prises, and the loss of many of her sons on the shores of pestilential countries.

In practically studying climate, a due consideration must be given to the telluric, as well as to the meteoric character of the country or locality, and even the geological structure must not be overlooked. A subsoil of clay or lias will produce a greater humidity in the incumbent atmosphere, than one of limestone, chalk, or sand, which are more porous, and permit the more ready absorption of rain or surface-water, thereby tending to keep the point of saturation of the air at a greater difference from the temperature. Hilly ranges of sand or chalk, from absorbing less of the solar heat, render the air generally warmer than those composed of marl, clay, or schistose strata, which, being better conductors of heat, absorb more, and keep the incumbent air at a lower temperature, while the water being more retained on the surface, is more subject to evaporation. Chalk hills are observed to be less affected with thunder storms than other rocks. In some volcanic countries, as in parts of Italy and the Ionian Islands, the local climates are much influenced by telluric emanations, issuing either perceptibly or by unperceived exhalations, through the surface. These deleterious gases have been detected to be either carbonic acid gas, azote, or the sulphuretted hydrogen, and in several of the pestilential shores and bays of Africa, the latter named gas has been alleged to be the morbid agent in the production of those fatal endemic fevers which create such devastation among Europeans. This gas in these tropical regions does not issue from the earth, but is generated on the surface from the decomposition of the sulphates in sea water, arising from the putrescence or oxidation of vegetable matter exposed to the hot rays of a tropical sun.

You are aware, that a very scientific attempt has been made to prevent if not to destroy the deleteriousness of this malarious atmosphere, by Professor Daniel, by diffusing around ships visiting these spots, and around dwellings situated within its influence, the vapours of chlorine. This gaseous element, from its great affinity to hydrogen, readily decomposes the sulphuretted hydrogen, and so it was fairly thought that a proper diffusion of it would rob these pestilential places of all their fatal poison. The late lamented expedition to the Niger was accordingly amply provided with apparatus for this purpose; but alas, the hidden monster could not be evoked, and science was confuted by the numerous deaths that resulted in that expedition.

Dr. William, surgeon of the *Albert*, could detect no sulphuretted hydrogen in the river Niger.

There is perhaps no incidental circumstance that influences local climate more than the direction of the winds, and whether they generally blow from the land or from the sea, or whether over hills or extensive plains before reaching the spots in

question? And again, whether the hills are to the north or south of the place?—and whether the sea lies to the east, west, north, or to the southward? The solving of the healthiness, comfort, or otherwise, of any topical climate will depend very much on the existence of one or more of these circumstances, and this can only be determined by having a special instance before us. One wind, as to its azimuth direction, may be healthy in one country or place, while it may be the contrary in others; and the sea or a lake being situated to the north or south may make a very marked difference in the climate of any place. As the consideration of these more restricted views of climate leads to the subject of special hygiene, we will reserve its farther notice to next lecture.

CASE OF STRANGULATED FEMORAL HERNIA, ENDING IN MORTIFICATION OF THE INTESTINE. RECOVERY OF THE PATIENT.

By RICHARD CHAPMAN, M.R.C.S., Kirby Moorside, Yorkshire.

June 3rd, 1833. At five o'clock p.m., I visited Mrs. Petch, of Rosedale, a widow, aged 67, and found her labouring under symptoms of strangulated femoral hernia on the right side, in which state she had been during the last thirty-three hours. At the time, she complained of severe pain in the tumour, which was about the size of an orange, with sickness, vomiting, thirst, and furred tongue; pulse regular and nearly natural, and not much fever. She is of good constitution, and has had a tumour in that situation upwards of thirty years, which for the last ten or twelve has been irreducible, and the present strangulation is probably caused by a cough which she had for a few days. I tried the taxis in the manner recommended for femoral hernia, by first pressing down the tumour, which appeared to be reflected over Poupart's ligament, with one hand, whilst, with the fingers of the other, I endeavoured to return that part of it which was nearest the crural ring, but failed in the attempt. Bleeding to syncope (18 ounces) was immediately had recourse to, and the taxis again tried with no better effect. At a quarter past ten, the one half of a pint of the infusion of tobacco was injected, without producing any effect; in half an hour afterwards the remainder was injected, which was shortly followed by sickness, cold sweats, and almost imperceptible pulse; she remained in this state almost half an hour; and after the effect was gone off, the swelling became somewhat easier.

4th. At 7 a.m., I visited Mrs. Petch again, and finding it impossible to reduce the hernia by a gentle trial of the taxis, and other means having failed, I determined upon having recourse to the operation, in which I was assisted by Mr. Daniel Barker, my nephew, at that time my assistant. She was placed upon a table in a good light, the head and shoulders elevated with pillows, the legs hanging over the end of the table. I commenced the operation by making an incision over the middle of the tumour, beginning at its upper part, and carrying it downwards in a direction pointing from the navel to nearly the bottom of it, which constituted the leg of the inverted

1. The length of this stroke was about four inches, the head of the *I* was made at right angles with the leg, and nearly of the same length; the angles were then reflected, and the fascia propria exposed, which was divided and opened in the usual manner. The tumour was now clearly exposed, being enveloped with the peritoneum or sac, which was extremely thin, and *closely adherent to every part of it*; this, so far as was necessary, was separated, chiefly with the finger, from the intestine, the neck of which was very long, and tightly strictured by the crescentic margin of the crural arch; the adhesions were also so strong as not to allow of the director being passed without some force, and as soon as the stricture was divided a gentle attempt was made to return it, which freed the intestine of the flatus, and greatly reduced its size. The adhesions being of old standing, it was not considered prudent to make any further attempt at reduction.

