gradual is the development of the disease, so in like manner, people should expect also, its cure and decadence, as a natural result. Why ordinary diseases take months and years to be cured, sometimes not even then; much more difficult is it to cure leprosy, the king of diseases, within a definite period.

In the course of my treatment I found tubercles burst like boils, blood and matter run out of them, and then flatten down like a rupee; this is a novel fact, or at any rate one not generally known. One man had a tubercle on the helix of the left ear, of the size of a marble; all of a sudden it burst, leaving a concave surface, just as if it was cut out with a scalpel, and the part so effectually healed up, that after sometime, I was unable even to trace the locality in which it was situated. Scaly patches and swellings disappear in a short time, and numbness vanishes day after day as health is being restored Excavated ulcers heal up marvellously, and to crown all, the progress of the disease is arrested. What are these changes I ask? Is not the efficacy of Gurjon Oil thus pre-eminently exemplified?

One leper on account of the tuberculated state of the fingers, and consequent stiffness, was hardly able at meals to collect the grains of rice and put them in his mouth; now the mobility of the fingers is such, that he can take a handful of rice, and make it into a mass, as quickly as any other man.

One man had not a single hair on his legs and arms, all had fallen away from disease; at present there is a fair growth, and the patient himself expresses his astonishment. His account is that when in health, hair did grow, but as his malady developed they gradually dropped off, and the further product was interrupted. He says, he is a new man now.

Prior to the improvement of the lepers, when their pay was disbursed to them, several among them, on account of foul ulcerations, used to envelop their hands and fingers in their cloths and in a manner form a receptacle, into which the money was then thrown. In the months of August and September 1873, just after four or five months' treatment, when the pay was issued, each leper held out his hand, to shew to the other convicts that it was as healthy as could be, and free from disease. It was a remarkable fact that whenever a coin dropped down, it was adroitly picked up at once between the fingers.

There is a well situated at a distance of one hundred and fifty yards from the leper barrack, where the men assemble and bathe every morning. I used to be frequently present there myself. Gunga Ram, the subject of case No. 3 in Dr. Dougall's report, whose past condition it would be needless to allude to here, as everything relative to him has been fully detailed already, is now capable, without the aid of another, to rub himself, pour water freely, and all the while firmly grasp the lotah between his fingers. So rapid has been his improvement after a few months' treatment that, after the ablution is over, he cleans the brass vessel with sand, and gives it such a polish, that no body would believe his fingers were ever affected.

Prior to the Gurjon Oil remedy, the constitutions of lepers were so contaminated, that any little scratch or abrasion would take an ulcerative form, and chronic ulcers in particular were generally known to heal and break out again, whereas now once they have healed there is no return.

What an unhappy being a leper is! His symptoms are a sense of intense heat, or rather burning within the body, chiefly at the stomach, and invariably pointing out that the seat of the disease is there. The next is a heaviness, as if he carried a load about him; and, lastly, there is an indescribable numbness of the parts, which are dead to all sensation; so benumbed, that if the foot even be struck against a hard stone, there is no feeling whatever of the receipt of an injury, unless hæmorrhage be visible, and then he finds out, to his astonishment, that he has been hurt. Again, contact with fire is also not felt, and vesication only reveals to him that he has come in contact with the destructive element. I shall give another illustration. A private patient of mine told a relation of his to boil a quantity of milk for him, which was done in a brass lotah, and then brought and kept near him for his breakfast. He thought the vessel was cool, emptied the milk in his rice, and as usual took his meal; in the evening to his great surprise he found the tips of all the fingers of the left hand, with which he lifted the lotah, quite blistered, caused no doubt by the high temperature of the metal. When handling the vessel there was not even the slightest sensation of heat, though said to be frightfully hot, as it was just then removed from the flame. Such anæsthesia is absolutely cured in process of time, and the parts become so sensitive, that if a feather be gently passed over them, it is keenly felt.

Happily all these symptoms are now only things of the past—no more burning—no more weight—no more numbness!

The lepers perspire now freely, which comfort they never experienced for a long time—poor souls, their symptoms and feelings were such that a good night's rest was hardly known, and now no anodyne even could produce such undisturbed sleep.

I could write to an interminable length and quote facts like these. It would take up too much space, and exhaust the patience of my readers, so I drop my pen gladly but can resume discussion at any moment on this interesting subject.

Postscript.—Dr. Roy observes that "the proportion of 30 lepers out of a population of 8,000 convicts is not a very high one." The figure mentioned is incorrect, as the number of lepers treated altogether is 40 or more. It is not my intention here to dwell on the contagiousness of the disease, but had it not been for Dr. Dougall's judicious plan of carefully examining the convicts at weekly medical inspections, and ordering those affected with the disease to the leper ward at once for treatment, there is not the shadow of a doubt, that leprosy would have imperceptibly gained ascendancy in the settlement and spread from station to station. Refer to the chapter on leprosy in a work entitled "Skin Diseases of India," by Doctors Tilbury Fox and Farquhar, published in London this year, and read the passage at page 26, which runs thus:—"But we may appeal to positive facts, showing that leprosy is apparently spread by the free contact of the healthy with the leprous in districts in which its appearance and spread can only be explained apparently in this way, and where in some cases the diet and *morale* of the people have marvellously improved, and leprosy is not endemic in the district. Dr. Davidson, in speaking of leprosy in Madagascar, remarks:—'It certainly deserves notice that while the laws of Madagascar excluded leprous persons from society, the disease was kept within bounds, but after that this law was permitted to fall into disuse, it has spread to an almost incredible degree.'"

