

In regard to the influences which induce sleep, or tend to occasion death by coma, the most of them seem to favour the accumulation of blood in the veins, either by depressing the operations of nutrition in the substance of the brain, or by presenting physical obstacles to the return of blood from the head. Whatever interferes with the proper oxygenation of the blood must, obviously, act in the former manner. The combination of oxygen with the elements of nervous tissue is an essential condition of the functional activity of the latter. The oxygen acts as a direct stimulant on the brain; and if this organ has been for some time exposed to its action in a strong degree, any circumstance which merely diminishes its intensity, either by preventing the elimination of carbonic acid, or by diluting or rarifying the inspired air, will have a depressing effect on the nervous system. This may explain the influence which every one knows "coming off the fresh air" has in disposing to sleep. The anæsthetic properties of chloroform may perhaps be also explained, simply by that substance being to a great extent substituted for oxygen in the blood. The action of most narcotic poisons is more complicated; but their influence must also be by directly affecting the nutrition of the nervous tissue.

The influence of intense cold probably illustrates the other mode of producing sleep. The physical effect of that agent on the tissues presents such resistance to the exit of blood from the encephalic veins, that the nutritive operations cannot overcome it with sufficient facility to permit the function of the brain being exercised.

ART. IV.—*The Climate of Egypt.* By the Rev. THOMAS BARCLAY, D.D.

It is matter of surprise and regret, that while so many interesting works on the antiquities of Egypt have been published during the last half century, little or no precise information has been furnished respecting its climate. Its pyramids, its temples, and its tombs, have been minutely explored and elaborately described by travellers. The mysterious legends sculptured on its monuments have been deciphered and in part expounded. The names of its ancient Pharaohs, and the customs of its ancient inhabitants, have been brought to light by the learned interpreters of these sculptures, and even the chronology of many of the events

which they record, has been ascertained with astronomical proof of its correctness. But while the "ancient manners" and the "modern customs" of Egypt have been minutely and faithfully described, nothing has been written respecting the hygienic peculiarities of that land of wonders; at least nothing sufficiently precise to guide the medical adviser in selecting a suitable residence for his patient, whose case requires a change of climate. The object of this communication is to draw attention to those characteristics of the Egyptian climate, by which an opinion may be formed of its curative influence in cases for which a removal to a milder and warmer atmosphere is usually recommended. The result of my own observation and experience, during five months spent in that country, is a thorough conviction, that there is no accessible part of the world so well adapted for the relief of most of that formidable class of diseases to which the respiratory organs are subject. In venturing to express this opinion, however, I am far from affirming that all Egypt, or any part of Egypt at all seasons, fulfils the conditions required in a climate suitable for such cases. On the contrary, it will be readily perceived that no part of the Delta is at any season adapted to patients who are subject to these affections, nor, it may be added, to those who are either dyspeptic or rheumatic; and from the beginning of May to the end of September, the heat in every part of Egypt is too great for a European constitution weakened by disease. But in Middle and Upper Egypt, from the beginning of October to the end of April, the invalid may breathe, under a bright and cloudless sky, an atmosphere at once of a warm and equable temperature, of perfect purity, and free from all excess of humidity. The climate of other regions may be equally distinguished by one or more of these properties, (though even that is doubtful,) but assuredly there is no other habitable part of the globe in which they are all combined in so great perfection.

The malady for which I sought relief in a southern climate, was chronic bronchitis in its most aggravated form. All the usual remedies, both external and internal, had been resorted to, and steadily persevered in, under the ablest medical advice; but with little temporary and no permanent benefit. I had tried with the same unfavourable result those places on the south coast of England, which are usually recommended to invalids. The symptoms obstinately resisted every remedial measure. The chronic character of the disease was frequently exchanged for attacks of a subacute form. These

always commenced with inflammation of the pharynx, creeping insidiously down the glottis and trachea to the bronchial tubes, which became gorged with mucus throughout their whole extent; and on every spot on which the stethoscope could be planted over the lungs, the mucous *râle* was to be heard. Dyspnœa, accompanied with loud wheezing, was at all times distressing; but its nocturnal exacerbations, which invariably occurred after a short sleep, like fits of spasmodic asthma, were often so fearfully violent as to threaten suffocation. The digestive organs were deranged—I had no appetite for food—my frame was emaciated, and my strength prostrated.

