Winter in the south of Europe : or, Mentone, the Riviera, Corsica, Sicily and Biarritz as winter climates / by J. Henry Bennet.

Contributors

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To the Editor of the
Intellectual Observer.

Mentone,
Nov. 7th/65

60, GROSVENOR STREET, (May to October)

MENTONE, (October to May)

Dear Sir

I have directed
my Publishers Messrs
Churchill to send to
you a copy of a
work I have recently
published entitled "Winter
in the South of Europe"
for review. I have

been a Subscriber and
earnest supporter to
your Journal from
the first number. which
must be my excuse
for troubling you.
Sir Book has been
very favorably noticed
by many Journals. but
evidently by men who
have not an atom

mental
of scenic in their
composition, and are
totally unconscious
whether I have merely
copied those who have
preceded me or not.

In reality I believe
that I am the very
first who has attempted
to define the rationale
of the climate of
the South shores of
the Mediterranean
from physical geography

& meteorology studied
with the assistance of
modern logic.

If it is within the
scope of your Journal
to review the book
in connexion with
these points, I shall
read a scientific critique
of it with interest &
I hope profit, whether
favorable or the reverse.

& remain
Very truly Yrs
Henry Bennet-

WINTER

IN THE

SOUTH OF EUROPE.

Day & Son, Lith.rs to the Queen

MENTONE.

WINTER

IN THE

SOUTH OF EUROPE:

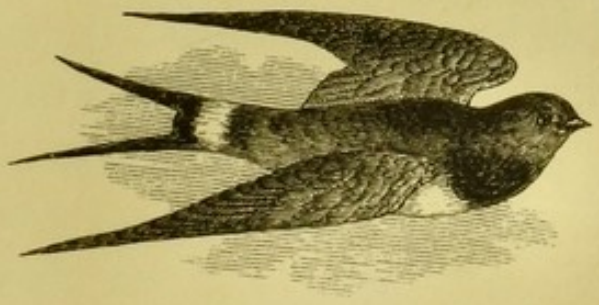
OR,

Mentone, The Riviera, Corsica, Sicily, and Biarritz,

AS WINTER CLIMATES.

By J. HENRY BENNET, M.D.

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON,
LATE PHYSICIAN-ACCOUCHEUR TO THE ROYAL FREE HOSPITAL,
DOCTOR OF MEDICINE OF THE UNIVERSITY OF PARIS,
FORMERLY RESIDENT-PHYSICIAN TO THE PARIS HOSPITALS (EX INTERNE DES HÔPITAUX DE PARIS),
ETC. ETC.



"EUNS REDIENSQUE GAUDET."

THIRD EDITION.

LONDON:
JOHN CHURCHILL & SONS, NEW BURLINGTON STREET.

MDCCCLXV.

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PREFACE.

The present work embodies the experience of six consecutive winters passed on the Mediterranean, at Mentone, from October, 1859, to April, 1865.

Six-and-twenty years devoted to a laborious profession, and the harassing cares which pursue a hard-worked London physician, broke down vital powers in 1859, and obliged me to seek abroad rest and a genial winter climate. The reminiscences of former travel led me to the Riviera, and the ties of friendship to Mentone, then an Italian city, I soon became convinced that the choice was a judicious. one, and remained there throughout the winter.

The second winter I wished to find a locality even more favoured, and sought for it in Italy. The search, however, was vain, and after suffering severely from the unhygienic state of the large towns of that classical land, I turned back, and again took refuge at Mentone. This second trial proved even more satisfactory than the first, and as I felt that it would not be rational again to encounter the labours of London practice in winter, I

determined to adopt Mentone as a permanent winter residence.

In the present edition I have endeavoured to render the description of the Mentone district as complete as possible. Mentone has become Menton, a French town, but I have retained the Italian denomination, because it was the one by which I first knew this smiling spot, and because I prefer the word.

The work was originally a mere essay on the winter climate and vegetation of the Mentone amphitheatre, and was first published in 1861. It has gradually expanded until it may now be considered a careful study of the meteorology and winter climate of the north shores of the Mediterranean in general. This edition contains, also, an account of various wanderings in search of health quarters, for winter and summer, in Italy, Corsica, Sicily, and the Italian lakes, and of a short residence at Biarritz. The purely scientific character has been partly laid aside, and the thoughts, fancies, and travelling impressions of a long period of invalidism have been recorded.

It has been said, on the highest authority, that "the race is not to the swift, nor the battle to the strong." As a physician, I have seen many of the swift and many of the strong arrested in their career by serious sickness, and this is probably one of the principal ways in which the decree is verified. I have endeavoured to help and cheer such sufferers, as well as weaker ones, by showing that even when the active, ambitious stage of

life is brought to a close, if life itself is spared, there is still much left to enjoy. I have endeavoured to show that by the study of nature not only may a charm be thrown over the hours of invalid leisure, but information, useful to others, may be collected.

May I be allowed, in conclusion, to advise those who read this book, stricken by physical affliction, to turn to communion with nature as an inestimable source of solace. By so doing they will most readily attain that frame of cheerful, contented resignation which is all but indispensable to their recovery. Let them try to depart from their native land cheerfully, if they are called upon to do so, and to return cheerfully. In a word, let them adopt a motto assumed by a valued relative of mine on his return from India, where he had spent forty years in positions of trust and difficulty,—"Going and returning he rejoiceth."

"Euns rediensque gaudet."

GROSVENOR STREET,
May 15 *to October* 15.

MENTONE,
October 20 *to April* 20.

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THE maps contained in this work are by Mr. Stanford, of Charing Cross; the wood engravings by Messrs. Butterworth and Heath. The latter are mostly taken from photographs by Davenne.

ITALY AND THE SURROUNDING COUNTRIES.

29

Stanford's Geogrl Estabt London.

MENTONE AND THE RIVIERA.

CHAPTER I.

INTRODUCTORY REMARKS.

THERE are few Italian travellers to whose mind the word "Riviera" does not recall the recollection of happy days of leisurely vetturino progress, along a sunny, picturesque shore, overshadowed by bold mountains, and inhabited by fishermen who, on a fine autumnal evening, often seem to realize the scene of the market chorus in "Masaniello." When, overtaken by ill health, I was obliged to abandon the hard work of active life, it was quite a consolation to me to know that I could migrate to this sun-favoured coast, and conscientiously spend the dreary winter in legitimate idleness, in a spot which memory painted in such glowing colours. In this instance, the memories of the past were fully verified by the realities of actual experience; and now that rest and the mild southern winters have, in a measure, restored me to health, I am desirous to make the Riviera, and especially Mentone, known to the tribe of sufferers obliged to fly from England—"merrie" in winter only to the hale and strong, who can defy and enjoy the cutting winds, the rain, the snow, and the frost of a northern land.

The peculiarly mild climate of western Italy, and especially of the coast-line of the Gulf of Genoa, known under the name of Riviera di Levante, and Riviera di Ponente, or Eastern and Western Riviera, is much more referable to the protection afforded by mountain ranges than to latitude. The Alps and the Apennines form an immense screen to the north-east, as will be at once perceived on consulting the picturesque map of Europe which precedes this chapter. The Swiss Alps, which terminate rather abruptly in the plains of Piedmont by the grand Alpine heights of Mont Cenis, Mont St. Bernard, Mont Simplon, &c., are continued in Savoy and Dauphiny down to the Mediterranean at Cannes and Nice. From Nice the mountain range, which then takes the name of Maritime Alps, skirts the shore of the Gulf of Genoa in a north-easterly direction as far as that city, and in a south-easterly direction as far as Lucca. At Genoa it unites with the Apennines, or sooner becomes the Apennines. At Lucca the latter leave the coast, and then occupy the centre of Italy, forming a kind of backbone, as far south as the Gulf of Otranto.

It is owing to this geographical fact that the health climates of Italy are limited to its western shores. The mountains we have described separate Italy into two longitudinal sections, from Nice to the Gulf of Otranto, and as these mountains rise from four to nine thousand feet in height, they constitute a barrier which protects the entire western coast-line from the north-east winds of central and northern Europe. Thence a totally different winter climate throughout the Italian peninsula, on the east and west of the Apennine ridge. On the eastern, or Adriatic side, in the plains of Piedmont, Umbria, and the Marches, owing to the predominance of the cold winds

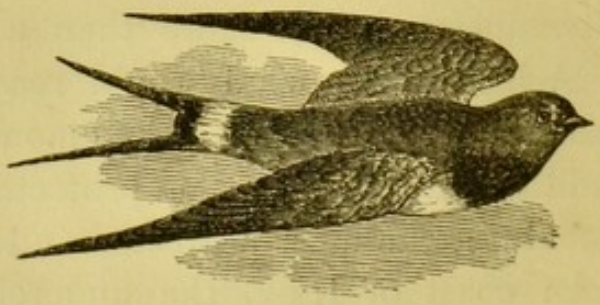
from the centre and east of Europe, the winter and spring are very much colder than on the western or Mediterranean side; the one on which we find the Italian health cities, Pisa, Florence, Rome, Naples. The western coast of Italy is not only thus protected from the north-east winds, but it is open to the warm south-west winds, which very often blow from the Mediterranean during the autumn and the spring, and bring with them warm sea-currents.

This protection from the north-east, and exposure to the south-west, gives to the entire region described, from Nice to Reggio, a mildness of winter climate which latitude alone would not impart. Thus Mentone, and St. Remo, two of the most sheltered and warmest spots on the north coast of the Mediterranean, are situated only in latitude 43° 45′, between thirty and forty miles more to the north than Toulon (43° 7′) or Marseilles (43° 17′). But the latter are, the one less protected, the other unprotected, northwards, by mountain ranges, and consequently, severe frosts take place every winter. Nor is this surprising, when we consider that in the north and centre of Europe the ground is often covered with snow for months during winter, and that a high wind travels at the rate of from thirty to forty miles an hour. The distance, say from the highest Swiss mountain as represented by Mont Blanc, to the Mediterranean, is not more than a hundred and sixty miles. A high north wind would reach the coast-line in a few hours, where unimpeded by mountains, bringing with it cold weather to all the unprotected regions.

During the winter the most protected and warmest part of this western coast of Italy, the undercliff of central Europe, is the Riviera di Ponente, or Western Riviera. The exceptionally mild winter climate of this region is prin-

cipally to be attributed to the great height of the mountain range skirting the shore. As one of its names implies (Cornice), the coast-line is a mere ledge at the foot of the mountains, which protect it north and east. My knowledge of the Riviera is principally derived from six winters' residence at Mentone, for I have merely examined the other parts of the Riviera as a traveller. The general physical, geological, and meteorological conditions of the coast are, however, so far identical that the facts observed in one region must apply to all, with such slight modifications as the greater or less amount of shelter implies. I shall first describe Mentone, the mountain amphitheatre in which it is placed, and its climate, and I shall then point out in a separate chapter in what respect the other regions of the Riviera appeared to me to differ from Mentone.

The opening of the railway to Nice has rendered this lovely region very easy of access, even to confirmed invalids, and I believe that the time is fast approaching when tens of thousands from the north of Europe will adopt the habits of the swallow, and transform every town and village on the coast into a winter retreat. I may remark that the Riviera is the first point where birds of passage from the north make a halt for the winter months.



OUTWARD BOUND.

CHAPTER II.

MENTONE.

SITUATION—CLIMATE AS SHOWN BY VEGETATION.

"Indi i monti ligustici e riviera
Che cor aranci e sempre verdi mirti,
Quasi avendo perpetua primavera
Sparge per l'aria, bene olenti spirti."

ARIOSTO, Canto primo, lxxii.

MENTONE is a small Italian town of five thousand inhabitants, situated in latitude 43° 45′, twenty-two miles east of Nice, at the foot of the Maritime Alps. It is the first station out of Nice, on the Cornice road to Genoa, and was the largest town of the principality of Monaco, before its recent annexation to France along with Nice.

The Gulf of Genoa is formed between Nice and Lucca, by the Maritime Alps and the Apennines, the immense masses of which descend to the sea so abruptly in some places as to leave no shore, their beetling crags terminating directly in the sea. This is the case immediately behind and to the eastward of Nice. Owing to this circumstance, there was formerly no continuous carriage road from Nice to Genoa. The land communication between these cities was carried on by means of a very picturesque, but very unsafe mule track, along the rocky coast. The carriage road that now exists was made by Napoleon at the beginning of the present century, for a military road, all but

indispensable when Italy was annexed to the French Republic. He left it in a very unfinished state, but it has since been much improved by successive governments. It is still, however, unsafe after heavy rains, owing to the absence of bridges over some of the torrent rivers, and of frequent landslips. After the tropical rains to which the Riviera is subject, these rivers roll immense masses of water to the sea, and thus either become impassable for a time, or are crossed with difficulty, and even danger. Every winter, tales are told of carriages overturned and carried towards the sea, and of travellers drowned.

This road has been carried in many places over and along high mountains and precipitous cliffs. Where the shore exists, it is generally a mere rocky, shingly, or sandy ledge beach, from which the mountains rise directly. In some points, however, where rivers reach the sea, there are small plains at the foot of the mountains, as at Andora.

On leaving Nice for Genoa, the road at once begins to ascend the Turbia, a mountain about 3000 feet high, and one of the spurs that run directly into the sea. It is at the foot of this mountain that Nice lies. The ascent occupies two hours, the road reaching an elevation of 2200 feet, the descent about the same time, and at its termination is situated the town of Mentone. As the traveller ascends the Turbia from Nice, he obtains a very beautiful panoramic view of the town, and of the mountain-circled plain in which it lies. The eye rests with interest and pleasure on the eminence that commands Nice, crowned in former days by the old fortress, on the valley of the Paillon river as it pierces the background of huge mountains to the north-east, and on the beautiful coast-line, as far as the distant Estrelle range. It is a very lovely view, especially

in the afternoon, when the sun, passing to the south-west, casts its radiance over the scene. Indeed, I should advise all travellers, Mentone bound, to take a private carriage from Nice on a fine day, and to start at about twelve o'clock, so as to have the south-western sun to illumine their path all the way. First impressions are of great importance, and the drive from Nice to Mentone is so beautiful that it should always be taken by health tourists, and especially by future sojourners at Mentone, under the most favourable auspices.

When the village of Turbia has been reached, and the descent begins, a panorama even more glorious presents itself to the eye. The higher mountains, receding round a beautiful bay that opens to the south-east, form a magnificent mountain amphitheatre, the centre of which is about two miles from the sea. This is the Mentone amphitheatre.