MADRAS, 5th *August* 1876.*

NOTES ON INFANTILE DISEASES OF INDIA.

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(Continued from page 204.)

WORMS.

MANY symptoms being often referred to worms which never exist, it is therefore necessary to be certain of their presence

* Mr. Phillips concludes his paper with a few remarks on the treatment of lupus exedens, psoriasis, and scabies by gurjon oil. In this he appears to have been fairly successful; and he tells us that the Officer in charge of the Station of Camorta, in his monthly report on the affairs of the Nicobar settlement for December 1874, mentioned that "there were some cases of psoriasis, and other skin diseases of old standing, which were effectively treated by Mr. Phillips with the Port Blair gurjon oil."—*Editor.*

before resorting to specific and powerful remedies. The particular variety of parasite should also be known, whether thread, round, or tape worm, the latter being extremely rare in children under the age of six, although there are remarkable exceptions, such as the marvellous instances of newly born infants being affected. Children entirely at the breast are seldom troubled by any parasites. When women are affected during pregnancy, there is a tendency to slight fever after delivery, and in my experience their children incline to eczema or other cutaneous disorders.

Tape worms are white, flat, jointed, perhaps 30 feet long, 800 joints in 10 feet, solitary; head small, triangular, flat and armed with hooks and suckers; located in the small intestines, and consisting of several varieties. They occasion disordered digestion, colic, craving, cramp, abdominal discomfort, irritation of mouth, nose and fundament, headache, pallor, disturbed sleep, depression, cough, fainting fits and various nervous affections, besides wasting; and no cure can be effected until the head of the parasite is expelled, although the whole of the intestines may be occupied. With children the best plan is to give a dose of castor oil over night, next morning after the bowels have been relieved, give 10 to 20 drops of the liquid extract of male fern in mucilage and cinnamon water, followed in 3 hours by another dose of castor oil. Excepting a little boiled and filtered water, no food should be given. This fast, may be of 15 hours, is sometimes impossible, and the treatment must be repeated at intervals until the head of the worm is found in the excretions. Tonics, especially iron, should afterwards be administered, and the diet, including sufficient salt, should exclude everything likely to ferment, turn sour or to make another welcome home for worms, who flourish in mucus. Where convenient, it might be advisable somewhat to improve health first by a trip to the hills, and young medical men will be surprised to find how difficult it may be to effect a cure. When one remedy fails, try cowhage, half a drachm twice a day in treacle, or that splendid old fashioned remedy, turpentine, a teaspoonful or much more, in gruel, at the same time carefully watching its action; else try powdered pomegranate bark, 5 grains in treacle every 4 hours, santonine, kamala, 3 to 10 grains, or kousso infusion, 2 or 3 teaspoonfuls. Some authorities recommend tar water, pumpkin seeds, betel nut, aloes sulphate of copper, powdered zinc or tin, arsenic or mercurial preparations which may kill the child as well as the worms. The advertised nostrums are often powerful, and therefore pernicious purgatives which may provoke dangerous diarrhœa.

Round worms live in the small intestine, but crawl into the stomach, bladder, wind pipe, mouth, nostrils, or into abscesses; they may pierce or bore anywhere, and are from 4 to 8 inches, or longer, white, yellow or pink, about 2 to 30, or shoals in number, and greatly affect children from 4 to 6 years of age; the appearance is that of the common earth worm. Water, excess of vegetable diet or of milk, may convey or encourage parasites of this kind, which induce pain near the navel, nausea, chorea, chronic diarrhœa, mud-like motions, and greatly enfeeble lymphatic scrofulous girls. Sometimes they prevail epidemically, preferring cold damp low situations, and in England are more common in spring and autumn; these worms are bred and dwell in the bodies especially of poor wretched and neglected children, or those who eat uncooked food, underdone meat, suspicious sausages, unwholesome pork, raw vegetables, sweet rich puddings, pastry, and those who still further damage weakly bowels by taking no salt. Dark rims round the eyes, pasty complexions, offensive breath, restless nights, dry burning skin, startings in sleep, grinding of the teeth are suspicious, yet by no means conclusive symptoms. Worms too may be present without any coincident constitutional disturbance. To Dr. Cobbold we are greatly indebted for much research into a subject so vitally affecting the health and happiness of mankind. The remedies for the expulsion of these round worms are administered much on the same plan as for the other variety, but instead of oil of male fern or turpentine, the sheet anchor is santonine. Starve the worms and the patient, give castor oil, 'clear the decks,' expose the worms to the full influence of santonine, say, 3 grains thrice in the one day given with sugar, the diet restricted to very short commons of soups and broths; else give a mild aperient in the morning, the same at night, and santonine the next day. This specific may redden and increase the flow of urine, besides making all objects, temporarily, to appear either yellow, green, blue or rose pink. Certain medicines already mentioned, espscially turpentine, castor oil, pomegranate are useful. Also garlick, rue, scammony, jalap, Corsican moss 10 grains, worm seed or Indian pink, 4 grains or 2 teaspoonfuls of infusion, chenopodium, also called worm seed, a teaspoonful of decoction, antimony, bisulphite of soda, 10 grain doses, staves-acre and other anthelmintics too numerous for mention. Indian bazar medicines include Butoea seeds (called *Palaskebini* in Hindustani) in 20 grain doses, thrice daily for three days, followed by castor oil; else Vernonia seeds (*Somraj Bukchi*) two drachms in two equal doses, at the interval of a few hours and followed by an aperient, the seeds mixed with honey, or with the fresh milky juice collected as it flows out from incisions made in the unripe fruit of the Papaw tree (*Papaiyah*), two doses, each a tablespoonful, followed by castor oil and lime juice. The doses of these Indian drugs are calculated for adults. Dr. Waring, who recommends these things in his valuable little book, also points out that occasionally vomiting, diarrhœa, colic or irritation of the kidneys may follow their administration, but these contingencies apply to all. Worms may co-exist with and complicate many diseases, besides inducing great irritability or mental depression. Out of a number of Musulmani women who destroyed themselves, without any particular reason, according to the *Indian Medical Gazette*, the majority were infested with these parasitic torments.

