

## REVIEW IX.

1. *Gazeta Medica de Lisboa*. Redactor Principal Dr. PEDRO FRANCISCO DA COSTA ALVARENGO. Publica se nos dias 13 e 28 de cada mez. Imprensa Nacional.—*Lisboa*, 1862-3.  
*Medical Gazette of Lisbon*. Principal Editor Dr. PETER FRANCIS DA COSTA ALVARENGO. Published the 13th and 28th of every Month. Printed at the National Press.—*Lisbon*, 1862-3.
2. *Jornal de Pharmacia e Sciencias Accessorias*.—*Lisboa*.  
*Journal of Pharmacy and the Accessory Sciences*.—*Lisbon*.
3. *O Escholiaste Medico*.—*Lisboa*.  
*The Medical Scholiast*.—*Lisbon*.
4. *Compendio de Materia Medica e de Therapeutica*. Por CAETANO MARIA DA SILVA BEIRÃO, Lente de Materia Medica e de Therapeutica na escola Medico-Cirurgica de Lisboa, &c. Tomo 1<sup>mo</sup>.—*Lisboa*, 1862.  
*Compendium of Materia Medica and Therapeutics*. By C. M. DA SILVA BEIRÃO, Professor of Materia Medica and Therapeutics in the Medico-Chirurgical School of Lisbon, &c. Vol. I.—*Lisbon*, 1862.
5. *Estudos sobre a Hemeralopia a Proposito dos Casos observados no Quarnição de Lisboa, offerecidos á Academia Real das Sciencias de Lisboa*. Por JOÃO CLEMENTE MENDES, Cirurgião de Brigada, &c.—*Lisboa*, 1862. 8vo, paginas 80.  
*Studies on Hemeralopia in reference to Cases observed in the Garrison of Lisbon, and offered to the Royal Academy of Sciences of Lisbon*. By JOHN CLEMENT MENDES, Brigade-Surgeon, &c.—*Lisbon*, 1862. 8vo, pp. 80.
6. *Anatomia Pathologica e Symptomatologia da Febre Amarella em Lisboa no Anno de 1857*. Memoria apresentada á Academia Real das Sciencias de Lisboa em Julho de 1860. Pelo suo Socio Effectivo Dr. PEDRO FRANCISCO DA COSTA ALVARENGO, Medico da Camara de suá Magestade, do Hospital de S. José, &c. Com 6 Mapas, 15 Taboas.—*Lisboa*, 1861. 8vo, paginas 338.  
*Pathological Anatomy and Symptomatology of Yellow Fever in Lisbon during 1857*. Memoir presented to the Royal Academy of Sciences of Lisbon in June, 1860, by its Fellow, Dr. PETER FRANCIS DA COSTA ALVARENGO, Physician in Ordinary to the King, and also of St. Joseph's Hospital, &c. With 6 Maps and 15 Statistical Tables.—*Lisbon*, 1861. 8vo, pp. 338.
7. *Estudos sobre o Garrotinho ou Crup*. Memoria apresentada á Academia Real das Sciencias de Lisboa. Por ANTONIO MARIA BARBOSA, Socio Effectivo do mesma Academia, Cirurgião Honorario da Camara de suá Magestade Fidelissima, Lente da Escola Medico-Cirurgica de Lisboa, &c.—*Lisboa*, 1861. 4to, paginas 189.

- Studies on Garrotilho or Croup.* Memoir presented to the Royal Academy of Sciences of Lisbon. By ANTHONY MARIA BARBOSA, Fellow of the same Academy, Honorary Surgeon to his Most Faithful Majesty, Professor in the Lisbon Medico-Chirurgical School, &c.—*Lisbon*, 1861. 4to, pp. 189.
8. *Memoria sobre a Tracheiotomia no Garrotilho.* Apresentada á Academia Real dās Sciencias de Lisboa. Por ANTONIO MARIA BARBOSA, &c.—*Lisboa*, 1863. 4to, paginas 231.
- Memoir on Tracheotomy in Croup.* Presented to the Royal Academy of Sciences of Lisbon. By A. M. BARBOSA, &c.—*Lisbon*, 1863. 4to, pp. 231.
9. *Notes of Holiday Tours in the Peninsula.* By a PHYSICIAN. Anonymous.—*London*.

(Concluded from our last.)

BELIEVING the outline previously given of Portuguese medical institutions at which students can acquire professional knowledge, and subsequently get licences enabling them to practise medicine or surgery, may have proved interesting to professional readers, we now proceed to notice some of the principal charities in Lisbon, at which practical experience in the treatment of disease may be obtained; and first of "O Hospital de San José"—St. Joseph. This establishment constitutes the chief institution of the kind throughout Portugal, and has attached to it the medico-chirurgical school already mentioned. It forms a very irregular structure, being four stories high, and is also of vast extent. Originally the building was a Jesuit convent; but after the great earthquake in 1755, which destroyed much of Lisbon, Government made it into a receptacle for sick persons, and subsequently the name became altered to its present designation. The two lower floors in this establishment are appropriated to male, and the two upper to female patients; but, excepting a clinical ward, containing pregnant women, it possesses no special divisions for treating particular complaints.

