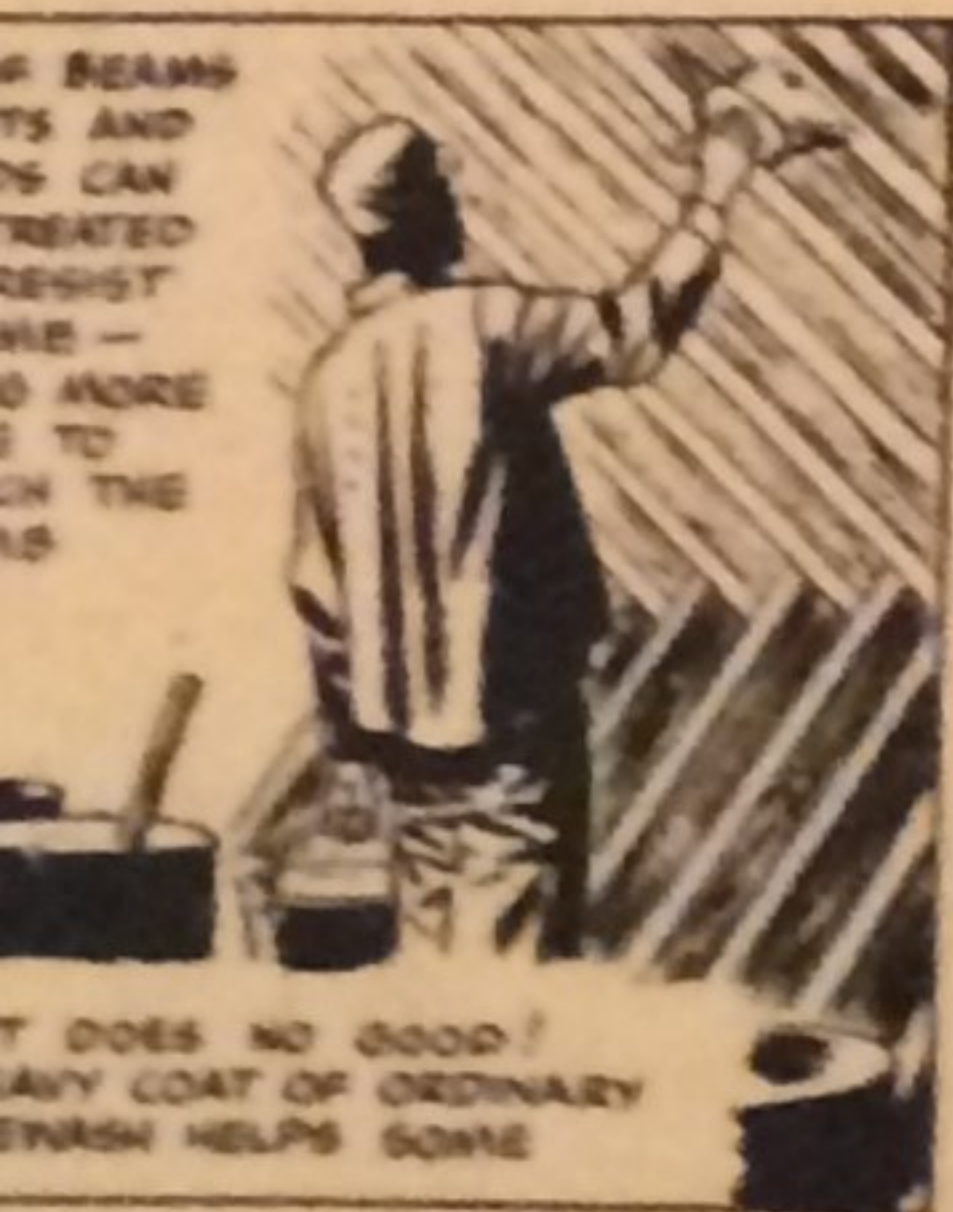
LOOSE TALK CAN CAUSE THIS



LOOSE TALK CAN COST LIVES



Don't Let Him Down!



STORAGE OF WATER SHOULD BE PROVIDED IN ADVANCE, AS WATER MAY BE BROKEN BY HIGH



NEVER THROW THE



A BUCKET



APPROACH THE BOMB IN A CROUCHING OR CRANKING POSITION. PLACE THE SAND BUCKET, SPRET, TO ALLOW A FULL-ARM



TRY TO COVER THE BOMB WITH DRY SAND, TO CONFINE IT'S ACTION, SO THAT YOU CAN



WHEN THE BOMB IS UNDER CONTROL, SCOOP IT UP ON

REPRODUCED

PRESERVE and SERVE

WOMEN'S major field in home defense is preservation of food for her family's future use.

Successful canning isn't guess work; it depends upon killing organisms that cause spoilage. Organisms in food with high acid content can be killed by boiling temperatures. That means tomatoes and all fruits can be canned by the water bath method with reasonable assurance that they will keep.

Non acid foods such as peas, beans, corn and meats require a higher than boiling temperature for preservation, therefore the steam pressure cooker is the only safe means of canning them. Unless a pressure cooker is used they may harbor the deadly botulinus bacteria which grows after foods have been boiled and sealed. You cannot detect botulinus by any odor or appearance. It may go unrecognized until the family becomes violently ill. Botulinus does not develop in vegetables preserved by drying methods.

Because of the metal shortage no new pressure cookers are now available. True American cooperation demands that you share your cooker with your neighbors.



Canning equipment deserves careful check before the start of a busy summer. Share it with your neighbors!



Heavy tongs are an essential in removing jars from the water bath.



Blanch spinach to reduce its bulk before packing it firmly into jars.



Use in-season fruits for jelly when your sugar ration will allow it.



Timing is an important part of steam pressure cooker canning.

Dried Foods are Nutritious and Thrifty



Outdoor drying requires sunshine and air. Stack frames together at night and singly during the day.

DRYING once again comes to the fore as a means of food preservation. It gained prominence during World War No. 1 and has returned with metal priorities. Sun drying is an inexpensive form of food preservation that requires little equipment. A man handy with tools can make the frames.

Strips of 2x $\frac{3}{4}$ inch stock are suitable for frames and 24x26 inches wide makes a manageable size tray. Use galvanized window screen for the bottoms. See sketch at left.

At night and on rainy days the frames must be stacked indoors in the warmest part of the house. Let an electric fan blow over them to help in the dry-

ing. Stir the food at least once a day, never let it overlap to more than half an inch in thickness. Protect the drying food with squares of gauze.

Mature vegetables and fruits that are high in sugar, such as beans, corn, apples, peaches, dry most satisfactorily. The rate of drying depends upon the weather. No time can be given but all stickiness must be gone.

Dried foods should be stored in sealed bags, tin boxes, boxes lined with waxed paper or muslin bags dipped in paraffin.

Farmers' Bulletin No. 984 gives complete directions for drying. Purchase it for ten cents from the Superintendent of Documents, Washington, D. C.

