From this great sea, both the name and source of the Gulf Stream are derived. After passing between Cuba and Florida, and taking the direction of the American coast, it turns eastward, preserving a mean velocity, from the commencement of its course to the Azores, of 38 miles a day; having a temperature of about 9° Fahr. above that of the surrounding ocean in the Strait of Florida, which decreases so gradually in its passage to the east, as to have lost only 5° Fahr. Opposite the south bank of Newfoundland, a distance of 1,300 miles, it still retains a heat of 8° or 10° above that of the adjacent seas, communicating its temperature to the superincumbent atmosphere.

The warmth diffused over the Atlantic Ocean by this means would be sufficient—such is the calculation—to raise the entire column of air covering France and the British Isles, on a winter day, from freezing point to summer heat—a fact which accounts for the comparative absence of ice in the North seas, and affords the true explanation of the mildness of our climate, and that of adjacent countries.

But, while its influence, by means of the atmosphere, thus affects a large extent of climate, the Gulf Stream itself washes our western shores. The waters of the Atlantic are still warm as they wash the coasts of Connaught, while their effect is perceptible along the shores of Norway, and to the very borders of the Arctic Ocean.

And lastly, among the tributaries of our temperate climate, is the south-west current of air, which is the prevalent wind of the northern hemisphere. Its gusts occupy the track of the Gulf Stream. They waft the warm moist air, arising from the contact and evaporation of its waters, over the coasts of Western Europe; they are felt in the same warm fitful gusts, from Cape Finisterre to the North Cape, as in the Atlantic, penetrating into the Baltic, and reaching to the Russian plains. It is the influence of this current which gives to the western coasts of these islands, from Cornwall to the Hebrides, almost the same isothermal line.

Bury St. Edmunds, Suffolk, January 1853.

CASES OCCURRING IN THE MEDICAL PRACTICE OF THE SUSSEX COUNTY HOSPITAL DURING THE YEARS 1849, 1850, AND 1851; WITH REMARKS.

By G. S. JENKS, M.D., one of the Physicians to that Institution.

(Concluded from p. 104 of last number.)

DISEASES OF THE HEART AND BLOOD-VESSELS.

In 1849, a case of very extensive disease of the heart was admitted, accompanied with distressing orthopnoea and oedema of the lungs. The man survived only two days. In early life, he had had acute rheumatism, afterwards chorea; and, five years before admission, he had undergone another severe attack of rheumatic fever.

Autopsy. The sternum was observed to be prominent. Old adhesions of the pleurae of the bases of the lungs to the diaphragm were found. Serous effusion had taken place on both sides; nearly a quart on the right, and about a pint on the left. The lungs were oedematous throughout, constituting the serous apoplexy of the lungs of authors. The heart was very large; the pericardium universally adherent. The right side of the heart was healthy, except some fatty degeneration at the apex of the ventricle. On the left side, there was great excentric hypertrophy. The mitral valve was thickened and rigid. The aortic valves were also much thickened and rigid, and so bound down as to have admitted of regurgitation. The endocardium presented a good-sized white patch just below the aortic valves. The abdominal viscera were healthy. The head was not examined.

In 1850, the following cases occurred:—

CASE. Esther Cain, aged 21, after a tedious and imperfect recovery from acute rheumatism, was admitted in an anæmic state; whether as a result of that disease, or of the suppression of the catamenia, is doubtful. There was disease

of the mitral valve, indicated by a loud, harsh murmur. The albuminous state of the urine led us to suspect also disease of the kidney. She died from anasarca and bronchitis.

Autopsy. Fluid was found both in the pleural and peritoneal sacs. The lungs were oedematous. There was an adherent pericardium, easily separable in the front and at the apex. The heart was large and flabby. Attached to the free edges of the mitral valve, were some wart-like excrescences, apparently not of long standing. The kidneys were large, pale, and firm; the capsules peeled off easily, disclosing the parenchyma, intersected by reddish streaks, giving it a mottled appearance. The liver was healthy.

CASE. Benjamin Emery, aged 67, had been ill for six weeks. He suffered from dyspnoea, palpitation, pain in the right arm, together with pain in the hepatic region, and much oppression in both hypochondria. The countenance was anxious; the pulse jerking and resisting. There was a musical murmur with the second sound of the heart. It was not agreed what this proceeded from; but I suspect there was some aortic regurgitation, from the character of the pulse. Under the use of blue pill with squills and digitalis, and a diuretic draught, the congestion of the liver and spleen was removed, and the dyspnoea greatly relieved.