The medical staff attached to this large civil hospital comprises eleven attending physicians, with a like number of surgeons, each of whom receives 66*l.* as an annual honorarium. Besides these twenty-two permanent officials, there are seventeen physicians and fourteen surgeons extraordinary, any of whom may, however, be requested to perform the duties of an ordinary medical officer, should one of the latter gentlemen have obtained leave of absence, and so forth; but in that case the substitute gets no remuneration. In addition to the above number of medical officers, there are likewise six surgeons, with a medical director, one of whom attends by turn at the hospital during twenty-four hours consecutively, in order to admit persons labouring under disease, or to give immediate assistance in cases of accidents. These gentlemen further take charge of out-patients, who are very numerous, as no letter of recommendation is required, and, by way of distinction, they form what is called the hospital "Banco." According to the above authentic statements, it hence appears that this metropolitan

charity has not less than sixty physicians and surgeons, who officially afford their services to parties applying for professional advice, or when admitted as patients. In fact, the medical staff of St. Joseph's Hospital at Lisbon comprises a much larger number of professional attendants than that belonging to any similar charity in most European capitals.

By way of illustrating the general movement among inmates treated at St. Joseph's Hospital, and indicating its magnitude, the total number of patients actually admitted during one year, and the mortality reported, may be quoted as evidence. Throughout twelve months, ending the 31st December, 1860, the total in-patients received into St. Joseph's Hospital were 10,940 in number, of whom 6267, comprising 4526 males, and 1741 females, were treated by the physicians; while in the surgical wards the aggregate amount was 4673, consisting of 2873 male, and only 1800 female inmates. During the year above specified, 9533 patients were discharged, most being convalescent; but as the exact proportion of cures is not stated in the authoritative report which we have at hand, a comparative statement cannot be given of recoveries. Regarding the relative mortality among medical and surgical patients, it is, however, interesting to mention that the ratio of deaths from maladies comprised under the former category was 16.59 per cent. in both sexes; but viewed separately, the scale proved greatest among females, seeing that 434 of that sex died—i. e., nearly one-fourth of the whole 1741 cases admitted; whereas the death-rate in medical male patients was 13.39 per cent., or about half the former amount. Contradistinguished from such data, it is, moreover, worthy of notice that a much smaller mortality was recorded in the surgical than medical wards, since only 239 patients died among the total 4673 cases so classified, which hence makes the average of deaths in that department about five per hundred; and although very little difference prevailed between either sex, it ranged somewhat higher in males, being 5.60 per cent. against 4.33 among females, suffering from surgical diseases. The very large number of fatal results occurring among female inmates treated in the medical division, therefore, seems remarkable. In fact, the chance of an unfavourable termination to their malady appears to have been six times greater than if they had become patients under the surgeons. The explanation of this anomaly is difficult, but being rather a singular feature in medical statistics, it seemed well worthy of record, when alluding to the chief civil hospital in the Portuguese metropolis, which is also one of the largest establishments of that kind throughout Europe, as shown by its annual admissions being generally about 11,000 altogether, irrespective of the still more numerous out-patients who are likewise treated at this institution.

During ordinary seasons, and when no epidemic malady prevails at Lisbon, which, however, seems no uncommon occurrence, the total number of beds in St. Joseph's Hospital usually average about 900; but a larger amount of in-patients are often accommodated—nay, much beyond that number have been at one time under treatment, when even 100 sick persons were admitted into one ward. Being an old

building, this charity cannot bear comparison with many newer structures in other European capitals; nevertheless, much has been recently effected for its improvement, the beds being chiefly of iron, most of them having neat and clean bed-linen. Like similar buildings for patients in southern Europe, the lighting and ventilation of various dormitories are defective; but here, as throughout Spain, natives usually entertain great objections to admitting sunlight into any dwelling they inhabit, and hence pure air often becomes too much excluded—a fact which proves highly injurious to inmates if crowded in hospitals. This prejudicial feeling appears, however, so strong in the popular mind, that any alteration of the system now pursued will always prove a feat of difficult accomplishment.

Adjacent to St. Joseph's Hospital, indeed, forming an annex of that institution, is the "Desterro" infirmary, which was formerly also a convent, but is now appropriated to sick criminals sent from the Lisbon prisons, and hence the name Desterro, or banishment. During 1860 the admissions into this establishment were 1549, of whom 1496 went back to prison more or less convalescent, while 66 deaths, or only 4.26 per cent. were recorded, which shows much smaller mortality if compared with similar results obtained at St. Joseph's Hospital.

