of gouty matter, warm cordials are necessary, as generous wines, French brandy, &c. Some have drank a whole bottle of brandy or rum, in this case, in a few hours, without being in the least intoxicated, or even feeling the stomach warmed by it. It is impossible to ascertain the quantities necessary upon these occasions. This must be left to the feelings and discretion of the patient. The safer way however is not to go too far. When there is an inclination to vomit, it may be promoted by drinking an infusion of camomile flowers or *carduus benedictus*.

If a pain of the stomach proceeds from the stoppage of customary evacuations, bleeding will be necessary, especially in sanguine and very full habits. It will likewise be of use to keep the belly gently open by mild purgatives, as rhubarb or senna, &c. When this disease affects women in the decline of life, after the stoppage of the *menses*, making an issue in the leg or arm will be of peculiar service.

When the disease is occasioned by worms, they must be destroyed or expelled, by such means as are recommended in the following section.

CHAPTER XXXV.

OF WORMS.

These are chiefly of three kinds, viz. the *tænia*, or tape-worm, the *teres*, or round and long worm, and the *ascarides*, or round and short worm. There are many other kinds of worms found in the human body; but as they proceed in a great measure from similar causes, have nearly the same symptoms, and require almost the same method of treatment, we shall not spend time in enumerating them.

The tape-worm is white, very long, and all over-jointed. It is generally bred either in the stomach or small intestines. The round and long worm is likewise bred in the small guts, and sometimes in the stomach. The round and short worms commonly lodge in the *rectum*, or what is called the end-gut, and occasion a disagreeable itching about the seat.

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The long round worms occasion squeamishness, vomiting, a disagreeable breath, gripes, looseness, swelling of the belly, swoonings, loathing of food, and at other times a voracious appetite, a dry cough, convulsions, epileptic fits, and sometimes a privation of speech. These worms have been known to perforate the intestines and get into the cavity of the belly. The effects of the tape-worm are nearly the same with those of the long and round, but rather more violent.

Andry says the following symptoms particularly attend the *solium*, which is a species of the tape-worm, viz., swoonings, privation of speech, and a voracious appetite. The round worms called *ascarides*, besides an itching of the *anus*, cause swoonings, and tenesmus, or an inclination to go to stool.

Causes.—Worms may proceed from various causes; but they are seldom found except in weak and relaxed stomachs, where the digestion is bad. Sedentary persons are more liable to them than the active and laborious. Those who eat great quantities of unripe fruit, or who live much on raw herbs and roots, are generally subject to worms. They are often a symptom of fevers and other acute diseases. There seems to be a hereditary disposition in some persons to this disease. I have often seen all the children of a family subject to worms of a particular kind. They seem likewise frequently to be owing to the nurse. Children of the same family, nursed by one woman, have often worms, when those nursed by another have none.

Children are more liable to this disease than adults; though infants on the breast are seldom troubled with it. To this however there are several exceptions. I have seen a child who passed worms before it was three months old. They were indeed of a very particular kind, being real caterpillars. Some of them were above an inch long; they had red heads, and were so brisk as to jump about; they lived several days after the child had passed them. Another child suckled by the same woman passed the same kind of worms when upon the breast, and both children suffered extremely before the worms came away.

Symptoms.—The common symptoms of worms are paleness of the countenance, and at other times a universal flushing of the face; itching of the nose—this however is doubtful, as children pick their noses in all diseases; starting and grinding of the teeth in sleep; swelling of the upper lip; the ap-

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petite sometimes bad, at other times quite voracious; looseness; a sour or stinking breath; a hard swelled belly; great thirst; the urine frothy, and sometimes of a whitish color; griping or colic pains; an involuntary discharge of saliva, especially when asleep; frequent pains of the side, with a dry cough and an unequal pulse; palpitations of the heart; swoonings, drowsiness, cold sweats, palsy, epileptic fits; with many other unaccountable nervous symptoms, which were formerly attributed to witchcraft or the influence of evil spirits. Small bodies in the excrements resembling melon or cucumber seeds are symptoms of the tape-worm.

I lately saw some very surprising effects of worms in a girl about five years of age, who used to lie for whole hours as if dead. She at last expired, and upon opening her body a number of the *teres*, or long round worms, were found in her guts, which were considerably inflamed; and what anatomists call an *intussusceptio*, or involving of one part of the gut within another, had taken place in no less than four different parts of the intestinal canal.

Medicines.—Though numberless medicines are extolled for killing and expelling worms, yet no disease more frequently baffles the physician's skill. In general the most proper medicines for their expulsion are strong purgatives; and to prevent their breeding, stomachic bitters, with now and then a glass of good wine.

