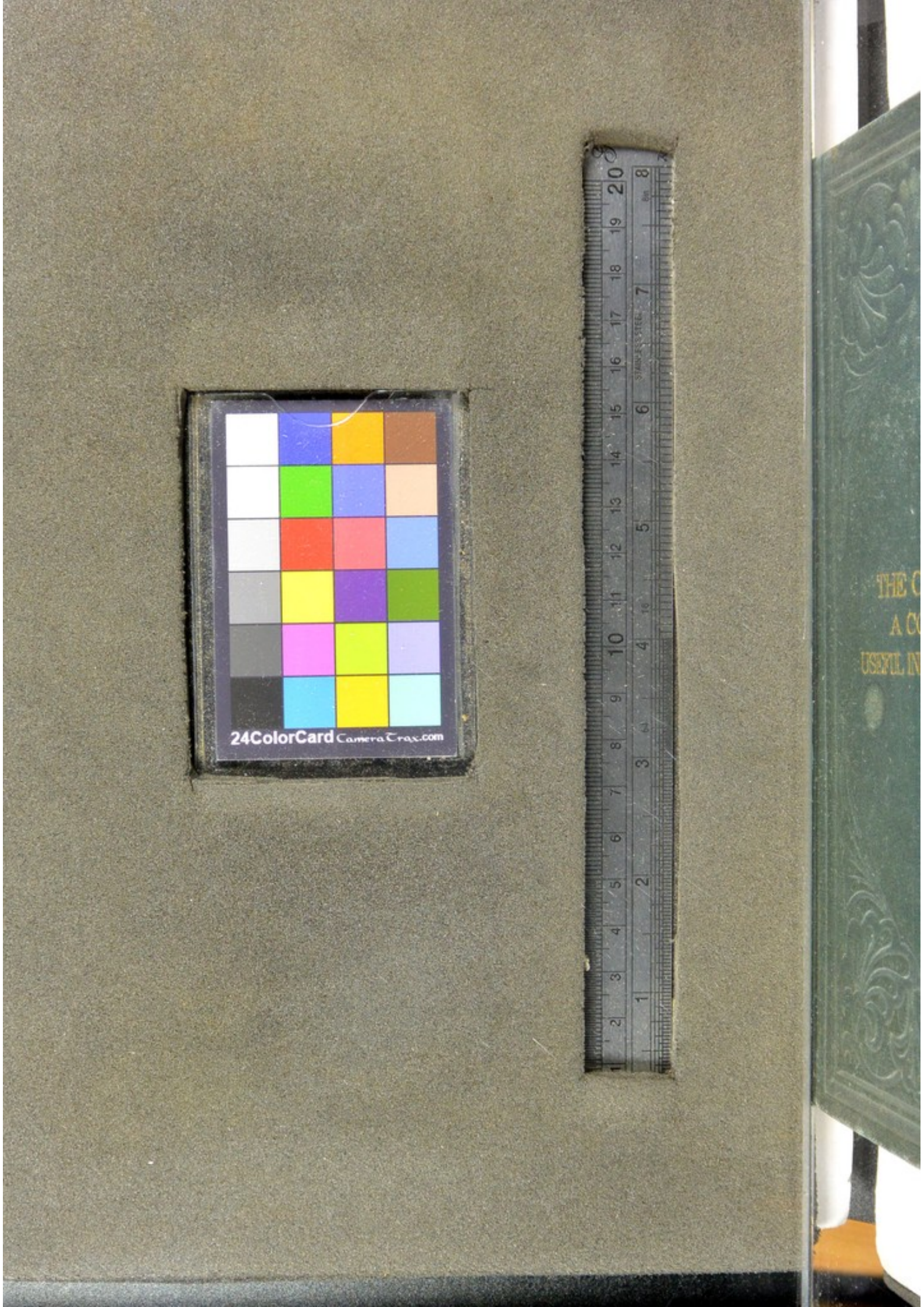
The country house : a collection of useful information and recipes : adapted to the country gentleman and his household, and of the greatest utility to the housekeeper generally / edited by I.E.B.C.


24ColorCard CameraTrax.com

THE COUNTRY HOUSE:
A COLLECTION OF
USEFUL INFORMATION & RECIPES.

IEBC

Irwin Edward Bainbridge COX of BLC
not in DNB. Died Jul 1966.

THE

COUNTRY HOUSE:

A COLLECTION OF

USEFUL INFORMATION AND RECIPES:

ADAPTED TO

THE COUNTRY GENTLEMAN AND HIS HOUSEHOLD,
AND OF THE GREATEST UTILITY TO THE
HOUSEKEEPER GENERALLY.

SECOND EDITION.

EDITED BY I. E. B. C.,

EDITOR OF "FACTS AND USEFUL HINTS RELATING TO FISHING AND SHOOTING," "THE FARM, GARDEN, STABLE, AND AVIARY," "SHOOTER'S DIARY," &c., &c.

LONDON:
HORACE COX, 346, STRAND, W.C.

1867.

THE COUNTRY HOUSE:

A COLLECTION OF

USEFUL INFORMATION AND RECIPES.

AMUSEMENTS.

CRICKET GROUND, FORMATION OF.

If chalk is handy, it is the best possible foundation. Not more than an inch or two of mould is required between the turf and the chalk. The chief thing in constructing a cricket ground is thorough subsoil and surface drainage. The former insure by drains of 2-in. pipe 5ft. deep; and the latter, by taking off the sod, digging out some 6 or 7 inches of the soil, and replacing with cinder-ashes procured from a furnace, if chalk cannot be obtained. The sale of the soil would purchase the cinders. Pass the ashes through a coarse riddle, and the rough put at the bottom, the fine at the top, ramming it well down; return the sod, and make firm by rolling with the heaviest roller at command—daily rolling for an hour or two, mowing when necessary, and that by a machine.

QUOIT GROUND, TO MAKE.

Procure a large treacle or oil cask, cut the ends off (leaving them about 5in. deep inside); take care that there are two iron hoops on each end; fix an iron pin ($\frac{3}{4}$in.) firmly in the centre of each, to stand about 7in. above the edges of the tub, then fill it with stiff clay, raising it from the sides towards the top of the iron pin, leaving so much bare as shall be sufficient for a mark; have a waller's trowel to smooth the surface when required. These can be placed in any convenient position for quoiting into, and may be removed when not required. Have a frame made of light wood or iron, cone-shaped, and covered with waterproof canvas, to cover the tubs with when not in use.

Again: If the land lies high and dry, and the soil is clay, which during hot weather becomes very hard, dig two pits the size required, and about 2ft. deep. Asphalte the bottom of this and fill in with the clay.

AQUARIA AND VIVARIA.

AQUARIUM.

First of all you must have a tank, and something for it to stand upon. You must have a sound and strong sub-structure to begin with—something with at least four substantial legs to support it, such as a strong table about 3ft. high: the legs may be of mahogany or stained wood; it is not necessary to be particular about the top, over which a fancy cloth may be thrown; and it will be as well to have a drawer in the table, in which may be kept the various little implements employed in managing the aquarium when fairly set agoing. The size of the table will depend upon the size of the tank.

The best aquarium is the rectangular tank with a slate bottom and plate-glass sides. The size of the tank is quite a matter of taste; one about 2ft. 6in. long, in the form of a double cube, *i.e.*, 1ft. 3in. deep, and 1ft. 3in. wide, is a nice size, and quite large enough to be managed comfortably. There is a good deal to do occasionally to keep an aquarium quite up to the mark; and for a lady even a smaller size—2ft. long, and 1ft. broad and the same deep—would be large enough.

There are two ways of setting up "fresh-water aquaria;" the one less beautiful but requiring little or no trouble, the other demanding considerable attention. The former should be placed in a north-east, or still better in a north aspect, and fitted up with plants which suffer little or no decay of their leaves. Such a one may be formed thus: If a circular base, cover the bottom with a layer of well-washed sand—the coarser the better—to the depth of 1in. over the whole surface; upon this place a pot of earth 2in. high, and about 1½in. in greatest diameter; in this pot plant a small specimen of the Egyptian lily (arrow-leafed, very common in windows; white, rather bell-shaped flower; cost sixpence of the gardener); on the top of the pot put ½in. of sand, well washed; around the pot (to conceal it) place three or four moderately large pieces of rock; upon the top of the pot dispose two or three bunches of a moss (*Fontinalis antipyretica*) which is found growing on the sides of stones in streams, and constantly on the brickwork of bridges over brooks, &c. This may be taken either attached to the stones or removed and tied in bunches, with a stone attached to keep them in place; on the sand put about ½in. deep of fine gravel, well washed, the lighter in colour the better. Now plant a good piece of *Valisneria spiralis* on each side of your rockwork in the sand. In front of the rockwork and behind set a stem or two of hornwort (*Ceratophyllum demersum*), and, if it can be recognised, another small plant, with heart-shaped leaves, single or in pairs, a seedling of the common water-cress

(*Nasturtium officinale*), which neither decays nor loses its bright green, and will form a pleasing variety. Over the top of the gravel sprinkle all round a little of the moss before mentioned, and fill with perfectly bright water by means of a syphon, having a saucer under the mouth of the syphon to prevent the action of the water on the gravel, sand, &c.

The second kind of aquarium is one in which the higher species of water-plants are grown, which, constantly decaying in their lower portions, require a renewal of the water more or less frequently, according to the season of the year; sometimes as frequently as once in every three or four weeks. The fish may be removed by means of a small net for the purpose, and placed in a vessel of clean water during the operation. The water being removed by the syphon, wipe the sides of the glass quite clean with a wet towel, and if there are any "fly-marks" (bunches of confervoid growth) which will not come off, rub the glass with some smooth pumice-stone until clean. Wipe dry with cloth, and refill with syphon and saucer as before. The "fly-marks" are the roots of *Confervæ*, which, if not taken off by a sponge or brush soon after they appear (say every month), become very hard, and can only be removed by great friction. The *Planorbis* (coil shell) snails are the best, but no snails will completely clear the glass. This confervoid growth is caused by a strong light falling upon the aquarium; in a northern aspect it gives little or no trouble. *Confervæ* is rather advantageous than otherwise on the rockwork and the sides of the aquarium next the light, as it gives off an immense quantity of oxygen, and makes the water appear cleaner, by affording a little shade. Where there is much light the water also will in a short time become turbid, either with the spores of green *Confervæ* floating in the water, or from a brown-coloured *Confervæ*, arising from decaying vegetable matter. This may be counteracted by placing the aquarium in a north aspect, by introducing bivalves (mussels of different sorts), which destroy floating *Confervæ*, or by shading. The best mode of shading is by placing a pot or two of ferns (large hart's-tongue and any other of the large leaved ferns) immediately behind the aquarium, and between it and the light. This gives a beautiful effect and the best shade, as paper is rather too dense for fresh-water aquaria.

But by using the gravel recommended, or even tolerably large pebbles, —which are as natural as river-sand for a bottom—the fish, &c., will cause little or no disturbance to the sediment. When there is sufficient sediment to thicken the water (with a gravel bottom) the water should certainly be changed; and this, by means of gutta-percha tubing 6ft. long, is extremely easy, using it as a syphon; viz., exhaust the air from the tube, by inhaling with the mouth, till it is filled with water;

place the finger tightly on one end until the syphon is placed in such a position that the end of the tube outside the vessel to be emptied is lower than the one inside; remove the finger, and the water will flow until either the vessel is emptied or the water sunk below the mouth of the tube, or the water in both vessels is on the same level. If the plants are covered with dirt, sediment, &c., the best way is to take them up and throw them away, and put others, well washed, into their places. Should they be of any value, or not easily replaced, take all the plants up and well wash them, by holding them by the roots and drawing them backwards and forwards through clean water, changing it as long as the plants discolour it in the least degree. Break off all leaves or branches that are likely to decay. Sun in moderation is beneficial, not to say essential, and you cannot have too much of it in winter, early spring, and late autumn; but in summer it is not so. Pull down the blind, or cover your tank with a light cloth. The test of perfect success is the covering of every piece of rock with a green woolly coat; not green slime, but a fine, healthy, confervoid growth, like the shaggy coat of a bear. It will be months before this is effected; but, when once this growth is established, you may almost dispense with plants altogether: the vegetation on your rockwork will supply abundance of oxygen, and the process of aeration will go on beautifully. The glass and stones in some situations are apt to get covered with slime, instead of healthy vegetable matter; and, when this is the case, you may calculate upon a good deal of trouble and discouragement.

A small quantity of common duckweed spread over the top of the water forms a pretty and snug retreat for the fish, and, if a green gauze or silk curtain is placed at the back of the tank, it will greatly add to their comfort. A cover for the tank is not at all requisite; but, as the fish and insects are inclined to get out of the water, a perforated zinc top will be found very convenient, taking care that the perforations are at least $\frac{1}{4}$in. in diameter; and when bound with a piece of coloured silk it is not at all unsightly, and far superior to glass, as it admits a good supply of air and is not so liable to get broken.

Plants sometimes drop their leaves; foreign matters get introduced into a tank; the mangled body of an insect rots amongst the sand; a fish dies, and lies at the bottom: of course these things must be removed as soon as discovered.

A pewter spoon, fastened to the end of a stick, and bent at right angles to it, will be found very useful; and for the removal of light bodies, there is nothing better than a piece of glass tube, of a diameter easily covered by the thumb, and of sufficient length to reach to the bottom of the tank. Grasp this in the hand, cover up one orifice by pressing the thumb

upon it, plunge it into the water, and direct the open orifice to the small object to be removed; upon removing the thumb, one of the simplest of hydrostatic principles acts, and the object rushes up the tube in a stream of water.

Further, guard against the stirring of the sediment in aquaria by covering the whole of the pebbles at the bottom with a moss, *Hypnum ruscifolium*, being smaller and more thickly branched than *Antipyrectica*, is more adapted for covering the pebbles, &c. This scatter rather thickly over the whole surface; the fish can find the particles of food amongst it, but they cannot disturb it.

Some plant the roots by tying three or more stalks together, according to taste, and the size of the aquarium, and attaching to each bunch a small piece of stone; this when placed in water will sink the plants on the spot where they are desired to grow; with a small stick make a hole to receive the stone, which should be pushed into the sand till covered; the lower ends of the plants should be concealed by sand and stones. Continue this till all are planted.

Other plants there are more beautiful than those we have named, and as useful in their season, but they are not to be kept strong and flourishing all the year round. Amongst these, *Hottonia palustris*, or the water violet; the *Stratiotes aloides*, or soldier plant—it sends down long thin rootlets, and the best way of managing it is to fix it midway in the water by embedding these rootlets in the sand. The *Hydrocharus morsus ranæ*, or frog's bit, is another pretty little thing, which requires no care whatever; it floats on the surface of the tank, with its rootlets hanging free in the water, and may be left entirely to itself.

Put in your fish, snails, &c., and cut off just the heads of enough of *Callitriche* (star-wort) to cover the top of the water. If you intend putting in many fish you should let the aquarium stand a day or two, to allow the water to become oxygenated. Prefer very fine gravel to sand, where it can be procured. Fasten a small sponge to the end of a stick, and with this cleanse the interior of the glass as often as it becomes cloudy. By sponging it once a week the aquarium may be kept perfectly clear, and this will take about five minutes. Snails, especially the smaller species of *Carinatus*, will be absolutely necessary to keep the plants clear, and, by having a great number, you may preserve the aquarium perfectly bright without the sponge; but the greater part of the most useful snails being consumers of oxygen from the water, take the place of other animals you may wish to inhabit the aquarium.

The stickleback, pike, and perch, do not answer in an aquarium—they are too savage. Roach, dace, and bleak are very delicate, and, in general,

live but a few weeks. Small gold fish and carp perhaps thrive best; minnows do well; stone loaches also thrive. As regards insects, beware of the larvæ of the dragon-fly; beware of all beetles, except the *Hydrophilus piceus*. The flat water scorpion and the nautanecta are fatal. Add the water spider and plenty of caddis. The common fresh-water mussel is a curiosity; so are the *Cyclus corula*, a bivalve found in every ditch. Water snails of all kinds, of course.

FISH IN AQUARIA, FEEDING.

Some give fresh raw meat (either beef or mutton) cut in very small pieces. Every description of fish will eat this readily, and thrive well upon it. There should be no fat, and no more given than the fish will eat. Eels, carp, tench, perch, minnows, sticklebacks, and newts all eat raw meat; the newts take it off a piece of pointed stick. Prawns, shrimps, crabs, and lobsters eat raw meat freely. Feed the fish about every fourth day; but once a week is probably often enough. Most fresh-water fish will eat very fine biscuit-powder, which is better for them than bread.

Worms are safe food for the inhabitants of aquaria. They should be small—the smaller the better—and cut in lengths of about $\frac{1}{8}$in. The fish thrive better on this than any other food. Not more than two or three of these small pieces should be put in at once, so that the fish may take them as they fall. If you keep a few beetles of one or other species, they will take very good care that no particle of worm decays among the gravel or sand.

FUNGOID DISEASE IN FISH.

Take the fish from the aquarium, and rub a little salt upon the parts so as to rub the mould off; wash the salt away with a little clean water, and replace the fish in the aquarium.

GOLD-FISH, FEEDING OF.

Small pieces of maccaroni are the best and most cleanly food, the carp family being the least carnivorous of our fishes.

GOLD-FISH IN WINTER.

Gold-fish will live well during the winter in the open air. Nothing more will be necessary than to break the ice every morning for the admission of the outward air. Loosely-bound faggots, or rough stones, piled in a heap and placed at the bottom of a pond, afford great shelter to a gold-fish. A small structure (say 2$\frac{1}{2}$ft. in diameter and 2ft. high) of brick or stones, formed with pigeon-holes, into which the fish can enter, is of great use. It is unadvisable to clean out a pond too often; gold-fish appear particu-

larly partial to the green scum which may be seen floating in stagnant water; with occasional feeding, they will grow and breed apace in such places. Water-plants of all sorts are of great service where gold-fish are kept; they shelter the fish and afford abundance of insects, and plants (water-lilies, for instance) improve the appearance of ponds.

The simplest plan for a water ventilator is to fasten together one or two bundles of wheat-straw, about the thickness of a man's arm, tying a stone at one end, and set the bundles upright in the basin. The straw replaces flags and reeds, and admits air under the ice.

As a pond, for gold-fish, sink a whole tub in the garden, taking care to keep the surface of the water about a foot below the level of the ground. It should likewise have a perforated zinc cover to fit the top, like the cap of a telescope, the side (also perforated) about 9in. high. During even severe frost a common bass-matting thrown over all, and kept in its place by a few heavy stones, will prevent the water freezing.

MARINE TANK, THE.

The reason why the sand becomes black in a marine tank is, that, although care may have been taken in cleaning it in the first instance, it has not been kept so. If the dead body of any animal, or any part of an animal, is allowed to remain, or even if the unconsumed food is not removed, the sand and the water quickly tell the tale. The pieces of rock which are placed in marine tanks should be carefully examined; they frequently contain animals in unsuspected crevices, which animals when they die quickly contaminate the water. A marine tank should always be covered, to exclude dust and prevent evaporation. Glass, not fitting too closely, is as effective a covering as can be used. If red weeds are introduced, the colour of the glass covering may be blue, to modify the light and prevent the weeds changing colour. If a line be drawn on the glass at the time the tank is first filled with sea-water, and if the surface of the water be always maintained at this line, by the occasional addition of rain or distilled water, the natural density will be preserved.

REPTILE VIVARIA.

A tank of 2½ft. in length, 2ft. in height, and 18in. in width, is a very convenient size, as a larger one requires a great deal of attention to keep it in proper order. The sides should be made of plate glass, with zinc or bronze pillars at the corners; the bottom of slate or zinc, with a pan of the same metal to hold water. A movable cover of perforated zinc is also a desirable addition, and will be found useful. A bank of peat earth and powdered sandstone should be raised at each end, the bottom of the vivarium being also covered with peat earth not less than 2in. in depth.

A layer of moss must be placed again over this, and should not be pressed down so tightly as to prevent the lizards burrowing under it at will. Specimens of the hardier ferns, such as *Lycopodium denticulatum*, *Osmunda regalis*, and *Athyrium filix-femina*, may be planted on the bank, where they will have a very good effect. In default of these, many other plants, such as the harebell, wood anemone, cistus, and the various kinds of orchides, can be introduced with advantage, though the vivarium should not be too much crowded, as less room is left for the animals, besides the difficulty attendant on removing decayed leaves, &c., without disturbing the living plants. Pieces of sandstone may also be arranged in any convenient or ornamental form; but care must be taken to fix them firmly, for if they fell on any reptile considerable damage might ensue. The lizards must be supplied every day with fresh flies and mealworms, as they have not the same habits as the snake tribe, which, when gorged, do not require a second meal for some time after. When kept in this manner nearly all the kinds of lizards will breed in confinement; but several species have a habit of eating their eggs, although at the same time they may be supplied with abundance of food. To prevent this the eggs should be taken out as soon as deposited, and placed, covered with sand, in a shallow box, exposed to the rays of the sun. When hatched the young lizards may be fed on small flies, and on raw meat minced very finely. They may be kept in this manner until they have attained a considerable size, when they may be put with the full-grown ones in the vivarium. Though the tree-frog is one of the most interesting inhabitants, it is one of the most difficult to keep in health, as sores often make their appearance on the head and lips, and frequently prove fatal. There is no certain cure for them, and it is best generally to leave the healing department to nature. A sunny place should be chosen for the vivarium near some window, but in winter it must be kept in a warm room, as one night's frost might destroy the inmates, which are prevented from hybernating by the unequal temperature. Reptile vivaria are usually constructed of plate-glass, with a slate bottom, a zinc tray also being let in at the side to hold water. The sides are fitted up with rockwork, with ferns planted in convenient crevices. The bottom is covered with a stratum of peat earth, over which is placed a layer of turf and moss. As to the reptiles to be chosen as inhabitants, the tree-frog, salamander, green lizard, eyed lizard, wall lizard, West Indian anolis, viviparous lizard, and blind worm, are desirable inmates, usually thriving in confinement. The various kinds of frogs and salamanders must be kept separate from the lizards, as when kept together they are apt to fight; and, besides, while the saurians require to be placed in the full sunlight, the batrachians should be kept in a cool, shady place. As to food, all the

species will eat mealworms readily when flies are scarce, these being by far their most favourite food. The mealworms may be put in a jar with flour, and a few pieces of brown paper, where, if tied up tightly and left for some time, they will increase rapidly, so that a stock may always be kept up. The different species of snakes must be kept in separate cases and fed with frogs, of which one or two will be consumed in a week by a large specimen of the ringed or common snake; this kind may also be tamed readily.

ART TREASURES.

ALABASTER, CLEANING.

First brush the stains with soap and water, then whitewash the part, and let it remain on for some hours; then remove the whitewash, and rub the part with a soft cloth. If spotted with grease, rub a little French chalk on the spots.

ALUMINIUM, CLEANING.

This metal is cleaned precisely in the same manner as silver, except that a weak solution of spirits of wine is better than gin.

Again: Breathe on it, and rub with silver-paper.

Some use dilute sulphuric acid, or solution of ammonia, both to be of strength ordered by the London Pharmacopeia. They can be procured from any respectable chemist, and should be used sparingly, and not suffered to remain on the aluminium too long.

BUHL, TO CLEAN.

Purchase some buhl powder (sold by most chemists) and apply with a little common salad oil, on a wash-leather first, and afterwards with a little of the powder dry on a clean leather.

CRAYONS, FIXING.

Brush it with a weak solution of the best isinglass in cold water.

Again: Run a very weak solution of gutta-percha over it. It acts as a general preservative against damp, &c., and is perfectly transparent.

Again: Eight ounces of highly rectified spirit of wine; 1oz. of camphorated ditto; 2dr. white powdered resin. The drawing must be washed over the back alone, with a camel-hair brush, and held with face downwards, without the face touching anything, until sufficiently dry.

Beer will set crayons.

FROSTED SILVER, TO RESTORE.

Frosted silver that has acquired a polish from friction or injudicious cleaning can be restored only by a process of fire. If simply blackened or

tarnished, it may be at once restored to virgin purity by brushing it with a solution of cyanide of potassium. Cyanide (commercial will do well enough), 1dr.: water, 1oz.—dissolve. When the colour is restored, rinse well with hot water.

Cream of tartar will clean frosted silver. It is to be mixed the same as plate powder, and applied with a soft brush, and when dry, brush it off with another brush. The brushes must be perfectly clean and free from plate powder. Old tooth-brushes will answer the purpose well.

Wash the frosted silver articles well in soap and water, using a common nail-brush liberally (unless the articles be filagree or too delicate to bear it), taking care to get thoroughly rid of the soap, and then boil them in a solution of common alum and water (the strength not material). Should there be bright portions, they must be rubbed up with a steel or agate burnisher afterwards, as the whole will come out dead from the alum bath.

Again: Carbonate of magnesia is the best and safest thing for cleaning frosted silver, lace hatbands, &c. It should be just moistened, and be applied with a clean brush.

IRON PYRITES, TO BRIGHTEN.

Immerse them for five or ten minutes in a bath of hydrochloric acid, or spirit of salt.

IVORY, BLEACHING SOILED.

Having been cut to the required shape, the ivory is dipped into water and rubbed with the dried leaf of the *Delima sarmentosa*, a dilleniaceous climbing plant common in the south of China; the surface of this leaf is very rough. It is then rubbed with the leaf of a marantaceous plant, which is probably a Lannea, Costus, or Alpinia, difficult, however, to determine in its withered state; this leaf is of a softer nature than the first one. When sufficiently smooth the ivory is thoroughly washed in clean water, and exposed to the sun from half an hour to an hour to bleach. It is then polished with the powder of pounded cuttle-fish, applied on a thick soft piece of leather. As the leaves above mentioned are not obtainable in Europe, Dutch rush or shave-grass would, in all probability, answer the purpose. When the ivory is very rough, a bit of shark's skin is often used before applying the leaf. Ivory discoloured from age, &c., is simply washed in water and exposed to the sun to bleach. This may be repeated two or three times until the desired whiteness is obtained. It is then polished with the cuttle-fish powder. If the article is deeply carved or engraved, the powder is applied on a small brush like a tooth-brush.

IVORY, RED STAIN FOR.

Procure from a military tailor some threads or pieces of scarlet cloth; take a handful of them and boil them in a pint of water, into which a few

pieces of alum should be thrown. Let the ivory be immersed in this when very hot, until the required tint is obtained. This is the mixture used for billiard-balls.

Make an infusion of cochineal in water of ammonia, then immerse the pieces therein, having previously soaked them for a few minutes in water very slightly acidulated with aquafortis.

Dissolve one part of common salt, and one part of granulated tin, in eight parts of aquafortis; with this mordant imbue the ivory or bone, then plunge it into a bath of Brazil-wood—cochineal preferable, or a mixture of the two. Lac dye may be used with still more advantage to produce a scarlet tint. When dyed, place on one side to dry; then rub it with a wash-leather and a little sweet oil for a finish.

MONUMENTAL STONES, TO COPY.

By laying cartridge paper on the stones you wish to copy, and rubbing it with heel-ball (obtainable of any shoemaker or dealer in grindery), the most perfect impression of the stone is to be obtained.

In a few instances, where there is a good deal of incised carving (such as coats-of-arms, floriated work, &c.), or where the stone is much jagged and broken, substitute thin white glazed calico for the paper, the latter being liable to be torn by the rubbing.

ORMOLU ORNAMENTS, CLEANING.

Lemon-juice or turpentine answers the purpose; but if the ornaments are very dirty, wash them with roche-alum, boiled to a strong lye, in the proportion of 1oz. to a pint. When dry, they must be rubbed with a fine tripoli.

PHOTOGRAPHS, COLOURING.

Oxgall slightly mixed with water will take off the glaze of albumenized photographic paper, and will render it fit for colouring with water-colours.

PICTURES, CLEANING OLD.

Pictures may be cleaned by rubbing the thumb over the painting moistened with saliva, or by a raw potato cut in half and rubbed evenly over the picture.

PLASTER CASTS, CLEANING.

By means of Dutch rush or shave-grass (*Equisetum hyemale*), or exceedingly fine sand-paper, the plaster must be rubbed over in an equal manner, and in every part. The rubbing, being done in a skilful manner, opens the pores of the plaster; then brush it over with the thick oil used for moulding, which will give it a very pleasing yellow tint, and at the same time great

solidity. If, however, a white colour is preferred, soak the cast, after the first operation has been performed, in a stearine bath. If placed in a bath of hot stearine, and allowed to remain four hours, it will acquire almost the solidity and the polish of marble.

PREPARATION OF SILKS FOR PAINTING IN WATER-COLOURS.

The very best plan of preparing silk for water-coloured drawing is to stretch it—as you would canvas for wool-work—as tightly and evenly as possible, on a frame of wood, or light rim of iron. Whisk some white of egg, and sponge the stretched silk with it till well and evenly soaked through; then rub the silk gently but continuously till it is dry in every part, with a small piece of dry white silk. If any part is allowed to dry alone, the egg-white will leave stains; but nothing is easier than to prepare it so, and nothing answers better. The painting must be done while the silk is still in the frame. Satin requires no preparation.

Again: Take the whitest starch that can be procured; mix it into a smooth paste with cold water; strain the silk tightly on a frame, and then with a broad camel-hair brush paint the silk on one side, always beginning at the top. Be careful to have no thick stripes. When dry, it is ready for use. Paint upon the side not starched. A little gum-water is an advantage with transparent colours like lake.

PRINTS, DAMAGED.

Remove as much as possible of the saccharine and colouring matter of the stains, by carefully soaking the prints in warm water, in a photographic porcelain dish, and then use cautiously peroxide of hydrogen.

SILVER, TO CLEAN.

The ink eraser sold by stationers has the very valuable property of cleaning and brightening silver and gold mountings, such as meerschaum pipe fittings, pencil-cases, watch-cases, &c.

SILVER ORNAMENTS, CLEANING.

Cut some flakes of white curd soap, and put them into a saucepan of water to simmer, then sew the ornaments up in a muslin bag, and place them in the liquid for about ten minutes whilst on the fire.

Again: Whiting mixed with sweet oil, applied on chamois leather, is good for this purpose.

Again: Gin renovates as well as anything.

SILVER TINSEL, RESTORING THE COLOUR OF.

Brush over the tinsel with a solution of cyanide of potassium in water, 10gr. to the ounce. The tarnish will speedily be removed. It ought to

be well rinsed in cold water after immersion in the cyanide. The same will immediately remove all stains of lunar caustic from the skin, or blots of marking ink from linen, &c., whose base is a preparation of silver.

TAPESTRY, TO CLEAN.

Shake, and clean it with a brush in the best manner, then rub in powdered chalk all over it, which leave on for a day or two; then brush out thoroughly, renew the chalk, and again beat and brush it all out of the tapestry.

VARNISH FOR PICTURES, MAPS, &c.

Equal parts of Canada balsam and spirit of turpentine, applied as thin as possible. The picture must first be sized. To make size, boil down strips of leather; an old white kid glove will do. They should boil till nothing is left of them but a sort of residuum, which comes to the top of the liquid. The mess, when cold, becomes a perfectly strong jelly.

Again: Get some chips or shreds of parchment and boil them down well, so as to form a solution of size. This should be applied warm, carefully, with a brush, over the whole surface of the map, and will form a face to receive the varnish, which will not run on paper thus prepared. When dry, give a coating of good pale varnish, not too thick. A piece of calico or muslin larger than the map to be mounted should be wetted, strained on a frame or board, and fixed at the edges with small tin tacks. The map should then be laid face downwards on a cloth or sheet of clean paper, and the back covered with paste, made smooth, but not thick. After remaining about five minutes to soak, the brush should be passed over it again, and the map laid on the damp calico, paste side downwards, and pressed with a cloth, to take out any air-bubbles or wrinkles, raising the paper by the corners if the latter should prove troublesome. It should be allowed to dry thoroughly; and, if neatly done, will be as tight and even as a drumhead. It must be sized with two coats of strong gelatine size applied warm; when this has dried, it may be varnished with artist's copal or dammar varnish. The copal is the toughest and most durable, but is a little coloured; the dammar is as bright and colourless as water. During these latter processes the map should be kept in a warm, dry room, as free from dust as possible, but not near a fire. Maps intended to be rolled up should not be varnished, but coated with albumen, as photographic prints are treated; as varnish, however good, soon cracks when rolled.

In applying a varnish to paintings on panel, apply a strong solution of isinglass, and allow it plenty of time to dry, the application of the mastic would then leave a very fine and lasting varnish.

BOOTS AND SHOES.

BLACKING, TO MAKE.

Three gills of vinegar, 4oz. of ivory black, 1oz. of oil of vitriol, 1oz. of sperm oil, two table-spoonfuls of treacle, two table-spoonfuls of sugar. Put the oil, ivory black, treacle, and sugar into a bowl together, stir them up well, then add the vinegar. Let it remain two or three days before adding the vitriol; then bottle it, taking care to have the corks well resined. It is best to keep it six months, but it may be used directly.

BOOT-LACES.

The only good laces are those which are cut straight, the way of the hide's grain; and the worst are those which are cut out of circular pieces of leather.

Use what saddlers call "white thongs" for boot-laces, similar to those used by carters, &c., and used also for mending cart-harness and making throat-lashes for collar-hames. Have a strip cut from a good thick (white) hide, long and wide enough to cut several pairs. The strip should be then reduced (by a tool used by saddlers for reducing the thickness of leather) to the thickness required, so as to take off soft and spongy parts of the leather previous to cutting the thongs. Cut about one-eighth of an inch square, and they soon wear round; but should flat thongs be preferred, have the leather reduced thinner and cut wider. Grease them well with hard mutton kidney-suet, previously melted, and they will wear for years.

BOOT-TOPS (BROWN), CLEANING OF.

Half an ounce of alkali root, 2oz. cream of tartar, 1oz. oxalic acid, 1oz. salt of sorrel, 1oz. rhubarb (best), mixed with a quart of boiling water, in which put 1oz. of alkali root. When the tops are dry, polish them with a hard clean brush. Scour with 2oz. of oxalic acid in a quart of water previously.

BOOT TOPS (WHITE), CLEANING OF.

One ounce of oxalic acid dissolved in a wine-bottle full of rain water, to which add 1oz. of white copperas. Forget not, however, to label the bottle "Poison." In the application of the liquid the essential point is to be careful to rub the sponge straight up and down the boot-top, and in no other direction. If otherwise applied, when dry, the top will exhibit patches of white here and there, instead of being uniformly of the desired pale white colour.

INDIA-RUBBER, TO DISSOLVE.

India-rubber, cut into thin slices, may be dissolved in three or four hours (or less) by simmering it in mutton suet. This composition, whilst melted, applied to well-made boots or shoes (previously heated also), renders them waterproof.

Again: India-rubber, 8oz.; bisulphuret of carbon, 4 pints; or, if the latter is not easily obtainable, mineral naphtha may be its substitute. Both are very fetid, and particularly inflammable. A moderate heat hastens the solution (say in a warm oven, not hot).

MOROCCO AND KID BOOTS, TO CLEAN.

Half a pint of water, one pennyworth of gum dragon; the size of a hazel nut of common glue; simmer on the fire until dissolved. It may be kept in a bottle open, or in a mug. Rub on with piece of sponge; when dry rub off with soft towel or old silk handkerchief, or the hand. It will not rub off or dirty the ends of ladies' dresses, besides making the leather look quite new.

Benzine collas is greatly used for cleaning white kid boots. It renders the boots as good a colour as when new, provided they are only dirty, and not stained. The smell of benzine collas is anything but agreeable, but the boots which have been rubbed over with it will be rendered free from the smell caused by it, by hanging them near a fire or in the open air. New milk and soap used with a flannel is also a good thing.

Again: Rub white kid boots with a piece of india-rubber, or stale white bread, or both. You will find them effectual in removing the dirt. Gloves, slightly soiled, may be cleaned in the same manner.

Again: Obtain a cake of pipeclay, scrape a small quantity into a cup, mix carefully with water to the consistence of thin cream; apply with a small piece of sponge, and dry in the open air. Nothing will do so well as sponge for its application.

PATENT LEATHER BOOTS, VARNISH FOR.

To a solution of gum arabic, composed of 2oz. of the gum dissolved in 5oz. of water, add 180 drops of glycerine and 8 drops of nitric acid, or one and a half teaspoonfuls of white vinegar. Make the varnish thinner or thicker; add to or lessen the quantity of water; if the varnish cracks or crumbles, add a few more drops of glycerine. If it dries too slowly, or becomes sticky in damp weather, reduce the quantity of glycerine in the same proportion. The varnish should dry, if properly laid on, without the aid of fire heat, in five or ten minutes, and it should be worked on with the finger in a coat as thin as possible; if necessary, another coat can be added when

the first has become dry. If, on putting on the varnish, the leather of the boot should appear greasy, rub the varnish well in until this appearance ceases.

SHOOTING BOOTS, TO MAKE, NEAT.

To make boots thoroughly sportsmanlike, and neat too, they should first be well polished with blacking, and then oiled with neat's-foot oil upon the blacking, which process scarcely affects the polish of the blacking. The only benefit of oils and compositions is to keep out some water, and to soften and make easy the leather.

VARNISH FOR BOOTS.

Beeswax, 2oz.; black pitch, 1oz.; turpentine, 1oz.; linseed (boiled if possible) oil, 16oz.; asphaltum, 1oz. Melt, and add drop-black, 2oz.; powdered gum acaciæ, 1oz.; first rubbed down with a little oil. Heat all these over a slow fire for a few minutes, strain through a hair sieve or coarse cloth, and set aside for use. It should be applied with a soft brush, and not too thickly, or it will have a streaky appearance. Two or more coats will of course produce a higher polish. The turpentine used should be the spirit of turpentine.

Black ink, ½ pint; spirit of wine, ½ pint; gum arabic, ½lb.; sugar candy, ¼lb.; two glasses of port wine. Dissolve the gum and candy in ½ pint of hot water; add the ink, and, when nearly cold, add the spirit of wine and port wine, stirring the whole time. Apply with a fine camel-hair brush.

Rub port wine (the bottoms of bottles can be saved for it) over patent leather dress-boots, and then leave them to dry. You must apply the port wine with the finger (not a rag).

Get Turkey asphaltum, 2oz.; gutta-percha, 1oz.; mineral naphtha, ½ pint (that is 10oz.). Mix, and allow it to stand close to a fire to dissolve (being careful not to allow it to come in contact with the flame), and it is fit for use. To be applied with a piece of sponge, which can be kept from getting hard by keeping it after use in a little mineral naphtha.

VARNISH, TO REMOVE CRACKED.

Cracked varnish will be readily removed from boots by the use of spirit of turpentine.

WATERPROOF AND OTHER COMPOSITION.

Half a pound of tallow, 3oz. of hogs' lard, 4oz. of turpentine, 2oz. of bees-wax, and 2oz. of olive oil; let the whole be melted together over a fire, during which time it should be frequently stirred.

Linseed oil, 1 pint; oil of turpentine, ¼ pint; yellow wax, ¼lb.; Burgundy

pitch, ¼lb. To be melted together with a gentle heat, and when required for use to be warmed and well rubbed into the leather before a fire, or in the hot sun. Or, what is better than the oil, as much mutton kidney suet melted as will make a pint, or the kidney fat of deer.

Line the boots throughout with bladder, taking care that they are made with but one seam, and that at the back; or, with india-rubber cut small, and dissolved in rectified naphtha in a sand-bath, and the inside of the leather and the face of the lining painted over with it several times; it readily dries, and is easier to work than bladder (bladder is liable to tear and crack in making up, unless great care is used). In making up, the usual "tacks" must not be used at the top of the stiffening at the back; the maker can use a "tack" at the toe instead. When the welts have been sewn in, and before the usual bottom fillings are put in, a thick coating of Jeffery's patent marine glue should be spread thickly over the inner sole, the toe "tack" having been previously withdrawn, and the hole filled with the glue; then put on the usual bottom fillings, and then the middle sole. When this has been stitched in, let a stout "Hythe sole" cover all, using iron screws for the hinge, and nail as may suit the fancy.

Put 2½oz. of india-rubber, cut into very thin shreds, into a jar with 16oz. of fish-oil, and place the jar in a sand-bath in the oven. The caoutchouc will require six days, or more, to be perfectly dissolved; then add 4oz. of spermaceti, and 4oz. of amber varnish. As the smell of the fish-oil is disagreeable, add essential oil of thyme or lavender. The outsides of the boots to be well dressed each time after use.

Let the material be well soaked in strong brine, made with a handful of salt to a quart of rain or river water, for twelve hours at least, to supple the leather and keep it moist; when half dry, steep it in cod, whale or seal, oil two or three days, till completely saturated, and gradually dry in the sun or before the fire at a distance.

Linseed oil, 8oz.; boiled ditto, 10oz.; suet, 8oz.; yellow wax, 8oz.; melt.

Boiled linseed oil, 1 pint; mutton suet, ½lb.; beeswax, 6oz.; tar, 4oz. To be melted over the fire and well mixed; apply while warm, to be rubbed in with the hand before the fire. The boots ought to be perfectly clean and dry before application; the leather will be left soft and pliant.

Two ounces of beeswax, 1oz. of Burgundy pitch, 1 pint of boiled oil, 1lb. of mutton suet, and a little lamp-black; the entire to be boiled together on a slow fire until well amalgamated, and then put up in small crocks for use. If the shoes be well rubbed before the fire with a little of this paste, they will become as pliable as a glove.