GARDEN

V FOR VICTORY



PEAS 1/2 lb. Plant 1 1/2 in deep: 1 ft between plants: 2 ft. between rows: Mature in 60 Days.	
ONIONS 1/2 lb: 1/4 in deep: 3 in. between plants: 2 ft. between rows: Mature in 110 Days.	
SPINACH 10z: 3 sowings at weekly intervals: 1/2 in deep: 6 in between plants: 1 1/2 ft between rows: Mature 50 Days	
LETTUCE 1 pkt: Sow 5 ft row 1/2 in deep weekly: 1 ft between plants: 1 1/2 ft. between rows: Mature in 60 Days	
BEETS 10z: 3 sowings at 3-wk intervals: 1 in deep: 4 in. between plants: 1 1/2 ft. between rows: Mature 60 Days	
CARROTS 1 pkt: 1/2 in deep: 2 in. between plants: 1 1/2 ft. between rows: Mature in 75 Days	
PARSLEY 1 pkt: 1/4 in deep: 12 in. apart: 1 1/2 ft. between rows: Mature in 85 Days	
BROCCOLI 1 pkt: 1/2 in deep: 18 in. apart: 1 1/2 ft. between rows: Mature in 80 Days	
CABBAGE : Set plants 1 in deep: 12 in. apart: 2 1/2 ft. between rows: Mature 60 Days	
PEPPERS 12 plants: set plants 15 in. apart	
EGGPLANT : 12 plants: set plants 2 ft. apart	
OKRA : 1 in deep: 2 ft. apart: 15 ft. rows	
SNAP BEANS : 1/4 lb: 2 plantings at 2-week intervals: 1 in. deep: 2 1/2 ft. between rows: Mature in 60 Days	
SUMMER SQUASH : 1 pkt: 1 in. deep: 3 plants to hill: 3 ft. between hills: Mature in 60 Days	
TOMATOES : Set plants firmly in ground	
" 2 ft. apart: allow 3 ft. between	"
" 8 in. apart: allow 3 ft. between	"
" rows: Mature in 85 Days	"

SOMETHING HARDY - Plant April 10 to 25

TENDER - Plant May 5 to 25

VICTORY GARDEN FOR FAMILY OF FIVE Dimensions: 36 ft. by 60 ft.



By JANE LESLIE KIFT

AMERICA has called upon its home gardeners to contribute their soil, their skill and their work to the cause of victory. Every owner of available ground can and should grow food this season: vegetables, berries and fruit.

Fresh or canned food that is eaten where it is grown means not only a better-balanced, vitamin-rich diet for the family but a saving of freight cars and trucks for other vital uses. Food canned in glass jars which likely haven't been used for many years but are still packed in the attic or cellar will save tons of metal to make cans to hold food for soldiers.

A small vegetable garden such as can be cared for by one person will supply fresh vegetables for a family of five throughout the season, and leave some for canning and storing.

Two hours on each of three days a week will take care of a plot 36 by 60 feet.

There is only one thing to be considered when selecting the location for a vegetable garden. That is sun. The plot must have sun for at least a portion of the day. The longer it has direct sun the better the result.

Next to sun in importance is the matter of fertility. Vegetables are heavy feeders and refuse to produce well in poor soil. This year every seed planted must yield 100 percent results. For a garden 36 by 60 feet it will be necessary to incorporate one ton of manure with the soil. Where manure is unobtainable a compost soil

RULES FOR DEFENSE GARDENERS

1. Don't plant a garden unless you are resolved to see the work through.
2. Don't plant more than you can cultivate well.
3. Plant your garden where it will have at least 6 hours of sunlight daily.
4. Thin out all plants too thickly sown. Plant the discards in another location or give to a neighbor. Don't throw them away.
5. Feed plants with a balanced plant food.
6. Spray to prevent spread of diseases and to kill insects.

may be used or even leaf-mold from the woods. Dehydrated manure may also be used.

Begin to prepare the ground as soon as it is sufficiently dry to work. To do an adequate job of spading it is necessary to use a spading fork like the one in the Victory Garden Emblem. A short-handled sharp spade is also a "Must Have." These two implements and a steel rake will take care of preparing the ground.

It is best to work in an avenue six feet wide. Dig a trench two feet wide and one full spade's depth across this avenue. Remove all the earth from this trench. Clear the surface of the next two feet of all debris and tramp this debris down in the bottom of the trench. Then spade up and

throw into the trench the earth from the next two feet across the avenue. This in turn provides a second trench which may be filled as was the first.

Never attempt to spade wet soil. Wait until the ground crumbles when you pat it. This is an old but reliable test.

The amount of seed, the number of plants and other information for a garden 36 by 60 feet are given in the plan printed above.

Of course there will be insects and likely some disease, especially if we have a wet season. In the small home garden arsenical insecticides must not be used. They are poisonous and it is so easy to have accidents with them. Rotonone and pyrethrum sprays if used early and regularly will control all insects that may threaten to destroy a garden. Neither is poisonous to pets or children. Cutworms, which are the bane of even the most experienced gardener, are destructive in the early summer, eating off the young shoots close to the surface of the soil. These pests can only be combatted with a poison bait, obtainable in any seed store. But remember that all poison baits must be kept out of the hands of children or irresponsible persons.

This year when seed must not be wasted it is wise to plant a garden with tiny plants instead of seed. Of course, it is impossible to buy started plants of parsley, radishes, lettuce, or corn, but we can buy cabbage plants, tomato plants, cauliflower plants, eggplants and some others.

Tools You Will Need



An American Family Saves for Victory



By stirring his cup (1) Vic dissolves all the sugar in it, leaves no wasteful residue. Meanwhile Victoria, brewing tea (2), carefully measures the leaves to give only the quantity desired. For dessert, instead of sugar-consuming pastries, she has fruits rich in natural sugar (3). Among these are bananas, apples, pears, dates and raisins. She uses citrus fruits for vitamins.

