pubes: the patient being able to resume the sitting posture is a most favourable sign.

In the treatment of endogastritis, there should be also one full bleeding from the arm; but, with regard to local bleeding, it will be best, in my judgment, to bleed the portal veins by the application of eight or ten leeches to the rectum, in the manner above recommended, to which the reader is referred. I have recommended one full bleeding only in this disease, because I have observed repeated full bleedings rapidly to produce exhaustion and death.

In the treatment of endogastritis, the less the mucous coat of the stomach, whilst the inflammation is high, is disturbed by food, the better; and even when the stomach is in a fit state to bear it, the most bland aliment is to be administered, such as barley-water, arrow-root, gruel, or sago. The best beverage will be soda-water, with a small proportion of milk or whey. Calomel and opium, as in (a), together with an open blister to the epigastrium, will be highly beneficial in this case also. In one well marked case of peritoneal gastritis that came under my care, the symptoms rapidly yielded to the frequent application of leeches and the internal adhibition of calomel and opium. When gastritis is caused by an irritant poison, the case is to be treated primarily according to the nature of the poison swallowed, and afterwards by such means as shall best subdue the inflammation produced, and which have been already recommended.

X.—CANCEROUS CONDITION OF THE STOMACH.

The stomach, as well as many other parts of the alimentary canal, is liable to the ravages of this terrible disease. The parts of the viscous most subject to it are its orifices of ingress and egress: the later is most frequently attacked. The cardiac orifice is also occasionally affected by it, but far less frequently: indeed, cardiac cancer is of rare occurrence. When it does occur, it is more rapid in its progress than the pyloric, because the food, from the extreme intolerance of the oesophageal membrane, is rejected before it reaches the stomach for the purposes of nutrition.

The principal symptoms of gastric cancer are constant severe pain in the epigastric region, of a burning character; intolerance of food, which is rejected soon after it has reached the stomach; independently of food, there is frequent vomiting of mucus also, streaked with blood, and containing shreds of morbid tissue; atrophy and extreme emaciation; the eyes are remarkably bright, and their conjunctival membrane bloodless and transparent. But, instead of detailing the symptoms of the disease, I will at once proceed to describe two cases that came under my care in the Royal South Hants Infirmary, one of cardiac, and one of pyloric cancer, in which the symptoms of both will be respectively manifested.

CASE XVI. *Cardiac Cancer.* The notes of this case were kindly taken for me by Dr. Lake in 1852, whilst he was resident surgeon of the institution.

Michael Lemen, aged 42, single, a native of Ireland, had worked for the last few years as coal porter in the Southampton docks, and always considered himself healthy till three months ago, before he came under my care. Since that time, he had been constantly troubled with vomiting and purging, and a pain in the stomach. During this time, he had become rapidly and greatly emaciated. He was admitted into the South Hants Infirmary, June 21st, 1852. The pain was referred to the epigastrium and left hypochondriac region. The vomiting and purging were of a dark grumous-looking matter. The body was very much emaciated. The eyes were prominent; and the conjunctival membranes were bloodless, and white as porcelain. The abdomen was greatly retracted, and the anterior surface of the spinal column could be easily felt through the abdominal parietes; but no tumour could be felt. The treatment consisted first of chalk, and laudanum, and bismuth; and then calomel and opium were tried: but, though by these means the purging was lessened, the vomiting continued. At length the hydrocyanic acid relieved it, and for ten days he seemed better; but then the vomiting and purging returned, and continued till his death. The vomiting took place always immediately after anything was swallowed, and it hardly appeared to reach the stomach before it was up again. For the last few days, he had slight cough. He died gradually August 29th, 1852, ten weeks after his admission, and rather more than five months from the commencement of the disease.

* On examining the abdomen after death, the cardiac end of the stomach was found drawn high up under the ribs. A soft cancer occupied that end of the stomach projecting into the oesophagus. The stomach was adherent to the diaphragm, as

was also the left lung, which was much inflamed and congested.