After having been two years in this condition, I was induced, by the joint advice of Dr Christison, Dr Douglas Mac-lagan, and Mr Craig of Ratho, to try the effect of a temporary residence in Egypt. I was so enfeebled as to be unable to encounter the voyage till the month of November; and thus I lost two months of the season suitable for the residence of an invalid in that country. Yet the benefit which, by the blessing of Providence, I reaped from that delicious climate, was most signal; and far exceeded all that my most sanguine hopes had ventured to anticipate.

On the passage outward, I stopped five days at Malta, but found the heat so oppressive in the daytime, and the chills in the evening so severe, that I was glad to make my escape. The extreme humidity of the atmosphere in that island, notwithstanding its high temperature, must always render it, I apprehend, an unfit resort for a bronchitic patient; and the greatness of the diurnal range of the thermometer, at least in winter, makes it questionable how far it is an eligible residence for consumptive patients. It is believed that an inquiry into *results* will not tend to give a favourable idea of its sanative influence on that class of complaints. Of the climate of Alexandria also, I have reason, as I shall show afterwards, to speak unfavourably. In Cairo, however, a very different climate was found; and I had not been many days there, when I began to experience its effects in allaying the irritability of the respiratory mucous membrane. The coldest season there is the latter part of December and the early part of January; and though the temperature even then is equal to that of our best summer weather, yet the evenings are somewhat chill. The following observations, made with the Register Thermometer and Dollond's Hygrometer, show the temperature and the dryness of the atmosphere at Cairo, during the coldest fortnight of the year:—

Date.	Lowest temperature by night.	Highest temperature by day.	Diurnal range.	Degrees dry.	Degrees damp.	State of weather.
Dec. 25.	59°	64°	5	7	0	Bright sunshine.
„ 26.	58	63	5	7	...	Do.
„ 27.	58	62	4	5	...	Do.
„ 28.	57	60	3	...	5	Rain & blowing.
„ 29.	57	60	3	1	...	Showery.
„ 30.	58	60	2	...	4	Wind and rain.
„ 31.	59	64	5	5	...	Bright sunshine.
Jan. 1.	60	64	4	8	...	Do.
„ 2.	57	62	5	4	...	Cloudy.
„ 3.	58	63	5	0	0 ¹	Do. and blowing.
„ 4.	58	64	6	5	...	Bright sunshine.
„ 5.	57	64	7	4	...	Cloudy.
„ 6.	58	61	3	...	4	Drizzling.
„ 7.	57	60	3	...	1	Cloudy & windy.

From these observations it will appear, that warm and equable as the winter temperature is at Cairo, the weather at that season is not free from frequent and sudden changes. It is in Upper Egypt that the invalid must seek entire exemption from these; and there he will not be disappointed.

While I was there, my register was kept on the Nile, and consequently it shows a lower temperature, at least in the night time, than would be denoted at a little distance from the river; while the dryness indicated by the hygrometer in the latter case, was many degrees greater than that registered on the river.

The following table contains the result of the observations noted between Thebes and Asouan, the uppermost town in Egypt, and from these an idea may be formed of the winter climate in that region:—

Date.	Lowest temperature by night.	Highest temperature by day.	Diurnal range.	Degrees dry.	Degrees damp.	State of weather.
Jan. 17.	64°	70°	6	7	0	Cloudless sky and bright sunshine every day; the firmament blazing with stars every night; no evening chills.
„ 18.	63	68	5	7	...	
„ 19.	66	70	4	5	...	
„ 20.	64	69	5	12	...	
„ 21.	64	71	7	7	...	
„ 22.	69	72	3	6	...	
„ 23.	68	72	4	10	...	

¹ The zero of the hygrometer corresponds to summer drought in Britain.

The benefit I derived from breathing the genial air of the Thebaid was very decided. The periodical night attacks, though still occurring, were less violent and of shorter duration; my breathing was greatly relieved; and my strength was so far recruited that I was able, without fatigue, to make daily excursions, sometimes of many miles, to the monuments with which this part of the valley of the Nile is studded.