Two girls, of the respective ages of 16 and 20, were under treatment for disease of the mitral valve, produced by acute rheumatism. Both suffered from dyspnoea and palpitation; and in both the heart was enlarged. They left the hospital much relieved. The younger one died, I am told, not long since, in the country.

I cannot help here reverting to the fact, so often presenting itself, of very young subjects, especially females, being affected with disease of the heart as a result of acute rheumatism. We have here three bad examples; and we shall find that, out of three cases of acute rheumatism admitted in 1850, two—one a girl of 18, the other a youth of 20—had symptoms of endocarditis; while a man of 46 had no cardiac symptoms whatever.

In 1851, a case of hypertrophy in a woman aged 51, without signs of valvular disease, was admitted. Palpitation was constant, but under exertion it became vehement and distressing. There was a whizzing sound with the pulse, high up beneath the sternum, which made me suspect dilatation of the arch of the aorta.

Another case, in a girl aged 13, was of a very serious character. It had been originally brought on by a severe attack of acute rheumatism. There was a loud endocardial murmur at the base. The heart was enlarged. Pain, palpitation, and dyspnoea, were induced by exertion.

DISEASES OF THE ORGANS OF DIGESTION.

GASTRO-ENTERITIS. A case of this description, admitted in the year 1849, has been already described under the head of tubercular diseases.

In 1850, a case of gastro-enteritis, with severe and protracted diarrhoea, in a scrofulous female, aged 28, terminated fatally. An examination of the body was not permitted. From the history and concomitant symptoms, there was reason to regard this case as one of intestinal tuberculosis.

DYSPEPSIA. In 1851, twenty-one cases were admitted under this head; fifteen occurring in females. In some instances, the symptoms exhibited a sub-inflammatory character. There were total anorexia, nausea, a dry red tongue and fauces, a sense of heat internally, and diarrhoea or constipation, with epigastric or abdominal tenderness. These cases were relieved by the application of leeches to the seat of tenderness or pain, followed by blisters. Effervescing draughts with hydrocyanic acid, and cold acidulated drinks or ice, are useful. When the inflammatory symptoms are subdued, mild mercurials and purgatives restore the healthy action of the secreting and excreting organs; and due attention to diet completes the cure.

Dyspepsia with gastrodynia and pyrosis is common. Pain in the stomach after taking food, in women of a leucophlegmatic temperament, with or without leucorrhœa as a

concurrent affection, is, with few exceptions, soon relieved by bismuth. I usually prescribe a powder with from five to ten grains of nitrate of bismuth, ten or fifteen grains of carbonate of magnesia, and three or four grains of compound powder of kino. The bismuth, in these non-inflammatory cases, appears to have the effect of freeing the stomach from its morbid sensibility, and of restoring its normal action. Emetics are often of great use. When leucorrhœa exists to any extent, the infusion of quassia, with sulphate of zinc, is of good service. Pyrosis, in subjects beyond the middle period of life, or of advanced age, should be regarded with suspicion. It is often connected with organic lesions.

HÆMATEMESIS. A case of hæmatemesis, which occurred in 1851, deserves mention on two accounts: first, by reason of the great loss of blood, which nearly extinguished life; and next, on account of the effect of remedies.

CASE. — Sibney, aged 42, a nurse in a family, was admitted May 25th. Five years ago, she was ill seven weeks with vomiting and severe epigastric pain, supposed to indicate disease of the liver. About four months since, she was seized with pain at the pit of the stomach, followed by vomiting of blood to the extent of a pint and a half, as reported; and had several fainting fits in consequence. This attack was succeeded by a weekly discharge of blood from piles, which greatly reduced her strength. On the day of her admission, May 25th, she had suffered a great loss of blood by vomiting. Her bowels having been obstinately confined for some time, the house-surgeon's first care was to remove this impediment. Next day, gallic and sulphuric acids were ordered, with ice and iced drinks, etc. In the evening, two drachms of oleum terebinthinæ were given.

