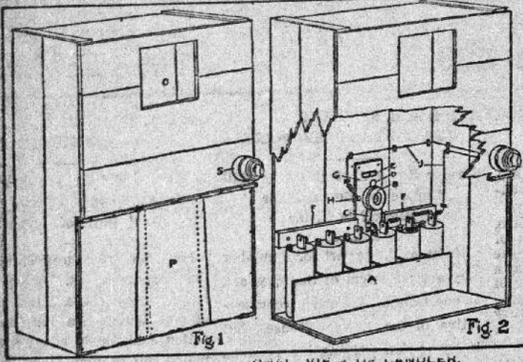


EGGS SHOULD BE TESTED BY CANDLING



EXTERIOR AND SECTIONAL VIEW OF CANDLER.

(From the United States Department of Agriculture.)

The requirements of the egg trade and certain state and federal food regulations make it necessary for the shipper to know what quality of eggs he is shipping to consumers. This means that all eggs should be tested by candling in the producing section.

This device consists of a wooden case (Fig. 1), painted black inside and out, in which is mounted an inexpensive egg candle lighted by dry batteries.

To Build Case. The following dimensions and directions have been tested and found satisfactory in making these outfits:

Make a light wooden box, 20 inches high, 18 inches wide and 10 1/2 inches deep. Inside measurements (Fig. 1). This may be made from egg-case material, or a packing box may be cut down to these dimensions.

Paint the case black inside and out. Mount the candling box on the face of the board by means of two round-head screws through the lower end of the spring (Fig. 2, C), screwed at such a distance from the hole as will allow the end of the light bulb to pass through the half-inch hole and come in contact with the zinc on the back.

Method 1.—Run one wire from the right of the batteries to the connector (Fig. 2, H) on the board. Fasten the second wire (from the left of the batteries) beneath the washer under the lower screw that holds the lamp spring (Fig. 2, C). The device is then ready for operation.

Method 2.—If desired, a switch (Fig. 1, S; also shown in Fig. 2) may be mounted on the front of the box and one wire in the circuit (Fig. 2, J) run through it.

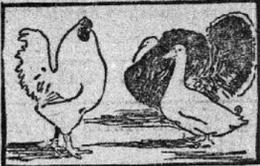
Connecting the Dry Cells. Care should be taken to see that the batteries are connected in such a way that the voltage of the current is approximately that required by the lamp. If the voltage is too high, the lamp will burn out quickly; if too low, the light will be dim.

Build stanch from thin lumber 3/4 inch deep by 2 1/2 inches square across the rear of the bottom of the box to hold the dry cells (Fig. 2, A). This size box should hold six batteries, three for running the light and three in reserve.

The strips above, and resting on the tops of the cells (Fig. 2, F), are not necessary unless it is desired to prevent the batteries from dropping out if the case is turned upside down.

The candling device proper is either automatic or constant; that is, it may be made to give light continuously or only when an egg is pressed lightly against it. Secure from any drug store a new round tin ointment box about two inches in diameter and three-fourths inch deep (Fig. 2, B). Remove a hole in the center of the bottom just large enough to hold firmly the screw of a small 3 1/2-volt lamp, such as is used in a little pocket flash lamp.

POULTRY

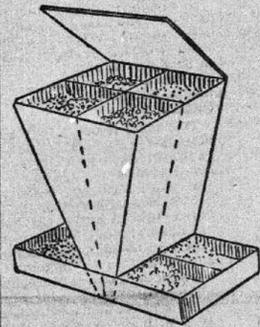


FOR SUCCESS WITH POULTRY

Ration of Mixed Grains for Growth is Greatly Improved by Addition of Animal Meal.

(By C. F. BARBER.)

To give some of the most important facts connected with the poultry industry that have been settled as such, it may be said that there can never be success without cleanliness; that vermin can certainly be exterminated by spraying roosts and walls with kerosene, that lice on chickens can be destroyed with a slight application of hard or vasoline on the head and throat; that chicks for laying stock must not be hatched from the eggs of pullets; that disease is never cured nor prevented by mixing blood; that dry feed is best for newly-born chicks, and no



Good Dry Feed Hopper.

feed better than rolled oats for the first two weeks; with milk for drink; that with all feeds, milk and meat should not be omitted; that for both growth and eggs there is no better grain, fed singly, than oats; that green bone cut fine, is the best single element for the production of eggs; but never over one ounce a day for a hen; that a balanced ration, moistened with milk, new or skimmed, is about 25 per cent better for growth of chicks than when moistened with water; that a ration of mixed grains for growth is improved about 40 per cent by adding a proportion of about two-fifths of animal meal, or, in other words, it has been abundantly proved by the most thorough tests that growth and health will be greatly promoted by feeding a nitrogenous ration instead of a carbonaceous one; that animal meal in the ration for ducks will make a gain of about three to one over a ration that is wholly vegetable; that over 20 per cent more food is required to make a pound of growth on a vegetable diet than with a ration having a mixture of meat; that crowded yards are the source of most of the evils to which poultry is liable; that a dust bath is as profitable for hens as water brooks for ducks, and that the buying of cheap or imperfect birds with the intention of "breeding up" is not profitable.