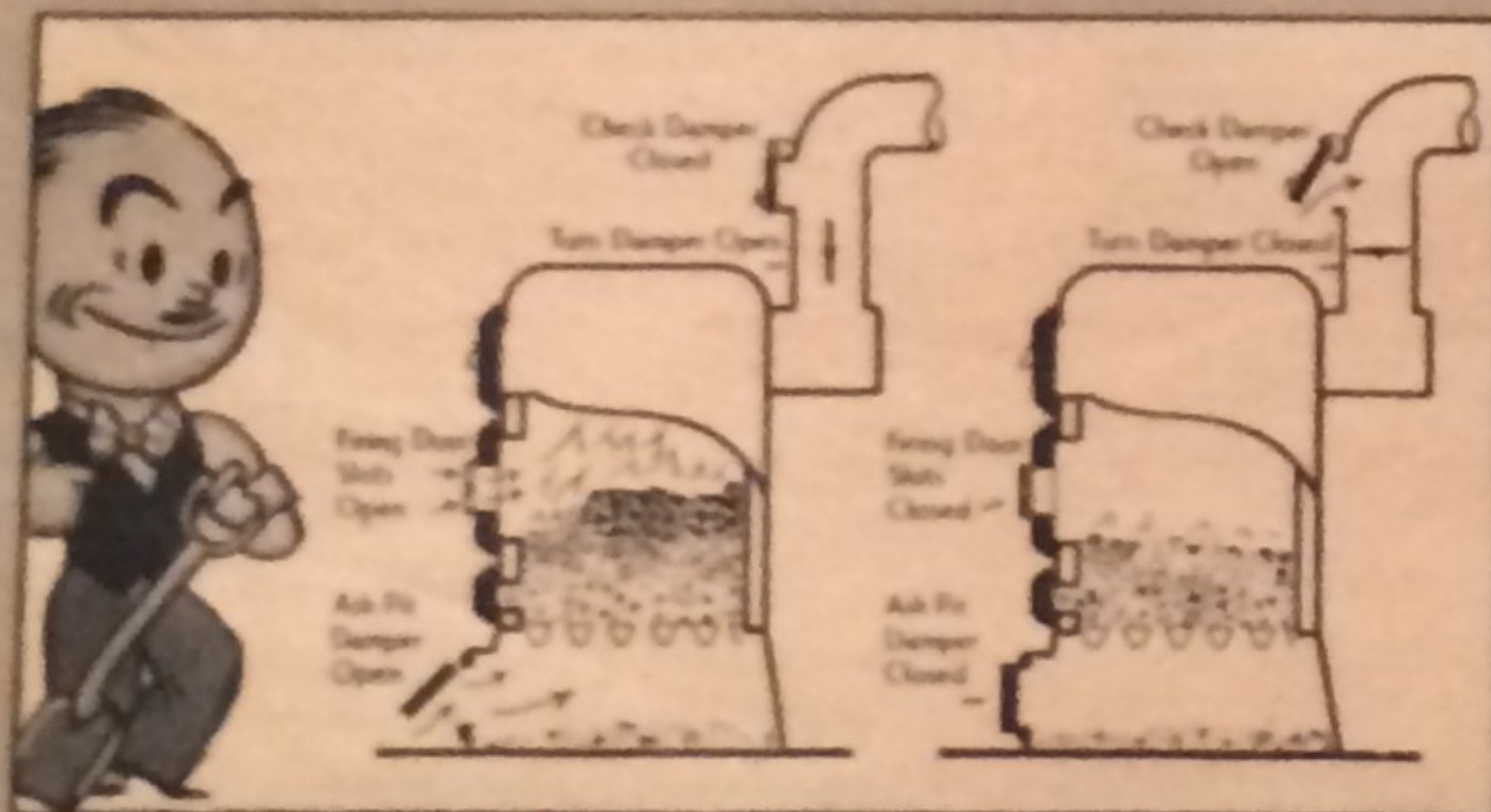
INTRODUCED on these pages are Vic, Victoria and Vicky, members of a patriotic family who are doing their utmost to assure victory by carefully conserving the everyday materials of living. Realizing that any waste, any improper use of resources, are a drain upon the total strength of the country, they are practicing the time-honored American custom of thrift, while not denying themselves any downright essentials. Vic has told Victoria, while little Vicky listened open-mouthed, that every time something is consumed in the home, machines, men and materials somewhere are needed to replace it, perhaps ships to transport it, and that these men, machines, materials and ships are needed to build America's military might. "So," he added, with a fine gleam of resolution in his eye, "we can contribute to the war production program out of our daily living." Victoria has responded enthusiastically, finding methods to plug dribbles of waste, discovering uses for discarded things, studying substitutes for articles that are becoming scarce. Even Vicky is doing her bit, emphasized by stern clucks of disapproval wherever she discovers a light burning needlessly.



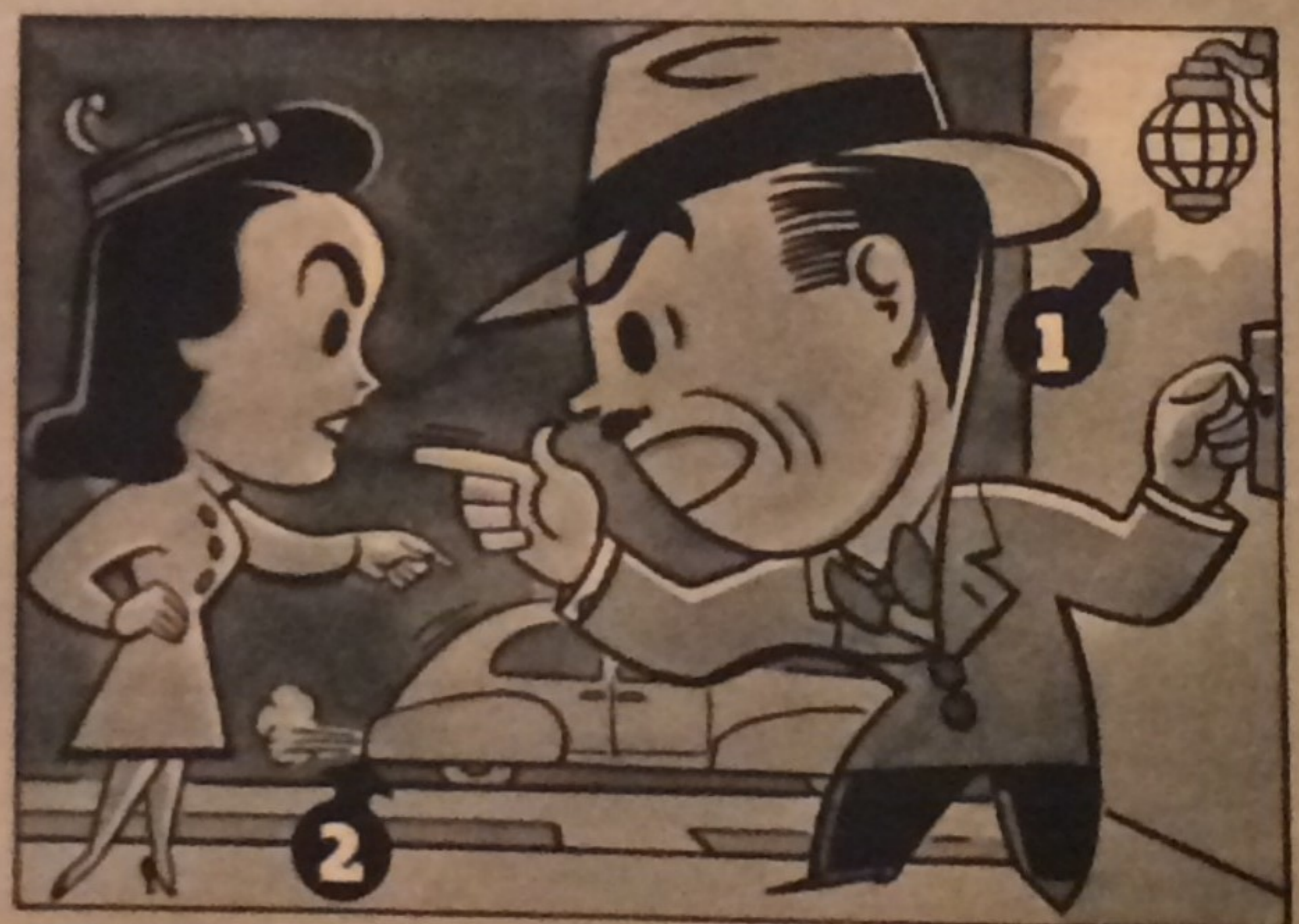
Victoria plans to use native herbs for seasoning instead of imported spices (1) when her supply runs out. She is conserving tin by buying as many dried vegetables (2) and fruits (4) as possible instead of canned varieties. She gets more value from her bar soap by removing the wrappers and letting it dry out (3) before she starts to use it. Her pantry reflects the times.