May 27th. Much the same. The following draught was ordered:—℞. Plumbi diacetatis gr. ij; aceti destillati ʒj; aquæ dest. ʒxj. Fiat haustus 2dis vel 4tis horis sumendus. In the evening, the vomiting of blood continuing, she was for two hours in a state of extreme syncope, requiring wine and ammonia, and the application of hot sinapisms to the epigastrium, chest, and extremities. When she had somewhat recovered, another dose of turpentine was administered.

May 28th. Some blood was still vomited, though less copiously. Her exhaustion was extreme. Wine, and the best nourishment she could take, were ordered; and the following draught was prescribed:—℞ Olei terebinthinæ ℥x, ex ovi vitello; tinct. matico ʒss; aquæ pimentæ ʒiss. M. Fiat haustus 3tia quaque hora sumendus. A blister was applied to the epigastrium.

May 29th. No return of hæmorrhage had taken place since last report, which, indeed, was the last time it occurred. She remained in hospital till July 9th, when she was discharged convalescent.

The quantity of blood lost by this woman must have amounted to several pints. There were no evident signs of hepatic disease; but, as blood had been discharged by the hæmorrhoidal vessels, as well as by the stomach, some obstruction of the vena portæ probably existed. Are we to attribute the suppression of the hæmorrhage to the matico? I have not much experience of the effect of this remedy administered internally.

CHRONIC VOMITING. A very obstinate case of chronic vomiting occurred in a young woman, a cook, aged 26. She had suffered for some years with heartburn, pyrosis, and gastrodynia, now and then attended with obstinate vomiting, for which she had been in a London hospital. She was admitted December 17th, having already been ill three weeks. Her appetite was good, but she vomited nearly the whole of her food (without much nausea) in a semi-digested state, mixed with mucus, sometimes with bile, and now and then with some blackish matter. The catamenia were regular; the tongue pale and flabby; the bowels were moved with difficulty, even by the most active purgatives. She was not otherwise ill. She was under treatment for two months. Effervescing draughts with hydrocyanic acid, ice, creasote, bismuth, opium, dilute sulphuric acid with sulphate of

magnesia and infusion of hops, strong purgatives, and enemata, failed in checking the vomiting. The only thing which relieved her, and effectually stopped the vomiting, was a pill with seven grains of Barbadoes aloes and one minim of undiluted sulphuric acid, taken once or twice a day. This opened the bowels freely and regularly. She was able, while taking it, to retain all her food, and became plump and fat.

INTESTINAL OBSTRUCTION. The following case, admitted in 1850, was interesting in many respects:—

CASE. Eliz. Stagle, aged 61, of a corpulent habit, was admitted March 30th. Her illness began a month before admission. At first, she was seized with severe pain in the bowels, vomiting, and obstinate constipation. By the report of the medical attendant, stercoraceous vomiting ensued. At length, however, the bowels were relieved; but sickness, pain, and great distension from flatulence, remained. She was nearly eight weeks in hospital, which, added to the time she was under treatment out of the house, made the duration of her illness little short of twelve weeks. Notwithstanding the evidence of very serious and obstinate obstruction of the bowels at the commencement of the attack, she suffered from uncontrollable diarrhœa all the while she was in hospital. The distension from flatulence for some time was enormous, but at length seemed to yield to large doses of camphor. She was in constant pain, and at no time could bear pressure in the left iliac region without complaint. She had a return of stercoraceous vomiting in the last week of her existence; the diarrhœa persisting. An erysipelatous inflammation of the mouth and fauces came on, with sloughing of the soft palate. She died May 22nd.

Autopsy. On examining the intestines, the colon, just above the sigmoid flexure, was found firmly agglutinated to the ileum. Around the colon was a thickened mass, which on section appeared to be composed of distinct collections of soft yellow matter. Within the colon were displayed, from above downwards, large ragged ulcers; the mucous membrane being destroyed to a great extent. At the point of agglutination to the ileum, were many fistulous passages; the proper canal of the intestines seeming nearly obliterated. One of these ragged, fistulous openings, larger than the rest, ran from the cavity of the colon into that of the ileum. Below this, the mucous membrane of the colon was healthy. The mucous membrane of the ileum was thickly set with small round ulcers on both sides of the perforation. There were also fatty liver, diseased kidneys, and a fibrous tumour of the uterus.

DISEASES OF THE URINARY ORGANS.

ALBUMINURIA. In 1849, two cases occurred, both in women.