Thread Worms.—Seat-worms point out special resemblance and locality by their distinctive names, having the appearance of cut white cotton, and inhabiting the lower bowel close to the anus, the average length is a quarter of an inch, and their numbers are legion: there is a thread worm 1 to 2 inches long, generally solitary or in small numbers, in the upper part of the large intestine; but it is uncommon and a rare sequel of typhus fever. The symptoms of the ordinary variety need not be specially alluded to further than mentioning the violent itching and burning about the anus, the general condition of distress and irritability associated with painful straining which brings the bowel down, the frequent desire to go to stool, irritability of the bladder, and occasionally a profuse leucorrhœal discharge, with great local tenderness. Nervous symptoms, such as convulsions, are said to indicate round rather than thread worms, which at night crawling out on the bed or clothes are easily recognized. Thread worms especially worry infants; round worms trouble older children; tape worms, as said before, are rare in early life. As regards one popular sign, that of picking the nose, it is a common custom in the kingdom of the nursery. From incessant practice medical men can tell many diseases by one look at the face, tongue and body, but the most experienced practitioner requires ocular proof of the presence of worms. In this special variety it may be advisable to give a powder containing 2 grains each of scammony and jalap in the early morning, the diet restricted as before directed, then in the evening wash out the bowel by a large injection (30 oz. according to Eustace Smith,) of warm soap and water. Afterwards an enema may be thrown up either of lime water, about half a tumbler full, or the same quantity of infusion of quassia with a teaspoonful of tincture of steel, or two teaspoonfuls of turpentine in gruel or barley water, or quarter of an ounce of salt in water; and some authorities suggest 20 grains of quinine in warm water or 20 grains of aloes in lime water, else 10 grains of assafœtida—all these injections of the same bulk as above. Personally my faith is in fern oil for tape worm, santonine for round worms, and for the latter

variety the injection of steel and quassia. If there is much difficulty connected with the bowel coming down persistently, after coughing or the slightest strain, the child requires tonics and change of air, besides astringent injections of alum, tannin or strong cold tea. Gradually the poor little sufferer becomes a different child, with wholesome breath, healthy complexion, natural appetite, quiet nights, amiable disposition, firm muscles, neither constipation nor diarrhœa and no more indigestion.

A little sulphur, 5 to 10 grains, should be given occasionally when relapses threaten.

DIARRHŒA

May be acute, bilious, choleraic, chronic, fatty or intermittent; be the commencement of cholera, dysentery, enteric or eruptive fevers; and besides arising from irritating food, heat, cold, moisture, foul air, mental anxiety, hardships, exposure, it may be associated with worms, dentition, scurvy, scrofula, malaria, or mesenteric disease. Working in the dark, mothers sometimes drench children with castor-oil, magnesia, senna, more castor-oil, until either obstinate constipation follows or else the constitution is broken down by chronic diarrhœa, rendered more dangerous still by tampering with mercurials—the frequent ingredients of teething powders.

Constipation may be inherited from a weakly mother unable to take exercise, and whose liver, torpid or congested, has been damaged by beer taken injudiciously during the heat of the day. Perhaps the mother suffers from worms. Anything which interferes with the healthy action of the skin, stomach, liver, lungs or bowels may excite diarrhœa. With brain affections vomiting and constipation are more frequently noticed, but diarrhœa is associated occasionally, and dysentery has followed blows, or injuries of weakly heads. The nervous system plays an important part, whilst the nerve centres are often enfeebled and below par. The immature, imperfectly developed intestinal glands and follicles, stimulated by heat to excessive secretion and structural change, stand the strain for a while and then cease work; so nutrition stops, the child starves, perhaps dies exhausted by uncontrollable diarrhœa which may or not have closed the scene as dysentery.

A mother menstruates during lactation or falls pregnant; perhaps she is worried in mind or fatigued in body, say, on a journey; perhaps the child has a mixture of milks, the goat, the cow, the ass, turn about, or condensed milk; again travelling by road or rail she trusts to chance for supply at refreshment places or dak bungalows, especially when rules are relaxed as regards the cleanliness of the bottle and tubing. Whenever a bottle or spoonfed child comes under treatment in England, the medical practitioner is ever anxious for a wet-nurse, and in India a thousand times more so.