Melt together over a slow fire, and apply when cold—1 pint of neatsfoot oil, 2oz. of turpentine, 2oz. of yellow wax, 1oz. of Burgundy pitch. Warm

the boots, and set them down before the fire; then, with the hand rub this composition well into them, operating on them by turns. They will absorb a great deal of it.

A quarter of a pound each of beef and mutton suet, 1 pint of neatsfoot oil, 2oz. of beeswax, 1oz. of Burgundy pitch. Mix gently and thoroughly over a slow fire in an earthen pipkin, then, when moderately cool, well stir in 1oz. spirit of turpentine; rub the mixture over the outside of the boots, warming them before a fire.

WET LEATHER, TO SHINE.

The following recipe, applied to the leather on both sides (but principally on the flesh side) when dry, will at once make it supple, and you may shine it immediately after:—Boiled linseed oil, 1 pint; beeswax, 2oz.; Burgundy pitch, 1oz.; turpentine, 2oz. Melt together over a slow fire. Dress them with the composition, and you may shine them. Put it on your bridle-reins, particularly where the lather from the horse's neck has been, and hang them up for the season. They will not get mouldy if in a damp place, nor dry and hard if in a dry place. It will not soil gloves or breeches if put on saddles or reins, rubbed well in and moderately rubbed off.

BREWERY, THE.

BREWING ALE.

Brewing half hogsheaa of ale: Five bushels of pale malt, 4lb. best Worcester hops; put into mash tub 30 gallons of hot water 202°, 13 gallons of cold water 49°, mean heat 166°; shake the malt in and stir it well about, and let it stand one and a-half hours; then draw off the wort and mix it with the hops; then pour over the grains sufficient hot water at 200° to fill your barrel, allowing some for waste in boiling and working. Boil the wort and hops for one hour. Put 1 pint of yeast to 3 gallons of wort, at 72°, to begin to work, and add the remainder at 68°.

CLOUDY ALE, TO BRIGHTEN.

Ground ivy or calcined oyster-shells are either of them said to render clear ale which has become cloudy; but after the application of oyster-shells the ale requires to be rapidly drunk, as it will not keep good for any length of time. At the time of being brewed, if it is rapidly cooled, it never will become cloudy. All depends upon the time it takes to cool.

LIGHT SUMMER TABLE BEER.

Upon a bushel (of 40 quarts) of malt pour enough of boiling water to enable you to draw off 100 quarts of wort. Put into the wort ½lb. of hops,

and boil it an hour. Having washed your mashing tub well from the grains, pour the wort into it, and, when cooled to the temperature of new milk, add in summer ½ pint of yeast, in winter a little more. Cover the tub with a cloth, and let it work till next day; pour it into your barrel before it begins to sink, and rack it before the barrel is stopped up. It will be fit to drink in a fortnight or three weeks.

SOUR ALE, TO RESTORE.

If ale has once been sour, *i.e.*, has once been through the "acetous fermentation," never expect it again to have its former brilliancy, liveliness, or full flavour; it will always remain acid. Procure a 4½ gallon cask (commonly called a pin), rack the ale into it, and get about 3oz. of new hops, which put in the pin, bung it down tight, put it in a cellar, where let it remain six months at least; it may then be better.

If sour ale is in bottles, put a quarter of a teaspoonful of carbonate of soda and a large teaspoonful of brown sugar into each bottle; then cork well, and tie it down the same as ginger-beer, and place the bottles cork downwards for about three weeks where it is not too cold.

CEMENTS, GLUES, VARNISHES, &c.

CEMENT FOR GLASS, &c.

The following is a hard and durable cement for broken porcelain, glass, &c.: Powdered gum mastic, 1 part; powdered gum arabic, 1½ parts; powdered prepared chalk, 2 parts; mix. Keep it in a powder, and make into a stiff paste with water when required for use.

Professor Edmund Davy read a paper to the Royal Dublin Society on a cement which he obtains by melting together, in an iron vessel, 2 parts by weight of common pitch with one of gutta-percha. It forms a homogeneous mass, which is much more manageable for many useful purposes than gutta-percha alone, and which, after being poured into cold water, may be easily wiped dry and kept for use. The cement adheres with the greatest tenacity to wood, stone, glass, porcelain, ivory, leather, parchment, paper, hair, feathers, silk, woollen, cotton, linen fabrics, &c. It is well adapted for aquaria.

Finest pale orange shellac (broken small) 1 part, and rectified spirits (the stronger the better) 2 parts, mixed together in a corked bottle until dissolved.

A cement composed of very finely scraped chalk, mixed with strong liquid gum to a proper consistency, will answer.

Half a pound of quicklime, and 4oz. of linseed oil. Boil these together,

and, when reduced to a good thickness, it is fit for use. When cold this will become extremely hard, but it is readily dissolved over the fire in the same manner as glue. This cement will hold against fire and water.

CEMENT FOR STOPPING LEAKS.

A composition of 4lb. of resin, 1 pint of linseed oil, and 1oz. of red lead, applied hot with a brush, will stop leaks in roofs, water casks, &c.

COATING FOR IRON HURDLES OR OUTSIDE WOODWORK.

One gallon gas-tar, ½ pint spirit of turpentine, 2oz. oil of vitriol; mix. Any rust should first be removed.

The best and most economical coating for hurdles is gas-tar and quick-lime—a handful of lime and a gallon of tar, applied hot. Tar will prevent game destroying young trees and quicks, but cattle will injure them under any circumstances.

FRENCH POLISH.

Shellac, 20oz.; benzoin and gum juniper, each 2oz.; gum thus, 1oz.; camphor, 1oz.; naphtha, 1 gallon. Stand for a few days and strain.

One pint spirit of wine, 2oz. gum benzoin, ¼oz. gum sandarac, and ¼oz. gum animé. Put these ingredients into a corked bottle large enough to contain twice the quantity, and dissolve them in a sand or hot-water bath. When this process is complete, add ¼ gill of clear poppy oil, and the polish will be ready for use.

GLUE INSOLUBLE IN WATER.

Shellac dissolved in naphtha.

Glue, 12oz.; water enough to dissolve it; then add 3oz of resin, and melt together; after which add 4 parts of turpentine. This should be done in a water-bath, or carpenter's common glue pot.

LACQUER.

It is made with shellac dissolved in spirit of wine, and put on generally with a soft brush. All ornamental brass-work is lacquered, and if a higher colour is required, two coats are given; but any colour can be added in powder, provided it is a transparent colour, otherwise the lacquer becomes muddy. Some care is required in putting it on.

POLISH FOR MAHOGANY FURNITURE.

Take threepennyworth of rose-pink, threepennyworth of dragon's blood, threepennyworth of alkanet-root, and threepennyworth of cochineal; steep in a pint of the best linseed oil, and rub well in with linen cloths. The above will bear a second pint of oil when the first is used. It should be allowed ten days to steep. Do not use it for articles that have been French polished or waxed.

Half-pint raw linseed oil, ½ pint strong vinegar, ¼ pint gin, ¼ pint turpentine, 2oz. butyr of antimony; to be well mixed, and the bottle well shaken before using. This polish should be applied in a small quantity, with a little fine tow, and then rubbed lightly over with an old glass-cloth, and a beautiful polish will be the result.

The following is a recipe for polished mahogany tables or furniture: 1oz. of alkanet root, 1oz. of rose-pink, to be well bruised and put into a bottle with 1 pint of the best cold-drawn linseed oil; let it stand twenty-four hours, shaking the bottle occasionally; take a saucepan quite free from grease, and pour the whole into it; scrape very fine a table-spoonful of the best white beeswax, place it on a slow fire till the beeswax is melted, taking care not to let the oil boil. Take it off the fire and add a wine-glass of spirit of turpentine, one ditto spirit of wine, and a pinch of cream of tartar; when cold pour it off into the bottle again, taking care not to pour in the sediment; add to it a wineglass of the best white vinegar and a table-spoonful of salad oil. When used it should be rubbed round and round, not across the table.

Melt over a slow fire 2dr. of salt of tartar, or 10oz. of potass, dissolved in water; 5dr. of wax cut into small pieces, and 10oz. of river water. Lay the mixture on with a brush, and when dry polish with a piece of cloth.

POLISH FOR TURNERS' WORK.

Dissolve sandarac in spirit of wine, in the proportion of 1oz. of the former to ½ pint of the latter; next cut up into fine shavings 1oz. beeswax, and dissolve it in a sufficient quantity of spirit of turpentine to make it into a thick paste; add the former mixture by degrees to it; then, with a woollen cloth, apply it to the work while it is in motion in the lathe, and with a soft linen rag polish it. It will appear as if highly varnished.

STAINING WOOD, RECIPE FOR.

Oak colour.—Dissolve 2oz. of sulphate of iron (copperas) in 1 gallon of boiling water, and, whilst hot, brush the wood all over. When perfectly dry, take 2½lb. of fustic, and boil for half an hour in 2 gallons of water; use this while hot. The first application will be of a greenish hue, and should be on twenty-four hours before using the following, viz.: 1lb. salt of tartar (sub-carbonate of potash) to 1 gallon of water, and when cold to be applied with a brush same as the other. Varnish when dry. The cost will be about 1*s.* 10*d.* for all as above.

An excellent stain may be made of Egyptian bitumen dissolved in benzole, coal-tar, naphtha, or turpentine—the first for choice. This substance is also called bitumen of Judea, or Jew's pitch; it costs about 1*s.* per

pound. The above forms a true stain, and, if applied to poplar or other soft wood, penetrates it well, following the grain, and giving, with the former especially, a good imitation of walnut. Benzole of first quality is expensive, but a third quality may be bought at a low price; or the fluid sold on Holborn-hill for Halliday's lamps, at about 3*s.* 6*d.* per gallon, will answer the purpose. After one or two thin coats, the wood should be lightly rubbed over with glass-paper, and varnished with oak varnish, at about 10*s.* or 12*s.* per gallon.

Use brown umber, finely ground down on a smooth surface—say on a slab of stone or marble—with oil. It is readily applied with a brush, easily made, and it dries quickly. The intensity of the oak shade can be regulated by the addition of yellow ochre, ground down in the same way with oil, and mixed afterwards with the umber. Umber alone produces a very dark colour—by the addition of ochre we get a lighter shade. When the staining has had a certain time to soak into the wood (it must not be allowed to become quite dry), the wood should be rubbed with a piece of rag, so that all superfluous matter may be removed, and the graining of the wood shown. Varnish may then be applied if it be desired.

TAR, TO USE.

The following is a most excellent way of applying gas tar for ironwork or woodwork: One gallon of gas tar, 2oz. of aquafortis, ¼ pint of spirit of turpentine. Mix the tar and turpentine, then pour in the aquafortis (which will make it boil); stir till it has done boiling.

One gallon gas tar, ¼lb. vitriol, ½ pint turpentine. The gas tar to be warmed over fire if used in winter.

The following is a recipe for tar varnish for wood and iron: One gallon of coal tar, ½ pint of spirit of turpentine, 2oz. of oil of vitriol, stirred, and laid on like paint.

To prepare gas tar for rails, either boil it for a few minutes in an iron pan and put it on hot, or heat it and melt in it some pitch in the proportion of ½lb. to 1 gallon of tar. You may also make something very similar to black varnish by melting 10lb. of coal pitch and 3lb. of resin together adding to them when melted 2 gallons of naphtha. This will dry on wood or iron in the course of an hour or two.

Mix 1½ pints of spirit of turpentine with every gallon of gas tar: It will dry well and quickly.

WATERPROOF VARNISH.

Linseed oil, 8oz.; boiled oil, 10oz.; suet and beeswax, of each 8oz.

Roche alum, 4oz.; acetate of lead, 2oz.; gum arabic, 1dr.; water, 8oz. (This would be found useful for fishing-tackle.)

FALCONRY.

HAGGARDS, TAMING OF.

In the first place, the wings of the hawk should be "brailed," *i.e.*, tied with a double thong of soft leather on the back, passing under as well as over each wing. Next, he should have a "rufter" hood made of cloth, with a hole for the beak, tied at the back of the neck; this will admit of his being stroked, and gradually accustom him to be handled. Of course it must be taken off when he is fed. Thirdly, he should be kept in an inhabited room, or where he may be constantly within hearing of persons moving about, and of the human voice. In refractory birds the old falconers recommend them to be placed under dropping water, and that their beaks and talons should be blunted with a file.

MERLINS, TRAINING OF.

Remove the young birds from the nest about a week before they are likely to fly. If you take them sooner they will die of cramp. Upon each leg fasten a leather strap, with a slit at the loose end, to which presently the leash and swivel must be attached. These straps are 5in. long, and are the *jesses*. Let the leather be strong at first, as merlins are apt to bite them: Be careful neither to compress the leg—which, if you do, will swell—nor, on the other hand, to make so wide a fastening that the bird can withdraw his foot.

As to their house, select a place sheltered, in a measure, at least, from the wind. This will be, perhaps, the outside of your stable wall, or the strong forks of a low tree, just where they emerge from the thick trunk. Here a wine hamper is to be placed, 4ft. or 5ft. from the ground, with its bottom against the wall or tree, wide open, with the hinges of the lid at the underside, and the lid itself sticking out horizontally, so that the young birds (which are to be placed in this hamper, with a little clean dry straw) may come out and air themselves before they can fly.

Feed with raw beef-steak or pigeon cut into small pieces. Feed with the finger if possible, but, if not, with a sharp-pointed stick; but be sure and feed from the finger in the course of a meal or so. Procure a falconer's whistle, and whilst you are cutting up the meat whistle as hard as you can, and continue it whilst feeding. If a bird will not feed from the finger give him half a meal only. The hawks are to be fed well, after this fashion, three times a day, at stated hours—seven, one, and seven are good feeding-times—the trainer whistling, not only while he presents the meat (which must be done slowly and fairly to each bird), but five minutes before he reaches the hamper.

The whistle will be recognised by the birds in about four days from the time its use is commenced. When this occurs adopt the lure. The lure is readily made of a piece of wood cut into the shape of a horseshoe, at the two ends of which are fastened the wings of birds—brown in colour if you are to fly larks, thrushes, &c.; pigeon wings if you train to pigeons. A ring is attached to the back of the lure, to which you add a convenient swivel and strap. Having nailed a little scarlet cloth flat on a portion of your lure, and having fastened some beef on both sides, and where the cloth is not, present yourself at some little distance from the hawks, and, whistling, toss the lure round your head at the full length of the strap, gradually approaching your birds as you do so. When, in the course of a few minutes, you reach the hamper, place the lure (still in your hand) within it, and divide the meat with your knife, bit by bit, slowly among them. When the lure is bare take it away immediately. Repeat this proceeding at every feeding-time, except that you need not use the whistle so violently; blow it well before you come in sight, and a little as you feed. In a day or two the hawks will be in the neighbouring trees, or on the top of a wall, when you come to feed them; in a few more days hundreds of yards away; but they will come to your call and lure. They are now flying at hack.

When the young merlins come readily to whistle and lure, it will be sufficient to feed at seven and seven, leaving out the intermediate hour of one o'clock—great care being taken that the meals are plentiful. Coarse beef, rooks, and small birds may be substituted for the best steak and pigeons. If the female birds are to fly pigeons, lure them with a dead pigeon, and feed them from it, opening the brains and then the breast with a knife. A rough lure or two, with meat fastened, may be flung down as the birds approach, for they are apt to fight or crab when all cling to a single lure. Fasten tough meat to the lures but have, in a pouch, some juicy tender pieces; and quietly approaching the hawks as they tug at the hard food, slip a piece or two of the choice morsels into their mouths. This is very important to prevent your birds from carrying their quarry when you arrive to take them on your hand after a successful flight. Talk to them and whistle gently as you feed, lying down amongst them on the grass; the meat on the lures must be perfectly fresh, void of fat, and eatable.

Hawks must be made to feel that they are entirely dependent on their trainer. It is as well to reward publicly any bird that puts more trust in you than his fellows. Never allow a bird to fly off with food, therefore be careful that the pieces of meat are firmly tied, and examine them as the hawks feed.

To train merlins to larks.—A couple of days before you take up your merlins, give a live lark from the hand; on the second day call your birds to an open space, and throw up a lark before them as they approach, having taken the three longest feathers from one wing of the quarry. If the bagged lark be in full plumage this will be necessary to insure a capture, an important point. Female birds, however, should be shown live pigeons during a week or ten days before they are taken up. When the hawks have nearly reached their full strength, exchange the dead pigeon (lure) for a live one, just fledged enough to fly a few yards. This throw up in the air when the hawk is passing round your head, expecting the dead lure. It is nearly certain that she will strike it; and, if such be the case "make in," kill the pigeon for the hawk, and feed her well from it. The next day she will kill such a bird for herself; and, when "taken up," will only require to be broke to the hood. Remember that, whilst you may easily break a hawk from large to small quarry, it is very difficult to make a change the other way. Let your hen merlin then be taught early that she is expected to fly pigeons, but that other birds are not worth her consideration.

At the end of hack (say a month), hawks sometimes become a little wild, and it is a difficult matter, even while they are feeding, to get quite near enough to touch the jesses. If, after one or two attempts you find you cannot do so, use a small clap-net. The bird being secured, put on a hood, fasten it, then look to and renew the jesses. Fasten them to a leash by a small swivel; wrap the leash around your gloved left hand, upon which the bird will sit; quietly remove the hood. The hawk struggles—perhaps bites and shrieks. Be patient. Take him into a room half darkened, and you may probably slip the hood on easily. His disposition must be remarkably good if he will now eat from your hand. Try him, however; if the hood be large and cut away a good deal about the beak, he may do so. Feed through the hood from the finger. Take the hood off, and allow your bird to pull at a very tough bit of meat held in the hand on which he sits (the left); go a little into the dusk, and slip the hood on again; come out into the light and give one or two juicy pieces through it. Do not waste above a couple of days at this work, and take care to carry the hawk unhooded also, in order that he may know you well. When he becomes as tame as he was during the first fortnight of hack, you may throw him up, sharp set, and fly as of old to the lure. Choose the regular feeding-time, so that he may join the birds which are still at hack.

When not carried, merlins should be fastened by the leash to a wooden block 8in, or 10in. high, with a broad base and a narrow top—a sugar-loaf with the apex cut off. There is a better sort in use made somewhat in the form of a wineglass with a ring in the centre to which the leash is

attached. This latter kind keeps the birds cleaner. In fine weather these blocks are put out on the grass with the hawks on them unhooded. The hood need only be used in passing from the house to the field when you are going to fly. At night, of course, you don't hood; take care at that time that the blocks and birds are in a dry outhouse free from rats. You are about to fly a bagged pigeon with two female merlins; carry them hooded Having reached an open space, unhook the swivel from the jesses, retaining the latter only with your thumb and finger; now open the hoods, take them off, cast off the hawks—they have not been taught to "wait on," but will fly round and above you; run on, pigeon in hand, getting the best start you can, taking care only that the hawks are looking towards you. Off with the pigeon.

PEREGRINE, THE; TRAINING OF.

Having procured as many young falcons as possible, select those for training which are the broadest across the shoulders and flattest on the breast, particularly if, in addition to these points, they possess large full eyes and open nares. Three young peregrines are quite as many as one unassisted falconer should attempt to train.

It has been constantly asserted that "flying at hack" is a *sine quâ non* with falcons. Where this can be done with safety it is beyond all doubt the best mode. First-rate falcons may, with a little additional trouble, be made from birds brought up in strict confinement. Put on the jesses as soon as the young hawk is fairly fledged, even before it has lost all the down about the head, and carry it on the fist as much as possible, causing it by a motion of the hand to shake its wings and otherwise exercise the muscles, and as soon as it will fly (in a string) readily to the lure, put it on the wing daily. The principal drawback to this system is the danger of loss the first time that the young hawk has its liberty; great care should, therefore, be taken to select a perfectly calm day for the experiment. In the course of a week it will be ready and eager to chase anything.

Having procured two heavy blocks, about a foot in height, 9in. at the base, and 6in. at the top, and having put on the birds strong jesses, to which the leash and swivel have been attached, place hawks and blocks upon soft grass during the daytime, in fine weather, removing them at night into a dry loft—care having been taken to strew plenty of sand round their resting-places, with straw at the length of the leash. It is a good plan to darken the room, especially when birds have to remain hours on their blocks, sharp-set, during long light mornings. Now, as a bird is feeding from the hand, take him into a darkish place and slip the hood on quietly, though not now in order to break him to the hood. This done, an assistant may hold him with both hands across the back and shoulders while two

heavy bells are fastened to the legs. More feeding and caressing must follow this operation, and the bird be quietly returned, unhooded, to the block. Next morning the tamest bird should be fed from the block on the grass, and allowed after feeding quietly to fly away, having on only the jesses and bells. He is certain to return at the evening's feeding-time. A brancher will also surely return, provided the bells hinder him obtaining food in the field. In the evening the lure will be thrown down before the returning hawk, as he approaches at the sound of the whistle and of the voice. He must be allowed to feed well, the trainer helping him, and presenting the best pieces from the hand, taking care always to be punctual at the feeding-times. It will be well to make these a short hour after dawn in the morning, and an hour and a half before dusk at night.

A difficult point for a falconer is to discover the exact state in which each individual bird will work the best, and, when discovered, to keep it in that condition. As a general rule, the higher the condition under which a hawk will remain in good control the better, because it rises higher and flies altogether with more dash. The supply of food must be regulated according to the temperature of the season, an extra quantity being requisite during severe frost, or under hard work in windy weather. Of course the eagerness of the bird itself upon seeing its food must be in a great measure the guide; but this is not sufficient without the test of feeling the breast daily, because some noisy birds will scream and droop their wings at the approach of the falconer, as if almost famished, when at the same time they will scarcely notice the food that is actually given to them, and prove very wilful on the wing. A regular daily allowance in accordance with the temper of the bird—rather more on the days of flying than on those which intervene—with a gorge once a week, is the best plan to adopt, taking into consideration the temperature and the amount of work.

Use the lure very moderately after the young hawks have been taught to come readily to it, and have quite given up their natural inclination to carry. Nothing is more likely to cause the loss of a high-couraged young peregrine than constant disappointment of living quarry. When trained and in good flying order, it is better practice not to take the birds out at all rather than to fly them for exercise merely to the lure.

Falcons must have space, and where this is not to be met with it is useless to keep them. Under these circumstances try another species. A good deal may be done with the sparrow-hawk and goss-hawk in even thickly enclosed districts.

RECLAIMING HAWKS.

Keep the hawk as low as her strength will allow, giving food very often, but in very small quantities, and being constantly with her. By these means

you may soon get the bird to come readily to fist, and lose all fear of her master. She has now to learn how to take and kill game. Begin by using dead pigeons for lures; then young live ones; and, lastly, full-grown live pigeons, with their legs tied together, which will prevent their beating the hawk off when she has struck them to the ground; then procure some live partridges, not forgetting to tie their legs at first; and, finally, enter the bird at coveys that have not obtained their full strength.

SPARROW-HAWKS, CATCHING OF.

Use a pair of clap-nets, such as the bird-catchers use. You will find them useful, after you have caught the hawk, for catching birds to feed it with, and also for taking up wild hack-hawks. You must have two or three brace-birds fastened to a small bow-perch, on which they will sit and show themselves well; and if there are any sparrow-hawks about, by using a long pull-line, and concealing yourself, you will be sure of them.

SPARROW-HAWK, TRAINING OF.

When the young sparrow-hawk is in its basket, treat him much after the manner of the merlins, namely, feed often and regularly with small pieces of raw meat, fresh and juicy, without fat or sinew—the basket closed or taken in-doors at night; and, as it is not necessary to let this description of hawk fly at hack, as soon as it shows a propensity to wander slip on the jesses, and place a bell on one of its legs, of the smallest size. The simplest stand is that called the bow-perch, which is shaped like a half-hoop, about a yard in diameter, and as thick as a broomstick—the two ends pointed and thrust deep into the ground, leaving the segment of a circle above. The leash is attached to a ring that is loose enough to play along the perch; and here the hawk should be placed every morning, with water in a shallow vessel once or twice a week, according as he shows a disposition to bathe.

Having now arrived at his full growth, the number of his meals must be reduced; a slight feed in the morning, and a full one, with the necessary castings, in the afternoon will suffice, always making him fly to the fist or lure for his food. Make it an especial study to regulate the quantity and quality of his food. Two ounces of fresh meat in the morning and a couple of small birds in the afternoon will be about the mark. A live bird may be given when he is sharp set, shortened in his flight; and when he has killed it he should be taken gently up and allowed to finish his meal on the fist.

When taken to the field he must have his game beat out for him, letting him dart from the fist the moment it appears, for which purpose he is carried with the jesses alone, which are held in the falconer's hand.

It is desirable to break him to the hood, in order to bring him fresh to his ground, as he is apt to dash off the fist as he goes along, particularly if any small bird flies near him.

When he is ill a little Cayenne pepper in a piece of meat may be of service; and during the winter months the bow-perch fastened on a sanded board, and placed in a warm loft, will assist in keeping him in good health.

The castings are formed of the feathers or fur consumed with the prey, and which are necessary for the hawk's health. These are disgorged in a hard mass the following morning; and no hawk should be fed or flown until this process has been gone through.

The perches for short-winged hawks are about 1½in. in diameter.

The brass bells sold in London for ferrets are really such as were formerly made for hawks. That sort equalling in size a large marble should be preferred.

SHY SPARROW HAWK, TO CURE.

A perfect cure may be wrought by going daily for some time to the village blacksmith's with the hawk upon the fist. The noise will, in time, cause a sparrow-hawk to cease straining and struggling on the wrist at every unusual sight or sound when carried into the field.

TERMS USED IN FALCONRY.

Arms. The legs of a hawk from the thigh to the foot.

Bate. To struggle from the fist, block, or perch, either through fright or for liberty, &c.

Beam-feathers. The long feathers of the wings of hawks.

Bewits. Strips of leather by which the bells are fastened to the legs.

Bind. To cling to the quarry in the air.

Block. The conical piece of wood to which falcons are fastened when at rest, and on which they sit.

Brail. A thong of leather for securing the wings of hawks, to prevent them bating.

Brancher. A young hawk that has lately left the nest, thus distinguished from an eyess—one taken before it can fly.

Cadge. The frame on which several hawks are placed when they are carried to the field.

Cadger. The man who carries the cadge.

Calling-off. Luring a hawk, from an assistant at a distance, for exercise.

Carry. A hawk is said to "carry" when it moves away with the captured quarry on the near approach of the falconer.

Cast, is a pair of hawks.

Castings. Fur, feathers, &c. given to the hawk with its food. They are

afterwards ejected from the mouth in somewhat of an egg-shape, and cleanse the gorge.

Cere. The wax-like skin above the beak.

Check. To fly at; to change the bird in pursuit.

Clutching. Taking the quarry in the feet, instead of striking it down.

Come-to. To begin obeying the falconer.

Coping. Shortening the bill and talons of a hawk.

Crabbing. Hawks fighting with one another.

Creance. A long string to which hawks (generally haggards) are fastened during their first lessons. A live pigeon is sometimes thrown up in a creance.

Crines (or *crinets*). Hairs, or hair-like feathers, about the cere.

Deck-feathers. The two centre feathers of the tail.

Disclosed, is when the young just peep through the shell.

Endew, is when the hawk digests her food.

Enter. To fly the hawk at quarry (or a particular quarry) for the first time.

Enseame. An old term, signifying to purge a hawk.

Eyess. A nestling hawk.

Eyrie. The breeding-place.

Feaking, is when the hawk wipes her beak after feeding—a custom scarcely ever omitted.

Flags. The feathers next the "principals" in a hawk's wing.

Fround. A disease in the mouth and throat of a hawk.

Get in. To hasten to the hawk after it has killed.

Gorge. The crop, craw, or first stomach.

Hack. Hack is the state of liberty in which hawks, taken from the nest, are kept for some weeks after they can fly. Older birds are occasionally flown at hack, and sometimes weighted, to prevent them preying for themselves.

Haggard. A wild-caught mature hawk.

Hood. The cap used for blindfolding, or "hoodwinking," hawks.

Imp. To mend a broken feather.

Inke. The neck, from the head to the body, of the quarry.

Intermewed. A hawk moulted in confinement is so called.

Jack. The male merlin.

Jerkin. The male of jer-falcons.

Jesses. The leathern straps fastened to the legs of a hawk, and which are not removed when the bird flies.

Leash. The leather thong fastened by a swivel to the jesses, when the hawk is confined to block or fist, &c.

Mail, or *Mailes*. The breast-feathers of a hawk.

Make-hawks. Old staunch hawks, sometimes employed in teaching young ones.

Manning a hawk. Making him endure the company of strangers.

Mew. To moult, also the place in which hawks are kept.

Musket. The male sparrow-hawk.

Mutes. The droppings of a hawk.

Nares. The nostrils of a hawk.

Pannel. The lower bowel of a hawk.

Passage. The flight of herons to and from the heronry during the breeding season.

Passage-hawks. Another term for haggards and red hawks taken as they migrate.

Pelt. The dead body of the quarry.

Perch. The resting-place for short-winged hawks.

Petty-singles. The toes of a hawk.

Pitch. The extreme height to which a long-winged hawk rises before the game is sprung.

Plumage. Feathers given the hawk for a cast.

Point. The way in which a hawk rises (and thus "makes its point") over the exact spot where the quarry has taken refuge, *i.e.*, been "put in."

Pounces. The claws of a hawk.

Principal-feathers, or *Principals*. The two longest feathers in a hawk's wing.

Prunes, is when a hawk arranges its feathers, or plumes itself.

Pull through the hood. To eat through it.

Put over. A sort of squeezing the food from the gorge to the stomach, a process which hawks frequently go through after a full meal, moving their necks in a strange manner.

Put in, is when the quarry is driven into cover.

Quarry. The game flown at.

Rake. To fly too wide.

Raking. Striking the game in the air.

Ramage. Said of a wild hawk.

Rangle. Small stones formerly given to hawks. The custom is obsolete; but it is as well to have such stones within reach of peregrines, as it has been proved that they occasionally eat them.

Reclaim. To tame a hawk, and make him familiar.

Red hawk. A peregrine of the first year.

Ring. To rise spirally—said of either long-winged hawk or quarry.

Robin. The male hobby.

Rufter-hood. An easy-fitting hood, through which the hawk can eat, capable, however, of being well secured; used in training haggards, &c.

Ruff. To strike the game without "trussing" or seizing it.

Sails. The wings of a hawk.

Seeling. Running a thread through the eyelids of a newly-caught hawk to obscure the sight for a time—a cruel practice, now quite obsolete in this country.

Serving a hawk. Helping to "put out" the quarry from cover when it has been "put in," &c.

Sharp-set. Very hungry.

Sniting, "is when a hawk, as it were, sneezeth."

Soar hawk. Any hawk of the first year.

Standing. Remaining in idleness at the block, &c.

Stoop, sometimes *swoop.* The rapid descent of a falcon from a height on the flying quarry.

Summed. Said of a hawk when the plumage is full grown.

Swivel. Used to prevent jesses and leash becoming twisted.

"*Take the air.*" To soar aloft; said of the quarry. Much the same as to "ring."

Tiercel (*Tassel*). Male of the peregrine or goshawk; probably because these are a *third* smaller than the falcons.

Tiring. Any bony or tough bit (such as the leg of a fowl, with most of the flesh gone) at which hawks, when being trained, may pull, so that the meal is prolonged, &c.

Train. The tail of a hawk.

Truss. To clutch the quarry in the air.

Varvels. Little rings of silver, at the ends of the jesses, on which the owner's name is engraved. Not in present use in this country.

Wait on. A hawk is said to "wait on" when it soars in circles above the head of the falconer, or over a dog which is pointing game. It is thus prepared to stoop at the quarry when sprung, or to descend on the lure, as the case may be.

Yarak. An eastern term, signifying the happy time when short-winged hawks are in a good humour, and ready to fly eagerly at a quarry.

HAIR, THE.

HAIR-DYE

Solution No. 1: Hydrosulphuret of ammonia, 1oz.; solution of potash, 3dr.; distilled or rain water, 1oz. (all by measure); mix and put into a small bottle, labelling it No. 1. Solution No. 2: Nitrate of silver, 1dr.; distilled

or rain water, 2oz.; dissolved, and labelled No. 2. For fifteen or twenty minutes solution No. 1 must be applied to the hair with a tooth-brush. The solution No. 2 is then brushed over, a comb being used to separate the hairs and allow the liquid to come in contact with every part. Care must be taken that the solution No. 2 does not touch the skin. Cost: Hydrosulphuret of ammonia, 2*s.* 6*d.* per lb.; nitrate of silver, 4*s.* 6*d.* per oz.

HAIR-OIL AND POMATUM.

For hair-oil.—Take 4oz. of olive oil, 1oz. each of almond and castor oils, all of the finest quality. Perfume with a mixture of the following essential oils; English oil of lavender, oil of verdi, essence of bergamot, of each ½dr.; essence of lemon and oil of verbena, of each 20 drops; oil of cloves 10 drops; oil of cinnamon, 6 drops; oil of almonds, 4 drops; otto of roses, 10 drops.

Again: Olive oil, 1 quart; prepared lard, ½lb.; oil of geranium, 2dr.

Another: Palma-Christi oil, 3oz.; British oil of lavender, 1dr. To be applied every night.

For pomatum.—White wax and spermaceti, of each 1oz.: yellow wax, ¼oz.; olive oil, 8oz.; almond and castor oil, of each 3oz.; melt the wax and spermaceti in a little of the oil, add the remainder of the oil made warm in a jug, placed in a slow oven. Perfume as above, and pour into wide-mouthed bottles.

Again: Olive oil, 1lb.; wax, 2oz.; spermaceti, 1oz.; flower pomade, 6oz. (rose, orange, or jasmine); bergamot, 2dr.

HAIR-WASH.

Hair-wash that will prevent the hair falling off.—Port wine, rum, and oil of almonds in equal quantities. To be rubbed well into the roots of the hair with a piece of flannel three times a week.

If merely to keep the hair from becoming dry, and to keep the head cool, about one-third of a teaspoonful of pure glycerine applied by the hand to the crown of the head, followed by three or four times the quantity of water. For baldness following fevers, or other severe illness, or for failing of the hair from dryness and want of action in the scalp: take of strong spirit of sal volatile, 1oz.; tincture of cantharides, 2dr.; rosemary water ½ pint, and pure glycerine, ½oz. To be used with a sponge or wetted hair-brush twice a day.

To prevent the hair falling off, mix spirit of turpentine, 1oz.; trotter-oil, 1oz., and 30 drops of acetic solution of cantharides, and apply it to the roots of the hair two or three times a week.

Again: Melt together, by aid of a gentle heat, olive oil, ½ pint, and white wax., 2oz.; and, when nearly cold, stir in tincture of cantharides, 1dr., and

essential oil of almonds, 3 drops; apply it to the roots of the hair every night.

Rub well in a mortar tincture of cantharides (Spanish fly), 3dr.; strong acetic acid, 20 minims; and acetate of copper, 2gr.; then add a measured ounce of castor oil, and 1oz. of oil of almonds; put it into a bottle, and shake well before using. Apply it to the roots of the hair every night.

The following is an excellent hair-wash: Take of tincture of Spanish flies, ½oz.; lavender water, ¼oz.; water, 1 pint; the quantity of tincture to be increased until the wash produces slight itching. It encourages the growth, and prevents the hair falling off.

Borax, 1oz.; camphor, 1oz.; boiling water, 1 quart; spirit of wine, 4oz.; mix. The camphor which is not dissolved floats on cooling, and can be gathered on filtering paper, to be used to scent the clothes-press, and keep away moths. Mode of use: Wet the hair at the roots well, and rub with the hands till a lather is formed (about three minutes), then wash out with water. After this the person should remain in a warm room for the remainder of the day. Eau de Cologne is also very efficacious, and less troublesome.

There is no better hair-wash than the yolk of a raw egg. First sponge the head with tepid water, then rub the yolk well into the hair, afterwards sponge the head with tepid water again.

A good hair wash may be made as follows: Borax, ½oz.; spirit of camphor, ¼oz.; lavender water or Eau de Cologne, 1oz.; glycerine, ½oz.; rose-water to fill a pint bottle.

The great mistake in nearly all hair-washes is that they contain spirit. Spirit removes the natural oily secretions which nourish the hair, and makes it what is called dry, and causes it to fall off. The following is a very cooling wash, and perfectly harmless: Borax, 1dr. (*i.e.*, about as much as will fill the bowl of a teaspoon), camphor-water, 8oz. (½ pint). The camphor-water is made by letting a small lump of camphor float on rain or distilled water for twelve hours. Besides being a cooling wash, this recipe will be found excellent for removing scurf. For this purpose it is best applied with a small piece of flannel, first making partings in the hair and then rubbing the head.

It is stated that a weak decoction of tobacco (a pinch, or about half a pipeful) in 4oz. of warm water, applied daily to the roots of the hair, will prevent it falling off; it is so weak there is no unpleasant smell.

Take the yolk of an egg and wash the hair with a flannel dipped in warm water, and then wash it well in cold water. There is nothing more cleansing.

One ounce borax, 1oz. camphorated spirit of wine, and 1 quart of warm water. Dissolve, let get cool, and filter. Any scent you like.

Camphor mixture, ½ pint; decoction of fresh tops of rosemary, ½ pint; mix, and add essence of neroli, 10 drops.

Take 1oz. of borax, ½oz. of camphor, both powdered fine, and dissolve them in 1 quart of boiling water. When cool the solution will be ready for use. The camphor will form in lumps, but the water will be sufficiently impregnated.

LOTION TO ALLAY CUTICULAR IRRITATION.

When the hair comes off in patches, and the skin appears red, without being sore or broken, wash the parts well with the following lotion: Diluted hydrocyanic acid, 1dr.; water, 1 pint.—(*Youatt.*) When the skin is broken, then wash with lime-water, and afterwards apply the following ointment: Sulphur, 2dr.; cold cream, 1½oz.; camphor in powder, 1dr. Melt together. A very small piece of chalk or hard lime may be put into the water; but never powdered sulphur. The cooling medicine of cream of tartar and sulphur, mixed with lard, may be given at night.

STRENGTHENING THE HAIR.

No. 1.—Mix ½oz. of spirit of rosemary and ½oz. of olive oil with 3dr. of oil of galbanum, and 4dr. of essential oil of cloves. The hair should be washed with the yolk of an egg about once a week, moderately well dried, then damped with double-distilled rose-water, allowed to dry, and the above recipe liberally applied, and the hair kept moist with it every other day. The hair should be treated very gently both in drying and brushing, and soft brushes used; the hair cannot be brushed too little, the skin of the head too much. The hair should be cut short; the shorter, for a time, the better; the air having free play in it is very healthful. Warm days should be chosen for washing and damping, as it is very apt to give a cold. As a rule the hair sympathises very much with the general health, and a course of sea-bathing often does it good, the precaution of taking a bottle of fresh-water to pour on it, to rid it of the salt, being necessary.

No. 2.—Ethereal tincture of cantharo, diluted with ¼ to ⅓ part ether, and rubbed into the scalp every other day.

HATS.

CLEANING FELT HATS.

The hard felt hats are cleaned with cold water and soap rubbed in with a flannel, then well sponged with cold water, and when nearly dry brushed with a hard brush.

TO KEEP THE HEAD COOL.

No. 1.—A cabbage-leaf put inside the hat would prove efficacious to keep the sun from the head.

No. 2.—The leaf of the common water-lily, hanging down from under the hat or cap, keeps the sun well away from the neck.

HERALDRY.

HUSBAND AND WIFE QUARTERING THEIR ARMS.

Respecting the husband and wife quartering their arms—except under special circumstances, and by Royal licence, it is never done; the arms of an heiress or co-heiress are not impaled with the arms of her husband, but are borne on an "escutcheon of pretence" placed in the centre of the shield; and if the husband has issue by her, the heir of those two inheritors bears the hereditary coat of arms of the father and mother quarterly—the first and fourth quarters containing the father's arms, the second and third the mother's. With regard to two crests, a husband has no right to the crest of his wife's family, but the heir of an heiress or co-heiress can bear his mother's crest in preference to his father's if he wishes it, as being also the representative of the lady's family, but he cannot bear both crests. In cases where two or three crests are borne, it is from the person or his ancestor having changed his name, or from adding a name to his own, for property left to him by will and a stipulation contained in the will to the effect that he is to change his name, &c., and also to bear the arms of the testator in addition to his own; and to carry the will into effect, it is necessary to receive the Royal sanction, and have the same properly registered.

HOUSE, THE.

CLEANING CARPETS.

To a pail of warm water add a pint of oxgall (price 6*d.*). Dip a soaped flannel into the mixture and well rub the surface of the carpet, piece by piece, rinsing it as you proceed with clean cold water—taking care not to make the carpet too wet—finishing off by rubbing with a dry coarse cloth; of course it is advantageous to have the dust well beaten from the carpet before operating. The process is simple and effective in renovating the colours. The only drawback is the effluvium given off by the gall, but this is soon remedied by exposure to the air, or by opening the windows if the carpet be laid down.

CONCRETE HOUSES.

