

## HINTS FOR THE FARMER.

### NEEDS OF THE SOIL.

In a general way it may be said that the three prime factors in raising large crops are cultivation, rotation and fertilization. Every farmer understands the importance of thorough soil culture. When land is well broken and finely pulverized, the soil water moves about more readily, and the plants are not so apt to suffer from drought; the air is also permitted to permeate the particles and bring about certain beneficial changes. The roots of a plant, in a nicely prepared soil, can forage about for food, and the more accessible the latter is, the more rapidly the crops develop. Good clean cultivation also does away with the growth of weeds. These, if allowed to thrive, would rob the plants of nourishment which rightfully belongs to them. Without good cultivation no amount of fertilizing or other care of farmers can produce a bountiful crop.

Rotation is simply a common-sense practice, through which a farmer, by selecting a series of crops which fit in well after each other, gives his land a rest and avoids heavy draining of plant food. Rotations differ according to sections and crops cultivated, the aim being, of course, to choose those which follow each other well and to avoid having two heavy feeders in succession.

The third essential, fertilization, is now much better understood than heretofore. The work of the experiment stations, farmers' institutes and agricultural papers has diffused knowledge so freely that almost every farmer knows now that the object in fertilizing is to return to the soil the three ingredients, nitrogen, phosphoric acid and potash, which have become too exhausted by continual cropping. It is important to remember, though, that it does not merely suffice to put these three ingredients of plant food in the soil and depend upon nature to do the rest. Good cultivation and judicious rotation, as already outlined, must go hand in hand with proper fertilization.

By proper fertilization is meant the use of the right forms of plant food at the right time. It is well to say right here, that the forms of plant food exert a great influence on both quality and quantity. Nitrate of soda has the advantage of being a concentrated food, averaging about 16 per cent. of nitrogen, hence there is a saving both in hauling and applying. One hundred pounds of nitrate of soda contain as much nitrogen as a half ton of stable manure, and it is in a more soluble and available form. Another strong point in favor of nitrate of soda is that it acts very quickly, can therefore be applied at a time when needed, and in just such proportions as will be both economical and profitable.

In applying plant food it must be remembered that all three ingredients, nitrogen, phosphoric acid and potash are needed. Neither one can take the place of the other, nor can an excess of one make up for a lack of a second. The best plan is to see that enough of each is supplied.

Now, as to applying. The main object, of course, is to give crops their food so they can take it up with the greatest facility. Experience has shown that phosphoric acid and potash should be used some weeks before sowing time and worked into the soil, so as to allow time for dissolution and dissemination. Nitrate of soda gives best results when used as a top dressing after planting. There need not be any waste in using nitrate; an average dose of say 225 pounds, which is about right for grasses and grains, might be divided into three parts, one third being top-dressed, just after seeding, and the other two portions at intervals of three or four weeks. The distribution can be made more uniform if the material be mixed with several times its bulk of earth.

The observance of such points as have been noted in this sketch is what often regulates the margin of profit on the farm.

### MILK CANS.

When the system is used of setting milk in cans and allowing the cream to rise, then skimming off, necessitating the keeping and using of a considerable number of utensils, one of the most dangerous germs that can infest milk is that found in the old, soured milk in the seams, joints or corners of the pails or utensils used.

Of course, where proper care is taken in washing and scalding out these vessels this danger is avoided. But a

little carelessness along this line and these germs will be found plentifully and as under favorable conditions they develop very rapidly a good cause of much spoiled butter may be found.

Vessels should all be of good tin, should have as few seams and joints as possible, and should not be patched up to any considerable extent; this lessens the work of cleansing and at the same time lessens the liability to trouble on account of these germs.

### POULTRY NOTES.

Do not allow the brooders to get too warm.

Too much stimulating food causes over egg production.

Feed the breeding fowls so as to keep them in vigorous health.

Grain charcoal is about the best condition powder to feed to hens.

It is a good plan to breed large numbers of chickens as early as possible.

Houses that are kept clean and well ventilated need very little disinfecting.

Cholera is often communicated by eating food contaminated by feeding on the ground.