Amazing Nerve Cases. There are more remarkable nerve cases still. A man had part of the fleshy portion of his arm shot away, carrying with it four inches of the nerve necessary to control the hand movements. The surgeon ran up several hospitals on the telephone till he heard of what he wanted, the amputation that afternoon of a healthy limb. The limb happened to be a leg, and it was amputated in the afternoon. No sooner was it cut off than four or five inches of practically living nerve were relieved from the call, placed in a saline bath and rushed by taxi to the other hospital. Here the patient was already under an anesthetic. The wound in his arm was opened with a lancet, the ends of the independent nerve quietly found and the circuit re-established, as it were, by means of the first patient's four inches of filament. Today the man is in a fair way of regaining the full use of his hand.

Bone surgery on either similar lines is more familiar, but hardly less surprising when you meet and talk to a man who converses with the aid of a lower jaw part of his right leg. It was mangled with two and one-half inches of one of his shin bones. The skin has quite healed, and the hole has been completely filled with new bone before long so accommodating is nature when treated with knowledge. Another patient is perfectly happy and prosperous with three inches of the fibula of his left leg, neatly mortised in the hollow of his right arm. He, too, will finally suffer no loss of bone whatever. The varieties of such operations are endless and only limited

LAYING CONDITION OF HENS

Physical Indications Are Time of Molting. Color of Shanks and Lobes and Texture of Comb.

There are four physical indications of a hen's laying condition, says O. B. Keit, poultry instructor at Cornell University. These are the time of molting, color of shanks, texture of comb and color of ear lobes. The first and third points apply to all breeds, the others only to those having yellow shanks and yellow ear lobes.

Good layers molt late and quickly. If you go through the flock the first of October and pick out the hens that are just beginning to molt, or have not started, you will get most of those which are laying.

In yellow skin breeds the paleness of the shanks after a period of laying is a good condition of a hen's capacity. Any bird with bright yellow shanks after a year of laying may be picked out as a good producer.

Encourage Early Laying. Those who want their pullets to mature quickly and be ready for the winter laying feed often and use care in selecting the feed.

Sure to Be Successful. A poultry farm built upon a secure foundation is sure to be successful if it is afterward properly managed.

Objects to Poultry Shows. Poultry shows are, as a rule, not a money making proposition. They are promoted and conducted by organizations composed of poultry fanciers, who are interested in educating the public in the breeding of purebred poultry of all standard varieties. The door receipts help to pay the many cash prizes and other trophies offered to encourage the breeding of better specimens of the various varieties of our domesticated fowls. Without these exhibitions the progress of improvement in the standard varieties would be reduced to a minimum, and the poultry raisers be handicapped in their endeavor to advance the growth of the pure-bred poultry industry in this country.

Cause of Limber Neck. Spoiled or decaying flesh, if eaten by the fowls, will surely cause limber neck. Burn or bury the dead.

Forage for Ducks. A patch of ground sown to turnips will in a few weeks provide forage for the ducks.

Get Rid of Roosters. Did you kill, pen up or market the roosters? Fertile eggs spoil quickly these hot days while infertile eggs remain wholesome.

Unsoundable Hens. Overfat, non-producing hens are undesirable.

MAG. C. OF SURGICAL SCIENCE IS MAKING NEW MEN OF OLD

Some Remarkable Instances Where Operations Have Practically Rebuilt Vital and Important Portions of the Human Body That Had Been Shot Away in the Battles—"Gas Gangrene" Is Surgeon's Worst Enemy.

London.—The marvelous progress that has been made in recent times in surgical science is most impressively revealed by a journey to some of the larger military hospitals, made possible through the courtesy of Sir Alfred Keogh, director general of the army medical service.

In all the hospitals what the medical staff set above all is conservative surgery—that is to say, the saving of limbs in order that the patients may remain useful members of the community. Thus, at the Herbert hospital, at Shooter's Hill, there have been since the beginning of the war from three to four thousand operations, and Colonel Simpson, the officer in charge, declared that he did not believe there had been in all more than 25 primary amputations.