Victoria doesn't do this any more. Boiling vegetables (1) over intense heat is a waste of fuel, for water is just as hot when it boils gently as when it boils vigorously. Hot food placed in an electric refrigerator to cool (2) consumes electricity needlessly. A refrigerator which is located close to a stove (3) wastes electric power or ice. Frequent opening of the door does also.



Vic has discovered how to regulate his furnace to get the greatest number of heat units from his coal. At the left the boiler is going full steam ahead, at the right the plant has been banked. Between these two extremes any amount of heat can be obtained. Experience has shown Vic that he seldom has to set the dampers for a full blast except when he first adds coal to the fire. Other pointers picked up by Vic in his determination to save fuel: Whenever he puts coal on the fire, he leaves a bright spot exposed to ignite the gases given off by the new coal; he keeps a large amount on the grate at all times; he doesn't poke the firebed; he cleans the ashpit regularly; he stops shaking when the first red glow appears on the ashes.



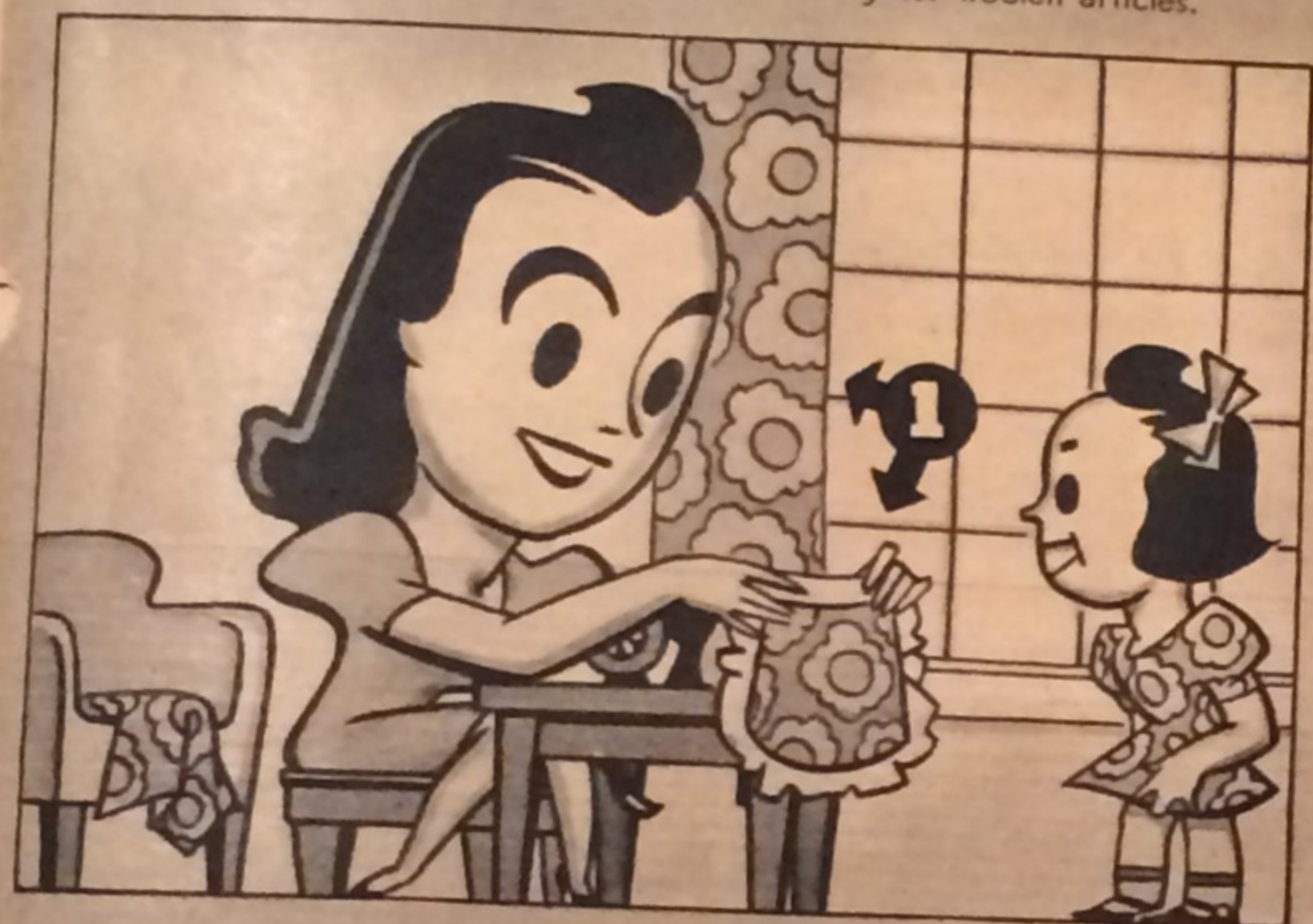
Carried away by their enthusiasm over fuel saving, Vic and Victoria point out each other's faults. She has left a light burning (1) when it is not needed, he is wasting gasoline by idling the motor of their car (2). Incidentally, the car is no longer used for trips to the corner store or for visits to friends living a few blocks away, and there is no oil on the garage floor to damage tires.