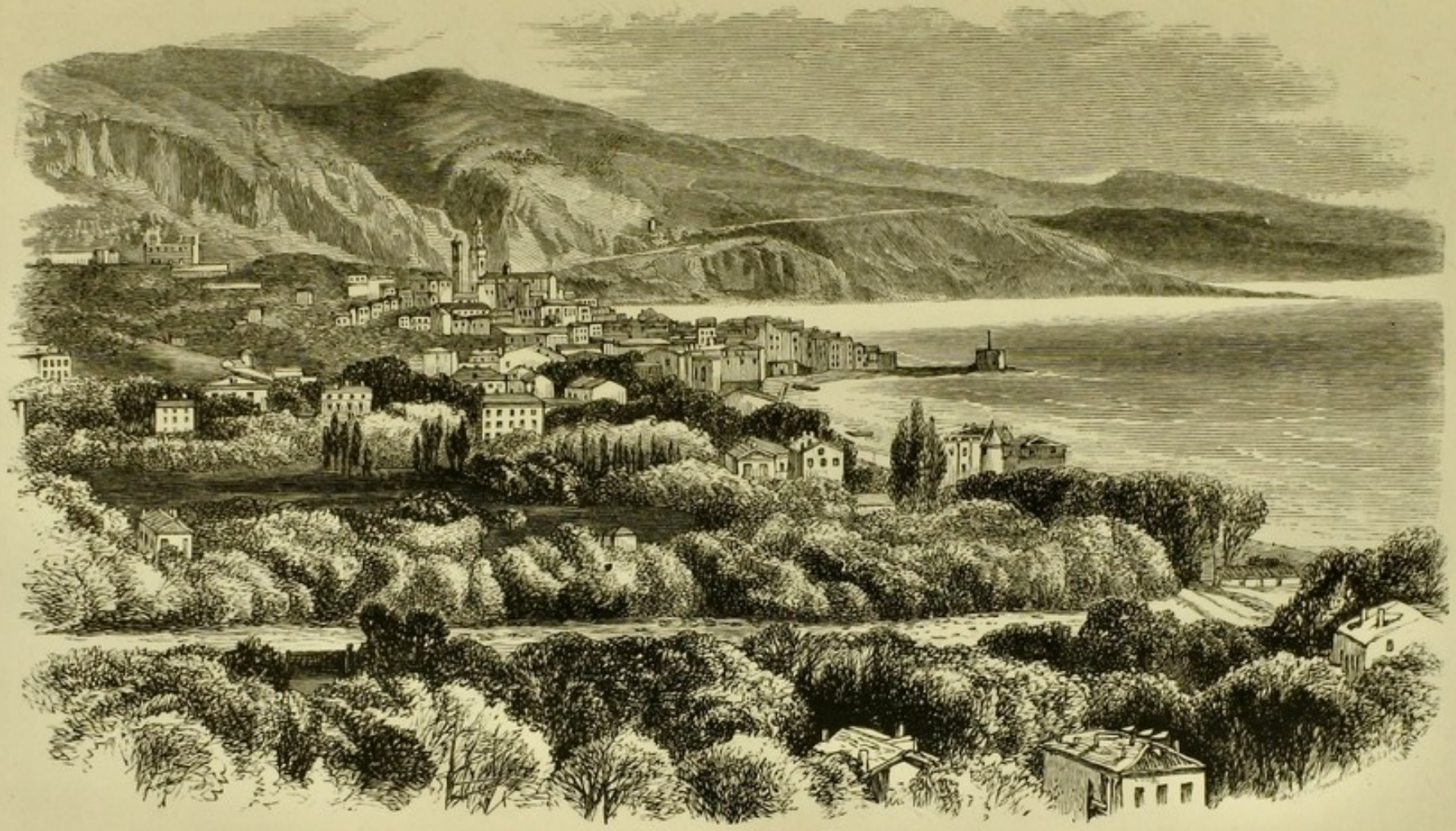
The coast outline, which is about four miles in circuit, is divided into two unequal bays, the east and the west, by a hill, that gradually slopes from one of the higher mountains, to the sea, and on the sides of which climb the houses that constitute the old town of Mentone. The space between the sea and the mountains which form the amphitheatre, and which are between 3000 and 4000 feet high, is occupied by a series of hills resting on the flanks of the higher mountains. They slope gently to the shore, and are divided by numerous ravines and torrential valleys. The higher range of mountains, of a greyish-white lime-stone, is generally precipitous and bare, all but destitute of vegetation. The lower hills, which rise gently to a height of from 500 to 1500 feet, are densely covered with olive-trees, and present at a distance the aspect of forest-clad, rounded ridges, gently descending to the sea.

The entire bay and the town of Mentone, with its background of swelling olive-clad hills, closed in by the amphitheatre of mountains, are thus thoroughly protected from the north-west, north, and north-east winds. The position of the town, with reference to the bays, will be best understood by referring to the frontispiece.

To thoroughly understand and appreciate the district, and its singularly protected character, a boat should be taken and the panorama observed a mile or two from the shore. The extreme beauty of the view will amply repay the trouble. Thus seen, all the details are blended into one harmonious whole; the two bays becoming one, and the little town scarcely dividing them. The grandeur of the semicircular range of mountains, generally steeped in glorious sunshine, also comes out in broad outline. These mountains positively appear to all but encircle the Mentonian amphitheatre in their arms, thus to separate it and its inhabitants from the world at large, and to present it to the blue Mediterranean waves and to the warm southern sunshine.

Some twenty or thirty miles behind the mountains which thus form the background of the Mentonian valleys, are the still higher mountains, from 5000 to 9000 feet in height, which constitute the main chain of the Maritime Alps. They extend from east to north-west far inland, until they mingle with the high Alps of Savoy and Dauphiny. The presence of this second and higher mountain range greatly increases the protection afforded to the coast-line by the lower range, and partly explains its immunity from the winter cold of continental Europe.

Thus, the Mentone amphitheatre, being only open to the south, south-east, and south-west, the mistral, as a north-west wind, is not at all felt; and but slightly as a deflected



MENTONE (FROM THE WEST).

south-west wind. All the northerly winds pass over the higher mountains and fall into the sea at some distance—several miles from the shore. When they reign, there is a calm in the bay at Mentone, and the sea is also calm, whilst at some distance from the shore it may be crested and furious. This may constantly be observed on ascending the hills. Owing to the Mentonian bay opening to the south-east, the east (the *levante*), the south-east (the *sirocco*), the direct south, and the south-west, blow directly into the bay, and, when strong, always occasion a heavy, rolling swell. The latter, however—the southerly winds to which Mentone is exposed—are never cold.

Climate as shown by Vegetation.

Owing to the complete protection the mountains afford to Mentone from the west, north-west, north, and north-east winds, to its south-eastern exposure, and to the reflection of the sun's rays from the sides of the naked limestone mountains which form the amphitheatre, its winter climate is warmer than that of Nice, its neighbour; indeed, it is warmer than that of any part of the northern or central regions of Italy. That such is the case is shown by its vegetation. The latitude of Palermo, six degrees further south, must be reached, to find the same vegetation—groves of lemon-trees growing in the open air, like apple trees in an English orchard, without the shelter of walls, or of the ravine beds in which they are usually planted in Southern Europe.

The peculiar mildness of the winter at Mentone may also be partly accounted for on geothermal (earth heat) grounds. It is well known that even in England the warmth imparted to the superficial strata of the ground by the summer heat is not exhausted by radiation until

the winter be far advanced. Thus, at three feet from the surface it is only at the end of January that the soil has cooled to its lowest point; that is, has exhausted by radiation the heat accumulated during summer. How much greater must be the winter radiation of summer-accumulated heat in a locality like Mentone, surrounded by an amphitheatre of limestone rocks, which must become heated to an extreme extent during the long summer days, under the rays of an all but tropical sun, and in a cloudless sky! The importance of this element, in the consideration of climate, will be better appreciated when we know that it takes several months for a thermometer to cool down after the glass tube has been closed by momentary exposure to the flame of the blowpipe.* It is only after that lapse of time that the glass has regained a normal state, and that it can be graduated, when scientific precision is in view; so retentive of heat are most solid bodies, and so long a period of time does it take for them to lose by radiation heat once acquired.

The exceptional warmth of the winter climate of Mentone, even for the Riviera, is proved beyond all question or doubt by the presence of groves of large, healthy lemon-trees, which ripen their fruit every year in the fullest perfection in nearly all the ravines and on the warmer hill-sides, wherever water can be obtained. Constant irrigation, summer and winter, is necessary for their cultivation, as well as great summer heat and a mild winter temperature. The lemon-trees at Mentone are, indeed, much more numerous than the orange-trees, although many fine plantations of the latter are found throughout the district. The presence, however, of orange and lemon-trees growing in healthy luxuriance, as forest

* Drew's Practical Meteorology, p. 42.

trees, in the open air, does not prove that we have reached a tropical climate, where cold is unknown. When the weather is dry, and the sky is covered with clouds, which arrest terrestrial radiation, the fruit of the orange-tree will bear 7° Fah. below the freezing point, without injury, and the orange-trees themselves are only killed by 11° of frost. The lemon fruit, under similar circumstances, can bear only 5° without injury, and the trees are killed by 8° or 9°. But if the cold weather sets in after a thaw, or after rain, if the atmosphere is loaded with moisture, or if the sky is cloudless, and the radiation from the earth is thus rapid at night, either the fruit or the trees may perish at a much lower temperature. The inhabitants of southern districts seem to think that a much less amount of frost is fatal to lemon and orange-trees; but my own experience during six winters corroborates the above data, taken from Roubaudi's work on Nice—a very scientific book.

On one side of the eastern bay, near the Pont St. Louis, the warmest and most sheltered region of Mentone, the side of the mountain is partially covered with lemon-trees, which ascend on terraces to a considerable height above the sea. They are in flower, and perfume the air at all seasons. In these "warm terraces," protected from all winds but the south, exposed to the sun from morning to night, winter may be said not to exist. Throughout its entire duration insect life is abundant. The lively lizard never hybernates, but daily basks and sports in the sun, and the brilliant dragon-fly may be seen darting about in mid-winter. The spider spins his web, finding abundant food, and the swallows or martins never migrate; they are constantly seen circling among the rocks. The harebell, the red valerian, violets, and our own pretty veronica,

flower in December and January in this favoured spot long before they appear elsewhere.

The lemons produced at Mentone are known throughout Northern Europe, and fetch a high price in the market. The lemon-tree flowers here all the year through, never resting—a fact which implies constant and active vegetation, without any period of repose. The crop is gathered at four different epochs, the trees bearing at the same time flowers and fruits of all sizes. Its existence in groves of large trees, from twenty to thirty, or more years old, without artificial protection, and its profitable cultivation throughout the year, prove that where they grow there must have been freedom from severe frost for many years. I was informed, however, that about thirty years ago nearly all the lemon-trees in the country were destroyed in one night, which may account for no very old trees being seen.

During the six winters that I have passed at Mentone, I have found a great difference in the degree and the severity of the cold from year to year. In the more severe winters, with a northerly wind, I have repeatedly known the thermometer descend below zero several nights consecutively, near the seashore, and at the outlet of the torrent beds, especially in the western bay. Slight films of ice then form on shallow pools on the road and near the torrents, especially in the western bay, which is more exposed to down-draughts from the mountains, and the highest mountain range may be covered with snow to the level of the olive groves. This alarming state of things generally occasions great dismay in the minds of the inhabitants, whose principal riches are the lemon groves. I have known many sit up for several nights, in the greatest consternation, watching the thermometer. Indeed, there is

in these cases quite a panic with reference to the lamentable condition of the weather. Such feelings and fears plainly indicate that frost and snow are unusual and unwelcome visitors. Snow often, however, lies for several days on the higher mountains, thereby giving them a most picturesque, Swiss-like appearance.

On very exceptional occasions snow may even fall on the shore-level, melting as it falls. In January, 1864, there was a frost of unusual intensity throughout the south of Europe, in Italy and Spain especially. At Mentone it froze on the sea-level several nights consecutively, both in the eastern and western bay, and snow fell on the shore-level. For several days it lay in northern situations, although a bright and warm sun was shining. Many lemon-trees were killed, and much fruit destroyed; but the trees that were killed were all at the outlet of valleys running up to the mountains, where they had been planted, I was told, in opposition to the experience of previous ages. Every twenty or thirty years an exceptionally intense frost occurs, and kills the lemon-trees in all but really warm and sheltered positions. The culture of the lemon being very remunerative, the agriculturist is apt to despise these warnings, and to endeavour to extend its range. All goes well for a time, and then the exceptional frost year occurs, destroys the trees imprudently planted, and marks the limit.

It is the same in England. Every now and then a very severe winter occurs, and kills many of the shrubs and trees imported from all parts of the world, and apparently well established in our country. It requires nearly half a century to prove the thorough adaptability of a foreign shrub or tree to a new climate. With us such trees as the oak, the elm, the hawthorn, the chestnut, are

either native or really acclimatized trees; but they do not so readily admit of an addition to their number as might at first be imagined. Thus, the severe winter of 1860–1 saw the destruction of many apparently established favourites.

On no other part of the Cornice road do lemon-trees grow as freely as at Mentone. At Cannes they are all but unheard of, and at Nice they only grow in sheltered and protected sites, and not luxuriantly. As I have stated, the latitude of Sicily, nearly six degrees further south, must be reached to find them growing with equal luxuriance; and even there they refuse to grow wherever there is a down-draught from neighbouring mountains.

The orange-tree flowers but once in the year, and bears one crop of fruit only. It is a more hardy tree, as this botanical fact implies, and can bear without injury, as we have seen, several degrees of frost. Still, as the fruit matures in autumn and winter, it does not attain excellence in regions where the winter is cold. There are many fine groves of orange-trees at Mentone, especially the one at the base of the Cap Martin. Although the trees are large, and the fruit ripens well, the oranges are scarcely equal to those we get from the Azores, from Majorca, or Malta. This deficiency, however, appears to be owing more to the selection of inferior varieties than to defective climate. Some trees growing in private gardens, and some growing near Monaco, only a few miles distant, and in a locality presenting the same climatic condition, are as good as any in Europe, if allowed to remain on the tree until really ripe.

There are many varieties of the orange, some of which are much sweeter, and ripen earlier than others, as, for instance, the Maltese and Majorca orange; but then

they are mostly thin-skinned, and do not keep as well as the thick-skinned or Portugal variety. The latter are, therefore, preferred as the best for exportation. Oranges intended for exportation are gathered in January and February, before they are ripe, as otherwise they would not bear the packing and transport. They do not really become ripe and sweet before April, or even May—long after they redden. Those exposed for sale at Mentone are a part of the oranges picked under these conditions. The only way, therefore, to have really good oranges is to purchase the crop of one or more trees, and to leave the oranges on the tree until they are quite sweet and ripe, which is not until April, or even May.

Oranges may indeed be left on the tree for eighteen months or two years, and improve very much by the process. In this case, they lose their sweetness in May or June, when the dry weather begins, but regain it in October, after the rains, and are then at their very best.

The crop of an orange grove or orchard is generally sold on the tree, to speculators from Paris, for a given sum. The latter undertake the picking and packing, and in January and February the town and country are quite alive with their operations. Troops of girls and women may be seen daily coming down from the mountains with large baskets of oranges or lemons poised on their heads. They carry as much as a hundred-weight, or more, at a time, with apparent ease. They are generally barefooted, to enable them to get a better grasp of the rocky paths, and look very picturesque. Only the strongest and healthiest girls can undertake this work, and that but for a few years. They go to and from the mountains, a distance of from three to five miles, several times a day, and earn about fifteen-pence.

Throughout the winter the orange groves, covered with their golden fruit, form a charming feature in the landscape, reminding the looker-on of the garden of Hesperides of olden times. From the regularity of its growth, the abundance and golden hue of its fruit, the orange-tree is a much more picturesque object than the lemon-tree. The fruit of the latter is always either green or a pale yellow, and the habit of the tree, young or old, is rather straggling. Both lemon and orange-trees, whenever they emerge from the valleys, contrast vividly, by their bright green tinge, with the sombre hue of the olive-trees.

THE LEMON GIRL.

The olive-tree is the real lord of the Mentonian amphitheatre, covering the lower hills and the base of the higher

ones to a height of about eighteen hundred feet above the level of the sea. In the south of France the olive-tree, however fertile, is a miserable object. It is generally treated as a pollard, is small and dwarfish, and looks much like a dust-covered pollard willow. As soon, however, as the Estrelle mountains are passed, and Cannes is reached, we enter on a different climate, more protected in winter, and more suited to its growth. It is allowed to grow as a forest tree, and at once assumes a dignity and grandeur which quite surprises those who have only seen the stunted specimens of "la belle Provence." The olive-tree is only destroyed by a frost of fifteen or sixteen degrees Fah., so that it is not injured or killed on the Riviera by exceptional winters, as are the delicate lemon-trees. But the young shoots and the fruit are frozen and irremediably injured when the thermometer falls six or seven degrees below the freezing point. No frost, however, to which this region is exposed, even once in a century, can injure the tree, so that it goes on growing indefinitely, and attains its natural period of longevity, as do with us the trees that are natives of our country, the birch, the beech, the Scotch fir, and the oak. Like them, it resists the terrible cold of exceptional years, such as the years of 1860–61, and reappears in spring, hale and vigorous, when whole armies of naturalized foreigners have succumbed.

The longevity of the olive-tree, in a congenial climate like that of Mentone, may indeed be said to be indefinite. There are olive-trees still alive at Monaco, at the Cap Martin, and elsewhere, which are supposed to be coeval with the Roman empire. It is a slow-growing tree, and forms cartloads of hard roots, which fill and cover the ground where it stands. When, after several hundred

years, the trunk decays, the bark remains alive. As the decay progresses, the tree splits, as it were, into two, three, or more sections. The bark twists and curls round each of these decayed sections, and unites on the other side. Then, instead of the old tree, we have, in its place, two, three, or more, apparently separate, although in reality all growing from the same root. When these in turn die, new shoots spring up from the old roots, and thus the life of the tree is indefinitely prolonged. The old olive-groves are, from this cause, indescribably singular and interesting, presenting on every side evidences of hoary old age. All the stages of growth above described may be witnessed within the space of a few yards; and the partially decayed, partially split, gnarled, twisted, curved trunks are picturesque in the extreme.