The "San Lazaro" Hospital likewise constitutes another appendage of the previously-named charities, being situated also in their vicinity. This institution is chiefly occupied by leper patients, and when recently visited by the present writer, it contained 69 inmates afflicted by that loathsome disease. Of these, 49 were males, and only 20 females, which proves the greater prevalence of leprosy among the former than the latter sex. The malady now mentioned is not infrequent in some districts of Portugal, especially on the sea-coast, and among a poverty-stricken, badly-fed population. In fact, as in the case of various maritime localities in the southern provinces of Spain, leprosy still lingers where in ancient times it was even more common, although at present cases rarely occur of pure Arabian elephantiasis.

Another charitable establishment equally deserves mention—namely, the Lunatic Asylum. Being the chief public institution of that description throughout Portugal, insane patients are therefore often sent thither from different provinces which possess no appropriate place for treating demented persons. When recently visited, this asylum contained 501 lunatics, 244 being male, and 257 female patients. They comprised paupers, as also inmates belonging to the middle class of society, some of whom paid at the rate of 5s. 8d. per diem. The medical staff comprise an attending surgeon and two physicians, one of the latter officers being resident, and also a superintending director.

Along with these three public institutions for sick persons, a fourth must likewise be enumerated, seeing that all four are managed by the same administration—namely, "O Hospiscio de Rilhafolles," or Lock Hospital for females. If, however, this term be literally translated, it seems derived from "rilhar," to gnaw, and "folles," bellows; but why such an odd appellation was ever selected for the receptacle of its peculiar inmates seems difficult to surmise.

The patients at this establishment are almost exclusively public prostitutes, who have been sent here to be cured of maladies incident to their occupation. These individuals being licensed and ticketed by the police, are obliged, under the risk of imprisonment, to present themselves weekly at the dispensary of their own district, in order to be examined by the surgeon appointed for that duty, of whom there are twelve in Lisbon. If diseased in any form, the parties affected are immediately sent to this hospital of Rilhafolles, where they must remain until completely cured of their special malady.

One feature which characterizes the Rilhafolles' internal regulations is so peculiar, that it seems worthy of being mentioned when describing Portuguese benevolent institutions, more especially as no analogous rule, as far as we know, prevails at any similar receptacle in other countries. The peculiarity alluded to is the fact that, every inmate under treatment, whether physically able to move or otherwise, must, by order, remain in bed daily between twelve and two p.m., without ever speaking a word to her neighbour, or even whispering, and still less attempting to get up, during the exact period thus dedicated to strict silence! This is no doubt intended to be a penitential act. On occasion of our visit, made during the time of silence, every ward had its windows shut, while each patient lay in bed as if during night-time, and none dared to open their mouths, even to an attendant.

Besides the public institutions for sick persons above specified, the large military hospital, situated on an elevation in the suburb named Buenos Ayres, is equally worthy of inspection. The wards of this establishment are spacious, freely ventilated, and much superior in that respect to those of St. Joseph's; at the same time being exceedingly clean, while great order appeared to reign everywhere. With a view to illustrate the desire felt by Lisbonese public authorities to improve, as much as possible, this military institution, in reference to sanitary arrangements, it may be stated that the new kind of window lately introduced at Bethlehem Hospital in London, by Dr. Wood, while he was its resident medical officer, has been adopted here, according to a model obtained purposely from England.

The Marine Hospital, likewise, occupying a splendid situation in the "Campo Santa Clara," also well deserves notice by foreigners who may visit Lisbon, as it further manifests the anxiety which actuates Government to correct existing defects in its public institutions for sick inmates, and, wherever possible, to accomplish improvements. This feeling is creditably exhibited in a new ward which has been very recently constructed in that establishment. It forms one of the best apartments appropriated to patients labouring under disease at present existing throughout Europe. Neither in the Lariboissière Hospital at Paris, nor St. John's at Brussels, which are acknowledged to be two of the best institutions of that kind erected anywhere, will any analogous ward be found, which so much deserves being taken as a pattern, when constructing hospital dormitories. The ample space for inmates, which average about twenty, the admirable ventilation, effected chiefly by windows reaching down to the floor, and having apertures

high up towards the ceiling, besides a remarkable cleanliness apparent throughout, with other special features characterizing this dormitory, merit great commendation. Various appendages appeared of a superior description to those usually characterizing wards of public hospitals; while hot and cold water, mirrors, lavatories, and so forth, were provided as well for the residents' health as comfort. In fact, a private bedroom could scarcely be better furnished, or kept in greater order and neatness, than this new apartment of the Lisbon Marine Hospital.