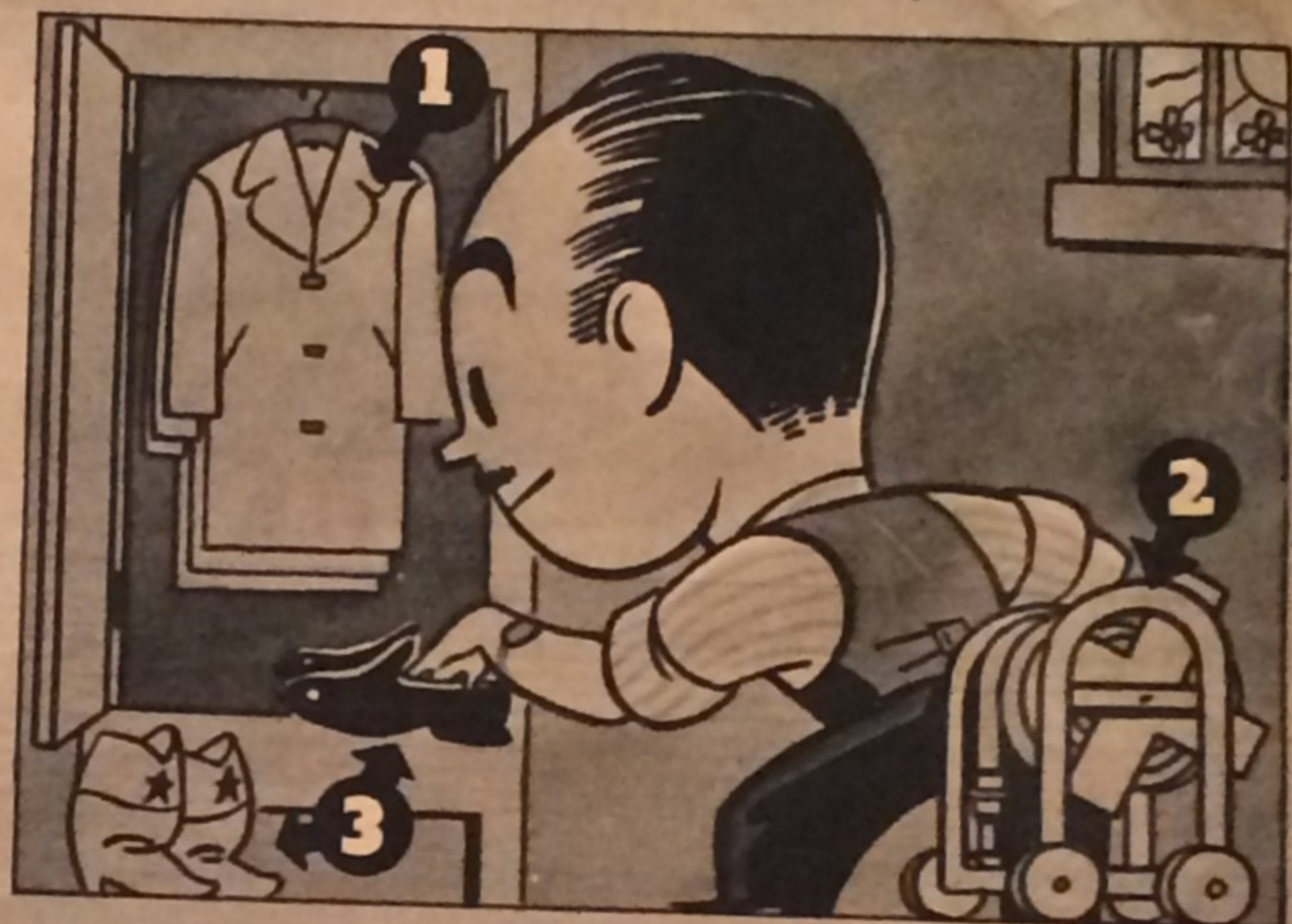
Wool is one of the most important textiles. To conserve it, Victoria packs away winter garments in a chest (1) or a sealed bag (2) after they have been dry-cleaned. For added protection she injects a small amount of moth killer (3). Woolen clothing which is not put away she brushes and suns frequently. She steam-presses when ironing her woolen articles.



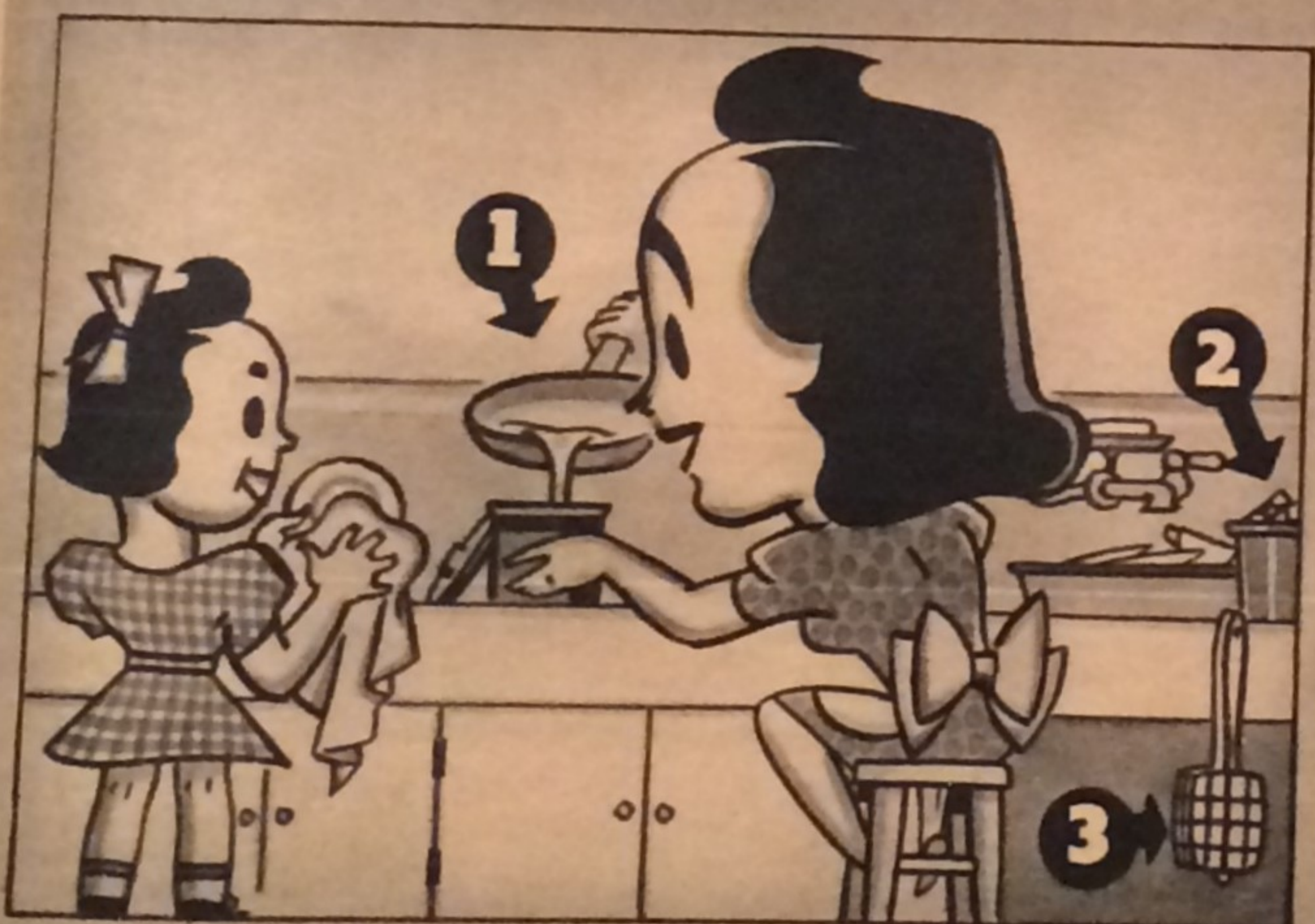
Victoria's sewing room is a busy place these days. She mends, darns and patches (2) to give garments added life. She smiles her approval when Vicky suggests new soles for old shoes (1). She saves pins and needles (3) and keeps remnants (4) to put to all sorts of future use. She makes sure that her sewing machine is cleaned and oiled at regular intervals.



