

Incubator for Early Hatching Is Economic Asset on the Average Farm

MANY ADVANTAGES OF INCUBATORS ON FARMS EMPHASIZED

Devices Are Necessary for Getting Early-Hatched Birds; Experiments Made.

By Charles S. Brewster

Does the incubator have a place on the farm where 100 to 150 hens are kept? Can the farmer, afford to invest in an incubator and the necessary brooding equipment to go with it? Such questions are confronting many farmers of the country today.

The high prices which have prevailed for eggs during the present season should serve to bring to the attention of the farmers the value of having birds in their flocks which will be well matured and laying during the fall and winter months when prices are highest.

PULLETS ARE IMPORTANT

Experience has shown that early-hatched pullets must be depended upon for winter egg production. The average hen will not lay much before January or February. By early-hatched pullets we mean that Leghorns should be hatched between April 1 and 15, not later than the first of May, and that Plymouth Rocks, Wyandottes, Heds and the heavier breeds should be hatched a month earlier, or about the middle of March. This means that for the heavier farm flocks, the eggs must be set during the latter part of February and that the flocks must be mated for about two weeks before that.

In a flock of 100 fowls, as found on the average farm, there should be approximately 60 pullets and 40 breeding hens. The pullets should be replaced each year, as we must depend upon pullets for the winter eggs. To raise 60 pullets it will be necessary to set 300 eggs, or 20 pullets and 40 breeding hens. The average farmer is unable to get 200 eggs to set during the latter part of February or early in March.

INCUBATOR NEEDED

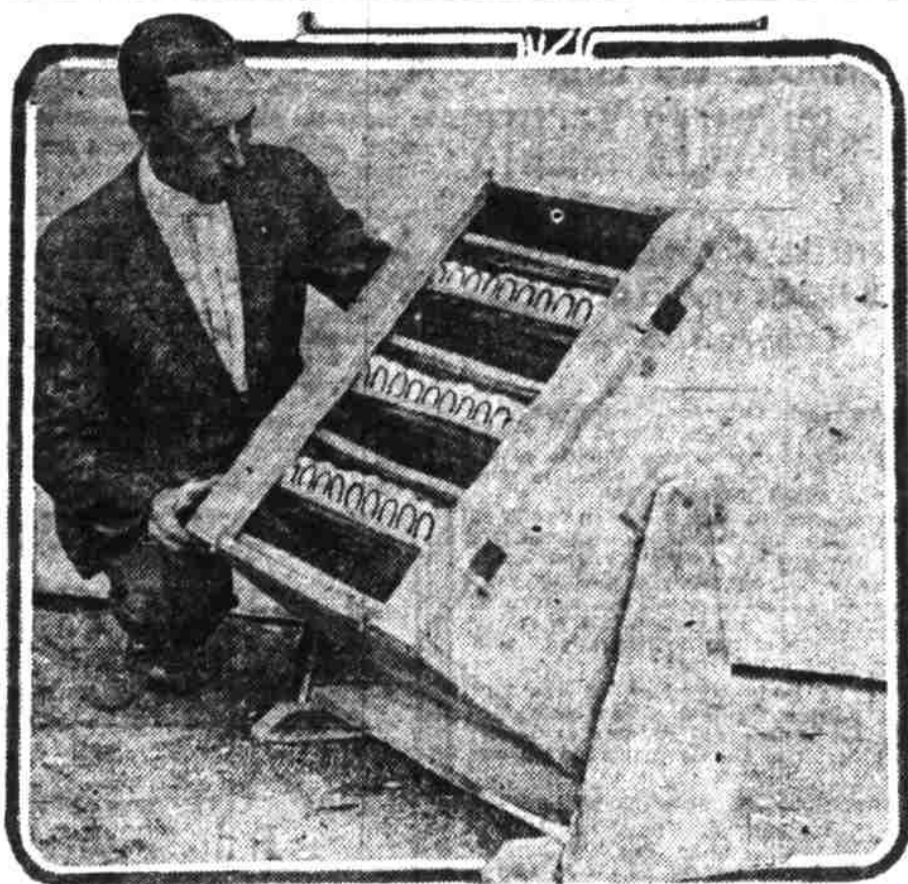
Therefore, in order to get early-hatched pullets, an incubator is necessary. The early-hatched birds will grow more rapidly and mature more quickly and economically than the late-hatched ones. The early-hatched cockerels may be put on the market when the price is highest. In experiments carried on at Purdue university during the past four years, April hatched Leghorn cockerels and March hatched White Rock cockerels were sold at a profit, while May hatched broilers were sold at a loss.