CASE. Catharine Turrell, aged 18, was admitted on Jan. 31st. About two months before, she had been discharged from the hospital, having been eight weeks under treatment for amenorrhœa. She was rather fat, and of a florid complexion. The catamenia had not appeared for five weeks, and then very sparingly. Her chief complaint now was of severe pain in the loins, which impeded her movements. There was much tenderness on pressure on each side of the spine, in the region of the kidneys. The pulse was of moderate frequency and strength; the tongue clean; the bowels open. She passed a large quantity of pale urine, which on examination was acid, of specific gravity 1.010, and abundantly albuminous. The pain of the back was greatly relieved by cupping. Towards the end of February, the urine was less abundant, of specific gravity 1.020, but still albuminous as before. Anasarca of the lower extremities now first appeared. About the middle of March, the abdomen began to enlarge. The urine became thick and muddy, from a copious deposit of the lithates. The specific gravity rose to 1.026, at which point it remained till the middle of April, when it fell to 1.015, and afterwards, in July, to 1.005, without any remarkable increase in quantity. The anasarca went on increasing till it had invaded the cellular tissue of the loins and lower part of the abdomen.

It became necessary to puncture the legs and thighs, to prevent cracks and ulcerations of the over distended skin. In the month of June, fluctuation was very evident in the abdomen. About the end of July, profuse diarrhoea set in, which, though restrained and moderated by remedies, was never wholly suppressed. The mouth became very sore from aphthæ. The dropsical symptoms gradually but wholly disappeared at least ten days before death; the serous exudation process having been transferred to the bowels. She died from exhaustion, Sep. 20th.

Autopsy. The head was not examined. The right pleura had several old adhesions. The apices of both lungs presented several tubercular deposits. The heart was small, but healthy. The great omentum was adherent at each ring. The mucous membrane of the intestines had several patches of intense congestion, but no ulcerations. The liver had undergone fatty degeneration. Both kidneys were very much enlarged; their structure was much confused with a whitish deposit. Numerous stellate veins were observed on their surfaces. A scrofulous abscess was found in the fundus of the uterus. The left ovary was enlarged, adhered to the uterus, and contained scrofulous matter. The state of the right ovary was not noted; but my impression is, that it also adhered to the uterus, and had undergone similar disorganisation to the left one. Enough, however, was found to explain the persistent amenorrhœa.

This case of albuminuria nearly corresponds to Rokitsansky's third form of Bright's disease, which is frequently fatal; but it will perhaps occur, that there was no proportionate relation between the changes of structure in the kidney and the great amount of albuminuria and other morbid processes. But, in fact, the renal change of structure is not the cause of *all* the morbid states, nor even a measure of their intensity. Rokitsansky, Walshe, and others, look upon Bright's disease as primarily a disease of the blood, the anomalous condition of which fluid has a peculiar relation to the kidney, and is followed by the secondary and visible disorganisation of the renal tissue. As the deposition goes on increasing in the kidneys, the excretory function of those organs becomes partly mechanically and partly dynamically interfered with; and hence the blood acquires a secondary morbid crasis. Rokitsansky thinks that albuminuria consists in a disturbance of the catalytic function of the kidney, arising from the homologous infiltration of the renal tissue. Albumen is in part deposited in the channels of the tubuli themselves. Albuminuria and granular kidney, however, are not necessarily associated; for the former may exist without the latter.

Regarding Bright's disease as having its origin in the blood, it may be asked why it affects the kidney? This question will admit of an answer, probably, when we can explain why tubercle is chiefly attracted to the lungs, cancer to the mamma and uterus, gout and rheumatism to the joints. This primary morbid condition of the blood, whatever it may be, there is little doubt, is generated in the body, and, like the diseases just mentioned, arises from some constitutional predisposition to these imperfect organic processes, without which none of the supposed causes of Bright's disease would produce it.*

The peculiarities of the blood in Bright's disease, as ascertained by analysis, are abundant serum of low specific gravity, excess of fat, excess of urea, and deficiency of albumen; but they are probably secondary. Rokitsansky thinks that the nature of the renal affection in this disease consists of an inflammatory process, which proceeds from a stage of hyperæmia to one of stasis, and then gives rise to the peculiar product which accumulates in and alters the appearance and structure of the kidney. It is sometimes acute, but generally chronic, with occasional exacerbations. The granulations are the Malpighian bodies and urinary tubuli charged with the above-named product.†

The treatment of this case was directed, in the first instance, to subdue the acute symptoms, by moderate cupping, purgatives, diaphoretics, the vapour bath, etc. In the chronic stage, recourse was had to various preparations of iron, diuretics, hydragogue cathartics, etc. At length, the diarrhoea, and the extreme debility thereby induced, demanded all the assistance of art, in order that we might relieve, since we could not cure our patient.