Diarrhoea is usually caused by improper food, filthy coops and damp, cold temperature.

Do not feed young, growing chickens, wet, sloppy food.

Keep everything sweet and clean if you expect to have healthy flocks.

Particular care should be taken to see that lice are kept out of the brooders.

The Polish fowls are not a large breed, but being closely feathered appear smaller than they really are.

So many of the eggs of young geese prove infertile that it is best to use the eggs of old geese for hatching.

A slatted frame that will admit the chicks and keep out the old fowls is needed in every poultry yard.

Condimental foods are those which have a stimulating effect other than that derived from ordinary food.

The first few days of incubation are most critical ones, and careful attention must be given at this time.

Charcoal pulverized and mixed with the soft food aids digestion, and is an excellent preventive of disease.

It is wrong to condemn any variety for the misbehavior of a few in which some unknown cause may have wrought a propensity for evil.

Never grease a hen that is sitting, for if grease gets on the eggs it closes the pores through which the confined chick gets its air and the consequence is death.

### NO EXCUSE.

During the present century four hundred and odd marriages have been stopped by the non-appearance of the bridegroom. In no case was a reasonable excuse forthcoming.

### REASON AND INSTINCT.

Of course, you consider reason higher than instinct.

I can't say that I do, invariably, answered the blunt citizen. I have met many a man whose reasoning powers enabled him to argue by the hour and who nevertheless lacked the instincts of a gentleman.

### SUGGESTING THE COMBINATION.

What will you like for dinner today, Henry?

Anything you please. I feel too blue to care what I eat.

You feel blue—and you look yellow. I'll cook a mess of greens for you.

### TIMES TO BE CHEERFUL.

When we are thoroughly tired and discouraged, then is the time to be really cheerful. Cheerfulness under blue skies and sunshine may only be a reflection of the cheeriness of the surroundings. It is the gray day and the hard road that test the real courage and sunniness of the soul.

### DECIDEDLY NOT.

You don't happen to have change for a quarter, do ye? asked Eaton Shabbelong, who had an unexpected stroke of luck.

Change for a quarter! echoed Tuffold Knutt, with infinite disgust. If I had do ye reckon I'd be carryin' the thirst I've got with me this minute?

### SHOWED NO CONSIDERATION.

At any rate, said the thoughtful observer of men and affairs, Lord Roberts has proved himself a mighty mean man.

How so? they asked.

Why, he failed to follow the advice of the London newspaper war experts, and still went ahead and won, didn't he? And wasn't that mighty inconsiderate of him? Just look at the predicament in which he has placed them.