The healthy full-grown olive-tree is really very beautiful. It is often as large as a fine old oak, but with fewer limbs and a more sparse foliage. In the variety of the olive-tree generally cultivated on the Riviera the terminal extremity of the branches hangs down, so as to give it the characteristic appearance of a weeping ash or willow. The "weeping" character of the tree is, however, much less marked than in those just mentioned, owing to the more scanty foliage, and to the extremities of the smaller branches only drooping. To some who are sad, to mourners, the dense masses of these sombre grey-coloured trees, with hanging foliage, give a sorrowful, mournful character to the landscape. But it is only those who have sadness in their hearts, a sadness which reflects on nature, who view the olive-tree in this light. To others, the play of the wind on the ever-moving pendulous masses of foliage, and that of the sun and light on the dark

AN OLD OLIVE-TREE.

green leaves, especially when viewed from above, is both beautiful and soothing.

I never fully appreciated the beauty of the olive-tree, although I had seen it in its glory in southern Italy, until I had passed a winter under the shadow of an olive-clad mountain at Mentone. The fact is that the olive-tree, like our own evergreen spruce and Scotch fir, is much more beautiful in autumn and winter than in summer. At the latter period of the year most of the leaves are old, and have become browned by the summer heat and by at least a year's existence, so that the entire tree often assumes a faded, dingy hue. In early summer, too, the yellow hue of the pollen of the male flowers of conifers gives a yellowish tinge to the entire tree, owing to their extreme abundance. In spring the new leaves of the evergreen tree form, in summer and autumn the old ones are in a great measure cast off, and when winter comes, it is in all its glory. It has thrown off its worn-out damaged garments, and is again clothed in the grace and beauty of youth.

Thus, instead of the brown, dust-coloured foliage which the pleasure traveller sees in his autumn journey, the winter invalid sees leaves, sombre, it is true, but fresh and beautiful to look at, either from near or from afar. The scantiness of the olive-tree foliage in winter, also, is an advantage. It lets the sun filter pleasantly through, breaking its power without concealing it, and rendering a walk or a lounge in "the olive-groves," even in the hot midday sun, a pleasant resource. Many and many an afternoon have I spent at Mentone, in December and January, sitting with a book under the shade of an olive-tree.

The predominance of these olive groves gives a very

peculiar character to the Mentonian amphitheatre—a Scriptural character, if I may so term it. The olive-tree, which is a native of Asia Minor, or of Palestine, is the tree of the Holy Land, and is constantly mentioned in Scripture. Thus its presence, as the principal feature of the surrounding vegetation, imparts an Eastern charm to the place, taking the mind back to the Mount of Olives, to Jerusalem, and to the sacred scenes of Holy Writ. We feel that it was in such a land that the events we have read of from our childhood upwards with reverence and interest, took place. We feel that we are nearer to these scenes than in our own northern island, and we really understand what it is "to sit under the fig-tree," and to walk "in the olive grove."

The branches of the olive-tree are not numerous. They spring from the trunk, near the ground; or rather, the trunk generally divides into two or three branches. The latter extend, at an acute angle, a long distance from the tree. Their foliage being terminal, and the wood non-elastic, they are not adapted to bear a heavy burden, for it acts as a weight at the extremity of a long lever. Thus, when snow fell thickly in the rigorous winter of 1864-5, without melting—an unheard of event—the large olive branches broke off by hundreds, and a great loss was thereby entailed on the country.

In northern regions the pines, the firs, indeed, conifers in general, have their branches arranged in successive stages, as it were, which extend only a short distance from the trunk of the tree. These branches, also, either droop downwards by natural conformation, so as to throw off the snow which falls on them, or bend downwards, so as to shake it off. The resin which fills the wood of the tree gives the necessary elasticity, and enables it thus

to bend and throw off the snow, when the poor olive-tree resists the unnatural load and breaks.

The olive-tree flowers in April, and bears every year. But a year of abundance is generally followed by one, or even two, of comparative sterility. It has to be well manured every second or third year, in order to secure its fruitfulness. For this purpose the favourite manure is old woollen and linen rags, which are imported from Italy in boat-loads; and such rags! I verily believe that even our paper manufacturers would scorn them. A trench is dug round the trunk of the tree, at some little distance —about two feet deep, and three feet wide. In this trench the rags are placed; they are then soaked with liquid manure, and covered up with the earth—a process which no doubt destroys a vast amount of life. Although done by mere routine, this system of "arboriculture" is chemically judicious. Wool contains more nitrogen than most other animal substances, so that the rags must be, and are, valuable as manure.

The olive-berry ripens in the autumn, becomes black, and begins to fall off the tree in December and January. Some have the trees at once cleared by beating the branches with long canes. In that case the oil is not so abundant, but is of better quality. Others leave the berries on the trees for one, two, or three months longer; until, indeed, they nearly all fall off. The oil made from these berries is more abundant, but not so good. The olives are smaller than those which we eat pickled. The latter belong to another species of the olive-tree, which is principally cultivated in Spain.

Picking the olive berries from the ground underneath the trees, is quite an occupation with old or infirm women, and with young girls. They earn about sixteen sous (8*d.*)

a day, and their labour contrasts strikingly with that of the strong, ruddy, orange and lemon girls. Many, no doubt, commence as the latter, strong in youth and health, to end by olive-picking, once the heyday of life is over. The poor olive-pickers, clad only in thin cotton dresses, are apt to become rheumatic, from kneeling so long over the ground, at times damp from the winter rains. Such, too often, is youth and age in the working classes in all countries.

The olives, once gathered, are taken to the olive-mills, where they are crushed, and the oil is extracted. These mills are picturesque buildings, situated in the ravines, in order to command water. In some water is used alone, in others combined with horse-power. The olives are crushed by stone rollers; the pulp is put in stout cylindrical baskets, saturated with hot water, and subjected to great pressure. The water thus squeezed out carries the oil with it to vats, where it floats on the top and is skimmed off. The water, when it has thus done its duty, is of a dark brown colour, and is constantly seen coming down the ravines, colouring the water-course.

The olive oil is often stored in large, elegantly-shaped jars, quite large enough to contain a man hidden. On looking into a warehouse and seeing these large jars ranged in rows along the wall, I am always reminded of the eastern tale of "Hadji Baba and the Forty Thieves." These were evidently the identical jars in which the thieves concealed themselves during the night, and were exterminated so cunningly by Fatima.

The hard roots and wood of the olive-tree constitute the only fuel used at Mentone, the cooking being principally carried on by means of charcoal, as in France. The native population, however, seldom make fires, except for

culinary purposes. They trust entirely to warm woollen garments even on the few really chilly days when the summits of the surrounding heights are white with snow, and glisten in the sun like the snow-capped mountains of Switzerland or the Tyrol.

Even strangers from the north, accustomed to large coal fires, or to stove-warmed rooms, for a great part of the year, seldom think of lighting a fire in a south sun-exposed room until evening, and then often more for companionship than from absolute necessity. On the exceptional cloudy and cold days, however, the "baskets" of olive-roots and branches disappear rapidly. They do their office, too, and warm us; whereas, in our own climate, such fires would be of no avail, a mere delusion.

Thus, in descending from the north, we have at last reached a region sufficiently sheltered and sufficiently near to the sun, for its rays to produce warmth enough to support human life with no other artificial assistance than that of clothes. We no longer require the dense forests of more northern and more fertile regions. We are no longer dependent on the vast coal fields, which the earth contains within its bosom, the remains of the dense vegetation of former periods of the world's history, the fossilized sun-beams, as it were, of ages far, far distant.

Another evidence of the exceptional warmth of the winter climate is the presence of large euphorbia bushes and of large carouba-trees. The euphorbia in this region becomes a shrub, with a ligneous stem. In many of the more protected regions the euphorbias grow as large as rhododendron bushes. At Nice I only found them as luxuriant in one spot, the south-east side of the castle hill. In Italy the latitude of Southern Sicily must be reached to find them equally flourishing. They are singular plants,

and grow in the most arid spots, on heaps of stones on the seashore, in the crevices of rocks, yet with a vigour and luxuriance which is perfectly surprising. Their growth seems to begin with the autumn rains, when they throw out a mass of light-green terminal leaves. They then produce numerous small yellowish-green flowers throughout the winter, early or late, according to species. The secret of the luxuriant verdure, under a burning sun, in the most arid spots, of such a mass of delicate foliage, is the existence of a kind of caoutchu in their white acrid juices. This gum prevents the evaporation that would take place from the leaves, and which would soon dry up the foliage of a plant growing under such circumstances, without some peculiar protection. The white milky sap of the euphorbia is poisonous to man. I recollect reading about cases of poisoning at Malta, attributed to drinking the milk of goats that had fed upon them.

The elegant white silver-leaved cinerea maritima is found abundantly in the same localities. It grows from crevices in sheltered rocks, generally in the immediate vicinity of the sea, and often attains the size of a large bush. This pretty shrub has been introduced into our conservatories and summer gardens for the sake of its foliage, since the taste for foliage plants has become so general, and it is pleasant to find it in its native clime.

The carouba, or locust-tree, is really one of the glories of this and of other barren but warm regions in the south of Europe. It is a beautiful evergreen tree, vigorous, fresh, and graceful, with an abundant light-green foliage. It grows in the most stony, arid, and burnt-up places; on rocks and on mountain sides where there is scarcely a particle of soil, and where its very existence is a marvel, a problem, a source of positive surprise and exultation to

the beholder. Indeed, the carouba may be considered an emblem of evergreen vegetation, and a perfect botanical demonstration. Such a tree cannot live from its roots, for they often only bind it to the rock on which it grows, by creeping into crevices, and laying hold of every inequality of ground. It must live in a great measure by its leaves, as most evergreens do, to a very considerable extent. The carouba-tree bears beans in pods, very useful for the nourishment of cattle. Each tree is said to produce, one year with another, twenty francs' worth of fruit. These beans have of late been introduced into England as food for cattle.

The existence of the carouba explains why vegetation is principally evergreen in arid rocky spots, where there is little or no soil, and where that little is in a great measure formed by the pulverization of rocks, or contains but slight nutritive elements, as sand, for instance. The scanty or poor soil will not feed plants that only bear leaves for a few months in the year, wherewith to extract nourishment from the air. So nature supplies their place by evergreens, which have all the year round millions of lungs, in the shape of leaves, pumping nourishment, in the form of carbon, from the air. In northern climates, in high latitudes, in arid sandy soils, it is the evergreen conifers or fir tribe, the heaths, and the hollies, that thus apply to the air for the nourishment refused to them by the soil. In southern latitudes, such as Mentone, it is the orange, the lemon, the olive, and higher up, in cold mountain regions, conifers again, as in the north, that play the same part. Thus is explained the fact of the vegetation of the Mentonian amphitheatre, a mere rocky mountain-side, being nearly all of an evergreen character. No other kind of vegetation could live and thrive there. The few deci-

duous trees, such as oaks, planes, and willows, that are found, are principally met with along the margin of the torrents as they approach the sea, where alluvial soil has been deposited.

Along with the carouba may be mentioned the lentiscus, as peculiarly indicative of a dry, sunshiny, southern climate, and of a rocky, arid region. It is an evergreen shrub, which grows freely in the same regions as the carouba, flowering during the winter, and is very abundant between Nice and Ventimiglia, indeed all along the Riviera. I found it even more so in Corsica, where it contributes to form the maquis, or brushwood. It forms, I believe, one of the chief botanical features of Palestine and Syria.

Above the olive-tree elevation, that is, above 1800 feet or thereabout, pines only are met with naturally, although fruit-trees, apples, pears, cherries, and vines are cultivated; as for instance around St. Agnes, a mountain village. The pines occupy the higher regions of the lower hills, and climb up the base, and, where not too precipitous, the sides of the highest or back mountain range. From the shore level they appear mere shrubs, owing to the great elevation, but once they are reached, they prove to be respectably-sized trees. Still these pine forests certainly contain no timber "fit for building men-of-war," as a member of the House of Commons stated during the debate on the cession of Mentone and Roccabruna to France. They contribute but little to the wealth of the country, and are only used as firewood, and for building purposes.

The rarity of deciduous trees gives a peculiarly smiling, cheerful, summer aspect to the entire district, with its hills, ridges, and valleys, even in mid-winter. In no part

of Italy that I have visited have I observed the universal winter verdure here witnessed. Even the far-famed bay of Naples, as seen from the sea, on entering, offers to the traveller nearly as winterly an aspect in December as England or France. The high ground of Ischia, and of the continent, presents numerous naked fig trees and vines, the aspect of which is very different to that of the green trees that cover the Mentonian amphitheatre. We meet with winter verdure in our own forests of Scotch or spruce firs, but then the winter sky is generally sombre, filled with masses of lead-coloured clouds, and the sun is obscured. At Mentone, on the contrary, the sun mostly shines, and generally throws a greater glow on the landscape in January than it does on our evergreen forests in July. The verdure at first appears rather sombre, as it is principally formed by the olive woods, the orange and lemon-trees generally hiding in the valleys, but the eye gradually gets accustomed to the hue. In the eastern bay, on the open hillside, however, as we have seen, there is quite a grove of light-green lemon-trees.

Owing to the absence of frost in all but very exposed situations, many of our English garden flowers, which are cut down by the first frosty night, continue to flourish and bloom all the winter through. This is the case, for instance, with the geranium, the heliotrope, the verbena, the nasturtium, the salvia, and some kinds of roses, including the China tea-rose, which continue to flower throughout the winter in many gardens. The nasturtium, an annual with us, becomes a perennial ligneous shrub, as in Peru, its native country. So does the cobæa scandens, which has a ligneous stem, and flowers continuously in winter. There is a large one, answering to this description, on a south wall on one of the terraces of the new

Casino at Monaco. There are also in the gardens many flowers peculiar to much more southern climates, which bloom throughout the winter.

Wild, sweet-smelling violets appear about the middle of December in the warmest spots. By the end of January they have become a weed, flowering from the crevices of every wall, along every path, and in every torrent-bed that the sun reaches. The delicate lycopodium of our hot-houses and conservatories replaces or accompanies the mosses of our climate, growing freely in all damp places throughout the winter. Wild anemones of different species, some of which are very beautiful, begin to blossom in December or January. They are rapidly succeeded by daffodils, narcissuses, hyacinths, tulips, gladiolas, hepaticas, and primroses. All these flowers are found wild, but only in certain regions known to "the initiated" and to some of the donkey women. The white alyssum, which we use for garden edgings, is very common, and flowers throughout the winter, as does a large species of daisy.

Mignonette grows wild in some localities, on the terraces of the eastern bay, for instance, but it has but very little odour, unlike the sweet-scented species (*Reseda odorata*) of our gardens, which is a native of the opposite, or African shore of the Mediterranean. The pepper plant, a tropical shrub, thrives and produces fruit abundantly; a fact in itself evidence of a warm climate. It is a deciduous plant, and losing its leaves early in the autumn, merely to regain them late in the spring, it does not contribute at all to winter decoration. There is a pepper-plant root, growing out of a terrace behind the Pension Anglaise, which is said to have been there at least three hundred years, as proved by authentic records. The

pepper-tree, a different plant, is cultivated in gardens, on account of its foliage. It remains in leaf during all the winter.

Succulent plants thrive wherever planted, but, with the exception of the stonecrops, do not grow wild. The mesembryanthemums are peculiarly luxuriant in their growth, and brilliant in their bloom. The absence of winter frost, the heat and dryness of summer, and the heavy rains of autumn and spring, seem rather to assimilate the climate to that of their native country, the sandy plains of the Cape of Good Hope. They are generally in flower by the end of April.

The prickly pear (*Opuntia vulgaris*), the commonest of the cactaceæ in Europe, flourishes in this climate as well as in the rocky mountains of Mexico, its native country, as may be seen by the thriving specimens at the entrance of the town.