CASE. The other case of albuminuria occurred in a woman, 31 years of age, unmarried, and following the occupation of a nurse. She said she had been long subject to giddiness and shortness of breath, with much wheezing, but no cough. Two days before admission, she was seized, while blowing her nose, with violent pain in the head, which went on with increasing intensity, and formed her chief complaint. She had vomited several times, and felt constant nausea. Before admission, she had taken calomel and purgative medicine, and leeches had been applied behind the left ear. Pulse irregular; respiration asthmatic and feeble. Sibilus was general on both sides; but the chest sounded well on percussion. She had abundant leucorrhœa. The urine was highly albuminous. A blister was applied to the nucha, and a draught, with digitalis, squills, and decoctum scoparii comp. was ordered every fourth hour. The next day, the digitalis was omitted, on account of her complaining of great faintness. On the 20th December, six days after admission, the headache was much better, but she complained of severe pain in the loins, and could not bear pressure. She was cupped to six oz., with relief. The following day, a seton was inserted in the nape of the neck.

Dec. 27th. The head and back gave very little pain. The leucorrhœa had ceased. The urine still albuminous in the same degree. Pulse 80, regular. Respiration free.

This woman improved in all respects save the state of the renal secretion, which continued to throw down much albumen, on the application of the usual tests. The seton appeared beneficial, and the diuretics, which acted most beneficially, relieved the chest. She was discharged free from complaint; but albumen was still found in the urine.

In 1850, the following case deserves a detailed notice:—

CASE. Maria Hunt, aged 30, much emaciated, subject to hectic fever, with night sweats, had been ill a year. She suffered severe attacks of pain in the region of the left kidney, passing downwards towards the bladder; and had pain in making water. There was a discharge of pus with the urine. Under the use of the pareira brava and creasote, she gained flesh and strength, and was much relieved. She left the house at her own desire, when there was very little purulent deposit in the urine. Subsequently, while taking balsam of copaiba, a measly-looking rash broke out upon her. She said she had had measles. After this, an attack of pneumonia of the upper lobe of the right lung, of a low, asthenic character, with profuse expectoration of a dark, thin, red matter, not foetid, set in. She quickly sank, and was delirious the day before death.

Autopsy. The left lung was free from adhesions, and contained a few tubercles. The right lung was generally adherent, and the apex was crushed and broken down in the attempt to disengage it. The upper portion of the superior lobe was infiltrated with a dirty, reddish fluid, which exhaled a foetid odour, so that Dr. Ormerod, who made the examination, was of opinion that the disease had proceeded to a gangrenous termination. The lower portion of the same lobe was a greyish, soft, friable mass, yielding some puriform matter when squeezed. The whole lobe contained miliary and chalky tubercles. The right kidney had lost its natural structure, and consisted merely of several sacculi containing a thickish, white, chalky-looking fluid. The ureter was obliterated. The left kidney was large, flabby, with a softened, tubercular deposit at the upper part; while the lower was occupied by a large scrofulous abscess, communicating with the pelvis, which contained some purulent matter. The other abdominal organs were healthy.

In 1851, two cases of albuminuria came under notice.

CASE. A farm labourer, Stephen Wheatley, aged 29, was ad-

* Some pathologists, however, of high authority in our own country, as Drs. Owen Rees, Todd, and G. Johnson, are of opinion that Bright's disease is a fatty degeneration of the kidneys.

† An excellent monograph on the nature and treatment of Bright's disease was published by Frerichs in 1851.

mitted in March. He looked pale and bloated, and puffy about the under eye-lids. He was anasarcaous, and had a cough, with difficulty of breathing. There was dullness on percussing both sides of the chest, and abundant fine crepitation arising from œdema of the lungs. The heart-sounds were feeble, but natural. The liver was enlarged. Six months ago, he caught an ague, which only recently had left him. It returned soon after admission, with a quartan type, but was checked after the third paroxysm. The urine was copious and pale, slightly acid, of specific gravity 1.011, and highly albuminous. He took the potassio-tartrate of iron, with bitartrate of potash, every morning. Quinine was prescribed for the ague. Under this treatment, the anasarca was removed, and the respiration rendered easy. He was discharged April 30th, free from cough, dyspnoea, or dropsical symptoms, feeling, as he said, quite well. The urine, when last examined, was of specific gravity 1.018, and much less albuminous.