The impression left by a tour of these hospitals upon the layman's mind is that outsiders have an utterly inadequate idea of the debt they owe to modern surgery at a time like the present. Day by day the surgeons are giving to the nation new men for old. They have embarked upon a great mission of hope among the nation's soldiers. They are doing more than would have been credited twenty years ago to rob war of its ultimate horror.

Out of the hundreds of wonderful cases brought to one's notice during these visits it is only possible to describe a few that may be regarded as typical of this trade of mending soldiers. Take first the new nerve surgery. Here is a man with a bullet hole near his collar bone which severed the nerve controlling the muscles of the wrist. The result was "wrist drop" and a hand which until quite recently would have been regarded as incurably useless. The two ends of the severed nerve have been freed from what had already become more than a scar, they have been reunited and there is every prospect that in less than a year the hand will be almost as good as ever.

As simple as tying up the two ends of a cut telephone wire," says the surgeon who operated.

A Remarkable Operation. Here is another remarkable case. Not long ago a wounded Guardsman was brought into the Queen Alexandra hospital at Millbank, suffering from a shrapnel wound. Examination under the X-rays showed that a piece of metal as large as a halfpenny and much thicker had entered the breast and lodged in the region of the heart. It was, in fact, actually touching the heart and impeding its action. An operation was decided on, and the surgeon thrust his hand right into the opening and pulled out the piece of metal, which is preserved as a souvenir. There was a danger that during anesthesia the lungs would collapse, and therefore ether was pumped into them to keep them inflated. That gallant Guardsman is now out and about, and it is declared that he will not feel the slightest ill effects from his strange experience.

In this hospital there is at present a Serbian officer who is at present a Serbian officer and brought to England for treatment. It was a case of severe injury to the jaw. Lieut. Sir Francis Farmer removed a piece of bone about two and a half inches long from the tibia of the patient, and having carefully prepared a bed in which to place it, fixed it in the jaw. The leg is now healed and the patient can eat wonderfully well.

But this refitting and, as it were, rebuilding of citizens is not enough. They must first be snatched from that progressive process of destruction associated with the dreaded word sepsis, which is the surgeon's most remorseless enemy. And here again one encounters the marvellous.

In this war the variety of sepsis that

has claimed more victims than any other is that known in doctor's slang as "gas gangrene." Gas gangrene is caused by the presence in a wound of certain types of bacilli classed as "anaerobic," that is, bacilli which cannot live in air, the vital principle of which is oxygen. They exist—like the tetanus bacilli—in cultivated soil, and it is because the war is being fought in France among the peasants' fields that they are introduced so constantly by ricocheting bullets or scraps of earth stained clothing into the soldiers' wounds.

Once there they set about producing tiny gas bubbles among the tissues, hence the name "gas gangrene." But the gas they cannot endure is oxygen, and the obvious way to destroy them is to introduce oxygen into the innermost recesses of the wound. This is secured by various methods according to the nature of the injury. A hole right through the shoulder will be sterilized by the use of a wick drawing peroxide of hydrogen from a small tank above the bed. Another kind of wound may be sprayed with ozone and the third more conveniently dealt with by means of a perforated tube fed with oxygen gas from a cylinder.

The operations to which reference has been made would doubtless be described as severe even by the surgeons themselves; nevertheless, modern science has robbed them of most of their terrors. The improvements in anesthetics have been such that it is no uncommon thing for an operation to last two hours and for the patient to feel no ill effects from the drug a quarter of an hour after he recovers consciousness. Some, indeed, will be smoking a cigarette within that space of time. The secret lies in the administration of oxygen with the anesthetic.

Where the injury is to the upper part of the face, resulting in, say, the removal of the nose and one eye, magical results are being achieved in a southwestern district hospital by the provision of masks perfectly counterfeiting the lost portion of the physiognomy. Lieut. Derwent Wood is the inventor of the plan. With the help of photographs of what a patient was like before being wounded he will make a false nose of silvered copper, artistically painted to match the surrounding complexion, which will so far defy detection as to enable the owner to go out into the world again without shrinking and play his old part in the affairs of men.

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RED CROSS TREATS ALL ALIKE



The wounds of a captured German being dressed by a British Red Cross man during the British offensive in the west.

SEES WAR'S END BY 1917

Underwriters at Lloyd's Quoting \$31.50 Per Cent for Peace Policy to December 31.

The rate quoted is 85 guineas (\$33.25 per cent), while if taken out for three months later a policy would run to 70 guineas (\$27.50 per cent). The rate is 90 guineas (\$36) to June 30, 1917, or 15 guineas (\$15.75) per cent less if the time is extended to September of next year.