The intestine presented a healthy appearance, and contained a large quantity of feculent matter. The lips of the wound were brought together by four sutures and adhesive plaster. A common injection was ordered every three hours; and an ounce of a strong mixture of sulphate of magnesia and infusion of senna was directed to be taken every hour, commencing three hours after the operation.

7, p.m. Some thirst, skin rather hot, pulse regular and soft, bowels thrice opened, but not very copiously, nearly free from pain. Continue the mixture and injections.

5th. 7 a.m. Has slept three or four hours in the night, bowels have been *moved about twenty times*, and some of the evacuations were very copious; tongue covered with a brown fur, considerable thirst, pulse betwixt 90 and 100, rather full; there is tenderness of the abdomen, but no swelling or tension. Omit the purgative medicine. Was bled to 16 ounces, the blood being covered with a thin buffy coat.

6, p.m. Bowels have been thrice moved, with some pain in the abdomen; other symptoms the same. Apply twelve leeches to the part in pain. Two grains of calomel to be given every night and morning.

6th. 9 a.m. Has had a tolerably good night; no alvine evacuation since last report. No pain or tension in the tumour or abdomen; slight tenderness on pressure; pulse about 90 and softer; tongue brown, but cleaner at the edges. To have an ounce of the purgative medicine before prescribed, every three hours, until the bowels are moved.

7, p.m. Has had five alvine evacuations, and remains as in the morning. Twelve leeches to the abdomen. Wound dressed for the first time, and looking healthy; adhesions taking place: in the lower part of it a slight discharge of bloody matter.

7th. Has slept about four hours at intervals during the night. Tongue clean; fever and thirst abated; no pain in the abdomen; slight tenderness on pressure; wound improving. To have an ounce of the purgative mixture every two hours.

7, p.m. Bowels four times opened; other symptoms the same. Has had three hours sleep during the day.

9th. Wound discharging a thin sanious matter. At the bottom part is a substance resembling *fascia* or *cellular membrane*, protruding through the lower part

of the wound, in a *state of gangrene*. Three of the sutures removed. Pulse the same as at last report; tongue glazed; bowels open.

10th. Has passed a restless night; pulse slow; bowels open; wound more open, and the substance protruding, evidently a portion of the bowels, in a state of gangrene.

11th. Has had a good night, slept well, and describes herself as better. No separation of the mortified part.

12th. A restless night: the attendants think that some of the fæces have passed through the mortified intestine; some long shreds of it having separated. Appetite good; pulse 85; tongue clean.

13th. Two evacuations *per anum*, since last visit. Wound filled with mortified intestine; no discharge of fæcal matter through the wound.

14th. All the symptoms favourable, and there is good ground for supposing that the mortification has extended no further than the neck of the sac. Appetite good; is taking quinine and animal food.

15th. Wound discharging healthy pus; two evacuations *per anum*; mortified part separating; health improving; appetite good.

16th. The same as at last report; bowels ordered to be gently moved.

17th. Wound diminishing. Pieces of lint inserted underneath the mortified intestine.

20th. Slough separated. Bowels to be kept in a laxative state.

August 14th. Wound on the point of cicatrizing; intestinal canal performing its functions regularly; health nearly restored.

REMARKS.

For a period of four months this patient remained wholly cured of her hernia, but since then a new descent has taken place, which is reducible, and for which she wears a truss. I attribute the mortification to the breaking up of some of the adhesions on the upper part of the tumour in order to make way to the stricture. It was, properly speaking, a sloughing of the anterior part of the intestine, caused by the vessels between the sac and the latter being torn, the posterior part of the tumour and sides retaining their vitality, the adhesions there being undisturbed. The slough not separating for about a fortnight formed a barrier against the escape of fæces, and the bowels being carefully preserved in a laxative state by aperients, enabled the fæces to pass through their narrowed channel until healthy granulations had taken the place of the sphacelated portion of intestine. It is probable, if the strangulated portion of intestine could have been liberated in this case by dividing the stricture external to the sac, as has since been recommended by Mr. Key, the mortification would not have followed, and much suffering and danger have been avoided.

Kirby Moorside, July 18, 1844.

MR. TURNER ON THE ASTRAGALUS.

LETTER TO DR. HASTINGS.

My Dear Sir,—As the lecture, which was the foundation of my paper on “DISLOCATIONS OF THE ASTRAGALUS,” published in the 11th volume of the “Provincial Medical and Surgical Transactions,” was delivered at your request, as Honorary Secretary,