An incubator has some decided advantages. It is fully as reliable as the hen if properly managed and is more sanitary, there being less danger from lice and mites. It is convenient, requiring less labor to care for 300 eggs in the incubator than for the same number under 20 setting hens. It is always ready to work, and the time of hatching can be regulated by the owner so that he will be able to give the chicks proper attention when they arrive without interfering with other work.

ECONOMY IS FACTOR

It is economical, also, for the cost of operation is less than the cost of feed for the corresponding number of hens, and in addition the egg production of the hens during the period when they would have been setting is saved. The hen's time is valuable and may be em-

TURNING EGGS EASILY



Eggs saved for incubation should be turned daily. This home-made device makes turning of a large number but a moment's work.

played more profitably than in hatching.

There are many makes of incubators and many of them are good. The hot air and hot water machines will hatch equally well, quality of construction being equal. A medium sized machine of 150 to 400 egg capacity is best suited for that average farm conditions. In buying an incubator, look for good quality of materials and workmanship. A well made wooden case is usually better than the cheap metal covered one. With either type, the walls of the machine should be well insulated.

FIRE DANGER AVOIDED

The heater should be on one end of the machine rather than underneath it, as there is less danger of fire and it is more convenient to handle. There should be a simple but strong arrangement for holding the lamp in place, which will easily get out of order. The lamp bowl should be large enough to contain a supply of oil sufficient to run the machine for 24 hours. The legs should be substantial and well fastened to the body to prevent jar or vibration that might injure the hatch. Don't buy a cheap machine; that is, one that is cheaply constructed. The well made machine at a higher price will last longer and give better results. In selecting an incubator, it is sometimes a good thing to select the machine which is proving the most successful in your locality. It is reasonable to suppose that such a machine will be well adapted to your local conditions.

Baker Farmers Elect

Baker, Feb. 21.—Officers that were elected by local No. 47, Farmers' union, and installed by Rev. Owen F. Jones at a recent meeting were F. W. Eppinger, president; R. E. Boyce, vice president; T. C. Huff, secretary treasurer; Phillip McGivney, conductor, and J. C. Lorentzen, doorkeeper. B. S. Crabill, G. A. Marshall and W. J. Cook trustees.

By-Products Feeding

The best practices of feeding the by-products of the sugar-beet crop will yield a net profit equal to half the net profits usually had in growing and marketing the crop of beets.

BOXED APPLE INDUSTRY OF PACIFIC NORTHWEST IS SICK, SAYS SAPIRO

Californian Shows How Fruit Growers Are Benefited by Co-operative Marketing.

That the boxed apple industry of the Pacific Northwest, which controls about 80 per cent of the boxed apples of the country was "sick" was the statement made by Aaron Sapiro of San Francisco before a large delegation of Oregon, Washington and Idaho apple growers, who met for their annual convention in Seattle this week.

Sapiro, who is regarded as the coast's leading authority on cooperative marketing organizations of producers, pointed out how the California growers through mutual effort had organized their industries into high grade merchandising associations. He urged the apple growers of the Northwest to look at their marketing problem without considering state lines but always remembering that each district was entitled to recognition as the point of origin of any particular variety and grade of apple. The principal subject under discussion by Sapiro was the organization of a real non-profit cooperative organization of Northwest apple growers controlling their own selling organization and operating cold storage and warehouse properties in desirable districts.

"Unless you can provide some form of storage which will enable you to carry your fruit into the higher priced season so as to merchandise your apples instead of continuing to dump 30,000 car loads of apples on the market within a few weeks the boxed apple game this year is going to be a mighty sick business," said Sapiro.