CASE XVII. *Pyloric Cancer.* Anne F., aged 34, the wife of a traveller, became ill in April 1849, with pain in the epigastric region and sickness, which always took place after eating, and continued till the stomach was emptied by vomiting. She was costive, and sometimes for a fortnight she had no stool. The pain was of an aching and burning character; and, during the night, half a pint of clear watery fluid, having a bitter taste, would come off the stomach. She had not menstruated since the commencement of her illness. On June 17th, she was admitted into the Royal South Hants Infirmary. She was greatly emaciated; her skin was rough and of a dark colour; the abdomen was retracted and concave; and, in the locality of the pylorus, a small hard tumour could be felt, very tender under pressure, showing that it consisted of a scirrhus state of the pyloric orifice. It was at once evident that nothing beyond palliation could be effected in the way of treatment. She was ordered half a grain of the oxide of silver three times a day, in the form of a pill, with an occasional dose of rhubarb, and a fluid diet. This allayed the morbid sensibility of the stomach; the vomiting ceased; and the pain returned only when the bowels were confined. Notwithstanding this, she emaciated rapidly, and died, a perfect skeleton, on August 11th.

The body was examined the following day. The large curvature of the stomach was thickened, and the pylorus scirrhus and ulcerated; its orifice was so filled up as only to permit the size of a goosequill to pass through it.

In studying attentively these two cases, we are at once enabled to form an accurate diagnosis as to which of the gastric orifices is involved in the disease. If there be vomiting immediately after the deglutition of food, showing great intolerance of the oesophageal mucous membrane; if the pain be referred to the left hypochondriac region, a little below the ensiform cartilage; if deep pressure near the scrobiculus cordis produce pain and vomiting; if there be cough, shortness of breathing, and rapid emaciation,—the disease is cardiac cancer.

If the pain and vomiting do not take place till some little time after food has been swallowed; if the pain is referred to the lower part of the epigastric region, about midway between the inferior margin of the ribs on the right side of the thorax and the umbilicus; if a hard tumour be found at this spot by deep manipulation; if the manipulation produce great pain and a tendency to vomiting,—the tumour is the pylorus, and the disease is pyloric cancer, especially if there be great atrophy and emaciation.

With regard to the treatment of this disease, alleviation by opiates is the only benefit that can be effected; and oftentimes even this is impracticable.

THE METEOROLOGY OF 1858.

By J. A. HINGESTON, Esq., M.R.C.S., L.S.A., L.M., (formerly Assistant-Surgeon to the Royal Maternity Charity, London), Brighton.

THE year 1858 was a remarkable one both in a meteorological and sanitary point of view. There was an eclipse of the sun and moon in the spring, and a brilliant comet in the autumn; the mortality of the year was above, and the marriages and births were below the average. Indeed, during the last two weeks of November, the deaths were in excess of the births, and the natural increase of the population, which has been constantly progressive for so many years past, was, during this short interval, suddenly reduced below its steady and customary ratio. The natural increase of the population for the United Kingdom in 1858, was not more than six hundred and forty-two daily (*Quarterly Return*, 40, December 1858, page 2), whereas it had been throughout the preceding year 1857 as high as one thousand and twenty-one a day (*Quarterly Report*, 38, July 1858, page 2). The last three months of the year 1858 were particularly unhealthy; and the Registrar-General declares (*Quarterly Return*, 40, page 1), "that it has never before happened that so many deaths were registered in any autumn quarter, as in this last." The mean mortality for 1857 was less than twenty-two in a thousand (*Annual Summary* of 1857, page 4), but the mean mortality of 1858 was twenty-three in a thousand (*Quarterly Return*, 40, December 1858, page 5). The year 1858 may, therefore, be regarded as a very unhealthy one.

The year began at the usual temperature of the month of January, the first and third weeks of which were as much as from three to four degrees below the average of the season.