"A Santa Casa de Misericordia," The Holy House of Mercy, likewise deserves notice, since it bears considerable relation to a question which much interests the medical profession, both with reference to the health as to the rearing of infants and young children. This establishment resembles in many respects an English poor-house, having a foundling hospital attached, where about 2000 infants are annually received and taken care of, as in the case of similar institutions on the Continent. Another division of this charity is appropriated to orphan girls, who are educated and reside here until they attain a certain age, when some are placed in situations, while others obtain marriage-portions. Being principally supported by profits derived from public lotteries, the drawings of these schemes always take place under the direction of officials belonging to this institution.

We proceed now to make one or two observations respecting a recently-established Board, which watches over the sanitary condition of the Portuguese metropolis and country generally. The institution here noticed is "O Conselho de saude publica do Reino"—the Council of Public Health of the Realm; and although it does not yet possess sufficient power, in consequence of defective laws, and being unable to grapple with many of the evils over which such bodies ought to have full jurisdiction, much good has already accrued from its establishment. Sanitary science being yet of rather modern origin in this southern portion of Europe, many questions bearing upon public hygiene and medical police have, heretofore, not obtained that attention in Portugal which they deserve, or been discussed among professional authorities. Still, the Portuguese Board of Health has lately rendered important services, both throughout the metropolis and various provinces—services which were especially noticed during the epidemic cholera that devastated several districts of Portugal during 1856—whereby public attention became awakened to the advantages of hygienic measures, towards preventing the spread of disease, and of improving the physical frames of the population.

The temporary regulations then established proved so efficient, that several were soon afterwards made law by a legislative enactment; and in 1857, when yellow fever devastated Lisbon, the Council of Health, by judicious sanitary administration, as also the surveillance it exercised over subordinate officials, effected much good. Visitations from house to house were then carried out by delegated medical inspectors, through whose activity many local nuisances were removed, and the proverbial filth of Portugal's outwardly magnificent capital became so materially diminished, that it no longer remains the unpleasantly

odoriferous or insalubrious residence of ancient times. Sewers have been constructed, public conveniences opened where formerly none existed, and scavengers are now often employed to remove offal; in short, from being one of the dirtiest cities in Europe, Lisbon has become really clean, and one in which foot-passengers may walk without fear of being bespattered by mud, or even coming in contact with worse defilements. Besides being freed from these grievances, fierce dogs, that formerly in large numbers rendered the streets dangerous at night, and far from agreeable during day-time, rarely infest thoroughfares as formerly they did.

Irrespective of the previous allusion to the outbreak of yellow fever in 1857, it seems further interesting to mention that this epidemic proved most severe during September and October of that year; while the largest number of entries into hospitals, for receiving patients so affected, occurred on the 20th of October, when 298 new cases were admitted. From an official published report, 5161 deaths by yellow fever were recorded in special hospitals, of whom 4718 were males, but only 1116 females; hence giving four of the former sex to one of the latter. In addition to these fatal cases, 7842 other patients died at their own or other domiciles, which made the gross mortality amount to 13,757, all classes included; being therefore about one-twentieth of the entire population. Besides the fact as to male patients oftener succumbing to yellow fever than females, it should be stated that not only few children had the disease, but that most recovered; while individuals after they had passed their sixtieth year were rarely affected; and the period of life most dangerous seems to have ranged from puberty to full manhood. Again, bachelors and single women much oftener became victims than married people, the excess of the former being upwards of three single persons to one comprised in the latter category: the proportion of deaths to recoveries, among the total that came under observation, being one fatal termination to two cures, or 37 deaths in every 100 cases affected.

Contradistinguished to the Arsenal, it should be stated that public establishments, such as the Lunatic Asylum, St. Joseph's Hospital, that of St. Lazarus, the Orphan Institution, and House of Industry, suffered very little by the epidemic, notwithstanding their numerous residents. Among inmates of prisons, likewise, examples of the malady in question were rarely met with, seeing that all the institutions now enumerated remained remarkably free from attacks. On the other hand, many labourers occupied in the Arsenal, and persons residing near that building, died of yellow fever; but medical authorities attributed this feature in the disease not only to the filthy condition of the establishment named, but also to its proximity to the Tagus; seeing that nauseous odours frequently emanated from thence, and consequently polluted the atmosphere in that neighbourhood. Whereas residents of the institutions previously mentioned, since they occupied more elevated situations, and were removed from a stinking shore—especially offensive during hot weather and at ebb-tides—experienced comparative immunity.