The best purge for an adult is jalap and calomel. Five and twenty or thirty grains of the former, with six or seven of the latter, mixed in syrup, may be taken early in the morning for a dose. It will be proper that the patient keep the house all day and drink nothing cold. The dose may be repeated once or twice a week, for a fortnight or three weeks. On the intermediate days the patient may take a dram of the powder of tin, twice or thrice a day, mixed with syrup, honey, or treacle.

Those who do not choose to take calomel may make use of the bitter purgatives; as aloes, hiera picra, tincture of senna and rhubarb, &c.

Oily medicines are sometimes found beneficial for expelling worms. An ounce of salad oil and a table-spoonful of common salt may be taken in a glass of red port wine thrice a day, or oftener if the stomach will bear it. But the more common form of using oil is in clysters. Oily clysters, sweetened with sugar or honey, are very efficacious in bring-

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ing away the short round worms called *ascarides*, and likewise the *teres*.

The Harrowgate water is an excellent medicine for expelling worms, especially the *ascarides*. As this water evidently abounds with sulphur, we may hence infer that sulphur alone must be a good medicine in this case, which is found to be a fact. Many practitioners give flour of sulphur in very large doses, and with great success. It should be made into an electuary with honey or treacle, and taken in such quantity as to purge the patient.

Where Harrowgate water cannot be obtained, sea-water may be used, which is far from being a contemptible medicine in this case. If sea-water cannot be had, common salt dissolved in water may be drank. I have often seen this used by country nurses with very good effect.

But worms, though expelled, will soon breed again, if the stomach remains weak and relaxed; to prevent which we would recommend the Peruvian bark. Half a dram of bark in powder may be taken in a glass of red port wine, three or four times a day, after the above medicines have been used. Lime-water is likewise good for this purpose, or a table-spoonful of the chalybeate wine taken twice or thrice a day. Infusions or decoctions of bitter herbs may likewise be drank; as the infusion of tansy, water trefoil, camomile flowers, tops of wormwood, the lesser centaury, &c.

The above directions are calculated for adults; but for children, the medicines must be more agreeable, and given in smaller doses.

For a child of four or five years old, ten grains of rhubarb, five of jalap, and two of calomel, may be mixed in a spoonful of syrup or honey, and given in the morning. The child should keep the house all day and take nothing cold. This dose may be repeated twice a week for three or four weeks. On the intermediate days the child may take a scruple of powdered tin and ten grains of æthiops mineral in a spoonful of treacle twice a day. These doses must be increased or diminished according to the age of the patient.

Bisset says the great bastard black hellebore, or *bear's foot*, is a most powerful vermifuge for the long round worms. He orders the decoction of about a dram of the green leaves, or about fifteen grains of the dried leaves in powder, for a dose to a child betwixt four and seven years of age. This dose is to be repeated two or three times. He adds, that the green

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leaves made into a syrup with coarse sugar is almost the only medicine he has used for round worms for three years past. Before pressing out the juice, he moistens the bruised leaves with vinegar, which corrects the medicine. The dose is a tea-spoonful at bedtime, and one or two next morning.

I have frequently known those big bellies, which in children are commonly reckoned a sign of worms, quite removed by giving them white soap in their pottage or other food. Tansy, garlic, and rue, are all good against worms, and may be used various ways. We might here mention many other plants, both for external and internal use, but think the powder of tin with æthiops mineral, and the purges of rhubarb and calomel, are more to be depended on.*

Parents who would preserve their children from worms ought to allow them plenty of exercise in the open air; to take care that their food be wholesome and sufficiently solid; and, as far as possible, to prevent their eating raw herbs, roots, or green trashy fruits. It will not be amiss to allow a child who is subject to worms a glass of red wine after meals, as every thing that braces and strengthens the stomach is good both for preventing and expelling these vermin.†

CHAPTER XXXVI.

OF THE JAUNDICE.

This disease is first observable in the white of the eye, which appears yellow. Afterwards the whole skin puts on a

* Ball's purging vermifuge powder is a very powerful medicine. It is made of equal parts of rhubarb, scammony, and calomel, with as much double-refined sugar as is equal to the weight of all the other ingredients. These must be well mixed together, and reduced to a fine powder. The dose for a child is from ten grains to twenty, once or twice a week. An adult may take a dram for a dose.

† We think it necessary here to warn people of their danger, who buy cakes, powders, and other worm medicines, at random from quacks, and give them to their children without proper care. The principal ingredient in most of these medicines is mercury, which is never to be trifled with. I lately saw a shocking instance of the

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