Concrete should be composed of one part of Francis's "Medina Cement," with seven of coarse gravel and grit, the gravel having been first carefully sifted clean and rendered perfectly free from sand. The walls are carried up, as well as the chimneys, by fixing two or three boards vertically, and filling in the concrete between, about 12 to 14 inches thick, by which method, in consequence of the quick setting of the cement, the boards may be shifted every three or four hours as the work progresses. Even the arches may be turned in it. The method is not only extremely economical, but has the great desideratum of being perfectly free from damp, although the walls are not so thick as in the ordinary method of building by brick or stone. The absence of sand in the mixture is absolutely necessary, as every particle of sand engages a proportion of cement, or, in other words, deprives the gravel of so much strength, and materially deteriorates the work.

CURE FOR DAMP WALLS.

Get some Parian cement (the coarse quality), and, after picking the damp plaster off the wall, give the whole inner surface as thin a coating of the cement as can be easily laid on. It will dry directly, and may be papered without risk in the course of a few days.

Again: Cover the brick or stone work externally with a coat of good Portland cement. This will resist wet and frost, and in a few months the walls will become perfectly dry. Battening will be quite unnecessary, if they are plastered internally with strong lime and sharp pit-sand. To build a good house, the walls in the basement and ground-floor should be 18in. thick, and the upper walls in no part less than 14in. If the bricks are at all porous, they should be coated externally with Portland cement; but this is unnecessary if they are hard and well vitrified. Two courses of slates in cement should be put in just above the ground level, to prevent damp rising; all the joists of the lowest rooms should rest upon slate, and there should be free ventilation under the floors, to prevent rot. All the partitions should be of brick and cement; these are not more expensive than the common lath and plaster, but are much stronger, and the risk from fire is less. All skirtings should be in cement. Air-shafts, for ventilation, should be carried up in the walls. All floors should be double-boarded, that is, a rough unplaned floor ($\frac{3}{4}$in. thick) should be laid down while the house is building, and when just finished another, of the same thickness, placed over all. This plan leaves the floors beautifully clean, and makes a house very warm.

Again: The cheapest of all cements for making a house thoroughly dry is coal-tar and smithy ashes. The mode of proceeding is as follows: When the

foundations are first commenced, and only two or three bricks in height, pour over the top of all the brickwork, internal as well as external, coal-tar, about the consistency of thick treacle; then, when the outside walls are as high as any earth is likely to be placed against them, repeat this process—it will not in the least affect the bricklaying. This, if properly and plentifully done, will effectually prevent any damp rising by capillary attraction. The walls against which earth is likely to be placed should also be painted outside with the tar, which for this purpose may be used a little thinner. Before laying the cellar floors, level the foundation, be it clay, gravel, or what not, and on this sprinkle a skimming of sand, on which pour smithy ashes, about 2in. deep, treading them well down; on these pour coal-tar 1½in. deep, then about 2in. more ashes, and proceed to lay your floor, either of tiles, flags, brick, or wood. The tar should be used hot, and if it be poured too thin a little pitch may be added. Another advantage is, that no rats, mice, cockroaches, or other vermin, will ever come to a house where tar is used; nor will dry rot make its appearance, provided sufficient air be admitted into the cellars, which is easily managed by air-bricks built in the walls at different sides of the cellars.

Again: Three-quarters of a pound of mottled soap are to be dissolved in 1 gallon of boiling water, and the hot solution spread steadily with a large flat brush over the outer surface of the brickwork, taking care that it does not lather; this is to be allowed to dry for twenty-four hours, when a solution formed of ¼lb. of alum, dissolved in 2 gallons of water, is to be applied in a similar manner over the coating of soap. The operation should be performed in dry, settled weather. The soap and alum mutually decompose each other, and form an insoluble varnish which the rain is unable to penetrate, and this cause of dampness is thus effectually removed.

When damp walls proceed from deliquescence, in the case of muriate of soda, &c.—an intimate combination with the sand used for the mortar—wash the wall with a strong solution of alum, or alum may be added to the plaster in the first instance.

DRAUGHTS FROM DOORS AND WINDOWS.

Shut out the chimney shaft from the fireplace at the top of the grate by an iron plate across, within it, to carry off the smoke; the back of the grate is set with bricks, which are not allowed to touch the iron of the grate. Then cause a pipe to open into the back space behind the grate, near the ground, which communicates with the external air (a perforated brick or grating covers the opening outside), thence we get a constant supply of cold air, which circulates behind the grate, absorbing caloric, and then escaping into the room, heated, but not decomposed. To complete the ventilation, cause twelve or fourteen inch-holes to be bored

in the centre ornament of the ceiling. In this way your rooms will be heated, ventilated, and all draught avoided. This will also cure smoking.

FIRE KINDLER.

One quart of tar, 3lb. of resin, melted together, and when cooled mixed with as much sawdust, with a little charcoal added, as can be worked in. Whilst hot spread it out on a board, and when cold break into lumps of the size of a large walnut. The composition will easily ignite from a match, and burn with a strong blaze long enough to ignite any wood fit to burn.

FLIES, TO KEEP OUT OF HOUSES.

Hang a light thread net before the open window. The size mesh is unimportant.

HOW TO ECONOMISE COALS.

Get some fireclay in the moist state, and spread it over the lower bars of the grate on which the coal rests. The clay will form a solid mass as hard as stone, and when thoroughly heated will throw a great heat into the room; if there is a tolerably good draught in the fireplace, it will not be very much interfered with, and a mass of clay may be introduced sufficiently large to fill up half the grate; if kept away from the front bars, so as to allow coals to fall down in front, the clay cannot be seen when the fire is lighted. The clay contrivance reduces the consumption of coals to about one-half, without any loss of heat.

LIGHTING A BILLIARD TABLE.

Suspend from the ceiling, directly over the centre of the table, by four slight brass chains, a ½in. brass rod (18ft. in length), formed into an oval of 6ft. by 3ft.; to this rod, at equal distances, attach by small stiff brass wires twelve glass saucers with tin sockets. To allow of easy cleaning, &c., these wires are screwed into the brass oval, and hang about a foot below it, so that the glass saucer is about 3ft. above the surface of the table. The best candles for the purpose are Price's short sixes. By this plan not the slightest shadow is cast on the table, and the whole room is also well lighted.

TO PERFUME ROOMS.

Prepare a brown linen bag, about the size of a pillow-case, and fill it with full-blown roses, so as to make it the size of a hair pillow, flat rather than round, and lay it inside the door of your parlour or sitting-room. If the roses are picked carefully free from the branch, when the foot presses the bag the odour of the rose is given forth, and the room is sweetly perfumed thereby.

TRANSPARENT BLINDS, TO PAINT.

The material, which may be the window-blind cotton commonly in use, or muslin, must be first stretched tightly on a frame the size of the in-

tended blind. The surface of the cotton must then be coated with a solution of isinglass; when it is dry it will be ready for colouring. The colours used are those called "glazing colours," and may be procured of any artists' colourman; they must be mixed with oil, as for oil-painting, and can be procured in tubes ready for use. The colours are laid on with a brush in the usual manner, care being taken to make the light very thin and transparent; to dry the colours, a little drier and sugar of lead should be mixed with them.

HOUSEKEEPER, THE.

INK STAINS.

No. 1.—By rubbing over the ink equal parts of tartaric acid and citric acid finely powdered, the stains may be removed.

No. 2.—Milk will remove, if applied immediately, all ink stain from woollen materials.

MILDEW FROM LINEN, TO REMOVE.

Soap and rub the linen, then scrape some fine chalk and rub it well with that; lay it on the grass, and as it dries wet it a little. Repeat the process, and the mildew will come out.

OIL STAINS IN SILK.

No. 1.—Benzine collas is most effectual, not only for silk, but in any other material whatever. It can be procured from any chemist.

No. 2.—By simply covering both sides of greased silk with magnesia, and allowing it to remain for a few hours, the oil is absorbed by the powder. Should the first application be insufficient, it may be repeated, and even rubbed in with the hand. Should the silk be Tussah or Indian silk it will wash.

No. 3.—Oil stains can be entirely removed from silks and all dress materials, also leather, paper, &c., by applying pipeclay, powdered and moistened with water to the consistency of thick cream, laid on the stain and left to dry some hours, then lightly scraped or rubbed off with a knife or flannel so as not to injure the surface. If the pipeclay dries off quite light in colour, all oil has been removed; if it comes off dark-looking, then more should be laid on, as grease still remains to be removed. Pipeclay will not injure the most delicate tints of silk or paper.

PICKLING JARS.

Do not keep pickles in common earthenware, as the glazing contains lead, and combines with the vinegar. Vinegar for pickling should be sharp, though not the sharpest kind, as it injures the pickles. If you use copper, bell-metal, or brass vessels, for pickling, never allow the vinegar to cool in them, as it then is poisonous. Add a teaspoonful of alum and a teacupful

of salt to each three gallons of vinegar, and tie up a bag with pepper, ginger-root, spices of all the different sorts in it, and you have vinegar prepared for any kind of pickling. Keep pickles only in wood or stoneware; anything that has held grease will spoil pickles. Stir pickles occasionally, and if there are soft ones take them out and scald the vinegar, and pour it hot over the pickles. Keep enough vinegar to cover them well. If it is weak, take fresh vinegar and pour on hot. Do not boil vinegar or spice above five minutes.

WASHING FLANNEL.

Flannel should be washed in lukewarm water, and without soda, when, if it has been properly shrunk before being made up, it will last very well.

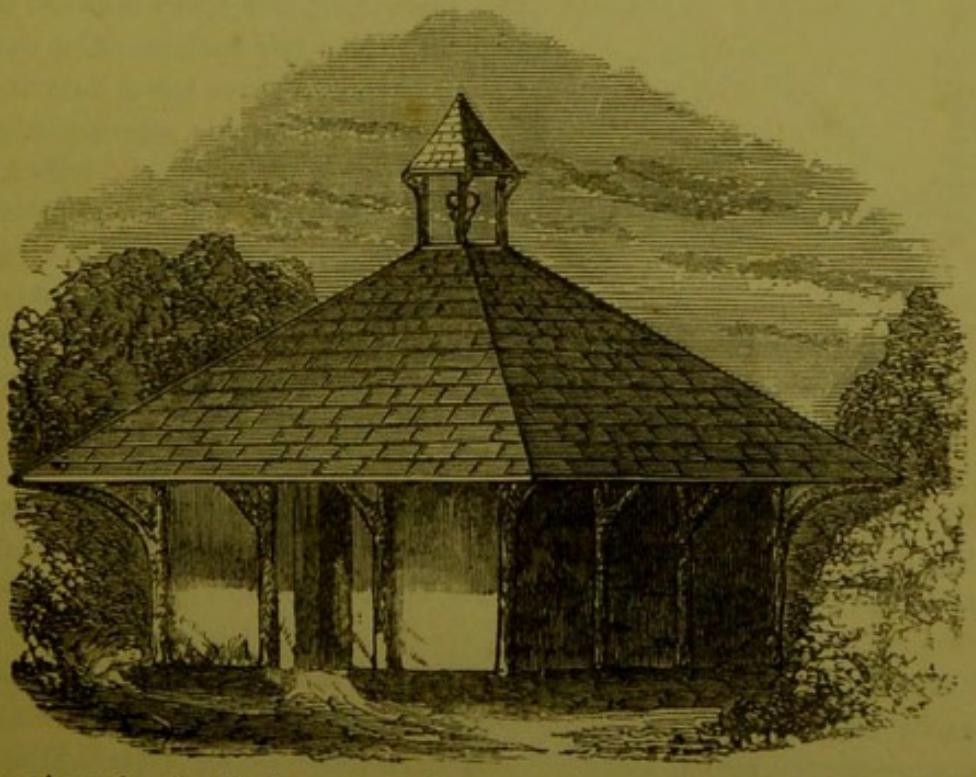
ICE HOUSES.

COVERING FOR ICE STACKS.

One of the best coverings for ice stacks is sawdust, when it is to be had in quantities. Three feet thick is sufficient; and it is not only a powerful non-conductor of heat, but forms a crust on the outside impervious to moisture.

ICE HOUSES.

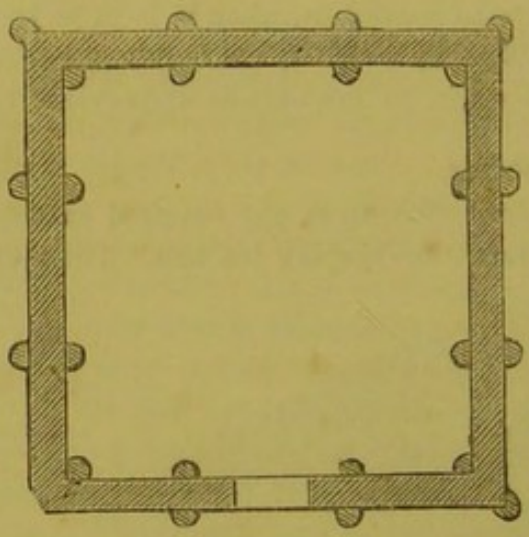
The size may be 12ft. square, and from that up to any required extent. Less than 12ft. square would be too small for keeping ice well. The idea



here given is simply the principle of construction. The posts should be full 8ft. high above the ground to where the plate of the roof is attached.

Mark out your ground the size you require for the house; then, commencing at one corner, dig a double set of holes opposite each other, 1ft. deep, and 2½ft. apart, on each side of the intended building, say 3ft. equidistant, so that when the posts stand up they will present a double row, 1½ft. apart. Then set in your posts, which should be of oak, chesnut, or some lasting wood, and pack the earth firmly around them.

If the posts are sawed, they may be 4in. by 6in. in size, set edgeways towards each other. If not sawed, they may be round sticks cut from the woods, or split from the body of a tree, quartered—but sizeable, so as to appear decent—and the insides facing each other as they stand up, lined to a surface to receive the planking. Of course, when the posts are set in the ground, they are to show a square form, or skeleton of what the building is to be when completed. When this is done, square off the top of each post to a level, all round; then frame or spike on to each line of posts a plate, say 6in. wide, and 4in. to 6in. deep, and stay the two plates together strongly, so as to form a double frame. Now, plank or board up closely the inside of each line of posts, that the space between them shall be a fair surface. Cut out, or leave out, a space for a door in the centre of the side where you want it, 2½ft. or 3ft. wide, and 6½ft. high, and board up the inner partition sides of this opening, so as to form a door-casing on each side, that the space between the two lines of posts may be a continuous box all around. Then fill up this space between the posts with moist tan bark, or sawdust, well packed from the ground up to the plates; and the body of the house is inclosed, sun proof, and air proof, to guard the ice.



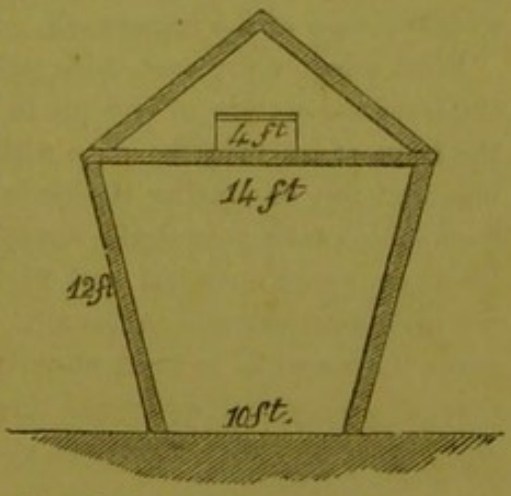
Now lay down, inside the building, some sticks—not much matter what, so that they be level—and on them lay loose planks or boards, for a floor. Cover this floor with a coating of straw, 1ft. thick, and it is ready to receive the ice.

For the roof, take common 3 by 4 joists for rafters, or, in place of them, poles from the woods, long enough, in a pitch of full 35° from a horizontal line, to carry the roof at least 4ft. over the outside of the plates, and secure the rafters well, by pins or spikes, to them. Then board over and shingle it, leaving a small aperture at the top, through which run a small pipe, say

8in. in diameter—a stove crock will do—for a ventilator. Then set in four little posts, say 2ft. high (as in the design), throw a little four-sided pointed cap on to the top of those posts, and the roof is done. If you want to ornament the under side of the roof in a rude way, take some pieces of 3 by 4 scantling, such as were used for the roof, if the posts are of sawed stuff; if not, rough limbs of trees from the woods, to match the rough posts of the same kind, and fasten them to the posts and the under side of the roof, by way of brackets, or braces, as shown in the design.

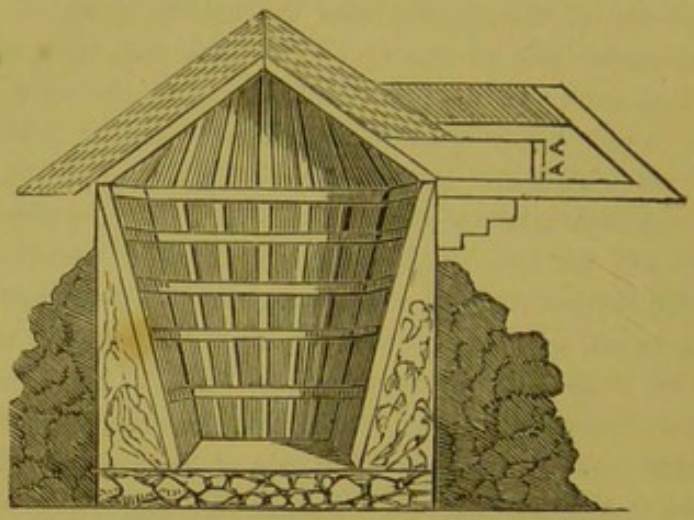
When the ice is put into the house, a close floor of boards should be laid on joists, which rest on the plates loosely, so that this floor can be removed when putting in ice, and this covered 5in. or 6in. deep with tan or sawdust —straw will do, if the other cannot be had—and the inside arrangement is complete. Two doors should be attached to the opening, where the ice is put in and taken out; one on the inner side of the lining, and the other on the outer side, both opening out. Tan, sawdust, or straw should also be placed on the top of the ice, when put in, so as to keep the air from it as much as possible; and as the ice is removed, it will settle down upon and still preserve it. Care must be taken to have a drain under the floor of the house, to pass off the water which melts from the ice, as it would, if standing there, injure its keeping.

No. 2.—The cost of this plan is from 15*l.* to 20*l.* The mode of proceeding is this: Dig a pit 12ft. deep, 16ft. long (N.E. to S.W.), and 16ft. wide; if no rain remain in it after a heavy shower, no drain is necessary; but if otherwise, make a drain, quite filling it with gravel, to prevent the air penetrating through. In the pit erect a rough wooden frame, 4ft. narrower each way at the bottom than at the top; the posts, 9in. deep from the inside to the outside, and of any width.



The outside of the four sides to be boarded with rough slab-boards, which need not be close. Fill it, between the frame and the earth, with dry branches of trees raised to the surface of the ground and then covered with turf. The roof to be covered with thatch from 2ft. to 3ft. in thickness. The floor of the inside to be covered with rough logs of wood and stones; over these lay dry branches of trees, and then about a foot of straw. On the inside of the frame nail thin laths or slabs of wood, about 2ft. apart, laid horizontally. The space between these and the outside boarding, which

will be about 9in., to be filled with wheat or rye straw placed upright. This lining should not be put in till the house is about to be filled, as the more



dry it is the better. The surface of the ice ought to be kept hollowed in the middle like a saucer, so that any that melts will run to the centre. Snow closely packed, and pounded down, will keep as well as ice.

The last woodcut gives a side sectional view of the ice house; the entrance, which is on a level with the surface of the ground, being shown on the right, with the door at AA. The previous engraving gives a front sectional view of the framework, with the dimensions.

First select a dry spot, with sufficient elevation to allow of a drain being cut from the bottom of the pit in which you put the ice. Dig a hole in the form of an inverted cone with the apex cut off, say 10ft. deep by 8ft. broad at top, or smaller if this is too large. At the bottom make a trap, from which take your drain, covering the trap with a grating. Thatch the whole over with a conical roof 2½ft. thick, with heath and straw. Ice will not melt until exposed to the air. To pack the ice, line the pit with straw, make the ice so as to form as solid a mass as possible, and ram it down, cover it over with sawdust and straw, close the door in the side of the roof, and thatch over with heath and straw till required.

ICE ROOM, A CHEAP.

In the north-east corner of a shed partition off a room 8ft. square in the clear, using for the partition the cheapest rough boards. A row of joists is set up on the north and east sides, and boarded up to leave a vacant space of 10in. to 12in. On the other two sides two rows of joists are set up and boards nailed on, leaving a similar space between them. The space is filled with spent tan-bark. A loose floor is laid down, and covered with a layer of straw. Pure, clear, hard ice is cut up with a saw into easily-

managed pieces, and packed closely in the room, leaving 6in. between the ice and sides, which space is filled with sawdust. Over the ice sawdust is spread to the depth of a foot. It might be well to fill up to the roof with straw.

ICE STACKS.

Select a situation, if possible, with a northern exposure, and sufficient slope to carry off the water. If the soil be not naturally porous, provision must be made by proper drainage, or laying down of gravel, or some such material, that every drop of water shall be instantly carried off. If the slope be not sufficient, dig a small trench 6in. deep round the ice, with a proper outlet to carry off the water. On the ground so prepared lay the ice, broken into pieces the size of the fist, forming a cone, the diameter of the base being at least 20ft.; if 2ft. more, all the better. The ice to be well packed, and piled up as high as it will stand, probably 10ft. If the frost is keen, it is a good plan to pour a quantity of water over the surface, whereby the mass is rendered more solid. To prevent the ice from slipping off in laying the foundation, it is recommended to place a row of straw bottles round the whole circumference; the stack to be thatched with straw, same as a grain stack, 1½ft. thick; oat straw is considered better than wheat. Over the iceberg thus made an outer pyramid is to be constructed, made of long poles stuck into the ground, with light rafters attached, on which are to be fixed branches of spruce fir, heather, or any similar material. The ice to be taken out by the smallest possible opening at the base on the north side, and both straw and outward covering immediately replaced. It is a disputed point whether an ice stack should be under the shade of trees, or not; but it is of little importance, provided proper drainage be obtained. The grand enemy to ice is the lodgment of water; while every care should be taken to prevent such, provision must be made to prevent any direct under-current of air; *i.e.*, by preparing the ground underneath, if not naturally porous, so as to make it, as far as possible, to resemble a naturally porous soil.

Some select the top of a rising ground in a wood, so that there may be a fall all round for drainage; and take care that the sun cannot get at the place, or, at least, very slightly, and that the place selected for the ice-stack is large enough and clear of trees, to prevent the stack being under the drip of the trees. Settle in your own mind what sized stack you think necessary, and then cut a circular trench round the top of the rising ground, with several cuts to let the water out of the trench all round. On the top of this space, now surrounded by the trench, put charcoal, from 2½ft. to 3ft. thick, well broken into small pieces, and on the foundation of charcoal build a stack of ice, well pounded down and rammed solid as you go on;

and if you are building it in a hard frost, as you should do if possible, a pail of cold water thrown on it now and then as the stack progresses assists it in becoming a solid mass. Bring the stack to a point in the centre, just like a common stack of corn, and thatch the top and all round to the ground with the best wheat straw, at least 3ft. thick. When ice is wanted, open the stack at the bottom, and close it up again; and always open at a fresh place.

ILLS AND EVILS.

AGUE.

The prescription must be taken for a fortnight after the cure has been effected, and it must be gradually discontinued. Burnt coffee, without milk, 1oz. to 3oz. water, made as coffee usually is; use no sugar, but acidulate it with lemon juice; strain. The above must be taken every day, five hours before the fits commence.

BLISTERED HANDS AND FEET.

As a remedy against blistering of hands in rowing or fly-fishing, &c., or feet in walking, the quickest is, lighting a tallow candle and letting the tallow drop into cold water (to purify it, it is said, from salt), then rubbing the tallow on to the hands or feet, mixed with brandy or any other strong spirit. For mere tenderness nothing is better than the above, or vinegar a little diluted with water.

Walk in woollen stockings at all times, with very strong shoes and thick soles, neither too large nor too small, made to fit as accurately as possible, and wash the feet in hot water (as hot as can be borne) the moment you come in; also keep the feet in as long as convenient. These precautions are more necessary in hot dry weather than in cold. A good deal of practice in walking will assist in the efficacy of the foregoing.

Place the foot upon a piece of blue paper (not glazed), such as is commonly used in shops for packing-up articles of sale, sufficiently large to cover the whole of the foot, and to be placed on smoothly, so that the pressure of the foot may be evenly felt, over which wear lambswool or soft woollen socks. On your return after the day's exertion, bathe the feet in warm water.

Before going out to walk, rub some grease of any sort on the parts liable to be excoriated.

Bathe the feet well every morning in salt and water.

It is a good plan to soap the inside of the stocking well before starting.

After, and for some days before, walking, wash the feet well in a solution of sal-ammoniac ½oz. in 2 quarts of water. Dust inside and out of the stocking finely powdered French chalk.

BURNS OR SCALDS, CURE FOR.

Apply sweet oil freely, and then cover it with whiting.

Apply spirit of turpentine; or lay on a thick plaister of fresh yeast, renewing it as often as it becomes hot or dry; or dash the part with cold water in which some yeast has been stirred, or with vinegar or strong brine, or with the liquid which runs from potatoes cut thin and sprinkled with salt; or cut a cucumber in slices, and lay it on the burn.

It is said that by laying a piece of cold charcoal upon a burn the pain subsides immediately; by leaving the charcoal on one hour the wound is healed.

CHAFING.

Camphor ball will cure chafing. Knickerbockers, made of some soft, light material, are less liable to chafe than trousers. Fuller's earth (applied wet and allowed to dry on) is the best remedy for the parts chafed.

Wash every night with warm water and Castile soap, using a soft sponge. Dry the skin well, rub on a little cold cream, and powder it over with a swansdown powder puff, using either common starch rubbed fine, or violet powder. All these articles can be purchased at the chemist's.

CHAPPED HANDS, TO CURE.

No. 1.—Anoint with arnicated glycerine.

No. 2.—Camphor ball rubbed well in at night, and an old pair of kid gloves put on, minus the ends of the fingers and the inside. This must be repeated every night till well. Honey rubbed on the hands immediately after washing them, and then just rinsed, is a good thing.

No. 3.—For a preventive, a little sweet oil kept on the washstand, and a small quantity well rubbed into the hands *before* washing, is an excellent thing.

No. 4.—A little violet powder or oatmeal rubbed on the hands after drying on the towel, and afterwards wiped off, serves to thoroughly dry the hands, and protect them from the wind.

No. 5.—Pure glycerine, as sold in the druggists' shops, is a specific for chapped hands and lips.

No. 6.—Keep a cut lemon on your washstand, and daily, after washing, when the skin has been well dried, smear the part affected all over with the juice, letting it remain on a little time before wiping it dry.

No. 7.—White wax, 2oz.; spermaceti, 1oz.; oil of almonds, 4oz.; English honey, 2oz.; essence of bergamot (or any other scent), $\frac{1}{4}$oz. Melt the wax and spermaceti; then add the honey, and melt together, and, when hot, add the almond-oil by degrees, stirring it till cold; then add the scent.

CHILBLAINS.

No. 1.—If red and painful, apply goulard water ½ pint, laudanum ½oz., mixed together and used warm; *i.e.*, stand the bottle in warm water, and wrap the toe round with lint, saturated with the lotion, and oiled silk over. This should be done at night, and the foot wrapped up in a flannel bandage. Broken chilblains imply a languid circulation; therefore some bark or quinine should be taken at the same time.

No. 2.—If *not broken*, steep your hands or feet ten minutes night and morning in water as hot as you can bear it, to which is added about a table-spoonful of made mustard. If this is done on the first sensation of chilliness or tenderness, it will keep them away entirely. If broken, use glycerine.

No. 3.—For chilblains not broken, 7dr. of tincture of arnica, 1dr. of glycerine; mix.

No. 4.—Mix ½oz. of liquid subacetate of lead with 1oz. of camphorated spirit of wine; apply night and morning. Or, what is better still, if you have the courage, set up an ordinary iron hoop, and do a mile or two before breakfast: this will give such a circulation to your blood that you will not want nostrums. Any person may with a hoop run several miles where he could not run the half of one without. It keeps him from overpacing himself and husbands his powers of endurance.

No. 5.—An ointment composed of sweet oil, 1 pint; Venice turpentine, 3oz.; hog's-lard, ½lb.; beeswax, 3oz., and put together in a pan over a slow fire till the beeswax is melted and the ingredients simmer, should be used every night by rubbing on the part. Put it on the hands rather thick, and sleep in gloves.

No. 6.—Give them a sound thrashing with a bough of holly, so that they bleed freely.

No. 7.—For unbroken chilblains, take one raw egg well beaten, ½ pint of vinegar, 1oz. of spirit of turpentine, ¼oz. of spirit of wine, ¼oz. of camphor. To be well beaten together, then bottled and shaken, and then tightly corked for use. To be rubbed in three or four times a day. Camphor ball is also a good remedy for chilblains on the hands. Perhaps the saturated solution of iodine might be painted on the spots with advantage. The best preventive for chilblains on the hands is to dry them well after washing, and rub them briskly with a flannel till quite warm.

No. 8.—Diluted nitric acid—a teaspoonful to a glass of cold water. Two applications will suffice. It should not, however, be used if the chilblains are broken.

No. 9.—Eighty grains of nitrate of silver dissolved in 1oz. of rose or distilled water. With this liquid wet the chilblain, using a feather or

camel-hair brush, and let it dry on before the fire. Two or three applications will stop the irritation. The mixture must on no account be applied to a broken chilblain.

No. 10.—This recipe for a lotion for chilblains must be used before they are broken, but not afterwards; it may also be used for sprains, with great relief: One raw egg, well beaten, ½ pint of vinegar, 1oz. (fluid measure) of spirit of turpentine, ½oz. (fluid measure) of spirit of camphor; first beat together the egg and turpentine, then add the spirit of camphor, and lastly the vinegar; put into a well-corked bottle and shake together; rub well in night and morning. When broken, apply a poultice for a day or two to clean them, and afterwards dress them with the following ointment: balsam of copaiba 1dr., turpentine 2dr., lard 1oz., melted together and spread on a piece of lint or old linen.

No. 11.—Rub dry mustard flour (morning and night) on the parts afflicted. It must not be applied when the chilblains are in a state of irritation, but as a preventive. When inflamed and itchy, bathing the feet in cold water is recommended.

COLD AND SORE THROAT.

Liability to cold and sore throat may be lessened by the application of olive oil to the face, throat, and chest.

Boil a handful of bran in little more than a quart of water for twenty minutes, strain, and sweeten with either sugar, treacle, or honey; to be taken warm on going to bed. In severe colds a little syrup of squills may be added.

CORNS.

Soak the feet or not (according to disposition), take a piece of linen or lint folded four or five times over, so as to be left sufficiently large to well cover the corn (say about an inch square), dip it in water, and after gently squeezing, to prevent it being too wet, put it on the corn, and bind round the toe a piece of oiled silk or india-rubber cloth; leave it on all night, and in the morning the heart of the corn will be so enlarged by absorbing the moisture that it can be easily picked out by the finger-nails. Repeat as often as necessary. If done about every ten days or a fortnight, the corn is but little trouble or pain.

Some anoint the corns with neatsfoot oil.

Get some oiled skin, cut a strip about 1in. wide and 3in. long, and wrap it round the corn; wet the corn morning and night with lemon-juice. The oiled silk will want replacing about once a week, and will not come off, even in bathing.

A drop of glacial acetic acid, as used by photographers, placed on a corn

night and morning for about a week or ten days, will effectually cure it. The foot should be soaked in as hot water as can be borne, when with the finger-nail the corn may be removed in thick scales.

Dry the feet very carefully every morning after washing them, and put a piece of clean cotton-wool between those toes affected by the soft corns. With regard to hard corns, they may be wonderfully alleviated by the use of sufficiently large boots.

Apply aromatic vinegar twice a day upon the corns until the skin becomes a dark colour and peels off.

A cure for corns is tincture of iodine and muriated tincture of iron, of each equal parts. Apply to the corns every night with a camel-hair brush.

Take of purified ammonia and yellow wax, of each 2oz.; acetate of copper, 6dr. Melt the two first ingredients together, and after removing them from the fire, add the copper just before they grow cold. Spread the plaister on soft leather, carefully pare away as much of the corn as possible before applying the plaister, which must be renewed in a fortnight. When the corn is on the sole, a little hay placed in the boot is a comfort; but a cork sole placed in the boot having a hole cut in it to take in the corn, gives perfect ease.

Pare down any hard corn as thin as possible without drawing blood; then take a little blistering ointment, laid upon a circular bit of wash-leather, and bind it on the part. Repeat with fresh ointment until a good blister rises; this will die or dry down, leaving a thick, hard skin to shell off, and the corn killed dead in the middle of it. Blister once more if you see occasion.

CRAMP.

A ribbon garter tied just below the knee (on getting into bed), with small thin bits of cork sewed on the ribbon so as completely to surround the leg—but on no account should it be in the least tight—it is said will prevent cramp.

Take half a teaspoonful of milk of sulphur in half a tumbler of gin, on getting into bed, and keep indoors the next day; also a little neatsfoot oil rubbed into the joints and calves of the legs. This is also an excellent remedy to prevent stiffness after walking.

The application of a strong leather strap, buckled as tightly as possible midway between the hip and knee, when the cramp is in the thigh, commonly produces relief in a few minutes.

On the moment of its seizure in the calf of the leg, the instep should be forcibly drawn up or flexed on the leg.

When seized with cramp, instantly, and regardless of pain, jump out of bed, and run or walk up and down the room until you can set the sole of

the foot flat on the ground, and then apply rapid friction for a few minutes, from the thigh downwards, by means of a pair of horsehair gloves, to be procured of any respectable druggist.

DAMP BEDS.

Before going to bed, warm a tumbler—in fact, make it hot and dry; first put the tumbler (inverted) in the bed, leave it a short time, and if any steam be in it, the bed is damp.

Take a large railway rug, of some thick, shaggy stuff outside, and lined with stout vicuna inside; between these outside coverings have a pair of chamois-leather sheets, fitted and tied or buttoned in, so that they can be taken out when requiring to be washed. Let one end be left open, and provided with three large buttons and button-holes. This apparatus may be laid upon any bed, and the traveller may creep into it, and, drawing the top up to his shoulders, and buttoning the two outer buttons, may sleep secure from damp, and, except his face, from fleas and other midnight marauders. A more complicated affair may be made by having an air cushion or bed, consisting of longitudinal air tubes let in between the chamois leather and the woollen material, or a space left for a stuffing of eider-down or *flêche*.

As a remedy against damp beds, invest, at any waterproof warehouse, in a piece of waterproof sheeting the size of a bed. This is useful for the purpose of covering parcels in a cart, or on a mule, &c. It goes in very small compass. This sheeting should be placed over the mattress or feather bed, under all blankets, sheets, &c.; it frequently happens that the sheets, &c. have been well aired, but, from the bed not having been slept on for some time, it has contracted damp. The heat of the body causes this to rise.

Wear a long thin flannel dressing-gown over the usual night-dress, which effectually prevents injury.

An old-fashioned method of detecting whether a bed be damp or not is to place your watch or looking-glass between the sheets for a few minutes; if on withdrawal there is any moisture on the glass, you may very justly conclude that the bed is damp.

Take a good glass of grog on retiring, and get between the blankets, or, if that won't do, throw yourself on the bed in your trousers, covering your shoulders with your rug or other wrapper, and take care on rising the next morning to get a good action of the skin by means of a coarse towel or flesh brush.

ENLARGED JOINTS.

Paint the joint over with tincture of iodine.

EYES.

Inflammation of.—A spoonful of whisky or brandy, a spoonful of vinegar, eight spoonfuls of water; the eyes to be bathed several times in the day with the above mixture.

A solution of sulphate of zinc and rose-water (2gr. of the former to 1oz. of the latter). It should be let well into the eye, which will smart considerably at first.

Hold them open under cold water every morning for a minute or so at a time; it has a good effect in some cases. Or, try a strengthening and stimulating lotion; there are few better than the old 1, 2, 3—1 of brandy; 2, vinegar; 3, water.

Before going to bed at night bathe the eyes well in warm water, and in the morning immerse them completely, without shutting them, in a basin of cold water. This should be continued for two or three minutes, and will be found to have a wonderful effect. If the eyes are very weak, a sixth part of brandy may be added occasionally to the cold water.

Weak Eyes.—Three grains of sulphate of zinc, 3 drops solution of opium, 3oz. rose-water.

FEVER, DRINK FOR.

Brewers' barm drank freely, instead of a saline draught, is by many supposed to be effective.

FRECKLES, TO CURE.

No. 1.—Wash with butter, *alias* churn milk.

No. 2.—Alysson seeds (madwort) one part, and honey two parts. Mix well together, and apply the mixture to the skin as pomatum. Use it once or twice a day till the freckles disappear.

No. 3.—The juice of strawberries, also violets boiled in goat's milk, are said to destroy freckles.

HAY FEVER.

No. 1.—For asthma during the night take strong, hot coffee, and for the irritation of the corner of the eyes, camphor dissolved in pure water, with a few drops of laudanum in it, with which to bathe the eyes. Rest in mind and body, non-exposure to sun and dust, and as a tonic, claret, with some grains of quinine in it, twice a day, and a glass or two of port wine at dinner, is the best. If, after sneezing, the watery discharge from the nose be great, use powdered white sugar, as a snuff.

No. 2.—Quinine is the best remedy.

No. 3.—As regards diet, &c., live well, and by no means starve, nor abstain from stimulants. As a tonic, bitter beer or a few glasses of wine daily. Of course, if the paroxysms of asthma are very violent, the use of stimulants becomes a question for a medical man. A cup of strong coffee

will often afford relief in severe fits of asthma. Sea-bathing, or, if impracticable, the use of a cold bath every morning. Exercise in the open air has always proved advantageous, although the suffering may be greater than when remaining quietly indoors. When riding or driving, use a thick veil to protect the eyes; a few grains of sulphate of zinc dissolved in rose-water forms a good collyrium. Let the sitting and bedroom be well ventilated and as cool as possible, by keeping open the windows, but let the sufferer be careful not to sit in a current of air. The clothing should be light, and the patient should be particularly careful to avoid taking cold, especially after exercise.

No. 4.—Saturate gum camphor with spirit of wine, then pulverise it, and take it as snuff whenever the symptoms of hay fever come on.

No. 5.—Dissolve a table-spoonful of common salt in a pint of cold spring water, and not only bathe the face with it, but "snuff" up a considerable portion; the salt renders the membrane less sensitive. For the same reason sea-air is beneficial.

INDIGESTION AND HEARTBURN.

A piece of the liquorice as sold at the grocer's, the size of an ordinary lozenge, taken frequently during the day, especially before and after meals, is a good remedy.

LOTION FOR WOUNDS AND SORE FEET.

Bruised oak bark, 2oz.; catechu, 1oz.; water, 3 pints. Boil to a pint and strain.

NOSE, BLEEDING OF.

Apply lint steeped in alcohol.

Or, insert carded wool rolled up, neither too tightly nor too loosely.

POISON, ANTIDOTE TO.

A large teaspoonful of made mustard mixed in a tumbler of warm water, and swallowed as soon as possible; it acts as an instant emetic, sufficiently powerful to clear the stomach.

SCIATICA AND RHEUMATIC PAINS.

No. 1.—Sciatica and rheumatic pains across the loins and down the thighs may be cured by blistering the muscle and nerves where they are nearest the surface on the outside of the knee, opposite the upper part of the knee-cap.

No. 2.—The patient must press with the fingers the part affected, and wherever he feels pain, there must go a blister. The blister should be large enough to cover all the part that is painful on pressure. He must live moderately—say weak tea, coffee, broth, a little meat in the middle of the

day only, and drink water, or very weak best pale French brandy and water; no spirits, wine, ale, or smoke; rest the part as much as possible, and bear no weight upon it. Patiently persevere in this way for about ten weeks. The time depends on how long he has had the complaint; but he soon begins to find himself better.

No. 3.—Squeeze the juice of one lemon into a large tumbler, and pour on it 16oz. of water. Take this three times a day—early in the morning, at mid-day, and on going to bed. Live moderately, no beer, very little sherry, and plain roast and boiled meats.

SCURF ON THE FACE.

No. 1.—For scurf on the face apply honey, washing it lightly off without using any soap.

No. 2.—Smear the nostrils internally with some innoxious unguent, especially before exposure to the air. The best article for this purpose is *beurre de cacao* (the expressed oil of the chocolate bean), which can be procured from any of the foreign *pharmaciens* in town. Close rooms, heavy clothing, and warm beverages (such as tea and English coffee-water) must be avoided. The digestion will probably require attention. Little or no salt should be taken with the food, at least for a time. Very small doses of sulphur will be found very beneficial.

No. 3.—For roughness of the face, a little cold cream, with glycerine, will alleviate the annoyance.

SEA-SICKNESS.

No. 1.—There is no positive cure for this most distressing malady. However, much may be done to render its attacks less violent. Be most particular before embarking on a sea-voyage to take nothing likely to disorder the stomach—avoiding, if possible, sumptuous dinners, suppers, and taking anything like wines or other stimulants. Two or three days before sailing take a mild aperient medicine. Attend carefully also to the state of the bowels during the whole time of the voyage, and, should it be requisite, take an effervescing draught now and then. If the patient feels the malady coming on, instead of seeking his berth, let him try a hand-to-hand encounter with it by taking plenty of exercise, and keeping a great deal in the open air. If he is very sick, he will be inclined to drink a great deal of cold water, than which nothing can be worse. Brandy and water will very likely be recommended to him as a cure; the less a person drinks of anything the better. A little warm porter or bitter beer will be more likely to agree with him than almost any other thing. This must only be taken at luncheon and dinner, at both of which meals he had better avoid anything cold in the way of liquor. Keep up the spirits, and enter into the

varied means of passing away the time. By living simply in all senses of the word, taking as much sleep as he can at the proper time, and keeping his mind actively employed all day on something—no matter what—he will perhaps be able to combat this malady successfully.