The long-legged Jumna goat feeding on roots, leaves, garden refuse and rubbish, should have millet cakes and half a seer of grain twice a day, and should be well looked after to preserve health and give good milk. Wet-nurses are very inconvenient, and goats in many senses a great nuisance, but where there are children there remains no option.

Any milk bought at the door may be the cause of diarrhœa, dysentery, thrush or enteric fever; and in England the poisons of variola and scarlatina, if not of diphtheria, have been conveyed in milk. Prolonged lactation has been blamed, but finding it easier to treat the mother than the child, I am altogether for long nursing provided the mother is fairly healthy. Another cause of sickness is the practice, already mentioned, of forcing starchy foods on a weakly infantile digestive system. The diarrhœa of teething is noticed under the head of dentition. Besides heat, impure water, excessive, insufficient or unsuitable food, the old song of unripe fruits, badly-cooked vegetables, sausages, stale fish, craving for tinned provisions, bazar sweetmeats, and cooking vessels badly-tinned, must not be forgotten. Nor the great question of chill. Whenever driven into a corner for explanation, we blame broad-backed malaria and very justly. Some people call malaria a chill, but there are cogent arguments and proofs against this. A child hot by day is chilled at night, has iced drinks when heated, is taken out in raw cold mornings, is poorly clad without protection over the bowels during or after the rains, when his boots are very thin and he sits in his wet clothes made of flimsy material. Shot up, balloon fashion, from the hot burning plains to the cool, heavenly hills, his liver cannot understand the rapid change, so strikes work; and when the rains pour down on places where sanitary defects exist, the air hot and steaming from the valleys, the water charged with organic matter, there is a risk of hill diarrhœa

It comes on very quietly, painlessly, and treacherously; oft attacking new arrivals who wonder why they are so weak, listless, apathetic, fit for nothing. The fact is, no nutrition goes on, and when at last a severe attack of illness necessitates speedy change, the bodily constitution has been undermined, somewhat after the fashion of the white-ants who leave but the shell.

Trees were abused until hill diarrhaea appeared at places where no such cause existed.

Damp houses built against banks, the drainage indifferent, the flooring rotten, the damp percolating into crowded bed rooms; unchecked deciduous vegetation, noxious matters stagnating in holes, malarious mists, rotten drains of wood, proximity of densely crowded bazar, where the meat and bread are but indifferent, the slaughter-houses unsatisfactory, and the water supply suspected of sewage contamination—such are some of the causes of sickness as pointed out by Ross, Paske, Grant and other medical authorities. During the siege of Lucknow, the want of sanitation, no clean clothes, no servants, no water, fatigue, anxiety, chupatties instead of bread, rice instead of potatoes, the cooking utensils not "kullaied"—all these drawbacks encouraged diarrhœa. Inordinate appetite induced voracious craving for tinned salmon, chocolate, herrings and sardines. In the *Indian Medical Annals* Dr. Grant states that hill diarrhœa is an arrest of biliary secretion, the skin is harsh and dry, pulse weak, tongue white, temper fretful, gums congested, feet cold; the belly or the feet incline to swell; there are painless diarrhœa, troublesome mornings and evenings, and the evacuations are copious, white or slightly yellow. Mild amongst children, it often attacks the scrofulous; and when intemperate adults suffer, the danger is great. Change of air from Simla to Chini, Cashmere, or even the plains, if not to England, may be required, and in the old days the sea voyage to Australia, or the fine climate of the Cape stopped the insidious wasting.

The old remedies included blue pill and Dover's powder; rhubarb, chalk, cinnamon, sal volatile and morphia in combination: or rhubarb, opium, taraxacum, nitro-muriatic acid, also pills containing opium, ipecac, grey powder and quinine for adults, who were ordered farinaceous diet, confinement in-doors, warm rooms, tepid baths. To check the diarrhœa after a time, 'bael,' 'isphagul' seeds, pernitrate of iron, sulphate of copper, acetate of lead and other astringents are useful, but it must not be forgotten that there is atrophy of the bowels, and that the liver which has been overworked in the plains, has been knocked up, the skin chilled, the kidneys congested. After death the liver, spleen, and heart shrivelled and pale, and the lungs half-collapsed, tell their own story. Dr. Lees has found these pills useful for adults, namely—grey powder 12, bismuth subnit. 18, ipecac 12, opium 3, extract of gentian 15 grains, into 12 pills, 2 a day. Meanwhile keep in bed: afterwards avoiding potatoes and cold bathing, trust to chiretta, gentian and nux vomica. With children, my belief from practical experience so far, rests in the hot bath warm room, mustard over the liver, or mustard in the bath; else turpentine over liver and bowels, followed eventually by applications of tincture of iodine, and tepid nitro-hydrochloric acid baths. In the way of medicine, podophyllin and ipecacuanha, either alone or in combination, would be given first; and when the cause has been removed, what with quinine, dilute acids, 'chemical

