their own homes; better still in separate isolated wards of a general hospital than when mingled with other patients; best of all in separate institutions, with an entirely distinct staff of officers.

10. That in a separate institution, situated on high ground, with 1750 cubic feet of air for each patient, a large lateral space between the beds, and good ventilation and drainage, the death-rate of typhus, though varying according to the idiosyncrasy of the epidemic, may be considerably diminished.

ARTICLE IV.—*On the Treatment of Virulent and Zymotic Diseases.*
By H. HJALTELIN, M.D., Inspecting Medical Officer of Iceland.

WHAT is now-a-days our general treatment of virulent and zymotic diseases? I think for the most part only symptomatic; many specifics seem altogether amongst the great physicians in some discredit. This is no doubt the contrary state to the old maxim, especially that of the iatro-chemical school. The universalia of Paracelsus, van Helmont, and others of their followers, are now only laughed at; they had three or four great universal medicaments, viz., *iron, sulphate of copper, and nitrate of potash*, besides their many renowned organic specifics. All this is now looked upon as a mere superstition and twaddle; good for nothing; and only worthy to be buried in oblivion. The maxim of *Celsus* was,—“Non interest scire, quid morbi sint, sed quo modo curentur.” The maxim of our time seems to be exactly the reverse of this maxim, viz., “interest scire, quid morbi sint;” and it is from this principle that the many microscopical investigations and the most exact chemical experiments on dead bodies have been instituted of late with the utmost accuracy.

Alas! poor sons of *Æsculapius* as we are, what is come out of all this? The French physicians have some time ago told us, that the Roman physicians, two thousand years back, were fully as able as we are now, to cure diseases, and a very ingenuous and able German physician has some years ago told us, that we in vain laughed at the old alchymists, who, according to his view, knew very well what they intended, and had more correct ideas of physic than we are inclined to believe in our time. This view is in some way supported by the great chemist *Liebig*, who, in some of his chemical works, is looking on them with no small esteem, while he, in his last chemical letters, is speaking of our healing art with considerable contempt. In the meantime this is not all; the method of our science is now still further attacked, not only by the homœopaths, but we have the mortification to see one of the most renowned journals in the world, the *Times*, speak of our healing art, not only with great distrust, but even with contempt. “Medical men cannot tell

us," says the *Times*, "with any strictness what the type of disease is which is decimating our flocks and herds."

They are not agreed upon, whether the disease is imported from Russia, or whether it is the result of some subtle poison in the atmosphere called into sudden and virulent action by atmospheric influences. "As they differ as to the disease, so also they differ about the remedy." This is, no doubt, a melancholy state, and a frightful stroke, not only to the medical men of Great Britain, but also to the high-minded British nation.

It has fallen to my lot to have a great deal to do with some of the most frightful contagious diseases of our time, not only in men but also in animals, and I have never been in the slightest doubt what to do; my principle has always been to destroy the contagious matter by the most effective disinfecting compounds, using at the same time such specific remedies as I have thought most fit according to the atmospheric influences and other circumstances. I will shortly tell my experience; which, in truth, has been a very extensive one.

In the years 1848 to 1853, including the former year, I was appointed as superintendent physician to the quarantine establishment near Copenhagen; my duty was to defend the Danish capital from the threatening Asiatic cholera, which in these years often raged frightfully in the surrounding countries, especially Germany and Sweden; the cholera was then sometimes raging very near us, as in *Stettin*, *Lubeck*, and many other places in the north: the nearest infected place was, at one time, Malmöe. Steamers were then running from and to the quarantine establishment in twelve to twenty hours, and many passengers came to the quarantine, not only with severe symptoms of choleric diarrhoea, but also with the first symptoms of the advancing disease itself. Disinfecting compounds, especially chlorine gas, were daily made use of in the most consequent manner, while I, at the same time, stopped every diarrhoea with the most effectual remedies, amongst which I used tannic acid and sulphate of copper. No deaths occurred among the many thousands that visited the quarantine in the aforesaid period, and no cholera was then introduced into the capital of Denmark. During the winter 1853, the quarantine for the kingdom of Denmark was abandoned by law, according to the advice of the Diet (*Rigsdag*); but about four months afterwards, the Asiatic cholera made its first appearance in Copenhagen. I did not, in the beginning, trust my own eyes, because I was, with some others, accustomed to the view that cholera was, by some unknown causes, prohibited from making its ravages in the Danish capital; but soon I got convinced of the real truth, and I then saw that it was the same plague which I for some years since had seen in Berlin. The people of Copenhagen were struck with astonishment, exclaiming, "Oh! that we had not abandoned the quarantine! It has surely saved us for many years; but now, since it is abandoned, we are to have the

plague." Before the outbreak of cholera, I was determined to visit my native country, and the vessel which was to carry me sailed two weeks after the appearance of the cruel Asiatic guest. I had, some years back, written a little pamphlet on the preservative remedies for cholera, in which my opinions about some disinfecting compounds were exposed, and in which I had shown that the cholera fright was nearly as dangerous as the cholera itself. I told some of my medical brethren that the best course to take was, according to my conviction, to stop the diarrhoea as soon as it came on, to use strong disinfecting compounds, and to keep the cholera fright down amongst the people as much as possible.