The aloe is equally at home in this district, indeed throughout the Riviera. But at Mentone it does not seem to be appreciated as at Nice, where many magnificent specimens are to be seen. Indeed, the Mentonians do not appear to value landscape gardening, or gardening of any kind. Very few flowers are cultivated, except for preparing perfumes, or in the gardens attached to the houses let to strangers. They seem to think it a loss of time to bestow labour or trouble on anything that is not destined to be consumed as food. This complete absence of the intense love of flowers and ornamental gardening which pervades all classes in more rigorous climates, characterizes Southern Europe—Italy, France, and Spain. Where do we see the rose, the clematis, the jasmine, climbing over the peasant's cottage as in England? I have been told that one reason is the difficulty of keeping plants

alive and flourishing without watering, during the long summer droughts, and the difficulty and expense of finding water. But this does not apply to the aloe or the cactaceæ, which delight and thrive in the driest regions. And what can be more grandiose than the immense aloes seen in the vicinity of Nice, vegetable giants, one of which is often as large as a small house! Is there not also great interest in watching the large flower-spike which, after the aloe has lived a long life of dignified repose, shoots up in a few weeks, on a stem like a small fir-tree, from fifteen to thirty feet high, utterly destroying, by its rapid, exhausting growth, the parent plant? Every winter many of these destructive children may be seen rising from their unfortunate parents, doomed to die with their offspring, among the aloes at the Château of Nice. At Monaco there is a regular garden of young aloes on the terrace, but they are smaller, and of more recent growth.

The lily tribe, to which the spiny aloe belongs—unlikely as it may seem to the non-botanical observer—has another representative at Mentone which covers the terraces in February with white clusters of lovely flowers, and which we can also claim, the common garlic. To the same natural order belongs the asparagus, which grows wild in this district, as it also does in England.

The oleander, or rose laurel, as the French call it, with us a stove plant, grows in the open air to the size of a small tree. It may be seen both along the western and the eastern bays, along the sea-shore. It flowers in the summer and early autumn, and as neither its habit nor its evergreen foliage are remarkable, it does not attract much attention. The tamarisk, with us a well-known sea-side shrub, also becomes a small tree with a good-sized trunk. As with us, it loses its foliage in winter, but regains it

early in April. There is a row of these tamarisk-trees skirting the beach in the western bay. They grow in the shingle that forms the beach, a few feet from the sea, thus illustrating, as in the north, their peculiar marine sympathies. Some plants, like some men, thrive anywhere, are cosmopolite, whilst others flourish only in their native soil, under special conditions, and without them pine and die.

As illustrative of the cosmopolite plant may be mentioned the friend of our childhood, the common blackberry, which we are glad to welcome even at Mentone. In the warmest, wildest, and rockiest regions it grows as vigorously, as joyously, as in any quiet lane in England or Scotland. Only, in such situations it becomes an evergreen—in this sense, that it does not lose one set of leaves until it has got another. It is, in truth, a singularly hardy plant, with a most peculiar power of adapting itself to circumstances. All climates seem to agree equally well with it—hot or cold, rainy or dry, maritime or inland, plain or mountain. I have never been to a spot in Europe where I have not found it, from Sutherlandshire to the south of Sicily. I must, however, confess to a certain degree of surprise when I saw this favourite of our shady English lanes growing at Mentone with wild and determined luxuriance, filling up the bed of dry torrents, climbing up trees to a height of twenty or thirty feet, and choking passages between lemon terraces on the mountain-side; and that in regions where it often does not rain in summer for six or eight months together, and under the glare of the fierce Mediterranean sun. Certainly it must have a mission to fulfil; and perhaps that mission is to supply a grateful fruit to the children of the very poor. The days when they go blackberrying are truly

festive days to them, and but few are the fruits they can obtain in our northern climates. Its sight is always welcome, as is all that reminds the sojourner in foreign lands of his native country, and of the haunts and pleasures of his early days.

The firs which cover the sandy hills, and climb up the limestone mountains, are principally the pinus maritima, the commonest conifer on the coast of the Mediterranean. They do not attain any very great height, but are healthy and flourishing. In one spot, near the "Cercle des Etrangers," in the western bay, are some very fine specimens of the stone or umbrella pine, the classical pine of Italy. One, more especially, a very beautiful tree, throws up a tapering stem surmounted by an immense umbrella-like mass of brilliant deep green foliage. There is something peculiarly Italian in the appearance of this noble tree, with its canopy of rich green leaves extending table-like. In Italy it is so often a prominent feature in the landscape, that it becomes associated in the traveller's mind with the monuments and ruins indelibly stamped on his recollection. Indeed, when sitting under the shade of these trees, the deep blue sea at our feet, the clear sky above, and the sharp clear outline of the adjoining mountains around, it is impossible not to feel that we really are in Italy—notwithstanding diplomatic annexations.

The deciduous trees are principally planes, willows, and fig-trees. The willows line the margin of some of the larger torrents as they approach the sea. The planes are planted in two avenues, for the sake of the dense and grateful shade they give in summer. One avenue is the main road from Nice, and is continued into the town ; the other is along the banks of the torrent which descends from the mountain by the side of the Turin road, in the

valley "du Carei." This latter is the principal summer promenade of the inhabitants.

The oriental plane has been cultivated from time immemorial in Asia Minor and in Greece, and from the time of the Romans in Italy, but for its shade only, the wood not being valuable. In former days it was treated with great reverence and respect. No tree in these climates can be compared to it for beauty and density of foliage in summer. In the south of Europe, and in the East, it is hardy and vigorous, attaining very great size, and flourishing in the midst of towns. This latter power it owes, in part, to its habit of shedding yearly part of the bark; it thus, as it were, gets rid of its soiled outer garments, contaminated by the town atmosphere. The resistance of the plane tree to city influences is well exemplified at Toulon. The dense and healthy grove that casts so impenetrable a shade on the "Place" in the very centre of the town, is composed entirely of planes. Owing to this tree bearing the pruning knife as well as an English holly, in towns the top branches are generally clipped back, ruthlessly, when spring arrives, so that they may form, by their new shoots, a regular canopy of verdure. Many of my readers have no doubt been awakened at early dawn by the chorus of innumerable birds that frequent the verdant groves of the market-place at Toulon. A similar chorus may be heard each evening in the trees which grow in the market place near the eastern bay at Mentone in the autumn and early part of the winter; indeed, until the leaves have fallen.

These trees do not lose their leaves until the nights become cold, so that they are often preserved until the end of December. The ball-like capsules which contain the seeds remain hanging from the terminal branches all

winter. They are larger than in the American plane tree, which we cultivate with success in England, and which, like the oriental, bears well the atmosphere of towns, as may be seen in Berkeley Square. The pruning takes place early in March. The new flowers and leaves appear in April, the former preceding the latter. The oriental plane tree, although quite at home, does not appear, however, to reach its full size in the south of France and Italy. There is a plane in the Gulf of Lepanto in Greece, the trunk of which is forty-six feet in circumference; and one on the Bosphorus, the trunk of which is one hundred and forty-one feet in circumference at the base. De Candolle thinks it must be two thousand years old, and that it is one of the largest trees in the world.

Fig-trees thrive, as everywhere else in Italy. Fortunately, however, for the lovers of the picturesque, they are not very numerous at Mentone. They lose their leaves early, by the end of November, and do not regain them until April, and their clumsy, graceless, weird-like branches, are anything but ornamental during the winter. The fruit is of first-rate quality.

In early spring a very familiar plant shows its large, velvety, mealy leaves, in many places, on the road sides, at the bottom of walls—the verbascum. At the same time appears in great abundance and luxuriance, in the same regions, a large, elegantly-variegated white and green thistle. They both are in flower early in April, as also is the antirrhinum, or snapdragon, which is found wild on the warm terraces. It belongs to the same natural order as the verbascum, that of the scrophulariaceæ. This is also the time when the elegant little grape hyacinth, the star of Bethlehem, the cistus or rock rose, the prickly

broom, the cytisus, and many other beautiful flowers are in full bloom, and transform the ravines and terraces into regular gardens. I must not either forget to mention the orchids, of which many different kinds are found—the fly orchis, the spider orchis, the orchis lutea, the long-bracted.

The vegetation of course varies according to the nature of the soil. Some of the lower hills are of sandstone, which impresses on the flora its peculiar character. The trees are pines; the shrubs, the arbutus, the myrtle, the juniper, prickly broom, mountain lavender, and heath. At Christmas, our common ling heath is in full flower. Another very beautiful heath—the Mediterranean or herbaceous heath—flowers in February and March. It has an erect stem, which rises to the height of five or six feet, and its spikes of numerous white flowers are very lovely.

A species of evergreen creeping smilax, or sarsaparilla, with variegated triangular leaves and groups of red berries, is very common. Our old friend the ivy is constantly met with in the valleys and watercourses, wherever the soil contains lime. Ferns are very numerous throughout the district, and their growth is favoured by the peculiar structure of the terraces. The walls by which these terraces are bounded are formed by the simple superstructure of large stones, and the earth gradually filtrating into their interstices, forms a cool, damp bed, admirably adapted to their growth. All the old terraces are clothed with the ceterach fern, the asplenium trichomanes, and the asplenium adiantum nigrum, which, with the capillus veneris, or maiden-hair fern, are the most common. The latter is a mere weed, and waves its beautiful fronds near every tank, every brook, every small irrigation canal—

indeed, wherever there is either running or stagnant water. The pteris aquilina, or brake fern, is common, but it is a summer fern, as with us, its fronds only appearing in April, when the invalids are preparing to migrate northwards. The scolopendrium, the polypodium vulgare, the ruta muraria, the asplenium Petrarchæ, the asplenium fontanum, the grammitis, and the cheilanthes odorus, are less universally distributed, although by no means uncommon. On the whole, I found twelve different species of ferns, most of which are also met with in England. I was rather surprised in the summer that followed my first winter at Mentone, to find the asplenium trichomanes growing with equal luxuriance on the ruins of an old chapel in a solitary islet at the northern extremity of wild and beautiful Loch Awe, in the far north, on the west coast of Scotland.

Nearly all the cultivated vegetation of the Mentone amphitheatre—lemon, olive, and orange-trees—except what is found on the narrow seaboard, grow on terraces, built or excavated on the side of the mountain; these terraces are the product of the labour of many ages. The mountains and hills rise too rapidly from the sea level for even olive-trees to grow without this preliminary step being adopted to support and form the soil. A terrace is a ledge cut in the hill side. The stone taken out of the hill forms the outer wall, the dust, the broken stones, and a little earth brought from some other region, form the soil. These terraces are very expensive to make—as much so, I have been told, as houses; whereas the product is prospective only. The man who builds them sinks his capital more for his children's benefit than for his own. If he plants lemon or orange-trees, he must also dig a large tank, and be able to get water to fill the tank, in order to irrigate

them in the rainless summer. If he plants olive-trees, they grow so slowly, that even in twenty years the produce is insignificant. The stones, also, have to crumble into soil, under the influence of moisture, wind, and weather, and manure has to be added, before the terrace can produce the green crops which are generally planted on those occupied by young trees.

And yet the mountain-sides are scarred with these terraces, which rise in successive tiers, and are the foundation of the agricultural riches of the country. They are the evidence, in stone, of the thrift and industry of past generations—a silent but eloquent monument of the domestic virtues of the forefathers of the present race.

CHAPTER III.

GEOLOGY.

THE CRETACEOUS OR SECONDARY PERIOD—THE NUMMULITIC OR TROPICAL PERIOD—THE BOULDER DRIFT OR GLACIAL PERIOD—THE BONE CAVERNS—PRE-ADAMITE MAN.

AGRICULTURAL GEOLOGY.

"There rolls the deep where grew the tree,
O earth, what changes hast thou seen!
There where the long street roars, hath been
The stillness of the central sea.

"The hills are shadows, and they flow
From form to form, and nothing stands;
They melt like mist, the solid lands,
Like clouds they shape themselves, and go."

TENNYSON, *In Memoriam*, cxxii.

THE geological features of the country are very interesting, and much may be observed in a small compass. The high range of mountains which form the amphitheatre belong to the lower cretaceous rocks, and are composed of stratified limestone. The stratification is generally easily recognised, but it has been partly effaced in some localities by igneous action. At both the eastern and western extremities of the Mentone bay this formation juts out into the sea. At the eastern extremity, the road to Genoa is cut out of the side of the mountain, and ascends to a great elevation, crossing a deep ravine in the limestone by a bold bridge, the Pont St. Louis.

A short distance on each side of this point are observed some of the upper cretaceous strata which replace the chalk formation in Italy. They form, according to my learned

CHART OF THE STRATA BETWEEN MONACO AND BORDIGHERA.

BY PROFESSOR H. D. ROGERS.

	Names of the Groups and their English Equivalents.	Aspect of the Strata.	Descriptions of the Strata.	Approximate Thicknesses.	Physical Conditions and Events indicated by the several Formations.
Cainozoic or Tertiary.	Pleiocene Conglomerate.		A very coarse conglomerate, in thick, massive beds, pebbles of all sizes, 1 in. to 2 ft. in diameter; at Roccabruna and Ventimiglia.	Apparently 600 or 800 ft. thick.	This very heterogeneous mixture of rounded, far-transported fragments, some of them derived from the high Maritime Alps, betokens a period of very energetic action in the earth's crust in all this region.
	Pleiocene Clays.		Beds of blue and whitish clays, fine in texture, with many pleiocene fossils, all of a *marine type*, near Ventimiglia.	Probably 200 ft. thick.	These beds imply a period of long repose in the sea, probably that which ensued after the meiocene volcanoes of Central France had become torpid.
	No Meiocene nor Upper Eocene.		Both meiocene and upper eocene absent.	Meiocene in Switzerland, 2000 ft.	The non-existence of these formations along this part of the Mediterranean region indicates *dry land*, when the meiocene plain of Switzerland was all under water.
	Middle Eocene. (1540 ft. thick in England.) { The Bagshot, Headon, & Osborne Strata of England.		A blue fossiliferous, easily fractured limestone, replete in fossil nummulites of at least four species: is a rock easily dressed, and is in much demand as a good building stone; above St. Louis Bridge.	Does not exceed 400 or 500 feet.	This thick-bedded, massive, fossiliferous limestone shows, in its uniformity of texture, abundance of organic remains, and its almost total freedom from water-strewn sand or clay, that it was the deposit of a very long and quiet period. Being unconformable on the cretaceous strata, as the upper eocene and meiocene are absent, it indicates a resubmerging of some wide tracts of the district beneath the sea, and a period of prolonged quiet, in which the sea's bed abounded in animal life.
	No Lower Eocene. { Which in England is 730 ft. thick.		A total blank as to strata in this part of the series.	In England 730 ft.	The absence of this group shows that the cretaceous sea-bottom was now dry land, until the middle eocene or nummulite sea covered it.
Mesozoic or Upper Secondary.	Upper Cretaceous. (Equivalent of the White Chalk and Chalk Marls of England.)		A succession of thick beds of rather loosely-cemented, yellowish-grey sandstones, some of them pebbly, and the pebbles more or less angular, and of very miscellaneous mineral characters. Between the St. Louis rocks and Ventimiglia, and inside the Mentone amphitheatre.	Probably between 2000 and 3000 ft. in thickness.	This very arenaceous group, containing no hitherto discovered organic remains, is of somewhat doubtful geologic age; but as it seems to overlie, with true parallelism or strict conformity, the "cretaceous shales," we cannot go far astray if we regard it as "upper cretaceous." Its pebbles denote an interruption to the long repose of the preceding periods, and thus it appears to foreshadow those prodigious disturbances of the earth's crust which attended the cessation of the Mesozoic ages, and the coming in of the Cainozoic with an almost wholly altered physical geography.
	Middle Cretaceous. (Equivalent of Upper Greensand and Gault of England.)		A group of grey and blue argillaceous and sandy shales, imbedding thin laminæ of micaceous sandstone, more or less replete in the "cretaceous greensand;" including also some beds of argillaceous limestone, imbedding layers of nodules of genuine "*chalk flint*," as above.	Probably about 2000 ft. thick.	These deposits contain fossils, and the materials all indicate a long period of quiet sedimentary action, when the bottom of the ancient cretaceous ocean was receiving widely-wafted very fine clay and mica and sand, and the chemically concreted greensand, or green granules.
	Lower Cretaceous. (Equivalent of Lower Greensand and Wealden beds of England.)		A pale pinkish, very fine-grained limestone, in some beds so full of minute globular animal organisms as to cause the rock to closely resemble a much indurated *oolite*, constitutes the framework of the district — the large mountain masses.	Perhaps 1000 ft. thick.	These strata being very full of minute marine animal fossils, and being, moreover, very little laminated, were evidently formed at the bottom of a deep sea during a period of prolonged repose of the underlying earth's crust.

friend, Professor H. D. Rogers, of Glasgow University, a group consisting 1st, of blue shales, with intercalated thin layers of micaceous sandstone, sometimes abounding in the so-called green sand, eminently characteristic of the lower cretaceous strata; 2nd, of a coarse, usually very thick bedded sandstone, often conglomeritic, intercalated, in its upper part, with beds of shale like those of the group that underlies it.