CASE. Another farm labourer, James Tidy, aged 34, was admitted, with a bloated countenance and puffy eyelids. The parotid and submaxillary glands were swelled. The ankles were œdematous. There was tenderness of the epigastrium and right hypochondrium. His health had been failing for two years. Latterly, he had suffered from palpitations, and a sense of fluttering at the epigastrium. No organic lesion of the heart was manifested. The urine was very albuminous; specific gravity, 1.014. The potassio-tartrate of iron, with the bitartrate of potash, was also prescribed for this man. In the course of a month, he felt so much better, that he returned home. The urine was nearly free from albumen, and the specific gravity had risen to 1.021.

DIABETES. In 1850, two cases of diabetes mellitus came under treatment, with the result of greatly reducing the quantity of urine, and maintaining a correspondence between it and the quantity of liquid taken as drink; so far improving the condition of both patients: but no other change was effected, the saccharine property of the urine remaining unaltered.

In 1851, two cases were admitted. Disulphate of quinine with alum, liquor potassæ arsenitis, and carbonate of ammonia, the last in as large doses as could well be swallowed, were tried. They all moderated the diuresis; but the carbonate of ammonia produced the most decided effect.

DISTENSION OF THE BLADDER. A woman, aged 37, was admitted in the year 1849, six weeks after confinement, with a tumour of the abdomen, resembling the gravid uterus at about the fifth or sixth month of pregnancy. The account she gave of herself was, that the size of the abdomen was not much diminished after parturition. She nursed her child for a fortnight, when her milk left her. A month after her confinement, she was attacked with severe headache, nausea, and vomiting; all which symptoms continued unintermittingly, and with increasing violence, up to the time of her admission into hospital. As there was frequent and difficult micturition, and no enlargement of the uterus could be detected on examination *per vaginam*, Mr. Hodgson passed a catheter, when a large quantity of urine was drawn off, and the tumour wholly disappeared. It was at least a month before the bladder recovered its tone; the urine being alkaline and bloody, and having a muco-purulent sediment.

I have narrated this case on account of the instructive lesson it conveys. The patient had been sent to the hospital from the country, under the belief that she laboured under some organic disease of the uterus—an error into which others might have fallen, who, in like manner, had trusted to external appearances only.

DISEASES OF THE UTERINE ORGANS.

AMENORRHOEA. In 1849, there was a girl, aged 19, who had never menstruated; but for three or four monthly periods there had been decided attacks of fever, lasting about three days. These ceased under treatment, but the catamenia did not appear.

In 1851, seven cases were admitted under the head of amenorrhœa and chlorosis. I have clubbed these affections together, for they are so nearly allied, as to be frequently no more than comparative degrees of the same malady. Amenorrhœa, it is true, is sometimes a mere accident, or depends on a temporary disorder of health; in which case, the function returns when the cause of its arrest is removed. There are cases, again, in which the menses have never appeared at all. Two of the cases referred to were of this kind, occurring in young women, aged respectively 18 and 19 years. In these cases, there is probably some defective development of the sexual organs. I have not met with chlorosis in these subjects. Some pathologists regard chlorosis as primarily a blood-disease, and amenorrhœa merely as a consequence; but I question whether there is not a more intimate relation between the two affections, than a *plus* or *minus* quantity of red corpuscles in the blood. Anæmia often occurs in women, without suppression of the catamenia; and were chlorosis merely a blood-disease, uninfluenced by menstruation, it should occur in males as often as in females. All these cases, complicated with some defect in the healthy crasis of the blood, are cured by preparations of steel. Those which depend on plethora or other causes require corresponding treatment.

RHEUMATIC AFFECTIONS.

LUMBAGO and SCIATICA. A good number of cases were admitted in 1850 and 1851. They yielded almost entirely to absolute rest and topical treatment. Cupping, when the symptoms are acute and recent, afterwards blisters, and a few passes of the hot iron, were found of great service. This is nearly reviving the practice of Cotugno.

