lower classes, to the patriotic gift of the Arboretum at Derby, by Mr. Strutt, on which a walk of two miles is contrived in eleven acres, and one thousand specimens of shrubs and plants are displayed. I may also add, the great improvement in our own mills, and the apportioning of allotment gardens deserve special mention here; the attention of our Marshalls, Gotts, and others, to the well-being of their work-people is universally admitted. The construction and arrangement of Messrs. Marshall's huge mill is considered one of the sights of the age. After all, we are forced to admit that much remains to be done, in the promotion of the sanitary condition of the working classes, and that riches and station have their duties to perform, as well as their influence to exercise. The poor man works for, and adds to, the wealth of the great capitalist, and he is fairly entitled to assistance as well as advice, by the institution of public measures for his special benefit. I allude now in particular to the interference by local and general Acts of Parliament, compelling the adoption of adequate drainage, the building of a better class of cottages, dwellings and lodging houses for the working classes, the establishment of public baths and washhouses, public walks and parks, and the encouragement of healthy manly pastimes and exercises, and along with them, those institutions for mental improvement, now found to work so admirably—Mechanics' Institutions—to which ere long we shall see added free museums, public halls, and cheap reading rooms. All these means will tend to promote the cause of public hygiene. To return for a moment to Mr. Chadwick: in another section of his able report, he discusses at length the state of the then existing laws for the protection of the public health, and shows their inadequacy to the wants of society, and with his usual skill and tact, makes out a case for legislative interference. Mr. C. is quite at home amongst drains and sewers, and dwells strongly upon the plan of rendering the refuse of towns available in a pecuniary point of view, though it was Mr. Smith, of Deanston, who first suggested the propriety of rendering such refuse profitable to the authorities of towns, by its sale for agricultural purposes. Mr. C. also has an essay on Boards of Health and Medical Police, and brings forward a plan of his own, which includes medical inspection not only for the poor, but for streets, houses, sewers, &c., also the supervision of surgeons under the Poor-Law, of recruits, factory children, prisons, workhouses, lunatic asylums, public schools, manufactories, and workshops of all kinds, as well as the supervision of mortuary registers, coroner's inquests, &c. The propriety of such general interference is questionable, as public opinion ought to be sufficient to prevent abuse and grievances in large establishments and public institutions, and the aid of the State should be called upon only when independent and voluntary exertions are unequal to the case. Indeed Mr. Chadwick's plans, reports, and legislation are generally overdrawn, so to speak; he thinks public boards have only to draw up a code of rules sufficient to meet any exigency, and that the carrying of them into practice will be sure to follow. [He errs grievously

in this respect; his intentions are good, and his suggestive talent is wonderful, but his schemes are often found impracticable. Witness his recent rules defining the duties of the officers of health.* But I must now pass on to another important step in sanitary legislation; I allude to the appointment of a select committee by the House of Commons, to inquire into the evils arising from interments within large towns, and to the issuing of a Royal Commission for an inquiry into the state of large towns and populous districts.

[To be continued.]

CASE OF IDIOPATHIC GANGRENE OF THE FOOT.

By G. BOTTOMLEY, Esq., CROYDON.

Read at the Nineteenth Anniversary Meeting, held at Brighton, August 13, 1861.

I WAS called, in consultation, to see William Mascall, aged 53, of Croydon, Surrey, on January 16th, 1851, a rather short, stoutly-built man, flabby and lymphatic in appearance. Complexion pale; habits have been somewhat irregular; has lived freely; seldom the worse for liquor, "but drinks little and often;" his usual beverage is porter, either alone or with gin in it; appetite never very good; has been the subject of dyspeptic symptoms more or less for some years. He is a master builder by occupation, and does a fair amount of manual labour himself.

He states that, on the 7th of December last, he was running down hill at the top of his speed, when he felt a sudden pain in the calf of his right leg, as "*though something had given way deep in.*" It was very severe at the time, and he had difficulty in walking home in consequence. As it persisted for a few days, and confined him to the house, he obtained medical advice, and used fomentations and lotions. There was no swelling or unnatural appearance of any kind. Gradually the pain subsided, although he has felt more or less at the same spot ever since, and this foot and leg have been so much colder than the other ever since this occurrence, as to occasion him to wrap it up in flannel at night, of his own accord. He had never noticed any decrease of temperature in it before. For the last three or four days the right foot has been exceedingly painful, rather red, and swollen, and the day before yesterday he first observed that the great toe had a greenish tint, and that there was a small black spot on that side of it which comes into contact with the adjoining toe. The whole toe became redder, and swelled at night, and the blackness had spread over nearly the whole of it. On the day previous to these appearances taking place, his medical attendant applied lotions, and four leeches, to relieve the pain.