Above these upper secondaries commences the tertiary system by a well-developed nummulitic limestone, full of nummulites, which in certain localities is overlaid by argillaceous strata, and these by a remarkably coarse conglomerate, both of the pleiocene age.

These strata are observed on both sides of the Pont St. Louis, in the same order, eastward towards the town of Ventimiglia, and westward to Roccabruna, at the base of the Turbia ascent. At both these points appear the pleiocene clays and conglomerate. Thus the lower hills, which occupy the ground-plan, as it were, of the Mentone amphitheatre, represent from east to west, different strata between the lower cretaceous limestone and the pleiocene conglomerate. These secondary strata are also reproduced in the same order, between the St. Louis rocks and Ventimiglia, near which the tertiary clays and conglomerate are found equally well developed.

The age and geological position of these pleiocene strata are indicated by the fossils they contain. My friend, Mr. Moggridge, who has devoted much time and thought to the geology of this district of the Maritime Alps, has found, near Ventimiglia, many fossils in the clays which underlie the conglomerate, characteristic of the later pleiocene period. The accompanying chart, which Professor Rogers has kindly drawn for this work, will show at a glance the above details.

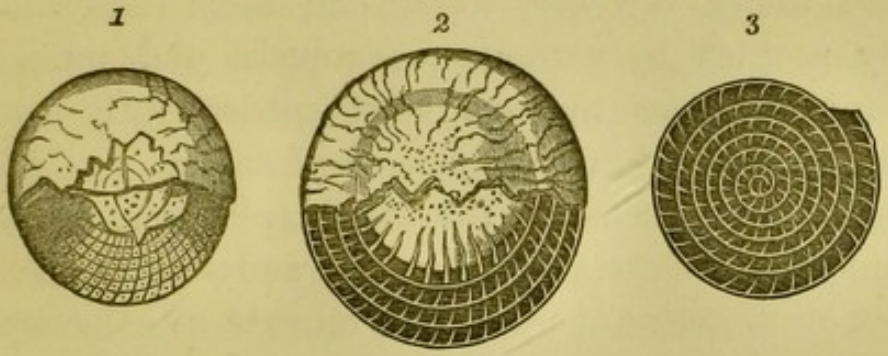
The conglomerate is magnificently developed both at the entrance to the Mentonian amphitheatre, on the Nice road, near the village of Roccabruna, and seven miles further on, at Ventimiglia. It is, indeed, one of the most interesting features in the geology of the district. The deposit is composed of large stones, rounded by water and friction, imbedded in calcareous gravel, constituting what has been termed pudding-stone, and is very extensive; it indicates a period of great convulsion, a period when the waters of the Mediterranean were probably thrown with terrific violence on the mountain masses which form the Maritime Alps in the far off background. Porphyry, and granite stones of large volume, are common in this conglomerate, and these formations are only met with at a considerable distance from the Mediterranean coast.

The village of Roccabruna is built on the conglomerate, which ascends much higher on the sides of the mountain along the Nice road. Tradition says, that Roccabruna was once some two hundred feet higher up the mountain side, but that a gigantic land-slip occurred, and that the bed of boulders on which it was built descended bodily to its present position. I much doubt, however, the veracity of this the popular view as to the original habitat of the "brown rock" village.

The various geological formations observed in the limited Mentonian amphitheatre bring home to us, "in words of stone," some of the most interesting phases through which the world has passed during recent geological periods. The word recent, however, must be understood to apply to periods separated from us by countless ages, and only recent as compared with the unfathomable periods of time during which the primary and secondary strata were formed.

The lower cretaceous limestone rocks, which form the

basis of the Mentonian amphitheatre, and the strata therein found that correspond to our chalk or upper cretaceous era, represent the highest or most recent formations of the secondary period of geology. The nummulitic limestone which crowns the St. Louis rocks, and which is being quarried for building purposes where the first descending eastern bend occurs, belongs to the eocene or tertiary formation.



NUMMULITES.

1, 2, Nummulites lævigata; 3, Section of do., showing its cells.

The nummulitic formation is not the earliest of the eocene period, but occupies a middle position. At Mentone the first or lowest eocene formation is not represented; nor are the upper strata of the eocene system, nor any of the miocene. They are all wanting, up to the pleiocene clays which underlie the conglomerate. At least such is Professor Rogers' view of the geology of this district, and the opinion of so able a geologist must have great weight. He considers, as we have seen, the shales and sandstones, which lie east and west of the St. Louis limestone lower cretaceous rocks, to be members of the upper cretaceous family, and not tertiaries, as is generally supposed.

There is a feature of great interest connected with the nummulitic limestone. It belongs, most indubitably, to the middle eocene, it was unquestionably formed under

salt water,—for the nummulites or coin-like shells which it contains are the shells of salt water testacea,—and yet this formation is found highly developed on the highest and most central portions of the Alps, the Carpathians, the Pyrenees, and the Himalayas. This fact alone would suffice to prove that these stupendous mountain chains are of comparatively recent formation. They could not have existed at the time the nummulitic limestone was forming under the sea, at a time when England was already peopled by various quadrupeds, and must have been raised above the sea level subsequently to that period, by some mighty convulsion of nature.

During the period of the earth's history when the nummulitic limestone was formed, and during the subsequent or miocene period, the climate of Europe was warm or subtropical. The vegetation was all but that of the tropics of the present day, as testified by the beds of lignite or wood coal belonging to this period, which are found in these strata. The animals of the tertiary period were the large and curious precursors of the present races. An idea of these animals may be gained by the specimens that have been so curiously reproduced in the gardens of the Crystal Palace. They were remarkable for their size and development, which indicated favourable conditions of material life, abundance of food, and a genial climate.

The sea and rivers were also peopled by exuberant and grandiose life, indicative of tropical warmth—large sharks and rays, turtles, dolphins, and such like. The nummulites, or coin-like shells, found in the St. Louis quarry, were living in boundless profusion in the warm seas. So abundant were they in the seas of those days that thousands of miles of nummulitic limestone, several hundred feet in depth, all but entirely composed of their remains, are found in some regions of the Old World.

Then, after the pleiocene period a dark cloud came over the earth. From some unknown cause its temperature lowered, and the glacial period set in. Part of Europe and Asia subsided under the sea as the climate became cold. Glaciers established themselves on the mountains of a considerable portion of what remained of the Europe of to-day, and on other regions now submerged, down to the 36th parallel of latitude (Agassiz). The tropical vegetation gave way to a northern flora. The tropical animals died out or emigrated to more southern regions, and were superseded by new forms of life more adapted to a boreal climate.

The material world went on as before, under the influence of the same laws. The rain, the frost, the air disintegrated the rocks, the detritus of which was carried by rivulets and rivers to the sea. These fragments, large and small, were rounded and polished both by the action of the waters that brought them from the heights, and by the action of the seas to which they were carried; as is the case with the shingle on modern shores. Huge portions of the glaciers, that reached the sea in many places, were broken off during the short summer. Covered with rocks, stones, and sand, which they brought from the mountains, in the ravines of which they were formed, they sailed out to sea. Tens of thousands of icebergs now sail every summer in the same way, into the Atlantic from the North Pole. On melting, their cargo of gravel—for of such is gravel—of boulders, and of large rocks, would be deposited at the bottom of the ocean.

After an incalculable period of time a change again came over our globe. The warmth of the sun again reached us, and the submerged portions of Europe, Asia, and North America, again began to rise; as also, no doubt, did regions which for the first time appeared above

the waters. This rise appears to have been gradual, as well as the improvement in climate which accompanied it. Thus by slow degrees the present state of the earth was attained.

Is the conglomerate at Roccabruna and Ventimiglia a true boulder drift; is it evidence of the glacial period having existed on this coast? Was it formed under water during the glacial epoch, when, no doubt, the mountains in the background were one mass of glaciers descending to the sea; when the polar bear roamed on these shores, and polar fish and shells inhabited these seas?

I long thought so, and have stated that it is so in the previous editions of this work. The pleistocene, glacial, or boulder drift period, succeeded immediately to the pleiocene, to which belong the underlying clays. The glacial influence extended below the forty-second degree of latitude, according to the best authorities. The Alps are just behind the coast-line, and at Ventimiglia itself there opens out a wide "glacial-like" valley, that of the Roya, which reaches to the foot of the Tenda, a mountain seven thousand feet in height, one of the highest of the chain of the Maritime Alps. During the glacial period the entire region now occupied by the Maritime Alps must have been one mass of glaciers, with prolongations down to the sea wherever valleys existed in that direction.

This valley of the Roya, which opens out just beyond where the conglomerate is found, has all the characteristics of a glacier-excavated valley, according to the most recent writers on the subject (Hooker, Lyell, Ansted). It is very wide, very deep, very steep. Indeed, it appears much more probable that it was excavated by the action of a glacier formed by millions of tons of ice, slowly descending to the sea, grinding its way through rocks and moun-

tains, than by the wearing power of the small stream that now occupies its centre. The stones, also, of which the conglomerate is composed, are all rounded by water action. Some of them are enormous blocks, and are formed, as stated, of granite rocks which must have been brought from the higher mountains, thirty or forty miles away.

My learned friend, Professor Rogers, however, thinks that I am mistaken in attributing this remarkable conglomerate to glacial action. He tells me that he considers it to be merely a conglomerate formed by water power, in some of the convulsions to which this region has been exposed in the later tertiary period. That these convulsions have been very great is proved by the great contortions, twistings and turnings of the various strata. The sea, he says, was thrown in immense upheaved masses against the high and more remote mountains, and on its return brought back with it the stones which form the conglomerate. These convulsions may have been synchronous with those that upheaved the mountain masses behind.

It is worthy of notice that the upheaval of the mountains, hills, and ridges along this coast have all taken place by movements in directions from south-east to north-west, and *vice versâ*—that is, along a line from the volcanic centres of Etna and Vesuvius to the extinct volcanoes of Auvergne, in France. The rocky summits, the crests of the stony waves, all trend at right angles to this direction.

Although there are no igneous rocks in this region, the evidence of igneous action is everywhere seen. In some instances the stratification of the limestone has been destroyed by its influence—in many the limestone has been crystallized in patches, transformed into marble. In some regions, as at the Cap Martin, it has been honeycombed,

fretted into holes and cavities, evidently by the action of steam. All these facts are evidences of the terrible convulsions to which this region of Europe was subjected in former periods of the earth's history, and especially during the tertiary era.

Thus, in this little Mediterranean bay, do we find various important phases of the earth's marvellous history stamped in indelible characters. On the east of the amphitheatre are rocks, the nummulitic, which point to sunny skies, warm seas, and exuberant life, existing, perhaps, with the same outline of back mountains, for countless ages. On the west are stones which possibly speak of polar cold, of gloom and barrenness, which also existed during countless ages. Around is the evidence of another era, the present; itself destined unquestionably to ultimate change.

The glacial period appears to have been general, that is, to have extended to both hemispheres, the tropics alone escaping its disastrous influence. The gravels and glacier-drifted boulders and rocks which testify to its existence, are found in Australia and South America, as well as in Asia, Europe, and North America. Most of the geologists who have studied the glacial period during the last few years have simply recognised and described it, without attempting to explain its causes. Various attempts, however, have been made to unravel this geological mystery. Thus, M. Babinet, of the French Institute, has advanced an astronomical explanation which finds favour with many.

Fixed stars, it is well known, are suns, comparable in all respects to the sun which forms the centre of our planetary system. Now some stars have proved "variable" within our astronomical range of time; that is, they have shone with variable brilliancy at intervals of longer and

shorter duration, or they have even disappeared totally for a time. Some well-known stars in ancient catalogues have disappeared entirely, and have never returned; they are lost stars. Lastly, some stars have appeared and shone with great brilliancy for a short time, and have then disappeared for ever. Such was the *Pilgrim* star, which appeared in 1572, shone as brilliantly as the planet Venus, and after a year disappeared. It is supposed that the variable stars are diminished in splendour or even obscured at times by the contact of matter existing in space, to which the name of "cosmic clouds" has been given, and which is neither comet nor planet. If our sun is a variable star, exposed to the periodical contact of such cosmic clouds, which would intercept light and heat, the glacial period is explained, and its return at some time or other becomes possible, if not probable.

It has been suggested by Colonel James, of the Ordnance Survey, that the changes of the earth's climate in geological periods may be due to changes in the inclination of the earth's axis, brought about by alterations in the crust of the earth gradually affecting the centre of gravity.

Professor Rogers thinks that at the end of the pleiocene period the land which separates the head-water of the Baltic from the Arctic Ocean was probably below the level of the Baltic. Now, even, it is only a few hundred feet high, and within historic periods there has been a continuous, although slight, upheaval. If such was the case the passage of a cold Arctic current, with icebergs, down the Baltic, may have modified the climate of Europe, so as to account for the glacial period, which the Professor considers to have been much exaggerated by recent writers. Similar views have been supported with great talent in a recent work, "Frost and Fire," by Mr. John Campbell.

These explanations are merely theoretical, and may or may not be correct. The fact remains, that the earth has undergone, within the limit of geological investigations, various important changes of climate that have reacted on life, such as are exemplified in the Mentonian amphitheatre, and that these changes have not been limited to the warm tertiary and cold glacial periods. Mr. Page, in his most interesting work on "The Past and Present Life of the Globe," p. 188, states his belief that similar warm and cold cycles must have existed during the earlier periods of the earth's existence. If he is right, he has discovered the existence of a law which must have repeatedly changed the earth and its inhabitants, and which it may be presumed is destined again to change it, in the ordinary course of nature.

The water which falls on the Mentone mountains, in finding its way to the sea, has excavated deep ravines, which expose the structure of the tertiary rocks. It has thus formed numerous narrow valleys, by which access is obtained to the higher mountains, and to three or four small picturesque villages therein built. These ravines constitute, as we shall see, an important feature in the sanitary history of Mentone. Owing to the backbone of the district, as it were, being limestone, the water is everywhere very hard, and the springs considered the purest are loaded with lime. Treated with oxalic acid, the water gives a most abundant precipitate, even when taken from springs in the sandstone rocks. I have had to meet this difficulty by giving distilled water, or rain water, or mild mineral waters, to some patients. In others the hardness of the water is evidently beneficial, as, for instance, in cases of chronic diarrhœa.

In the unstratified limestone rocks at the Pont St. Louis

are many crevices and caverns, similar to those which so frequently occur in the harder limestone rocks in general. These fissures and caverns owe their existence to various causes. Formed under water, and during their upheaval and drying subjected to pressure and heat, the limestone rocks have a tendency to split and to contract, and thus to form crevices and cavities. The presence of these fissures and caverns is often the evident result of the dissolving action of water on the soluble limestone rock, and of the infiltrations of subterranean springs or of rivers in days gone by. The formation of these caverns on a larger scale is illustrated in the limestone formations of Derbyshire, Carinthia, and Kentucky. The Mammoth Cave of Kentucky, the caverns of Adelsberg, in Carinthia, and the Devil's Cave, in Derbyshire, are cited amongst the wonders of the world.

On the shore, at the eastern extremity of the inner bay, in the "red rocks," as they are called, are several good-sized caves, which contain in great abundance organic remains—the bones of large and small mammifers—imbedded in hard sand and calcareous matter. The organic remains thus imbedded cover the floor to a depth of many feet, and are mixed with the flint weapons and utensils and knives, which have excited so much attention during the last few years; testifying as they do to the existence of races of savage men in far back pre-Adamite times.

