INSECTS.

INSECTS other than those specially described herein, and which exercise certain subordinate remedial virtues, whether in pill, powder, potion or plaster, should receive some notice when treating at large on the subject of Animal Simples. Moreover, whilst taken by way of food, several of such insects promote the health of those persons who select them, in a sure though scarcely medicinal manner. Arnoldus gives us a wise aphorism to this effect, when he says "a discreet and godly physician doth first endeavour to expel a disease by medicinall diet; then by pure medicine. He that may be cured by diet must not meddle with physick." The flesh of most insects is chemically composed of the same substances as are found in that of the higher animals; and the great majority of insects live entirely upon vegetable matter in one form or another, so that they are eminently well fitted for human food. Not a few of them further possess salubrious qualities, more or less occult, which are healing as well as wholesome. If we take, for instance, the Woodlouse (*oniscus*), akin to the Hoglouse already discussed in these pages, and which is, as Vincent Holt shows, a kind of land shrimp, to be found in every garden, this insect develops a flavour when chewed closely resembling that so much appreciated in its marine cousin.

The following is Mr. Holt's recipe for cooking a dish of such small, semi-medicinal creatures (it being more than probable they share the curative belongings of their congeners, the Hoglice): Collect a quantity of the finest woodlice to be found,—no difficult task, as they swarm under the bark of every rotten tree,—and drop them into boiling water, which will kill them instantly, but not turn them red as might be expected. At the

same time put into a saucepan a quarter of a pound of fresh butter, a teaspoonful of flour, a small glass of water, a little milk, some pepper and salt, and place it on the stove; as soon as the sauce is thick, take it off, and put in the woodlice. This is an excellent sauce for fish. The Woodlouse may be known from the Hoglouse, or Millipede, by not rolling itself into a ball when touched, and by the two prominent lateral styles with which its tail is furnished. It inhabits also old walls throughout Europe, and is somewhat larger than the Hoglouse. Other names for this Woodlouse are Maggy Manyfeet, Churchbug, Churchlouse, and Carpenter. Bonnet relates that a young woman who had swallowed many of these little animals alive, threw up a prodigious number of them, of all sizes, which must have bred in her stomach.

In the same way, the various Caterpillars of our kitchen gardens offer palatable and salutary Simples, as food, and preventive medicine; only needing to be known to gain immediate appreciation; such as the caterpillar (one and a half inches long) of the large, white Cabbage Butterfly, which is of a greenish colour upon the back, yellow underneath, striped with yellow along the back and sides, spotted all over with black, and covered more or less with small hairs; likewise the caterpillar of the small, white Cabbage Butterfly, this being of a green colour, and velvety, with a stripe of yellow along the back, and spots of the same colour along the sides; again, that of the Cabbage Moth, coming so often to table as an unwelcome guest among the leaves of the cooked cabbage; it varies in colour from dirty flesh to green, and is a smooth, naked-looking larva. Next may be mentioned the caterpillar of the large, yellow, Underwing Moth, seen so generally feeding

on turnip and cabbage leaves; and that of the common Bufftip Moth, yellow striped and ringed with black, as frequently observed crawling along the street pavement. "These Bufftip Caterpillars," says Holt, "swarm so thickly upon the trees in favourable seasons, that many a dish of them can be obtained with a little trouble, which is amply repaid, not only by their flavour, but also by the saving of the tender foliage of the limes."

Each sort of caterpillar now particularized feeds upon the wholesome vegetables we cultivate for our own eating, and may therefore be supposed to imbibe and concentrate in its person the peculiar principles which are sublimated therein; but on this very account it is necessary to discriminate between caterpillars living on poisonous and non-poisonous plants, about which distinction very little difficulty need be feared. "Afterwards," as Miss Ormerod writes (*Manual of Injurious Insects*), "when the first brood of caterpillars has grown up and disappeared from the cabbages in early summer, the larvæ are to be found, now turned into chrysalids, lying sheltered about the corners and eaves of outhouses, potting sheds, and such places, so numerously that they may be easily collected in large numbers." And seeing that the Chinese regale themselves with benefit and satisfaction on the chrysalids of silkworms, there is ample reason for our taking culinary delight in these caterpillar chrysalids, temptingly fried in butter, with yolk of eggs, and seasoning *à la Chinoise*.

