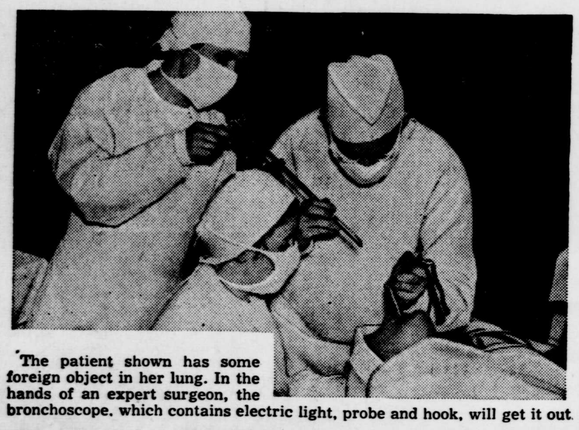
Machines Test Heart, Probe Lung

MEDICINE, like industry, has benefited by the advances of the machine age. Here the camera portrays a few of the ways machines aid in the battle for health. Above: An electrocardiograph testing the current generated by a patient's heart, in Philadelphia. Results of the test are measured on the indicator shown.

Radium poisoning has been cured by the machine above, which also detects amount in body.

Such painful afflictions as arthritis and rheumatism are treated by the articulator, machine pictured here. Miss Virginia Jones of Philadelphia is receiving the benefit of ultra short waves and exercise.



The patient shown has some foreign object in her lung. In the hands of an expert surgeon, the bronchoscope, which contains electric light, probe and hook, will get it out.

While an "iron lung" or respirator make it possible for him to breathe, this New York paralysis victim is entertained by sympathetic musicians. The "iron lung" has saved scores of lives.

This ultra-violet lamp cleans up erysipelas in three or four days.

States and Shore Line

The United States coast and geodetic survey lists only seacoast and not the coast of the Great Lakes. Florida has 399 miles of coastline on the Atlantic and 798 miles on the Gulf of Mexico, a total of 1,197 miles of seacoast. California is listed second with 913 miles of seacoast. In tidal shore line (including islands) Florida has 2,276 miles of shore. Though according to the methods of the coast and geodetic survey Maine has only 228 miles of coast line (without islands). If all the indentations are measured that state would have about 3,000 miles. Michigan has a total of 1,715 miles of coastline on the Great Lakes, including 905 miles in the Upper peninsula and 810 miles in the Lower peninsula.

Epizootic, Disease Among Animals

Epizootic means an outbreak of disease among animals, just as epidemic means an outbreak of disease among people.

FARM TOPICS

FARM STRUCTURES NEED GOOD PAINT

Late Summer and Fall Best Time to Do Work.

By E. R. Gross, Professor of Agricultural Engineering, Rutgers University. WNU Service.

Painting farm buildings every four or five years not only makes for an attractive farm scene, but also preserves the materials and increases the life of the structures.

Late summer and fall usually offer the best time for painting, because it is at this time that weather and drying conditions are best and the average farmer has more time to give attention to the job.

Good outside paints penetrate the wood enough to have a preservative effect as well as to provide protection by covering the surface.

The life of paint is influenced by the conditions under which it is applied. The surface must be clean and dry and the wood beneath must also be dry, otherwise the paint is likely to peel. Paint flows best and spreads on smoothest when the weather is warm, but extreme heat of summer is not beneficial. It dries too quickly, bakes the paint and may result in excessive chalking or checking. Temperatures between 60 and 75 degrees Fahrenheit are ideal. Paint should not be applied at temperatures below 55 degrees.

It pays to use good paint. Choose ready mixed paint of a known brand or mix it at home. In the latter case be sure of the formula, use the best of materials and stir to uniform consistency. Before painting, do necessary repairing — putty all cracks and nail holes, scrape all loose paint and brush the surface clean.

A good building kept well painted and repaired should last 100 years or more. During this time a building may be remodeled for three or four different uses, so it pays to preserve buildings by keeping them repaired and painted.

