absence of the constitutional symptoms of phthisis will not authorise us to infer that phthisis is not present. It is not at all unusual to see cases of phthisis supervening, on organic disease of the liver produced by intemperance, in which the same observation is applicable.

When cirrhosis of the lung is fully formed, and that we have the signs in full perfection, there is then no longer any danger of confounding it with phthisis; the very intensity of the local signs furnishes us with one of the diagnostic signs; for while the local signs, such as dullness on percussion, pectoriloquy, gargouillement, and absence of respiration, would seem to point out rapid and confirmed phthisis, the non-accordance of constitutional disturbance in correspondence with such local signs, tells us that it is not to tubercular disease those signs are to be referred. If the disease be in the right side, the displacement of the heart into the contracted side gives us at once positive evidence of the nature of the disease. In conjunction with these symptoms and signs, we have the history of the case, if it has been of long duration, to guide us; for while the present signs are those of phthisis, there is again a non-accordance between the history of the case and those signs; and while the signs indicate apparently confirmed phthisis, the history tells us that there has not been constitutional irritation or wasting corresponding with the local signs. One of the most curious circumstances connected with this disease, is the compensating power for the contraction of one lung, which is to be found in the proportional development of the opposite lung. In one case, the sound lung was increased by one-third, in another by one-half of its natural size. The slower the progress of the disease is, more certainly will this compensatory development take place. The time occupied before the contractile action has reached its last stage in the lung is very variable, just as it is in other parts where a similar action has taken place. We see this contractile action after burns, in strictures, &c., in cirrhosis of the liver, sometimes reach an extreme degree in a few weeks, while in other instances, years pass over with very little aggravation.

On the treatment of this disease the author has yet but few observations to make. The disease is very rare; for although it has been the subject of research for more than six years, he has been able to collect only a few cases. Pathological preparations of the disease are not uncommon; but these are of no use, without being able to connect them with the details of the cases during life. Dr. Corrigan thinks, that one principal indication is to obviate the attacks of intermittent congestion that every now and then occur, as the process of contraction acts upon the vessels, and indirectly

upon the sound lung; these are characterised by febrile exacerbations resembling hectic, by attacks of hæmoptysis, or by aggravation of the cough, accompanied by viscid expectoration; they are at once relieved by small general, or by local blood-letting. In the intervals of these attacks, the relaxation consequent upon the profuse muco-purulent expectoration which often attends the disease, and the expectoration itself, are greatly relieved by decoct. senegæ, with sulphate of quinine in solution in it. The quietness of the pulse, the relaxation, and the profuse discharge from the bronchial tubes, would often seem, when the circumstances above noticed are present, to render it inadvisable to leech or bleed, but the patient bears moderate depletion very well. Whether we have any remedial agent that can exercise such a power as to check the contractile action in cirrhosis of the lung or liver, remains yet to be discovered. If the disease be, as analogy would lead us to suppose, of a low inflammatory nature in its origin, it might be judicious not to leave the cure of inflammatory affection of the lungs to tartar emetic alone, which is now so generally the practice, but to finish the treatment by the cautious exhibition of mercury.* Whatever will favour the development of the corresponding lung, so as to enable it to do its own duty, and also the office of its fellow, will, however, be the surest safeguard against the effects of the disease; and with this view, it is probable that the most active life, as to exertion, particularly in such exercises as will tend to develop the sound lung, such as long walking, riding, gymnastic exercises in moderation, will be the most beneficial habits for the patient; and above all, in the female, the discontinuance of the use of stays, or any dress that will press on the thorax and interfere with the compensatory development of the sound lung.—*Abridged from the Dublin Journal.*

SMALL-POX AND COW-POX.

To the Editor of THE LANCET.

SIR:—I have imagined that the following cases, which have occurred in my own practice, possess sufficient interest to be laid before the world; the observations

* Dr. Stokes, in his recent work on Diseases of the Chest, has noticed, and is the first writer who has done so, that contraction of the side has sometimes followed the cure of pneumonia. Contraction of the side after pneumonia is not usual; and it is probable that, in the instance noticed, there was a deposition of lymph into the interlobular cellular tissue of the lung, which gradually took on the contractile action, constituting the disease here described.

which accompany them are the results of my attention having been especially directed to this interesting subject. I am, Sir, your very obedient servant,

WILLIAM HARDING.