Another insect of most promising endowments for our palates, and for the recruital of our energies, is the common Cockchafer, *Melolontha vulgaris*, whereof the large, white grub spends three years in the ground, as a small beast of prey among the roots of our clover and grasses, before turning into a beetle. Erasmus Darwin, in his

Phytologia, shrewdly remarked, "I have observed the house sparrow destroy the May Chafer, eating out its middle, and I am told that turkeys and rooks do the same; whence I conclude this might be grateful food if properly cooked, as the locusts are in the East; and probably the large grub or larva of this Cockchafer, which the rooks pick up in following the plough, is as delicious as the Grugru, and the Palm caterpillar, which are roasted and eaten in the West Indies."

Once again, Wire worms make a capital dish, such as should find favour with the farmer, seeing that these, the larvæ of Skipjack beetles, are among the worst of their insect tormentors. "I know, personally," declares Mr. Holt, "that wire worms are an excellent substitute for shrimps."

And similarly, as to the Saw-fly, that very familiar insect whose grub plays such sad havoc with the gooseberry bushes, stripping them bare of leaves, and thus spoiling the prospects of fruit, the myriads of this grub can afford a most profitable harvest of choice food to be had for the gathering." When people have grown wise enough to realize the lesson, it will be a race between the cook and the gardener's wife who shall first reach the gooseberry bush.

Concerning the Cockchafer mentioned just now, it may be added, as writes Miss Buckland in *Our Viands*, "We have seen boys in Germany greedily devour this chafer alive, first depriving it of its legs and wings, and declaring it to be just like a nut." In the West it is popularly called "Oakweb;" in Somersetshire "Occul;" in Sussex "Sharn-bug;" in Cornwall, "Spinning Drone;" in the North "Brown Clock;" and in Devonshire "Hum-bug." Its grub, when of full size, measures nearly two inches in length.

Being large insects, the Cockchafers, or Maybugs, can be readily collected, often in considerable numbers, so that oil may be extracted from them by boiling. In the spring of 1868, thirty thousand hundredweight were gathered in the Province of Saxony alone. When procured thus in bags, they may be killed by being plunged into boiling water; and, if afterwards dried, they can be profitably added to food for pigs and poultry. "Greek boys," says White of Selbourne, "were wont to amuse themselves with Cockchafers chained by a thread." Aristophanes advised his disciples to "set your meditation free into the air, fastened with a strong thread to its foot, like a Cockchafer;" and in his *Wasps* (1342) he calls a young glee maiden "a little golden Cockchafer."

These beetles seldom abound more often than once in three or four years. Southey, in his *Common Place Book*, quotes from *La Perouse:* "We found millions of cockroaches in the breadroom of the vessel. These pests had so much infested the ship that the holy father who officiated as chaplain was obliged to exorcise them more than once."

It may be remarked here that Martin Lister has advised the experimental use of another bug besides this Maybug: a Cimex of the largest size, red in colour, with black spots, which is to be found in great abundance on the common Henbane (*Hyoscyamus niger*). "It is observable," he says, "that the horrid and strong smell with which the leaves of this plant affect our nostrils, is very much qualified in the said insect, and is in some measure aromatic and agreeable; so that we may expect that the strongly marked narcotic properties of such plant may be usefully tempered in the insect, which we refer to trial." A promise of mild, sedative effects therefrom is certainly held out.

To say a word or two more about the Saw-fly (*Tenthredo*), which is the smallest of our summer insects, and which deposits its eggs on the branches of the gooseberry bush, the rose tree, etc., in a groove made by its tiny saw; these are quickly hatched, and the grubs are to be seen hanging down, or coiled into a circle so as to attack the leaf. But the fly if alarmed folds up its saws, stretches itself out as if dead, and remains perfectly motionless.