The existence of flint weapons among the bones found in the Mentone caverns was first noticed, I believe, in 1858, by M. Forel, a Swiss geologist. He published, in 1860, a memoir,* in which he gives the result of his re-

* "Notice sur les Instruments en Silex et les Ossements trouvés dans les Cavernes à Menton." Moyes. 1860.

searches. M. Forel's investigations were principally made in the third and fourth caves, counting from Mentone. He found a great quantity of broken bones, shells, remains of crustacea, and pieces of charcoal. Along with these he discovered many fragments, splinters of flint, and also many arrow and lance heads, spear points, and triangular pieces of flint, evidently intended for knives. The bones belonged to stags, sheep, boars, horses, wolves, dogs, cats, rabbits, a large carnivorous animal, and one to the bos primigenius, a large bull which belongs to the glacial period.

During the winter of 1862 Mr. Moggridge continued these researches, with great care, in the second cavern, and among great masses of bones also found the flint instruments above enumerated, some of them in a perfect state. Pieces of charcoal were likewise found mixed with them.

The existence of these bone caves at Mentone, along with the geological features of the district, draws attention to one of the most interesting and difficult geological questions of the day. These flint instruments were evidently made by men, and by men to whom the first dawn of human civilization was unknown, who were living as savages now live in Australia. They knew how to make fires, as the pieces of charcoal show. They lived evidently in the caves, and destroyed the animals, the bones of which form its floor, by means of the flint weapons, feeding on their flesh. The question is, when did they live?

These bone caves have been found all over the world; and latterly, in many, as at Mentone, the bones of animals have been found mixed with flint instruments. That the latter have been made by the hand of man appears rationally undeniable, and the first conclusion was that these savage men must have lived in the early historic periods;

THE BONE CAVES.

for the Celts and early Gauls used flint and stone weapons and utensils.

A minute investigation of the facts, however, soon proved that such could not be the case. Firstly, these cave flint utensils are quite different to those used by the Celts and the early tribes of the Old and New World. Secondly, they were found in caves mixed up with the bones of animals existing long before the present era, in geological epochs before, during, and after the glacial period.

Thus, in a cavern at Kirkdale, in Yorkshire, have been found the teeth of two or three hundred hyenas. In this, and in that of Brixham, in Devonshire, and in other similar caverns, have been also found in abundance the remains of other races either totally extinct, or extinct in these climates, such as the tiger, the bear, the mammoth, the tichorrhine rhinoceros, the hippopotamus, and the Irish elk. These are races that existed in the warm pleiocene epoch—when the climate of Europe was sub-tropical; before the subsidence of continents and the formation of the glaciers that gave rise to the boulder and gravel drift above described.

These races appear to have been gradually or suddenly destroyed, or driven south by the glacial change. I say suddenly, for in some parts of the world the change seems to have been very abrupt. A mammoth, in the flesh, was dug out of the frozen shores of the Lena, in the north of Asia, some few years ago. Its actual flesh was eaten by dogs, after having been thus preserved probably for tens of thousands of years, and the skeleton and hair adorn the museum of St. Petersburg. The skeletons of Irish elks have been found in the same regions, buried in the frozen soil, erect, with their head thrown back, as if they

had been suddenly overpowered, suffocated by a snow-storm, and overwhelmed with mud and drift. The skeletons of mammoths are found in such quantities, preserved in the frozen soil of the north of Asia, that for centuries there has been a brisk trade in the ivory of which their tusks are formed.

If the silex weapons and utensils had only been found along with the bones of extinct animals in caves, doubts might have been raised as to their showing the trace of early races of men who lived when those animals lived, chased and destroyed them. They might have been left in those caves by men who inhabited them at a later period. But there is other evidence.

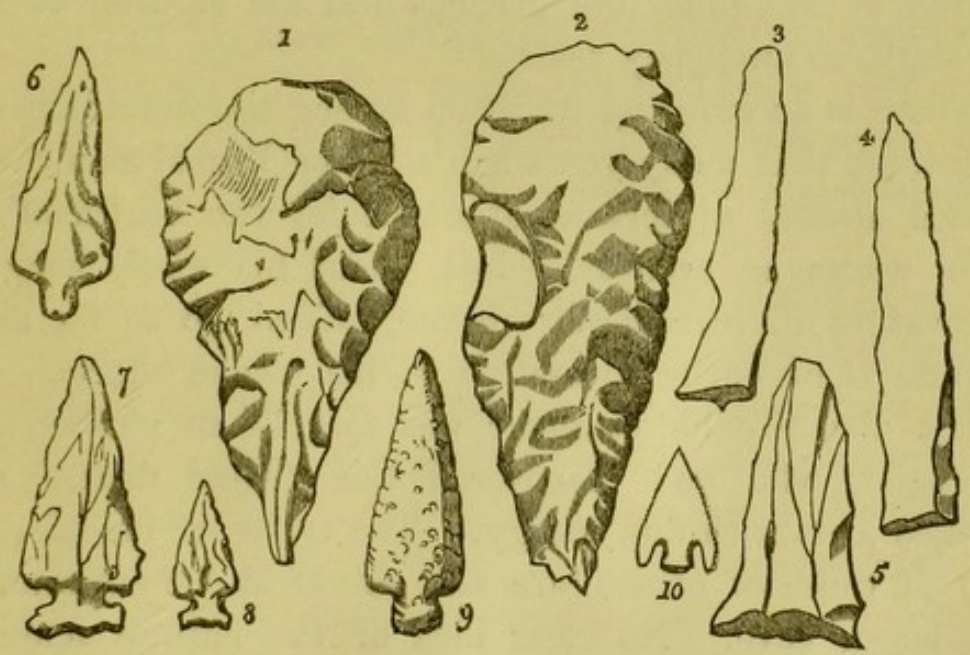
They have been found together in the open, in beds of gravel and drift, the geological antiquity and date of which are denied by no geologist. Indeed, it is in such a bed at Amiens that the bones of extinct animals and flint weapons—the trace of man—were first discovered, by M. Boucher de Perthès, in the year 1840. His first statements were met with indifference, if not disbelief; but the most thorough and conscientious examination of the facts he announced, on the part of all the leading geologists of the day, both English and continental, has recently led to their acceptance and confirmation.

If men in a savage state existed before and during the glacial period, along with races of animals long extinct, and if these were the men who made the various flint weapons and utensils found in the Mentone caves, the presumption is that the traces of habitation which these caves present belong to this far distant period of the earth's history. The St. Louis limestone rocks, in which the caves exist, long covered by the sea, were probably raised from its bosom in time to witness all the changes

that preceded and followed the glacial period, and the caves themselves may have been inhabited before the conglomerate or boulder drift of Roccabruna was formed.

In order to still further clear up the geological history of the Mentone cave deposits, it would be well for a museum to be formed at Mentone, and for the bones and flint utensils found in them by geological amateurs to be therein collected for future investigation. Otherwise their treasures will soon be rifled and thrown away by amateur enthusiasts, zealous in delving and digging, but not sufficiently learned in the knowledge of fossils to interpret what they find.

Future inquirers, in their research for flint weapons and utensils, will find the accompanying wood-cut valuable. It is reproduced from Mr. Page's work, already quoted.



PRE-ADAMITE FLINT INSTRUMENTS.

1, 2, from Valley of Somme; 3, 4, 5, England; 6, 7, 8, Canada; 9, 10, Scandinavia.

Having said so much on the presumed pre-adamite race of men, I must not leave the subject, new, perhaps, to

many, without remarking, that these investigations have been accepted by many of the most eminent geological divines. It is felt, humbly, that what is true cannot be contrary to Scripture, although we may not be able *now* to see the link, the concordance, and that geology may continue its researches into the past history of the earth, and even of the human race, without fear or scruple. The concordance will most assuredly come. I would also add, that up to the present time there has been no discovery of human bones under such circumstances as to prevent doubt or cavil, although several presumed discoveries have been brought forward. This is, at present, one of the difficulties of the question. Scientific men, however, are on the look-out, and expect from day to day to discover them. We may, therefore, join in the search at Mentone, and perhaps find the solution to this mystery, so anxiously desired.

There is an amusing tradition among the inhabitants of Mentone, that many years ago a "mad Frenchman," who passed several winters at Mentone for the health of his wife, whom he eventually lost, spent his whole time in excavating these caverns. Some, indeed, go so far as to impute their entire formation to his insane efforts. No doubt the French stranger was merely an enthusiastic geologist, who had discovered the "bone drift," and worked at it with due energy. The traces of his labours, and of those of others, are still found at the entrance of the larger cave. No clear idea of the natural sciences has penetrated as yet among the peasantry at Mentone. When botanizing, I have been often good-humouredly asked if I was looking for a salad, and told that the herbs I had collected were not fit to eat, whereas such and such others were very good.

As we have seen, several of the lower or secondary hills enclosed in the amphitheatre are formed of a loose sandstone. With this exception the soil may be said to be principally of limestone formation, with here and there aluminous clays. The agricultural geology of the district is consequently exceedingly interesting, offering much to observe in a very limited area.

The clay strata, in their natural unworked state, appear, as elsewhere in Italy, very sterile. The sides of the deep ravines worn in them by mountain torrents present very little natural vegetation; as may be seen in the upper part of the Gorbio valley, and to the east of the mountain village of Castellare. Where, however, the fall is not precipitous, and especially where terraces have been formed, and the soil has been worked and manured, the clay strata appear to become very productive. This is easily explained, as clays contain the potash, lime, and other salts necessary for vegetation, and everywhere merely require cultivation and irrigation to become fertile.

The sandstone hills are more naturally fertile than the clays, to their own peculiar vegetation—conifers, heaths, and brooms—but do not offer the same resources to cultivation. The soil being principally silicious, and containing in very small proportion the salts and mineral constituents required for cereals and the vegetation of good land, it does not appear to become so easily fertile under cultivation. Still, with the help of terraces, irrigation, and manuring, it seems to respond to the wants of the evergreen olive, lemon, and orange-trees.

The hard stratified limestone which constitutes the Mentonian basin, and of which the higher range of hills

is mainly, if not entirely composed, by its decomposition forms a very fertile soil. Indeed, the gradual disintegration of this hard marble-like rock admirably illustrates the formation of soils in the early period of the earth's creation. Like limestones in general it contains, locked up in its all but adamantine structure, most of the mineral elements necessary for vegetation, including iron. The presence of iron is at once apparent from the red hue of the more perpendicular rocks. When a fracture occurs, the fracture is at first white, but from exposure to the air the iron passes to the state of the red peroxide, in which state it is well known to greatly increase the fertility of soils. Hence the red hue of the rocks which bound the inner bay near the Pont St. Louis, and of the soil generally, formed by the detritus of these rocks.

At the foot and on the sides of the limestone rocks are vast masses of stones and detritus that have fallen from the cliffs adjoining, broken off by the combined action of moisture, sun, and wind. These gradually crumble where they lie, yielding up their mineral constituents, and forming a suitable nidus for seeds sown either by the hand of Nature or by that of man. If the lemon or olive is planted, it grows at once vigorously and healthily. If vegetables and cereals are sown, they appear to be equally at home. The numerous terraces recently constructed on the side of the mountain, and at the foot of the cliffs near the St. Louis ravine, and the self-sown plants growing naturally in the same region, illustrate these facts. Thus, no doubt, was the soil of the habitable globe formed when its mountains first reared their heads above the waves.

From what precedes, it will be at once understood that the vegetation of the Mentonian amphitheatre, except that of the sand hills, is what may be termed a lime vegetation.

In other words, the plants that thrive the best are principally those that flourish in a calcareous soil, in districts in which lime is a component part of the soil.

Thus ivy grows freely in the ravines, and on the walls, where there is moisture. The pellitory, essentially a lime plant, grows out of every wall and terrace. The wall-flower, the Virginian stock, and the pink and carnation grow and bloom most luxuriantly in the gardens, with little or no cultivation. They form large bushes in the winter, and are one huge mass of luxuriant blossom very early in spring. There is a small wild pink, a native, which grows out of crevices in the driest and most sun-burnt rocks. The odoaster rubrum, or red valerian, grows wild everywhere, throwing out thick succulent stems and large spikes of flower from mere crevices in the dry sun-burnt rock.

To these may be added, as examples of lime-plants, the arum arisarum, the fumitory, the cneorum tricoccum, and the stonecrops. The fumitory is the commonest wild plant. It grows and flowers everywhere on the terraces throughout the winter. The arum arisarum is equally prolific and universal. Its dull purple flower covers the olive terraces, and attracts immediate attention after the autumn rains. I am told that the root is good food for pigs, but it is deep below the surface, consequently of rather difficult extraction, and appears not to be thought worth digging up. Moreover, pigs do not seem to be much esteemed, or their society cultivated in the Mentonian district.

The cneorum tricoccum is a rather elegant, small-sized, bushy plant, with small dark-green leaves, small yellow flowers, and trilobed seed, which is only found in the wildest, rockiest, and driest regions; in such localities,

for instance, as the rocks above the St. Louis Bridge, where it grows freely. It belongs to the Terebinthaceæ, chiefly a tropical order, and is in flower all winter. Along with it, because found in the same localities, must be named a very lovely shrubby malvaceous plant, the lavatera, with delicate pinky-white "mallow" flowers. It blossoms very freely all winter in the above localities, and always attracts at once the attention of the stranger who leaves the shore and the terraces to climb the rocky heights.

The stonecrops (crassulaceæ) are also very abundant on the walls, in the warmest and driest regions, generally growing out of their interstices. They flower in April.

Nor must I forget to mention, as adorning these rocky regions, the wild thyme, which grows freely and abundantly, flowering all winter. We can thus, throughout the winter, in December and January, murmur *sotto voce*,—

"I know a *rock* whereon the wild thyme grows."

Another aromatic labiate, found abundantly, is mint; but its habitat is different. It must be looked for in lanes and damp ravines, in moist localities.

The soil suits the vine, which flourishes in all such mountain regions with a southern exposure, on the Mediterranean shores. It is principally cultivated on terraces, at from 500 to 2000 feet above the sea level, and formerly very good wine was made in the district, some of which may still be had. For the last ten years, however, the oïdium has reigned with the same savage intensity as at Madeira, and no wine whatever has been produced. No doubt the evil might be remedied by procuring sound cuttings from the neighbourhood of Aix, where the disease

has never appeared, and by sulphuring assiduously. But the Mentonians have not had hitherto sufficient energy or enterprise to adopt this course. The peasantry succumb to what they think is the will of God, and, I am told, consider it even impious to strive against the disease. To me their inaction is more the result of that apathy and disinclination to adopt new-fangled ways that has ever characterized the agricultural mind, in all countries.

During the winter the vines are without leaves, and, being like old sticks, old ropes, when trailed, Italian fashion, from tree to tree, add nothing to the beauty of the scene. The peach and almond-trees are equally devoid of foliage, and therefore shine by their absence. The latter blossom in February, and then become ornamental. They are more numerous in the vicinity of the higher mountain villages than near the shore.

Fruit-trees of all kinds seem to find the sea-level too warm, and are principally cultivated at a much greater elevation, such as the vicinity of the Turbia, or of St. Agnes, above 2000 feet high. Here vines, apple, pear, cherry, peach, and almond-trees abound, covering the terraces, and taking the place of the olive-tree. The winter frosts are severe at this elevation, for I have repeatedly seen ice an inch thick. This degree of winter cold seems, indeed, to suit their constitution better than the mild winter climate of the sea-shore region.

CHAPTER IV.

PHYSICAL GEOGRAPHY AND METEOROLOGY.

The characteristics of the Mentone climate are: "*A dry, clear, cool atmosphere, a blue sky, intense sunshine, freedom from fog and frost, but little rain. . . .*" (p. 80.)

CAREFUL observation, during six winters, of the meteorological conditions which reign at Mentone, has gradually enlarged my experience, and led me to form a clear idea of their nature and of their influence over its climate.

As we have seen, the Mentonian district is a small amphitheatre, formed on the coast-line or undercliff of the mountains of southern Europe, as they reach the Mediterranean. To the north-east, north, and north-west, are the highest mountain chains of Europe, extending hundreds of miles. Further north-east still, lies the table-land of Europe, which reaches to the arctic regions. As a necessary result of this geographical position, the northern winds, especially the north and north-east, must be very dry winds. Firstly, they have been dried by travelling over a great continent. Secondly, they have had nearly all remaining moisture wrung out of them by the extreme cold of the high regions which they have to pass over when crossing the Alpine chains, before they reach the Mediterranean.