Considering that it might prove interesting to English readers, were some general remarks made regarding the system pursued by Portuguese practitioners when treating disease, or the doctrines they usually adopt in reference to medical questions, we may observe that the physicians and surgeons of Portugal are not an exclusive sect, or comprise members who differ in opinion and practice from their brethren of other European countries. On the contrary, many are actuated by a laudable desire to know what passes among scientific men elsewhere, in order to benefit by the experience they thus acquire, as well in theory as practice. Speaking generally, Portuguese medical men, at least in the metropolis and Oporto, do not hesitate to select from the works of foreigners whatever seems reasonable or worthy of being followed, when based on facts and observation. Nevertheless, in consequence of few works having been heretofore published on professional subjects by Portuguese professional writers, students and practitioners generally have recourse to the productions of foreign authors while pursuing their studies, or when investigating questions bearing upon the science and practice of medicine. If any particular nation or class of authors enjoy more influence in these respects than another, it certainly seems that French authorities are most in vogue among the physicians and surgeons of Portugal.

Although this tendency towards French doctrines extensively prevails among members of the profession, still the Lisbon school of medicine and surgery appears as if likely to exercise much future influence throughout this kingdom, in consequence of the Portuguese army and navy medical officers being chiefly educated at that institution. Moreover, its professors comprise some of the most eminent men in Lisbon, while many alumni educated under their tuition, as also at the various metropolitan hospitals, will eventually constitute a large body of medical practitioners, both in the capital and provinces. Possessing such a field for observing diseases in every variety, as that afforded by St. Joseph's Hospital, with its adjacent institutions, each containing sick persons, where students have ample opportunities for dissection, and learning pathology through actual observation, the Lisbon medical school (notwithstanding that it seems only yet of modern existence) has already attained a high position in public and professional estimation, even if compared with the ancient University of Coimbra.

This metropolitan school, having the true elements of professional study, derived from so large an hospital as St. Joseph's, thus furnished, even from its foundation, not only plenty of subjects for dissection, but numerous cases illustrating every type of disease. There being, further, no want of bodies for teaching pathology, this medical institution soon became more practical than speculative in its character; and, according to reliable authority, it may be justly said that anatomy, the true basis of medical science, has always been much cultivated by the pupils of the Lisbon school, notwithstanding that many of them, at the commencement of its career, through previous defective general education, were imperfectly conversant with the prevalent doctrines of

that period. Hence, whatever knowledge they heretofore acquired became too much limited in its practical application, although an outline of the popular theories was not forgotten by the several teachers. This original feature of Lusitanian medicine continues to distinguish the method of instruction still pursued by those who have succeeded, partly from tradition, and in some degree owing to special circumstances. Consequently, there exists at present not only a considerable blank in native medical literature, but further, very little enthusiasm prevails for scientific discussions, unless they are based on facts and observation.

Thus, it will not be incorrect to assert that the salient feature of medical instruction in Lisbon is essentially practical, while the profession in its systematic tendencies is decidedly in favour of what may be designated modern "physico-pathologism," which rests upon science, and is illustrated by rational theories.

Since the outbreak of yellow fever in Lisbon, during 1857, and alluded to in previous paragraphs, medical observers have remarked that the constitutional character of disease, which has more lately prevailed, seems considerably modified. For example, remittent fever, which was rarely noticed in the capital before that epidemic devastated its population, is now of common occurrence; and further, most febrile complaints which have recently attacked patients soon became complicated with great depression of physical force, dyscrasia of the blood, and exhibited symptoms the very opposite of inflammatory; whereas formerly the general type of disease was often quite otherwise. In consequence of this (supposed) marked change in the apparent diathesis of maladies, tonic treatment has been adopted much more frequently than at former periods, while bloodletting, so common in olden times, is now very seldom employed. But such modern reaction against the "Sangrado" system not only prevails in the Portuguese metropolis, but throughout Portugal, so that the depleting mode of treating febrile and even some inflammatory affections has fallen into discredit. Besides this type of debility, frequently characterizing diseases recently met with, it may be added that diphtheria has proved a common complaint, and even raged epidemically on more than one occasion, being followed frequently by fatal terminations; while ascites, as also anasarca, seemed not unusual sequelæ of other maladies, appearing to indicate that renal disorders are somewhat common affections among the Portuguese people.

Although various quackeries prevail to a certain extent in Portugal, as in other European countries, even the most advanced in science and civilization, charlatans but rarely obtain any lasting reputation among the people, and have seldom derived much benefit through public credulity. The vivacity of character and inconstancy of disposition which generally distinguish Lusitanian populations, however susceptible of receiving mental impressions, render them very versatile in their opinions regarding the efficacy of new remedies, if vaunted by foreign authors, for the cure of disease. Consequently various novelties, although recommended by apparently favourable experience, and at first producing considerable impression, fall soon

afterwards into neglect, if not oblivion. Homœopathy and similar modern fallacies have doubtlessly obtained an occasional footing among credulous votaries; but still, according to statements made by competent local authorities, Portugal appears more free from these absurdities than its neighbouring peninsular kingdom, where quackery reigns even in high places, and is under royal patronage.