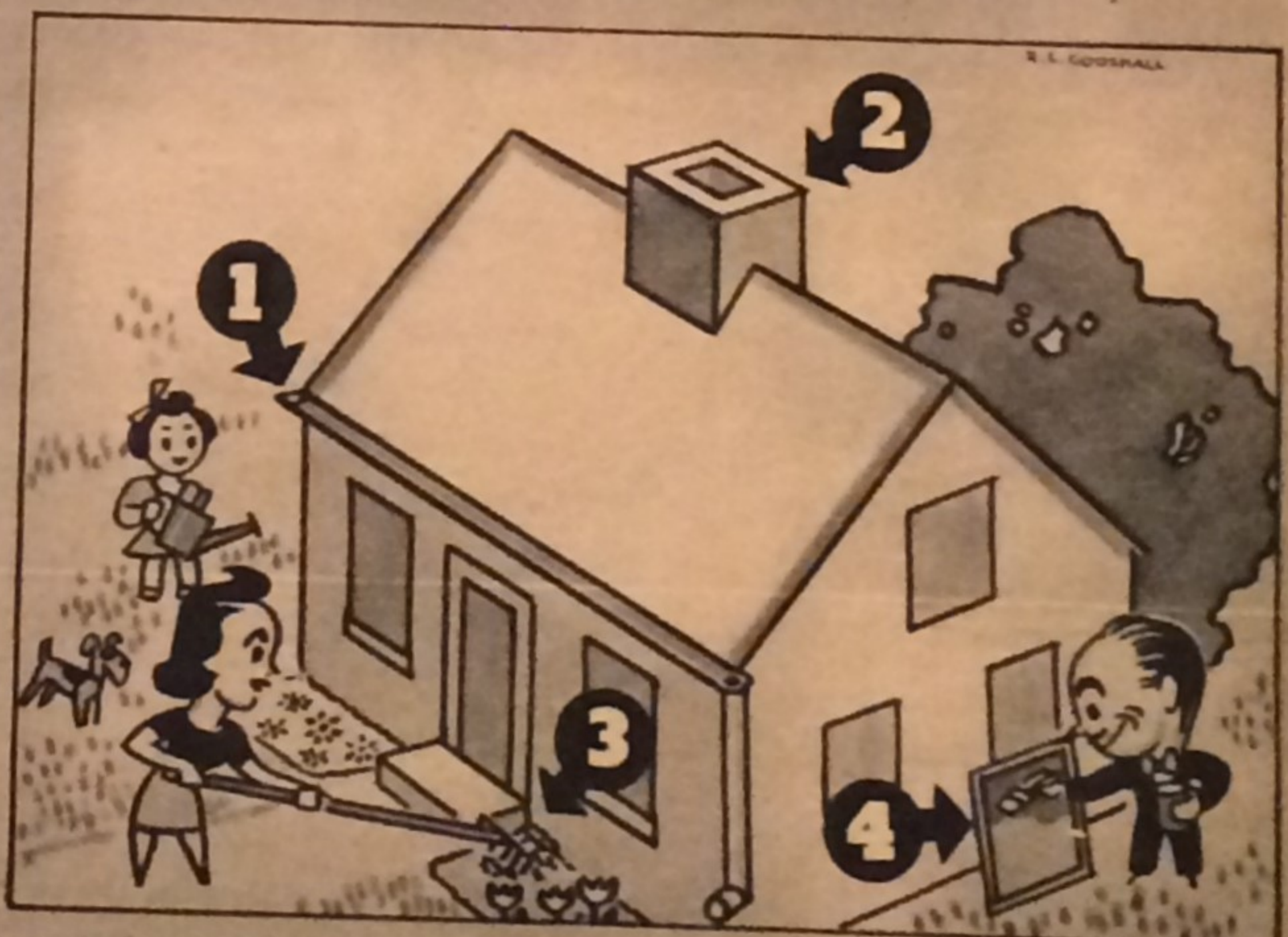
After sewing new curtains, Victoria turns the remnants to good use by making a dress for Vicky and an apron for herself (1). She fashioned a two-piece tailored Spring suit for herself from one of Vic's old ones and added a chic vestee made from an old dress. She has found that bright contrasting patches on worn clothes are fashionable.



The family raincoats (1) are kept in a cool, dry place. So are rubbers and overshoes (3), while the garden hose (2) is coiled away instead of being exposed to the weather. Victoria scrubs the raincoats with a soft brush and mild suds when they begin to look dull. The chief enemies of rubber are heat, sunlight, oil and gasoline. Heat particularly kills its elasticity.



Because fat is an important element in warfare, Victoria saves that used in cooking by pouring it into a jar (1). She takes scraps of soap, which she has kept in a dry container (2), puts them into a wire swisher (3) and uses them to make suds. She makes it a point not to let soap waste away by standing in washing water and she keeps all soapdishes dry.



The entire family takes advantage of a Spring day to put the house in good repair. Houses, too, must help win the war. Vic has cleaned and painted the gutters (1) and downspouts and is now busy on the galvanized screens (4). The chimney has been pointed up (2). Leaves and dirt have been raked away from exposed wood at the foundation level (3).



Color Portrait by James Bunnagar—Reprinted by Popular Request

GENERAL DOUGLAS MacARTHUR

Supreme Commander of United Nations Forces in the South Pacific

THE BIOGRAPHY OF AN AMERICAN HERO

IF EVER a man deserved to be called a born soldier, it is tall, handsome, brilliant Douglas MacArthur, the new supreme United Nations commander in the Pacific.

He came into the world in 1880, son of grizzled General Arthur MacArthur, literally with the sound of Army bugles in his ears, on his father's military post at Little Rock Barracks. He was weaned on Civil War strategy and cut his teeth in Indian raids on his father's command in New Mexico. And he learned his military P's and Q's in the Philippines, where the elder MacArthur was military governor after quelling the bloody insurrection of 1899.

Like every other great commander in history, MacArthur has always loved the art of war. Like other great commanders, too, he insists on sharing action with his men. In France in 1918 he was warned that a contemplated operation might result in 3000 casualties. "Very well," he replied. "If we lose 3000 men, we lose 3001." The additional man was himself.

If MacArthur is today first in war and first in the hearts of his countrymen, it is in keeping with the military record of superlatives he created for himself, beginning as a 19-year-old West Point cadet. He was first in his class, first cadet senior captain, youngest division commander in France, youngest West Point commandant, youngest American Chief of Staff, only soldier to be made a full General twice.

As a new "shave-tail" fresh out of West Point, MacArthur received his first duty assignment in the Philippines, where his father had won fame before him. "Once in action a shotgun charge took off his hat. A sergeant told him he could consider the rest of his life "on velvet."

It was not the velvet of ease, but the rich material of heroism. In 1914 MacArthur was with General Funston in Vera Cruz. In 1917 he commanded the 42d or Rainbow Division in France, was gassed and twice wounded, led the division in the final Meuse-Argonne offensive, and won a hat full of decorations.

After a brief term as West Point superintendent following the war, he was named a brigadier general and sent to the Philippines as commander of the scanty American forces there. He then served as commander of various corps areas in this country, and in 1930 was named Chief of Staff. Five years later, at the request of President Manuel Quezon, he was sent back to the Philippines to organize and train the new Philippine Army.

He had retired from the U. S. Army in 1937, but on July 26, 1941, he was recalled to duty and named commander-in-chief in the Far East. When the United States was plunged into war he became a full general, and achieved the masterful defense of Luzon—from the "fox-holes of Bataan"—that won him his latest and greatest command.



Cadet MacArthur (top) posed at West Point in 1903.



Capt. MacArthur was on the Mexican border in 1916.



In the World War, MacArthur was a brigadier general.