2, Charles-street, Soho-square,
Oct. 1838.

SECONDARY SMALL-POX, FATAL.

Elizabeth Palmer, a healthy but small child, seven years of age, was, in June, 1837, attacked with small-pox. She had never been vaccinated. There was nothing remarkable in the progress of the disease, which was of the distinct kind. The pustules were tolerably numerous, circumscribed, and separated from each other; the fever subsided on the appearance of the eruption, and was not renewed; the pustules matured in the usual way, and the general health of the patient seemed to be little affected after the subsidence of the primary variolous fever. During her convalescence four children of a Mrs. Chelly, residing in the same house, were all attacked with small-pox (they had never been vaccinated), and all suffered severely; the disease being, in each case, more or less confluent. Immediately afterwards the child of a lodger in the same house suffered a severe attack, and recovered. Ten weeks from her first attack, the child Palmer complained of headache, and appeared drowsy; she huddled to the fire, shivered, and felt chilly; in the evening she complained of pain in the epigastrium, and vomited considerably. She passed a restless night, complained next day of headache, and appeared languid and oppressed; on the same evening an eruption was to be detected on the forehead and chest, and a slight efflorescence on several parts of the body, and on the third day the eruption was general. Throughout the progress of the disease the brain appeared remarkably torpid, and she answered questions, as it were, after an effort to collect a simple idea. The face and head swelled enormously at an early period of the disease, so that no feature could be distinguished; and the vesicles on the face seemed to come forward in one continuous flattened bleb. On the trunk and extremities the eruption was partly confluent, partly distinct, but pale and flaccid, almost without areola. When the pustules broke the foetor was almost insupportably filthy; a dark saliva was poured forth from the mouth, the child breathed with difficulty, and on the tenth night died, having passed through two attacks of small-pox in about twelve weeks; the first a mild but well-marked case of variola discreta, communicating the confluent and coherent disease to other children in the house; the second a malignant attack from its commencement, accompanied by symptoms of a low typhoid character.

SMALL-POX AND COW-POX ADVANCING TOGETHER. — VACCINE INFLUENCE PRECEDING VARIOLA. — SMALL-POX SINGULARLY MODIFIED.

Susan Thebles, a fair, fat, healthy, laughing girl, from Essex, was, in May last, in service near Soho-square, in a family where small-pox prevailed; she was not in attendance on the sick, but frequently passed into the room. After some days she mentioned that she had never been vaccinated, and being in attendance, I immediately procured lymph, and made several pricks in each arm; on the fourth day after the vaccination she complained of considerable headache, retired early to bed, vomited, and passed a restless night. On the following day the febrile symptoms were very great, the eyes were red and glaring; skin excessively hot; headache intense; the light was painful, and there was constant vomiting of bilious matter. Fifteen leeches were applied to the head; the patient kept quite cool, and supplied with ice-water. The next evening she was better, and on the following day fancied herself able to rise and resume her duties. Through all this constitutional disturbance the vaccine vesicles progressed beautifully, and appeared very perfect, excepting that the radius of the areola was smaller than what is generally observed. In this case two pimples were detected on each arm, which, in their progress, appearance, and decline, presented all the characters of distinct small-pox; and the nurse, who carefully examined the body, informed me that four pustules were to be seen on the right thigh.

SMALL-POX AND COW-POX ADVANCING TOGETHER. — VARIOLA PRECEDING VACCINE INFLUENCE. — SMALL-POX NOT MODIFIED.

In the summer of 1836 Mrs. P—— requested me to vaccinate her child, as the small-pox was at that time in the house; I did so, and two or three days afterwards the child sickened for small-pox. It had a severe attack, was covered by the eruption, and the face remains much marked. The vaccine disease seemed to run its usual course, preserving its own character; and on the right arm, there being no small-pox pustule within a short distance of the vesicle, the inflamed circle was well delineated.