February was cold nearly throughout. Snow fell on the 2nd, and lay upon the ground; and it continued to fall occasionally till the end of the month. On the night of the 26th, there was a partial eclipse of the moon, and the thermometer sank as low as 23° Fah.; the frost was severe, and the ice two inches thick. March was still colder than February, and the temperature of the first fortnight was as much as 8° Fah. below the average. Snow fell, and lay upon the ground, from the 1st to the 6th of the month. The frost then gave way to a partial thaw, with hail, rain, and sleet, followed by a heavy snow storm; and the ground was again white from the 11th to the 13th. This hard weather again ended in hail, rain, and sleet, and, finally, in a complete thaw. On the 15th, there was an almost total eclipse of the sun at 1.10 o'clock, p.m., of which I published a scientific account in the *BRITISH MEDICAL JOURNAL*, LXVIII, *New Series*, April 17th, page 308. Previous to the eclipse, the electricity had been positive, and the weather cold, but subsequently it became negative, and the air warm, the temperature averaging about 3° in excess. The mean reading of the barometer throughout the first three months of the year was nearly half an inch in excess; and for the first fortnight after the eclipse, it stood above thirty inches, and, on the 22nd, rose as high as 30.422 inches. April and May were both of them cold, perhaps about 1° lower than the average; but June was hot throughout, and was said to be hotter than any month of June since 1771, except the June of 1846. The barometer stood unusually high, being scarcely less than thirty inches all the month. The weather was bright and pleasant. July was cold, and it was in the middle of the month about 5° in defect. August was fine, and September warm, and at one time 4° in excess. The air was remarkably dry, clear, and luminous. The harvest began early. Wheat was cut on July 17th, or nearly three weeks earlier than usual, although the yield of corn was not so very great. There were severe thunderstorms in July and August; and the aurora was seen at Liverpool on July the 16th.

A singularly brilliant comet appeared in the N.W. in September and October. Its right ascension, September 28th, was 12h. 46m. 30s.; its declination 32° 10' 9" N.; and its time of setting in London, 9.53 p.m. On October 10th, when it was nearest the earth, its right ascension was 15h. 7m. 5s.; its declination 4° 38' 2" N.; and its time of setting in London 8.15 p.m. In a letter to the editor of the *Times*, dated September 28th, Mr. Hinds calculates its distance from the earth, on October 10th, at 51,000,000 of miles, and the apparent length of its tail about 12°, corresponding to a real length of 16,000,000 of miles. Arcturus was visible through it. In the transparent atmosphere of the continent, I had an opportunity, not often met with, of enjoying the splendid sight of this inexplicable meteor or eccentric planet, as I travelled from Montpelier to Dijon, and from thence to Fontainebleau, Paris, Dieppe, and home.

October was fine. It began with the aurora, and strong gales. A few cold, fresh days excepted, it was nearly 2° above the average. November, on the contrary, was extremely cold; the mean temperature of the 23rd and 24th was reported at Greenwich to have been lower than any two consecutive days in November during the last forty-five years. On the 24th, the thermometer sank 12° below the freezing point of water. The mean temperature of the month was not more than 39.6° Fah. In Paris the thermometer was 10° lower than in England, and in Austria it was reported 10° lower than that. There were heavy falls of snow in the north of Great Britain, and also in Belgium and France. At Lyons the streets were nearly blocked up with it. The same weather occurred in Italy. In England, thick mists prevailed throughout the quarter, and November was particularly remarkable for several very dark fogs. On the 15th of this month, there was a severe storm of wind that did great damage to life and property, both by sea and land; and, then, the weather suddenly became warmer, and was nearly 6° in excess of the season. December was likewise warm; there was thunder on the 18th; and the year closed at a temperature of 1° warmer than usual. There was a great deal of illness everywhere; and the death-rate was higher than in any autumn quarter upon record. It is very remarkable, that, during this sickly period, from November 14th to December the 31st, little or no terrestrial electricity was exhibited by the electrometer, and that what little showed itself was, with the exception of December the 22nd, uniformly weak and negative. At the same time, the humidity of the air was almost *plus*, as it was denoted by the figures 81 or 92, complete saturation being 100. No state of atmosphere could be more adverse to health and life than this.