When I had arrived in my native country, I had to deal with another frightful contagious disease amongst the sheep; it was a sort of plague that in some places had nearly decimated the flocks, and had lasted for some years. The Danish Government, which was aware that I had taken much interest in the veterinary science, and had for that purpose for some time visited the veterinary school of Copenhagen under the guidance of the excellent Veterinarian, Professor *Wiborg*, asked me to do what I could against the plague amongst the sheep in Iceland. After having made some autopsies I wrote a statement about the disease to the Danish Government, and this having been laid before the College of Veterinarians of Copenhagen, was afterwards printed in the Veterinary Journal, with very flattering remarks on my description of this plague. The college animated the Government to let me continue my measures. And so I continued to look for new autopsies; but I am now not a little surprised to read of nearly the same pathological conditions in the description of the raging rinderpest in England as I then found in the dead sheep here.

I had, in my aforesaid statement, tried to show that the then raging sheep disease of Iceland was in its nature a most dangerous and contagious *sheep-typhus*, which, according to my conviction, ought to be treated with effective disinfecting remedies. The chlorine gas was now again employed in the most strict manner, the sheep stables were to be filled with that vapour, and the sulphate of natron (salt of Glauber) was administered to all sheep where the plague was raging, in order to clean the intestinal canal effectually. The salt of Glauber was often mingled with sulphur (about half-an-ounce to two ounces of the salt of Glauber) with the best effect. I looked upon these remedies as true preservatives, which ought to be administered as soon as possible and given to all the flock where the disease was raging. The effect was really wonderful, and the frightful disease decreased rapidly in all the flocks where this treatment was followed. The belief in both those remedies is still so strong amongst many peasants, that I annually am getting letters from very remote parts of the island, convincing me of its reiterated efficacy. Unhappily enough, was this frightful disease after some years followed by another far less dangerous

complaint, viz., the scab of the sheep, which, in the former century, during 16 years had made considerable ravages in this island, but was supposed to have been stopped by an extensive slaughter of these animals. In the meantime, this slaughtering cure was then in some measure followed by a frightful famine, which nearly decimated the people themselves.

In the beginning of the new sheep scab my advice was asked, and my answer was, — “You must not think to stop this disease by slaughtering the sheep; nobody can know how far it already may be spread, and it is, at all events, quite curable.” I then advised the inhabitants to make a bold use of one *specific* remedy against this complaint, and this was the scab-bath of *walze*, which I had seen used in other countries with perfect success. In vain I told my countrymen this; they would not believe me, except very few of them. A general public clamour arose: “We have got an intractable disease into our country, like that scab disease of the former century: it is a great plague, quite incurable; it is come from England, like the scab plague of former century; slaughter is the only remedy.” This was the general talk. But to this I answered: “Do not disbelieve in the veterinary science; the sheep scab is quite tractable; we have a specific remedy against it. The disease is not imported; it is only a higher degree of the well-known milder scab of these animals, which, on account of the great heat and dry weather of the last summer (this was in 1855), that has been extremely much favouring the evolution of the *acarus scabiei*, has thus become an epizootic.” The governor in the south was of my opinion, but the governors of the west and north part of this island strongly opposed us, regarding a general slaughter of all affected and suspected animals as the only admissible remedy. A general slaughter of no less than 138,000 sheep then followed, the greatest part of which was only suspected, but not affected at all. The fear for the contagion amongst the people now went to its highest degree, and reminded one of that extreme fear for the Asiatic cholera contagion when letters and newspapers were believed to spread that disease to uninfected localities. In the meantime, some people who believed in my opinions also about this disease began to cure their sheep with the remedy of *walze*, and were completely successful. By this, two parties arose amongst the peasants,—the curing party and the slaughtering party. The latter party was strongly assisted by the governor of the west and the governor of the north, who, in an open letter, declared the disease to be the most intractable plague introduced from England. The matter came to the decision of the Danish Council, which, after a conference with the veterinary college, decided for my opinion. The King of Denmark himself sent his chief veterinary physician, the Professor Ischerning, a very learned and practical veterinarian, up to us, followed by the most popular Icelandic, the Chairman of the Althing, and some other

veterinarians. The Danish Government ordered to stop the slaughter, and the curing principle was introduced in all places where any scab was to be found. Many of the inhabitants were reluctant against this measure, and are still so obstinate that they must be compelled to do their duty. It was now found that the *acarus scabiei* of the sheep was no new animal introduced from England into this country, for it had been found in the northern part of this island in considerable quantity for more than forty years back, and this was stated by the Professor Ischering from a very nice picture of this little animal.