At Thebes, which for several reasons should be made head quarters in Upper Egypt, the day temperature from the middle of January to the middle of February, ranges from 68° to 78°, and after the latter date, the heat becomes rather too great to be borne with comfort. The invalid should then commence his downward voyage, and by the time he reaches the latitude of Cairo, he will find the climate there nearly as delightful as that which he left at Thebes. My register during the first week of March at Cairo was as follows:—

Date.	Lowest temperature by night.	Highest temperature by day.	Diurnal range.	Degrees dry.	Degrees damp.	State of weather.
March 1.	66	72	6	9	...	Gent. brze., sunny.
„ 2.	69	74	5	4	...	Do. do.
„ 3.	68	75	7	0	0	Fog.
„ 4.	68	76	8	6	...	Calm and sunny.
„ 5.	71	74	3	...	2	Haze.
„ 6.	69	72	3	6	...	Cloudy and sunny.
„ 7.	65	69	4	6	...	Drops of rain.

In a city like Cairo, with a dense population of more than two hundred thousand people, and with narrow streets walled in by lofty houses, and constantly watered to lay the dust, the air can neither be so pure nor so dry as in the desert. Accordingly, the medical gentlemen of Cairo are in the habit of sending almost all their convalescent patients to reside for some time in the adjoining desert, to enjoy the benefit of its invigorating air. In it there is no water, either running or stagnant, to produce humidity by evaporation, nor is there any decaying matter, either vegetable or animal, to taint the atmosphere with noxious exhalations. It is in the desert, therefore, that the qualities of warmth, equability, dryness, and purity, which are characteristic of the Egyptian climate in general, are to be found in the most perfect union. The soothing influence of the desert air on delicate organs of respiration, and its invigorating influence on a debilitated frame, can be appreciated by those only who, like myself, have experienced its marvellous effects. It is at once balmy

and bracing; and the invalid, while breathing it, feels as if he were drinking in health at every pore. I quitted Cairo for the desert of Gheezeh, on the 12th of March, and took up my abode in the neighbourhood of the Pyramids; and there a sudden change came over me, as if by magic. The second night I passed in the desert was marked by sound and uninterrupted sleep, and the absence of the periodical fit of dyspnœa—the first occasion on which I had enjoyed the one, or had been exempted from the other, for more than two years. My appetite soon became *excessive*; both the flesh and the strength I had lost during my illness were restored; every symptom of my complaint disappeared; and at the end of a month, I returned to Cairo in perfect health. The following table contains the meteorological register kept by me while I lived in the desert.

Date.	Lowest temperature by night.	Highest temperature by day.	Diurnal range.	Degrees dry.	Degrees damp.	State of weather.
Mar. 13.	63	69	6	10	...	High wind.
„ 14.	63	70	7	12	...	Bright sunshine.
„ 15.	63	68	5	12	...	Do.
„ 16.	63	68	5	13	...	Do.
„ 17.	63	67	4	13	...	Do.
„ 18.	63	70	7	12	...	Do.
„ 19.	63	73	10	14	...	Do.
„ 20.	67	72	5	17	...	Do.
„ 21.	63	70	7	18	...	Do.
„ 22.	63	71	8	18	...	Do.
„ 23.	66	76	10	19	...	Do.
„ 24.	71	76	5	16	...	Cloudy.
„ 25.	67	71	4	10	...	Do.
„ 26.	63	71	8	13	...	Bright sunshine.
„ 27.	63	71	8	12	...	Do.
„ 28.	64	73	9	11	...	Do.
„ 29.	63	74	11	15	...	Do.
„ 30.	63	71	8	12	...	Do.
„ 31.	66	71	5	12	...	Cloudy.
April 1.	67	81	14	23	...	Khamséen.
„ 2.	67	72	5	10	...	{ Cloudy and blowing.
„ 3.	65	72	7	11	...	Bright sunshine.
„ 4.	68	71	3	12	...	Do.
„ 5.	65	71	6	16	...	Do.
„ 6.	65	75	10	18	...	Do.
„ 7.	64	70	6	3	...	Rain.
„ 8.	65	71	6	10	...	Bright sunshine.