No. 2.—Have a small bottle of chloroform, and when the spasms are inclined to be very violent, drop a drop or two upon a small knob of sugar, and eat it. It certainly will very much mitigate the severity of spasms.

No. 3.—The recumbent position is to be immediately assumed as near to the centre of the vessel as possible. When lying down the person should endeavour to inspire as the boat sinks in the swell, and to expire as it rises on the crest of the wave. This obviates the sinking feel and precordial anxiety. However, go on board in fair health, to take a good meal of plain solid food, and one glass of old cognac.

SNAKE BITES.

First, as soon as possible get to a running stream, a well, or even a "bog-hole," and wash the part so as to remove all extraneous dirt; secondly, suck the part, and, if not within reach, get some other person to do so. The poison has no effect if taken internally. So much for immediate treatment when not within reach of medical aid; and such are the measures that should be adopted so as to assist the physician (when he comes afterwards), and to insure a quick return of sound health.

SNEEZING, CURE FOR.

Bathe with cold water. But if the mucous membrane lining the nostrils and eyelids is irritable, a little Goulard's lotion, diluted, would be of service.

SPRAIN, TO CURE A.

The following are a few recipes for the cure of a sprain, each about as good as the other:

No. 1.—Immediately foment it for twenty minutes with hot beer, and, again every hour or two, and as often as you can; the sprain will be cured but the joint will be weak possibly for a long time. This is curing by direct action. Pumping on it is recommended, as curing by reaction, caused by the sudden application of cold; but it seldom effects a perfect cure. An old sprain is difficult to cure any way.

No. 2.—Sprains have been cured by the use of pounded comfrey root (*symphytum*), applied night and morning.

No. 3.—Get some verjuice (that is, crab juice)—the older it is the better—pour a little into a basin, dip a piece of linen into it, and wind it (quite wet) round the sprain, which lay across a chair or leg-rest; continue to wet

the linen when it becomes at all dry, and keep doing this for an hour at least every day.

No. 4.—The yolks of three eggs, ½ pint of spirit of turpentine, and 1 pint of vinegar, well mixed together. The sprain to be well rubbed two or three times a day.

No. 5.—Boil a bottle of porter down to a jelly, spread it on a kid glove, and apply it to the affected part.

No. 6.—Take strongest solution of ammonia, 1½oz.; soap liniment, 3oz.; strong distilled vinegar, 1½ pint; spirit of turpentine, ½oz.; to be well mixed, applied three times daily, and well rubbed in.

No. 7.—Bandage it regularly, and keep bandages on till cured. You must use about 1½ to 2 yards of thin elastic bandage, about 2in. to 2½in. wide; begin at the back of the toes if the ankle is hurt, moderately tight, up to just above the ankle joint, and back again as far as the bandage will go, then pin the end fast. Use none but broad-heeled boots; laced ones are preferable to all others. A boot the least uneven at the heel causes strain and pain, and delayed cure follows.

No. 8.—There is no royal road to a cure, but complete rest and bandaging. A good washing in cold water, at morning and evening, will help. The bandages, if elastic, should be replaced often, and washed only in lukewarm water, or the rubber will be destroyed.

No. 9.—Joints are enveloped in ligaments, that is in bands of tough inelastic, fibrous tissue, so arranged as to permit a certain amount of motion without injury. When a joint is moved by violence, as by a twist, beyond the limit fixed by Nature, all the soft parts (as distinguished from the bones) in that region become unduly strained, and especially this fibrous tissue, which, being inelastic, suffers severely from the tension, so much so that some of the ligamentous fibres may become ruptured. The former of these conditions gives rise to a strain, or not very severe sprain; the latter to a more severe or very serious sprain. If the violence is very great, the ends of one or more of the bones forming the joint may be protruded through the torn ligaments, and remain separated. This constitutes a simple dislocation. Then, the best of surgeons, Nature, sets to work to repair the mischief. Repair cannot proceed (except within very, very narrow limits) without the assistance of its servant, inflammation. The parts about the joint, consequently, become more or less inflamed. The presence of active inflammation is denoted by redness, swelling, heat, and pain. When these are present, the treatment required is simply to moderate the symptoms, lest the inflammatory action run too high. The remedies to be used in this stage of our sprain are—rest; cold laxative, and refrigerant medicine; and moderate or lowish unstimu-

lating diet. The rest simply consists in placing the joint in any position in which it is most free from pain, and keeping it there. If the case is serious the joint may require to be confined to one place by a splint made of gutta-percha or pasteboard. The joint should be kept cool by means of an evaporating lotion (one made of three table-spoonfuls of rectified spirit of wine to ½ pint of water or camphor-mixture is sufficient for general purposes; but if the inflammation is very acute, a lump of ice may be kept with it). A portion of the lotion should be poured into a saucer, and two pieces of linen rag double, and ½in. larger all round than the inflamed part, should be wetted with it. One piece should be kept in the saucer; the other quite wet, but not dripping, should be laid lightly over or round the joint; and as soon as it begins to dry and warm, the rag should be taken from the saucer, and "one off, the other come on." This should be persevered in constantly. *Medicine:* If there is any sympathetic febrile disturbance, without constipation, a refrigerant saline draught (nitrate of potash, 2dr.; solution of acetate of ammonia, 1½oz.; water to 8oz.; one-sixth taken two or three times a day) is all the physic required. If there is constipation, the following may be substituted: Sulphate of magnesia, 1oz.; or less if easily moved; carbonate of magnesia, 1dr. to 3dr.; compound tincture of cardamoms, 3dr., to prevent griping; syrup, 2dr. or 3dr.; water to 8oz.; divide into six parts, and take one night and morning. A good dose taken at first (a blue pill and two hours afterwards a seidlitz or a black draught) will clear the blood, and often prevent the necessity of recourse to other medicine. Lastly, if the injury is very severe, as is evidenced by great acuteness of the pain and violence of the other inflammatory symptoms, it may be requisite to apply leeches, to administer sedavites, and to add tartarised antimony to the saline mixture. So much for the inflammatory stage. The next question is, how are we further to assist Nature when the inflammatory condition has subsided? We may still perceive the remains of old swelling, but the redness, heat, and pain are gone. The part still requires rest, but not such decided rest as before. The presence or absence of pain on movement is still our criterion. Any motion which gives pain is wrong; any exercise which does not cause pain is not only harmless, but beneficial, for lengthened inaction of a part debilitates it, and renders it unequal to its proper functions. More or less, debility or weakness is sure to follow the inflammatory state, and we must be careful not to overwork the weakened organs. To this end we use moderate support, as by evenly-applied bandaging, or, what is still better, by an elastic cap, such as all surgical instrument makers keep ready made to fit any joint. The pressure should be equal, and the cap should not be tight, otherwise it will cause swelling beyond and interfere with the natural

supply of blood, &c., to the part itself. And, finally, friction with stimulating liniments, in order to fillip the part to increased action, and to promote the absorption of the products of inflammation which cause the thickening and stiffness of the joint.

STRAINS AND BRUISES, LOTION FOR.

Common salt and cold vinegar.

WARTS.

No. 1.—Use common liquorice wet with water, rubbing it on the surface of the wart frequently daily for about a fortnight, it will disappear, and not return. Honey so applied will remove warts, but its use should be more frequent, nor is it so efficacious as liquorice.

No. 2.—Take a common pin, and just stick it into each wart till the point goes to the centre, and then hold the head of the pin in a candle for about three minutes or so, according to the size of the wart. You should stick it in three or four places. The operation is a little painful, but the instant the pin is removed all pain ceases.

No. 3.—Get some strong nitric acid, dip a bit of wood into the acid, touch the wart, which will assume a yellow colour; allow the discoloured portion to come off, which it will do in two or three days, and repeat the process; if painful, bind wet lint under oiled silk round the wart.

No. 4.—Apply the juice of the common celandine (*Chelidonium majus*). Break off a stem near the root at a joint, when it will snap off easily; an orange-coloured juice will exude. Two or three applications of this, it is said, will effect a cure.

No. 5.—Apply a piece of sticking-plaister, after having cut a hole in it for the wart to protrude through, like an ordinary corn-plaister. Having moistened a small portion of permanganate of potash so as to form a kind of paste, apply it with a penknife to the wart, and then cover over the place with another piece of sticking-plaister. Repeat this operation morning and evening, when the wart will gradually be removed. Should this fail to produce the desired result, strong nitro-muriatic acid (*aqua regia*) may be used with absolute certainty; but it is painful, and otherwise objectionable.

No. 6.—Whenever your hand is disengaged, rub the wart with your tongue.

No. 7.—The extracted juice of a bean-pod is, so it is said, after two or three applications, a safe agent for the removal of warts.

No. 8.—Take a piece of the root of the ash-tree; put a part of the root into the fire; this will cause the juice to fizzle out at the part which has not been exposed to the action of the fire. Apply the juice to the wart.

No. 9.—Open the leaf of a house-leek, and rub the juice of it on the wart as often as possible.

KITCHEN, THE.

BAKEHOUSE, THE.

ABERNETHY BISCUITS.

Dissolve ¼lb. of butter in ½ pint of warm milk, and with 4lb. of fine flour, a few caraways, and ½lb. of sugar, make a stiff but smooth paste; and to render the biscuits short and light, add ½dr. of carbonate of ammonia in powder. Roll out very thin; stamp the biscuits, pricking them with a fork, and bake in tins in a quick oven.

BREAD MOIST, TO KEEP.

Put about 2in. of water in the bottom of a bread-pan which has a cover, and fit into the pan, just above the water, a board pierced with holes, on which the bread is to be placed, so as to prevent either the board or the bread from touching the water. Then put on the lid of the pan.

BUTTERMILK CAKES, TO MAKE.

Take 2 cups of buttermilk, 1 cup of sugar, a piece of butter the size of a walnut, a teaspoonful of saleratus, spice to taste, with as much flour as will make a thin batter; bake.

CORN FRITTERS.

One teacupful of milk, 3 eggs, 1 pint of green corn grated, a little salt, and as much flour as will form a batter. Beat the yolks and whites of the eggs separately. To the yolks add the corn, salt, milk, and flour, to form a batter. Beat the whole very hard, then stir in the whites, and drop the batter, a teaspoonful at a time, into hot lard, and fry them on both sides of a light brown.

HORSE-CHESNUT FLOUR.

Grind the horse-chesnuts, and mix with the pulp carbonate of soda in the proportion of one or two per cent. at the utmost, and then wash the produce until it is perfectly white; 1lb. of carbonate of soda will purify 100lb. of horse-chesnuts, and produce 60lb. of flour fit for bread, as the salt removes the bitter principle from the nut.

INDIAN CORN BREAD.

No. 1.—Two quarts Indian meal, a little salt, and four eggs (well beaten); add sour buttermilk (milk will answer), enough to make a stiff batter; mix well, then add two teaspoonfuls of soda dissolved in warm water; stir all well together, and pour into well-greased pans, so that it will be about 2in. thick when baked; bake till done in a hot oven (say half an hour). This can seldom be made first-rate in this country, on account of the meal being mostly kiln-dried before exportation.

No. 2.—Put some sifted corn-meal into a wooden bowl, then stir into it as much cold water as will make it into a stiff paste; of this take a double-handful and mould it into an oval dodger. Have a baker (which is an iron shallow vessel with an iron cover), ready, made hot and greased (to prevent the dodger sticking), put in the dodger, place the cover over the baker, have a good fire (not blazing) underneath, and also upon the cover of the baker; bake from twenty-five to forty minutes. If made up with sweet milk instead of water, it will be good; if with butter or lard, in addition to the water or milk, it will become short, which some prefer. The first method is the most healthful. The journey, or Johnny Cake, as it is called in the West, is the dough as described in the first part of this recipe, not baked, but roasted before the fire upon a smooth board, and is, without exception, the sweetest bread.

No. 3.—Pour a teacup and a half of boiling milk on 2 teacups of Indian meal; when cool add 2 teacups of wheat flour, 1 teacup of butter, 1½ teacups of sugar, 1 teacup of yeast, and 2 eggs, with a table-spoonful of cinnamon or grated nutmeg. If not sufficiently stiff, add equal portions of wheat and meal. Let it rise very light. Roll it about half an inch thick, and boil it in lard.

MANGOLD-WURZEL BREAD, TO MAKE.

Take as many mangolds as will be equal, when prepared, to the quantity of flour to be used for the loaf; peel them, and boil until reduced to a pulp; mash them well. Now mix with flour in equal parts, working the two well, and then proceed as in the ordinary loaf.

MUFFINS AND CRUMPETS.

For Muffins: Take a large spoonful of yeast changed two or three times in water to take off the bitterness; mix with warm milk and water, work it into 2lb. of flour, to a consistency between batter and paste, adding a little salt; beat all well together half an hour. Have ready, beaten to a high froth, the whites of 2 eggs; add it by degrees, and beat the whole five minutes longer. Let it stand all night, and make up the muffins as lightly as possible. Bake them on a stove or in an oven.

For Crumpets: Take 2lb. of flour, beat in a little salt, and a table-spoonful of washed yeast; mix with new milk, almost as thick as for fritters; beat well together, and let it stand all night. Next morning beat 3 eggs to a froth; beat them well into the mixture, and let it stand an hour. Have a stove properly heated, rub over it a little butter tied in a muslin, pour on the batter, and make the crumpets the size of a saucer. If perfect roundness is desired, it is better to pour the batter into well-greased iron rings, sold for the purpose.

SCONES.

No. 1.—Two pounds flour, ¼oz. carbonate of soda, ¼oz. of salt, sour buttermilk 1 pint, more or less ; mix to the consistence of light dough, roll out about ½in. thick, cut them out to any shape you please, and bake on a girdle over a clear fire about ten or fifteen minutes, turning them to brown on both sides ; or they may be done on a hot plate or ironing stove. Some prefer using milk instead of the buttermilk.

No. 2.—Rub a teaspoonful of carbonate of soda amongst the flour, a bit of butter or lard the size of a hen's egg, a little salt, and a teaspoonful of sugar ; then mix with 1 quart of sour buttermilk, knead well, and roll into thin cake. A few currants are a great improvement. Bake in a quick oven, or, what is better, a girdle. Great care must be taken not to burn them, and when quite brown on one side they must be turned.

No. 3.—The following is a Scotch recipe for making scones : 7lb. of flour, 1¾oz. of carbonate of soda, and 1¾oz. of tartaric acid ; mix altogether and rub through a sieve four or five times (the oftener the lighter) ; mix the dough with buttermilk and a little salt ; roll out, working as little as possible with the hand, and bake in the oven. The buttermilk should be mixed with the salt before being added to the flour.

SODA MUFFINS.

To 2lb. of flour add 1 teaspoonful of soda, ditto cream of tartar, and half a teaspoonful of sugar ; mix thoroughly, with salt to taste, and make into a stiff batter with some milk ; beat well for a few minutes. Have ready a hot earthen pan, well buttered, also rings for the purpose. Pour in the batter nearly half an inch thick ; bake a nice brown on each side ; either butter them and serve hot, or allow them to cool and toast before the fire.

YEAST.

No. 1.—Boil a small handful of hops in a quart of water for half an hour. Pour it boiling through a coarse sieve or colander upon ¾lb. white flour. Give it a stir, and let it stand till new milk-warm. Then add a breakfast-cupful of yeast from the baker's. Stir again, and let it stand near the fire for twenty-four hours. A pint of this yeast makes 21lb. of flour into bread. By keeping a small quantity of this yeast in a bottle, to add to the new, you may be quite independent of baker's or brewer's yeast. This yeast will keep for a fortnight if either bottled or covered in a jar.

No. 2.—Boil gently for two or three hours 2½oz. of hops in 2 pints of water, strain the boiling liquor upon 8oz. of malt and ½oz. of cream of tartar. When the temperature falls to 65° cover over and keep at this heat until yeast is formed. Use about ½ pint to 8lb. of flour. This yeast will

keep for a long time, unless turned sour by a thunder-storm; to guard against which it is advisable to either keep it in a cool cellar, or bury it in the earth in a stone bottle.

No. 3.—One gill of malt, 1 gill of hops, 4lb. of water—boil all together for one hour; 11b. of flour, 1 gill of brown sugar, ½ gill of salt. Pour the boiling liquid through a sieve on the flour, sugar, and salt; being careful to stir it well or it will be lumpy. When lukewarm pour in 1 pint of old barm to quicken it; let it stand until morning, then put it into a stone jar. It will be ready for use the day after making. The sponge to be set over night. Knead the dough in the morning, and let it stand a few hours. To 10lb. of flour ½ pint of yeast is sufficient. Well shake the yeast before using. Be careful to save a sufficient quantity to make a fresh supply.

No. 4.—To extract the bitter from yeast, place the yeast in a large jug—say a pint of yeast in a quart jug—fill the jug with cold spring water; stir up the yeast, and let it stand for twenty-four hours. Then pour off the water, refill with fresh water, stir up, and let it stand another twenty-four hours. Then pour off the water, and the yeast will be freed from the bitter.

No. 5.—On Monday morning boil 2oz. of the best hops in 4 quarts of water for half an hour; strain it, and let the liquor cool down to the warmth of new milk; then put in a small handful of salt and ½lb. of brown sugar; beat up 11b. of the best flour with some of the liquor, and then mix all well together. On Wednesday add 3lb. of potatoes, boiled and then mashed, to stand till Thursday; then strain and put into bottles, when it is ready for use. It must be stirred often while making, and kept near the fire. Before using, shake the bottle. It will keep, in a cool place, two months.

BIRDS.

MOORHENS, DRESSING.

Skin the bird (despising the layer of fat peculiar to water birds beneath the surface), and, after having properly prepared it, stuff it with a plain herb stuffing; then roast, not too long, and serve it on toast. Baste the bird carefully during the process. Hang it in your larder till quite tender before cooking it.

If skinned and roasted, and eaten with a wild-duck sauce, they are not at all bad.

Put a little finely chopped stuffing of sage and onions, highly seasoned inside, and roast the bird well; made gravy, with a little port wine added to the required flavour. This is also the right way to cook that delicious bird, the teal.

PLOVERS' EGGS, TO BOIL.

If boiled five or seven minutes the eggs will be much harder than if boiled longer.

PLOVERS' EGGS, TO TEST.

Water is the most usual course; the good egg should sink—the set on, or bad, float. Rooks' eggs are very similar in flavour to plovers' eggs.

SEA GULLS, TO COOK.

Take a sharp knife and put in under the skin at the back part of the neck, and carry down to the tail feathers; after which pull off the skin down to the middle of the legs, and next take out the intestines. Leave the birds in salt and water for eight hours, when their fishy taste will be found to be quite gone, and you can either cook them as you would pigeon pie or in any other way.

WILD FOWL, TO PLUCK.

It is extremely laborious to dispossess the generality of wild fowl of that closely adhesive down which is peculiar to them. The most effectual plan to adopt is to immerse the birds, when divested of their feathers, in scalding water. Allow them to remain therein for about two minutes. Have at hand some finely powdered resin, and, by the application of the hand, with the use of the latter rubbed over the flesh of the fowl, the whole of the down will be removed.

CHEESE.

STILTON CHEESE, TO MAKE.

Take 60 quarts of new milk, and 6 quarts of cream. When lukewarm, put rennet, as for other cheeses. Press the curd in the usual manner, and when put into the cheese-vat, turn it over four or five times a-day into clean cloths. The cheese-vat should be 10¼in. deep, and 8¼in. over. Stilton cheeses are seldom used till two years old. See that the rennet be perfectly sweet, for on that the flavour of the cheese greatly depends.

STILTON CHEESE, TO PRESERVE FROM MITES.

No. 1.—Melt a sufficient quantity of fresh butter, and with a brush paint the outside of the cheese. If the cheese is intended to be kept a year and a-half, it might require a second application.

No. 2.—Keep a napkin moistened with water round the Stilton, putting the cheese in a mug, to exclude as much as possible the air, thus preventing evaporation.

No. 3.—The application of strong vinegar to the outside of the cheese about once a week will stay the ravages of the mites.

CONDIMENTS.

BRANDY BUTTER.

A ¼lb. of butter cut up into a basin, to which add 2oz. of powdered sugar, twelve bitter almonds blanched and pounded, a wine-glass of brandy. Beat it all together, near the fire, till it has the appearance of thick or clouted cream. The sauce had better be made the day before, and served on a plate or little glass dish as clouted cream, but rather harder.

CHUTNEY.

No. 1.—Half a gallon of vinegar; 3 quarts of green gooseberries with 3 pints of vinegar, put on to boil till tender; 1lb. of coarse brown sugar, to be made into syrup with the other pint of vinegar; ¾lb. of common salt, ¾lb. of pudding raisins; ½lb. of currants; 2oz. of cayenne; 2oz. of garlic; 1oz. of ground ginger; 3oz. of mustard; 1 grated nutmeg; 1 teaspoonful of ground mace; 1oz. of Jamaica pepper. The garlic and ginger to be well ground in a mortar. All the ingredients to be well mixed with the gooseberries and vinegar. When the latter is nearly cold, and well mashed up and strained through a colander, add ½oz. of turmeric to colour it.

No. 2.—Take 8oz. of garlic, 8oz. of coarse sugar, 8oz. of ginger, 8oz. of salt, 12oz. of raisins, 12oz. of mangoes (or French crabs), 2oz. of chilies or capsicums, 1 quart of best vinegar. Pound the chilies, ginger, salt, and apples very fine, separate the garlic or eschalots, and put all in a glazed jar. Boil the vinegar and sugar together, and pour it on the other ingredients; mix well, and put it in the jar. It will be fit for use in ten days, and will keep (tied close) for years. When too dry, add a little vinegar. If crab apples cannot be procured, get the sourest apples, and use eschalots instead of garlic, as suiting most tastes better.

No. 3.—Take five dozen apples, 1lb. garlic, 2lb. raisins, 1lb. mustard-seed, 2lb. ginger, 2lb. salt, 2lb. sugar, 3lb. treacle, ½lb. chilies, 2 quarts vinegar. Bruise and mix all well together, and bottle for use.

No. 4.—One pound brown sugar, ½lb. salt, ¼lb. garlic, ¼lb. onions, ¼lb. bruised ginger, ½lb. mustard-seed, ½lb. raisins (stoned and chopped very fine), 1oz. cayenne pepper, 3 pints vinegar, 15 apples of different sorts, all sour. The mustard-seed must be washed, and dried in the sun; the garlic and onions sliced, and pounded fine in a mortar; the apples to be peeled and the cores taken out, then boiled in the vinegar, and bruised fine with a spoon. When cold, mix in the other ingredients, and blend them together. Bottle it in wide-mouthed bottles or jars, and tie bladder over them.

No. 5.—Half a pound of salt, ½lb raisins (chopped and stoned), ½lb. coarse

brown sugar, ¼lb. treacle, ¼lb. onions (well chopped), 3oz. garlic (chopped fine), 1oz. cayenne, a quart of green gooseberries (if not in season, sour apples or quinces will do), and a quart of vinegar. Put half the vinegar to the sugar, and stew the gooseberries in it till they are reduced to pulp. When cold, add all the other ingredients, mixing each well with a wooden spoon, and adding the remainder of the vinegar. Many think it an improvement to give all the ingredients, when mixed, a slight boil. It is not fit for use for two months, and must be kept well corked.

No. 6.—Four pounds of brown sugar, ½lb. garlic, 1lb. red chilies, 2lb. mustard seed, 1lb. green ginger, 2lb. salt, 8lb. apples (weigh the fruit when peeled and sliced), 2lb. sultana raisins, and 4 bottles of French vinegar. Peel and core the apples, and boil them in two of the bottles of vinegar; take the other two bottles of vinegar, and boil them with the sugar to a thin syrup. When all is cold, add the ingredients, and stir them well together. Put each jar in the sun or in an oven for ten or twelve days.

No. 7.—Take one or more large ripe tomatoes, skin them, divide and remove the seeds and juice; to the pulp add about half its quantity of onions, chopped very fine, with a little salt, chopped celery, and two or more green chilies, according to taste. A small quantity of green ginger, sliced, and a table-spoonful of vinegar.

No. 8.—Peel 4lb. of green mangoes; take out the stones and cut them into quarters, lengthwise. Boil them slightly in one bottle of vinegar, and put it aside in a jar, till cold. Take another bottle of vinegar, to which add 2lb. of sugar, and boil till it becomes a thin syrup. Put aside till cold. Take of salt, 1oz.; raisins, picked and dried, 2lb.; yellow mustard-seed, 1oz.: garlic, 1oz.; dried chilies, 2oz.; green ginger, sliced, 1lb. Pound the garlic, chilies, and ginger finely in a mortar. Mix all the ingredients together; bottle, and expose to the sun for three or four days. Using apples for mangoes, they should be cut up fine.

HOT SAUCE.

No. 1.—A pint of nasturtium flowers (*Tropæolum majus*), a quart of vinegar, 4 teaspoonfuls of Cayenne pepper, 4 cloves of garlic, and 8 eschalots. Put the flowers, garlic, eschalots, and pepper, into a pickle jar, and pour the vinegar boiling hot upon them, and cover it up for a week or ten days; after which, strain off through a cloth, as you would ketchup. It will improve by being kept a little.

No. 2.—Put into a quart bottle 2oz. mushroom ketchup, 2oz. essence of anchovies, 1oz. Cayenne pepper, ¼oz. cloves, well pounded, 12 eschalots very finely chopped, 2 large teaspoonfuls of brown sugar; then fill the bottle up with good vinegar, shake twice a day for a fortnight. It will then be ready for use. Put into small bottles, cork well.

No. 3.—*Franconian Sauce:* One quart of vinegar, 12 eschalots, 1 teacup of walnut ketchup, 2 dessert-spoonfuls of soy, ¼oz. of good foreign cayenne pepper. Put all together in a jar covered up; let it stand a few weeks, shaking it well daily. You may add one table-spoonful of mushroom ketchup, which is an improvement. Keep in close-stoppered bottles.

No. 4.—Four ounces of each of the following ingredients: Sour apples, pared and cored, or unripe gooseberries, tomatoes, salt, brown sugar, raisins, and figs; ½oz. of red chilies, 1oz. of ginger, ground, ½oz. of garlic, ½oz. of eschalots. Pound all these things, each by itself, in a mortar; mix them well together, and add 2 quarts of vinegar and 1 pint of lemon-juice. Cover them up well from the air in a stone jar, which must be placed on a stove or by the side of a fire so as to attain and keep a heat of about 120° Fahrenheit, stirring it twice a day for a month, when it is fit for use. The lemon-juice may be omitted, and more vinegar put instead, if preferred. The sauce should be kept in small wide-mouthed bottles, well corked.

No. 5.—One clove (not a whole head) of garlic, ½oz. cayenne, 1dr. cochineal in a muslin bag, 1 table-spoonful of china soy, 4 ditto of walnut pickle, 1 pint of best vinegar; mix all together, let it remain one week, and then bottle for use.

No. 6.—One ounce cayenne pepper, 1 quart of vinegar, 2 table-spoonfuls of soy, 3 cloves of garlic, pounded, 3 cloves of eschalots, pounded, 5 anchovies, bruised fine; the whole to be well rubbed and mixed through a sieve. Keep it for ten days corked up, and afterwards bottle it for use; strain it or not as preferred.

TOMATO SAUCE.

The tomatoes must be put into the oven for a few minutes until the peel will come off; then take 1lb. of the pulp, 1 quart of vinegar, and ½ pint of chilie vinegar; boil, until tender, ½ pint of eschalots sliced, and 2 or 3 garlics; rub the pulp of the tomatoes through a hair-sieve, to separate it from the seeds; also rub the eschalots and garlic through the sieve, and add them to the pulp; boil in the vinegar for ten minutes 2 or 3 capsicums and 1 dozen chilies, then strain them from it, and add the pulp to the vinegar, and boil again until it is of the consistency of cream; add salt to the taste.

TOMATO SAUCE, MOULD IN.

No. 1.—If the contents of the bottles are emptied into a clean saucepan, and re-boiled thoroughly, the mould will not again return. Of course, if the fruit be not perfectly good at first, no boiling will remedy the evil.

No. 2.—It will not turn mouldy if it has a large proportion of salt and chilies in it. To 50 tomatoes put 25 capsicums or 30 chilies, and nearly, if not quite, 1lb. of salt.

WHITE SAUCE FOR GRAYLING.

Take 3 anchovies, 2 teaspoonfuls of sherry, 1 spoonful of lemon-juice or vinegar, 1 sprig of thyme, 1 of winter savory, a little parsley, 1 small onion, a bit of lemon-peel, 1 blade of mace, 2 cloves, and a few white peppercorns. Boil them all together five minutes, and strain it through a sieve; then add a ¼lb. of butter, a little fine flour, and 5 or 6 spoonfuls of good cream. Boil it all together, stirring it all the time.

FISH.

CARP, TO COOK.

Cut into 3 or 4 pieces, dip into egg and bread crumbs, and fry a light brown colour, taking care that there is plenty of fat in the pan and the fire not too fierce. This being done take out the fish and shred into the same fat a large onion, a handful of sweet herbs, and some parsley. Fry these brown. Next take some good broth or stock and put to it the fried onion, &c., 2 anchovies, or half a red herring, 2 parts of mushroom ketchup, 1 of walnut, and a little Harvey or Reading Sauce; a squeeze of lemon, a clove of garlic, a blade of mace, and some pepper; simmer gently for an hour, strain off the liquor and put into a stewpan, and add a large table-spoonful or wineglass of port wine or claret; lay the fish in the liquor and let them simmer for half an hour longer, then boil up and serve, strewing over it some capers.

CHAR, TO POT.

No. 1.—After the fish are cleaned, cut off the fins, the tails, and the heads, and lay them in rows in a baking dish long enough for them, having first seasoned them with pepper, salt, and mace. Send them to the oven, and when done let them stand until they are cold, then lay them in your pots, and cover them with clarified butter.

No. 2.—Clean your fish, and cut off the heads and tails; then rub a little salt inside and out, and let them lie all night. Put them into your stewpan, with to every 6lb. of fish ½oz. white pepper, ¼oz. cayenne, 2dr. mace, and 1 small nutmeg, first placing the heads at the bottom of the pan, and some at the top; let them stew with a large piece of butter over a very slow fire for three hours; take out the backbones, and put the fish into your pots in layers, having the backs upwards.

No. 3.—*Recipe for potting trout, char, and all kinds of small fish:* Open your fish, and, without washing, rub them clean with dry cloths; cut off heads, tails, and fins; lay them in a small baking dish, having first seasoned them highly with a portion of the mixture after-mentioned; and bake them in a "cool" oven, with as much fresh butter as when melted will cover them, allowing them to remain in the oven till all the bones are dis-

solved. The butter is then to be drained off, and the fish carefully removed into proper potting-pots, and well pressed down, so as to leave no spaces or air between them. Fresh butter, melted and clarified, is then poured over the top, as we usually see potted meats, shrimps, &c., done, and, when cold, it is fit for table. Should the fish be large, say above a ¼lb. or ½lb., it is better to scale them and take out the backbone. The following is the mixture, which will suffice for 30lb. or 40lb. of fish, and, kept corked in a glass bottle, may be used as occasion requires. Six teaspoonfuls of ground black pepper, 6 ditto of allspice, 4 ditto of mace, 2 ditto of cloves, 2 ditto of nutmeg, and 1 ditto of cayenne pepper. And to every spoonful of this mixture used add, at the time of using, not before, 1 spoonful of salt. This dish will keep, according to the weather, like other potted meats, &c.

No. 4.—Let them be carefully cleaned, and seasoning (cayenne and white pepper, mace, and salt) applied inside and out; put them into an earthen vessel which will stand fire; add fresh butter betwixt the layers of fish; tie over the top of the vessel several layers of strong paper to keep in the moisture; put them in a slow oven; when sufficiently done take them out to cool; when cold, remove the fish into pots for table, and add more seasoning if required. Let the fish be pressed firmly in the pot and covered with clarified butter.

CHUB, TO COOK.

They may be cooked like carp. If small, they can be split, egged, bread-crumbed, and fried. Plain boiled, they are simply detestable; but a middling-sized chub is eatable by having it gently stewed in ½ pint of water, two or three glasses of port wine, with a little salt, a few peppercorns, a bay-leaf, and some parsley and thyme. For a change, an onion, turnip, carrot, and head of celery may be added. The fish caught in the winter is considered the best.

FISH FOR BREAKFAST.

Get some smallish sized haddocks in as fresh a state as possible, carefully clean them without skinning, spit through the eyes and hang up in a cool airy place till next morning, or even till the second morning, but not longer. When wanted for use skin them, dust with flour, and cook lightly on a gridiron over a smokeless fire. Serve in a table napkin, and eat with a little bit of salt butter. Whitings are not good this way, they are too soft and watery, and are better just skinned and fried in the ordinary way.

FISH MACARONI.

When a turbot or cod has done duty on table once and a small portion is left, collect it, chop it down small, add twice its own bulk of macaroni well boiled, grate some cheese on it, and mix the whole together, put it on a

dish with a few dabs of butter, and having grated a liberal allowance of cheese over the top, brown it well before the fire. It can, of course, be made of uncooked fish.

HERRING FRY, TO COOK.

When the nets are drawn in great quantities of fry are taken also. Collect these from the beach, wash them in several clean waters until quite clean, dry in a napkin and fry a light brown.

HERRING, TO KIPPER.

Split them open and take out the backbone; wipe them and remove the scales first, but be sure no water touches them; rub them well with equal parts of salt, coarse brown sugar, and ground pepper; turn them and rub daily. If for use within a fortnight, leave them in the brine; if for keeping, drain at the end of a week or four days, according to size, and hang up (flat open) to dry. Brush over once with essence of smoke.

PIKE, TO COOK.

Wash and wipe the fish thoroughly, then open and clean it, but do not afterwards let water touch it; clean it from all blood and loose skin, and dry it with clean dry cloths; salt it for three days, boil, and eat it as you would salt fish, with egg-sauce and parsnips, and put into the sauce, just before serving, some elder vinegar or some made mustard.

Again: Scrape off the scales, open as near the throat as possible, then clean, and stuff as follows: Grated bread, herbs, anchovies, oysters, suet, salt, pepper, mace, ½ pint of cream, 4 yolks of eggs; mix all together over the fire till the mass thickens, then put it into the fish, and sew it up; put butter over in little bits, and bake it. Sauce to be made of gravy, butter, and anchovy.

Another: Having killed your fish, lay him on his side, and with a flat blade commence at the tail to saw off his skin in strips. When all clean on that side, crimp; then turn over and do the same by the other. Wash the fish and put him under a fall, if there be one; if not, in the water, and pump upon him afterwards. This cutting off the skin is particularly necessary in large fish, in whose skins there is apt to be a peculiar stercorous taste. If a fish not exceeding 10lb., you may boil him as you would or should a salmon, *i.e.*, increasing the heat of the water by a large addition of salt, by putting in the fish at tip-top boil. If the fish be not large, or if it be in slices not exceeding 1in. in thickness, about seven minutes will do it. Let it drain before the fire for a minute or two, and serve up. You may put a pudding or not, as you please. Dutch sauce. A common custard of eggs and milk; let it thicken. Flour a good piece of butter, and stir it in. Flavour with elder-flower vinegar, two-and-a-half table-spoonfuls to a

common boat. Stir all the same way, and don't let it boil. If above 10lb., it is best to egg, crumb, and bake or roast the fish, with pudding and Sussex sauce, *i.e.*, common anchovy sauce mixed with stock, to which add chilie vinegar to taste. All the forked bones are in the back; help, therefore, the first day, below the mid-body lines, as far as it will go, at all events to ladies. For your bechamel to-morrow you have only to break the pieces, and the bones stand out like the teeth of a comb, and are easily removed. If a good fish, and successfully boiled, it should be crisp.

If the pike or jack be under a pound weight, it should be cooked for breakfast in the following fashion: Dry the fish well with a cloth, and rub it with flour. Cut it down the back, or make a few incisions crosswise if you will: but prefer it uncut, as it keeps the juices in. Put it on a gridiron, and keep it raised about 8in. over a clear fire, or in a Dutch oven before it. Turn it often, and give it time, according to weight. The very small jack are termed "boneless," and are most delicious. Vinegar and lemon juice, or butter and chopped parsley, will serve to vary the dish according to taste; onions, butter, and fennel chopped very fine is sometimes introduced. Or take the heads of two of these small jack, split them up the back, and with about 1oz. of butter, chopped parsley, and a thought of onion, place them together in some paper to keep the fat in, and broil them for about a quarter of an hour or twenty minutes, the butter being placed between the two jack. For larger pike the pan is brought into requisition, and then the cook should, after cleaning the fish, split it down the back, and cut it into pieces of about 6in. Then fry them in egg and bread-crumbs until of a light brown colour. If all the bones be taken out —and this is done simply enough if the two lineal divisions so plainly marked upon the fish be followed with the knife—the flesh may be separated yet smaller and filleted, and having been steeped in egg and bread-crumbs, rolled up, and each piece tied with cotton or thread, and fried to a light brown. In this way, they resemble eels closely. Pike may be likewise boiled the same as codfish, and served with horse-radish sauce; but it must be borne in mind that, like all large fish, it should be placed upon the fire in cold water. The liver and roe should be boiled and served with the fish.

Again: Open the fish and rub him within with salt and claret wine, save the milt, and a little of the blood and fat; cut him into three or four pieces, and put him in when the water boils; put in with him sweet marjoram, savory, thyme, or fennel, with a good handful of salt; boil for half an hour. For the sauce take sweet butter, anchovies, horse radish, claret, a little of the blood, shallot or garlic, and some lemons sliced; beat well together and serve.

POND FISH, MUDDY FLAVOUR OF, TO REMOVE.

When the fish is perfectly cleaned of the stomach, &c., &c., insert a slice of bread—as nearly as possible to fill up the vacuum—which remove when the fish is cooked.

SALMON.

Dressing of.—Slice two onions into a stewpan, add a piece of butter or slice of fat bacon cut small, fry quite light brown, add your salmon cut in slices, and a little salt and pepper; when the fish has been frying for five minutes add a wineglass of water and a glass of any wine, red or white; put on the lid of the pan and let it stew gently for half an hour; thicken the same with a teaspoonful of flour made into smooth paste with cold wine or water.

To kipper.—Mix equal parts of salt, ground white pepper, and brown sugar—say two table-spoonfuls of each of the above; add a small quantity of cayenne. Split and wipe (not wash) the fish; remove the backbone, and rub the mixture in well with the hand. Next day, turn it in the pickle that will have formed round it during the night; turn it every twelve hours. If a small fish, two nights and a day—if a large one, three nights and two days—in the pickle are enough to preserve it well. Then hang it up in the sun for three or four hours, and it is ready for use. Cut it into slices, and fry it in buttered writing-paper. A fish 10lb. weight will require four large spoonfuls of each ingredient. Pike, trout, or sea-trout are excellent done in this manner, but do not keep more than ten days or a fortnight.

Select a red fish (that is, one that has been in fresh water at least a month), split and wipe him perfectly clean, removing the backbone and every particle of blood; rub in well a mixture of equal quantities of salt, brown sugar, and black pepper. Let him lie in the pickle he will make from two to three days, according to size, turning each day, and then pressed between two flat stones in some cool place for three days more; then, should the sun shine, hang him in the open air against a wall, with wooden skewers across to keep him flat. Failing the sun, 4ft. or 5ft. above the fireplace in the kitchen will do nearly as well, where it is warm, but not hot. Let him remain four days, and each day paint him over with a brush dipped in essence of smoke.

To pickle.—Take a fine salmon, split it down the back, cut it into square pieces; put into a pan (unglazed) a layer of salmon and a layer of salt, alternately, until the pan is nearly filled; fill it up with vinegar, tie it down closely with brown paper, put the pan into a saucepan of boiling water up to its rim, let it boil twenty minutes, and in three days it is ready for use.

To roast.—Make a good fire of dry turf or sticks (oak or ash the best) on the ground in the shape of a cartwheel (quite round), and when red hot and no smoke, take your salmon fresh out of the water, the larger the better;

split him from the nose to his tail, take out the inside, and wipe him with a dry cloth till quite clean, using no water; get sticks (arbutus, if possible), or of osier or sally, about 18in. long, and as thick as your middle finger, sharp at both ends; cut your salmon into pieces, 8in. or 10in. wide, and put lengthwise on the sticks, then stick them in the ground all round the fire, but not so close as to burn. Have ready a large bowl of salt and water and a broom made of the tops of the sally; as the fish roasts sprinkle it with the pickle, turn it occasionally, and in about half an hour, according to its size, it will be done. It is delicious hot, better cold, will keep for days, and travel anywhere.

SCALLOP, HOW TO COOK.

No. 1.—Cover the fish in its own shell with very fine bread crumbs pepper, butter, salt, &c.; in fact, in precisely the same manner in which oysters are scalloped; let it then be put in a very hot oven, which is indispensable, and when done add a little Worcestershire sauce.