He illustrated the wonderful success of the California fruit growers' associations who have developed sales organizations which they own and control. In groups of producers Sapiro said that there are always men who can be developed into executive officials of ability and pointed to H. V. Coykendall of the prune and apricot association, and Wylie M. Giffin of the Associated Raisin company as types of men which farm-

Yearsley Rabbitry

New Zealand's Exclusively Breeding Stock for Sale
Oak Grove, Oregon
PHONE OAK GROVE 1203.

GREEN MEADOW FARM

OFFERS A YOUNG BULL THAT IS 50% THE BLOOD OF GOLDEN GLOW'S CHIEF

He is backed by Gold Medal animals and big records close up. For information regarding this splendid individual, write to HENRY STEWART, Albany, Or.

RABBITS

There is a demand for rabbit meat far beyond the average belief, but one of the great drawbacks that prevails is the unreliable source of supply. This may seem a broad statement, but the majority of breeders have so far made little or no effort to hold to any standard or system in the marketing of their animals.

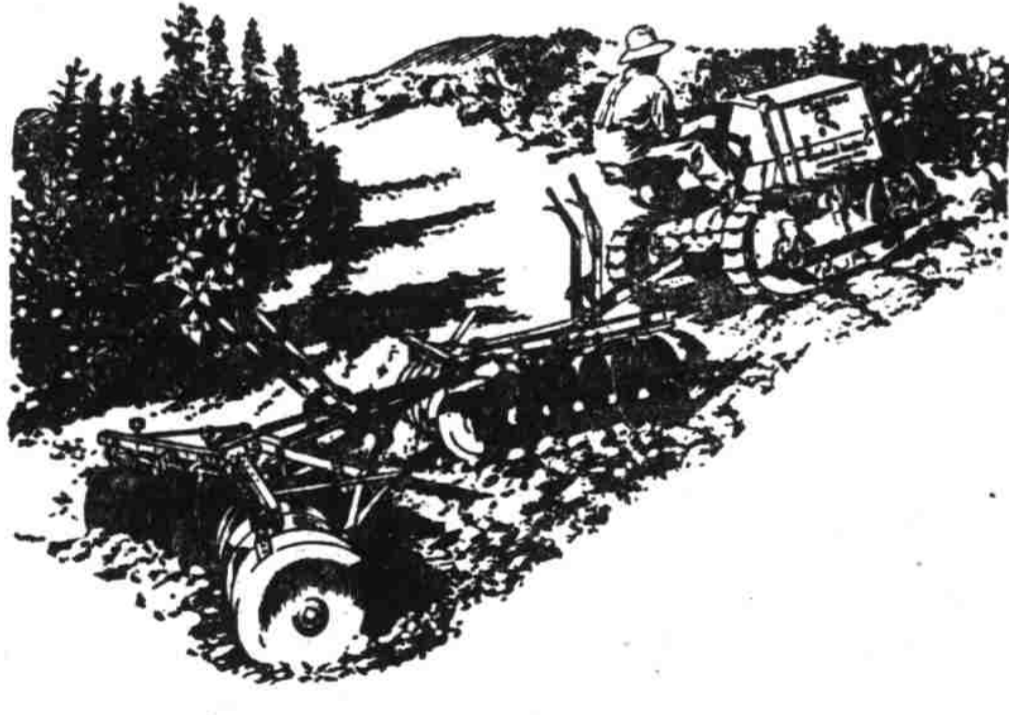
The hotel must have a regular source of supply for rabbit meat for each day or each week, just the same as for other meats. For this trade the rabbits must be of uniform size and quality and be delivered in an attractive form. The price will then find its level by the demand that is established for the finished product placed before the consumer.

In Europe the rabbit is a staple food. There marketing of the younger stock is not encouraged, but the larger rabbits are sold and cut up into halves and quarters, the largest cuts getting the higher prices.

The demand in this country seems to be for the young and not too heavy animals sold entire.

Ashland Eggs Bring Large Sum

Ashland, Feb. 21.—The Ashland Egg and Poultry society, a cooperative association of poultry raisers in this vicinity, since last March has sold \$8000 worth of eggs. All eggs have been handled at an expense of two cents a dozen, which expense includes crates.