City's Fruit, Vegetable Supply Comes Many Miles

Nearly one-third of the more than 70,000 carloads of fresh fruits and vegetables sold last year on the Chicago market—a typical American big city, with year-around demand for fresh products—traveled more than 2,000 miles and arrived in near-perfect condition, the United States Department of Agriculture reports after a survey of transit and storage diseases. Much of this success is due to shipping and storage tests by the department.

Ten per cent of the fruits and vegetables traveled more than 2,500 miles to the Chicago market. Another 10 per cent was shipped 1,500 miles; 25 per cent, 1,000 miles; and 22 per cent, including that trucked in from Illinois and nearby states, less than 500 miles.

Even though Chicago is centrally located, the vegetables in a simple combination salad may have traveled more than 5,000 miles. Tomatoes from Florida, lettuce from California, and onions from the Rio Grande valley, all arrive in good condition as a result of better knowledge of packing and refrigeration.

Most fresh fruits and vegetables are now available throughout the year in most large cities and in many smaller ones. Even strawberries and watermelons, once available for only a short period each year, may be purchased in quantities for six to eight months each year.

Many 4-H Clubs

There are 4-H clubs in every state and United States territory. Any girl or boy between ten and twenty and living on a farm can join. Only requirement is to carry a project in some branch of farm work. Many Department of Agriculture extension agents and state agriculture experts are former 4-H members. The "4-H" stands for the pledge of head, heart, health and hands in the club creed.

FIELD AND FARM

Hatching eggs held longer than ten days decrease in hatchability.

• • •

It is estimated that an acre of meadowland will contain on the average about 15,000,000 insects.

• • •

Danish co-operative creameries receive whole milk direct from the farms and the average co-operative handles from 2,000 to 3,000 gallons of milk a day.

• • •

Sugar cane requires 9 to 13 months to mature.

• • •

"Large" eggs, so labeled, must weigh 24 ounces a dozen, according to law.

• • •

Baby chicks can be fed a limited amount of sour milk along with water and a regular starting feed.

• • •

When pastures become so scant that heifers can not get enough feed to keep them growing, additional feed is advisable.

• • •

Kansas fattens more than 300,000 southwestern ranch and range cattle on its bluestem pastures each year.

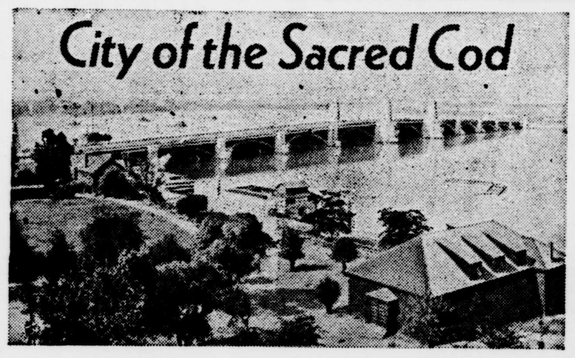
• • •

A serious problem of the poultry industry is the lack of proper feathering of broilers in many of the heavy breeds.

• • •

For progressive herd improvement, good sires must be mated with the best transmitting cows. These can not be chosen accurately without the use of production records.

City of the Sacred Cod



Charles River Basin and West Boston Bridge.

Some Reasons Why Boston Can High-Rank Among American Cities

Prepared by National Geographic Society, Washington, D. C.—WNU Service.

GEOGRAPHICALLY, Boston is the trade and population center of rich, industrial New England. A few minutes' ride from Faneuil Hall are more than 5,700 factories and over 25,000 stores of one kind or another.

Boston does not flaunt these distinctions; yet seek and you find she has America's largest drydock; the world's greatest fish-freezing and storage plant. Here is a center of America's paper, wool, textbook, and cotton-manufacturing industries, and the second port in America in volume of ocean-borne passenger traffic.

Her deep-channeled harbor, whose modern piers connect with rails and highways, is one of the most accessible on the Atlantic seaboard; it has 40 miles of berthing space and deep water to accommodate the largest vessels.