No. 2.—Clear them from the shell; take off the beards, as also the black marks they bear: then cut them into four pieces. Fry some bread-crumbs with butter, pepper, and salt, to a light brown colour. Then throw in your scallops, and fry all together for about three minutes and a half, taking care to shake the frying-pan all the time. Last of all, press them tight into shells or a dish, and brown them with a salamander, and send them to table.

No. 3.—Clean and wash the scallops well, removing all the beard; take a quantity of stale bread-crumbs, grated and rubbed through a colander, and mix with it a little pepper and salt; cover the bottom of a dish with a layer of the bread-crumbs about a ¼in. thick; on this lay the scallops, and cover them with more crumbs; on the top of this place some butter cut into small pieces. Bake in a moderate oven for twenty or thirty minutes, and finish by browning before the fire in a Dutch or American oven. They require plenty of butter.

Scallops browned.—Wash the shells, rub them dry before being opened; put them into a saucepan, close covered, without water, until the shells open. Strain the liquor, take off the skirts (outer edge), leave on the red and black tongues; wash them in the strained liquor, freed from sand; butter the shells well, lay in as many scallops and crumbs of grated bread, with small pieces of butter, white pepper, mace, nutmeg, some of the liquor, well covered with grated bread-crumbs. Cook them in a Dutch oven until quite browned.

To stew scallops.—Open, and separate the liquor from them, then wash them from the grit, strain the liquor, and put to the scallops a little mace, nutmeg, lemon peel, and a few white peppers. Simmer them very gently, and add a gill of cream, a little butter, and a little flour.

SPRATS, TO STEW.

Wash and dry the fish, and lay them level in a stewpan. Between each layer put three peppercorns and as many allspice, with a few grains of salt. Barely cover them with vinegar, and stew one hour over a slow fire, but they must not boil. A bay leaf or two may be added.

TENCH, TO COOK.

Split your tench from head to tail, fry him gently a light brown colour in butter, take a spoonful of lobster, shrimp, or anchovy sauce, make it hot in melted butter, and serve up as hot as possible.

WHITINGS, TO COOK.

No. 1.—When newly caught skin the fish, and sprinkle over with a little salt; hang them up all night, and when wanted do them on the gridiron over a clear fire.

No. 2.—Leave the skin on and the trail in; dust them well with flour and cook them on the gridiron; use no butter or grease whatever.

No. 3.—Skin them, wipe them dry, and toast them before the fire.

No. 4.—The fish are skinned, boned, rolled in bread crumbs and white of eggs, then fried in a pan covered over in dripping. They come to table crisped and brown.

MEATS.

BADGER BACON.

When nicely saved and smoked there is nothing more delicious, and it imparts to cabbage or greens boiled with it a rich and tender flavour. The flitches and cheeks are the best parts, and pepper and sugar should be used more freely than salt or saltpetre. A nicely roasted tender hare, with a bit of this bacon, is good. The hare should be stuffed with a pudding of bread and oysters, a little thyme, pepper, salt, parsley, &c. If basted with the juice of the oysters, and a little butter mixed through it, it is most delicious.

BEEF, SPICED.

No. 1.—Rub ¼lb. saltpetre and a little brown sugar on the beef; the following day season it with ½lb. of bay-salt, 1oz. black pepper, 1oz. allspice. Let the beef lie in pickle fourteen days, turning it every day, adding a little common salt three times per week; then wash it, and put it into a glazed earthen pipkin, deep enough to cover it. Lay beef suet under it; add 1 pint of water, cover the top with paste, and then paper, or with a plate instead of paste. Bake seven hours in an oven; pour off the liquor, but do not cut till cold. Will keep three months.

No. 2.—Get a fat round of beef (take out the bone), and rub it well with saltpetre and coarse sugar; let it remain in the seasoning forty-eight

hours, and then add to it salt, pepper, cloves, Jamaica pepper, and mace, all of which must be well pounded. Keep it in this seasoning eighteen days, turning it and rubbing it with the liquor which drains from it, every day, then put a piece of suet where the bone was and bind it up tightly with broad tape, lay it in a deep puncheon with butter and suet shreds over it, cover it with a thick paste made with coarse flour, and bake it seven hours. Then, and whilst it is hot, remove the crust, drain off the liquor, and, when cold, unbind the meat. Before putting on the paste, put a small quantity of water into the puncheon. Beef thus prepared will keep good for six months. Spice required for a round of 40lb. weight: 5oz. saltpetre, 4oz. cloves, 4oz. Jamaica pepper, 3oz. black pepper, 6dr. mace, 2lb. common salt, and 1lb. coarse sugar. All the above to be well pounded and mixed together.

CHICKENS' LEGS, TO DEVIL.

No. 1.—Fill a basin (large enough to admit the bottom of a soup-plate), with boiling water till the water touches the plate. When the plate becomes quite hot put into it 1oz. of butter, and when it is melted add 8 spoonfuls of mustard, stir it up together, add 1 teaspoonful of lemon juice, 1 table-spoonful of Harvey sauce, some cayenne and black pepper, and a little salt; stir it well together, and pour it over grilled bones.

No. 2.—Take a cooked leg of turkey or large fowl, cut it all over to the bone, pepper and salt it well, using both black pepper and cayenne, then get some made mustard, mix it with about one-third its quantity of wheaten flour, and plaster your chicken's or turkey's leg over with the mixture as thick as it will stick, working it well into the gashes you have made. When this is done, put it on a gridiron (never mind the sauce and butter) on a clear fire; serve hot.

No. 3.—Broil gently the fowl's legs, which done, having previously mixed the following ingredients—viz., a saltspoonful of salt, half that quantity (or more according to taste) of cayenne pepper, a mustard-spoonful of mustard, 1oz. of butter, and a teaspoonful of Worcester sauce, put it over the legs, and place them before the fire a minute before serving.

No. 4.—Take the legs and gizzard of a cold roast chicken, score them well; take a teaspoonful of prepared mustard and the liver; pound both well together, add black and cayenne pepper and salt, and mix well; then add a few drops of anchovy sauce; mingle all these well together with best oil to the consistency of a custard; then run the mixture into the scores, and broil in oil. If too dry after serving, add a little oil and Worcester sauce mixed. The art is the mixing and not allowing the mixture to escape from the scores.

No. 5.—Take a little of everything in the castors (barring oil and vinegar), and mix as follows: Two good mustard-spoonfuls of mustard, a saltspoonful of common pepper, a teaspoonful of Harvey's sauce, three teaspsoonfuls of mushroom ketchup, a teaspoonful of Worcester sauce; mix all well together, and having made a quantity of incisions in the leg of the turkey, fowl, pheasant, or shank end of a leg of mutton (perhaps the best of all), steep it as well as you can in the mixture, have it put close before the fire for ten minutes, and sent to table in the same dish. A small quantity of chutnee is a good addition.

No. 6.—Score the legs of a chicken down and across with a knife about three times pretty deeply, say almost to the bone; then get some best mustard, and a saltspoonful of cayenne pepper, and mix them together, so as to form a fluid about the consistency of good cream. Dip the legs well in this mixture, taking care that it fills up the incisions previously made, and when taken out "dust" them fairly with white pepper; next put them upon a gridiron, over a slow but clear fire, and turn them in order that they be well warmed through. This done, place them for a few minutes in front of the fire, with three or four pieces of butter on each, about the size of a walnut; when the butter is melted, and has found its way into the nicks, in which it should be at first placed, dash a tablespoonful of muhsroom ketchup, or of Lea and Perrin's sauce, over the lot, and "serve hot."

No. 7.—Take the legs (turkeys' are best) and cut nicks in them, not piercing right through the meat, but so as to make little troughs for the sauce to lie in them. Take mixed mustard, black pepper, cayenne, and salt, and work all well together on a plate, with some butter. When well mixed, add Harvey, Worcester, chutnee, King of Oude, anchovy—in fact, a little out of every bottle you can lay your hands on, taking care that no flavour shall preponderate—work all up with the mustard, &c., and insinuate the mixture into the troughs before mentioned, closing them up as well as you can. Then place the legs in the oven, troughs upwards, and let them remain until heated through. Should the mixture be too thin, thicken with some potted meat. Flour takes away the flavour of the sauces; a small quantity of currant jelly worked up with the sauce is an improvement. If you have the liver of the bird, work that up with the mustard, and it will thicken the mixture. Avoid flour of mustard, as it imparts a bitter flavour.

COLD EXTRACT OF FLESH.

Take ½lb. of beef free from fat, or the same weight of fowls' flesh recently killed, chop very fine and mix well with 1 pint of distilled water, to which 4 drops of hydrochloric acid and ½oz. of common salt have been added.

Let it stand for an hour, and then throw it upon a fine hair sieve or piece of calico, and allow the liquid to drain off without pressure. The first portion of the liquid is generally turbid, and must be returned to the sieve until it runs clear. When all is drained pour a ¼ pint of pure water gently in small quantities at a time upon the residual minced flesh and allow to run into the liquid previously collected. This is capital for invalids, and superior to beef tea.

DEER'S HEAD, TO COOK.

Knock off the antlers, and, having first made ready a good lot of wood ashes, scrape part back; place the head on the hot ground, then cover it over well with the ashes, thick enough to bake; protect from the wind by a wall of sods to windward, if necessary, and add more fuel on the top if required. When it is taken out, in an hour or so, according to heat, the skin peels off, and you have the most deliciously-baked head.

HAMS AND BACON.

To cure.—No. 1.—Rub every ham over with 4oz. of saltpetre. The next day put of bay salt, common salt, and coarse brown sugar each ½lb. into 1 quart of stale strong beer; boil this together, and pour it boiling over the ham. Let it lie for a fortnight in this pickle, rubbing it well, and turning it twice a day. Smoke it afterwards for a fortnight over a wood fire, taking care that the wood is neither pine, fir, nor deal.

No. 2.—Eight pounds of salt, 12oz. of sal prunella, 6oz. of bay salt, 6lb. of moist sugar, 20 quarts of water. All the ingredients to be boiled together, and poured hot over the bacon. The bacon must be turned every other day, and the liquid laded over it for a month. Then dry it as you would any other bacon.

No. 3.—Four gallons of water, 1½lb. of good moist sugar, ½lb. of common treacle (not syrup), 2oz. of saltpetre, and 4lb. of bay and 4lb. of common salt. Boil these together until you have skimmed off all that appears on the surface. Pour out into a clean vessel to cool. Put your beef or pork into water for five minutes, wipe it dry, put it into the pan, and cover it. Turn the meat occasionally. Whenever any is intended to be kept in the pickle a considerable time, it will be necessary once in two months to boil the pickle over again, clearing off the scum that rises, then adding 2oz. of sugar and 8oz. of common salt. This pickle will keep good, if the rules are attended to, twelve months. Observe when you take the meat out of pickle to wipe it very dry. Put into proper bags, which secure at top from flies, and hang them in a dry, warm (not hot) kitchen. Small pieces of meat may be dressed after three days' soaking. To smoke, get live embers from wood, no coal amongst them; cover these with oak or elm sawdust,

and suspend your hams or beef, not too near the thickest of the smoke, just above it. Smoke to your taste—two, four, or six hours; this before you hang up in your kitchen.

No. 4.—Bacon, to keep well and sweet, takes time and care. In a peat country, it may be hung up in the kitchen chimney of a farmer for some time; it is better hung up in a nice dry kitchen, till fit to pack in chaff for the summer. Almost everything depends on the food the pig is fattened on. Barley-meal is the very best, and the last three weeks give him nothing but kiln-dried oats and a little milk. He should also in the beginning have a handful of salt every day in his mess, and let him have age before putting up.

No. 5.—Common salt, 7lb.; saltpetre, 10oz.; treacle, 1lb.; cold water, 8 quarts. Stir together cold, and when the salt, &c., is dissolved put in the meat, which requires no previous rubbing. When bacon is thus cured, each flitch should be once divided, the pieces laid upon each other in the tub; and, as the spaces at the sides can be filled up with tongues or pieces of pork and beef, no great quantity of pickle will be required. Bacon and hams should be left in the tub about three weeks; tongues, &c., about twelve days or longer; the former should be drained, wiped dry, and hung in a dry room, the latter kept in the pickle until required for cooking; tongues will not receive the least harm if they are left in the tub for three months.

No. 6.—Boil the ham in hock a quarter of an hour each pound; then put it in an oven and bake it another quarter of an hour to the same weight.

To smoke.—No. 1.—If you have a corner wall in your outbuildings which will not matter if blackened a little, the plan is easy. You want 180 to 200 bricks, a tierce cask or deep box, a barrowful of soft clay, and two sacks of dry oak sawdust. From the walls, build on the surface, and with loose bricks, the two sides of a chimney according to the size of the box or cask, 5ft. or more in height, leaving on the side whence you can get the best draught a fire hole, by means of a bit of old iron or an oak lintel; then take the cask or box, without a lid, turn it over, bore in the bottom half a dozen holes, about 1½in. in size or so, for draught; suspend by means of these holes, and small sticks across, your hams, fresh from pickle, and, if you like it smoked, bacon cut into strips, and drawn up between the hams so as not to prevent a free current between, and place the cask or box on the chimney, claying up the interstices. Make a smouldering fire, without flame, with a lot of dry sawdust and a few hot cinders, with bellows; after a large surface of red is produced, cover it up with a few handfuls of sawdust, and it will want no attendance for an hour if the draught is good. By three days' smoking the hams in this manner (that is from early

morning to late at night) they will acquire a flavour strong enough for any one's taste.

No. 2.—To smoke hams in a private family you must have one of the old-fashioned wide brick-hearth fireplaces, which have a recess and no grate. Hang up your bacon or hams on each side, not touching the brick wall; keep a smoking smouldering "oak dust" (sawdust from sawn oak), burning but not blazing, until you find your hams sufficiently dry and smoked for use or keeping.

No. 3.—Wash the bacon or hams with pyroligneous acid, which may be bought at any wholesale druggist's at 1*s.* per quart; it will impart the smoked flavour to them; and has the great advantage of keeping the flies from any meat, and much preventing taint in hot or thundery weather.

Hoppers in.—No. 1.—By adopting the American method of sewing hams in tight canvas when thoroughly dry, and by then giving them a good white-washing, there is no trouble with hoppers or anything else in the shape of vermin.

No. 2.—Mix ground white pepper with salt and other ingredients for saving hams; about 1oz. of pepper to a ham of 20lb.

No. 3.—The hams should be inclosed in a bag of strong unbleached calico, the neck closely tied, and suspended to a hook.

No. 4.—Keep your hams in a chest full of well-dried bran; before hanging them to dry, loosen the skin all round the knuckle; fill the bag with whole pepper and spice: tie it up closely. Before packing them away, rub over with ground pepper, and occasionally open your chest to see if the bran keeps dry.

HARE, TO PREPARE FOR ROASTING.

Scald it, as you do a young pig, first wetting the fur, and then sprinkling it over (especially about the head) with powdered resin; then put it in scalding water till you find the fur part freely from the skin. The white mountain hare, if in good condition, is the best roast.

MOCK BRAWN.

Take the upper part (not the chap part) of a pig's head, and the ears and the feet of two; sprinkle them with a small quantity of saltpetre and salt for three days, then boil them very tender, till every bone will slip out. Pick the bones carefully out, cut the meat in small pieces, put it in a tin mould with a hole at the bottom (over which must be placed a circular piece of tin the same size as the bottom of the mould), to let the liquid drain from it, and to push it out again; it must also have a lid which can slide down, with a heavy weight (about 26lb.) placed upon it. Let it remain in this mould two days. The appearance of the brawn is much

improved by the following: After having stood two days, place it in a mould a size larger than the first (about 3in. wider), taking care to place it in the centre. Take two cowheels and ¼lb. of gelatine, and boil them in 3 quarts of water till reduced to 1; pour this jelly round the brawn till the mould is quite filled up. The whole must stand two days before it will be fit for use. If the brawn is to be pickled, it must be placed in the following: 2 gallons of water, 1 handful of malt, 1 handful salt; boil one hour; when quite cold, put in the brawn. This pickle must be renewed once a fortnight.

MUTTON HAMS, TO CURE.

No. 1.—Take ½lb. bay salt, ¼lb. brown sugar, 1oz. black peppercorns, 1oz. allspice, 1oz. coriander seeds, ¼oz. saltpetre, bruise the spices and put them along with the salt and sugar into a frying-pan, and when hot rub the ingredients well into the mutton, and turn and baste it every day for three weeks, when hang in the kitchen to dry. If smoked with wood it would be still better. Peat gives a most disagreeable flavour. The mutton should be three or four days old before lining, in order to make the ham eat tender. For a pork ham of 16lb. or 18lb., take 1lb. bay salt, ½lb. sugar, ½oz. saltpetre, and the same quantity of spice as for the mutton ham. Rub for a month.

No. 2.—Procure a plump leg of mutton, wipe it dry, and then put it into the following pickle: Three gallons of soft water, 1lb. coarse sugar, 2oz. saltpetre, 3lb. common salt. Boil the above together, remove the scum as it rises, and immerse the meat when cold.

No. 3.—Cut a hind quarter of mutton into the shape of a ham, let it hang two or three days. Mix ½lb. bay salt, 2oz. saltpetre, ½lb. common salt, ½lb. coarse brown sugar, all well pounded together, make them quite hot over the fire, then rub the compound well into the meat; turn it every day; after four days add 2oz. more of common salt. Let it lie in the brine twelve days, turning and basting it every day; then take it out, dry it, and hang it in wood smoke for one week.

No. 4.—A ¼lb. of saltpetre to ½lb. of raw brown sugar; make them very hot and rub into legs of mutton over night. Next morning salt them with common salt. Let the mutton lay about a week, move it over, and rub in fresh salt and let it remain another week in pickle. Then hang it up to dry. When dry keep it in canvas bags to prevent being fly-eaten. Do not let the mutton *lie* in the wet brine, but place something under to raise them from the wet or dropping that will fall from them.

PEPPER POT.

No. 1.—Procure from British Guiana some cassarip, and get from the same place a "buck-pot"—an earthen pot made by the Arrawak Indians

and easily procured in Demerara. A dozen bottles of cassarip would last a long time. Some residents in Demerara have had buck-pots in their possession for over half a century. No other vessel is ever used, and the older it is the more valued. To make pepper pot put into the buck-pot some of the cassarip with a little water, and add fish, flesh, or fowl (cooked); let it simmer over a fire, and serve it up hot in the pot. Add to this any remains of dishes on the dinner table, whether fish, flesh, or fowl, or even vegetables (not green), and cover it up. Next day add a little more cassarip, warm it up, and so on.

No. 2.—To 3 quarts of water put vegetables according to the season: in summer, peas, lettuce and spinach; in winter, carrots, turnips, celery; and onions in both. Cut small and stew 2lb. of neck of mutton, or a fowl, and 1lb. of pickled pork, with the vegetables till quite tender. On first boiling, skim. Half-an-hour before serving add a lobster or crab, cleared from the shell; season with salt and cayenne. A small quantity of rice should be put in with the meat. Should any fat rise skim very nicely, and thicken with a little flour. Pepper pot may be made of various things; it is understood to be a just mixture of fish, flesh, fowl, vegetables, and pulse.

PIG'S HEAD, COLLARED.

The pickle: One gallon of water, 2lb. salt, ¾lb. brown sugar, ¼lb. saltpetre bruised. Let it boil five minutes, and pour it boiling hot upon the meat. Into this pickle put one or both eye pieces, the feet, ears, tongue, and a piece of the belly part of the pig (this last very essential) with some of the sword, for a week. Then boil the different parts till tender, allowing the feet most time. When taken out remove all the bones, season the meat with pepper, a little mace, cayenne, and salt if necessary. Then place the sword parts round the outer part of the inside of your brawn tin, and fill the tin with the meat, pressing it down with a heavy weight. The meat should be boiled very tender, almost till a straw would go through it.

PORK, &c., TO PICKLE.

To 4 gallons of water put 1½lb. of moist sugar, 2lb. of bay salt, 2oz. of saltpetre, 4lb. of common salt; let it boil, taking off the scum as it rises, until quite clear. Take the liquor off the fire, and let it stand until quite cold. Put the meat into the tub you intend to keep it in, and pour the liquor over it till it is quite covered. Meat will keep for three months if sunk in the pickle.

RABBITS, TO COOK.

There is a plan of cooking them followed in Spain. A stewpan or earthenware pipkin is taken, having a tightly-fitting cover, and of sufficient

size to hold a couple of rabbits when cut up into small pieces; also four moderate-sized Spanish onions in thin slices. A layer of sliced onion is placed on the bottom of the pan; on it a layer of the pieces of rabbit, previously seasoned with salt, pepper, and whatever other seasoning may be desired. This is covered with a second layer of onion, then rabbit; and so on, alternately, until the whole of the rabbit is used up. A few thin slices of raw bacon or ham are put over the last layer of rabbit; and all the remaining pieces of onion are placed on the top. The cover is then put on, and the whole stewed at a moderate heat for two hours. A slack oven, a hot plate, or hot hearth answers admirably. It is needless to say that, as no water may be added, if the pan is placed over the fire, the meat is burned and spoiled. At the end of two hours let it be turned out into a dish, and served up immediately, when it will be found to be a tender, delicious, succulent, gravy-teeming dish; far different from the insipid, dry, stringy, boiled rabbit and onion sauce, of the ordinary style. English onions answer very well; and, should the gravy (of which a large quantity is produced) be required to be slightly thickened, a teaspoonful of flour should be added to the seasoning, which is rubbed over the pieces of rabbit.

RABBIT, COLD, TO DRESS.

Joint your meat, beat up an egg or two, as you require, with a little grated nutmeg, pepper, and salt, some parsley minced fine, and some bread crumbs; dip the meat into the batter, sprinkle with crumbs, have ready some sweet beef-dripping hot in a pan, and fry the meat a light brown; thicken a little gravy with flour, put a large spoonful of ketchup to it, lay the fry in a hot dish, pour the gravy round it (not over it), and serve hot; garnish with lemon and toast.

SAUSAGES.

Three and a half pounds of lean pork, free from sinews, to be chopped first; then add and chop 2½lb. of fat. When it is smooth add 6 teaspoonfuls of salt, half a teaspoonful of common pepper, quarter of a teaspoonful of cayenne pepper, and 12 cloves. When quite smooth fill the skins.

SPORTSMAN'S DISH, A.

First fry some slices of bacon; take out the bacon, and leave a little fat; the pan must be very hot. Now put in the veal cutlet, turn it quickly, and fry it a bright brown colour on either side. When done, put it on a very hot dish; flour the pan, and let it become of a light brown. Take a basin, put a dessert-spoonful of flour, a salt-spoonful of salt, some Cayenne pepper, a salt-spoonful of white pepper; squeeze the juice of half a lemon and some of the peel shred fine, add half a pint of raw milk, and stir it all together. Pour this (previously prepared) on the brown flour in the pan, stir it

briskly, and let it boil about two minutes; should it be too thick, add a little more milk. Pour this upon the cutlet, and serve it up soon; the other half of the lemon to be cut in slices and garnish the dish.

A modern pasty is made of what does not roast well, as the neck, the breast, or shoulder. The breast makes a good pasty: Cut it into little chops, trimming off all the bone and skin; make some good gravy from the bones and other trimmings; place fat and lean pieces of the meat together, or, if very lean, place thin slices from the firm fat of a leg or a neck of mutton along with each piece; season the meat with black pepper, salt, pounded mace, and allspice; place it handsomely in a dish, and put in the drawn gravy, a quarter pint of claret or port, a wineglass of eschalot vinegar, and, if liked, a couple of onions, very finely shred; cover the dish with a thick crust. Before the pasty is served, if the meat be lean, more sauce, made of a little wine, gravy, mixed spices, and the juice of a lemon, may be put in hot. An hour and a half in a moderate oven is fully sufficient for baking an ordinary-sized pasty; an hour will do for a small one. Some cooks marinade the meat in the wine and other seasonings for a night, or for some hours previous to baking. This, no doubt, imbues the venison with the flavour of the seasonings, but at the same time drains off the juices, and hurts the natural flavour of the meat.

SOUPS.

COCKIE LEEKIE.

Stew a large fowl, a marrow-bone broken, 3lb. of beef cut into pieces, in 3 Scotch pints of water, with the white ends of 3 dozen fine leeks, until tender and well flavoured. Before serving add ½lb. of prunes. Dish without the beef and marrow-bone.

COD OR LING SOUP.

Take a large, very fresh cod or ling, the tail half to be fried brown; put down with the other half to boil, with four or five onions, some celery, and as much water as will be sufficient to make a good tureen of soup, allowing for some to boil away; when all the substance of the fish is extracted, strain it, and add some celery and carrots that have been first boiled in water, some cayenne pepper, a teacup of ketchup, some mace, and three or four cloves; let all boil about half an hour.

GOURD SOUP.

Take 2lb. of gourd peeled and cut into dice about 1in. square; put it into your pan with 3oz. of salt butter or fat, 2 teaspoonfuls of salt, the same of sugar, and a little pepper, and ½ pint of water; stew gently until it is quite

soft. When in a pulp, stir in well 2 table-spoonfuls of flour; then add 3 pints of new milk, or 2 pints of milk and 1 of cream, or 3 pints of stock, but do not mix the stock and milk. Boil for ten minutes, and serve with fried toast cut in small squares.

JERUSALEM ARTICHOKE SOUP.

No. 1.—Wash and pare quickly some freshly dug-up artichokes, and, to preserve their colour, throw them into cold spring water as they are done, but do not let them remain in after all are ready. Boil 3lb. weight in water for ten minutes, lift them out, and slice into 3 pints of boiling stock; when gently stewed for fifteen or twenty minutes, press them with the soup through a fine sieve, then put into a clean saucepan with 1½ pint more stock; season with salt, cayenne, &c.; skim, and after it has simmered two or three minutes, stir into it 1 pint of rich boiling cream; serve immediately.

No. 2.—Take two dozen artichokes, stew until tender in good veal stock, then press them through a hair sieve and then through a tammy; put into a clean stewpan, stir a little arrowroot to thicken, and then ½ pint of raw cream to about half a tureen of soup.

No. 3.—Four heads of celery, 4 onions, 12 or more Jerusalem artichokes. Stew the above in ¼lb. of butter until it is soft enough to rub through a sieve. Then add some veal broth; and, if you wish to make it a white soup, add to this ½ pint of boiling cream.

LEEK SOUP.

It is made with good mutton broth or pot liquor, chopped leeks, pepper and salt. When these have simmered an hour, mix a little oatmeal with cold water, quite smooth, and pour it into the soup. Set it on a low part of the fire, taking care it does not burn.

SOUP FOR THE POOR.

One hundred and fifty-five quarts of water, 24lb. of beef, 4½lb. fat pork (sticking pieces), 14 quarts of peas, 9lb. of onions, 18lb. of potatoes, 3½lb. of salt, 4oz. of pepper, 24 parsnips, 24 carrots, and 3½lb. of oatmeal. The beef and pork to be cut up in moderate sized pieces, and the whole materials to boil slowly for at least twelve hours. Before serving add two loaves cut into small dice.

SOUP MAIGRE.

No. 1.—Take the crumb of 2 penny rolls, 3 pints of skim milk, 3 onions, and 1 head of celery. Boil very gently till the bread is dissolved, then pass it through a sieve, first taking out the onions. Beat a few sweet almonds in a mortar till they become a paste, and stir it into the soup with a little salt. Serve very hot.

No. 2.—Cut 3 small or 1 large cucumber into slices, not too thin; cut up 2 large onions, 2 large lettuces, 2 sticks of celery (when out of season, add any flavour you please), ¼lb. of butter; put into a closed stewpan, over a stove fire, and leave it to simmer for an hour and a half; then add 1 pint of spinach juice, 2oz. of bacon, cut up in small dice. Leave it to stew till wanted. In serving up add 2 pints of boiling water. Sorrel may be used in place of spinach where preferred.

No. 3.—Recette de potage maigre, le meilleur—voici ce dont il s'agit: Carottes, navets, poireaux, petits-pois, six ognons moyens, une branche de céléris. Emincez le tout, et faites passer sur le feu avec un bon morceau de beurre frais jusqu'à occurrence de couleur blonde, ensuite mouillez à l'eau, laissez cuire, et après faites passer au tamis. Joignez-y du riz blanchie à grande eau; ou bien de petis croûtons de pain frits au beurre.

No. 4.—One quart of split peas, 2 onions, mint, 3 celery heads, boiled slowly seven to eight hours, with 2 quarts of water added gradually to them. When the peas are quite soft, pass them through a sieve. Put them again on the fire, adding salt and white pepper, and thinning it with milk, to taste; fried bread and mint to be served separate with the soup.

SWEETS.

ALMOND ICING.

No. 1.—Take some blanched sweet almonds, and beat them in a mortar with a little rose or orange-flower water (to prevent them from oiling) sufficient to form a layer of 1in. thick on the cake. Let it dry in a slow oven; frost with pounded lump sugar and white of egg. This must be dried in the same manner.

No. 2.—Separate the white of three eggs from the yolks. There must be no yolk, or they will not whip firm; put them into a tin or copper basin; pound some sugar very fine, rub it through a sieve; scald bitter almonds, and pound in a mortar; mix them with the sugar—say 2oz.; beat the white of egg with a whisk until it becomes like snow, but with more consistency; mix the sugar with egg, then spread it over the cake, put it to dry hard in the oven, which must be of moderate heat.

No. 3.—Beat 2lb. of double-refined sugar with 2oz. of fine starch; sift through a gauze sieve. Then beat the whites of five eggs with a knife upon a pewter dish for half an hour. Beat in your sugar a little at a time, or it will make the eggs fall and injure the colour. When all the sugar is put in, beat it half an hour longer; and then lay on your almond icing, spreading it even with a knife. If put on as soon as the cake comes out of the oven, it will harden by the time the cake is cold; 1lb. of Jordan almonds should be beat very fine with rose-water.

APPLE JELLY.

No. 1.—The Keswick codlin is the best kind of apple to use, as it is the most juicy. Pare and core the apples, and put them (without water) into a covered jar in the oven till they are reduced to a pulp; then strain off the juice through a sieve, set it on the fire to boil, and to every pint of juice add 1lb. of lump sugar, and boil till it will set.

No. 2.—Wash the apples and wipe them dry; fine red, juicy ones are best; cut them in eight, but do not pare them; lay them in large jars, and bake till quite soft in a cool oven; then pour the fine juice from them, and put the pulp into a jelly-bag to run the remainder of the juice through. To 1 pint of juice add ¾lb. of lump sugar and a little lemon-peel; boil about twenty minutes, or until the jelly sets, carefully removing the scum. This recipe takes a great quantity of apples.

No. 3.—Quarter as many apples as you intend using, but neither peel nor core them. Pack them as closely as possibly in a preserving pan, and pour spring water on them till nearly covered; put them on the fire, and let them boil till almost a pulp, then pour them through a jelly-bag, and let them drop as long as they will. You must not squeeze the bag, but to every pint of clear juice give 1lb. of lump sugar, and put it on the fire again, and let it boil quickly till it is thoroughly jellied, which it will be in about an hour. This jelly will keep for years. It ought to be made before the apples are too ripe.

AVON PUDDING.

Put ½lb. of bread crumbs into a basin; add 2oz. of sago, 6oz. finely chopped suet, 5oz. of sugar, 4oz. of sultana raisins, 6 eggs, ½ gill of rum, and 2 table-spoonfuls of apricot jam. Mix all well. Well butter interior of a pudding basin, add the mixture. Put some water in a saucepan, and when beginning to boil, put in the basin, which should be little more than half immersed, and put on the lid. Boil gently for two hours over a slow fire. For sauce put in a small pan 2 table-spoonfuls of any kind of preserve and 2 glasses of sherry, rum or brandy. Warm gently and when boiling take the pudding out, turn out in a dish, pour on the sauce and serve.

BAKED CUSTARD.

Beat up 4 eggs. Mix in a pint of milk, flavour to fancy, pour it into a pie dish with crust round the edge, and bake it.

BOILED CUSTARD.

Beat up 4 eggs, first placing a pint of rich new milk in a clean saucepan with six laurel leaves near the fire to be getting warm. When the eggs are well beaten let the milk boil, pour it to the eggs stirring the mixture,

sweeten to taste and let it simmer gradually, stirring it all the time until cooked enough, which will be when it begins to thicken. Pour it into the basin again and stir it until nearly cold. When partly cold take out the laurel leaves and pour into glasses.

CALVES' FOOT JELLY.

Scald 4 feet, and when quite clean let them remain in cold water an hour; then put them on to boil in 3 quarts of water till reduced to 1½ pint; strain through a sieve, and let it stand till quite cold. Take off all the fat, and be very careful not to take up any of the settling at the bottom. Put it into a clean stewpan, with the juice of 2 lemons, the whites of 6 eggs well beaten, ¼lb. loaf sugar, and ½ pint white wine. Let all just boil, remove it from the fire, and when a little cool pour it through a flannel bag on the egg shells; this must be repeated until it is quite clear. Put the rind of 1 lemon into your mould, and pour the jelly on it.

GOURD PUDDING.

Two pounds of gourd, 3oz. of fresh butter, 1 teaspoonful of salt, 3 table-spoonfuls of sugar; stew till it can be reduced to a pulp; then flavour with lemon peel or almonds. Serve up in a flattish dish which has been lined with a light paste. About twenty minutes will bake it a nice brown colour. It is very good to be eaten cold.

HALF-PAY PUDDING.

Four ounces each of flour, suet, currants, raisins, and bread crumbs, 2 table-spoonfuls of treacle, and ½ pint of milk. Mix all well together, and boil in a mould three hours. Serve with wine or brandy sauce.

ICING PLUM CAKES.

No. 1.—One pound of double-refined sugar, 2oz. of starch, dry and beat them well together; the whites of 8 eggs, beat them to a stiff froth; take 1 spoonful at a time of the egg, and mix in with your sugar; add a little rose-water; beat all well together with a wooden spoon. When the cake is taken out of the oven, the icing must be spread on with a knife, and the warmth of the cake will dry it. There should be almond icing under the other, and the ingredients are the same as for macaroons.

No. 2.—Beat the whites of 4 eggs to a solid froth, add gradually ¾lb. of refined sugar, pounded and sifted; mix in the juice of half a lemon, beat it till very light and white. The cake should be cold. Place it before the fire, pour over it the icing, and smooth over the top and sides with a knife. It might be set to dry at the mouth of a cool oven.

No. 3.—Beat the white of an egg to a strong froth, and add to it by

degrees 4oz. of loaf sugar, pounded and sifted, and as much gum as will lie on a sixpence; beat half an hour, and pour over your cakes.

MADEIRA CAKE.

Whisk 4 fresh eggs until they are as light as possible, then continuing still to whisk them, throw in by degrees the following ingredients in the order which they are written; 6oz. of dry, pounded, and sifted sugar; 6oz. of flour, also dried and sifted; 4oz. of butter dissolved, but not heated; the rind of a fresh lemon; and the instant before the cake is moulded, beat in the third of a teaspoonful of carbonate of soda; bake one hour in a moderate oven. Observe particularly that each portion of the ingredients must be beaten into the mixture until no appearance of it remains, before the next is added. If this be done, and the preparation kept light by constant and light whisking, the cake will be as good, or better, than if the butter were creamed. Candied citron may be added.

NEW YEAR'S CAKE.

Buy or make 6 light sponge raspberry rolls, which cut into slices half an inch thick; lay them in a dish in a circle, one lying half over the other; put in an oven for ten minutes; add in a small stewpan 2 table-spoonfuls of currant jelly, 2 glasses of sherry; put on the fire, and, when boiling, pour over and serve. Any jam will do.

OATMEAL PORRIDGE.

Put a little salt into some boiling water, and then put the meal in, stirring all the while with a wooden spoon. If it is not stirred it will be in lumps. Boil about twenty or twenty-five minutes. The meal should be strewed into the pan from the hand a little at a time, stirring all the while.

POT-POURRI.

No. 1.—Have the rose-leaves and lavender well dried—each separately—before they are mixed *en masse* with the rest. Above all things, let no bay salt be used. This is the cause of pot-pourri always, after a time, emitting a disagreeable and heavy scent. Add to the leaves everything that is sweet in itself, and gains no bad smell by being dried—as violets, jessamines, and geranium leaves, many of the small-leaved pelargoniums, roses, bay-leaves, sweet rush, or *acarus*, both in the dried root, in thin slices, and the flag. Never omit plenty of the clove-pink, as it preserves its colour as well as its scent. As to proportions, say to 2lb. of well-dried flowers add ½oz. (each) of bruised cloves and cinnamon, and cascarilla bark; and 1oz. (each) of dried sweet-rush, sandal-wood chips, dried orange and lemon peel, pounded iris-root, gum-benzoin, gum-elemin, frankincense, gum-mastic, and at least

100 grains of musk, which brings out the odour of the sweet things it is associated with.

No. 2.—The following recipe for pot-pourri is first-rate: Coriander seeds, 3dr.; rose leaves, sweet flag root, and orris root, of each ½oz.; gum benzoin, ½oz.; oil of cinnamon, oil of cloves, of each 30 drops; musk, 4gr.; lavender flowers, ¼oz.; the whole to be well mixed together and put through a coarse sieve.

No. 3.—One of each of the following ingredients powdered: Orris root, gum Benjamin, storax, and cloves, ½oz. nutmegs grated, ½oz. orange rind (also grated), 2lb. fine bay salt. Gather all the sweet-scented flowers and leaves you can get, dry them slightly in the shade, then put them in a pan in layers, strewing the salt and spices between each layer; cover the pan close for a few days, then stir the pot-pourri well up and put it into your jars.

No. 4.—Dry rose leaves in the shade, then lay them in your pot with salt between every layer of leaves; add to it dried orange-peel pounded with cloves, mace, and cinnamon. Add dried lavender.

RICE CREAM.

Put into a stewpan 4oz. of ground rice, 2oz. of sugar, a few drops of the essence of almonds, or any other essence, with 2oz. of fresh butter; add a quart of milk, boil from fifteen to twenty minutes till it becomes smooth, then pour into a mould, and serve when set.

STEWED PEARS, TO COLOUR.

Any real stewing pears will take a fine red colour if stewed in a block-tin vessel.

WINE LOZENGES.

Steep 1oz. of isinglass in water for twelve hours (use a very little water for this purpose), then boil in 1 pint of port or Madeira wine until evaporated to one-half; pour into a mould; when cold, cut into lozenges with a large pair of scissors. These are highly tonic, used in moderation.

VEGETABLES.

DOCK, TO DRESS.

This makes a capital dish boiled with one-third of nettles and a little carbonate of soda. When done, strain, and to a pint basinful add 1 onion sliced and fried, a sprig of parsley, a little butter, pepper, and salt. Put into a stewpan on the fire, stir, and gradually add a handful of oatmeal. When the meal is sufficiently boiled, serve as a vegetable.

GOURD AS A VEGETABLE.

Line a pan with thin slices of fat bacon, and put into it 1lb. or 2lb. (according to the size of the dish required) of the gourd peeled and cut in pieces, a little butter, pepper, and salt; stew till tender; then add a little milk or cream. Put into a mould, and turn out.

GOURD ENTREMET.

Cut slices of the peeled gourd, put upon each a little pepper, salt, and a few drops of essence of anchovy; fry on both sides to a nice brown, and serve up hot.

MANGEL WURZEL, TO DRESS.

The young leaves dressed like nettles (see "Nettles, to Dress") are extremely good.

MORELS, AND HOW TO COOK THEM.

Take them (dry) and shake them in a cloth for about fifteen minutes, to get the sand out of them; then put them in an earthen crock or bowl, with a good large pat of butter, a little salt, pepper, and a dessert-spoonful of ketchup; cover the bowl, and put to steam by removing the lid of a boiling kettle, and putting the bowl where the lid ought to be. Eat with bread and butter. If the kettle is boiling, about fifteen minutes will steam them.

NETTLES, TO DRESS.

Nettle tops make an admirable spring dish. To dress them, wash well, drain, put into boiling water with a little salt, boil for twenty minutes, drain, and chop fine; serve plain, or put them in a pan, with a little salt, pepper, or bit of butter, or a little fat and gravy from a roast; or add to a pound 2 teaspoonfuls of flour, a gill of skim milk, a teaspoonful of sugar, and serve with or without poached eggs. This dish may be obtained five months in the year.

PEAS, TO STEW.

Take a quart of shelled peas, a large Spanish onion and 2 lettuces cut small; put them in a saucepan with half a pint of water; season them with salt, pepper, mace, and nutmeg; cover close, and stew a quarter of an hour; then put in ¼lb. of fresh butter rolled in a little flour, a spoonful of ketchup, cover close, and simmer gently an hour, often shaking the pan.

LIBRARY, THE.

GREASE-SPOTS IN BOOKS.

No. 1.—A hot iron and a piece of blotting paper will sufficiently remove any such spots.

No. 2.—The application of benzole will remove grease from almost

anything, applied with white linen rag or chamois leather; the smell goes off very soon.

No. 3.—After having warmed the paper, take as much of the grease or oil out as possible by means of blotting paper. Then dip a small brush in well-rectified essential oil of turpentine, heated almost to ebullition, and draw it gently over both sides of the paper, which must be kept warm. This operation must be repeated as often as necessary. Then dip another brush in highly-rectified spirit of wine, and draw it over the place which was stained, and particularly round its edges. The spot will thus totally disappear, and the paper assume its original whiteness; and though written on or printed, no harm will ensue.