Present condition.—The whole of the great toe is of a dark livid hue. The instep is redder than natural, the

* This code of rules was published in a recent number of the *Provincial Medical and Surgical Journal*.—1.

dark colour of the toe shading off imperceptibly into it, and it is painful when touched. Temperature of the right toe very sensibly lower than that of the left. There is some oozing of dark blood from the leech bites. On close examination no pulsation can be found in the popliteal artery, or below the space, and it is only by very strict attention that a few faint beats can be detected in the femoral; these appear to be intermitting. There is some tenderness, but by no means much, in the line of this vessel; its course is not distinct. Much thickening of indeterminate form and limit occupying the upper part of Scarpa's triangle. Pulse is 100, moderately full, soft, compressible; heart sounds natural; tongue coated with thick dirty fur; bowels open; spirits good.

In consultation on this case, removal of the limb by amputation was proposed. I objected, on the following grounds:—

1st. In the condition of the local circulation, whatever might be its cause, there was much reason to doubt whether the vascular energy would be sufficient to cope with the demand necessary for the maintenance of the reparative process in so large a wound as an amputation of the thigh must involve; and the want of ANY PULSATION in the popliteal, would of course preclude an operation lower down. Sloughing of the stump, if not secondary hæmorrhage, with their consequences, were certainly to be feared.

2nd. The condition of the patient's general health was unfavourable—the amount of vigour in the system was scarcely equal, perhaps, to ensure a favourable course of things—certainly insufficient to meet any unfavourable contingencies following the operation. This is of more importance than the age simply, which of itself could not in this case be considered a ground of objection.

3rd. There was no indication from nature as to the extent to which the process of mortification might extend; neither, at the same time, was there any rapid progress to be feared.

The result was, that any operative interference for the present was declined, and the patient was placed from this time under my care.

January 19th.—By diet, and small doses of blue pill, his digestive functions are improving. The blackness is slowly creeping over the instep, and inflamed lines of lymphatics have appeared, running up to the centre of the thigh. Pain is severe in the foot, especially when kept warm by local applications, as carded wool, in which it had been enveloped; and he finds ease in evaporating lotions, and moderate temperature. Ordered a mixture containing quinine, morphia, and tincture of rhubarb, nutritious light food, and a moderate quantity of his accustomed stimulant.

February 1st.—During the last ten days his tongue has been gradually cleaning, and his powers increasing; the appetite good, and his diet has included plenty of good beef-tea, milk, &c. The local pains have been relieved, and sleep at night obtained, by the use of about two or three grains of opium in the twenty-four hours. The quinine has also been continued. The

blackness has reached the ankle, and there is redness and oedema to the middle of the leg. Pulsations in the femoral are noted daily with care, and seem to vary; sometimes they can barely be distinguished, at others with more ease, but always much below the size and force of those of the corresponding artery of the other limb. There is no pain in the line of the artery.

8th.—Slowly improving in general condition. During the past week there has been a gradual failure in the pulsations of the femoral, so that now on the closest scrutiny not a single beat can be felt; neither in the direction of the external iliac beneath Poupart's ligament, nor in any part of the limb below. No extension of the livid colour, which seems disposed to stop just above the ankle. The sphacelated part becomes drier, and shrivelled. Continue opiates. Quinine replaced by decoction of cinchona and ammonia. An occasional blue pill when the bowels are costive.

15th.—Much the same in general health; the pulse has gradually risen to 100 and 108; there is now a well-marked line of demarcation above the ankle-joint, and a free discharge of pus and oily matter. Separation seems rapidly progressing through the soft parts.

March 15th.—During the past month the process of separation has been going on steadily; the tendo-Achillis has given way; there has been very little pain; discharge moderate, and healthy; health and strength as last report; treatment varied at times, but continued on the same principles. It is evident now that little more remains for division beside the bones of the leg, it is therefore proposed to divide these, with as little disturbance to the soft parts as possible, in the course of a few days.

24th.—Having given him chloroform, I removed the dead foot by dividing the ligaments of the ankle-joint, then cautiously separating the soft parts from the exposed tibia and fibula, the lower ends of which were evidently necrosed for one inch and a half or two inches. I detached about two inches of each bone by means of the saw and forceps, and brought small flaps into fair approximation over them with isinglass plaster. No vessel required tying, and very little blood was lost in the operation.

From this period he had scarcely a bad symptom; his appetite and condition improved rapidly, the wound chiefly healing by granulation, but forming a fair and serviceable stump for the adaptation of an artificial foot, which I propose that he should obtain when the part is sufficiently consolidated to bear one. In two months from the time of the removal of the extremity he was able to walk with the assistance of crutches, and overlook his men at work.