SUBACUTE and CHRONIC RHEUMATISM. With regard to the internal treatment, much depends on the constitution of the individual; hence no single remedy will suit all cases. In old cases, and scrofulous habits, cod-liver oil is useful. When there is a suspicion of a syphilitic taint, alterative doses of mercury and iodide of potassium succeed; but in ordinary cases, purgatives, vapour-baths, alkalies, diuretics, and other eliminatives, produce good results. Cupping, blisters, and the hot iron, are also useful external remedies.

CUTANEOUS DISEASES.

PSORIASIS. In 1849, a girl, aged 12, had psoriasis affecting the greater part of the body. Small doses of liquor potassæ arsenitis were given, and she was discharged cured in February 1850, the skin having recovered its natural colour.

SYCOSIS MENTI. In 1850, there was a severe case. In the treatment of this affection, I commonly direct slight scarifications to be made in the inflamed bases of the tubercles: a practice which I have seen adopted in Rome in this disease, and also in bad cases of tinea capitis, with excellent effect.

LEPRA. In 1851, liquor potassæ arsenitis was found beneficial in two cases.

ECZEMA. A man, aged 56, had an eczematous eruption, affecting both legs, with much swelling. The complaint soon yielded to Plummer's pill, and liquor potassæ in decoction of sarsaparilla. Eczema in elderly persons is often a troublesome complaint, and difficult of cure: but one of the most troublesome examples of it occurred in a boy aged 15. The eruption chiefly affected the extremities, particularly the hands, but the trunk did not escape. The subject was robust and healthy; the potash with sarsaparilla failed; the liquor potassæ arsenitis with dilute precipitate ointment succeeded. He was discharged apparently well, April 23rd, having been in hospital fifty-six days; but he subsequently applied as an out patient, suffering from the same complaint.

ERYTHEMA NODOSUM occurred in two females, complicated with rheumatism in one case, and with irregular menstruation in both. Feverish symptoms attended the eruption in both instances.

ACCIDENTAL POISONING WITH CORROSIVE SUBLIMATE.

A case of this kind was brought to the hospital; and as

it presented some circumstances worthy of notice, I will relate it.

CASE. Henry Godley, aged 23, presented himself, June 17th, with face flushed and eyes suffused, and appeared in a state of great agitation. He breathed with difficulty, and complained of intense burning pain in the throat and in the pit of the stomach. He had inquired, it seems, at a chemist's for something to destroy vermin, with which his person was infested. Now, either not receiving sufficiently clear instructions, or mistaking them, he swallowed a drachm of corrosive sublimate dissolved in half a pint of water, instead of using it as a lotion. He vomited immediately, and probably discharged the greater part of the poison; but was instantly seized with the burning pain above mentioned. Mr. Penfold made him quickly swallow the white of eggs, and copious draughts of milk. Leeches were applied to the epigastrium; and, later, a dose of castor-oil was administered. 18th. The oil had acted: but nothing unusual was observed in the stools. He still suffered internal pain, and complained of soreness of the mouth and throat. The tongue was red; the gums rather spongy; the lips were dry, red, and swollen. Same treatment. 19th. He was feverish, and thirsty; complained of more pain, and burning internally. The epigastrium was tender. More leeches were ordered, and saline effervescing draughts were prescribed. On the 25th he was discharged quite well.

This case exhibits a fair example of the irritant effects of mercurial poisoning. It was a remarkable circumstance that the effects of so large a dose of the poison should have been confined to the mouth, œsophagus, and stomach. There was no diarrhoea, nor any other sign of intestinal irritation; no difficulty of passing water; no ptalism. It may be presumed that this soluble salt of mercury had been converted into a comparatively innocuous compound by the antidotes given for that purpose, and, therefore, those textures only with which it came into immediate contact, suffered from its corrosive action; very little probably having been carried into the circulation.

The above is a condensed report of 490 cases of disease, treated in hospital during the three years mentioned. The deaths amounted to 18, being in the ratio of about 3·6 per cent. They occurred as follows:—Typhoid fever complicated with hæmorrhage and abscess, 2; Meningitis, 3; Sanguineous apoplexy, 1; Abscess of the brain, 1; Delirium tremens and diseased liver, 1; Cancer, 1; Phthisis, 5; Bright's disease, 2; Hypertrophy and valvular disease of the heart, 1; Obstruction and ulceration of the bowels, 1.