INK FROM PARCHMENT, TO REMOVE.

Chloride of lime will remove ink from old deeds; you must, however, be careful in using it, or you may destroy the parchment at the same time.

MISCELLANEOUS.

BAROMETER, TO MAKE.

Take a common glass pickle-bottle, fill it within about 3in. of the top with water, then take a Florence oil-flask (remove the straw covering and clean well out from all remains of oil) and plunge the neck of the flask into the pickle-bottle, and the barometer is complete. In fine weather the water will rise into the neck of the flask, even above the mouth of the pickle-bottle, and in wet and windy weather it will fall to within an inch or so of the flask's mouth.

BLACKTHORN STICKS.

No. 1.—If it is wished to straighten the sticks without injuring the bark, hold them before a fire and keep rubbing any kind of grease (lard is best) into them for half an hour or more, after which time you will be able to turn them into any shape you please. Then let them rest for some days, after which rub them perfectly clean and dry. You may then varnish them with the best copal varnish, taking care to apply it with the first finger (use no brush), as thinly as possible, and place the sticks to dry in some clean and sunny spot. If one coat of varnish is not sufficient lay on another when the first has become quite dry. Handle them as little as possible for a week or two afterwards.

No. 2.—Grease the stick well, wrap it in brown paper, and bury it in a dunghill for a few days, taking it out and straightening it over the knee occasionally, if not perfectly straight by nature; when the bark is well soaked it should be polished with black-lead—a stick so prepared does not

require varnish. If, however, varnish is preferred, nothing answers better than shellac dissolved in spirit of wine.

BRASS MUSICAL INSTRUMENTS, TO CLEAN.

Finely-powdered whiting, made into a paste with spirit of wine, and applied with a rag, to be rubbed off with a wash-leather.

COLD CREAM.

No. 1.—Two ounces spermaceti, 4oz. oil of almonds, 1 pint of elder-flower water, and a bit of white wax; put all (excepting the elder-flower water) into a clean saucepan to dissolve, but not to boil; then put it in a basin, and pour the elder-flower water in by degrees, till it is cold and white, continuing to beat it all the time.

No. 2.—White wax and spermaceti, of each, ½oz.; oil of almonds, 4oz.; orange-flower water, 2oz.; melt together gently in an earthen vessel, and when nearly cold stir in gradually 12oz. of rose-water.

No. 3.—Take of hogs' lard, well washed, ½lb.; oil of almonds, ½lb.; white wax, 4oz.; rose or orange-flower water, 6oz. Melt the oil and lard together, and when nearly cold mix in gradually the orange or rose-water, working it up with the hands or a wooden spoon.

No. 4.—Three ounces of oil of almonds, ¼oz. of spermaceti, ¼oz. of white wax melted thoroughly in a "bain-marie;" when well melted pour into a bowl and beat with a bone or ivory fork until nearly cold, and then add (a few drops at a time and alternately) 1½oz. rose-water, and 1½oz. glycerine. Perfume with a few drops of otto of roses. This will not make the cream very stiff; if wanted quite hard, put ½oz. of white wax. If preferred without glycerine, 3oz. of rose-water must be added. The cost of it should be between 3*s.* and 4*s.* It will require to be beaten, on adding the rose-water, for at least an hour. A "bain-marie" is a china dish or cup placed in a saucepan of water and heated.

No. 5.—Spermaceti, 1½oz.; white wax, 1oz.; almond oil, 8oz. Melt them together over a very slow fire, stir well with a wooden fork, and in this way beat in as much rose-water as possible while the mixture is cooling. If it is done well it will be as light and white as snow. It should be stirred till quite cold.

DRAG, TO MAKE.

Tie two pairs of old woollen stockings in a bunch to 2 yards of strong string, and steep it first in strong brine, and then, after pressing out the brine, in sixpennyworth of oil of aniseed and fourpennyworth of oil of turpentine. This will do for six or seven miles. For a dozen miles one shilling's worth of the former and eightpennyworth of the latter, putting

one half on at the commencement, and the rest at the beginning of the seventh mile.

DYEING.

Logwood chips boiled in water, with a little alum, make a very pretty mauve.

ELECTRIC KITE.

The electric kite is framed like a common boy's kite, but covered with oiled silk instead of paper; at the head of it are placed three copper wires, finely pointed, a fine wire leading from them to the string, which is made on purpose, resembling any common kite string, but having a very fine wire (copper) twisted in it through its whole length; this string is wound on a winch isolated on glass supports, and fixed on a sort of bench or table. The electricity is discharged by placing, with a pair of glass-handled tongues, a metal chain from the winch to the nearest stream, or water, without which conductor to carry off the electricity it would become dangerously charged.

EMBROIDERY, PATTERNS FOR.

In the first instance the patterns are drawn on strong, but not thick, white paper; the lines are then pricked through with a fine needle, the holes being made tolerably close together. The pattern, so pricked, is then placed over the velvet or other material, and a small quantity of finely-powdered chalk or charcoal rubbed over it with a rubber, formed of pieces of woollen cloth rolled up, and cut off endways. Chalk is used for dark fabrics, and charcoal for light ones. The figures are then traced over with a camel-hair pencil, and flake-white and gum, or Prussian-blue and gum, or the lines would disappear long before the work could be finished. The process for patterns upon muslin differs slightly from the above; the same sort of perforated papers are used, but the powder employed is composed of finely powdered Prussian-blue and gum sandarac. The muslin is covered with a sheet of thin paper, and a hot smoothing-iron passed over it; the heat melts the gum, and renders the pattern sufficiently permanent.

FLOWERS, CRYSTALLISING OF.

Dissolve 18oz. of pure alum in a quart of soft spring water by boiling gently in a close tinned vessel over a moderate fire, stirring it gently with a wooden spoon. When the liquor is almost cold, suspend the flower by means of a piece of string fastened to the flower, and also to a piece of stick laid horizontally over a deep jar, into which the solution has been poured. Let it remain in twenty-four hours. When taken out, hang in the shade until perfectly dry. The warmer the solution is when the flower is placed in it, the smaller will be the crystals formed, and *vice versâ*.

FADED FLOWERS, TO RESTORE.

Place the flower in a small empty tea-cup or scent-bottle. Half fill a saucer with water, in the centre of which place the cup or bottle containing the flower, over which invert a tumbler the top of which rests in the water, covering the flower in the cup and excluding the air. In a short time the faded flower will revive, the colour return into the petals, which quickly expand, and the scent returns as powerfully as when the flower is first plucked. Care should be taken that the flower does not come in contact with the sides or bottom of the inverted tumbler.

WINDOW FLOWER BEDS.

Set a slab of slate or stone firmly in the window-sill; obtain earthenware tiles 7in. high, with iron pins let into the bottoms to fit into corresponding holes in the slate bed. The tiles should also have holes drilled through them at the bottom, to drain off the water. Fill with leaf mould.

INDIA-RUBBER, TO DISSOLVE.

India-rubber will dissolve in rectified spirit of turpentine. First cut the rubber into fine pieces, and put into a large bottle; as it gradually thickens add more spirits to the required consistency.

LUBRICANT, NEW.

As a lubricant for taps for hot and cold water and for gas, take india-rubber of good quality (not vulcanised), cut into small pieces, and melt it in an iron ladle or spoon, using only just sufficient heat to liquefy it. It does not oxidise, nor does it appear to alter by keeping; but it is rather viscid, as compared with the oils usually employed.

NEATSFOOT OIL, TO MAKE.

No. 1.—Take 4 ox feet with the skin on up to the kneecaps, and keep them eight days tied up in straw in a warm place; then pluck all the hair off, and break the joints and bones; boil them slowly in 10 imperial pints of water for twelve hours. The oil will then rise to the surface of the water, and can be skimmed off and drained. Let it stand one night, and then put the oil in a little clean boiling water, and skim it off again, when it will be found to be quite clear and free from mixture.

No. 2.—Take 4 feet of a good well fed bullock; take off the hoofs, and with a little pounded unwrought resin rub them once over against the grain of the hair; then lay them in very hot water for a few minutes, when the hair will be quite easily removed without injuring the skin. They must now be laid in cold spring-water to blanch for twenty-four hours, the water being changed several times. When this process of

cleaning the feet is over, put them into a large soup-pan with from 4 to 5 gallons of cold water. Set this on a hot plate or very slow fire. When near the boiling point skim off anything that may rise to the surface; then, when quite boiling, throw in a cupful or two of cold water, and skim again for about five minutes; after which, leave the pan undisturbed to boil gently on a very quiet fire for twelve hours, at the end of which time it should be strained through a hair sieve into a wide deep earthenware basin, and left in a cool place for twelve or sixteen hours. By this time a beautiful yellow oil will have arisen to the surface, which is to be carefully skimmed off into a clean jar or basin. Be careful not to allow the spoon to come in contact with the solid mass below; otherwise the oil will be muddy; but, if executed as above directed, you should have a pint of very fine pure neatsfoot oil. If thought advisable, it may be passed through a piece of muslin before being bottled. The substratum is not valueless, as it is the best stock for white soup and calf's-foot jelly.

OIL CASKS, TO CLEANSE.

Put in an armful of shavings and set fire to them, then roll the cask about very sharply, so that the flame plays all round the cask and burns off the oil or grease from the inside.

OSTRICH FEATHERS, TO RESTORE.

Take an old penknife, not very sharp, and holding the feather in your left hand, draw its fibres (not more than two or three at a time) under the blade of the penknife, pressed against the ball of the right thumb. This causes them to curl at once; but, until the knack is acquired, it is best to draw the fibres one by one, if the performer has sufficient patience.

PAVING OF COURTYARD, TO REPAIR.

No. 1.—Pour coal-tar or asphalte into the niches between the paving-stones, and riddle over it coal-ashes, sand, or gravel, so as to make the tar solid between the stones. Weeds will not, after this application, grow between the joints.

No. 2.—Make the cavity between the stones still larger (if possible) by scraping out all dirt or earthy matter. After a few days, when the stones are dry, and when the weather is settled so as apparently to insure at least three or four dry days, and no chance of frost, procure some of the best grey chalk, or stone hydraulic lime, perfectly fresh from the kiln (if ground the better); mix it with about one third part of clean coarse river sand, or road-drift sand (well washed); put a portion in a tub or bucket with as much water as the lime will take, keeping it well stirred till the lime is completely slaked, and adding either lime or water till the mixture is of a

moderate consistency; then pour it over the whole surface of the yard while in a hot state (doing a few square yards at a time), taking care to fill every crevice to the top level of the paving; spread over the surface, while the mortar or grout is in a soft state, a thin coating of small clean-washed gravel from the size of a pea to a nut. Ram the surface, but more particularly between each stone, with a small rammer (not using too much force), and leave the whole to set, first sprinkling over it a little coat of fine sand. On no account use a broom to sweep it, or allow much (or any) heavy traffic over it for two or three weeks, or until the concrete is quite hard. The paving will be level, and the weeds will not readily grow. The large and deeper the joints between the stones the better the plan will succeed.

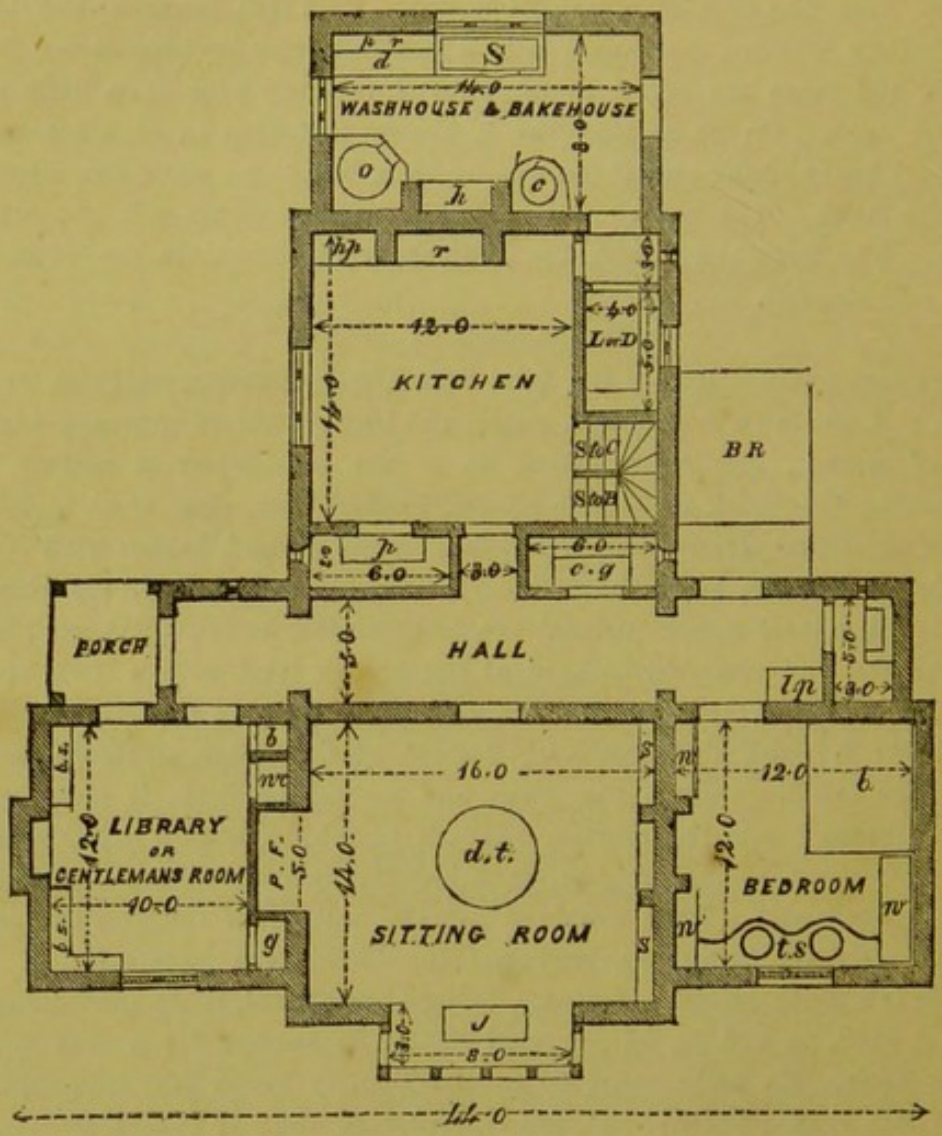
PORTLAND CEMENT, TO LAY.

The cement costs 10*s.* or 12*s.* for a barrel of dry powder, weighing nearly 2cwt.; it has to be mixed with water, and three parts of coarse gravel to one of cement, thoroughly mixed up to the consistency of mortar. A bottoming 6in. thick of broken stones, broken tiles, slag, road metal, or anything of that description, is first laid on the ground, beaten hard down, and levelled to 3in. below the future surface. Then levelling-rods (slips of wood with a level upper surface) are laid parallel, at 6ft. apart, or 12ft. if you please, and temporarily fixed at the proper level with a little of the mortar. The mortar is then thrown down in hodfuls, in the space between the rods; a board, with a perfectly smooth straight edge, stretching across from one levelling-rod to the other, and resting on both, is then drawn slowly forward over the mortar, which is thus brought to a uniform level, and after about an hour may be made beautifully smooth with a plasterer's steel "float," and a little unmixed cement, wetted to the consistency of cream. Gravel being the principal ingredient, the cheapness of the article is a great element of cost. Where good, hard, flinty gravel can be had at hand, 2*s.* and 2*s.* 6*d.* per yard should be enough for a coat 3in. or 3½in. thick. No more must be wetted than is to be laid immediately, as it sets very quickly; but, notwithstanding that, it is not thoroughly hard for about six weeks, which is often an objection. It makes a very pretty, stone-coloured, seamless floor, and, not being entirely impervious to moisture, after washing it dries on the surface about as quickly as pavement.

SPORTING LODGE, DESIGN FOR A.

It is entirely a ground-floor erection, in which warmth and ventilation, privacy and facility of access to all the rooms, have been carefully studied. It contains a general sitting-room, in which six or eight persons may dine with comfort; a bedroom, with wardrobes and toilet conveniences for a

gentleman and lady; a library or gentleman's room, entered from the porch as well as from the hall, and fitted with book-shelves, gun and tackle closet, washing and boot closet, and ample space for a "shakedown" for a bachelor friend.



WASHHOUSE.
d dresser.
p r plate rack over.
s sink.
o oven.
h hearth.
c copper.

KITCHEN.
h p hot plate.
r range.
L or D larder or dairy.

S C stairs to cellar.
S B stairs to bedroom.
p pantry.

HALL.
c g china and glass stores.
l p linen press.

LIBRARY.
b s bookshelves.
b boots.
w c washing closet.
g guns and tackle.

SITTING-ROOM.
d t dining-table.
P F recess for pianoforte or sideboard.
J jardinière.
S S sideboards or cheffonniers.

BEDROOM.
w w w wardrobes.
t s toilet-stand.
b bed.

B R A bathroom, supplied from the kitchen range, can be built here if desired.

The hall separates the rooms from the offices, and in it are, large closet for china, glass, and stores, a linen-closet, and water-closet, with porch entrance at one end, and a glass door to the garden at the other. The kitchen is sufficiently large for such a *ménage:* it has a modern cooking range, hot plate, a convenient pantry, a larder or dairy, with stairs leading to two chambers in the roof over kitchen and hall, and to the cellar under the hall, pantry, and china closet. A lean-to at the end of the kitchen provides a roomy washhouse and bakehouse, where most of the kitchen work may be done.

The out-offices, stables, kennels, &c., will be arranged according to the special requirements of the case.

The walls of the house and kitchen will be 9ft. to the eaves, and by nailing the ceiling joists of the library, sitting-room, and bedroom 3ft. up the rafters, a neat coved ceiling 12ft. high may be obtained. The materials will be those which are most readily obtained on the site, and the roof covering either of slate, tiles, or thatch of reeds or heather. The style of elevation must be left to the taste of the proprietor; it can be either simple or ornamental, domestic, Gothic, or Swiss; but it will be most desirable to assimilate it to the natural features of the surrounding scenery.

TURKISH BATH, SUBSTITUTE FOR.

No. 1.—Take a large horse-rug or travelling wrapper, strip the body and envelope it in the rug; place underneath a cane-bottomed chair a saucer full of spirit of wine, or other proof spirit, set it on fire and sit on the chair completely covered with the wrapper. In a few minutes the whole body will be in a bath of perspiration, and if the proper precautions are taken to rub dry and get into a warm bed, there will be a complete cure of cold, sore throat, rheumatism, or whatever ailment it was desired to operate against.

No. 2.—Procure a good-sized ordinary shower-bath; have it placed in a room where there is a fireplace. Instead of curtains have it fitted closely with zinc all round, and a closely-fitting zinc door, to go in and out. Have a seat also fitted inside, with room left for a small foot-bath for hot water. Procure a good-sized pot, boiler, or kettle, with a small screw top, and a pipe leading out near the top (the boiler to be placed on the fire when the bath is in use); it might also be fitted with a safety-valve. A country ironmonger with any "nous" might do it. Lead the end of the pipe into the bath through the zinc side, and have a stop-tap at the end. Half fill the boiler with water, and before entering the bath have the top part filled with hot or cold water. Have the bath filled with steam before entering, which can be turned on or off at pleasure whilst seated, by means of the stop-tap; and when steamed sufficiently, pull the string for the shower.

TWINE NETTING, TO PRESERVE.

No. 1.—Mix white lead with boiled oil (linseed) to the consistency of thick cream, in which steep the net till thoroughly soaked; squeeze, and spread out to dry; it will then last about seven years.

No. 2.—Send the nets to a tanyard and allow them to remain three or four days in the bark pits.

WALNUT STAINS.

The juice of a lemon is a good remedy for walnut stains on the hands.

Walnut stains are easily removed by rubbing them with the green husk of the walnut, and afterwards with soap and water.

Rub the hands well in soda and water with pumice-stone or sand.

WATERPROOFING CANVAS.

To 1oz. of white wax, melted, add 1 quart of spirit of turpentine, into which, when thoroughly mixed and cold, dip the calico, then hang it up to dry. By this method muslin as well as the strongest sail cloth will be rendered impenetrable to the hardest rain, while the material thus rendered waterproof will remain perfectly supple.

Cut india-rubber into small pieces and put it into a bottle with spirit of turpentine (or wine), and shake the bottle every day till the rubber is dissolved; then soak the canvas in this till it is saturated, and when dry it will be waterproof. In waterproofing a linen cover, make it slip on very loosely, and make the button holes, and sew on the buttons or strings, then with a painter's brush give it a thin coat of boiled linseed oil, and spread it out to dry in the sun, and when it is dry, give it another coat.

Again: Four ounces of sugar of lead, 6oz. of alum; dissolved in 12 quarts of boiling water; steep the clothes in it for forty-eight hours, allowing it to get cold; hang up to dry without fire heat.

Another: One pound of sugar of lead, 1lb. of alum. Pound separately, and mix in a basin, and then pour 2 quarts of boiling water on the mixture; let it stand six hours, and then bottle off for use. Apply it to the cloth with a sponge or soft brush, on a table, till well saturated, and then iron it over, and hang up to dry.

Another: Dissolve 2oz. of sugar of lead in 2½ gallons of water, and 4oz. of alum in another 2½ gallons of water; dip the article in the first, hang it up till it has dripped nearly dry, and then dip in the second solution; when dried, it will turn any wet.

Again: Raw linseed oil, 1 quart; sugar of lead, 6oz.; white resin, 2oz.; mutton suet, 2oz.; to simmer on the fire about an hour. When cool apply one or two coats with a paint-brush.

WHITE ENAMELLED BELTS, TO CLEAN.

A little new milk applied with a flannel or sponge to the belts will clean them.

YACHT SAILS, MILDEW ON.

No. 1.—Apply a solution of chloride of lime; all marks of mildew will disappear.

No. 2.—To get mildew out of sails the following plan may be tried with success: 1, whitewash the sail on both sides; 2, leave it to dry; 3, roll and unroll it several times; finish by beating and dusting the whole of the whitewash out. Care must be taken that the lime does not come in contact with the roping, or all the tar may be stripped from it. Dipping the sails in a solution of bichloride of mercury effectually prevents mildew, however much they may be exposed.

PETS.

CATS.

To cure from killing Chickens or Cage-Birds.—No. 1.—To teach a cat not to interfere with cage-birds rub its nose against the wire of the cage. It does not require the application to be anything like harsh or cruel to effect the end in view. The cage and bird should be placed on the floor, near enough to the operator to protect it from any sudden spring of the cat, and as soon as she makes any attempt or even a good pretence, pounce upon her and give her nose two or three rubs across the wires, and let her immediately go, that she may have as little reason as possible to fancy you did it; even stroke and pet her, so as to leave her under the impression as much as possible that the inconvenience she suffers under arises from the cage and bird, and that they are the punishing things. After this lesson leave the cage down on the floor with the cat, and watch them for five or ten minutes, when, if she shows any improper disposition to approach them, repeat the rubbing of her nose across the wires. The following week favour her with another such lesson, and, unless she has killed and eaten a bird from a cage prior to this, the cat will be quite educated. However, a lesson or two additionally may be given her, remembering your object is not only to have the cat frightened of a cage and bird in your presence, but to also abhor their too near proximity to her. A very good effect may also be produced upon her after her nose has had a rubbing, by advancing the cage and bird towards her whenever she wistfully appears to watch them, as this has a cowing effect. The same principle should apply to a cat and chickens; let the chicken's bill be made to peck her by holding it in one hand, while the other retains the cat. Let the chicken flutter a little, and with a small switch hit the cat, as if it was done by the chicken,

In this case a small birch of thin sticks is the best, and the lesson may continue for five minutes or so; but during the same time, when she lowers her ears and seems subdued, coax her, and as soon as she stirs bring the chicken's wing flopping upon her, and with it the rod.

No. 2—Put the cat into the coop for a couple of minutes. The welcome she will get from the mother will be of such a nature not easily to be forgotten by her.

No. 3.—If a chicken dies put plenty of cayenne inside it and lay it in the cat's way, so that when she attempts to eat it she may find it too pungent.

Poaching, to prevent.—It is said that cropping the ears of cats when very young will prevent their poaching.

GUINEA PIGS.

Guinea pigs thrive and breed well in common hutches, such as are used for rabbits. An ordinary-sized hutch will hold about four does and a buck. The best food is pollard and oats. The pollard should be scalded and squeezed as dry as possible. Guinea pigs will eat almost any sort of vegetables, and are particularly partial to carrots. An occasional run on a grass plat will keep them in good health.

MICE.

Piebald Mice.—Piebald mice can be procured by the union of the white and the house mouse, or brown field mouse. But be sure to bring up the pair together from young ones. A female white should be paired with a male brown, and, if brought up together, they will breed, and the young will be parti-coloured. Piebald mice fetch sometimes four or five shillings each.

White Mice.—The best cage for white mice is one 16in. in length, 8in. in breadth, and 6in. in depth. The first 12in. should be wired at top and sides, the other 4in. boarded top and sides to form a bed-place. The bottom should have a sliding wooden drawer above it, which is pulled out when the box is cleaned. The bed-place should have a hinged lid, for the capture or induction of the little inmates. A hole should be cut in the front part of the bed-place for their free ingress and egress. The buck must be removed when the female has young ones, or else he may devour them; some bucks, however, are free from this fault. The best food is bread, soaked in milk, and squeezed dry. They require no water whatever, for their food is of a moist description. When the female has young, the cage should not be disturbed for a week. The top of the wire part should open for food to be put in, and the cage should be cleaned out every morning.

Again: Get a cage like a dormouse cage. The wires brass (which do not rust so soon as steel), and arched at the top. The bottom of the cage is fitted

with a tin tray, which is preferable to a wooden one. This ought to be strewed with bran or sand. The sleeping compartment of this cage is also furnished with a tin tray, which draws out, and is therefore easily kept clean. The cage has a third compartment, containing a swing similar to that seen in a squirrel cage. A common dormouse cage costs 4*s.* or 5*s.* They are very fond of nuts, apples, and cheese. Some people recommend wool or wadding for their bed; but hay with a little dry moss is much cleaner and better for them. The only objection to keeping white mice is their very disagreeable smell; and it is impossible to remove this, even with the utmost attention to cleanliness.

SILKWORMS.

When the eggs of silkworms are hatched in the winter season (as they may be at any period through the influence of heat), the leaves of the blackberry, many of which remain green through the hardest winter, afford good and thriving food, provided the prickles are removed; also the young leaves of the elm are readily eaten, as are also cowslips and primroses—both flowers and leaves. Many other plants are likewise eaten, provided the flowers are not red. All red-flowering plants are refused by the worms. But after once tasting the mulberry leaf they refuse to eat any other. When given to the worms the leaves should always be moist.

SNAKES, MANAGEMENT OF.

The common snake will eat bread and milk. When no frogs can be procured, put into its cage several black-beetles, meal-worms, or even the common beetles, which can be found under stones. There ought always to be water, or milk and water, placed so that the snake can get at it easily. The common snake is fond of water. A bath will tend to keep it in condition. It ought to have plenty of loose moss in its cage, and be exposed to the sun daily. When the cold weather comes on it ought to have a bit of flannel, under which it can creep, and be kept indoors near a fire.

PONDS.

BANKS OF PONDS, TO REPAIR.

Drive a row of stout hedge-stakes, about a foot from the bank, into the bottom of the pond, and with branches make a good wattled fence to the height of the damaged part of the bank; fill in with clay behind the fence, ramming the clay into the undermined banks and filling up with clay to the top of the fence. This will not only repair the banks, but prevent similar accidents for the future.

FOUNTAINS.

The best material for conveying water is iron gaspipe galvanised. It is made of any size up to 2in. internal diameter, with all necessary bends, junctions, stopcocks, &c., and in all lengths, from 1in. to 12ft. The joints all screw together, and are fitted with great ease and rapidity. An inch pipe with 35ft. fall, would throw a three-sixteenth or quarter-inch jet about 20ft. high. There should be a chamber at the upper end, with a front of perforated zinc, to prevent rubbish getting into the pipe. If more water is wanted, the cheapest plan is to use glazed stoneware pipes, 2in. or 3in. diameter, jointed with Portland cement. They will stand a pressure of 200ft. of water, and have been largely used for this purpose in some of our towns. The galvanised iron is about half the price of lead, which again is much cheaper than india-rubber.

LINING FOR PONDS.

No. 1.—If the soil is loose, first cover the surface of the pond after it has been excavated with a thin coat of concrete made of one part lime, two parts sand, three of stones, made rather thin. Having allowed this to harden, then cover it over with a coat of gas tar, lime, and sand made hot; put as much lime into this mixture as possible, as it becomes the sooner hardened thereby. If it is intended for fish, repeated dressings of hot limewash must be used, to take up the ammonia from the tar. This cement will stand all weather, and is very cheap.

No. 2.—The pond, after being formed, should be covered with 3in. or 4in. of concrete made of Portland cement one part, good gravel (washed) four parts, sand (also well washed) four parts. These should be chafed together with water, and beaten and smoothed on the sides of the pond with a shovel. The next day a layer, ½in. or 1in. of the following, should be laid on by a plasterer: Portland cement one part, washed sand two parts. It should be allowed to remain a few days before the water is let in; in a short time it will become as hard as Portland stone.

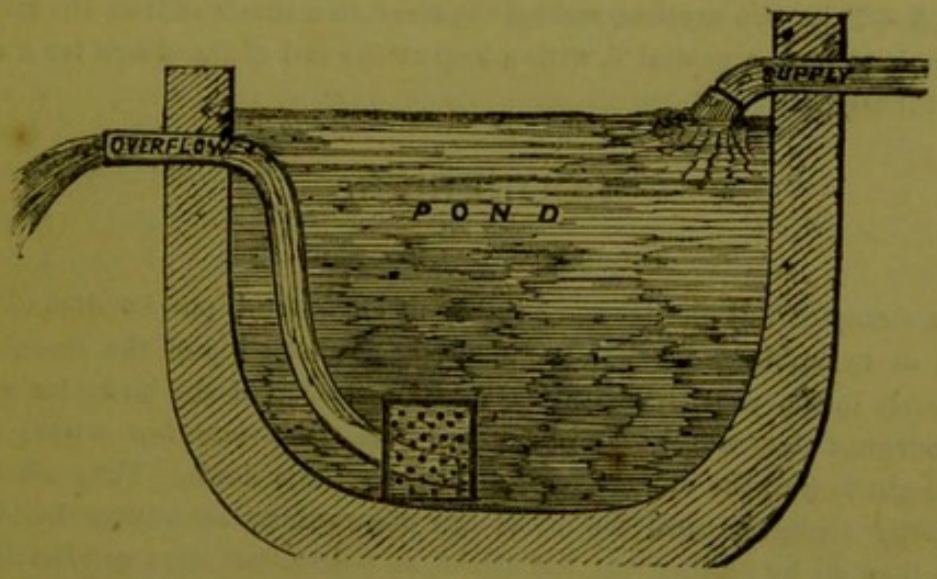
PONDS, TO MAKE.

It is not enough to dig a hole in the earth, and then fill this hole with water. When a small pond of this kind is to be made, and the extent of the surface is determined upon and marked out, it will then be necessary to form a second or outer mark, indicating the space required for the wall or side puddle; and about 3ft. is the proper space to allow for this—the puddle requiring about 2ft., and the facing, which requires to be laid upon the puddle, ought to be about 1ft. more, making together 3ft. It may be sufficient to state that, when the excavation is finished, or partially so, the bottom puddle near the outer edge is formed,

and upon this is raised the upright or side puddle ; and as this proceeds, the ordinary clay or earth is raised at the same time, and by this means the upright puddle is retained in its place ; and ultimately the sides, being formed in a sloping direction, admit of being covered with gravel or sand, and may be walked upon, or stakes may be driven to a considerable depth without reaching the puddle or in any way injuring it. This can never be the case if the puddle, as is sometimes done, be laid upon the sloping side of the pond. The sides may slope rapidly or the reverse: if the slope be considerable, sand or gravel, to give a clean appearance, will be the more likely to be retained upon the facing ; plants can be more easily fixed and cultivated; gold-fish also find in these shallow gravelly parts, under the leaves of the plants, suitable places to deposit their spawn. Ponds made in this way may be of any convenient size, from a couple of yards upwards to as many acres.

PURIFYING PONDS, MR. GRANT'S METHOD.

The following sketch will enable the public to profit by it. Cause the overflow to proceed from the lower level, or bottom of the pond, instead of



from the surface. By this process all the impure and stagnant water is removed, whilst the fresh and surface water is retained.

WEEDS IN PONDS.

No. 1.—Swans would clear a pond of these intruders. Keep them cut close by means of a common scythe-blade attached to a long, straight handle, 20ft., or more if required, which may be worked from a boat, being thrown out and dragged along the bottom of the pond. This will cut all it comes against ; they will then float to the side of the pond, being carried by the

wind or current, if any, and may be taken out with poles or rakes. They are valuable as manure.

No. 2.—The following is the Dutch method of destroying weeds. They run the ponds dry in the winter, sow a crop of corn on them in the spring, and before filling and stocking them in the autumn they plant roots of the common white water-lily over a greater part of the bottom. Wherever the water-lily grows other weeds do not; the stem forms no obstruction to the movements of the fish; the leaves give shade; they are easily mown where clear spaces are required for angling; and the decayed leaves form scarcely any mud; indeed, they purify water rather than make it thick, as we see in the case of the Serpentine. In Holland the ponds are dried once in five years, the fish are sent to market, and, after the crop of corn is cut, they are restocked according to a scale given in a book on fish-ponds, written by Boccius. Carting mud out of ponds is a very expensive business, whereas the cultivation of the bottom of the pond for a few months causes the stock fish to grow much more rapidly when it is refilled; and before ordinary weeds can overspread the water-lilies grow and keep them down.

No. 3.—Take two scythes, welded together to a shank of iron 5ft. long—the whole to form a capital T, with a loop at the end of the shank for a rope to go through.

ROOKERIES.

FORMATION OF A ROOKERY.

In a clump of tall elm trees, or rather in an avenue, put bundles of dry sticks to resemble somewhat rooks' nests, near the top of the trees, and very early in the year. This attracts the attention of the birds, for night and morning they will hover about the trees, and some few settle; they soon begin to pull the sticks about and throw them down. They must be constantly replaced, until the birds are observed to commence building, which they do by pulling out the sticks as before, but soon go after them to pick up and build in their own fashion.

Again: Capture about seven or eight young birds of the backwardest you can lay hands on; their food should be soaked dog-biscuit, rough meat (but not stale or salted), worms, grubs, and perhaps a little bruised hempseed at first. They must, of course, be fed for a time from the hand, and inclosed ultimately in a wire aviary with perches kept clean, but not handled by any means from first to last. Supply water (soft). About a fortnight before the nesting time commences these birds must be kept rather short of food during the day, and placed under the trees, in or under baskets so

inclosed that the wild birds cannot possibly see them, as this event would mar the project *in toto*. The continual cawing of the tame birds is all that is to be aimed at. Half a dozen good, compact old nests should be secured after flight time. These tied by a knowing hand in the topmost crutches of the trees, about the 20th of February, will add tenfold to the attraction. Of course the said nests must be carefully taken down and preserved, and tied in their places in spring. A couple of circular bands of soft string, interwoven judiciously through the texture of the nests, will best effect this object. The birds must never have their liberty. In summer a little fruit and potatoes, and in autumn walnuts and acorns (cut up), will form an agreeable change in their diet. If not too old when taken, pinion them in case of their getting loose through accident.

Another plan is to watch for either a magpie or crow to build in the wood you wish the rooks to colonise, and substitute rooks' eggs for those of the magpie or crow. The young rooks will return the following year, and in a few years there will be a strong rookery.

The following method has also been found successful. A branch was cut in a rookery with a nest and young birds in, and carried in the daytime and fixed in the desired place. The old birds followed and fed the young ones in their new tree.

We have known two or three rooks' nests brought from a neighbouring rookery and placed on the very tops of some high trees. The rooks have followed them in the following season, and formed a colony there.

Again: Obtain a pair of tame jackdaws, or magpies, let them fly about the trees, and feed them well; when the spring comes they will probably build their nest, when their eggs must be abstracted, and fresh rooks' eggs put in their place; if they hatch, a rookery will in a few years be the result. A neighbouring rookery would be no impediment.

Procure a number of young rooks, which feed every two hours on barley-meal, sharps, and horseflesh or cow's liver. Before they can peck allow them to run about the garden, and they gradually take wing and establish themselves on a neighbouring clump of trees.

HOW TO GET RID OF ROOKS.

No. 1.—If charcoal is burnt under the trees where they nest or roost, it will drive them away.

No. 2.—Go under the trees at night with lighted sulphur or brimstone, and fumigate them well.

No. 3.—Allow the birds to make their nests and to occupy them till some of the young rooks are heard. Then employ a man or two with guns two nights and two days, to prevent the old birds getting to their nests. During

this time the eggs will become addled, and the old rooks will leave the rookery, never to return that season.

HOW TO PREVENT ROOKS NESTING IN CERTAIN TREES.

No. 1.—Fill each nest as soon as finished with small stones.

No. 2.—Fix a pulley to a branch, and every night hang a lantern lighted in the tree. The lantern is easily drawn up by a thin cord, and is all the better if it shakes about a little. Oil is better than a candle.

No. 3.—Pull the nests down by means of a pole with an iron hook directly the rooks begin to build. It will drive them away from the trees in which they are troublesome, without frightening them from the neighbourhood.

SMOKING.

MEERSCHAUM PIPES, TO CLEAN.

No. 1.—It is impossible to clean "l'Ecume de Mer" spotted with coffee wine, or oil. To remove scratches and other imperfections on meerschaum pipes, get one pennyworth of powdered charcoal; wet the thumbs and fingers, which dip into the charcoal, and rub over the pipe, the same as you would clean polished steel. After removing the scratches, which will soon disappear, take a silk handkerchief and rub it well, and a fine polish will result.

No. 2.—A good method, and the safest, to clean pipes and to remove scratches or other surface marks upon them, is crape. It puts a splendid burnish upon them, and by patient rubbing will render delible any scratch or other disfigurement.

No. 3.—Putty-powder is used by the manufacturers of meerschaums, and is far preferable to sand-paper or charcoal-powder. It has, in technical language, a "very sharp tooth," but does not scratch as sand-paper will do.

No. 4.—Never clean the pipe when warm, but let it be thoroughly cool, and always finish with silk. If there are no imperfections on the coloured parts, the application of charcoal from the palm of the hand will be productive of a bright polish, not to be achieved by crape or other process.

MEERSCHAUM PIPES, QUALITY OF.

No. 1.—There is a great difference in the quality of meerschaum pipes. Some are easy to colour, others will never do credit to their keep. This arises in some degree from the quality of the clay, but pipes which have been a long time in shop windows before they are brought into use are very hard, and never smoke well or colour easily. The most important point in colouring a meerschaum is never to smoke it quick, or below a certain

point, otherwise the heat will drive the colouring oil down into the stem of the pipe, and the bowl will be mottled and burnt white. A wash-leather case is a valuable protection to a pipe for two reasons; it not only preserves it from scratches, but prevents the wax from evaporation under the heat of the pipe. Probably if a little white wax is rubbed upon the pipe while warm it will recover itself, and if care be taken to smoke it gently and to a fixed level it will colour nicely.

No. 2.—The first thing is to get a pipe that is made of meerschaum; and this is not so certain, for in no trade is there more imposition practised. There is, however, a test that never deceives. Take a piece of silver, and rub it once across the pipe; if a mark like that of a pencil is left it is an imitation, but if it leaves no mark it is a meerschaum. The buyer must go further than this; he must strictly examine the pipe, and wherever he sees a shade in the colour try the silver across it, and if a short mark is left be sure a defective spot has been cut out and filled in. A spot in meerschaum reduces the value of a pipe to less than half.

PIPE STEMS.

The best way to cleanse cherry stems, &c., is to inject a little whisky, or, in fact, any spirit, and then clean with wire having a brush at the end, similar to a bottle cleaner.

SUBSTITUTE FOR TOBACCO.

The following may be used as a smoking mixture: Eyebright, sweet marjoram, betony dried, and tobacco—of each 2oz.: mix intimately. Tobacco smoked by itself produces near-sightedness and other ophthalmic disease. The above mixture is recommended to those who are afflicted with dimness of sight, caused by tobacco-smoking. The herbs can be procured from any respectable herbalist in Covent-garden, London, or in any other town. Make it up yourself.

TEETH, TO REMOVE THE ODOUR OF SMOKING FROM.

Buy threepennyworth of good gum camphor, put it in a large bottle filled with cold water, and use a mouthful after smoking, it will be found both pleasant and efficacious in removing the smell of tobacco from the breath. The use of this camphorated water (not spirit of camphor diluted), with which frequently to rinse and brush the teeth, is of importance besides, in preserving and cleansing them.

STOREROOM, THE.

APPLE GINGER.

To 4lb. of apples have 4lb. of sugar, 1 quart of water, and 2oz. of best essence of ginger. First pare the fruit, cutting out every particle of core; then shape it to resemble the small kind of preserved ginger. Boil the sugar and water nearly twenty-five minutes, until it is a nice syrup, then put in the apple; be sure and not stir it much. Add the essence of ginger. If 2oz. be insufficient, add more. It will take nearly an hour to boil, until it becomes yellow and transparent. There will be some pieces that will not clear; put them by themselves, as they spoil the look of the rest. It will require skimming. American or Ribstone apples are the best to use.