Another insect must be passingly noticed, the House Cricket (*Acheta domestica*), immortalised "*On the Hearth*," by Dickens, and called by Cowper "the harbinger of good." "Crickets," said Dr. Salmon, in the *New London Dispensatory* (1696), are of the nature of Cantharides (blistering flies); the powder of them provokes urine, and will strengthen the sight; their juice has the same effect; their ashes are excellent against fluxes, and help the stone and dysury. The whole fly, hung about the neck as an amulet, helps quartans." Most persons know and are fond of the merry little cricket, with its silent wife. It is of a sooty brown colour, about three quarters of an inch long, loving a warm proximity to fires; but, as White remarked, of a thirsty race, showing a great propensity for liquors, and being often found drowned in a pan. Yet the primitive Christians were known as "Crickets of the night" because of their ejaculatory prayers, uttered aloud whenever happening to wake. In Devon, the presence of the Cricket is considered to predicate misfortune.

Squilla, the sea shrimp, was thought in former days to be highly restorative; dissolved in chicken broth these were declared to be as renovating to the strength as the best crabs or lobsters, and were given to cure consumption. The red shrimp "carries a sword in his

head," and boils almost the colour of a prawn; the "bunting" shrimp boils brown.

In the *Swiss Family Robinson*, that well-remembered delight of our boyhood, second only in its fascination to dear old *Robinson Crusoe*, we revert with fondness to the passage wherein the shrewd, adventurous father narrates how on finding a Sago Palm in the woods, when wrecked on an island with his family, he saw in its pith some fat worms or maggots, and recollected he had heard of such maggots being eaten in the West Indies as a delicacy; whereupon, after kindling a fire, he placed some half dozen of them, sprinkled with salt, on a little wooden spit, and set them to roast. Very soon rich fat began to drop from them, and they smelt so temptingly good that all repugnance to the idea of eating worms vanished; and putting one, like a pat of butter, on a baked potato, he boldly swallowed it, and relished it amazingly.

The Migratory locust (*Pachytylus*), is of a pale brown colour, with large, powerful wings which have a slight greenish tinge. The insect is very destructive. It is rare in this country, but a few specimens annually find their way to our shores. During the Russo-Turkish war the advance of a large army was stopped by a vast flight of locusts; and railway trains have become arrested in their progress by these creatures, chiefly on account of the oil flowing from their crushed bodies upon the line, so that the wheels would not hold the rails. Travellers differ in their estimation of locusts as food; one says that their flavour can only be compared to a mixture of linseed cake with burnt feathers, whilst another declares they can scarcely be distinguished in taste from shrimps. They are intolerant of cold, and after a snowstorm lie dead in banks three or four feet high and fifty miles long. It surely would be worth

someone's while to utilise all their animal oil, whether medicinally, or commercially.

Dean Pigou tells of a Parish Clerk averse to Ritualism who, when asked by the Bishop what fresh innovations had been made since his last visit, replied, "Oh, my lord, the Vicar has now taken to burning *Insects*."

ISINGLASS.

ISINGLASS (*Ichthyocolla*), or fish glue (*icthus*, a fish ; *kolla*, glue) was noticed of old by Dioscorides and Pliny. It is got from the air-bag and the swimming bladder or sound, picked and cut, of various fishes. Russian kinds are the best, but Brazilian are cheaper. When dried and unfolded, it is leaf and honeycomb ; when folded, staple and book ; or when rolled out, ribbon Isinglass.

The title is a corruption of the Dutch *hyzenblas* (an air-bladder), because this substance is prepared from the bladder and sounds of the sturgeon. Isinglass is a very pure form of gelatine, which when taken with other kinds of food assists to nourish the body. Gelatinous preparations, if given in a suitable form of sustenance, serve to economise the vital forces. The great Isinglass Sturgeon, *Acipenser Huso*, inhabits the Northern, the Caspian, and Mediterranean seas; from its sound, or air-bladder the isinglass is prepared. The sounds are split, washed, rolled into long or short staple, and dried in the open air.