Throughout Portugal, having a population of 3,600,000 inhabitants, according to its recent census, the entire medical profession consisted, by a return purposely procured from the Lisbon Council of Health, of only 2923 members, thereby giving one practitioner to nearly every 1300 individuals. The above numbers comprise six separate divisions, which may be thus classified, whether practising in the capital or elsewhere—viz.—

	Physicians.	Surgeons.	Pharmaceutists.	Bleeders.	Dentists.	Midwives.
In Lisbon . . .	49	214	185	13	19	92
In the Provinces	196	574	667	821	5	90
Total . . .	245	788	852	834	24	182

From these official statistics, the Portuguese metropolis will not be considered as overstocked with medical men, seeing that only 263 regularly licensed physicians and surgeons are legally entitled to practise among a population of 276,000 persons, dwelling in this city, having a resident court and legislature, besides other collateral advantages. But one peculiar feature exhibited by the table now given seems worth a passing notice, from portraying popular customs—namely, the very small number of bleeders—“sangradores”—in the capital, where only thirteen operators of such designation reside; whereas 821 are located throughout the various provinces. That this discrepancy indicates that a greater proclivity to bloodletting prevails among the rural population than in Lisbon, cannot, however, be assumed from the above statement, although the opinion may be fairly inferred that in Portugal, as in Spain, the custom of abstracting blood, even for ordinary ailments, still obtains much popular favour, and is often employed without sufficient reason, or by medical sanction.

Considerable attention having been occasionally directed towards the advisability of selecting Lisbon as an eligible winter residence for invalids, a few cursory and general remarks respecting its climate cannot here prove either out of place or uninteresting. Prior, however, to discussing that question, some preliminary points may be mentioned which seem important. For instance, Lisbon being chiefly situated upon frequently high-lying ground, about nine miles from the Atlantic seashore, its atmosphere is consequently somewhat maritime; and further, the several hills whereon this city has been built are divided into two distinct geological formations, one extending eastward, the other having a western direction. Between these two divisions, a line running through San Bento-street to the Quinta do Leabrar, and the Lago do Rato—Rat-place—may be traced as forming the real boundary of the above-designated portions, whereof the one to the eastward—the

site of ancient Lisbon—consists of tertiary miocene deposit, whereas that towards the west is a calcareous formation.

The series of elevations now alluded to in their geological character, while they have mostly a southern aspect, and all slope towards the Tagus, possess another important advantage besides that of situation—namely, that during heavy showers, which are not uncommon in this district—however copiously rain may fall, it quickly runs off, and at the same time washes away whatever offensive matters were previously accumulated. New sewers having recently been constructed in various streets, and the scavengers being now often active in cleansing thoroughfares, which were formerly often very filthy, the metropolis has hence become not only more clean than at former periods, but is much improved in salubrity. For, owing to the state of matters generally prevailing not many years ago, Lisbon was considered the dirtiest city in Europe; and its smells often so very disgusting, particularly during hot weather, that promenading even in fashionable public places was rarely either pleasant or a desirable pastime.

In addition to the sloping situation and other physical features characterizing the Portuguese capital, those northerly winds which generally prevail throughout nine months of the year materially assist not only towards dispelling noxious vapours arising from its muddy river banks, exposed at low tides, and always worst during south winds, but likewise the various effluvia necessarily originating amidst an overcrowded population, and issuing from imperfectly trapped sewers.

Owing to these causes, and others which need not be specified, the Lisbon climate is considered genial by many competent observers; nay, some writers even deem its atmosphere the finest in Europe. But that opinion must be held as an exaggeration, although certainly in various respects the air often feels delightful, and hence is liked by most foreigners lately arrived from colder regions. Notwithstanding the Portuguese capital occupies a more southerly position than Naples by about two degrees of latitude, it enjoys a milder summer, except on rare occasions; as, for instance, in the month of August, 1861, when the temperature rose much beyond its usual height. Nevertheless, the average heat at Lisbon seldom becomes so intense as that common in the Neapolitan metropolis; while the frequent sea-breezes which often prevail in afternoons, by tempering the fiercely hot rays of sunshine, darting through a clear and cloudless sky, render the former locality preferable as a residence.