In 1931 MacArthur visited France to watch maneuvers.

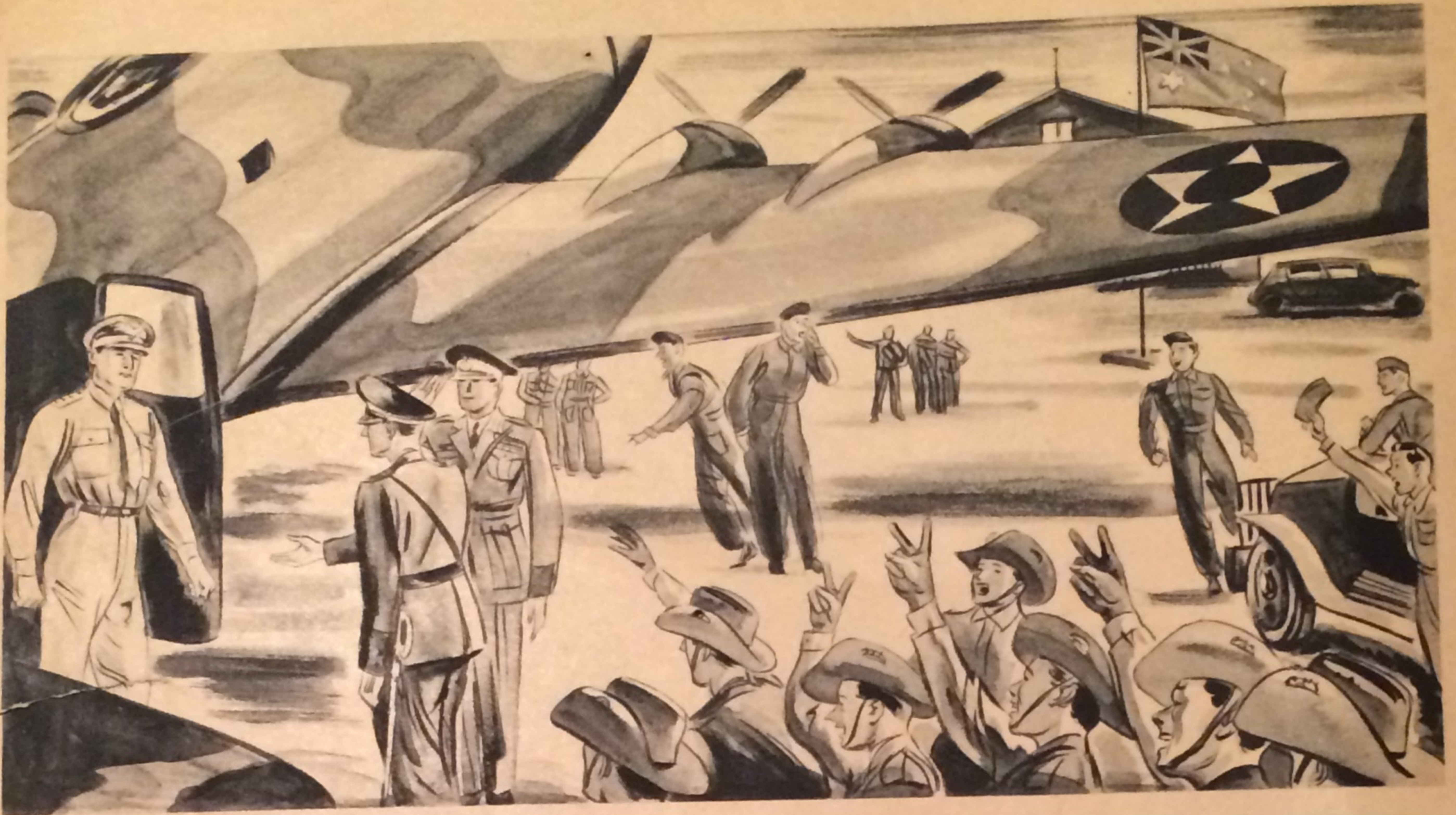


Chief of Staff MacArthur traveled to Poland in 1932.



Mrs. MacArthur assists baby Arthur in Manila in 1939.

CONTINUED ON NEXT PAGE



MacARTHUR: Continued

Arriving at an Australian airfield to assume his new command, MacArthur steps unheralded from his big plane and is met by wildly enthusiastic cheers from astonished Australian soldiers and mechanics. In this artist's conception of the historic event, an officer moves eagerly to greet him while another salutes. The probable path of MacArthur from Bataan to Australia is shown on the map at the right. The first part of the journey was by fast torpedo boats at night, the remainder by planes met at a rendezvous somewhere in the perilous South Seas.