Cletrac

TANK-TYPE TRACTOR

20 Horse-power at the pulley—12 at the drawbar

Power galore! You don't sacrifice drawbar pull when you buy the Cletrac. It's little—but Oh, my! Just the tractor you've needed. Works close to the trees with a big load. Your work is finished on time and thoroughly done. Works on any ground, any time. Doesn't mire or pack the soil.

Upkeep small. Large roller bearings in all track-wheels. Motor dust-proof. New tank-type, 8-inch-wide, single-grouter track. Water air-clarifier. Cletrac is built to last. It is the economical tractor.

Let us show you how the Cletrac works right on your own place with your own work. No obligation.

Alexander-Badley Company

360 East Morrison St., Portland, Or.

ers' organizations produce when the opportunity is ready. J. F. Lanser of The Journal addressed the Skookum Packers' association on the value of advertising to create consumer demand.

POULTRY NOTES

Do not feed green cut bone oftenener than every other day. It is best fed in a trough. Allow about one half ounce to each bird. Should too severe or continued looseness of the bowels follow the feeding of the bone, it should be discontinued or the quantity reduced.

The early hatched pullet begins to lay early in the fall and continues to lay when eggs are high in price.

The size of the henhouse should be governed by the size of the flock. From 40 to 50 seems to be about as many birds as are safe to keep together. With flocks of this size from 4 to 5 square feet of floor space should be allowed to each bird. This will suffice in most cases where careful attention is given to cleanliness and ventilation. If the fowls are kept in smaller flocks more floor space to a bird will be needed.

In sections where the climate is so mild that it is unnecessary to keep fowls confined, except for a few days at a time, less space to a bird should be sufficient. The smaller breeds, being more active and restless, require

The Peace Treaty

between insect pests and the fruit raiser

NEVER WILL BE SIGNED

In this continued warfare the fruit raiser who is armed with a

HARDIE POWER SPRAYER

knows he will win the fight, that he will produce a clean, profitable crop.

We manufacture a size to fit your orchard requirements.

SEND FOR OUR CATALOG

The HARDIE Manufacturing Co.

55 N. Front St., Portland, Oregon

about as much room as the larger breeds.

For the greatest amount of floor space for the least cost a building should be square. Other things being equal, the nearer square a house is the less lumber it will take, according to poultry specialists of the United States department of agriculture. However, it is sometimes out of the question to build a large house square. A building should not be so wide that the sun cannot reach the back of the house, otherwise it will be damp. Fourteen feet is a convenient width. Build the house as low as possible without danger of attendants bumping their heads against the ceiling. For the low house is more easily warmed than a high one.

Mites are more troublesome to poultry and more harmful than lice. They do not live upon the birds like the lice, but during the day hide in the cracks and crevices of the roosts and walls of the house, and at night they emerge and wander about upon the fowls. They suck the hen's blood, and if allowed to

Have You Heard?

of this wonderful tonic which makes profits for poultry raisers? Dr. LeGear's Poultry Prescription has been used by hundreds of thousands of poultry raisers to build up bigger business. It makes vigorous, healthy layers. Try it today. Ask your dealer.

Dr. L. D. LeGear's Remedies are sold in Portland, Ore., by

- Routledge Seed & Floral Co., 145 Second St.
- Young & Northrup, 295 Front St.
- Lensch Brothers, 241 Front St.
- East Side Feed Co., 120 Union Ave.
- Montavilla Feed Co., 1956 E. Stark St.
- Ziegler & Misner, 418 East Clay St.
- Jancke Drug Co., 280 Grand Ave.
- Phoenix Pharmacy, 6616 Foster Road.
- Julian Chybke, 1721 13th St.
- C. S. Schmiedskamp, 1842 Sandy Blvd.
- Skook & Benson, 1142 Union Ave. N.
- Plummer Drug Co., 3rd and Madison Sts.