The only other place in Egypt whose meteorology it seems necessary to notice is Alexandria. When it is borne in mind that this city is surrounded on three sides by the Mediterranean Sea, and that on the land side it is enveloped by the Lake Mareotis, a moist atmosphere may be expected; and accordingly, the degree of humidity indicated in the following extract from my register is excessive. In this respect the state of the atmosphere in Alexandria, during the early part of May, will be found to contrast remarkably with that of Cairo and its vicinity during the latter part of April; while the greater equability of temperature in the former city, both from day to day and during the twenty-four hours, is no less observable:—

Place & date.	Lowest temperature by night.	Highest temperature by day.	Diurnal range.	Degrees dry.	Degrees damp.	State of weather.
<i>Cairo.</i>						
April 19.	68	70	2	6	0	A gentle breath of wind and bright sunshine by day. Always calm towards evening and during the night.
„ 20.	67	70	3	5	...	
„ 21.	66	72	6	5	...	
„ 22.	67	72	5	4	...	
„ 23.	69	74	5	9	...	
„ 24.	70	77	7	9	...	
„ 25.	75	79	4	5	...	
„ 26.	72	75	3	4	...	
<i>Alexandria.</i>						
April 28.	70	73	3	...	10	Sunshine and calm.
„ 29.	70	73	3	...	13	Do. do.
„ 30.	71	73	2	...	12	Do. do.
May 1.	72	74	2	...	15	Do. do.
„ 2.	72	74	2	...	14	Do. do.
„ 3.	73	75	2	...	15	Do. do.
„ 4.	72	74	2	...	14	Do. do.
„ 5.	73	76	3	...	15	Do. do.

How far Alexandria, during the months of March and April, may be a more suitable residence than Madeira or Italy, for those whose complaints require a climate at once warm, equable, and moist, I leave it to gentlemen of the medical profession to judge; but I do think myself fully warranted to denounce it as a most unsuitable place for a bronchitic patient. During all the time I was there I felt as if inhaling steam; my breathing was excessively affected, and my whole system was languid and relaxed. These ef-

fects, however, by the time I had been twenty-four hours at sea, were completely dispelled, leaving no doubt whatever as to their cause.

I may add, that dyspepsia is very prevalent among the European residents in Alexandria; and I was informed that cases of pulmonary consumption, though not common, do occasionally occur among the natives of the whole northern sea-board of Egypt; but the inhabitants of Middle and Upper Egypt, as far as I could learn, are entirely exempted from that fatal disease. The prevailing maladies throughout all Egypt are dysentery and ophthalmia,—both induced, it is believed, by exposure of the heated frame to currents of cold air.

These observations on the subject of Egyptian climate would be very incomplete if I failed to notice its influence in arresting hæmoptysis. Several instances of its efficacy in that respect were mentioned to me, and one very decided case fell under my own observation. A. B., a middle-aged gentleman, of a clear and florid complexion, had been for years afflicted with this complaint to an alarming extent. He had spent a winter in Italy without experiencing the smallest mitigation of his ailment. He had next been sent to Madeira, and there the malady was very greatly aggravated. He was at Malta when I went to Egypt; but finding no relief there, he came to Cairo in the end of December, and took up his abode at the hotel at which I lodged. The effect of the change of climate was immediate. The spitting of blood ceased at once, nor did it ever recur during his stay at Cairo, which was prolonged till the end of April. He then went to the south of Spain, and remained there till the month of June, when he returned to England, apparently in perfect health, and fully resolved to spend the whole of the following winter in Egypt with the view of confirming his cure.