The wind blew from the S.W. for about two hundred days; all the rest of the year, it was from the N.E., with some few exceptions from the N.W., and still fewer from the S.E. The mean horizontal force of the wind was about five hundred and fifteen miles a week, according to Whewell's anemometer, Greenwich; which is considerably stronger than in the preceding year, 1857, which averaged scarcely more than two hundred miles a week. The first week in December was the calmest of the year; and the third week in December, and the second in May, the most blustering. The vernal equinox was calm; the autumnal, tempestuous.

The amount of rainfall in the twelvemonth did not exceed eighteen inches, the annual amount being about twenty-four or twenty-seven inches. It was a dry summer; and, in many parts of the country, the wells were exhausted, and the pasturage burnt up. It was a good season for wall-fruit, and the orchards were very productive. I am old enough to remember the comet of 1811, and can distinctly recollect the parched state of the ground in the autumn of that year. This summer I was in the south of France, and can bear testimony to the universal satisfaction expressed at the excellence and abundance of what is called a *comet-vintage*.

While travelling, I noted the weather; and, in comparing notes on my return, I found that the wet and the fine days on the continent corresponded almost exactly with those in England. Thus, the 24th of July, which was wet in London, was the same in Paris. The 28th was wet at Poitiers, and also in London. On Sunday, August 5th—a very hot day at Angoulême—the thermometer stood at 100° Fah. in the sun; at Greenwich, and at Bordeaux, it was 80° in the shade. Between August 8th and 16th, I was at St. Nicolas, near Sarlat, in the Dordogne, while the weather, which was so hot here, was the same there; and on the 14th, as I was looking at a sketch just drawn from Nature, “a great and unusual darkness”, to quote the very words of the Greenwich reporter in the Registrar-General's *Weekly Returns*, under that date, p. 264, “prevailed about 4 p.m.; the wind changed from N. to W.; rain fell heavily; lightning was seen; and thunder frequently heard.” On the 18th of August, it was rainy at London, as well as at Bayonne; and, while we were exposed to the *mistral*, that “scourge of the south”, at Nîmes, a strong gale was blowing from the E. at Greenwich at the same time—viz., September 23rd. The apophthegm, “*Celum, non animus, mutant qui trans mare currunt*” (Hor., lib. i, epis. xi, 27), is, as far as my experience goes, just the reverse of truth.

Shortly after my visit to Bayonne, that fortress was shaken in the autumn by an earthquake, which extended as far as Biarritz on the coast, and St. Jean de Luz at the foot of the Pyrenees. In October, there was a severe shock of an earthquake at Lisbon and its neighbourhood, the most violent since the great one of 1775. Five persons lost their lives, and many were injured by it. At the close of the year, a third was reported from Venice and the coasts of the Adriatic. Most likely shocks are always happening, although not always reported. Strabo, who, in his day, considered Vesuvius as an extinct volcano, and describes the vines and flourishing verdure that reached almost to its top (Lib. v, c. iv, § 8), gives a long catalogue of the volcanic eruptions that had repeatedly altered the face of Nature, in the Archipelago, in the old times before him (Lib. i, c. iii, § 16, *et seq.*); and the venerable Humboldt has recently treated of the same subject in a more masterly and scientific manner, though certainly not in a more emphatic and pleasing style, than that of the celebrated Greek naturalist and geographer, eighteen centuries before him. (*Cosmos*, vol. i, p. 199, *et seq.*; vol v, *passim*.)

The inner life of the earth affects the health, happiness, and prosperity of mankind, as intimately as the external agencies of light, heat, and electricity, as well as the more dazzling meteoric phenomena, such as lightning, solar or lunar eclipses, volcanic fires, mephitic emanations, and those enigmas of astronomy, comets and candescent aërolites, are supposed to do. Their noxious influence on both mind and body is ancient and proverbial. The past year is a case in point. They are electro-galvanic operations, increasing or intercepting the solar beam, the degrees of heat, and the several combinations of the air we breathe, on so extensive a scale that they cannot fail in modifying the highly sensitive nervous structure of the human frame, whose delicate machinery is set in motion by a current of chemo-vital dynamics, that excite, suspend, or abolish animal existence, at a touch as fine and decisive as it is permanent and gigantic.