Dr. LeGear's Dealers in Suburbs

- Perry Pharmacy, Milwaukie, Ore.
- R. Fraytag, Gladstone, Ore.
- Oak Grove Mercantile Co., Oak Grove, Ore.
- Brady Mercantile Co., Oregon City, Ore.
- Chas. Berthold, Beaverton, Ore.
- J. B. Imlay, Reedville, Ore.
- Walrad Mercantile Co., Gresham, Ore.
- J. M. Davis & Son, Fairview, Ore.
- T. Kruse, Parkrose, Ore.

Portland Machinery & Supply Co.

WHOLESALE DEALERS IN
Second Hand Machinery
Engines, Boilers, Motors, Pumps, Pulleys, Cables, Copper, Brass, Rope, Rubber, Pipes, Belting, Shafting, Lead, Plumbing Supplies, Etc.
SPECIAL PRICES FOR ALL KINDS OF JUNK
Country Orders Solicited and Promptly Attended To
220 FRONT ST., PORTLAND, OR.
Phone Main 1871

DELCO-LIGHT

The complete Electric Light and Power Plant

Lights the barn. Runs the milking machine. Makes chores easy.



MODERN APPLIANCE CO.
H. A. Oonger, Mgr. 3 N. 9th St. Portland, Or.

SASH AND DOORS

O. B. WILLIAMS CO.
1948 First Avenue South, Seattle

WINDOW AND DOOR FRAMES
For immediate shipment; all machined, ready to put together, at money saving prices. No special skill or tools required to set them up. A window frame complete with pulleys for \$1.75.
Our large illustrated catalogue No. 32, showing full line of building material, free on request.

O. B. WILLIAMS CO.

Established 1899

GOLDEN ROD POULTRY FOODS

Use the Best That's Made

- GOLDEN ROD SCRATCH FOOD
- GOLDEN ROD EGG MASH
- GOLDEN ROD MILKOLINE MASH
- GOLDEN ROD DEVELOPING FOOD
- GOLDEN ROD GROWING MASH
- GOLDEN ROD PIGEON FOOD

Initial Trial Your Dealer Supply You With Golden Rod Poultry Foods
GOLDEN ROD MILLING CO.
PORTLAND, OREGON

Abortion—Sterility

—in—
CATTLE

CONSULTATION FREE
DR. M. HOWES, VETERINARIAN

Phone: Tabor 6566
1971 EAST STARK ST., PORTLAND, ORE.

become plentiful—as they certainly will her health and consequently her ability if not destroyed—will seriously affect to lay eggs.

Diamond CHICK Food



SAVES LITTLE CHICKS and helps them to grow into big, strong, healthy birds.

A clean, wholesome, natural food—no dust—no waste. Keeps the chicks healthy and makes them grow fast.

Look for our Name and Trade Mark on Every Original Package

OUR 1920 CATALOGUE

Of "Diamond Quality" Poultry Supplies, listing everything necessary for the profitable production of poultry mailed free on request. Ask for Catalog No. 122.



"BUCKEYE" Incubators and COLONY Brooder Stoves

Winter Prices—Spring Delivery

The wise buyer is making his selection now of a good used car, not only taking advantage of low winter prices, but getting the pick of the stock. We have sold thousands of used cars to satisfied customers.

The Obye policy of a square deal is known throughout the entire Northwest.

Make our store your headquarters while attending the Auto and Truck Show
Used Cars—All Makes—Easy Terms

Lewis E. Obye Motors Co.

Broadway at Couch Portland, Oregon

FREE TRIAL—OREGON SEEDS

We are convinced that our Oregon grown, acclimated seeds are superior, and know YOU WILL BE CONVINCED when you try them. LET THE SEEDS TALK.

We offer the following 7 regular sized packets (worth 55c) free, except we ask you to send 10c in wrapped coin or stamps to cover cost of labor, envelopes, mailing (mention The Journal):

- ### OREGON GROWN SEEDS
- 1 pkt. Cabbage, Gill's Oregon Ballhead..... 15c
 - 1 pkt. Jersey Kale (Stock Feed)..... 10c
 - 1 pkt. Squash, Delicious..... 10c
 - 1 pkt. Onion, Yellow Globe Daughters..... 5c
 - 1 pkt. Lettuce, Iceberg..... 5c
 - 1 pkt. Spinach, Victoria..... 5c
 - 1 pkt. Rutabaga, Improved Purple Top Yellow..... 5c

We will also mail you our 16-page catalogue describing our OREGON GROWN SEEDS, DAIRY, ROSES, PERENNIALS and NURSERY STOCK. This offer good only once to each family. Mention this paper.