food,' iron and quinine, iodide of potassium, good milk, eggs, Liebig's extract, jellies, sago, arrow-root, tapioca, raw meat juice, brandy or port wine, the debility might be checked. Change of air may often be necessary. Galvanic belts might be of service, and good warm clothing aided by flesh rubbing would of course be necessary. Officers who pay hurried visits to the hills, often catch this diarrhœa, or else it takes the shape of gout when colchicum or Laveille are the essential remedies in conjunction with dietetics, and the stimulants must be cut down to a very small allowance of whiskey and water. Diarrhœa in the plains may be induced by chill, when the punkahs, tatties and thermantidotes are first started. The temperature question is a very difficult one. To-day, the 15th of May, it is 90 in a room without tatties or thermantidote, the punkah merely agitating the heated air: where cooling appliances are used, it will be 82 in the funnel of the thermantidote, 86 a short distance off. Thermantidotes after drawing air through the tatties, force this cooled air into a room, but the benefit is only appreciable in the track of the blast, and the air of the building becomes huddled up in corners. A thermantidote forces a thousand cubic feet of air per minute, but an exhausting fan will abstract 4,000. Why not then use these fans which operate by sucking through the house air cooled by tatties? The simple answer is, that heated air only may be drawn through, unless all other than tattie openings are hermetically closed. Mr. Tanner, C.E., further points out that roof ventilation in the hot weather often merely allows the ingress of hot air. Where no cooling appliances are used, the houses being shut up, the supply of fresh air once in the 24 hours has to last for a very long period. Some mornings, fortunately few, the outside air is as hot as in-doors, and then the day is spent in a stale, unwholesome atmosphere. When tatties are first put up, we naturally get as near them as possible, and consequently the bowels become chilled, and although punkahs merely agitate the air without lowering the temperature, they produce similar results. The question of bodily cleanliness too is everything; for instance, take the case of a considerable number of men in barracks, or a married man with a large family, and how much more poisonous their unwashed bodies must make the atmosphere. There is no occasion to jump into a bath when heated after meals, there is abundance of water, and soap is not so very expensive. The bowels sometimes are chilled coming out of a theatre, or when no belt is worn at night, and there are stories of drunken sailors cooling themselves by sleeping over a sewer in a Calcutta punch house. Diarrhœa depending on so many varied causes, not the least being the intestinal irritation induced by heat, it stands to reason that a child affected has but little resisting power to meet any other acute disease, for a trifling cold or any simple sickness at the time prevalent, will often hurry on the end by convulsions. We have certain remedies already indicated, but the ailment must be considered from a hygienic, or a preventive form of view. The children of weakly parents demand our greatest care, for those rickety are very prone to purging, especially after attacks of eruptive fevers. To sum up the leading points. If a mother's milk is insufficient or faulty, get a wet nurse, else keep your own cow, goat or ass; or have the animals milked under observation; keep the nursery and the bottle clean; do not hurry on to starchy foods; mind thrush; be careful about clothing, particularly as regards abdominal belts; look out for worms; get the most value out of cooling appliances, yet look upon chill as ever dangerous; keep the diet very simple during dentition, then watch indeed at all periods of infancy, notice the evacuations, ever bearing in mind the occasional want of potash, soda or lime water. Be very vigilant during the rains, attend to early warnings by seeking medical advice, instead of losing time by dangerous experiments on the weakly stomach of a sickly child.

DYSENTERY.

Much of what has been said about diarrhœa will apply to this disease, which may be often obstinate and intractable; and the passing of mucous slime and blood, attended with pain and straining is characteristic. With adults, especially the broken down drunkard of middle age, it is a deadly disease; the probability of association with a number of small abscesses or a large one in the liver being so frequent. Very many women suffer during pregnancy, or after labour, yet do well, but a barren woman who menstruates irregularly may not escape so easily, hence the lesson to attend to this function. Infantile dysentery may be grafted on to neglected inflammatory diarrhœa, or arise spontaneously provoked by causes common to those of diarrhœa. Out here, in many respects, the complaint resembles inflammation of the lungs, and with broken down old soldiers we have sometimes to treat the latter ailment secondarily. Besieged, badly-provisioned cities, retreating armies deprived of rest, food, bedding, clothes, or shelter; or persons on board old, dirty crowded ships, compelled to drink thick, muddy, stagnant water long excluded from the air, in rotten wooden casks favourable to animalculæ—such are conditions conducive to this inflammation of the large intestines: other things help—sour bread, tough meat, stale beer, salt provisions, no vegetables, overcrowding, defective ventilation, sewage air, sewage drinking water, low marshy localities, scurvy, too fluid a diet, exposure to heat, cold, or night chills, to damp air or air extremely dry, to chill of any description: it may be allied to or co-exist with typhus, remittent, relapsing, enteric or scarlet fever, diarrhœa, rheumatism or variola, with head, lung and liver complications. Acute, chronic, scorbutic dysentery may start from inhalation of garden manure or dysenteric excreta, else from the drinking of sewage or graveyard water, and is apt to fasten on those enfeebled by climate, scrofula, malarial or mercurial debility.