According to Franzini, who has paid special attention to such subjects, and is considered high authority in reference to meteorological inquiries, the average temperature usually recorded at Lisbon is 61° Fahr.; while the mean of different seasons ranges at 52° for winter, 60° spring, 70° summer, and 59° during autumn; January and February being the coldest months, July and August the hottest, under ordinary circumstances. Irrespective, however, of these official statements, supported by so competent an observer as Franzini, it is reported by other authorities that, during some days in the latter week

of May, or beginning of June, great heats are sometimes experienced, as likewise during the early part of September; but such examples of augmented temperature must be taken as exceptional. Northerly winds appear most prevalent and characteristic of the Lisbon climate, although southerly occasionally prevail; the north or north-easterly winds being much the coldest, especially when the latter blows, which causes disagreeable feelings in most residents. Being invariably a piercing blast, the north-east wind frequently excites irritation of the ears or nostrils in those exposed to its influence, and these effects are further accompanied by an augmented lachrymation that often becomes very troublesome. Should no wind prevail, which occasionally happens in this locality, the sun's rays become sometimes so burning hot, even in winter months, provided the sky remains unclouded, that the difference of temperature experienced in some streets, between their shady and sunny sides, varies often twenty-five degrees, if not more extensively. As in the case of Spaniards, most Portuguese persons entertain great dread regarding the injurious effects of strong sunshine, against whose deleterious influence all carefully guard themselves, especially should a north wind be blowing. Should these two contingencies exist, a Lisbonese will not very willingly go out of doors, unless on business or through necessity, and rarely for pleasure or amusement.

These apprehensions, entertained by many Lisbonese, are well founded. Scarcely anything can be worse than thus to get broiled, as it were, on one side of a street, and immediately afterwards to feel almost frozen. In Madrid, analogous influences materially affect residents when so exposed, and often induce fatal diseases, especially those designated under the popular term, "pulmonia." In Lisbon similar results more frequently supervene than amongst persons dwelling in countries further northward. Some medical practitioners have consequently thought that this susceptibility of the skin, so often manifested, and believed really to affect Portuguese constitutions, might become materially improved through hygienic measures. Such beneficial result would be further essentially promoted by frequent ablutions, usually much neglected in southern warm climates, as also by the free admission of pure air and more sunlight into ordinary dwellings. The above important influences Lusitanians seem ever most anxious to avoid, especially the lower classes, many of whom also occupy houses very badly ventilated.

Being situated close to extensive muddy shores of the adjacent river Tagus, Lisbon in its lower parts is hence more insalubrious than higher-lying positions; this shore also being nearly three miles in length, a large portion of the city becomes more exposed to the baneful influence just specified, whose effect was recognised in a most marked manner during the prevalence of yellow fever in 1857, already named, which proved most rife throughout these littoral districts. After that malignant epidemic ceased, the Lisbon civic municipality energetically exerted themselves to remedy, not only the defective sewerage which had materially tended to augment the insalubrity of various localities,

especially in low-lying neighbourhoods, and also in conjunction with the Council of Public Health, accomplished other useful ameliorations; whereby the entire metropolis has greatly improved in reference to its sanitary condition. Hence, like the great fire of London, or more recent conflagrations at Moscow and Hamburgh, the late severe epidemic which caused such extensive sufferings among the poor of Lisbon, and proved fatal to many inhabitants, has already produced some highly beneficial results upon their health and physical well-being.

As no high hills surround Lisbon, and only moderate elevations are met with for some distance in the vicinity, its atmosphere proves more bracing, and feels keener than that of several adjacent villages, which usually occupy hollows, or, more properly speaking, neighbouring valleys. For instance, Bemfica, about two miles north-eastward, being situated on low ground compared with the upper portions of the capital, has a milder atmosphere, and hence invalids frequently find a residence at this place beneficial in certain forms of pulmonary complaints. Whereas persons enjoying good bodily health, of temperate habits, and possessing an adequate amount of mental activity, deem the Lisbon climate favourable to such constitutions; and strangers, during the early periods of their sojourn, deem it agreeable.

Nevertheless, however pleasant the air of Lisbon may at first seem, after residing there even for a brief period, many people are apt to experience the enervating effects of this southern region upon their bodily frames, which hence cause considerable disinclination either to engage in active physical labour, or to pursue ordinary intellectual occupations with the same zeal that they possessed on other occasions, and under different circumstances. This feature, characterizing the Lisbon climate, has been long noticed by observers, and may in some degree explain the apathy so generally prevalent among all classes of the population, and verify a popular proverb which says, "Portugal was made for its natives, and Gallegos—Spaniards from Gallina—were subsequently given them as servants."

In consequence of climacteric and other local influences affecting residents, lung diseases are very frequent in the Portuguese metropolis, but especially tuberculous phthisis, which annually causes great mortality. In proof of such statements it appears that, among 76,864 patients admitted into St. Joseph's Hospital at Lisbon during five recent years, 1448 were consumptive cases, of whom 1150 died in that establishment. Further, the Lisbon climate being considered too keen and irritating for persons labouring under pectoral affections, but particularly during seasons when cold variable weather prevails, physicians recommend several localities in the environs to which they should remove in winter, or at least towards the commencement of spring, as preferable dwellings for phthisical patients. The villages usually pointed out by Lisbon medical authorities are Bemfica, already named, Campo Grande, Lumiar, and one or two other places also near the capital. These favourite retreats for phthisical invalids being situated in low-lying ground, are protected against the commonly

prevailing northerly winds, which invariably prove inimical to patients so affected. Besides, as the villages above named usually possess pretty public gardens, to which promenaders have free access, they can thus enjoy open air exercise when deemed advisable; and as the atmosphere of these suburban districts is milder and more equable than that of the capital, it often exerts considerable soothing influence upon the thoracic organs and respiration of patients so circumstanced.