The physical evidences of the extreme dryness of the atmosphere, when northerly winds reign, are manifold. Firstly, with a north and north-east wind, there is generally a difference of from nine to twelve degrees Fah. between the wet and dry-bulb thermometers. With the north-west, which crosses lower mountain chains, the

difference is generally from six to eight or nine degrees. Secondly, the atmosphere is generally clear, the sky blue, the sun shines warmly, the nights are, comparatively, cold, and the summits of mountains, several thousand feet high, are generally free from clouds.

These phenomena are easily explained on meteorological grounds. The presence of moisture in the air, either as imperceptible vapour or as cloud, gives a white appearance to the sky, and veils the earth from the sun's rays. It thus becomes a kind of shield, a protection from the warmth of the sun. When moisture scarcely exists, and the air is dry, as it is in the Mediterranean with a north wind, in Egypt, in the desert of Sahara, indeed in all dry regions, the sky is always blue, the sun shines with great power, and at night, owing to rapid radiation of the earth's heat into space, the air becomes, comparatively, very cold. Such is the climate of the north Mediterranean coast with northerly winds. The sky is clear and blue, the sun shines like a globe of fire, which it really is, and its rays reach the earth with great power. The nights are then clear, the stars shine with a brightness unknown in the north, and the temperature of the air is cold, compared with what it is in the daytime.

The English climate is partly explained by the above facts. The atmosphere above the British Isles is always loaded with aqueous vapour, which gives to the sky its usual whitish colour. Hence the coolness of our summer, as compared with that of the same continental latitudes. The aqueous vapour of the atmosphere shields the earth from the action of the sun's rays during day, and prevents radiation during night. In winter, when the sun is low on the horizon, and its rays are feeble, the cloud atmosphere, by preventing radiation, keeps in the heat previously acquired, and contributes, with the Gulf stream, to

render the British winter milder than that of the drier continental regions in the same parallel of latitude.

The influence of these meteorological conditions on climate has been well explained, of late, by Professor Tyndall in his lectures on heat. It is also beautifully illustrated by the meteorological observations of Mr. Glaisher, during his aeronautic ascensions. Once above the aqueous vapour and the clouds, which extend several thousand feet high in our climate, a dry atmospheric region is reached, where the sky appears intensely blue. The sun's rays, also, have so much power that they scorch and blister the face and hands, although the thermometer may be much below the freezing point.

The Mediterranean climate, when the north winds blow, is like this upper region of our own atmosphere. The air, being all but devoid of moisture, the sky is blue, and the sun shines through it fiercely, even in mid-winter. It warms all the objects with which it comes in contact, and which are sheltered from the wind.

The north-west wind, called the mistral in this part of the Mediterranean, usually blows from the south of France as a cold, dry, cutting wind, which is much dreaded. One of the great climate advantages of Mentone is its complete protection from this wind by the Turbia mountain, which separates it from Nice. When it blows, the sky remains blue and clear, and the sun shines warmly. Sometimes, however, the north-west wind blows no longer as a local wind, originating in the south of France, but as a grand north-west European wind, coming from the North seas and north-west Atlantic. Then it brings black clouds loaded with rain, which may fall in the district, or out at sea, and the wet-bulb thermometer rises.

Rain may thus fall with a strong north-west wind, under

the influence of a grand oceanic and European north-westerly gale; but such rain is rare. It is still more so with the strictly continental winds, or the north-north-east, and east winds. Indeed, when rain falls at Mentone with such winds, it is generally at the fag end of a European gale from these regions, and the rain becomes snow on the higher elevations of the mountains which bound the district.

Even with a direct south-east wind, snow may fall, exceptionally, at Mentone in mid-winter, inside the amphitheatre, owing to its being open to the south-east and to the high mountains of Corsica, which lie direct south-east, being then covered with snow.

There is thus, during winter, very little rain from the northern quarters; and as, during the winter months, from October to May, the wind is generally from these quarters, the dry, clear, sunny, but cool winter climate of Mentone is explained. The exceptional winter warmth, for its latitude, depends on mountain protection, and on other causes, which will be presently examined.

When rain does fall, with the wind in the northern quarters, it is generally gentle, moderate in quantity, and does not present the tropical character.

When the northerly winds bring clouds and scud over the mountains, and the atmosphere in the Mentonian amphitheatre, and out at sea, is warm, these clouds often melt gradually, and disappear. It is a very interesting sight to see thick banks of clouds thus rising over the summits of the higher mountains in the background, expanding on the sky above, and then melting away as they advance southwards, into warmer atmospheric strata. After a time, however, if the wind which impels them is powerful, they cool the air, and the entire sky becomes overcast.

With south-westerly and south-easterly winds, the fall of rain at Mentone, and on the Riviera in general, is often very great in a limited space of time—indeed, quite tropical. This is also often the case when northerly winds meet southerly currents on or near the coast line. The rainfall may amount to many inches in the twenty-four hours.

When this is the case, the watercourses are filled, from bank to bank, with enormous volumes of water, which carry down great masses of stone like straws from the mountains, and excavate wide beds as they approach the shore line. These watercourses are, at other times, as in central and southern Italy, mere rivers of stones, with a thin stream of water trickling through the middle. On one night, Dec. 1859, four and a-half inches fell in ten hours. The greatest amount of rain that was known to have fallen in twenty-four hours at Greenwich, in five years, was 2·63 inches (Drew).

The smallest rills become impetuous torrents when the rain falls with this tropical violence. As they rush madly to the sea, their yellow waters, like those of the "flavus Tiber" of the old Latin poets, carry down vast quantities of stones and earth, washed from the mountain sides, and discolour the waves for some distance from the shore. The descent of these earth and stone-laden waters into the sea illustrates, on a small scale, the way in which the deltas at the mouth of large rivers, such as the Nile, the Ganges, the Mississippi, have been and are being created. It also illustrates the mode of formation in past geological eras of the neptunian or sedimentary strata. The earth contained in solution and thrown into the sea, gradually subsides and sinks to the bottom, there forming horizontal layers, the composition and nature of which depend on

the kind of soil carried away from the land by the river or torrent. As these deposits take place, numerous animated beings, especially those that cannot get away very fast from the mud-shower, such as crustacea, become entombed, to constitute the fossils of future ages.

These heavy rains, as we have seen, are all but confined to the southerly winds, or to their collision with northerly ones, on or near the shore. Coming from the warm south, the southerly winds are warm, and, in passing over the Mediterranean, absorb large quantities of moisture. On arriving at the mountain-girt coast of the Riviera, they are arrested by cold currents from the north, or have to ascend the sides of the mountain ranges. In either case, in winter, they come in contact with cooler atmospheric strata, and are obliged to part with their moisture, which is rapidly precipitated in the shape of heavy rain.

The total rain-fall during my first winter's residence at Mentone, 1859-60, was 23·68 in., from October 9th to April 21st; viz., October, 8·02 in.; November, 2·21 in.; December, 6·96 in.; January, 3·24 in.; February, ·18 in.; March, 1·26 in.; April, 1·81 in. These data were given me by a friend, Mr. Smith, of Rome, who kept an accurate register. According to my own observations, it rained in that winter, in November five days, in December five, in January four, in February one, in March six, and in April, up to the 23rd, eight days; in all, twenty-nine days, from November 3rd until April 23rd. In October it rained nearly every day.

It very often rains on the mountains, or a few miles out at sea, when it is quite clear and fine on and near the seashore. In the former case, the wind is generally a southern wind, and, as it ascends the mountain, it evidently meets with colder strata of air, which precipitate

its moisture. I have repeatedly sat on the mountain-side and watched a current of warm air rise from the sea, at a distance, form at first a vapour on the shore, and then a white cloud, gradually ascending the mountain. It is singular to see the small cloud thus spring, as it were, from the waves near the coast-line, gradually expanding and enlarging as it creeps up the mountain-side. I was, indeed, forcibly reminded of the fisherman in the Arabian tale, who opens a casket on the sea-shore, from which the genie issues in the form of a thin vapour, which rapidly becomes a cloud, covering the horizon.

A more reverent and more striking illustration of this phenomenon is to be found in the history of the prophet Elijah, in sacred writ (1 Kings, chap. xviii.), "And he said to his servant, Go up now, look toward the sea . . . . and it came to pass at the seventh time, that he said, Behold, there ariseth a little cloud out of the sea, like a man's hand. And he said, Go up, say unto Ahab, Prepare thy chariot, and get thee down, that the rain stop thee not. And it came to pass in the meanwhile, that the heaven was black with clouds and wind, and there was a great rain."

The rain, in these instances, is often confined to the upper hills, and increases the volume of torrents and rivulets, although it remains quite fine at and around Mentone.

When, on the contrary, it rains a few miles out at sea, whilst there is fine dry weather at Mentone, the wind generally comes from the contrary direction, from the north. The cold north wind, passing overhead, impinges upon the sea some distance from the shore, meeting warmer atmospheric strata. Dark banks of clouds thus form, and rain falls several miles from the coast. In either

case the coast ledge may, and often does, enjoy a happy immunity.

The average fall of rain at Nice is 25 inches. I presume that the annual fall at Mentone is greater, from its being surrounded by mountains on all sides but the south, the south-east, and south-west. According to Roubaudi, the author of a valuable work on the climate of Nice, the average number of rainy days at Nice is sixty. M. de Brea, a native and resident of Mentone, and a gentleman of high scientific attainments, has published a meteorological table, founded on ten years' observation, from 1851 to 1861. According to his experience, the average number of days or nights during which it rained little or much at Mentone is 80, or 20 more than at Nice. We may presume, therefore, that the fall of rain is greater, although the consequence is not necessary. At Greenwich, the average rainfall is only 25 inches, yet the number of rainy days is 155. At Torquay, the average number of rainy days is also 155. At Pau, the average rainfall is 43 inches; rainy days, 119. At Malaga, the number of rainy days is only 40 (Francis). At Madeira, the rainfall is variable; the average about 30 inches, the rainy days 88 (Dr. White).

The amount of rain that falls does not so much characterize the climate of a locality as the manner in which it falls. At Mentone, as at Nice, and along the entire Riviera, thoroughly cloudy days, and days of incessant rain, are rare. They do, however, occur occasionally in the winter, and principally with continued southerly winds. The sky is then quite obscured, so that the sun is not seen, as in the north, and rain may fall for several days and nights. But this does not usually take place more than two or three times in the course of the winter.

Many inches of rain fall on these occasions, thoroughly soaking the ground. After two or three days, the clouds disperse, the sun peers forth, and again careers through a clear blue sky, like a blazing fire. In a few hours the ground becomes dry, and many days of uninterrupted sunshine follow, during which out-door life goes on as during a fine rainless September with us.

The rainy season occurs during the autumn, but is rather irregular in its periodicity. It usually begins in October, with south-westerly gales, and extends, more or less, into November. The rains do not last, in most winters, more than three or four weeks, and that not continuously. The rest of the winter, until the spring, is generally dry and fine, under the influence of the northerly winds, with the exception of a few occasional days of rain, when the wind turns to southern quarters. Heavy rain again falls in the latter half of March, with south-westerly or south-easterly storms; they are the vernal equinoctial gales. These rains saturate the earth and renew the springs. Under their fostering influence, and with the help of the ardent sun, which shines through the clear dry atmosphere, vegetation then advances with surprising rapidity.

As in England, and in most other regions, the seasons, and more especially the winter, vary in different years, so that it is difficult to form a correct opinion from the experience of any one year.

During the summer but little or no rain falls. In some years the drought lasts, without cessation, for six or seven months, from April or May to October or November. Thence the absolute necessity of tanks for the irrigation of the lemon and orange-trees, which, as we have stated, cannot thrive and bear fruit without irrigation during the summer.

The exceptional and extreme dryness of the summer along the Riviera, in the south of France, in Spain, and in the Mediterranean generally, is explained by the fact that this great inland sea lies on the northern limit of that part of the earth's surface to which, in physical geography, is given the name of "the rainless tract." The highest expression of this region is the desert of Sahara, which continues those of Arabia and of Central Asia. The principal cause of their existence is, no doubt, the passage of north-easterly winds over Asia and Europe during the entire year, either as upper or surface currents. These winds, passing over continents and great chains of mountains, gradually lose their moisture, until they have but little to bestow on the regions they attain in the more advanced stage of their progress, and the latter consequently become dry regions or deserts, for want of rain.

The winds that course over the earth's surface may be divided into two principal currents. The one, from the poles to the equator; the other, a return current from the equator to the poles. Owing to the earth's diurnal motion of rotation, the wind from the poles to the equator takes a slanting easterly direction; that from the equator to the poles, a westerly one. Thus, in the northern hemisphere the wind from the pole to the equator is a north-east wind; that from the equator to the pole a south-westerly one. From the tropic of Cancer, or from about latitude 30°, to the equatorial region, the north-east wind is always a surface wind, and constitutes the north-east trade. From the pole to the tropic the systemic north-east wind is either an upper current or a surface one, according to seasons and other influences.

The presence of high mountain chains in the south of Europe, and the rarefaction of the atmosphere by sun-

heat in the great Mediterranean basin, both contribute to bring the upper north-easterly systemic wind to the lower atmospheric regions, and to make it a surface wind during a great portion of the year in the Mediterranean region. The south-westerly, or passage return winds, which are all but constant in the North Atlantic Ocean, consequently reach the shores of Europe, to the north of the Mediterranean level, during the greater part of the year. They bring moisture and rain with them; and thence the very rainy climate of Brittany, Normandy, and of the south and west coast of England. In winter, the trade winds, following the declension of the sun towards the equator, descend south; these south-west winds replace them, and thus descend to the most southern latitudes of Europe. The presence of these south-westerly winds at lower latitudes seems to be the principal cause of the autumnal rains in the south of France, Spain, and in the Mediterranean basin generally.

Maury, in his interesting work on the "Physical Geography of the Seas," attributes the existence of the "rainless tract" in Asia and Europe to the influence of the Andes or Cordilleras of South America.

According to this view, the south-east trade winds of the southern hemisphere, after sweeping the wide surface of the Atlantic, and becoming perfectly saturated with moisture, reach the continent of South America below the equator; they cross it, and meet the huge mountain barrier of the Andes, ascending its eastern sides to an enormous elevation, varying from fourteen to twenty thousand feet. The extreme coldness of the upper regions of the Andes leads to the precipitation of the moisture which the winds contain—squeezes it out of them. Thence the origin of the immense rivers which

descend from the eastern slopes of these mountains, such as the Amazon and the Orinoco, two of the largest rivers in the world.

These moist south-easterly Atlantic trades, after thus precipitating their moisture, become dry winds. In the equatorial calms they cross the north-east trades, ascend to the upper regions of the atmosphere, and then direct their course to the north-east, as an upper south-west current. Recrossing the South American continent, they reach the Atlantic, and cross it, still as an *upper* south-west current, for the north-easterly trades occupy the surface of the Atlantic between the 30th degree of latitude and the equatorial calms. Above the northern limit of the trades they again become *surface* winds, and constitute the south-westerly or passage winds of North Africa and of Europe. Reaching the north-western coast of Africa, still as dry winds—for, as we have seen, they have passed the Atlantic as a dry upper current to the north-eastern trades—they have no moisture to give to a level surface, and thence the desert of Sahara, and, in summer, the dryness of southern Europe.

The fact of the Mediterranean south-westerly wind being a dry South American south-west wind, which has passed over the Atlantic as an upper current to the north-east trades, is proved, according to Maury, by a very singular natural fact. Occasionally, from time immemorial, a kind of red dust settles on the decks and sails of vessels in the Mediterranean and on its islands and shores. Submitted recently to microscopic examination, it has been discovered that this dust, which was supposed to come from the African deserts, is composed of the microscopic shells of infusoria which inhabit the Brazils, the dried summer beds of the tributaries of the Amazon and Orinoco.

The furious south-westerly dry wind of these regions evidently raises them up as impalpable dust, wafts them across the Atlantic as an upper current to the north-east trade, and finally deposits them on the Cape Verde Islands, Mediterranean Sea, on Sicily, on Malta, and on the Grecian Archipelago. Maury looks upon this fact as conclusive evidence of the crossing of the south-easterly and north-easterly trades in the calm regions of the equator, and of their return to the north and south poles as south-westerly and north-westerly winds.