Remarks.—In detailing the particulars of cases which have occurred in my own practice, and which I have considered worthy of record, from the anomaly of their characters, I do not put them forth as insulated facts, — as things differing from what has been before observed. Secondary cases of small-pox, particularly where the first attack has been produced by inoculation, and cases of small-pox and cow-pox advancing together

each vesicle preserving its own character, are occasionally observed; but fatal cases of secondary small-pox, both occurring on the same spot, observed by the same persons, without any particular atmospheric change having taken place, and when the disease was not raging epidemically, are so rare and so conclusive, that I should consider my duty ill fulfilled, if the facts were not offered to the world. Nor can the occasional occurrence of such cases be said to invalidate that remarked peculiarity in the exanthemata, "that they take place but once in the same individual during life;" it only shows that no law in disease is so universal as to be without exception; nor does the history of this single case interfere with the truth of the generally-received opinion, "that the difference of small-pox does not depend upon any difference of the contagion," because we have daily proof that the confluent produces the distinct, the distinct the malignant, &c.; yet, to no other cause can I refer the severity of the second attack; for several weeks, in several of the apartments of a house filled with people and furniture, the severest forms of small-pox prevailed; it may, consequently, be said to have been saturated with variolous poison. Now, it is legitimate to conclude, that the first attack of variola had, agreeably to its customary action, imparted to the constitution of the child, E. P., a certain power of resistance, but that power was imperfect, inasmuch as it was overcome by the continued concentrated influence of a virulent contagion; hence the severity of the second attack and its fatal results.

The case of Susan Thebles is, I think, a striking instance of the influence of vaccination; the severity of an attack of small-pox, that is, of the eruptive stage, is generally in proportion to the severity of the irritative fever; but in this case, though the precursory symptoms were almost unusually violent, they subsided after three days, were never renewed, and only about eight pustules made their appearance on the body. The third case simply shows vaccine and variolous diseases advancing together, the latter somewhat preceding the former, and neither being influenced or acted upon by the other, but each preserving its own or separate existence.

Having made these remarks on small-pox, I will intrude a little further to say, that I met, a few months since, with several mild or modified cases of small-pox, occurring after vaccination; and in my own establishment a very severe case, where the vaccine cicatrix was perfect and well defined. I also lately made several attempts to revaccinate, but in no case did I succeed where the evidence was satisfactory that the disease had had a prior existence in the system. On my own person an experiment was made at the Vaccine Institution, where I exhibit-

ed a circular, well-defined, pale, indented cicatrix, twenty-five years old, and requested, if possible, that the disease might be reproduced. Five pricks were made in the left arm, with a round-pointed lancet, charged from a ten-day pock, the 51st remove from the cow, and the parts were kept covered some time with the lymph. Five pricks were then made in the right arm, from an eight-day pock, the 49th remove from the cow; and the same extra care was taken, that plenty of lymph should penetrate the wounds. In eight hours each puncture assumed much the appearance of urticaria. In twenty-four hours there was a circle of active inflammation around each, and on the third day a minute quantity of matter on the summit. Now, a non-professional person might, I think, have easily mistaken this for a case of secondary cow-pox, though, of course, it had none of the characters of the true vaccine vesicle. On the whole I am inclined to think secondary cow-pox, after perfect vaccination, to be as rare as secondary small-pox after inoculation, and when it does occur it must be referred to idiosyncrasy, like secondary cases of the other specific fevers.

The cases of modified small-pox that I have met with by no means favour the absurd notion, that the protecting influence of vaccination wears itself out, after a seven, ten, or twenty years lease, for they have principally occurred in children. The true explanation of modified small-pox is, I believe, imperfect vaccination. Where the vesicle gets, by some accident, prematurely broken, or when the system is not in a favourable condition for receiving vaccine influence, in such cases the protecting power of vaccination holds good in proportion to the perfection of the vaccine vesicle and the constitution is left liable to receive small-pox, when exposed to variolous contagion, which disease is altered or modified in proportion to the extent of saturation which the system has received from the imperfect vaccination.

Severe or confluent small-pox, where a perfect cicatrix can be seen, is extremely rare, and must be referred to a strong natural disposition to the disease, or to that peculiarity of constitution which renders some persons liable to receive some of the exanthemata two, or even three times, unless it be possible for the disease to be locally perfect without constitutional effects; that is, is it possible for a vaccine vesicle to progress regularly, the system being, at the same time, engaged by some general functional derangement, arising from dentition, ascariides, mesenteric affections, &c. &c.? and may, under such circumstances, a perfect cicatrix be produced, without the system having had imparted to it any power of resisting variolous contagion?