A woman, pinched, half starved by a drunken husband and sacrificing everything to the children, is a likely subject, and the want of bedding, diet, domestic discomfort, &c., all help to fan and spread the flames of pestilence. Variations in temperature, checked perspiration, vitiated secretions, internal congestions, the influence of the hot winds, the rains, the chills connected with cooling appliances or washed floors, the relaxing influences of September, the hot days and cold nights of October, all tell especially on the European in the way of dysentery, which, when chronic, endangers life. A delicate child suffers from diarrhœa, and is allowed to run on until the stools become blood and mucus, accompanied by griping, straining, vomiting, rapid exhaustion, extreme debility, pitiable distress: the child is ever anxious for the bed-pan to get rid of the burning hot ball (as it feels) and yet scarcely anything is passed, the bowel is very tender and the stench about the patient after a while sickening. It is the custom with many practitioners to commence with a dose of castor oil and the hot bath, large mustard poultices or poppy or turpentine fomentations over the bowels, else hot bread, bran, or linseed poultices containing laudanum. The application of mustard over the stomach, the administration of a compound tincture of camphor draught, else a starch and opium enema, and the interdiction of all foods, especially liquids, prepare the patient for taking ipecacuanha, which is revulsive, evacuant, antispasmodic, sedative febrifuge. As pointed out by Dr. Druitt, the mucous membrane of the upper half of the alimentary canal is disgorged, its contents are discharged, and with this the spasm and irritation of the lower half, with the straining, and scanty, slimy stools are relieved. Some advise giving children, a year old, 2 grains of ipecacuanha with the same amount of carbonate of soda every morning, until the motions are normal, or else every few hours give a combination of ipecac and bismuth. Ipecac in enemata has been equally praised and condemned, but combined with opium and pernitrate of iron in enemata may at times be useful. My belief is in large doses of the specific by the mouth, also in poultices containing a liniment of opium, aconite and belladonna bandaged over the bowels; also in enemata or suppositories containing belladonna. Having with strong adults found the application of a few

leeches, or else a hypodermic injection of morphia over the tender spots of value, I merely mention the fact without recommending such treatment in this debilitating, treacherous disease, which runs on sometimes as unsuspected as a hidden fire in a coal mine. Chlorodyne and chloral have their advocates, but give me ipecacuanha, belladonna, and milk diet for choice. 'Bael' fruit, in jelly or sherbet, is certainly very valuable in the chronic stages. Indian authorities recommend country ipecacuanha, 'isphagul' seeds, infusion of 'karyat,' decoction of pomegranate rind, the powdered root bark of 'mudar,' and all now agree about the danger of giving astringents at the onset. If sea voyage, change of air or climate be out of the question, we must build up the enfeebled constitution by rest, care, judicious food, iced milk, lime water, cornflour, rice, egg flip, port wine, isinglass, fish, game, meat juice, vegetables, mutton. The young baby of course wants the best of wet-nurses, but fortunately this is another disease temporarily escaped by suckling infants. What with 'chemical food,' pepsine, different preparations of phosphorus, alteratives, tonics, we hope to tide over the difficulties, and with the young there is always the hope of out-growing many of the diseases to which flesh is heir. Dysentery may recur again and again, each attack being more enfeebling than the previous one.

CHOLERA.

Only a few of Dr. Cuningham's invaluable reports being available for reference, but little can be gleaned about children, except that, as usual, infants at the breast frequently escape cholera, which dislikes pure air, water and soil, and plenty of space. Paying attention to early warnings, such as premonitory diarrhœa, to cleanliness local and bodily, to clothing, diet, sobriety, the avoidance of chill and over-fatigue, our chief confidence is the safety of flight. When cholera is flitting about, it is worse than useless "shutting the stable door" by disturbing dirty drains, latrines or cess-pools, and stations can only be ploughed, for sanitary reasons, in weather when there is a long, dry interval. Cholera, in the opinion of many, can be carried by man, food, earth, air and water; by merchandize, clothes, linen, bedding, straw and by the body after death. Quarantine, theoretically satisfactory, often is useless because impracticable, excepting under extraordinarily peculiar and favourable conditions. Although no disinfectant is specific, it would appear expedient to add a solution of an ounce of sulphate of iron to a pint of water to suspicious excreta. All authorities agree in giving patients unlimited tea, plain or soda water, iced, and in the application of mustard, turpentine, hot bran or salt over the stomach and different parts of the body. Opiates are often objectionable, especially for children, whilst quinine on malarial ideas has often proved valuable.