I have recently made a careful examination of the limb. There is no pulsation to be found in the line of the main trunks in any part of it, no distinct cord can be felt, but the same kind of thickening as before described, and a similar condition exists in the popliteal space. I can detect no difference in temperature between it and the sound limb. The patient stated, without any suggestion from me, that he could feel "a pulse beating behind at the top of his thigh when seated

in a chair," though I could discover none by palpitation there.

Some interesting speculations might be indulged, did time permit, as to the circumstances which led to the occurrence of gangrene in this case. What was the cause of the failure in the circulation? I am inclined to think that arterial degeneration had long previously been by degrees obliterating the main channels of vascular supply, and a low form of inflammatory action might also be set up in and around them. His sensations at the time of running down the hill, and subsequently, must be admitted to have arisen in connection with some lesion occurring there, possibly the rupture of a calcified vessel. A collateral circulation, however, is now performing its functions admirably, and affords an interesting example of nature's resources in this respect. His sensation of pulsation, when in the sitting posture, is so natural that it must be regarded as evidence as to the course by which the blood now reaches the extremity. I have only further to add, that the patient is at this moment enjoying as good health as he ever had in his life, although from a small exfoliation of dead bone from the tibia, not at present quite ready for his artificial foot.

ON THE MANAGEMENT OF WOMEN AT, AND AFTER THE CESSATION OF, MENSTRUATION.*

BY E. J. TILT, M.D.,

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ON PURGATIVES.

AMONGST the vicarious diseases by which nature enables the system of women to right itself, diarrhoea is one of the most frequent; as it forms an immediate diverticulum for that periodic flow of fluid which has now outlived its utility; and as it is also the most convenient local depletion by which we can habitually relieve the system, the employment of purgatives at this stage of the menstrual function fully deserves the confidence which the profession has long accorded to the practice, and the sanction which Fothergill has given it in a well-known contribution to medical literature. The utility of purgatives has become so much a matter of popular, as well as of medical belief, that both patient and medical attendant too often confide in them alone, to the neglect of the other more important means I have already alluded to. This mode of treatment is one of nature's own suggesting, for it was found that diarrhoea occurred at cessation in the following number of instances:—

Diarrhoea existed in	...	...	12 per cent.
" was irregular in	...	...	8 "
" was regular, by coming on every	...	...	4 "
month in	...	...	4 "

I might give numerous cases in proof of the utility of this occurrence, but I will merely state the following:—

Case.—Catherine Mackey, aged fifty-three, tall, thin, with dark hair, grey eyes, and pallid complexion, was born in Ireland, but for the last thirty-five years has resided in London. She menstruated very abundantly at between fifteen and sixteen years of age, was regular from the first, and continued so for three or four days every three or four weeks, with so little suffering that "she never felt them come nor go." She married at thirty-three, miscarried three times, and bore five children, the last at forty-seven; and menstruation, which had been irregular a year previous to conception, never returned after that event. The patient was generally relaxed during the menstrual epochs. During her last pregnancy, and after her confinement, she frequently had three or four stools a day, without pain or loss of appetite, and since then diarrhoea has come on every three or four months, with intermittent flushes and drenching perspirations. For the last twelve months she has been relieved six or seven times a day, until lately, when she has only been so once in two days, and has ever since suffered from heat, and oppression at the pit of the stomach, from wind, nausea, and want of appetite, but her tongue is perfectly clean and healthy. I adopted the same treatment as in the previous cases; and when the action of the bowels became freer the patient got better.

By imitating nature to a certain extent, as in this instance, it is often in our power to cure the milder cases, and to prevent the return of the more serious diseases.

The utility of purgatives at cessation is further shown by the very intimate relation which I have proved to exist between the generative and intestinal canals. The following table, extracted from a paper already referred to,* embodies the results I have obtained.

State of the Bowels during Healthy Menstruation.

Author's second list:—

	Number of Observations.
Relaxed before the time	22
" at the time	44
" before and after	11
" after	1
	78
Confined before the time	4
" at the time	23
" after	1
	28
Unaltered: regular as usual	37
" confined as usual	2
" relaxed as usual	3
	42
	148

Author's first list:—

Relaxed before the time	45
" at the time	31
" before and after	10
" after	2
	88
Bowels confined	73
	161

Dr. Butler Lane's list:—

Bowels relaxed	33
" confined	45
State of bowels unaltered	22
	100

* On Catamenial Diarrhoea, by E. J. Tilt, *London Journal of Medicine* August, 1851.