From the roe, salted and dried, of the common Sturgeon, is prepared Caviare.

"Gelatine," says Yeo, "cannot replace the albuminates in the repair and maintenance of the bodily tissues, as it undergoes rapid and total disintegration within the system, and is discharged from it chiefly as urea. It is therefore of no direct value as a constructive food. But

we may not conclude, as was at one time done, that gelatine is for such reasons worthless, and that it answers no nutritive purpose. It is a food which economises the albumen, and can, to some limited extent, take the place of its elements except for building up and repairing the bodily structures.

Sometimes Cods' sounds, from Scotland, are taken as a substitute wherewith to make isinglass; and for domestic use a patent gelatine is employed, as got from bones and sheep's glue. Isinglass when good contains osmazome, gelatine, and some salts of potash, soda, and lime. It is emollient and demulcent, and is given helpfully as subsidiary nutriment to the invalid, whether added to tea, broth, or milk, or made into a jelly with sugar and lemon juice. A solution of it in water, with a small quantity of tincture of benzoin (Friar's balsam), when spread on black silk makes Court plaster.

Isinglass plaster was introduced by Mr. Liston, the famous surgeon, and consists of oiled silk coated with the isinglass, having been first made by a Mrs. Puckeridge.

It enables a wound to be seen without disturbing the plaster, and occupies such a small space that a supply can be carried in a card case or purse; but nowadays it is rejected unless also rendered antiseptic. Likewise, isinglass is required for making gold-beater's skin. It is not soluble in cold water. Fifteen grains of isinglass to an ounce of glycerine form a very welcome protective appliance for the raw sore skin in some diseases affecting it. By furnishing gelatine in isinglass with the food a considerable measure of the albumen can be spared, and devoted to other reparative purposes in the body, leading to an increase of weight and strength. Dr. King Chambers has given a capital

receipt for making isinglass jelly. Boil an ounce of isinglass and a dozen cloves (unless disliked) in a quart of water, down to a pint; strain hot through a flannel bag on to two ounces of sugar candy, and flavour with a little angelica, or with two or three teaspoonfuls of liqueur de la grande Chartreuse.

For isinglass jelly to be given with port wine in dysentery or chronic diarrhœa, dissolve one ounce of the isinglass in a pint of water over the fire; add an ounce of white sugar and one pint of port wine. Strain through muslin and allow it to set.

If prescribed for solution in a bath, to render the skin soft and pliable, or to remove crusts therefrom when it is diseased, about a pound of gelatine, dissolved by boiling it in water, should be added to the bath before use.

Agar Agar is Japanese isinglass, consisting of the dried jelly of a seaweed (*gelidium corneum*), and supplied in strips of membrane. It may be sometimes substituted in making jellies for invalids.

Said Dr. Salmon (1695), of isinglass glew "it is used in gellies and broths, with sugar candy; is good against nightwheals, and serves to seal letters; it is reported to help the lethargie, but I scarcely believe this."

The Caviare of Sturgeon roe contains many of the fish oil principles, and, if it can be digested, may be dietetically given to patients who need cod-liver oil. It should be as fresh as can be got, and should exhibit the eggs of the roe quite distinct. If old and black, and homogeneous in texture, it is out of season and rancid, and upsets the digestion, besides sending noxious matters into the blood. When sent to table it should be kept hot on a toasted cheese dish, unless purposely taken cold by way of a *hors-d'œuvre*.

ITCH INSECT.