In the hour of danger everything depends upon whether or no the constitution can stand the shock and throw off the poison. Any amount of drunkenness at such times intensifies the disease, paralyzes and obstructs all business, and prevents the careful study of this mysterious malady, hence the great importance of encouraging total abstinence, so that parents keeping their faculties clear, will be placed in the best position to save themselves as well as the lives of their children. In 1861-1867-1872 severe epidemics occurred at Meerut; the 35th, the Buffs, and the 105th Regiments were specially attacked. Yet when the Buffs suffered so severely, the Hussars and the Sepoys remained healthy, and the Rocket Troop Lines of the Royal Artillery at the east end of the station generally escaped. In 1875, one of the 15th Hussars, a child in the 85th, 8 men, no women, and 2 children belonging to the Royal Artillery died—a very small mortality. In 1872 fever and dengue prevailed also. Although heavy rain flooded the camp on the maidan in 1875, the men were very cheerful and soon shook off the disease. On previous occasions, it has been necessary to march out several miles: on this the women and children had not to go into camp. All authorities, including Pettenkofer, say that persons who fly to alcoholic comfort shew a cowardly spirit, and succumb to cholera always in very large numbers. In a certain house in 1845 died General Considine: in the same low damp locality a young lady died in 1861: open drains, noxious latrines or marshy banks were blamed. In an excellent house in a park, on a clay soil and surrounded by obstructed drains, an officer died. Five officers, packed in one house, had 35 servants, horses, stables, servants' families, cow-dung and litter in close proximity. The line of drainage divided the sandy surface of the Native lines, from the clay soil of the Europeans, and in every epidemic at Meerut, wherever this dry sandy soil was absent or replaced by sterile clay, the disease proved most frequent and virulent. Neglected conservancy, exposure to the blazing sun by day, or chilling dews by night, turning over and disturbing filth which need never have accumulated, indulgence in unripe fruits or badly cooked vegetables, fear, panic, mental distress, when cholera is flitting about the country, are all well-known causes of trouble. Fire is the best disinfectant, and the fumes of burning sulphur are at times reliable. Chloral, chlorodyne, Warburgh's tincture (probably owing to the quinine), spirits of camphor, strychnine, figure amongst the remedies which have succeeded,—when the said remedies are of good quality and given at the right time; and good nursing can be depended upon. People *will* dose themselves with chlorodyne, or fly to the delusive, dangerous bottle, instead of seeking medical aid at the onset, and our efforts are thus thwarted. Quitting the infected neighbourhood and marching against the wind until the cholera is left behind, at the same time taking care to avoid suspicious localities, gradually stops the progress of pestilence, and this, so far, includes our therapeutic knowledge.

JAUNDICE—SLUGGISH LIVER.

At very large number of weakly, premature boys come into the world, affected with this complaint, which in slight cases is merely excess of the physiological colouring of the skin, and requires no treatment being a transient condition. Or it may be due to some catarrhal affection of the bile ducts arising from exposure to cold and foul air, or else injudicious bathing.

It may be mechanical from occlusion of bile ducts or congenital malformation: may be due to fatty degeneration of the liver or else to blood poisoning. Very many pregnant women, who suffer from worms, constipation, hepatic derangement, dysentery or malarial fevers, have jaundiced infants. If a yellow skin, clay-coloured fæces, slow pulse, restless nights, constant thirst, tendency to convulsions, continue, or the navel bleeds occasionally, these are indications of organic lesion of the liver or biliary passages. If the jaundice lasts upwards of two months, the case is serious.

The common condition is for a child on the third day to turn yellow, the excreta and urine remain satisfactory, and the deep discoloration gradually clears off, as the skin, the kidneys, and the bowels assume their proper work. With older children, jaundice may depend on suppression of biliary functions, when the colouring matter of bile accumulates in the blood: or it may arise from re-absorption of bile properly formed, yet obstructed in its flow into that portion of intestine termed duodenum. Amongst the many symptoms, should be included the yellow eye, coffee-coloured urine, white fæces, vomiting, thirst, bitter taste, craving for pickles, loathing for meat, slow pulse, headache, mental depression, debility, irritability of the skin. Bryden accounts for 29 children treated, one death: women 56—1 for the 10 year period. Men 2,079 admitted, 22 deaths, 9 invalided for jaundice.

There were no fatal cases of children at the Lawrence Asylum at Sanawar, from 1847 to 1876, and the few admissions refer to boys chiefly affected in June or August. Under the head of hepatitis also, the admissions were singularly few, and mostly include boys in the months from February to June, as compared with the girls who sickened from September to November. In the treatment of jaundice from suppression, the

remedies include taraxacum, sulphate of soda, senna, chloride of ammonium, ipecacuanha, podophyllin, nitro-hydrochloric acid baths; and cream of tartar drink is very much appreciated. In jaundice depending on obstruction, magnesia and rhubarb will be found useful, so also the various preparations of aloes. Active cathartics or emetics injudiciously given, however, only set up dangerous inflammation. The sluggish liver of children, characterized by constipation, pale evacuations, depraved appetite, sallow look, dirty or preternaturally clean tongue, sometimes continues for a long time intractable, in spite of careful diet and management, counter-irritation over the liver, and giving alternately such remedies as podophyllin, iodide of potassium, ipecacuanha, colchicum, dilute nitro-hydrochloric acid, strychnine, quinine, chloride of ammonium, change of air. Although reluctantly, the practitioner is sometimes driven to use mercurials, for instance, Dr. West's formula:—

Lig. Hyd. Perchlor,	one	drachm.
———Taraxaci,	two	,,
Lig. Cinchonæ,	one	,,
Tinct. Aurant,	one	,,
Syrup,	three	,,
Aquæ Destil,	three	ounces.

A table-spoonful twice a day for a child 3 years old.

In certain cases, occasional mercurial inunction over the liver or bowels, will be very serviceable.

Considering the objections to mercury, most medical men would prefer podophyllin, ipecacuanha, or magnesia and rhubarb, followed eventually by Parrish's food and Cod liver oil, taraxacum and chiretta; for, although mercurials may temporarily relieve, there is always the risk of rousing the dormant seeds of constitutional debility, as scrofula or tuberculosis. Counter-irritation over the liver with mustard, iodine, turpentine, or the bath of nitric acid an ounce, hydrochloric acid three ounces to 30 gallons of warm water; else the solution of 8 ounces of dilute nitro-hydrochloric acid to a gallon of water—a flannel roller soaked with this applied round the liver and covered with oil silk, kept constantly renewed—all come in as useful local remedies. Never blister any children, unless under extreme necessity. During or after the rains, when vitality is low, even the tough hides of strong soldiers may be blistered into deep wounds.