Brighton, January 1853.

ON THE MEDICO-LEGAL SIGNIFICATION OF CLOSURE OF THE FORAMEN OVALE.

By JOHN C. BLOXAM, Esq.

THE perusal of an article in the ASSOCIATION JOURNAL of the 4th current, by Dr. C. Kidd, on the Medico-legal Signification of Closure of the Foramen Ovale, induces me to offer a few remarks on the same subject.

The formation of the foramen ovale, and the mode of its closure, have often appeared to me to be misunderstood. The foramen is not formed like a hole punched out of a piece of paper, and is not, except as the consequence of disease, subject to have a layer of lymph thrown across it. The formation of the foramen resembles a slit cut through a piece of paper, which admits of being held in such a position as to form an oval-shaped opening; but it also admits of being held in such a position as effectually to close this aperture. In the new-born infant, the structures round the foramen are, also, so formed that the two lips of the opening admit readily of being made to overlap one another. Now, prior to inspiration, I apprehend that the parts remain in a position which preserves the patency of the foramen, but upon an effectual inspiration being made, the altered relative position of the different parts of the heart, (caused

partly by the distension of the right ventricle, through the expanding influence of the act of inspiration, whereby it becomes filled with blood), as well as the altered position of the whole organ, through the descent of the diaphragm, causes the opening to be, practically and functionally, completely and instantaneously obliterated, in consequence of the two lips of the opening being brought into the same plane. The lips, when thus brought into contact, and overlapping one another, gradually unite; but the opening is effectually closed without such union.

It is very easy for an observer to be deceived as to the patency of the foramen, especially when the examination is made with the heart *in situ*. The foramen may have the appearance of being completely obliterated, and yet, upon some accidental movement of the parts, the two lips may be made to slide upon one another, so as to leave a small opening between them; or they may be brought into different planes, and the opening thus be restored to its original dimensions. From my own observations, I have no doubt that the foramen may, in some cases at least, be restored to its original dimensions some considerable time after respiration has been thoroughly established.

Newport, Isle of Wight, February 1853.

ON MEDICAL METEOROLOGY.

By T. MOFFAT, M.D., F.R.A.S.

FOR some years I have kept a register of daily observations of the barometer and other meteorological instruments, the amount of atmospheric ozone, and the dates of the commencement of diseases, as they occurred; and from what I have observed, I readily concur with the opinion of Dr. Addison, as stated in his article on "Requirements in Meteorological Tables", that the changes of the weather are prejudicial to health, and that mean readings of meteorological instruments do not show the connexion between the prevalence of diseases and atmospheric conditions. I feel confident that meteorological tables cannot be of any value, in a medical sense, unless they are formed of daily observations, and include the date of commencement of individual diseases; for even a slight increase or decrease in the readings of the barometer, with a change in the direction of the wind, leads to an increase in the number of cases, or to their entire removal. I have observed that the following diseases,—viz., apoplexy, epilepsy, infantile convulsions, and sudden deaths, premature labour, menorrhagia, uterine pains, diarrhoea with sickness, and with or without cramps, toothache, neuralgia, etc.,—seldom occur without decrease of the readings of the barometer and changes of weather; that snow and hail showers are, all but invariably, accompanied by seizures of apoplexy, epilepsy, and sudden deaths; and that ozone never appears without a decrease in the readings of the barometer, and that its presence or absence in the air depends entirely on the direction of the wind.

Of the number of cases of apoplexy which occurred in the years 1850 and 1851, fifty per cent. took place on days of decreasing readings of the barometer, and fifty per cent. happened on days after such readings; one hundred per cent. occurred with fall of temperature, and they all took place with a direction of wind from the S.E. and S.W. points of the compass. Of the cases of epilepsy in the same years, sixty-nine per cent. occurred with decreasing readings of the barometer, and ninety-eight per cent. took place with decreasing readings of the thermometer. Of the cases of toothache, ninety per cent. commenced with fall of the barometer, and seventy per cent. with fall of temperature. Eighteen out of twenty-three cases of premature labour occurred with decreasing readings of the barometer, and either a reappearance or an increase in quantity of ozone. Of seven sudden deaths, five occurred with wind from N.W. with hail showers. All the diseases above enumerated observe a similar rate of per centage, to similar readings of the barometer and thermometer. Directions of the wind appear to influence the prevalence of certain diseases; for all