APPLES, TO KEEP.

Lay them on a wooden floor in the driest part of the house. They must be placed singly, *i.e.*, not touching one another. Put no straw or anything under them, but have ready some matting to throw on them if it should freeze.

BOG-BERRIES, TO KEEP.

Pick them clean and from stems, &c., and then put them into bottles or jars, and when the bottles are full pour as much cold (clean) water on them as will fill up all the interstices, and then cork well and seal up to make them air-tight.

CARROT JAM.

No. 1.—Boil the carrots soft enough to be eaten, then peel and mash them; weigh equal carrot and sugar (lump); make a syrup of the sugar by first boiling it with a little water, put in the carrot and boil until the jam (when cold) will shape and is stiff.

No. 2.—Boil a few fresh carrots quite tender, rub them through a colander, and afterwards through a sieve; then to every pound of pulp add a pound of loaf sugar, and boil it to a jam. When nearly cold add the juice of two lemons and the rind grated very fine. Choose deep-coloured carrots, and use good sugar. When the lemon-juice and rind are well mixed put it into jars and cover with brandied paper.

No. 3.—Pare some good carrots, and to every 10lb. add 1½ pints of cold water; cover them close in the preserving-pan, and let them boil till the fruit will mash with a spoon. To every pound of fruit put ¾lb. of loaf-sugar. Keep the carrots well stirred, to prevent burning; let it boil till it will set firm. To imitate apricot jam, put a few bruised kernels of apricots to flavour.

No. 4.—Take 5lb. of carrots, clean them, and boil until quite soft, as for

dinner. Mash them very fine, rub through a wire-sieve, boil the pulp again with 5lb. of sugar twenty minutes, add the juice of two lemons whilst boiling. Then take it off the fire, and stir in 1oz. of tartaric acid, and ½ pint of orange wine.

No. 5.—Take a pound of carrots, boil them till quite soft, strain the water from them, mash them to a fine pulp; add ½lb. sugar and the peel of a candied lemon, and boil together for half an hour.

CHERRIES, TO BOTTLE.

No. 1.—To 1lb. of ripe cherries add 8oz. of finely-powdered lump sugar; let them only just boil, and, when cold, have ready some perfectly clean dry, wide-mouthed bottles, fill them with the cherries, and pour over them a little salad oil. The bottles must not be corked, but tied with bladders, and then well covered with sheet lead. They must be kept in a cool, dry place.

No. 2.—To every pound of fruit add 6oz. of powdered lump sugar. Fill the jars with fruit and shake in the sugar over; tie each jar down with two bladders, as there is a danger of one bursting during the boiling. Place the jars in a boiler of cold water, and after the water has boiled let them remain three hours; take them out, and when cool put them in a dry place.

EGGS, TO PICKLE.

Cause some four or six dozen to be boiled in a capacious saucepan until they become quite hard. Then, after removing the shells, lay them carefully in large-mouthed jars, and pour over them scalding vinegar, well seasoned with whole pepper, allspice, a few races of ginger, and a few cloves of garlic. When cold they are bunged down close, and in a month are fit for use.

EGGS, TO PRESERVE.

Take two or three limestones about the size of half bricks, pour sufficient cold water on them, and stir it up for three or four days; let it settle, then pour the clear water into an earthen vessel, in which place the eggs, and they will keep fresh for many months.

Eggs will keep well for winter use in layers in a box or basket filled with bran or sawdust, only taking care they are put in fresh, and the small end of the egg downwards, and the egg quite upright.

Render mutton-fat liquid, and with a painting-brush pass the fat all over each egg, so as to fill up all the pores of the shell. The easiest way is to go over one side of all the eggs which are ready for storing, and by the time the last is done the first will be fit to handle, to complete the process. Lime and water keep eggs even better. Mix lime with the water until it is as thick as cream, and pour it over the eggs.

One pound of lime to 2 gallons of water; slack the lime with boiling water, making up the 2 gallons with cold. It is fit for use when quite slacked.

Take a pine barrel (an old fish barrel well cleaned out answers very well) and put in the eggs when they are sound, fresh, and clean; then cover them with lime-water, made like common whitewash; the lime settles around the eggs, and the water stands on the top of the lime (the eggs all under lime). Look at the barrel once in a while, to see if 4in. of water, little more or less, covers the whole. If the water is all dried up, the lime gets hard, and they are difficult to take out when wanted, and you have to carry them somewhere else to wash off the lime; so always keep water on the top. This lime-water must be made at least two weeks before you pour it on the eggs, or your eggs will be boiled hard enough to carry in your pocket.

Take eggs fresh from the nest, place them in a tub or pan, and pour boiling water over them; let them remain in it five seconds, take them out, and when perfectly dry pack them in boxes of bran. They must be perfectly fresh, for one stale egg will spoil a whole box.

Six pounds of slaked lime to 15 quarts of spring water and 3 handfuls of salt. Put them in a deep glazed earthen jar, stir for ten minutes, and let the mixture settle for twenty minutes; and then put in the eggs. The jar must be covered from air and light.

Dip them (the fresher the better) in warm lard, and then lay them in a small barrel in layers, filling up the spaces with salt. A mere dip in the hot lard is all that is required; the object of it is to fill up the pores of the shell, and so exclude the air.

Every day mark the date in pencil on your eggs, and rub them over with salad oil. Be very careful not to leave a speck untouched. Place them in the holes, and turn them once a month. They will keep from four to eight months, but must be oiled the day they are laid.

Get a deep and wide earthenware pan; put a layer of common salt in it, and then place your eggs endways; over these place another layer of salt, and so on till the pan is full; cover over with bladder, and place it in a dry cellar.

FILBERTS, TO PRESERVE.

Get some stone jars, such as are used for pickles, about 2ft. in height and 1ft. in diameter; fill them with filberts, and then cork them down very tightly with a bung. Bury them about a foot in the earth, or place them in a damp wine-cellar.

FRENCH BEANS, TO PRESERVE.

It is a common custom to preserve French beans merely by slitting them longitudinally into thin pieces and putting them, in their raw state, into

brine. They should be taken out the day before they are used and put into cold fresh water, so as to take out the salt. They are boiled in the usual way, and served up with a piece of cold butter on the top; or, as is most frequent, they are stewed with cream, butter, and flour. The brine should be boiled and allowed to get cold again, before the beans are put in. It is unnecessary to cover the jar in which they are kept, unless it is to keep out the dust.

FRESH FRUIT, &c., IN CANS, TO PRESERVE.

Select good, sound, ripe fruit, and put it up as speedily as possible after it is gathered. Peaches, pears, sweet pumpkin for pies, tomatoes, and berries of all kinds, can be preserved fresh for years if the following directions are observed: Prepare the fruit by paring, and stoning or coring where necessary; and put it over a moderate fire in a brass or porcelain kettle (the latter is best, as it does not discolour fruit), with sugar enough to make sufficient syrup to fill all the cavities in the can when the fruit is in. Have ready your cans, and as soon as the mass is thoroughly heated through, skim out the fruit and put it in the cans quite hot, and pack it as tight as practicable. Then pour in syrup till it is as full as it can be, and permit the covering to be soldered on. Use round tin cans holding about a quart each, with a round aperture in the top from 2in. to 3in. in diameter. Have circular pieces of tin cut a little larger than the aperture in the cans, with a small hole punched in the centre of each piece. As soon as the can is filled, solder this piece of tin over the aperture, then a drop of solder over the little hole in the centre, and the thing is done. The old-fashioned tin cans, soldered as described, are the most reliable, though it is, perhaps, a little more trouble to use them than some of the self-sealing cans, as they are called. The object is to have the article preserved thoroughly heated through, and to fill the cans full, or as nearly so as possible; and if these two requisites are observed, and the can then sealed, the fruit will keep as long as the can remains perfectly air-tight. It is necessary sometimes, when fruit is not sufficiently juicy to form syrup enough to fill the cans, to add a little water. Tomatoes need no sugar nor water. It is very convenient in filling to have a very wide-mouthed funnel that just fits the aperture in the tops of the cans; and it is best not to use an iron ladle or skimmer to stir or dip out the fruit, as it will discolour peaches and some other fruits.

FRUIT, TO BOTTLE.

No. 1.—Take any quantity of fruit you intend to preserve, pick it, and fill your bottles or jars, then fill the copper or pan with cold water, and set the bottles in up to the neck; then warm the water to the heat of 150° by the thermometer; let them stand in it for twenty minutes at this heat, and

be careful the water does not vary. Have some boiling water ready to fill up the bottles with when they come out of the copper; fill them within 1in. of the top, and let them be corked and waxed immediately. It is important that this be well done. All fruits are best not too ripe.

No. 2.—Pick the stalks from the fruit and put it into common black bottles. Cork down tightly, and put the bottles into a bread oven two hours or so after the bread has been drawn, and let them stay for several hours, so that the fruit may be very gradually done. After baking in this way the fruit will keep a year or two.

No. 3.—Pick the stalks from the fruit, and put them into bottles. Put 1dr. of alum into 4 gallons of boiling water; let it stand until cold; then fill the bottles, bung them tight, then put them into a copper of cold water and heat it to 176°. Then tie them over with bladder, and seal or resin them. On no account exceed the quantity of alum.

GOOSEBERRIES, TO BOTTLE.

Fill wide-mouthed glass bottles with gooseberries, taking care the skins are not broken; place them in your boiler while the water is cold, and let them remain until the fruit begins to crack. Take them out and fill with boiling water; tie over with bladder, and keep in a dry place. Care should be taken to quite fill the bottles, as the water wastes in time, and if the fruit becomes uncovered it will mould.

HONEY, TO PRESERVE.

Honey, if required to be kept in the comb, should be kept undisturbed in the supers, and cut out as required; that which is sealed over will keep a long time without alteration. One very good way of preserving honey, when it is white comb and perfectly free from bee-bread, as that of all good bee-keepers should be, is to melt the whole by placing it in an earthen vessel, and standing it in a saucepan of boiling water. When the wax has melted and risen to the top, tie the jar down tightly with bladders, and the whole will keep, if undisturbed, for many months without alteration or loss of flavour.

LETTUCE GINGER.

Peel off the outer coat of the tender stalks of cos lettuce; cut in 1in. or 2in. lengths; throw it into water; for each 1lb. throw in a teaspoonful of cayenne pepper, and a little salt. Let it stand two days. Strain and wash in clean water. Clarify an equal weight of fine loaf-sugar. Take 1½oz. of good ginger for every 1lb.; soak it in boiling water and slice it; boil with the sugar fifteen minutes. Pour it boiling hot over the lettuce, which must be well drained. Keep back the ginger, which boil with the syrup three times (at intervals of two or three days), and pour boiling hot on the

lettuce. At the last boiling add the juice of two or three lemons. If the syrup is allowed to cool, it spoils the colour of the ginger.

Take the stalks of white cos-lettuce, when tender and not stringy; skin it and cut in pieces; blanch it in water two or three days. Make a thin syrup, to a quart of which add 3oz. of sliced ginger; when cold pour it on the lettuce. Boil up the syrup every other day for a fortnight, and at the last time make it thick, and add lemon-peel. The syrup will require to be boiled up often, and reduced or strengthened as found necessary.

MARMALADE, ORANGE.

Cut the oranges (Seville) in halves, take out the pulp and skins, then boil the peels in a large quantity of water until soft, changing the water two or three times. When cool and well drained cut them into thin strips. Separate the pulp from the skin and pips, weigh the peel and pulp, take an equal weight of sugar and boil it up gently with the pulp until it forms a syrup, then add the peel and boil gently for half an hour. The peels of oranges used for wine may be employed, but in this case the juice of sweet oranges must be substituted for the Seville orange pulp. The skins of the sweet oranges are useless for marmalade.

Take fine ripe Seville oranges and remove the rind, throwing it, as you take it off, into a basin of cold water. Separate carefully the seeds and fibre from the pulp, and keep the pulp and juice in a basin. Let the rind steep in cold water all day and a night. The water should have a handful of salt in it, and be changed frequently, to take out the great bitterness. Next morning put the rind into fresh water without salt, and let it boil (still changing the water once or twice) till it is so tender that the head of a pin will easily pierce it. Drain the rind on a sieve, and when quite cold remove with a silver knife all the white part. Then cut it into fine strips; add all the pulp and juice, and also strained lemon-juice, in the proportion of six lemons to three dozen oranges. Weigh all this together, and for every pound take equal weight of coarse lump sugar. Let the orange boil for a few minutes before you add the sugar; then boil all till the marmalade is quite clear and of a nice consistency. It must be stirred all the time it is boiling, and the thick scum taken off as it rises. When nearly cold store it in jars for use.

Take Seville oranges, according to quantity wanted; then wash them in soft water with a brush, to remove all the black specks; boil in a well-tinned pan one hour, in spring water, to be put on the fire cold; change the water, and put in clean boiling water, and boil till they are soft enough for you to pierce the rind with a straw; take out and set in a sieve to drain; weigh them, and take double weight of the best loaf-sugar; put the

sugar in a basin, and take a half pint of the water that the oranges were boiled in a second time, and pour it over the sugar to dissolve; cut the oranges in halves and take out all the pulp, at the same time clearing out the pips; pour the pulp on the sugar and water, whilst the rind is being cut; cut the rind into long thin shreds; put the sugar and pulp in a pan over the fire, to dissolve the sugar thoroughly before adding the rind. When dissolved, put in the rind, keep stirring and clearing off scum whilst boiling. Boil till quite clear. A very agreeable bitter beverage may be made by saving all the water the oranges were boiled in, reducing to a nice tone of bitter, putting in hot spices to taste, and fermenting with a little yeast on toast.

To every pound of oranges put 2 quarts of spring water, and boil them for two hours. Take up the oranges, which should not be broken, and either cut them in very thin slices, as you would pine-apple, or chop them fine, only removing the pips. To every pound of fruit put 2lb. of loaf sugar and ½ pint of the water in which the oranges were boiled. Whilst cutting the fruit, pour the water on the sugar, then add the fruit, and boil all together half an hour.

The following is a recipe for Scotch marmalade: Choose round, clear oranges; boil them (after soaking a day and a night in weak salt and water) till they are so tender that the head of a pin will easily pierce them (the water should be changed once or even twice during this boiling); drain them on a sieve, and, when quite cold, take off the rind, throwing it as you do so into a basin of cold spring water; put all the juice and pulp into another basin, only removing the seeds and fibre; with a silver knife take off all the white pulp from the rind, and cut it into fine strips; add it to the pulp and juice, weigh all together, and add lump sugar (powdered) in the proportion of three-quarters of a pound to a pound of the orange; boil till quite clear and of a nice consistency. The strained juice of six lemons to every thirty oranges is an immense improvement. The coarsest lump sugar will do.

PEAS, TO PRESERVE.

No. 1.—Dry them in a cool oven, and hang them up in paper bags.

No. 2.—There is one way of preserving green peas, viz., by filling a tin box with them, then pouring in a little water that has been salted, putting on the cover, which must be soldered, so that the box shall be hermetically tight, and afterwards boiling the box.

No. 3.—Pick them on a fine dry day, and open the pods on a large clean cloth; then expose them to the air and sun for five or six hours. After rubbing them gently in a rough towel till perfectly dry, bottle them as air-tight as you can, and keep them in a dry place till wanted.

PICKLES.

Take a jar with a close lid or bung, and half fill it with the best vinegar; then, as spare vegetables of any description come to hand, such as small beans, cauliflowers, radish pods, young cucumbers, onions, &c., throw them in taking care, as the jar fills, that there is sufficient vinegar to cover the vegetables. When nearly full add mustard seeds, bruised ginger, eschalots, whole pepper, &c., &c., to taste. Tie down tightly and place the jar in a vessel of water over the fire, or in a slow oven, until the articles are sufficiently soft to suit the palate.

PINE-APPLE JAM.

Weigh the pines before skinning; weigh out same weight of broken lump sugar (weight for weight); skin and eye the pines, cut in thin slices, put half the sugar over the fruit, and let it stand for two hours; boil for half an hour. Next day add rest of sugar and boil an hour; put into jars. Take care when stirring to do it gently with a wooden spoon. Pine-apple stewed and allowed to get cold, and a custard thrown over it and then baked, is a very good thing.

RHUBARB, TO DRY.

Drying rhubarb for future use is done by simply preparing it precisely as for pies, peeling the stalks and cutting in small pieces. Dry it in the sun or moderately warm oven. Its flavour is decidedly improved by drying.

RIPE FRUIT, TO PRESERVE.

Take wide-mouthed bottles, dry and free from imperfections. To every 1lb. of fruit add 6oz. of loaf or fine moist sugar; fill the bottles nearly half full before you put in any sugar (to prevent it sinking to the bottom), then put a layer of sugar and one of fruit, till the bottles are filled; cover each bottle with three pieces of wet bladder, each piece tied; then put the bottles up to their necks in cold water, placing them so as not to touch each other; let them simmer over the fire till they are well done. Damsons take about an hour after they begin to simmer, cherries rather less, currants and raspberries less than cherries. Cover the bottles when cold with leather, and keep them in a cool, dry place.

SAMPHIRE, TO PICKLE.

No. 1.—Pick the samphire from the larger stems, sprinkle over some salt, and let it remain twenty-four hours; boil some ginger and allspice in vinegar, and pour it boiling hot over the samphire previously placed in jars; cover closely so that the steam may not escape, and the next morning simmer altogether gently in a bell-metal stewpan, keeping it closely covered

with a wooden cover till it becomes a nice green colour. Put in jars whilst hot, set it aside, and next day it is fit for use; it may be kept any length of time tied over closely with bladder.

No. 2.—Wash the samphire well in sour beer, then put it into a pan; dissolve a little bay salt and twice the quantity of common salt in sour beer, then fill your pan with it, cover it close and set it over a slow fire till it is a fine green, then drain through a sieve, and put it into jars; boil it with as much sugar or white wine vinegar, with a race or two of ginger and a few peppercorns, as will cover it, then pour it hot upon the samphire, and tie it well down.

No. 3.—Soak some of the freshest green samphire in salt and water for two days; then take it out, boil it, covered in plenty of vinegar, over a slow fire until it be crisp; then put it into a jar and keep it tied down, covered with bladder and paper.

No. 4.—The simplest way is to put the samphire in a strong brine, or into sea-water, which will keep it good all the year. When wanted for the table, put a little of it into vinegar.

STRAWBERRIES, TO PRESERVE FOR WINTER USE.

Fill jars of convenient size with strawberries, either with or without the stalks, as you intend to serve them, and fill up with water; freeze this solid, cover up carefully with bladder, and place the jars in the ice-house. When wanted, thaw very gradually, and they will be nearly as fresh as when iced.

TOMATOES, &C., TO PRESERVE.

Bury them in a trench 2ft. deep, in straw, the straw to prevent any immediate contact with the earth. A small piece of the stem should be kept upon each tomato.

VINEGAR BY THE VINEGAR PLANT, TO MAKE.

Mix ¼lb. brown sugar with 3 pints of water, put the plant in it so as to float on the surface. The vessel should be as near the size of the plant as possible, so that the whole surface should be covered with it; it is immaterial whether the vessel be covered or not. A dark or not too light place is best; if made in a cask, it may be exposed to the sun with advantage. When making in the winter, it should be kept in a warm place—behind the kitchen fire, for instance, or in a stove or hothouse in the garden; but in warm weather any place will do. In about seven weeks the vinegar will be fit for use, and should be bottled; it improves by keeping. If left longer than seven weeks the plant begins to feed on the vinegar, and it gets weak. The vinegar plant is a fungus named *Penicillium glaucum*.

WALNUTS, TO PRESERVE.

No. 1.—Fill an earthen pot with them, and then cover them with clay an inch thick; they will be found at Christmas as fresh as when first gathered.

No. 2.—Put the walnuts into a common earthenware jar, with an earthenware lid, and bury the jar in the earth, about a foot deep, in a place not too wet nor too dry.

No. 3.—Gather on a dry day; and directly the nuts are taken out of the rind, put into large flower-pots holding two pecks (any pans will do as well), and when nearly full the pots are covered 2in. thick with sawdust. The pots are put on the floor in a wine-cellar.

TOILET, THE.

NAILS, TO WHITEN.

Diluted sulphuric acid, 2dr.; tincture of myrrh, 1dr.; spring water, 4oz.; mix. First cleanse with white soap, and then dip the fingers into the mixture.

SHAVING SOAP.

No. 1.—Spermaceti, white wax, oil of almonds, and camphor, of each ¼oz.; white soap, 5oz.; work the soap to a paste with rose-water, then put the wax, &c., in a jar into the oven till warm, when mix all the ingredients well together. Millefleurs or any other scent may be added.

No. 2.—Take a cake of Windsor soap, together with half the quantity of curd ditto, and, having cut them up, add a table-spoonful of sweet oil; then simmer them over the fire.

VERMIN.

ADDERS, HOW TO KILL.

No. 1.—Put your foot on them, taking care they cannot turn high enough to bite above the shoe or boot, then lay hold of the last inch of the tail and hold them out at arm's length, they cannot turn up high enough to bite.

No. 2.—Hedgehogs are very useful for destroying these reptiles.

No. 3.—Select a gorge bait hook, and having baited it with a frog, as though about to fish for jack, place it where the snake is likely to find it in the night, and tie the end of the line round a tree.

ANTS IN HOUSES, TO DESTROY.

If a vessel, such as a butter-crock, containing at the bottom a certain quantity of stewed prunes, or water in which prunes have been stewed, be left uncovered in the places frequented by the ants, it will attract them, and thousands will find their *quietus* in it.

BLACKBEETLES, TO DESTROY.

A hedgehog will materially lessen the supply.

Red wafers will destroy them—the coarse large ones, about the size and thickness of a sixpence. It is the vermilion that kills them. If the wafers are not to be had, a sponge cake or something of that kind, made light and palatable, with vermilion in it, would answer the purpose.

By placing two or three dishes half filled with water on the floor at night, with slices of cardboard leaning against them for roadway, great destruction may be effected.

Mix equal quantities of red-lead and Indian meal with molasses; you will find it a certain exterminator of cockroaches. The mixture must be made of the consistency of paste. Put it upon plates and place them where the vermin are thickest.

Powdered white hellebore, mixed with a very little moist sugar, and placed in little heaps on the kitchen floor. Nothing else will touch it, and the remains of it may be swept off in the morning. They eat it readily, and it is very destructive.

Get about 2lb. of black pepper, and same quantity of flowers of sulphur; mix well together, and proceed to distribute the powder thickly all over the floor, particularly round the walls. The ash-pit is a strong covert for these creatures. Next morning sweep up the pepper, and in the evening proceed as before. Keep at it for about a week, giving no rest, and you will clear the place both of young and old. It has another good effect: it drives out all the mice.

BUGS.

Bugs in Beds.—The sleeping-room ought to be thoroughly cleared. Take the bed and bedclothes into the open air and beat them thoroughly, then take the bedstead to pieces, and after a thorough purification with hot water, plug every hole and crevice with a mixture of soft soap and cayenne pepper, or soft soap and Scotch snuff. The cracks, &c., in the floor and walls should be stopped up with the soft soap and cayenne pepper.

Bugs in Floors.—Dissolve sixpennyworth of salts of wormwood in a pail of water, with which the room should be washed.

Empty the place of everything movable. Scrape off all paper or other loose material, and throw it, as the work proceeds, into a brazier of live charcoal. Then fill in all the cracks in plaster with a mixture of corrosive sublimate and plaster of Paris. Also prepare a sufficient quantity of soft soap, well mixed with corrosive sublimate, and with it fill, with a putty-knife, all cracks in wood-work, and every crevice in the floor. Burn old carpets, &c. As to the furniture, fill every joint, or crack, in which it is possible for bugs to harbour, with the same mixture of corrosive sublimate

and soft soap. By this means, if the work is thoroughly well done, you may clear any house of these vermin.

Bug Poison.—No. 1.—Spirit of wine, 8oz.; spirit of turpentine, 8oz.; camphor, 1½oz. Mix.

No. 2.—Strong mercurial ointment, 1oz.; corrosive sublimate, ¼oz.; Venetian red, ¼oz.

No. 3.—For floors: Corrosive sublimate, 1lb.; sal ammoniac, 1lb.; hot water, 8 gallons.

CRICKETS.

No. 1.—Take half a dozen old jam pots; half fill them with water, and at night place them in different parts of the kitchen most infested.

No. 2.—A box, with holes in the top or sides, containing a little common salt or oatmeal, placed in a room where these insects abound, will soon capture them all.

EARWIGS.

Get a bundle of bean-stalks; cut each stalk into lengths of 8in. or 10in., so that there may be a clear passage through it, and these tubes insert among the foliage of the ivy, climbing roses, wall-fruit trees, dahlias, or wherever the earwigs are likely to harbour. Then every morning take a jug of boiling water, and, gently drawing out each stalk, blow sharply through it so as to propel the insects into the hot water.

FLEAS.

No. 1.—Have the sides and bottom of the sheets sewed closely together so as to form a sack. If troubled with fleas you can drive them down into a corner and there immolate them.

No. 2.—Rub yourself slightly all over with soap (in a dry state or nearly so) before going to bed.

No. 3.—Place a quantity of the aromatic plant called "gale" or wild myrtle, about the bed. Use the fresh young shoots and leaves.

No. 4.—Use a very strong solution of camphor in spirit of wine; a little sprinkled on your night dress is efficacious in dispersing them.

No. 5.—Wash the body on going to bed with strong camphor water, to make which take tincture of myrrh, 2oz.; camphor, 1oz.; dissolve. Put a quarter of the above into 1 quart of rain-water, shake well before using.

No. 6.—Take a few handfuls of fresh garden mint, and strew them about the rooms, particularly under the beds.

FLY PREVENTIVES.

Flies have a great antipathy to walnut leaves, a wreath of which will in a great degree prevent their entering a room. Laurel-oil is also an abomination to them. If spread upon picture-frames it preserves them from fly-spots.

HARVEST BUGS.

No. 1.—Washing the legs with common strong vinegar is the best preventive to their attacks. Wash high, however, as the little brutes will ascend.

No. 2.—Use tar-ointment, the "unguentum picis" of the chemists. It should be diluted with lard before being applied to the skin. Before going out into the fields try the effect of rubbing on the skin a small quantity of petroleum, or paraffin oil—it may be readily washed off on return. Benzole could be used instead, but, being more volatile, it might need renewing after a time. After the insects have entered the skin, we doubt whether any application will allay the irritation until the offenders are removed, either by means of a needle, or by the finger-nail.

No. 3.—Put a good thick lather of yellow soap on your legs, and put your stockings on whilst it is wet. You will not be much bitten. Wash off at night. Decoction of colocynth is also good.

MICE, TO DESTROY.

No. 1.—Fill any pot with the dross of oil, and set it in their haunts; strew about soap-boilers' potashes, and, when the scent of the oil draws them to the pot, the smell of the ashes will so stupefy them that they will lie on the floor rolling, so that you may take them up and kill them. The smell of assafœtida will drive them out of a house or granary; and hemlock-seed, if put into their holes, and if eaten, will destroy them.

No. 2.—Procure small steel traps, similar in shape to the ordinary rat-trap, and by keeping them constantly set in the runs of the mice they may be killed. At first it is well to examine them frequently, as you can rarely do so without finding a mouse in some of them, but afterwards this will hardly be necessary. These traps can be purchased of any ironmonger at 5*d.* or 6*d.* each, and are known as bird-traps, being generally used for catching small birds.

MIDGE AND MOSQUITO BITES.

Place a large piece of camphor in a muslin bag and suspend it from the first coat button-hole.

Have a wooden frame fitted to the outside of the window, covered with very fine wire gauze, arranged like an ordinary sash, so as to admit of being opened in the daytime, but towards sundown it must be securely closed. In localities where gnats are troublesome, care should be always taken to close the windows before lighting the candles. A frequent application of Goulard lotion or Rowland's Kalydor to the bite is a very good remedy. Sal volatile, mixed with water in about the same proportion as for a dog, is also a good remedy, but too heating for some skins. The

frequent use of glycerine is also well for some skins, either as preventive or alleviation.

An ounce of camphor. Keep in a covered jug, with a quart of cold water, and before retiring to rest sponge with the water.

Gnat bites, stings of wasps, bees, &c., may be cured by applying tincture of mindererus, laudanum, and Goulard water.

Smoke from dried cow-dung (when burning) will drive mosquitoes away. Tobacco smoke and wood smoke will not touch them. The cow-dung, when burning, has not a disagreeable smell. Horse-dung is not a twentieth so effective.

Sweet oil or camphorated spirit of wine is the best thing to apply to the bite of the mosquito.

One raw egg well beaten, ½ pint of vinegar, 1oz. of spirit of turpentine, ¼oz. spirit of wine, ¼oz. of camphor; these ingredients to be well beaten together, then put in a bottle and shaken for ten minutes, after which to be corked down tightly to exclude the air. In half an hour it is fit for use. Directions: To be well rubbed in two, three, or four times a day.

The leaves of the common dock, bruised and well rubbed on the part affected.

Keep an onion always at hand, and instantly when bitten squeeze or cut it, so that the juice should flow into the puncture, rubbing it gently over the place; it immediately allays the pain and irritation, and prevents swelling; and its effects are equally efficacious in the sting of a wasp or bee, always provided the sting does not remain in the wound.

Fasten on the bed furniture at the food of the bed a bunch of elder. The insects are attracted to it by the smell.

Hang a small bough of thickly leaved ash from the head of the bed, immediately above the head of the sleeper.

Hang a branch of wormwood inside the hangings of the bed.

Ipecacuanha powder is very effective in allaying the pain caused by the sting of the scorpion, hornet, and wasp, and mosquito bites, also midge bites. For scorpion stings, &c., make a paste of the powder with a little water, and apply it to the wound in a patch about the size and thickness of a shilling.

Take olive or castor oil, and dissolve as much camphor as it will take up, and then reduce the oil by boiling to one-half, and put it on the face when fishing. The midges will stick in it, but cannot bite.

In Jamaica, if the skin is rubbed over with the juice of a lime, mosquitoes will not bite; and it is as certain a preventive against wasps or bees there, be they ever so enraged. Lime juice is to be bought in first-rate "Italian warehouses," &c.; and lemon juice may be a poor substitute.

Try essence of pennyroyal. A small quantity may be rubbed on the hands and face. The herb is used for the purpose in America.

Rub the bite of mosquitoes with a solution of borax in ammonia. It will remove or assuage the pain and itching.

The sawdust of juniper wood, mixed with combustible matter and burnt, will drive away mosquitoes and midges. The fumes of wormwood are also disagreeable to these little pests.

When bitten by midges, the best applications are oil of camphor and laudanum equal parts, applied on lint; or else Goulard water, 6oz., laudanum ½oz., applied on lint.

Take of ext. of belladonna, ½dr.; glycerine, ½oz.; water, 3½oz.; to be well mixed, and made into a lotion. The parts to be washed with a small quantity—about a teaspoonful or two at a time.

Goulard water mixed with a little Eau de Cologne makes an excellent wash for the skin in case of gnat bites; it effectually allays all irritation, and will, if previously applied, prevent the insects from attacking one. In Lapland the natives use tar-cream.

Essential oil of lemons will keep off midges.

Rub the exposed parts with sweet oil or laurel leaves bruised.

Glycerine, 4oz.; oil of spearmint, 2½dr.; oil of turpentine, 4dr. The face, neck, hands, in fact all parts exposed, to be rubbed with the mixture.

Every now and then anoint the hands and face with potato flour; this, it is said, keeps them off.

MOTHS DESTROYING FURS, FLANNELS, &C.

No. 1.—When the season for using your furs and warm clothing is over, sew them up in clean linen; no moth will trouble them.

No. 2.—American tobacco is an excellent thing to place with woollen materials, as it effectually prevents the moth from entering any box or wardrobe in which it is placed.

RATS.

Phosphoric Paste.—The way to use this paste is to smear a few pieces of meat with some of it, and put the meat where the rats frequent. As soon as they have taken the poisoned meat, they make for the nearest water to quench the thirst that the phosphorus excites. If, therefore, a pan of water is put about five or six yards from where the meat is laid, they will go to that, and after they have drunk they have not the power to move, and will be found dead near the water.

Poisoning of.—Bait the place well for three successive nights with bread and butter; afterwards use Blade's composition spread on the bread and butter, and lay about in pieces about the size of walnuts. When they refuse

this, use Harrison's pills till they refuse them, and then with a brush apply gas-tar about their haunts.

Take 1½ pints of oatmeal, threepennyworth of oil of rhodium, threepennyworth of oil of thyme, ditto essential oil of aniseed, arsenic as much as will lie on a shilling, 1oz. of brown sugar. Mix well, and put it on a plate. Do not touch it with your hands.

Take of powdered squill (Scilla maritima), 2oz., and of strong-smelling cheese 8oz. Mix together, and place in their haunts and runs. It acts immediately, and the rats die instantly; whereas most of the pastes, &c., allow the animals to retire into their holes, where their subsequent death and putrefaction may cause great inconvenience from effluxion.

For killing rats in the drains of a house, procure a small quantity of fresh barley-meal, and having run it through a sieve to take away the husk, add about one-eighth of the quantity of powdered loaf-sugar; mix well, and with this feed the rats three successive nights, laying about a tablespoonful in three or four different places in the haunts of the rats. Then on the fourth night use the same with the addition of a little arsenic. The roughness and sweetness of the sugar prevent them detecting the arsenic. Care must be taken to lay it out of the reach of anything except what is intended to be poisoned.

Procure 1lb. or 2lb. of red herrings, slit them down the back, and rub the insides with carbonate of barytes, then close them and toss them into the drains, being cautious to handle the fish as little as possible.

Never use *poison* except in *powder*, and mixed up with ingredients which are also in powder, because when made up into balls or pills a part of the composition may then be carried away by the vermin, which in the former case cannot occur.

Trapping of.—Where rats run from one part of a building to another, along the side of a moat, or any ledge of the building, or narrow path, you may catch them all if you can only intercept the run with water sufficient to cover the trap and form a bridge with it; and if the trap can be so tied as to fall into deeper water when sprung, and to sink overhead, rat and all, you do not alarm the rest.

For taking Rats alive in Hutch-traps.—One pound of oatmeal or flour, ½oz. of aniseed, 1oz. of cassia, 2oz. of white sugar, all finely powdered; mix. Feed with this mixture for five nights at the least before you tilt up the trap, which must be concealed with straw scented with 4 drops of oil of rhodium, 8 drops of oil of cinnamon, and 8 drops of oil of caraways. The paper on which the food is placed must also be scented with the same.

When you cease to catch any at night, feed again, and when you suppose all to be caught in one place, remove the trap to another.

It is good to scent every bait with oil of aniseed.

Set gins at the holes and cover them with sawdust; the rats in coming out are obliged to step on them.

Set an ordinary steel trap in their run, and cover it over with a clean duster or cloth. A clean cloth is necessary every time the trap is set. A butter-cloth is the best decoy.

The best way to catch rats with a steel trap is to put the guard up and lay the trap down as if set; feed the rats for a few days, always putting the meat on the kettle-board; they will eat it and get quite familiar with it; then all at once begin and catch them. Wait upon the trap, and if they have been well fed they may be taken nearly as fast as it can be set.

Feed the rats for three or four nights successively, leaving the traps (box traps) fixed open and baited with the following paste, so that they may go in and out and feed at their ease. This they will do regularly. If the rats are numerous and the premises extensive, take 4lb. of bread crumbs, 4lb. of flour, ½ pint of treacle, one teaspoonful of essence of anise, and half a teaspoonful of essence of musk; mix the whole well together, and bait the traps as above recommended for three or four nights. Several traps should be so prepared. On the night the rats are to be taken, bait as usual, having the traps set for catching; fix a wire cage over the end of the box-traps (which should be all of one size), for the purpose of driving them into, out of the box-trap, when they are caught. This is done by raising the end so covered with the cage-trap. Baiting and setting the traps again for two or three nights in this way, with strict attention, a great number may be caught.

The form of rat-trap that will catch rats coming out of a hole is the common steel trap. Set it *unbaited* close to the hole, so that the rat must set its feet on it. In order to circumscribe their limits apply asphalte outside round the barns, leaving a few of their holes or runs free, at which place the traps. Artificial holes in places have enticed the marauders on the fatal platform, placed at the outlet of each thoroughfare, not at the inlet.

Wooden fall traps are made, called hutch traps, or box traps. These traps are to be in the main runs in which the rats travel from one room or outhouse to the other, first preparing them after the following method. Purchase ½ pint of oil of aniseed, ½ pint of oil of caraway, and ½ pint of oil of rhodium. This will cost about 10*s*. Dab the traps on each side within well with the oil of caraway and oil of aniseed, and with the tip of your finger dipped in the oil of rhodium, in four or five places. It is enough, as the oil of rhodium has a very powerful smell. The food with which the traps are to be baited must be thus prepared: Grate a very dry loaf of

bread so fine that the rats cannot carry any of it away with them, and to every double handful put about ten or twelve drops of oil of caraways, by a few drops at a time, rubbing the bread between your hands well so as to impregnate the whole. You should taste the bread, and be guided by your taste not to make the bread taste too strong of the oil of caraways. Oil of caraways alone must be mixed in the food. The doors of the traps must be fastened firmly up, so that they cannot fall down; then, for the first two or three days, lay a table-spoonful, spread about, very near each door of the traps, and by degrees put the food farther into the traps. After a few days you must lay the food on the bridge of the trap only. After this method, you are to proceed until you observe that the rats frequenting the traps constantly run and feed freely; dabbing the traps every day with the oils. This will take eight or ten days. When you are sure that they run and feed freely, after the house is quiet, and everyone is gone to bed, you may tilt the traps up, and begin to catch, reserving one spare trap near you to put down in the place of any one you may take up with the rats in it. You must leave all the doors open, sit down very quietly and listen. When you hear one trap strike, you must be prepared with a large canvas bag, with a large mouth to it, so as to admit one end of a trap into it; hold the bag under the trap, whilst another person tilts the trap, with the lower door open, perpendicularly, and shoots the rats into the bag; then gather your hands round the mouth of the bag, swing it, and strike it very hard against the wall or the floor, so as effectually to kill every rat in it. In this you must be very particular, for in it lies the whole strength of the art. If you let even so little as one single rat either out of the trap or the bag, you will not catch one more rat that night; and you must fasten the traps firmly up, and begin to feed them again, which will take four or five days at least. When you hear the doors of one of the traps fall down, and you take it up, you must carry another trap with you, and lay it down exactly in the same place, putting a little of the food on the bridge.

As regards setting a trap for these cunning marauders, the trappers should be as sly as their victims. In setting the steel trap it should not be set with the naked hand, but gloves should be worn. If rats abound in a stable, the best way of concealing the trap is by covering it with litter. The rats will with little suspicion come to the litter and pick up any corn deposited therein, sooner than if a trap were covered with straw, or any other bait adopted. As regards shooting rats: When pigs have retired the rats repair to the trough and content themselves with the leavings of the swine, when they may be shot.

The rat generally runs in a certain track, and it can be easily caught by placing an ordinary steel trap on this track, it being necessary only to take

care that there shall be nothing to attract its attention. The trap should be scalded at first and not handled at all afterwards, because the sense of smell in the rat is very acute. As a guide to the probable track of the rat, on coming out of a hole, it usually runs at first alongside of the wall in preference to any other route. A scalded steel trap, set without any bait close to a wall, and at right angles to it, at a distance of a yard and a half or two yards from the hole from which a rat is known to enter, will usually capture it in a very short time.

Traps for.—A well (Fig. 1, *a a*) should be made, bricked round, 30in. deep and 30in. square at the top. Over this should pass a frame 40in. long by 6in. wide outside, supporting a covered way (*b*), which has for its floor

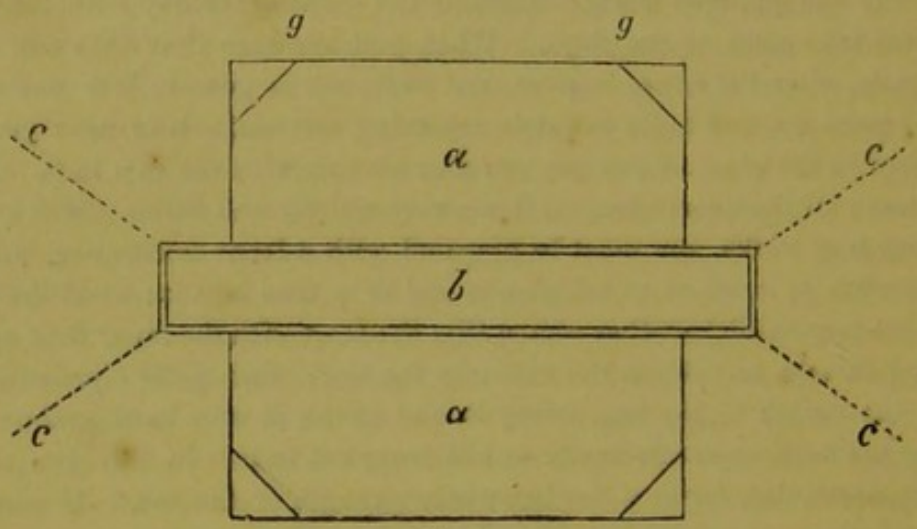


Fig. 1.

the two trap-doors, represented on a larger scale in Fig. 2. These doors (*d d*, *e e*), which should be 4in. wide and 18in. long, must be hung upon pivots of brass, working in brass plates (*f f*, *f f*). The doors to be balanced

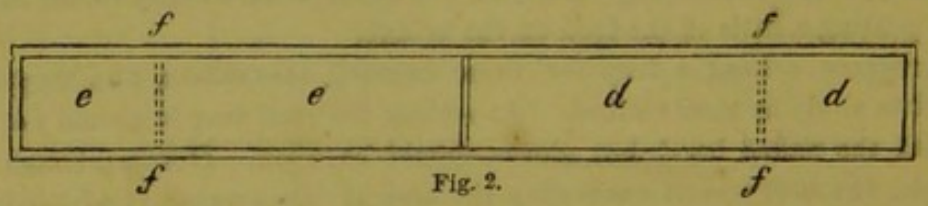


Fig. 2.

by lead, so as to stand level. The well must be covered. One side of the covering might be on hinges, and left up to give access to the well. The hinges to be at *g g*. The corners of the well are filled up to prevent the rats running up them so easily. A clever carpenter will understand how to arrange matters, so as to make the pitfall doors work with the least possible amount of friction, so that 1oz. weight will take the door down, and on its removal the door shall rise again flush with the other. He will also

suggest access to the well sufficient to clear the well of vermin. The covered run over the trap-doors must be of sufficient height to permit of the short end of each door rising as the other end falls.