Towards further illustrating the desirability of Lisbon, and especially an adjacent village, as a retreat during winter for consumptive cases, we would add to previous observations the opinion of a medical friend, an English physician, who, having resided some years in Lisbon, can speak from considerable professional experience. The practitioner here alluded to states, in a communication to the present writer, that among invalids coming from England affected with phthisis, the Lisbon climate frequently produces a beneficial effect upon their malady; and when proper precautions have been taken, great solace and relief of prominent symptoms often seem to be experienced.

Were Lisbon better provided with lodgings adapted for invalids, and these easily procured, this city would become as a residence much more desirable than at present. Indeed, the admitted paucity of comfortable accommodation, according to the ideas of Englishmen, constitutes an important desideratum to patients proposing to spend a winter season in the Portuguese metropolis.

Indubitably there are some good hotels in Lisbon, where visitors may confidently anticipate being comfortably accommodated; as for instance at the Braganza, d'Italia, Central, Durrand's, and Street's, which will bear comparison with those of most Continental cities. But seeing that these places are frequently full during the months when strangers most do congregate, invalids may then find much difficulty in getting properly housed, and hence be exposed to much inconvenience. Therefore, whenever English persons propose sojourning at Lisbon during winter, they ought to retain lodgings before leaving home, in order to ensure adequate accommodation on their arrival. Respecting the expenses incident to a residence at this capital, competent authorities report they are about equal to those usually experienced in London, if house-rent, servants, the quality of food, and various customary accessories are considered; whereas all articles of wearing apparel are dearer than in England.

Besides pulmonary complaints, it may be stated that eruptive diseases, particularly small-pox, are very common among the Lisbon population. Intermittent and continued fevers also frequently prevail—as for example during 1861, when numerous cases of ague were received into the city hospitals, in addition to those treated elsewhere; many of those patients having become so affected through turning up new ground required for railway cuttings then in course of construction. In further proof of such deleterious influences, this fact may be mentioned, viz., that, among upwards of five thousand persons employed on the Southern Railway of Portugal alone during the same autumn, nearly one-third, or fifteen hundred, were suffering from fever,

chiefly intermittent. Indeed, the late excellent and much beloved king, Dom Pedro, fell a victim to fever during his temporary residence at the palace Villa Viciosa, in this neighbourhood; while two other princes, his Majesty's brothers, also died soon afterwards from a similar malady; and lastly, a fourth, Dom Augusto, nearly succumbed likewise; which disastrous events caused not only an intense and painful sensation throughout Lisbon, but nearly produced a popular revolution.

Bowel complaints, often severe, are also not uncommon in the Portuguese metropolis; while apoplexy, paralysis, and nervous maladies frequently come under the observation of medical practitioners, thus demonstrating that diseases are generally of much the same type in this southern district of Europe as those met with elsewhere. Consequently, whatever Lusitanian amateurs may assert regarding the assumed, and often admitted amenity of the Portuguese climate during most seasons, when contrasted with more northern regions, it has still drawbacks. Nay, even natives are sometimes induced to expatriate themselves, during winter months, to a more southern country, having warmer temperature. Thus, residents of Lisbon, predisposed to pulmonary disease, are wont to visit Madeira at that season.

Moreover, although phthisical subjects coming from northern countries may often find the atmosphere of Portugal pleasant to their bodily sensations, and apparently restorative of health, invalid Lisbonians, influenced doubtless by analogous motives, or perhaps only desirous of making some change, emigrate even further southward, and are most anxious to quit a place which they deem undeserving of the encomiums which it often receives as a winter residence from foreigners.

Finally, among several localities frequently lauded as delectable retreats during sultry weather, Cintra well deserves special mention. This royal domain lies about sixteen miles from Lisbon, towards the Atlantic; and as the town stands at the foot of a stupendous granitic "Serra," 1800 to 3000 feet above the sea-level, its site is highly picturesque; and having a cool, salubrious climate, it becomes the favourite resort both of invalids and others, more particularly when the capital gets so hot as to be almost intolerable. At our recent visit to this true "oasis" in the neighbouring sun-burnt desert, the luxuriant vegetation, beautiful flower-gardens, and tree-shaded promenades, which there meet the eye of the visitor, amply prove that the reputation which Cintra has acquired, as a sanatorium in summer, is by no means erroneous or inappropriate.