## About the House.

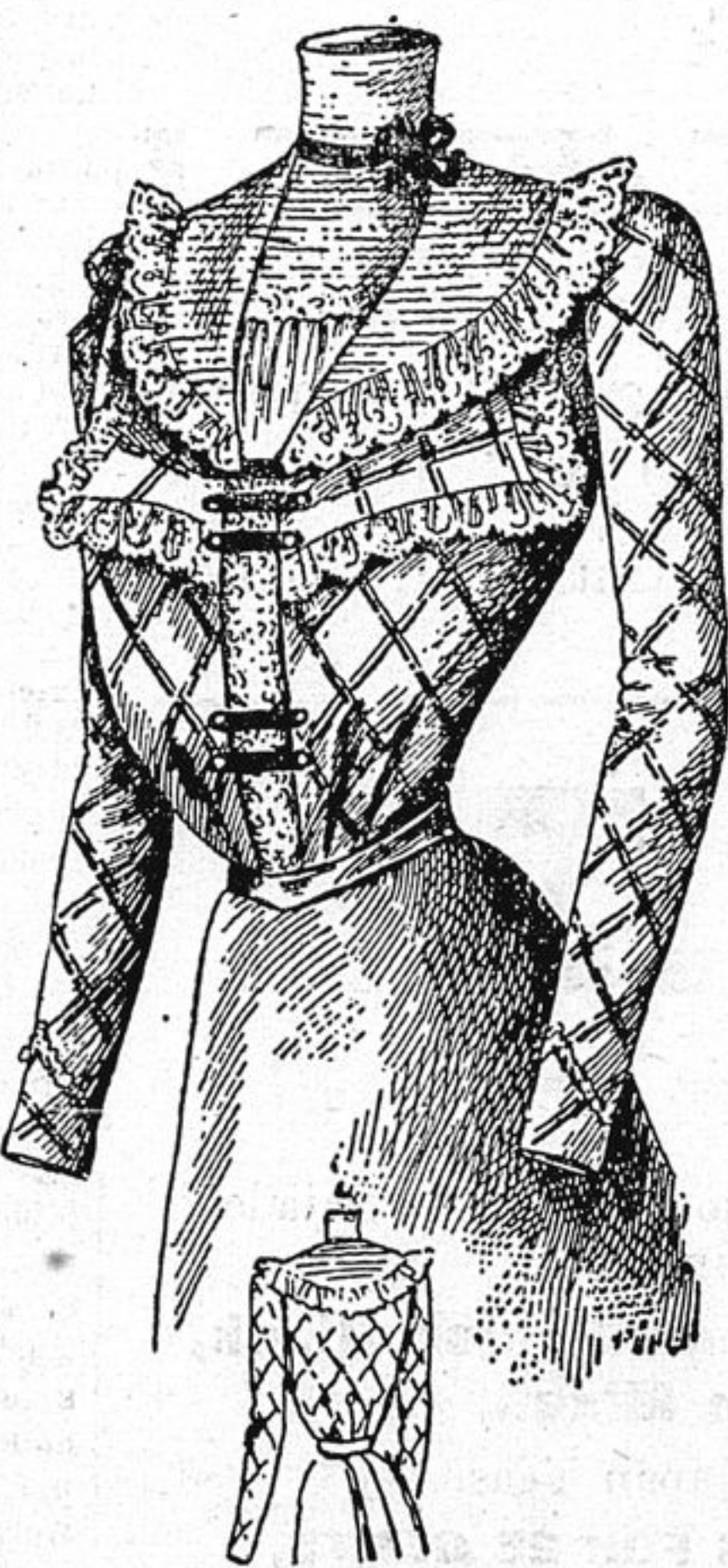
### TWO LUNGHEON OR SUPPER DISHES.

Housekeepers who in summer time use an oil or gasoline stove for cooking sometimes build a fire in the range on baking day. When this is necessary the fire is often used to also cook meat to be used cold for supper. The following recipes will be found good:

**Potted Beef.**—The remains of cold roasted beef, mutton or chicken may be chopped, seasoned and pounded. To each pound allow four ounces of melted butter; mix thoroughly and pack in jars or tumblers, cover with melted suet and keep in a cool, dark place. A tablespoonful of Worcestershire sauce may be added to the beef, and a little celery to the chicken. One may buy beef especially for potting and make enough to last for two or three weeks. Purchase two pounds from the under-round, as this is less expensive and will answer the purpose. Put it into a crock with two tablespoonfuls of water, four tablespoonfuls of butter, a quarter of a teaspoonful of pepper, same of cinnamon, a tablespoonful of Worcestershire sauce, and an onion chopped fine. Stand the crock or jar in a kettle of cold water, bring it to boiling point, and boil carefully for three hours. When the meat is tender chop fine, pound until perfectly smooth, and mix with it gradually the liquor from the jar; add two teaspoonfuls of salt and half a pound of melted butter. If you have a few pine nuts at hand, stir in a cupful or you may add a few toasted almonds that have been carefully blanched and chopped fine. Pack the mixture into cups or tumblers, cover with melted suet, fasten with paper, and keep in a dry place.