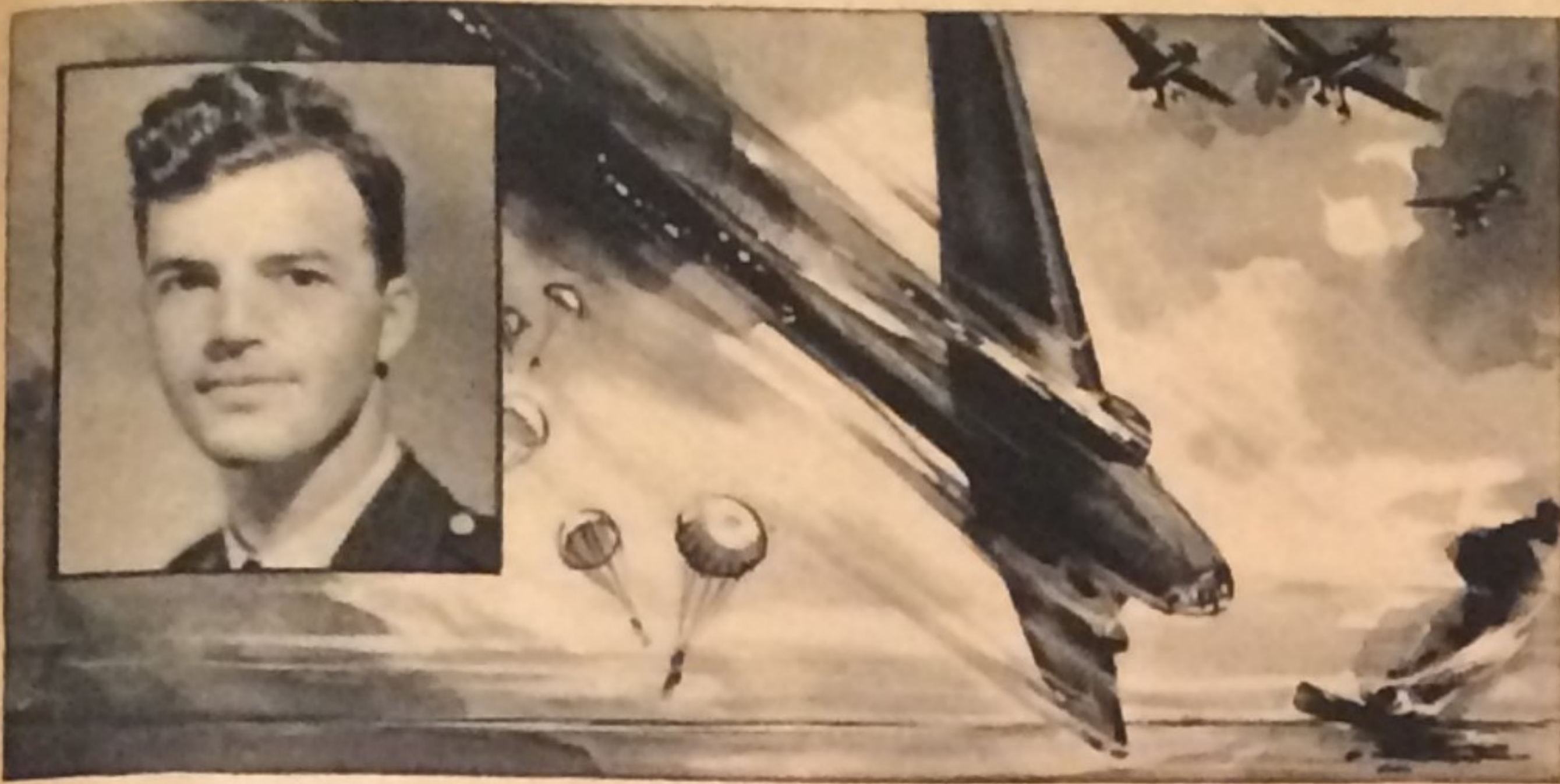


MacArthur confers in the Philippines with Lieut. Gen. Jonathan Wainwright, (left) who succeeded him as commander of the forces on Bataan.



Popular with the fighting Filipinos, MacArthur also had the confidence and friendship of Manuel L. Quezon (left), President of the Philippines.

AMONG THE U. S. HEROES OF THE WAR



COLIN P. KELLY, JR., Army captain, sacrificed his own life when he ordered his crew to bail out from his falling bomber after sinking a Jap battleship off Luzon. He was awarded the Distinguished Service Cross.



JAMES P. S. DEVEREUX, Marine Corps major, was head of the heroic garrison on Wake Island and won the Navy Cross for holding off the Japs for 15 days, meanwhile inflicting tremendous damage on the enemy.



ALEXANDER R. NININGER, JR., second lieutenant, Philippine Scouts, on Jan. 12, when his own company was resting, joined another and personally wiped out several Jap "fox holes" before he was fatally wounded.



JOHN D. BULKELEY, Navy lieutenant in command of a torpedo boat, led an attack into Japanese-dominated Subic Bay and sank a 5000-ton enemy ship in the face of heavy machine-gun and shell fire from the shore.



JESUS A. VILLAMOR, Army captain, led two flights of planes against numerically superior Japanese air forces on Luzon and routed the enemy on both occasions. He was awarded the Distinguished Service Cross.



JOSEPH L. LOCKARD, Army private, was voluntarily on aircraft detection duty when the Japs assaulted Pearl Harbor, notified his superior of the approach of planes. He received the Distinguished Service Medal.



WILLIAM F. HALSEY, JR., was the Rear Admiral in command of the audacious naval attack upon Japanese bases on the Gilbert and Marshall Islands on Jan. 31. He was awarded the Distinguished Service Medal.



EDWARD H. O'HARE, Navy lieutenant, became an ace in one day by bringing down six Japanese planes single-handed in a fierce battle west of the Gilbert Islands. His comrades-in-arms brought down 10 more.

Insignia of the Citizens Defense Corps

MODERN war is not fought exclusively on distant battlefields—it may reach up and down your own street. For this reason, the Citizens Defense Corps, comprised of an army of civilians trained and ready to protect themselves, their families and their homes can do much to win a war. Because efficiency, promptness and coolness are prime factors in an emergency, members of each branch of the Corps wear insignia enabling them to be quickly identified for action. These symbols should be carefully noted. Soon they will be appearing on the arms of men and women everywhere. The wearers will have completed required training courses in specialized duties. By your ability of identify them promptly, you may help to save lives.



Basic Insigne
Symbol for all Civilian Defense. Superimposed on the letters, "U.S.," it becomes the Federal Staff insignie.



Drivers Corps
Skilled men and women operators of all CD vehicles.



Messengers
Boys and girls, 15 to 21, to maintain contact of CD groups.



Rescue Squads
Crews to uncover victims who may be trapped in debris.



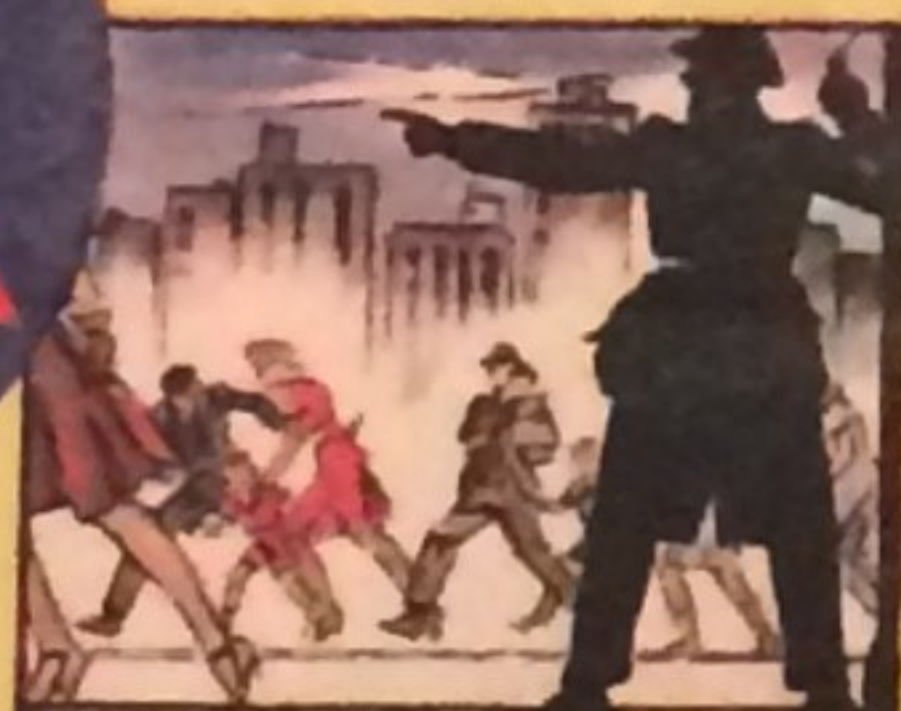
Auxiliary Police
Formed to assist work of the regular police department.



Bomb Squads
Specially trained police to handle unexploded bombs.



Air Raid Wardens
Leaders who protect against and report raid hazards.



Auxiliary Firemen
To assist regular fire fighting forces during emergencies.



Fire Watchers
Alert men to spot and extinguish incendiary bombs.



Demolition and Clearance Crews
To raze unsafe buildings, remove rubble.



Road Repair Crews
Forces of men to restore normal traffic after a raid.



Decontamination Squad
Crews trained to treat all gas-contaminated material.



Emergency Food & Housing Corps
To provide relief for victims of disaster.



Medical Corps
Staffed by doctors and trained nurses to care for injured.



Nurses' Aides Corps
Women specially trained to assist doctors and nurses.