(To be continued.)

A MIRROR OF HOSPITAL PRACTICE.

BANGALORE CENTRAL JAIL HOSPITAL.

STRICTURE AT EXTERNAL MEATUS, WITH PHIMOSIS, FOLLOWED BY ABSCESS AND FISTULA: REMARKS.

By T. J. McGann, *Surgeon, Madras Medical Service, Officiating Superintendent.*

Pillagah, a Hindoo, aged 33, in good bodily health, came under my care on the 25th of April last. He had been admitted into hospital on the 13th of the previous month, with a large urinary abscess in the ante-scrotal portion of the penis.

The abscess was still discharging, and through the fistulous communication which it formed with the urethra, a good portion of the urine escaped; the remainder passed by the natural outlet, but only in drops.

The prepuce was elongated, thickened, and hardened, and could not be drawn back nearly sufficiently to expose the glans, and from the smallness of the urinary outlet, no instrument, even the very smallest, could be passed into the urethra.

The history of the case appears to be that, in his youth, the man suffered from syphilitic sores, one at the meatus, and others on the prepuce, and the application of the actual cautery by a village doctor resulted in the contraction and induration.

The penis itself was swollen and indurated, and the abscess was still discharging, and through it was also passing urine. A few days afterwards, the swelling and tension increasing, an incision was made into a part of the penis where obscure fluctuation was noticed, and some sero-purulent matter escaped, and subsequently a little urine.

In a day or two circumcision was performed, and a No. 1 elastic catheter was introduced, with a little difficulty, into the urethra.

Now that the meatus was within view and reach, there was no difficulty in dilating it gradually, and when it was sufficiently large to permit the passage of an ordinary director, this was introduced, and with a tenotome the urethra was enlarged. A narrowing of the urethra, about ⅜th of an inch from the orifice, being within reach of the knife, was also cut.

The largest catheter in the hospital at the time, (a No. 8 elastic), was then introduced and retained *in situ;* subsequently Nos. 9, 10, 11, and 12 were passed with facility, one being retained until the next came to be used.

This course it was considered desirable to pursue, there being so much dense cicatricial tissue, and for the purpose of setting up a discharge, breaking down the induration, and of retarding, meanwhile, the tendency to contraction so strong in these cases.

Under this plan of treatment the case did well, the sinuses healed, micturition was perfectly free, and the organ, except some slight induration, resumed its natural size, and the man was discharged from hospital, attending as an out-patient afterwards to have a large instrument passed. The tendency however to re-contraction is great, and it may be necessary, at a future time, in order to preserve the patency of the orifice after the man's discharge from jail, to slit open the urethra, turn the two edges outwards, and fasten them with sutures, as is recommended in amputation of the organ.

In the *Lancet* of the 15th of April, a case very similar to the above, is published by Mr. Teevan, in which he considers that abscesses which formed after the urethra had been cut, were due to the catheter which was left in the bladder.

In this view of the matter I do not concur, such is not a usual consequence of the retention of catheters in the urethra, and I consider the abscesses which preceded urethrotomy in my case, and followed it in his, to have been caused by the previous obstruction in the urethral canal, and more or less diseased condition thereof as a consequence of the obstruction.

CASE OF PNEUMONIA OF RIGHT LUNG.

By T. B Moriarty, A.B., M.D., *Surgeon-Major, A. M. D., Dalhousie.*

The late Professor Parkes often told me that the most useful and intelligent description of disease would be found to exist in a daily record, together with such observations as may be considered worthy of note. As the following may not be uninteresting, I transcribe it from my case book:—

Private J H, 92nd regiment, a delicate looking young man, aged 23, with two years' service, one of which has been in India, was admitted to the depot hospital on the 9th May for an ulcer in the perinæum of two months' duration. Soon after admission, the ulcer was formed into an open sore and dressed with carbolic oil. He appeared to be making a satisfactory progress up to the 22nd, when he was found to be suffering from hepatitis; the area of hepatic dulness was extended in an upward and backward direction; there was some pain on pressure, but no rigors. His looks were somewhat haggard, and he had slight cough, unattended with any expectoration. On the evening of the 25th he was found to be suffering from pneumonic consolidation of the base of the right lung, fine crepitation distinctly audible, together with dulness on percussion; pulse 106; temperature 100·3°, respirations 24. Ordered senega and ammonia mixture, with vinum ipecac and oxymel of squill every third hour, and three grains of quinine every fifth hour. The seat of disease to be enveloped in a linseed poultice.

26th.—Was seen by my colleague, Surgeon-Major Davis. On consideration we came to the conclusion that the pneumonic condition was due either to an extension of the hepatitis, or that it was excited by a rapid development of tubercle; the area of dulness was extended, and auscultation indicated that there was but little admission of air; sputa somewhat thick but scanty, and free from discoloration. Is perfectly free from pain; had a good night; temperature 101°; respirations 22; pulse 104. To have six ounces of wine, 3 eggs, two ounces of brandy, and a pint of beef tea.

27th.—Spent a good night; crepitation at base indistinct, but is very audible over the anterior and middle portion of lung;