The curing principle is now universally in use against the sheep scab in the southern part of this country; and although there may still be found some blockheads who are unwilling to cure their flocks, the *specific virtue* of the walze remedy against scab is established, and the sheep flocks are increasing to a considerable extent.

In the years 1858-61 a frightful contagious typhus raged all over this island, as may be seen from my description of that malady inserted in the Edinburgh Medical Journal, 1863, p. 217, and I then again took refuge in my usual disinfectant treatment, and it was executed on many hundreds of patients with great success. The belief in this treatment is grown so strong amongst the population that they look upon it as quite specific in this disease.

During this summer a dangerous puerperal fever broke out in the western part of our country. The physician there asked my advice and counsel, and I advised him to make bold use of chlorine gas in all the houses where this malady had broken out, and ordered him to have all utensils and clothes which had been in contact with the sick or their attendants washed in chlorine-water. This was done, and the physician now writes to me that the fever has been instantly much mitigated, and no deaths have occurred since this measure was brought into execution.

It would lengthen too much these few remarks if I were to expose my humble individual opinions on virulent and zymotic diseases, and I will only make the remark, that it seems to me that the name of zymotic disease is most applicable to such maladies, where we, by induction, seem justified in accepting an agent like that of fermentation, putrefaction, or of a catalytic nature. I know that the learned Mr Simon, in his admirable lectures on pathology, scouts the notion of any true fermentation in virulent and zymotic diseases; but I have always thought that the great chemist, Liebig, has only used these words analogically, to signify some still hypothetical subtlestuff, causing, like diastasis, an unusual but very destructive metamorphosis in some albuminous compounds of organised bodies. The deleterious actions of such a promoter may, according to my view, be stopped by many chemical compounds, as fermentation and putrefaction are unquestionably counteracted by chemical remedies, and, according to the empirical facts of medicine, we seem justified in calling them disinfecting remedies. They are also, in more or less degree, parasiticia, and belong, for the most part, to

the metalloids or metals; the most effective seem to be chlorine, bromine, iodine, nitrogen and sulphur in their chemical combination with oxygen, hydrogen, and some of the metals, as iron, copper, mercury, zinc, calcium, and formyl. The chlorine gas, muriate of iron, sulphate of iron, sulphate of copper, iodoform, and muriate of zinc, have all been tried by me in several zymotic diseases, and, as it seems to me, with good success. Thus, I have tried chlorine gas, iodoform, and muriate of zinc in typhus, as well in men as in animals, with no small success; chlorine gas, sulphate of iron, and sulphate of copper in cholera, dysentery, diphtheritis, and adynamic pneumonia; chlorine gas and muriate of mercury in puerperal contagion; and muriate of iron in epidemical erysipelatous inflammation. It is evident that, if the morbid cause of an infectious disease has already produced extensive pathological destruction in men or animals, then the disinfecting compounds will be of little or no use: they must be had recourse to in the outset of the diseases; for they are, for the most part, aimed against the real cause of the virulent diseases, and not against the pathological products resulting from such a cause. "Sublata causa, tollitur etiam effectus."

The disinfecting remedies of vegetables are certainly far inferior to the organic compounds; among the most trust-worthy of them are charcoal, ethereal oils, camphor, some aromata, creosote, and empyreomatal oils and fluids. In miasmatic diseases, whether of an atmospheric or telluric origin, some of them, as chinine, salicine, coffeine, etc., are of great value; but that they can destroy real virulent and zymotic diseases is still very uncertain.¹ Many remedies of this great class are excellent parasitocidia, and their neurosthenic, sedative, and anti-spasmodic virtue is undeniable. The specific organic remedies of the alchymists are nearly put down by the modern systems of medicine; and it is undeniable that the modern pathological schools, whose maxim it is to leave most acute diseases to their own course, to the healing art of nature, or to the so-called expectative method, have nearly shaken down the public belief in medical agents, and made the modern followers of Hippocrates equal to the decillion doctors in public opinion. No wonder, therefore, that the homœopathists are gaining ground in reverse proportion to the followers of Rokitansky, who are losing it. Eminent physicians of our time are begun to feel the uncertain state of our science, and the excellent physician, *Thomas R. Chambers*, has, in his remarkable work, "*The Renewal of Life*," remembered this when he says,—“To the practitioner I will urge the necessity for having firm faith in the work he is busy upon, and in the *tools* he uses. Without this he can look back with no conscientious pleasure

¹ There is also one remedy which must be named here, and it is the *cold bath*, ice internally, and cold, often reiterated cold super-infusions. This remedy has often, both in epidemics and epizootics, showed its great and wonderful efficacy. It promotes the reaction of the whole surface of the body, and restores, often wonderfully, the natural heat better than warm applications.

on his daily toil; his moral nature will degenerate day by day; he will have but a slighting scorn of those whose applause he would value in old age; and, worse than all, he will deserve it. The sooner a sceptic leaves our profession the better. He that complains of the want of something to believe in, I am sure has not sought for it." These are remarkable words, but, according to my conviction, true and most worthy to be remembered by every medical man, whether a veterinarian or a doctor for men.