London.—Peace by the end of 1917. That at least is the impression of underwriters at Lloyd's, who are quoting 30 guineas per cent, or \$31.50 per cent in American currency, for a peace policy extending to December 31, 1917. In case of a policy covering the period to the end of the present year

HUSBAND OBJECTS TO OPERATION

Wife Cured by Lydia E. Pinkham's Vegetable Compound

Des Moines, Iowa.—"Four years ago I was very sick and my life was nearly spent. The doctors stated that I would never get well without an operation and that without it I would not live one year. My husband objected to any operation and got me some of Lydia E. Pinkham's Vegetable Compound. I took it and commenced to get better and am now well, stout and able to do my own household work. I can recommend the Vegetable Compound to any woman who is sick and run down as a wonderful strength and health restorer. My husband says I would have been in my grave ere this if it had not been for your Vegetable Compound."—Mrs. BLANCH JEFFERSON, 703 Lyon St., Des Moines, Iowa.

Before submitting to a surgical operation it is wise to try to build up the female system and cure its derangements with Lydia E. Pinkham's Vegetable Compound; it has saved many women from surgical operations.

Write to the Lydia E. Pinkham Medicine Co., Lynn, Mass., for advice—it will be confidential.

PECAN TREES

The big brown nuts will soon be falling from the trees. If you are not gathering them from your own trees, you should be. A card will bring you information as to why and how. J. B. WIGHT, CAIRO, GA.

Near Experience. "Have you had an experience in this flouting hotel business?" "In a way. I once boarded a vessel and lodged a complaint there."

BABIES AND GROWING CHILDREN need a tonic to tone up the system and regulate the liver. Mothers are constantly using with wonderful success, our "Plantation" Chill and Fever Tonic. Pleasant to take—contains no Calomel. Price 50c.—Adv.

Should Have Won a Prize. Unless he is a prize winner no man should advertise in a lottery.

Peace is the greatest of all blessings.

Why That Lame Back? Morning lameness, sharp twinges when bending, or an all-day backache; each is cause enough to suspect kidney trouble. Get after the cause. Help the kidneys. We Americans go it too hard. We overdo, overeat and neglect our sleep and exercise and so we are fast becoming a nation of kidney sufferers. 75% more deaths than in 1800 is the 1910 census story. Use Doan's Kidney Pills. Thousands recommend them.

A Louisiana Case

Julius O. Ayraud, Barton, La., says: "For years I had kidney complaint and suffered terribly. The kidney secretions burned in passing and the pains in my back were so bad I couldn't stand. I tried everything and grew thin and emaciated. Doctors failed to do me any good. I used Doan's Kidney Pills and they took them. They cured me and I gained in weight and health."

DOAN'S KIDNEY PILLS

FOSTER-MILBURN CO., BUFFALO, N. Y.

DO YOU HAVE

slight aches? Hemorrhages of the lungs? Pains in chest and sides? Pains under shoulder blades? A slight cough? Cuts in the evening with a slight fever in the afternoon? A throbbing with "cape-toriol"? Have you lost weight and strength, without apparent cause? Have you lost appetite?

The above are symptoms of consumption. If you have them, stop! YOU NEED LUNG-VITA and you need it NOW. Go to your druggist and get it, or he will mail it to you. TODAY. 5 day treatment \$1.00; 30 day treatment \$1.75. USE IT FOR ASTHMA TOO. NASHVILLE MEDICINE CO. Nashville, Tenn.

DO YOU HAVE SICK HEADACHE

Who of us does not suffer at times from this awful pain? All are subject to it—a disordered stomach, inactive liver, constipation and causes. But headaches are more serious. Head the warning, take Dr. THACHER'S Liver and Bile Syrup

Dr. THACHER'S Liver and Bile Syrup

and head off the more serious ailments. This preparation positively relieves all forms of constipation and restores the system to its normal condition—gently but thoroughly. Get a bottle today. Two sizes, 50c and \$1. All druggists.

ADVICE TO THE AGED

Age brings infirmities, such as sluggish bowels, weak kidneys and torpid liver.

Tutt's Pills

APPENDICITIS: If you have been operated on or have CALIFORNIA GAS or other gas in the right FREE side view for valuable Burnett's patent gas.

MOST ECONOMICAL OF FEEDS

Corn Must Be Supplemented With Nitrogenous Feed, Such as Meat Scrap or Skim Milk.

Under usual market conditions corn is one of the most economical feeds for laying hens, and can well be used to a very large extent in their ration.

Recent experiments show that hens fed a ration composed of 87.2 per cent corn and 12.8 per cent meat scrap produced eggs cheaper than hens given a greater number of feeds.

START WITH LITTLE CHICKS

Much Depends on Feed and Care Given During First Few Days of Their Existence.

Raising and feeding young chicks at this period of the year is comparatively easy in itself and yet we some-