When "Boston ships" traded hardware for California hides before the days of '49, the shoe and leather industry of New England began. Today, a large share of all hides used in American leather and shoe factories is bought and sold inside one square mile of old Boston, where even in the middle of the street you catch the acrid whiff of newly tanned leather.

In Bombay is an old American icehouse. It dates from the period, beginning 1805, when Boston skippers took cargoes for sale in Jamaica, Cuba, Brazil and India. Now high-grade electrical machines, which include refrigerators, rank among Boston exports.

Boston's pioneer place in the import and processing of tropical things is still hers. She and her neighbors make now more than a third of all America's rubber shoes; the trade name of one cocoa made here has been a household word for generations. Jute, burlap, goatskins, fleeces, bales of cotton, sisal, fruit, sugar, coffee, all pass this way.

Ask how long skilled workers have served in the same plants; hear how many generations of a given family have worked at the same trades, and you begin to account for the vitality of Boston industry. Here is pride in good work, inherited knowledge, genius for craftsmanship.

Made Banana a Staple Food.

John Hancock probably never saw a banana. At the Philadelphia Centennial exhibition, in 1876, curious crowds gazed in wonder at a bunch of them. Now everybody, from Quoddy Light to Golden Gate, from Key West to Alaska, knows their smell and taste.

Boston's United Fruit company makes the banana, once a rarity wrapped in tinfoil, today a staple American food.

Yet its greatest feat is not in distribution, but production. About its success in turning jungle into rich plantations and its conquest of tropical disease, piles of fat books are written. All that is far from Boston, yet it was a Boston man, Andrew W. Preston, who conceived these incomparable tasks. When he began, long ago, the world banana crop barely equaled what New York alone now eats in a few weeks!

To get bananas the company had to raise them; so it became a vast agricultural concern. Jungle areas cleared and planted total thousands of square miles.

When Minor C. Keith, of United Fruit, started his railroad to Costa Rica from Puerto Limon to San Jose, a 19-year job that cost more than 4,000 lives from fever, there was but little rail in all Central America. Now the company owns and operates its tracks, trucks, and aerial tramways in a dozen tropic regions. It has built towns, piers, radio stations, hotels, harbors, hospitals; stores, schools, churches, theaters, playgrounds; shops, warehouses, markets; water, light, and power plants, and workers' homes by the thousands.

Besides growing bananas, it raises meat, vegetables, and other foods for its armies of workers, and operates sugar plantations, mills, and refineries; grows coconuts, cocoa, and other tropical products; and annually carries some 40,000 passengers on its 97 ships from Boston, New York, Baltimore, New Orleans, and San Francisco to 25 different ports between Habana and Cartagena, Colombia.

You think of all this when you sit in its Boston offices and watch engineers, munching bananas, draw plans for new drainage works in Panama, or experts testing soils for still more plantations in Colombia.

Center of Fish Industry.

Though Boston, remote from grainfields and ranches, must go far for bread and meat, she also covers much of America with fish, as well as bananas.

"But what profit might arise?" That was King James' query when Pilgrims asked him, in 1618, to permit them to sail for the New World.

"Fishing," they replied.

"So, God save my soul!" he exclaimed. "'Tis an honest trade. 'Twas the Apostles' own calling."

There's a reason why the Sacred Codfish is an emblem of Massachusetts; why its effigy hangs now in the statehouse, and has hung, in one assembly hall or another, for more than 200 years. It saved the early settlers from starving; preserved with salt from England, it became their first export, their first source of revenue.

Boston, like Gloucester, catches many other kinds now, from lobster to mackerel, and helps feed the whole United States. And cod is no longer the favorite; haddock is more in demand.

Go for a trip in a trawler. Heading for the Stellwagen bank, the dingdong echo of your radio depth-finder warns you that you are over the fishing grounds, and the big conical net is let go.