THE Itch insect is *Acarus scabiei*, and furnishes a toxic principle—*Psoricum*. The loathsome itch outbreak on the skin (incurred, as is generally supposed, through dirt and uncleanly habits), is characterized by many pimples containing at first a thin watery fluid, and then becoming pustular. At the base of each may be sometimes found by exploration with a needle, the Itch insect, or Acarus, which causes by its presence the irritation and itching known as the leading symptoms of this disgusting affection. So contagious, however, is the itch that it may be occasionally taken even by anyone who is scrupulously clean and particular. The strange fact obtains that in some cases, if the eruption of itch is repressed or thrown in, an epileptic seizure will ensue; observation of which has led to the giving Psoricum, or the Itch insect element, medicinally as a cure for the falling sickness.

This psoricum is prepared by collecting the clear fluid from thirty of the pimples opened at the bottom, whilst at the same time scraping out the insect, if it can be discerned, from each pimple. The quantity of liquid thus procured constitutes, with two hundred drops of alcohol, a mother tincture of psoricum. Animals are liable to psoric epilepsy; and in order to treat each kind, whether horses, sheep, goats, or dogs, the special Acarus of its particular genus must be selected. This Itch insect is not the only one which predisposes to epilepsy; for instance, the mite (*Acarus ciro*) in flour, with which caged nightingales have been fed, gave them epileptic fits, always terminating fatally. Psoricum for treating epilepsy may be likewise prepared from this insect by taking some of the flour containing the acarus, to the number thereof of about two hundred, macerating

them in sixty grammes (five drachms) of alcohol, and then administering this tincture in a second or third decimal dilution, five drops for a dose twice or three times a day with a spoonful of water. The same remedy is specifically curative of certain skin diseases dependent on a constitutional liability thereto, these being characterized by pustules without fever (such as ecthyma, and impetigo).

It was an Italian, Redi, in the sixteenth century, who first taught that the itch was caused by a small insect or acarus; and his view, as well as his representation of the insect, have been admitted until the present day; but some attentive observers have believed, and others still believe, that the acarus is a morbid product of the disease, and not its cause. They hold, as Hahnemann did, that to suppress or repel the disease psora, or itch, cannot be done in most cases without injury to the patient, seeing that it is an outward demonstration of a strong, morbid, constitutional bias within. The late Mr. Hunter always acknowledged that he could never discover the Itch insect; and some think to this very hour its existence in the itch pustule problematical. Likewise Drs. Heberden, Bateman, and Adams, were at no time able to meet with the insect (even by the help of a good magnifier) in this country, whether in, or near the pustules, nor within the red streaks, and furrows. "From which fact it may be inferred," says Baker, "that the Itch Acarus is not invariably the cause of scabies, and that the disease produced by the insect is specifically distinct from that in which it cannot be found." "It is true," says Hempel, "that the Itch insect will transmit the itch from one individual to another, but it is equally true that this transmission would be impossible but for the constitutional receptivity; which may be made in

some persons who become infected by contact an internal disease, whilst in others the external eruption remains as such, and can be readily cured by local means, such as sulphur ointment, oil of lavender, or Poplar twigs in the patient's bed.

JAY (*see* MISCELLANEOUS).

JELLY-FISH.

THE Jelly-fish (*Acalephæ*, Sea Nettles, or *Medusæ*), some specimens of which are familiar to visitors at the seaside, become more or less broken and lifeless in the common forms drifted upon the beach, and not able to get off it. They are almost entirely composed of water, and having no muscular tissue are soft and flabby to the touch. Moreover, when handled they have the unpleasant trick of stinging slightly, this power being acquired with a view to paralysing the small creatures which they secure as food. Only two or three of our native species have such a power, the same being known of old as Sea Nettles, Stingers, and Stangers. When fully expanded and pulsating with life at a short distance from the shore, these frail creatures possess much beauty and elegance. Professor Owen has told us that if the fluid part of a jelly-fish, which may weigh two pounds when recently removed from the sea, be let drain from the solid parts of the body, such parts when dried will dwindle to a membrane weighing not more than thirty grains.

Many of the jelly-fish contribute to the phosphorescent appearance of the sea by night. The *Aurelia aurita*, a common English jelly-fish, is a disc or bell-shaped animal, of soft gelatinous texture, from the centre of which a tube hangs down bearing the mouth;