**Jellied Chicken.**—Singe and draw a good-sized chicken, put it into a kettle of boiling water, boil rapidly for five minutes, then push the kettle to the back part of the stove where it cannot possibly boil again, and allow it to remain until the chicken is tender. When done, lift and put aside to cool, saving the liquor in which it was boiled. When the chicken is cold remove the meat, rejecting the skin and bones. Then crack the bones fine, put them, with the skin and one small, chopped onion, two bay leaves, a blade of mace, and half a teaspoonful of celery seed, into a saucepan. Add one quart of the liquor in which the chicken was boiled. Simmer until reduced to one pint; strain and season. Moisten a perfectly square mold or pan with cold water. Arrange a layer of chicken neatly in the bottom of the mold, then one of slices of hard-boiled eggs, sprinkle lightly with salt and pepper, and a little chopped parsley, then add another layer of chicken, and so on until the ingredients are all placed. Strain over the chicken stock, and stand aside over night to harden. This may be served plain or with mayonnaise dressing.

Corsage of peagreen and black plaid taffetas. Vest composed of lace, tucked mousseline and plain mousseline. Revers and collar of tucked mousseline edged with embroidered mousseline, and the revers of plaid are edged



to match. The edges of the fronts

are held together with narrow black velvet ribbon straps and buttons. Sleeves of taffetas. Material required, taffetas, 20 inches wide, 5 yards.

### TABLE APPOINTMENTS.

Few things express so clearly the good taste and refinements of the household as the table appointments.

It fills one with feelings of contentment and pleasure to always have sparkling glass, dainty china, and polished silver on the table, and in this age of cheap luxuries such things to a degree, at least, are within the reach of every woman. Pressed glass, thin, delicate porcelain ware, and plated articles are now made in such beautiful designs, and in such close imitation of the costliest china and silver that every household may have a supply.

In the end the best is the cheapest, as fine glass and china does not break or crack as readily as the inferior kinds. Of course every woman who possesses pretty glass and china knows that such things demand careful handling, but when this is once understood there is no further cause for anxiety. No careful housekeeper will trust the washing and putting away of her choice glass and china to a servant or child.

If one is gifted with a small degree of judgment and skill no risk of breaking or spoiling handsome tableware need be run. In cold weather when necessary to heat meat and vegetable dishes, common ware should be used, the best dishes should never be set around the stove, or sent to the kitchen, nor plunged in boiling water, as the result will be breaking and cracking.

In cleaning the table after a meal, all scraps and grease should be scraped from dishes and plates. The dish-pan should be filled half full of hot water, and a little powdered borax added. The glasses should be washed first, and quickly dried on a soft towel, then the silver, and cups and saucers, leaving the greasy dishes and plates for the last. When the water becomes cool, more hot water and borax should be added.

Table-ware when thus cared for will always look bright and clean.

### POINTS ON MARKETING.

**Fish.** To be good, must be fresh. In buying, see that the flesh is hard, the scales shiny, and the eyes bright—otherwise, Mr. Fish has been on earth too long to be relishable. Fish should be rinsed carefully, using as little water as possible, as much of it destroys its delicate flavor.

Beware of canned fruit if the ends of the cans are bulged out; it means that the fruit has fermented.

In buying beef or mutton, always choose the piece that looks bright red when freshly cut. Fresh pork and veal are a nice pink, and good salt pork is firm and white.

## A COSTLY EXPERIMENT.

### H. M. S. BELLEISLE SACRIFICED IN THE CAUSE OF NAVAL SCIENCE.

On Fire Fore and Aft After Four Minutes Firing From the Majestic's Guns—The Third Hit Blew Away the Funnel.

The destruction of H.M.S. Belleisle by H.M.S. Majestic off the coast of England a few weeks ago was one of the most interesting as well as one of the most costly experiments which the British Admiralty has made in recent years for the sake of naval science. The spot on which the doomed battle-ship was moored lies southwest by west of Selsey Bill. Somewhat less than two miles off, in Bracklesham Bay, lay the Channel Squadron, including the Majestic, which vessel had been commissioned with the work of destruction. In order that the Belleisle might represent as accurately as possible a battleship in action—but yet a battle-ship partially surprised—her torpedo-nets were not out, but her splinter-nets were spread over the upper deck. In her tubes were two fully loaded torpedoes, and about her guns were placed 130 dummy men.

Shortly after ten o'clock the Majestic weighed anchor and steamed away to the south-west. At eleven o'clock she reappeared on the horizon, and it was evident that she was coming into action.