Wooden wheels, set on its lower lip, let it roll easily over the ocean floor; big wooden gates at each end, opening outward keep it stretched wide open, so that it scoops up everything that swims or crawls, from "sea eggs" to squid.

With such suggestive names as Kingfisher, Penguin, and Cormorant, the trawlers and scores of other boats come back to unload at the huge Boston fish pier, which handles fish by the trainload.

"Green," or unfrozen, fish is shipped as far west as Mississippi; frozen fish, really fresh fish preserved by freezing which will keep in perfect condition a year or more, reaches the Pacific coast, while salted and dried codfish, or "bacalao," is consumed as far away as southern Europe, the Caribbean, and the coast of Brazil.

Dawn brings the auction in a big "pit" at the pier's end. Signs on the walls say all bidding must be in English; bids are called in English, but debates rage with confusion of tongues.

Then this big, busy fish pier echoes with excitement. Men in rubber boots, wearing caps with long visors like duck bills, throw fish into rope baskets and swing them to the docks. Others run hither and yon, pushing bright-colored carts filled with fish, followed by sniffing, hard-faced wharf cats.

Bostonians Are Good Sailors.

These Boston people love the sea. For generations they sailed it to make a living. Now many sail for fun, yet with all the skill and grim intent of adventurous clipper days.

Be asked to sail in yacht club races, especially if all your racing experience has been on the deck of a mustang, and you hear a new language. On the first day of "soft spots" in the air, of tacking, luffing, crossing of bows and sterns, and shutting off of the rival's wind, sailing seems a sport not only of odd speech but of mysterious motions.

Then, all at once, you begin to sense these tricks of jockeying with boats. Here is horse racing, but on water! Instead of crowding the other, riding in to the rail to slow him down, you shut off his breeze power. Ship lines are only bridle reins; stiff breezes are spurs, and letting out a spinnaker is merely giving your nag her head.

Fair play and good sportsmanship are ingrained. Inherited English ways and proximity of Harvard, with its generations of clean sport, have fostered this love for games.

Plenty of Sport There.

Gymnasiums came early, where circus acrobats and strong men used to be invited to "show off" for the boys. That colorful character in prize-ring history, John L. Sullivan, was born in Boston. Cricket, hockey, boxing, rowing, swimming, high bicycles, and ball players in full beards, Boston fostered them all; yet permitted no league baseball games on Sunday till 1929!

Special "snow trains" leave now, taking winter crowds with skis, sleds, and toboggans, at the first news of heavy snows in the White mountains. Born of the old East Indian battledore and shuttlecock, and introduced into England about a century ago by returning army officers, the game of badminton is now also much played about Boston.

New among Boston sports is midget motor-car racing. She has a special Tom Thumb track, an oddly formed figure with seven turns. To it, on race days, tiny speed cars are hauled on trucks, for rough-and-tumble contests.

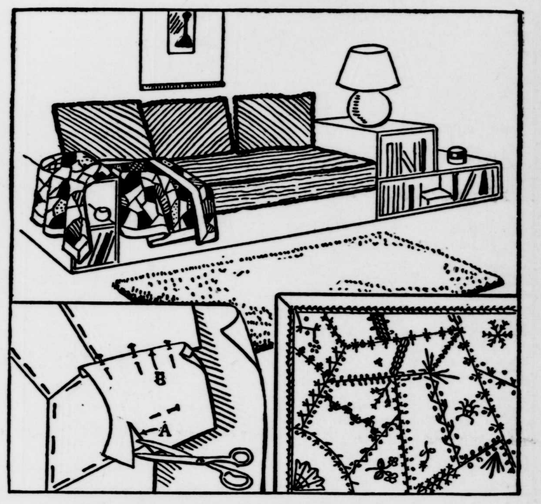
Instead of arresting people who now swim on Sundays, the city of Revere and the state jointly support a vast pleasure resort at Revere beach. Here you can rent a locker and a bathing suit for 10 cents. After one Sunday's sport the city laundered more than 100,000 bathing suits!