The afore-named article in the *Times* of 4th October last,—“The Doctors and the Public Health,”—contains some sad, but, I am sorry to say, true hints of our disbelief in physic, and of our indetermination to meet dangerous pandemic and epizootic diseases; but what can give a more deadly blow to the medical profession than these words of this remarkable and most valued newspaper in the world?—“It does so happen at the present moment that these two purely physical ailments (cholera and the rinderpest) are the only clouds of any importance which darken the national horizon. We turn to the medical profession for aid, and we are sorry to say that, as seems invariably the case under such circumstances, the answers we receive are so various and contradictory as to afford us little or no guidance.”

I myself have never seen the “rinderpest,” but read a good deal of it; it is, no doubt, a zymotic disease of a very serious kind, but I think it cannot be intractable: it must, like all other acute ailments, be curable and preventible, only that we are not unhappy disbelievers in chemical remedies, but have a founded conviction of disinfecting and specific physic, being at the same time not afraid to interrogate the *nature* of the true effects of such remedies. A mere symptomatic treatment will hardly do, or have any great effect in such cases; the specifics must be detected, not only the preventive, but also the curative ones, and this is a worthy task for the compatriots of Jenner.

The discovery of the eminent physiologist, *Professor Virchow*, of Berlin, that the ciliated epithelium, when once out of motion, is again only put into this action by potash and soda, is one of the most interesting discoveries in medical science, and cannot fail to strengthen the nearly quite gone belief in specifics. Dr Rutherford Haldane's most interesting lecture in the Royal College last winter, which has been printed in the *Edinburgh Medical Journal* of February last, is very worthy a man of great learning and strict logical reasoning, and it cannot fail to open the eyes of many disbelievers in specifics, and lead the young students to a better and clearer insight in physic than has hitherto been common amongst medical students; on the other side, we look upon this way of reasoning as the only one able to lead us from the disheartening and humiliating manner of killing sick domestic animals. We know very well from medical history that bad and dangerous pandemics and epizootics have very often visited Europe in former days, and

will still continue to do so, notwithstanding all our sanitary measures, which only serve to mitigate them, and may render them less dangerous, but can never totally prevent unforeseen atmospheric and telluric agencies, which, in all time, have been the first promoters of all pandemic and epizootic diseases.

It is to be hoped that the disheartening, and, for all medical science, so degrading a manner of curing epizootics by slaughter will soon be followed by a better plan, and more worthy the medical profession; for the slaughtering cure can only be of any real use where we are able to draw a reliable line of demarcation between sound and sick animals, and where physical agencies, which have occasioned the epizootic, are no more at work; but these conditions seem now not to be present in England, and the English veterinarians will therefore be compelled to make use of the curing principle as the only saving measure for their country. We wish them most heartily a good success, and hope that they will trust to the effective disinfecting compounds, and some of the afore-named mineral and vegetable remedies, and use them energetically and with the utmost strictness and consequence, taking, at the same time, all due and applicable quarantine measures where those might be applicable. This being done with energy, we have little doubt of their good success in saving their great, high-minded, and most noble nation from a tremendous loss of the most useful domestic animals. "Deus adjuvat fortes."

REYKJAVIK, 4th November 1865.

ARTICLE V.—*Cases of Ovariectomy.* By THOMAS KEITH,
F.R.C.S.E.

(Continued from page 535.)

CASE XXVII.—*Multilocular Ovarian Tumour, with Fibroid Tumour of Uterus. Ovariectomy. Recovery.*

M. G., from Gourrock, 54 years of age, was sent to me in January 1865, by Dr Drummond, of Glasgow. She was a pale, thin, nervous woman, but her health had been good till August last, when she found that her dresses would not fit her as formerly. She increased rapidly in size, and when I saw her, the girth at the umbilical level was 41 inches. The tumour occupied the whole abdomen, extending under the sternum. Fluctuation was much more distinct at some places than others. On internal examination, the finger came at once against a solid tumour, filling up the recto-vaginal fossa. The cervix was central and very movable; the sound passed $2\frac{1}{2}$ inches, and, on turning it about, no impression whatever was made upon the posterior tumour, which had the feel-