The transition from the climate of Egypt to that of Britain is too violent to be hazarded by one whose respiratory organs are in a delicate or dubious condition, especially as the season at which it is necessary to quit the one country is far from being genial in the other. I therefore stopped in Spain on my homeward passage, and spent the latter part of May and the greater part of June in that country and in Portugal. Having heard that the air of Malaga was remarkable for its mildness, I repaired thither, and was both delighted and surprised to find in Europe a climate scarcely inferior in any respect to that of the latitude of Cairo. The register I kept while there, and from which I subjoin an ex-

tract, shows a temperature which was probably only a few degrees lower than that of Cairo at the same date, while its equability was greater than I had noted anywhere except at Alexandria; and what is still more remarkable, the dryness of its atmosphere exceeds that of Cairo, and contrasts surprisingly with the humidity with which the air of Alexandria is loaded.

Date.	Lowest temperature by night.	Highest temperature by day.	Diurnal range.	Degrees dry.	Degrees damp.	State of weather.
May 20.	70°	72°	2°	9	...	Bright sunshine.
" 21.	70	73	3	12	...	Do.
" 22.	71	73	2	12	...	Do.
" 23.	69	72	3	11	...	Rain.
" 24.	67	70	3	10	...	Do.
" 25.	66	69	3	10	...	Do.
" 26.	68	70	2	14	...	Bright sunshine.
" 27.	69	72	3	16	...	Do.
" 28.	69	73	4	15	...	Do.
" 29.	69	73	4	15	...	Do.
" 30.	69	72	3	16	...	Do.

The atmospheric conditions indicated by this table are doubtless to be referred, partly to the geological structure and the physical conformation of the country around Malaga, and partly to the latitude in which it is situated. I am persuaded that, in a therapeutic point of view, the climate in this part of Andalusia is deserving of more attention than it seems hitherto to have received. Those who take it for granted that the climate of Italy must be the mildest and warmest in Europe, seem to forget that Malaga is 248 miles farther south than Naples, 318 miles farther south than Rome, and 518 miles farther south than Venice; and those who have not adverted to the fact, will probably be surprised to find that it is 5 miles farther south than Algiers. Both Gibraltar and Cadiz are somewhat south of Malaga, but both have a great diurnal range of temperature, and are nearly equal to Alexandria in the humidity of their atmosphere; the one standing on an almost insulated rock in the Mediterranean Sea, and the other on a narrow spur of land projecting into the Atlantic Ocean.

In the beginning of June I moved northward to Lisbon; but on its climate, and that of delightful Cintra, no information is needed. In the end of June, 1853, I returned to

Scotland; and though I was threatened soon after I reached home with a recurrence of bronchitic symptoms, these *now* yielded readily to medical treatment. I am most thankful to be able to add, that during the last twelvemonth I have enjoyed excellent health, nor have I been affected, during that time, by any of the changes of weather to which our variable climate is subject.

CURRIE MANSE,
September 1, 1854.

ART. V.—*Suggestions in regard to the Performance of Post-mortem Examinations.* By W. T. GAIRDNER, M.D., one of the Ordinary Physicians of the Royal Infirmary of Edinburgh, and lately Superintendent of Morbid Anatomy in that Institution.

(Continued from p. 321.)

In the following remarks upon the mode of performing the details of a *post-mortem* examination, my object is chiefly to furnish practitioners with a certain number of directions, which may serve to prevent the omission of important particulars without being too complex or minute for general use. It is to be observed that medico-legal examinations require attention to certain special circumstances, which, as they are usually very fully treated in the numerous works on legal medicine,¹ I shall not think it necessary in general to notice.

In private houses, the mere presence of a corpse, and, still more, the performance of a *post-mortem* examination, is always the source of a certain degree of discomfort and inconvenience, which, however, may be greatly diminished by a few precautions on the part of the medical man. The decomposition of the body is often very much hastened by the incautious burning of fires in winter, or gas in summer, in rooms adjoining that in which it lies, or by the unnecessary heating of the passages, and thus of the whole house. It is worth while to prevent this, by instructions either to the relatives or to the servants, immediately after the death; which instructions may be made to include all the necessary

¹ In a little work published by the London Medical Society of Observation, entitled "What to observe at the Bedside and after Death in Medical Cases," the reader will find very minute directions of the kind here alluded to. See also Beck's Medical Jurisprudence; Orfila, Médecine Légale; Devergie, Médecine Légale; Bock, Pathologische Anatomie; Engel, Pathologisch-Anatomische Propädeutik.