The public playground, the Common, was once a cruel, mirthless place where men were whipped at posts and taunted in the stocks; where pirates and Quakers were hanged, and trenches dug for British soldiers killed at Bunker Hill.

Great trees shade the Common now, and on city-built playgrounds boys and girls of mingled races romp through their games.

HOW TO SEW

by Ruth Wyeth Spears



Crazy Patch Work at Home in a Modern Setting.

THE crazy patch is the oldest of quilt patterns, yet there is something amazingly modern in its angular lines. So whether your living room is traditional in style or newer than tomorrow you will be interested in the revival of crazy patch work for what our grandmothers and great-grandmothers called a "slumber throw."

A corner of one of these old silk crazy quilts is shown here at the lower right. The pieces were small—many not more than 1½ inches wide or long. A variety of embroidery stitches joins the pieces. Both plain and figured silks were used, the plain patches often being embroidered with flowers, fans and other amusing motifs—note the beetle embroidered on one patch. Several colors of silk embroidery thread were generally used but in the most artistic of these quilts one color predominated in the embroidery.

Larger patches with simple feather stitch and herring-bone stitch at the joinings also give a good effect. The pieces are sewed to a foundation of some firm soft material. Outing flannel or an old wool blanket are good. Pin a piece in place over the space to be filled, trim the edges to the right shape, as at A, allowing enough to turn under, as at B, where the patch laps over the one next to it. Baste the turned edges down as shown. When a number of patches have been basted in place, sew them down to the foundation with the embroidery stitches and then remove the bastings. The backing is tied to the front with silk embroidery thread as comforters are tied. Little or no padding may be used and a plain band around the edge is effective.

Every Homemaker should have a copy of Mrs. Spears' new book, SEWING. Forty-eight pages of step-by-step directions for making slipcovers and dressing tables; restoring and upholstering chairs, couches; making curtains for every type of room and purpose. Making lampshades, rugs, ottomans and other useful articles for the home. Readers wishing a copy should send name and address, enclosing 25 cents, to Mrs. Spears, 210 South Desplaines St., Chicago, Illinois.

Uncle Phil Says:

Distrust Is Your Responsibility

Is it more disgraceful to distrust one's friends than to be deceived by them?

A nature lover is like other lovers. His love is most ardent when he doesn't know much about it.

Some pick their friends and some are picked as friends by others.

The deaf aren't entirely unfortunate. Most of our worrying is caused by the talk we hear.

Likes the Velvety Touch

A grouch does not like grouches. He hates them.

Whenever it is "officially denied" there is a "catch" somewhere.

Because you are suavely asked to give your candid opinion, don't necessarily do it.

Romantic names given children may plague them in later life.

Even when you have plenty of money you sometimes don't know how to spend a lonesome evening.

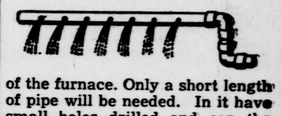
Home Heating Hints

By John Barclay, Heating Expert

Simple Way to Avoid Dust When Shaking Grates and Taking Ashes From Pit

THERE is an easy way to keep dust from sifting through the cracks of the ashpit door when shaking furnace grates. Quite a few readers have asked me how it can be done, and I'm sure many more of you will be interested. Here's how:

Have a spray made of small pipe, connected with the cold water system installed in the ashpit



of the furnace. Only a short length of pipe will be needed. In it have small holes drilled and cap the free end.

Just before shaking the grates, turn on the spray. It will throw a fine mist over the whole ashpit, wetting down the ashes as they drop through the grate openings and settling the dust immediately. Then remove the ashes from the ashpit. They will be sufficiently wet to prevent the dust from rising and settling in the cellar.

The cost and installation of such a spray will be but little, and it certainly will save you considerable work in dusting off things on which the dust would otherwise settle.

Many doctors recommend Nujol for its gentle action on the bowels. Don't confuse Nujol with unknown products.

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LIFE'S LIKE THAT

By Fred Neher

"Does yours say 'Mama' too?"