GILL BROS. SEED CO., Portland, Or. Route 1.

UP AGAINST

71c BUTTER 71c FAT

MR. DAIRYMAN—To help you meet the feed bill we are straining every point to pay you more for butter fat. Take advantage of our helping hand and ship us your cream.

WE ALWAYS PAY MORE

Peerless Butter Co.

45-47 Front St., Portland, Oregon

Auto Tires and Tubes

Cupples and Warner—best commissions—best tires—best guarantees of any tires on the market. We want agencies and salesmen.

Can give territory in Oregon, Washington, Idaho and British Columbia. Write, wire or call on us at once.
ALEXANDER-BADLEY, Factory Representatives
260 EAST MORRISON STREET, PORTLAND, OREGON
Also Distributors for Cleveland Tractor

SEEDS

(THE KIND THAT GROW!)
"YOU CAN'T KEEP THEM!"
IN THE GROUND.

FULL LINE OF SPRAY PUMPS AND MATERIALS, POULTRY SUPPLIES, FRUIT TREES AND FERTILIZERS
Send for Catalog—"It is full of information"

J. J. BUTZER

188-190 FRONT STREET PORTLAND, OREGON

DEMOCRACY OF AMERICAN ORIGIN

The Founding of an Ancient Republic

By Dr. JAMES E. TALMAGE
Of the Council of Twelve, Church of Jesus Christ of Latter-Day Saints;
Salt Lake City, Utah

Notes: For free copies of other articles of this series, send request to the author.

Democracy is indigenous to America. One of the earliest recorded experiments of representative government by the people was undertaken on the Western continent; and it was a success.

These statements are not made with reference to the establishment of the United States of America as a free and independent nation, but to events that antedated by nearly a century the birth of Christ.

At that time North America was inhabited by two great peoples, the Nephites and the Lamanites, each named after an early leader, and both originally of one family stock. Except for brief periods of comparative peace the two nations lived in a state of hostility due to Lamanite aggression.

The Nephites were progressive, cultured, and of peaceful desires, while the Lamanites became degenerate, dark-skinned and barbarous. Eventually the Nephite nation was destroyed by the savage foes; the Lamanites persisted and are represented today by their direct descendants, the American Indians.

For five centuries prior to the events now under consideration each nation had been governed by a succession of kings. The Lamanite rulers exercised autocratic sway and relied on physical force for their power. Some of the Nephite monarchs were almost as bad, though many were notably considerate and just.

The last of the Nephite sovereigns was Mosiah; he died 91 B. C. after a righteous reign of 33 years. King in name, he called his people brethren and counted himself their trusted and presiding servant.

A short time before his death Mosiah called for an expression from his people as to whom they desired to succeed him on the throne. There was a united answer; the people wanted the king's son, to whom he said, "The kingdom doth rightly belong. But Aaron, the people's choice, declined the crown, as did his brothers in turn; for all these sons of Mosiah were devoted to the preaching of the Gospel and esteemed the labors of the ministry above the royal estate.

Mosiah seized the opportunity occasioned by the people's loyalty and unity to awaken them to the fact that the powers of government were inherent within themselves, and to urge them to exercise their sovereign rights and assume the privileges and responsibilities of self-rule. He recommended that they abolish the monarchy, and establish a republic according to "the voice of the people."

In a stirring proclamation he set forth the potential dangers of kingly rule and admonished the nation to guard its liberty as a sacred possession and to delegate the governing power to officers of its own choosing, whom he called judges, who should be elected by popular vote, and who could be impeached if charged with iniquitous exercise of power and be removed if found un-

For book of 560 pp., containing complete series of these articles, numbering 164, entitled "The Vitality of Mormonism," apply to publishers: The Gotham Press, Boston, Mass.—Adv.