### AT ABOUT A MILE'S DISTANCE

from the target, the Majestic fired the first round from her 12-in. starboard barbette gun. The shell entered the Belleisle by the stern, traversed the ship and emerged at the bows. Then the 12-in. guns of the Majestic, working with extraordinary rapidity, poured in their heavy shells, while the 6-in. guns and the 3-pounder military guns in the tops rained an

even hotter fire upon the Belleisle. It was observed, however, that the boilers and the machinery were still intact. During the nine and a quarter minutes that the action lasted, the Belleisle, which was towed to her mooring-place in as good fighting-trim as on the day when she was first commissioned, was tremendously hammered. Strangely enough, however, she did not catch fire, although the smoke of the bursting shells and an escape of steam from a cut pipe led at first to that conclusion. Before the experiment was half over THE BELLEISLE HAD SETTLED

### DOWN

by the head upon the sand-bank, but, of course, she remained still visible, as there was only about a foot of water beneath her keel. As soon as the Majestic had ceased firing, a cordon of torpedo-boats was drawn round the wreck. No unofficial vessel was allowed to approach, and even the boats which carried the correspondents could not approach nearer than three-quarters of a mile. She appeared to have been pounded into an unrecognisable mass, but it was ascertained on a preliminary examination that the citadel had been proof against shell fire, and that the engine-room and boilers had not been penetrated. The experiments were witnessed by the Lords of the Admiralty.

The vessel will shortly be raised and towed into dock, when information gained by examination will afford valuable knowledge and perhaps guidance to officers of the Royal Navy.

### THE BELLEISLE'S HISTORY.

The Belleisle, a central battery battleship, with twin screws, was built at Poplar in 1878, and engined by Maudslay, for the Turkish Government. She was then called the Payki-Sherreef, and, when a new vessel, was bought by the Admiralty from the Turks, at a cost of £240,000. Her main construction was iron, her armour being 12 inches thick amidships and tapering to 6 inches at the extremities of the belt. This plating is backed by wood, which also varies from 16 inches to 9 in. The bulkheads of her central battery varied from 9 inches to 5 inches in thickness, according to their location. Her conning-tower in the forepart of the vessel was of 9 inch plating. She also had an iron deck 1 inch thick on the flat, strengthened to 3 inches on that part which slopes and was consequently liable to receive injury from the direct impact of projectiles. The hull displaced 4,870 tons, her engines indicated 3,200 horse power when in good condition. She was 245 feet long, 52 feet broad, and drew 21 feet when in sea-going trim. Her main armament consisted of four 25-ton muzzle-loading rifle guns, which remained on board during the experiments, as well as the quick-firing guns added at a date more recent than her construction. Her sister vessel, the Orion, remains in the service as port guardship at Malta.

### SOME SIMILAR EXPERIMENTS

The attack upon the Belleisle by the guns of the Channel Squadron is the first experiment of the kind in England since the old Resistance, twelve years or more ago, was fired at with all manner of weapons. The knowledge gained in her case was made use of in designing the Royal Sovereign and the battleships of the Majestic class. Since that date, however, there has been great progress in modern ordnance, and the practical lessons of the China-Japan and Spanish-American wars have shown that a danger, which was not clearly revealed in the Resistance experiments is actually very great, the risk of fire on board the warship.

### SWEPT OFF BY A HURRICANE

A remarkable effect of the great hurricane of 1898 in the West India Islands was the complete disappearance from the island of St. Vincent of a species of humming-bird, which, previous to the storm, had been one of the commonest and tamest birds that inhabited the island. Other species of humming-birds, of a larger size, survived the tempest, and are yet to be seen in St. Vincent, but the little bronze-green birds with erected crests, which formerly attracted much admiration, are all gone.

### GET THEIR FEES, ANYWAY.

McJigger—Young Dr. Downs recently made \$50 in a guessing contest.

Thingumbob—The only one who guessed correctly, eh?

McJigger—Oh, no, Two other doctors got the same, and all three of them guessed wrong. You see, they were called in consultation over a patient.