The sides of the run, and the frame in which the doors work must be so arranged as not to afford anything for the rats to cling to, for when they feel the door sinking under them they will endeavour to cling to the sides. All to be smooth and clear in the well and under the ends of the doors, the under side of which, from the pivot to the edge of the well, must be boarded or barred across to prevent the rats pushing them up.

The trap should be placed either by the side of a wall or opposite to an opening through a wall or other close fence; if not, it may be placed in any place where vermin are likely to work, provided guide-fences are constructed, as shown in the diagram (*c c c c*), formed of something close enough to confine vermin to the track.

Board Trap, the.—Take a small deal board, 2ft. long and 9in. wide, with a hole bored through the centre (from one edge to the other); it will then require a piece of iron 11in. long to go through this hole, and stand out an inch on each side. The board must be a trifle heavier at one end, so that it will re-set itself after having tippled a rat into a cistern or tub. Of course the irons on each side will be placed in a groove, and must be made to turn very easy.

SLUGS IN HOUSES.

Put salt so as to prevent their ingress, by laying it where they enter, which may be done by tracing their slime. Put the salt in a line so as they must come over, and they will be dead and hard as horn.

SNAILS IN HOUSES.

Place some dry salt upon their shining tracks along the floors of the rooms. At night they will crawl about in all directions, and when they come in contact with the salt, will die.

WASPS, MODE OF DESTROYING.

About noon, or soon after, when these insects are abroad in search of food, fumigate the hole with sulphur; then dig out the comb, and destroy everything in it; then place a wine bottle, half full of water, in the hole, leaving the mouth of the bottle within an inch of the surface of the surrounding earth; and, on taking it up on the next morning, you will find every one of that family safe in the trap.

Mix 4dr. of powder with a sufficient quantity of water to make it adhere to a stick of wood, the size of your finger, and 6in. long. The stick must be pointed at one end, and the mixture must only be placed 2in. up the

stick. It must now be laid very carefully on the bricks to dry, which will take about two days. As soon as it is sufficiently dark, take a spade, box of matches, lantern, and piece of straw; and after lighting the squib, which must be held close to the hole, apply it as far in as possible, taking care to place a piece of turf over the hole, so as to secure all the smoke. In five minutes the wasps may be dug out; but they must be destroyed immediately, as this will only stupefy them for a time. Possibly, if sulphur was used as one of the ingredients, the mixture would destroy them at once.

Bottles half filled with diluted treacle, hung up in fruit trees, will catch multitudes of wasps every sunny day, and also draw them, to some extent, from the fruit. Perseverance in this method of trapping will do wonders, provided the bottles are inspected daily, the dead wasps removed, and the viscid liquor kept supplied.

Place sliced pears, forming a bait of about 5in. or 6in. across. On this twenty wasps at a time will alight, and begin to devour it with avidity. Just as the swarm is quietly at work, lay upon them an old silk handkerchief eight times doubled, and press the whole to death. The carcases are removed, and the process proceeds as before.

Another trap is as follows: Cut a large pear in half, and scoop out a little of the inside of the upper portion. A notch is then cut in the lower rim of the rind, similar to the opening of a beehive (which, indeed, the pear resembles), and being placed near the window, the wasps enter until the excavated part is soon full. Then tap the top of the little hive with a paper-knife, and out come the wasps one by one, when they are slain by that instrument.

When it is sufficiently dark, and you think all the wasps are in the nest, thrust into the hole a piece of rag well saturated with spirit of turpentine; do not ignite it, but immediately block up the orifice with a spadeful of plaster, or moist blue clay, and you will find in a few minutes every wasp inside will be completely suffocated. If you wish to dig out the nest, do not do so under at least an hour, as it takes a much longer time to suffocate the grubs than the full-grown wasps. You will find many strong nests have two entrances to them, so, most probably, the second hole will have to be stopped in the manner above mentioned the following night.

A small quantity of tar, poured into and about the vents to the nests, is the most simple and certain settler of these pests. Should the nest be so situated that the tar cannot run into their hives, a few branches of fern, or the like, dipped in tar, and laid or hung about the vent, will answer the purpose.

Fill their nest-holes at night with coal-tar, not refined tar, but as it is

produced in the gasworks (in which state it contains a considerable quantity of naphtha); pour a sufficient quantity of the tar into and around the mouth of the wasp nest; then put a light to it. The burning tar and naphtha will not only destroy the wasps inside the nest, but also attract and kill the outliers and wandering wasps, and thus effectually extirpate the whole clan.

Mix a quantity of tobacco and brimstone in a pair of fumigating bellows, such as are used in a nursery: place the snout in the opening, and begin to work; in less than two minutes not a wasp will be found alive.

When the wasps are all in, take a Roman candle, light it, and when it is fizzing put it into the hole and keep your hand upon it till it has exploded; then stop the hole up, and afterwards dig them out, care being taken not to injure the comb.

No way of taking wasps' nests is so effectual as the common practice of squibbing them. In making the squib, mix powder and water to a firm consistency, about the size of a man's finger; wrap it in brown paper, putting a little drier powder at the lighting end, as touch paper. Go as soon as it begins to get dark, and having set fire to the squib, put it down the hole and immediately press a sod on the top. This will keep in all the smoke, and soon smother the wasps. Then dig out the nest, picking out the best of the cake for fishing; put the rest in a bag, and when you get home tumble them in water (hot is the best), or they will come to life again.

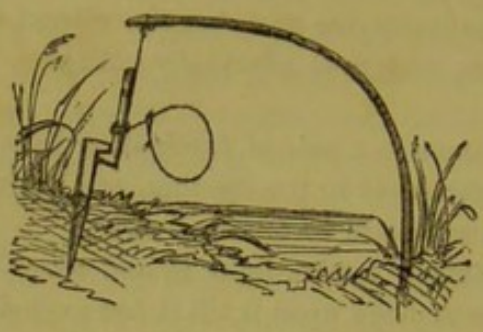
Mix arsenic with lump sugar, 1gr. to 20, and lay it on orange peel. The wasps will greedily eat this; but it is necessary to be cautious in having the compound lying about out of doors.

Take a garden watering-pot and a crowbar, break through the nest, and pour water on it, at the same time stirring it up with spade and bar till it is one mass of mud. The wasps at home, and grubs, will be effectually destroyed.

WATER-RATS.

No. 1.—Take a piece of stick about twice the size of a tobacco-pipe, and from 5in. to 6in. long, cut to a point at one end, and a notch or shoulder at the other (1); and another (2), to which fix a piece of fine wire (as drawn); then procure a hazel-bender about 4ft. long, and sufficiently strong to suspend a rat easily, to the top of which attach the piece of wood (2) by the string,

as drawn. The trap, when set, will appear as below. The noose must be put in the run most used, or where the rat jumps into the water.



SET.

STRUCK WITH RAT IN.

No. 2.—By merely stamping on the banks by the streams that water-rats frequent, and using a hand-net, any number of them may be destroyed.

No. 3.—Water-rats may easily be destroyed by putting poisoned food into their holes, care being taken to put it well in.

WARDROBE, THE.

BUCKSKIN GLOVES, TO CLEAN.

No. 1.—To a ¼lb. of Paris white add the same quantity of scraped pipe-clay and 3oz. of best isinglass; boil all well down, stirring the while. Put the compound on thick, and, when dry, beat it well out by clapping your hands together, &c.; then carefully iron the gloves with a hot smoothing-iron.

No. 2.—When dirty, wash several (three) times in clean warm (not hot) "soap lather." Put a little blue in, wring them well, then put them in as good a form as you can—as nearly what they should be when dry as practicable. When nearly dry, but sufficiently damp to form to the hand, put them on; if difficult to get on, damp a little; then press or push them off, and when dry (from the fire) they will be as good as new, and white and clean, and not mark anything.

No. 3.—One ounce of gum arabic to 1lb. of white lead (powder), free from lumps, to be well dissolved and strained through muslin; afterwards mix your lead stiff and put it by until perfectly hard. Be very careful not to leave water in the box or sponge after using.

No. 4.—Take ½lb. of prepared chalk, ½lb. of prepared alum, 3 cakes of pipeclay, ½oz. of oxalic acid, ½oz. isinglass, 1oz. pumice-stone powdered, 1 table-spoonful of starch, 6 table-spoonfuls of sweet oil, 2oz. of white soap. To be mixed in boiling water; the oxalic acid and prepared alum to be added last.

CLOTH, TO REMOVE GREASE AND STAINS FROM.

The following very simple remedy will thoroughly cleanse the collars of coats, or any other parts of them that may become soiled: Dissolve a small lump of washing soda in a saucer of warm water, and rub the stains well with a piece of flannel wetted with this solution.

CLOTHES, TO KEEP MOTHS FROM.

No. 1.—Nothing moths dislike so much as being disturbed. The clothes, &c., should therefore be taken out of the linen bag (a pillow-case tied or sewed at the open end is the best), and well shaken once a month. Moths cannot bear tallow; and if curtains, &c., are put away for any time, a pound of the commonest tallow candles should be put in paper and placed in with them. In the museum of the Jardin des Plantes, at Paris, they use benzine collas to keep the moths out of the skins of the animals.

No. 2.—Dry some alum over a fire until it becomes a cinder, then pound it and shake it about the article, whatever it may be.

No. 3.—It is damp which enables the moth to attack carriage-linings, &c. Spirit of turpentine would prevent it. Corrosive sublimate dissolved in spirit of wine will be little less efficacious, without hurting the colours; to be applied freely with a brush.

No. 4.—Wash the cloth all over with an infusion of bitter-apple—½oz. of bitter-apple to half a bucketful of hot water; to be repeated annually. This does not discolour the cloth.

No. 5.—Put a small quantity of corrosive sublimate into spring water, and sop the cloth well with the mixture. This will not in any way injure either the cloth or its colour, and will for ever preserve the cloth. The water must not be so strong with corrosive sublimate as to leave white sparkles on a black feather dipped in it and afterwards dried. This preparation will preserve cloth, feathers, and furs from moth. Before skinning birds for stuffing wash them in this mixture, to preserve the feathers from every kind of insect.

SILK, TO TAKE OUT CREASES IN.

Moisten the surface evenly with a sponge and some weak gum or glue, and then pin the silk on a mattrass or feather bed, straining it as tightly as possible. Light silks require great care. It is perhaps as well to iron the silk on the wrong side after washing.

TROUSERS, SEALSKIN.

Those who wear them should be careful not to stand before a hot fire with them; it makes them tender very soon, especially if you come in wet.

WAISTCOATS, MOLESKIN.

When stripped from the animal the skins should be turned inside out, and well dried. Any respectable furrier will then get them dressed and sewn together to a pattern furnished by the tailor, who must then finish the waistcoat. The winter is the proper time for them, as the fur is "up" then; and as the two sexes vary in colour, it is as well to keep to one, either buck or doe; but the buckskins are the better, being darker and more perfect. It takes ten dozen skins for a single-breasted waistcoat, and the cost is about 4*l.* in all—viz., 2*d.* a skin for catching, 2*d.* for tanning, 1*l.* for dressing, and 1*l.* making up. They will not bear rough handling, being liable to tear.

WASH-HOUSE.

GUM-ARABIC STARCH.

Two ounces of fine white gum arabic ground to powder, on which pour a pint or more, according to the strength required, of boiling water. Cover it down, and let it stand twelve hours; strain, and bottle for use. A tablespoonful of gum-water stirred into a pint of starch that has been made in the usual way will give lawns a very new look. It is also good, much diluted, for thin white muslin and bobbinet.

WINE CELLAR, THE, &c.

AMERICAN DRINKS.

The first necessary for the "concoction" of nearly all the summer drinks is a pair of "shakers" or large tumblers, made of silver or block tin. The largest shaker should be about the size of a soda tumbler, but rather larger at the top; the second not so large, and the top should be made to fit into the top of the largest, so that when they are "mouth to mouth" the liquid inside will not leak during the process of shaking. These shakers are used for making "mint juleps," and "cobblers," also "cocktails." To make a "julep," put a wine-glass of brandy into the large shaker, sugar according to taste, say one or two teaspoonfuls, a little water, a little lemon-peel, some mint, and fill up with ice broken into small pieces. Invert the small tumbler and insert it into the mouth of the larger, being careful to hold them well in hand—one in each—then shake them up and down until the hands feel very cold; care should be taken to have the larger tumbler underneath, as the addition of the melted ice would be apt to overflow the smaller one. Pour the mixture into a glass tumbler and drink it through a straw or glass tube. For claret cobbler: Same as above, with the exception of the lemon-peel and a larger quantity

of claret, to be "shaken before taken," and imbibed through a straw. Sherry cobbler: Same as claret, with the addition of mint. Sometimes a few strawberries or raspberries are added.

BADMINTON.

One bottle of vin ordinaire, 2 bottles of soda water, 1 small glass of pale brandy, small piece of lemon-peel, sugar, ice.

BISHOP, OR SPICED WINE.

Make several incisions in the rind of a lemon, stick cloves in the incisions, and roast the lemon by a slow fire. Put small but equal quantities of cinnamon, cloves, mace, and allspice into a saucepan, with ½ pint of water; let it boil until it is reduced one-half. Boil a bottle of port wine; burn a portion of the spirit out of it by applying a lighted paper to the saucepan. Put the roasted lemon and spice into the wine; stir it up well, and let it stand near the fire ten minutes. Rub a few knobs of sugar to taste on the rind of a lemon, put the sugar into a bowl or jug, with the juice of half a lemon (not roasted), pour the wine into it, grate some nutmeg into it, sweeten it to your taste, and serve it up with the lemon and spice floating in it. Oranges are sometimes introduced instead of lemons.

BUTTERED JACK.

Take a brass pan, put in ½lb. of lump sugar, a glass of sherry, and 1lb. of fresh butter to melt; beat up half a dozen fresh eggs well with a little sherry, and having moderately cooled the pan with 2 bottles of light dinner sherry, add the eggs while gently stirring, and place on the hob till quite hot, taking care not to let it boil, sweetening to taste. The pan must not be too hot when pouring in the eggs, or they will curdle.

CARDINAL.

The same as Bishop. Substitute claret for port wine.

CHAMPAGNE CUP.

One quart bottle of champagne, 2 bottles of soda water, 1 liqueur-glass of brandy or curaçoa, 2 table-spoonfuls of powdered sugar, 1lb. of pounded ice, and a sprig of green borage.

CHERRY BRANDY.

No. 1.—Take ripe black geans (Scotch wild cherries); pick off the stalks and pick over the fruit as for a tart, but do not wash them. Half fill large wide-mouthed bottles with layers of fruit and pounded white sugar; fill up with good French brandy; cork well, and the longer it stands the finer it is. Bruise a few of the fruit, so as to crack the stones. It is useless to attempt to make good liqueurs with anything but French brandy, and that of the

best. If you cannot procure black geans, use fine Morella cherries, each of which must be wiped and pricked with a bone stiletto or knitting-needle. In this case the cherries are a good dessert dish.

No. 2.—Get the largest Morella cherries, cut off half the stalk, pricking each cherry with a needle, and putting them into a wide-mouthed bottle. Add three-quarters of the weight of the cherries in white candy sugar bruised, between the layers of the cherries, until full; add a gill of noyeau, and then fill up with French brandy; cork tight, and tie a bladder over the bottle.

No. 3.—Having cut off half the stalks of some Morella cherries, put them very gently in and three parts fill a wide-mouthed glass bottle that contains one quart. Add 4oz. of white sugar candy finely powdered, fill close up with the best brandy, adding one clove, 2dr. of dried Seville orange-peel, and 1dr. of cinnamon. The last three ingredients to be taken out in fourteen days; then fill up the vacant space with brandy, and cork carefully.

CLARET CUP.

No. 1.—One bottle of claret, 1 bottle of soda-water, ½lb. of pounded ice, 4 table-spoonfuls of powdered sugar, quarter teaspoonful of grated nutmeg, 1 liqueur-glass of Maraschino, and a sprig of green borage.

No. 2.—To each bottle of ordinary claret add a bottle of soda-water, a glass of sherry or curaçoa, the peel of a lemon cut very thin, powdered sugar according to taste. Let the whole remain an hour or two before serving, and then add some lumps of clear ice.

No. 3.—To the above add a few slices of cucumber, or some sprigs of borage instead of the cucumber.

No. 4.—As No. 2, except the lemon peel, for which substitute, when in season, a pint of ripe raspberries or four or five peaches or nectarines, cut in slices.

COWSLIP WINE.

No. 1.—To 2 gallons of water add 2½lb. of powdered sugar; boil them half an hour, and take off the scum as it rises; then pour it into a tub to cool with the rinds of 2 lemons. When it is cold add 4 quarts of cowslip flowers to the liquor with the juice of 2 lemons. Let it stand in the tub two days, stirring it every two or three hours, and then put it in the barrel. Let it stand a month; bottle it, and put a lump of sugar into each bottle. It makes the best wine to have only the tops of the peeps.

No. 2.—To 6 gallons of water add 21lb. of lump sugar and the whites of 2 eggs; boil it (taking off the scum as it rises) till it clears itself, which will be in about half an hour; when nearly cold add 24 quarts of cowslips, the rinds of 2 lemons, and a spoonful of brewer's yeast spread upon toast

Let it ferment for three days, stirring it twice or thrice a day, and then put it into a barrel, adding 1 pint of brandy, and cork it tight. When it has done fermenting, which will be in about three weeks, put into the cask a syrup made of 6 lemons and 1½lb of sugar, which has stood till cold. Let it stand four months, when you may bottle it for use. Take out the rinds of the lemons before you put it into the cask.

COWSLIPS, SYRUP OF.

Take of fresh cowslip flowers, 12oz.; boiling water, 1 pint; infuse for twenty-four hours, strain, and then add ½lb. of white sugar; boil it gently until it attains the consistence of a syrup. The cowslip was at one time very highly celebrated for its narcotic virtues; and cowslip water and infusion of cowslip have been much recommended. The infusion is made in the following manner: Half an ounce of dried cowslip flowers, or 1oz. of fresh, must be put to stand in a close vessel with 1½ pints of boiling water for half an hour, when it may be drunk in the same manner as tea.

GINGER BEER.

One pound and a quarter of lump sugar, ¾oz. of ginger well pounded, the peel of 1 lemon cut very thin; put them into a pitcher, then add 11 pints of boiling water; stir the whole, then cover it up. When cooled till only milk-warm, put 2 spoonfuls of yeast on a piece of toast, hot from the fire, add the juice of the lemon. Let it work twelve hours; strain through muslin, and bottle it. It will be fit to drink in four days.

Two pounds of loaf sugar, 2oz. of bruised ginger, 1 lemon; put all together and pour 2 gallons of boiling water on it; let it stand one day, then strain it, and put 2 spoonfuls of yeast to it.

To 10 gallons of water put 12lb. of sugar, 6oz. of bruised ginger (unbleached is the best). Boil it one hour, put it into a barrel with 1oz. of hops and 3 or 4 spoonfuls of yeast. Let it stand three days; then close the barrel, putting in 1oz. of isinglass. In a week it is fit for use. Draw out in a jug and use as beer.

The rinds of 3 lemons pared very thin, 1½oz. of cream of tartar, ¼lb. of ginger (bruised), 3½lb. of loaf sugar, 2½ gallons of boiling water. Let it all stand till milk warm; then add a dessert-spoonful of yeast. Let it remain all night, then strain it off, and add half a pint of brandy. Bottle it in very clean half-pint glass bottles, and tie down the corks. It will be ready for drinking in a week's time. Lemon juice may be added, if desired.

GOOSEBERRY WINE.

No. 1.—To every pound of gooseberries, when picked and bruised, put 1 quart of fresh cold spring water; let it stand three days, stirring it

two or three times a day. To every gallon of juice put 3lb. of loaf sugar; put it into a barrel, and when it has done working, to every 20 quarts of liquor put 1 quart of brandy and a little isinglass. The gooseberries should be picked when they are just changing colour, and may be of any sort or kind. It should stand in the barrel half a year. Taste it frequently, and bottle when the sweetness is sufficiently gone off.

No. 2.—To 10 gallons of cold water take 10 gallons of unripe large gooseberries, cut them in halves, and throw them into the water; let them lie four or five days, frequently stirring them; strain off the liquor, and add 30lb. of white sugar; dissolve the sugar, strain the whole into a cask. It will probably remain in a state of fermentation for two months; when that has subsided, bottle it.

INSECTS EATING CORKS, TO PREVENT.

Petroleum smeared over the necks and corks of the bottles will protect the corks from the encroachments of insects, nor does it injure or affect in the slighest degree the contents of the bottles.

Another remedy is dipping the cork and neck of the bottle into quick-lime of such a substance that it forms a "capsule" which incloses the insect; or, if it is already in the cork, kills it. Apply the lime in a boiling state.

LAWN SLEEVES.

The same as Bishop. Substitute Madeira or sherry for port wine, with 3 glasses of hot calves-foot jelly.

LOVING CUP.

No. 1.—Half ounce of cloves, ½oz. of allspice (whole), ½oz. of cinnamon; mix them together with a pint of water, boil till reduced to one-third, then strain it off. Add 2 bottles of sherry, 2 ditto Madeira, 1 ditto port, 1 ditto claret, the juice of 6 lemons, 1½lb. of loaf sugar, 2 nutmegs grated finely, 1 quart of water. Flavour with the spices according to taste. This is sufficient for 150 guests. Send round cold.

No. 2.—Extract the juice from the peel of the lemon by rubbing sugar on it, cut 2 lemons into thin slices; add the rind of 1 lemon cut thin, ¼lb. loaf sugar, and ½ pint of brandy; put the whole into a large jug, mix it well together, and pour 1 quart of cold spring water upon it; grate a nutmeg into it, and 1 pint of Madeira wine, and 1 bottle of cider; sweeten it to your taste with capillaire or lump sugar; put (in summer) a handful of balm, and the same quantity of borage, in flower, into it, stalks downward; then put the jug containing the liquor into a tub of ice, and when it has remained there one hour it is fit for use. The balm and borage should be fresh gathered. In winter use ale instead of cider, omit ice of course, and drink warm.

MANGOLD-WURZEL BEER.

Wash the roots, scrape and pare them, cut them up as for sheep, fill the boiler with them, and then pour as much water to them as it will hold. Let them boil about six hours, and then strain them through a basket, but not press them. Measure the liquor back again into the boiler, and to every seven pails put 3lb. of hops, 6lb. of coarse brown sugar, and ½lb. of mustard-seed. Boil them together for two hours, then strain it through the brewing-sieve; and, when cool, work it with yeast the same as other beer. Before putting into the barrel the next day skim off the dark-looking froth.

MAY DRINK.

Put into a large glass mug or china bowl about two dozen black-currant leaves, a small handful of woodruff, and a quantity, according to taste, of pounded lump sugar and lemon-juice; pour in 2 bottles of hock or Moselle, never mind how common. Stir the whole occasionally for half an hour, and then serve on table.

MEAD.

Dissolve 1oz. of cream of tartar in 5 gallons of boiling water; pour the solution off clear upon 20lb. of fine honey, boil them together, and remove the scum as it rises. Towards the end of the boiling add 1oz. of fine hops; about ten minutes afterwards put the liquor into a tub to cool; when reduced to the temperature of 70° or 80° Fahrenheit (rather less than the warmth of new milk), according to the season, add a slice of bread toasted and smeared over with a little yeast. The liquor should now stand in a warm room, and be stirred occasionally. As soon as it begins to carry a head it should be tunned, and the cask filled up, from time to time, from the reserve, till the fermentation has nearly subsided. It should now be bunged down, leaving a small peg-hole; in a few days this also may be closed, and in about twelve months the wine will be fit to bottle.

MILK PUNCH.

No. 1.—Pare the rind off 12 lemons and 2 Seville oranges thinly; put them to steep in 6 pints of rum, brandy, or whisky for twenty-four hours; then add 2lb. of refined sugar, 3 pints of water, 2 nutmegs grated, and 1 pint of lemon-juice; stir it till the sugar is dissolved; then take 3 pints of new milk, boiling hot, and pour on the ingredients; let it stand twelve hours, closely covered; strain through a jelly-bag till quite clear; bottle it.

No. 2.—Pare 18 lemons very thin, infuse the peel in 1 quart of rum, and keep it closely covered. The next day squeeze the juice of the 18 lemons over 4lb. of white sugar, and keep this also closely covered. The third day mix the above ingredients together, and add 3 quarts more of rum (or else

1 quart of rum and 2 quarts of best cognac, which is preferred by some), and 5 quarts of water that has been boiled, but is cold when added, also 2 quarts of boiling milk; stir the whole mixture for about ten minutes, cover close, and let it stand for about three hours, until quite cold; strain through a flannel bag two or three times, till quite clear. In bottling, care should be taken that the corks fit tight, and it will keep three or four years.

No. 3.—The following is a celebrated Cambridge recipe for milk punch: Beat up 4 new-laid eggs in the bowl in which you intend sending the punch to table; then add the following ingredients (recollecting always to put in the noyeau first), ½ pint of noyeau, ½ pint of rum, ½ pint of brandy, and then ½ pint of noyeau, rum, and brandy mixed in equal proportions. Have 2 quarts of milk boiling, to which add half a teacup of sugar, and then pour it on to the spirit, putting a little nutmeg grated on the top.

MOSELLE CUP.

No. 1.—To each bottle of still or sparkling Moselle add 1 bottle of soda-water, a glass of sherry or brandy, 4 or 5 thin slices of pine-apple, the peel of half a lemon cut very thin, and powdered sugar according to taste; let the whole stand about an hour, and before serving add some lumps of clear ice.

No. 2.—As No. 1, except the pine-apple, for which substitute a pint of fresh strawberries, or 3 or 4 peaches or nectarines.

No. 3.—As No. 1, but add, instead of fruit, some sprigs of woodruff. Woodruff is an herb much used on the Rhine for making "May Trank," its peculiar flavour being most powerful in May; it is to be found in forests in many parts of England also.

No. 4.—When neither fruit nor woodruff can be obtained, add, instead of sherry or brandy, a glass or two of milk punch or essence of punch, and a little more of the lemon-peel.

MULLED ALE.

Boil a quart of ale with a little nutmeg; beat 6 eggs and mix them with a little cold ale; then pour in some of the hot ale, and return it several times to prevent it curdling; stir it well, and add a piece of butter and a glass of brandy, with sugar, nutmeg, and ginger to taste. A few cloves are an improvement. Six eggs will mull 3 quarts of ale.

To every quart of strong home-brewed Shropshire ale add 1 large wine-glass of gin or whisky. Pour it into a clean saucepan, and put it on a brisk fire until it creams, adding at the same time brown sugar, grated ginger, and nutmeg to taste; add cold ale until the whole is lukewarm. Serve in a brown earthenware two-handled cup, adding a thick piece of toasted

bread. The toasted bread is covered with brown sugar, and eaten with toasted cheese.

Break 2 fresh eggs into a jug, to which add 4 teaspoonfuls of sugar, a little grated nutmeg and ginger. Some put a little allspice. Beat the eggs, sugar, and spices well up with a fork. Place a quart of ale on the fire in a pan, and when warm pour a little of the ale into the jug, and again well beat the eggs, &c. Then pour all the ale out of the pan into the jug, and from the jug into the pan, backwards and forwards several times, until the whole is well mixed. Heat the ale again if not hot enough, and sweeten to taste. It is best drunk warm. A little rum may be added for those who like it, and more than two eggs put in a quart of ale, if desirable—say three or four. Care must be taken not to let the ale boil, or it will be spoiled.

The yolks of 8 eggs well beaten up, powdered sugar, and a grated nutmeg; extract the juice from the rind of a lemon by rubbing loaf-sugar upon it; put the sugar, a piece of cinnamon, and 1 quart of strong home-brewed beer into a saucepan, take it off the fire when boiling, *pour into it one glass of cold beer, or a glass of gin if agreeable*, put it into a jug, and pour it gradually among the yolks of the eggs, &c., stirring all the time; add sugar if required. Pour the mixture as swiftly as possible from one vessel to the other till a white froth is obtained.

THE OXFORD GRACE CUP.

Extract juice from peeling of a lemon, and cut the remainder into thin slices; put it into a jug or bowl, and pour on it 1½ pints of strong *home-brewed* beer, and a bottle of sherry; grate a nutmeg into it; sweeten it to your taste; stir it till the sugar is dissolved, and then add three or four slices of bread toasted brown. Let it stand two hours, and strain off.

OXFORD MULL.

Boil a small quantity of cinnamon, cloves, and mace in ½ pint of water; pour into it a bottle of port wine, and when it is nearly boiling add 2 lemons thinly sliced; sweeten it to taste.

OXFORD PUNCH.

Extract the juice from the rind of 3 lemons by rubbing loaf-sugar on them; the peeling of 2 Seville oranges and 2 lemons cut very thin, the juice of 4 Seville oranges and 10 lemons, 6 glasses of calves'-foot jelly in a liquid state. The above is to be put into a jug, and stirred well together Pour 2 quarts of boiling water on the mixture, cover the jug closely, and place it near the fire for a quarter of an hour, then strain the liquid through a sieve into a punch-bowl or jug, sweeten it with a bottle of capillaire, and add ½ pint of white wine, 1 pint of French brandy, 1 pint of Jamaica rum,

and a bottle of orange shrub. The mixture to be stirred as the spirits are poured in. If not sufficiently sweet, add loaf-sugar, gradually, in small quantities, or a spoonful of capillaire. To be served up hot or cold.

PARTING CUP.

Put two or three slices of very brown toast in a bowl; grate over the same a little nutmeg; then pour in a quart of ale (mild preferable) and two-thirds of a bottle of sherry; sweeten with syrup, and (immediately before drinking) add a bottle of soda water; a little clove or cinnamon may be added, if approved of.

RHENISH CUP.

No. 1.—Take with each bottle of light hock about a dozen sprigs of woodruff, a quarter of an orange cut in small slices, and about 2oz. of powdered sugar. The herbs are to be removed after having been in the wine half an hour or longer, according to taste. A bottle of sparkling wine, added to four or five bottles of still hock, is a great improvement. A little ice is recommended.

No. 2.—Instead of woodruff and orange, take to each bottle of hock about half a pint of highly-flavoured strawberries. Sugar as above. The fruit to be taken with the wine after having been in it about an hour.

No. 3.—Take some thin slices of pine-apple instead of the strawberries.

No. 4.—Take to each bottle of hock two highly-flavoured peaches, peeled and cut in slices. Sugar as above.

RHUBARB WINE.

No. 1.—To make this the rhubarb must be quite ripe; to every gallon of rain water boiling, cut 8lb. of rhubarb into thin slices, put it into your pan or tub and cover it close with a thick cloth or blanket, and stir it three times a day for a week; then strain it through a cloth, and add 4lb. of loaf-sugar, the juice of 2 lemons and the rind of 1. To fine it take 1oz. of isinglass and 1 pint of the liquor, and melt it over the fire; be sure you do not add it to the rest of the liquor till quite cold; then cask it. When the fermentation is over bung it down. Bottle in March, and the following June it will be fit for use.

No. 2.—To every 5lb. of rhubarb stalks, when sliced and bruised, put 1 gallon of cold spring water; let it stand three days, stir two or three times every day, then press and strain it through a sieve, and to every gallon of liquor put 3½lb. of loaf-sugar, stir it well, and when melted barrel it; when it has done working bung it up close, first suspending a muslin bag with isinglass from the bung into the barrel (say 2oz. for 15 gallons). In six months bottle it and wire the bottles; let them stand up for the first month, then lay four or five down lengthwise for a week, and if none burst

all may be laid down. Should a large quantity be made it must remain longer in cask.

No. 3.—Take 18lb. of rhubarb, cut it into small pieces, put them with 20 gallons of soft water in a copper, and boil them till soft; then strain them through a sieve, then add to it five or six handfuls of balm, fresh or dried. To every gallon of liquor put 3lb. of lump sugar and ½lb. of Malaga raisins chopped, and when lukewarm put it into the barrel, and in three weeks stop it down. In six months bottle it. It will be fit to use in three months, or it will keep twenty years. You may make it pink colour by adding a pint of damson juice.

SHOOTING DRINK.

Strong green tea, with a little brandy in it is a capital drink for shooting.

Milk and whisky; quantity according to taste, the less spirit the better.

Melt or dissolve by a gentle heat 1oz. of black currant jelly in ½ pint of syrup; when cold, add the same quantity of rum. In summer the above is best; for the winter months, do as follows: Pick fine dry black currants, put them into a stone jar, and then the jar into a saucepan of boiling water till the juice is extracted; strain, and to every pint add ½lb. of loaf sugar; give one boil, and skim well; when cold, add the same quantity of rum (or gin, if you prefer it), shake well, and bottle.

SMOKERS' DRINK.

No. 1.—Place a large tumbler before you; put therein a coffee-cup of hot (very strong) Mocha coffee, pure, a piece of sugar, according to taste (it ought not to be too sweet), a handsome dash of pure cognac; then fill the same up with pure cold water, and drink it after stirring it well up.

No. 2.—Lemon and water, with or without sugar.

SUGAR OF LEAD IN WINE, TO DISCOVER.

Boil an ounce of quicklime and half an ounce of flowers of brimstone in a pint of water; when the liquor is cold, pour it into a bottle, and cork it up for use. A few drops in a glass of wine containing lead will turn it more or less brown, according to the quantity of lead contained in it; the wine, if wholly free from lead, will become thick, but rather of a dirty white than a black brown. The presence of alum may also be discovered in nearly the same way; for crystals will be formed in about twelve hours by mixing equal quantities of wine and lime-water: if crystals are formed, it contains no alum; if not, it does.

SUMMER DRINKS.

Cold tea flavoured with sliced lemon and dashed with cognac. The tea should be properly made—not allowed to stand until it becomes rank, but boiling water should be poured on the leaves, allowed to stand five minutes,

then poured into a jug with slices of lemon at the bottom. A wineglass of good brandy added when cool.

Mix together 2 quarts of best bottled cider—old, if possible—sweeten to taste, taking care that the sugar is perfectly melted. Add half a nutmeg grated, a little powdered ginger, a glass of brandy, a glass of noyeau; cut a lemon into it in moderately thin slices, and let them remain there. Make it two hours before wanted, and stand in some ice.

Sherry, 6 table-spoonfuls; brandy, 2 table-spoonfuls; sugar, 1½oz.; two or three shreds of fresh lemon-peel, cut very thin. This is the stock. It will be found convenient, when a quantity is required, to make a syrup of the sugar (1oz. of water to 2oz. of sugar), and to prepare the stock beforehand. The above quantity of stock should be added to 1 bottle of claret and 1 bottle of soda water. These should be kept in a cool place—a refrigerator, for instance—and only opened just before drinking. A lump of ice and a little borage are improvements. Two bottles of soda water instead of one can be used in summer.

To every 1½ pints of good ale allow 1 bottle of ginger-beer. For this beverage the ginger-beer must be in an effervescing state, and the beer not in the least turned or sour. Mix them together, and drink immediately

WASSAIL BOWL.

Put into a bowl ½lb. of Lisbon sugar; pour on it 1 pint of warm beer; grate a nutmeg and some ginger into it; add 4 glasses of sherry and 5 additional pints of beer; stir it well; sweeten it to taste; let it stand covered up two or three hours; then put three or four slices of bread (cut thin and toasted brown) into it. Sometimes a couple or three slices of lemon, and a few lumps of loaf sugar rubbed in the peeling of a lemon, are introduced.

WHITE WINE NEGUS.

Extract the juice from the peeling of a lemon by rubbing loaf sugar on it, or cut the peeling of a lemon very thin, and pound it in a mortar; cut 2 lemons into thin slices, 4 glasses of calves'-foot jelly in a liquid state, small quantities of cinnamon, mace, cloves, and allspice. Put the whole into a jug, pour 1 quart of boiling water upon it, cover the jug close, let it stand a quarter of an hour, and then add a bottle of boiling white wine; grate half a nutmeg into it, stir it well together, sweeten it to taste. In making port wine negus, omit the jelly. Negus is not confined to any particular sort of wine; if the jelly is omitted, it can be made with any or several sorts mixed together.

WOOD.

DRY ROT.

Wash with spirit of turpentine, to which a little corrosive sublimate has been added and shaken up, put it on liberally, so as to fill the holes. Add a second coat of it in a day or two after the first, and then varnish it over with oak varnish.

OAK DOORS, TO PRESERVE.

After the doors have been freed from the dirt and old varnish, by washing and scraping, give one coat of boiled linseed oil, covered with a little prepared asphaltum; allow three days for the oil to penetrate the wood and dry; then give two coats of copal varnish, allowing three days between each coat for the varnish to dry. This will restore the doors to their original colour.

TIMBER, MEASURING.

The usual and legal mode of measuring timber for sale on a gentleman's estate, is to take a thin silk cord, girth the fallen tree which you wish to measure, in the centre, and then the cord twice doubled gives the square; and on finding the length of the tree, you refer to the measuring book, which gives you the number of cubic feet in the tree. This is a clumsy method of arriving at the wished-for result, and liable also to fraud. The cord can be stretched when round the tree, and would go back to its original form when doubling it and measuring it on a foot-rule; also in the act of doubling advantage might be taken. Now a tape, like a common measuring tape, only instead of marking inches, each inch marks a $\frac{1}{4}$in., thus making the square; so it begins, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1in., $1\frac{1}{4}$, $1\frac{1}{2}$, and so on—is a good plan. This does away entirely with the doubling of the cord, and also the calculation, the tape at once showing the square of the girth. The tape is merely a yard of common tape, painted white, and then figured. There are three ways in which fraud may be attempted by the use of string—1st, the string may be stretched in girthing the timber; 2nd, the string may be shortened in folding; and 3rd, the rule that is used in measuring the quarter-girth may be, and very frequently is, unusually and unfairly stout.

TIMBER TO PICKLE.

Cut the timber up to the proper scantling, and then soak it in a pool of water, to which is added a quantity of fresh quicklime. Even Scotch fir thus prepared will make a lasting roof, as the fly or dry rot will never touch timber thus prepared, the texture becoming almost mineralised, and most difficult afterwards to be worked on with any edge tool; it should therefore be cut to sizes before being pickled.

TIMBER, TO POISON.

In order to prevent the worm destroying it, have a trough made of sheet-iron, place it between two low walls, about a foot from the ground, fill it about half full of gas-tar, put fire under it, and when your timber is quite dry, and formed into roof-spars, or what it is intended for, dip it into the tar for half a minute or so.

VARNISH FROM OAK, TO REMOVE.

To remove varnish from oak, at night brush it over with American potash, and on the next morning the whole of the varnish will scrub off with hot water, soap, and brush.

YACHTS AND BOATS.

VARNISH FOR BOATS.

No. 1.—Marine glue dissolved in naphtha is a waterproof glue, especially where pressure can be applied.

No. 2.—The best varnish for a light, well-built boat is coachmakers' copal, but any good carriage varnish will answer. The boat should be well cleaned and scraped all over, the varnish applied in a warm, dry place, and one coat thoroughly set before another is laid on. It is best to procure the varnish from a maker, telling him the purpose it is required for. There is a preparation of liquid glue, which can be obtained at the patentee's, Jeffery's, Marine Glue Manufactory, Commercial-road, Limehouse. It must be applied boiling hot, and requires about two coats, applied at intervals of two or three days. Oak varnish is suitable, being perfectly waterproof; it dries in a few hours, and is easily applied with a brush; price 2*s.* 6*d.* a pint.

INDEX.

C.

D.

E.

F.

G.

H.

I.

J.

K.

L

M.

N.

O.

P.

Q.

R.

S.

T.

U.

V.

W.

Y.

LONDON: PRINTED BY HORACE COX, 346, STRAND, W.C.

RECORD OF TREATMENT, EXTRACTION, REPAIR, etc.

Pressmark:

Binding Ref No: 3573

Microfilm No:

Date	Particulars
APRIL 99	Chemical Treatment Fumigation Deacidification Renaissance HA Liquid Lamination Solvents Leather Treatment Adhesives Remarks