During the six winters that I have passed at Mentone, living in the eastern bay, I have never seen a fog, either at sea or land, day or night, morning or evening. This fact appears the more singular, as on my first visit to Corsica, in the month of April, for several days there was a sea-fog all round the island. It rose to about thirty feet above the sea or shore, the weather being beautiful, and sunny, and I was told by passengers on board the steamer from Marseilles to Ajaccio that it extended from one port to the other. The explanation given by my friend Professor Rogers, I believe to be the true one.

Whenever the air comes from the land it is from the north, and so very dry is this region, that it absorbs all the moisture it can possibly obtain from the sea, however low its temperature, without forming vapour or fog. Whenever, on the contrary, the air comes from the south or seawards, both it and the land it reaches are so warm, that its capacity for the absorption of vapour is sufficient to enable it to continue to retain it until it has reached a considerable elevation. It does not, therefore, part with moisture, in the form of fog or cloud, until it has ascended the mountain to a considerable height. When the lowest clouds are several thousand feet higher than its

summit, as is usually the case, the atmospheric dryness must be intense. In the upper regions of the sky, above the mountains, are often seen slight fleecy masses of cirrus, torn and twisted by aerial currents, which reflect in the most beautiful manner the bright light of the southern day. Still more beautiful are the dense masses of cumulus cloud which are frequently seen hanging over the high mountains of Corsica, on the south-eastern horizon. Towards sunset they are often tinged with glorious hues reflected from the west. The brilliancy of these clouds, floating in the upper regions of a serene, clear atmosphere, often several miles above the earth, is partly owing to their being composed of snow. Once the region of eternal snow is reached, in this latitude about eight thousand feet high, the clouds themselves become congealed, and float as masses of downy snow.

Generally speaking, the sky is clear, and the sun shines in the heavens like a globe of fire. During the winter 1864–5 there was a cloudy sky much oftener than usual, the winter having been unusually wet from the continuance and frequent return of southerly winds. But even on cloudy days the sun is often seen, and its power felt. So powerful are its rays, when the sky is clear, that even in December or January it is disagreeable to walk without a lined parasol, as in the East generally. The use of these parasols is not confined to the ladies, few gentlemen braving the sun without them. They are a positive want, and those who object to their use at first get headache, and are sure to adopt them before long. East Indians often assume the peculiar head gear used in India as a protection against the sun.

Sunshine is quite different in England and in the south of Europe. In our climate the air, even in summer, is

filled with watery vapour, which, as we have seen, gives a whitish hue to the sky in July or August, and mitigates the power of the sun's rays. In the Mediterranean region it is quite otherwise. In fine weather, winter or summer, the sky is of a hard blue, and objects at a distance of many miles are seen clearly and distinctly, without any of that haze which forms so peculiar a feature in an English landscape. Immediately behind the house where I reside, rises a mountain, the Berceau, the higher peak of which is 3650 feet high. It is generally, throughout the winter, perfectly free from clouds, and seems so near that nothing but absolute barometrical measurement convinced me of its real height; the summit does not appear to be above 2500 feet high at the very utmost. Indeed, this mountain, as well as its neighbours and companions, may be considered first-rate hygrometers. The position of the clouds above its peaks, or on its flanks, indicates in the most unmistakable manner the degree of dryness of the atmosphere. If we calculate 1° of difference between the wet and dry bulb thermometer for each 300 feet of elevation free from cloud, there must be above 8° of dryness in the upper atmospheric strata for this mountain to be entirely free from clouds and mist.

The extreme dryness of the atmosphere is proved by another interesting meteorological phenomenon. Even when the wind is in the south, and rain is falling in torrents, there is always a considerable difference between the wet and dry bulb thermometer (from three, to six or seven degrees). The rain appears to be formed in the upper atmospheric regions, and to fall through the air without saturating it, as is the case in northern climates. Owing to this fact there is not that feeling of dampness

which is usually felt when rain falls in the north, and the chest invalids do not suffer from it in the same way.

It is thus owing to many influences, that the atmosphere remains dry in winter: to the prevalence of northerly winds, to the great power of the sun, to the freedom from fog, to the small number of rainy days, and to the dry, rocky character of the soil. This dryness of the air is also illustrated by the fact, that wet linen dries out of the sun, in a short time, at any period of the winter, except when it rains, or the sky is obscured. Throughout the winter it is possible to sit out of doors for many hours at a time, and for many days together, in sunny sheltered spots. This I am in the habit of doing myself, every winter, in leisure hours. I merely choose a spot sheltered from the wind, at the foot of a wall, rock, or olive-tree, and exposed to the sun, from which it is, however, generally necessary to be protected by a lined parasol. Without this precaution the position would often be quite untenable. A thermometer in such a situation, in the shade, generally marks from 60° to 64°. At the lounger's feet, and around, are always insects, attracted in rocky places by masses of wild thyme, and by other flowers.

There is a great charm in thus reading and musing for hours, especially with agreeable companions, seated on the ground, in some lovely, sunny, picturesque nook, such for instance as the western coast of the Cap Martin, or the warm terraces of the eastern bay. Nothing is more invigorating or refreshing to the invalid. This lazarone enjoyment, in midwinter, of sunshine, air and scenery, is much more beneficial than long tiring walks.

Whilst speaking of insects, I must mention that one of the charms of the climate is, that notwithstanding the warmth and sunshine of the days, there is an all but com-

plete immunity from all venomous insects, gnats, or mosquitoes during the winter, after the first cold nights in December. This is no doubt owing to the general coolness of the night temperature. Previous to that time, in the autumn, the mosquitoes are very troublesome. This is partly to be attributed to the beds being generally furnished with curtains which are no protection whatever. They are usually open, and too heavy for it not to be insufferably close when they are brought together. It is quite worth an invalid's while to have regular net mosquito-curtains, such as are used in India, made on arrival. The mosquitoes do not reappear until summer.

According to M. de Brea's statistics, omitting the fractions, the annual number of fine days in which the sun shines without clouds is 214; the number of days in which the sun shines with clouds is 45; and the number of days in which the sun is not seen, the sky being completely obscured, without rain, is 24. To which we may add days of rain 80, many in part sunshiny.

The rainy days principally occur between the months of October and May. In summer, as has been stated, there is sometimes not a drop of rain for months together. The winds can then blow from the south without their vapour being condensed into clouds and rain on the mountain summits which skirt the coast. The mountains are themselves scorched with the powerful rays of the summer sun, and the sea-borne winds meet currents still warmer than themselves. Even in winter, a very gentle south wind from the sea may not bring cloud and rain. All its superabundant moisture may be at once taken up owing to the extreme dryness of the colder mountain atmosphere.

Notwithstanding the mildness and sunny brightness of

the weather, yet it is still decidedly winter at Mentone from December to April.

The nights are chilly, the thermometer generally falling to between 46° and 54° with south winds, and with north winds to between 40° and 45°, sometimes below 40°, during four months—from December to April. In the daytime it is generally cool in the shade, and when the sun is obscured by clouds. The ordinary "shade maximum" varies from 50° to 56° when the sun shines, and is lower still when it does not. The temperature always falls as soon as the sun disappears or sets, and often at once reaches the minimum of the twenty-four hours. The heat is evidently produced by the direct influence of the sun. In a south room, whenever the sun is on the room, the window can be left wide open; and, without a fire, the thermometer will generally remain at about 64°. But as soon as the sun disappears, the window has to be shut, and a wood fire lighted. In midday, also, the north rooms on the same floor during these months are, when the sun shines, four, six, or eight degrees colder than the south. Again, even before sunset, immediately after the sun disappears behind the mountains, there is generally a difference of six or eight degrees in the temperature of the atmosphere; and when the sun is permanently obscured by clouds, the air often feels chilly, even with a south wind, and the complaints against the climate are loud.

These complaints seem partly to have their origin in the extreme depression which appears to attack the entire community, but more especially the invalids, when the weather is thus cloudy and wet, and the sun is obscured. I have both observed this depression and painfully experienced it myself. In such weather most of us are indescribably wretched and miserable. Then, indeed, we

feel vividly that we are poor invalids, exiles from home, stranded on the shores of the stream of life. But with the return of bright sunshiny weather, all these gloomy thoughts disappear. Once more we are gay and cheerful; inclined, indeed, to look on our ill-health as in some respects a positive advantage. Is it not the cause of our being able to avoid the dreary winter of our northern cloud-girt island? Is it not to our break-down that we owe the temporary freedom from the cares and duties of real life—the real schoolboy's holiday we enjoy?

I used to think that the cause of the buoyancy of spirits experienced by the northern winter residents, whether invalids or not, in fine weather, and of the extreme depression they feel in bad weather, was merely, on the one hand the stimulating sunshine, and on the other its absence. My friend Dr. Copeland, to whom I happened to mention the fact, has given me another explanation, a most philosophical one, which I am inclined to admit, especially in this climate.

Moist air is a good conductor of electricity, dry air a bad one. The human body receives electricity constantly from the earth with which it is in contact, and probably developes it through the organic processes. In dry weather this electricity is retained in a great measure, and the body becoming loaded with it, the nervous system is stimulated, and buoyancy and cheerfulness of mind follow. In damp weather, on the contrary, the moisture of the atmosphere acts as a conductor, and constantly carries away the electricity from the body. Thence it is at a minimum, and mental depression follows. According to this view the depression and languor experienced by delicate, susceptible persons in summer, when the sky, covered with dense clouds, and the moist air portend storms, when

"there is thunder in the air," is not to be attributed to the generally received cause. Instead of receiving too much electricity, as is commonly supposed, the body is losing too rapidly its own electricity. Hence the depression, according to this charming theory.

It is a general source of remark, and often of complaint, that the air feels cooler than the thermometer would lead one to suppose the temperature to be. Nor is this remark without foundation. Owing to the general dryness of the air, evaporation takes place very rapidly from the skin, absorbs heat, and produces this sensation of coldness; it is the same feeling that is experienced when the face or hands are bathed with eau-de-Cologne. The rapid evaporation of the spirit causes rapid abstraction of caloric, and thus occasions the sensation of cold. It is by the same physical law that the water is cooled which is contained in the porous jars, so much used in Spain and in warm climates in general. The moisture that exudes to the external surface is evaporated by the atmosphere, abstracts heat, and cools the water inside. In a dry atmosphere like that of the Riviera, human beings are mere "porous jars," and are cooled down, like the water they contain, by rapid evaporation. This fact, and its physical interpretation, accounts for the absolute necessity of very warm clothing, and for the appearance of the rheumatic pains which often follow the neglect of this precaution.

The Mentone vegetation shows the influence of a powerful sun warming a chilly atmosphere. Deciduous trees lose their leaves in December, as soon as the nights become cold, and do not regain them until April, when they are becoming warmer. The green, forest-like appearance of the hills and valleys, in midwinter, is owing entirely to

the evergreen olive, orange, and lemon-trees. The few deciduous trees are mere dry sticks until April. On the other hand, in sheltered situations exposed to the south, the heat of the sun during the day so warms the soil, that it has not time to cool at night. These situations thus become regular forcing-beds, producing, as I have stated, violets in December, anemones in January, and all our spring flowers early in February. In shady situations, where the sun does not penetrate, the ground-vegetation remains torpid, like the deciduous trees, till March. As, however, the sun-exposed localities are very numerous on the sheltered lower hills, and in protected valleys, away from the sea, the ground-vegetation is all the winter very luxuriant and abundant, offering great resources to the botanist and florist. Indeed, in the warmer valleys the only winter is on the thoroughly rainy days.

From what precedes, it will be perceived that the characteristics of the climate of Mentone, and of the Riviera in general, as evidenced during the six winters I have spent there, are: the absence of frost; the prevalence of northerly winds; the complete absence of fogs; the paucity of rainy days; the clearness of the sky; the general heat and brilliancy of the sun; a rather cool or chilly night temperature; and a bracing coolness of the atmosphere throughout the winter, out of the sun's rays. Even when the sun is obscured by clouds, and rain falls, as the wind is then generally from the south-west or the south-east, it is not cold at any period of the winter. On the rare occasions, however, when it rains, with the wind from a northern quarter, there may be as miserable and chilly a state of things as in a drizzling November day in England. As rain only falls on a small number of days, and then often not during the whole day, and as the other

days are uniformly bright, clear, and sunshiny,—for five days out of six, throughout the winter, exercise in the open air can be prudently taken, from nine until three, four, or five P.M., according to the season, with both pleasure and benefit.

Notwithstanding the complete protection from the north, north-east, and north-west, the wind is often rather high near the shore. Even when in the northern quarters, it often seems to come from the south-east or south-west, the open region, no doubt owing to the land-locked character of the district. However strong the northern winds may be, the mountain valleys and the more internal hills are quite sheltered and protected. The smaller or eastern bay is decidedly better protected from the north winds, and is several degrees warmer than the western, owing to a spur from the Berceau mountain rising immediately behind the houses which line the shore. There certainly is, however, no atmospheric stagnation at Mentone, as some writers have asserted.

According to Admiral Smyth, in his very interesting work on "The Mediterranean"* (p. 233), the most prevalent winds in that sea are those that blow from west round northwards to north-east, during two-thirds of the year, from May to February. During the months of February, March, and April, on the contrary, the south-east and south-west winds would prevail. My experience of the Mentonian shore during three winters only partially agrees with this statement. In October and the early part of November, after the autumnal equinox, south-west winds have appeared to me to prevail, bringing the heavy autumnal rains. Then the north winds again gain the upper hand,

* "The Mediterranean: a Memoir, Physical, Historical, and Nautical." By Rear-Admiral W. H. Smyth. Parker. 1854.

and usually, but not without exception, reign until the spring months, March and April. At this epoch, the south-westerly and south-easterly winds seem to have the ascendancy, giving rise to the gales and rains of March. The prevalence of northerly winds during the winter months, in most years, is the real key to the climate, as I have already stated. During the four cold winter months, November, December, January, and February, the high mountain barrier protects the amphitheatre from these northerly winds. During the early spring, in March and April, the prevalent southerly winds, to which it is quite open and exposed, bring genial warmth and fostering showers.

The southerly winds, to which Mentone is fully open, whether they bring rain or not, are generally mild, if not warm. The south-east, or sirocco, the plague of southern Italy, all but loses its languor-creating, pernicious character, in autumn and spring, by the time it reaches the head of the Gulf of Genoa. When it reaches Mentone it has passed over the heights of the Apennines and the high granitic range of Corsica, some of the summits of which are clothed with eternal snow. It has thus become much cooler than in the south or centre of Italy. Indeed, in the winter months, January, February, and March, the sirocco is so cooled by the great mass of snow on the Corsican mountains that it may reach Mentone as a cold wind, bringing rain, and sometimes snow into the amphitheatre. The only occasions on which I have seen snow within the amphitheatre have been under its influence.

On reading Admiral Smyth's valuable work I have been struck with the remarkable agreement between my observations on the winds, and on their influence over weather and climate in the western Mediterranean, and

the results of the observations of the ancient Greeks, made at Athens more than two thousand years ago. There is still extant at Athens a kind of observatory tower, erected by the astronomical architect Andronicus Cyrrhesthes, which has survived the wear and tear, the storms and catastrophes of twenty centuries, for it was probably built about one hundred and fifty years B.C. This tower is octangular in form, and gives the eight points of the compass then recognised, with the reputed quality of the winds in the meridian of Attica, by symbolic statues. I cannot do better than reproduce Admiral Smyth's description of this interesting monument of antiquity (p. 278).

"The tower of the winds is an octangular marble edifice, which in 1820 was in very tolerable preservation, being entire, with the exception of the movable brazen triton which surmounted it, and pointed with a wand to the quarter from which the wind was blowing. On the upper story of each side of the tower is excellently sculptured a large winged figure, in relief; those which represent cold weather are mature old men, full clothed and bearded, in a style which the Athenians chose to call barbarian; and the milder winds are personated by youthful figures, more lightly clad. Above them their names appear in uncial characters; and they are divided below by a cornice from large dials constructed and accommodated for each face; those for the verticals of the cardinal points being regular, and their intermediates declining. It appears truly admirable for its object, as an indicator of weather and time to the Athenians, though, from its proximity to the Acropolis, it was badly placed for the vane-triton's showing the true line of the winds, since it could not be free from eddies.

"Over the door appears Schiron, the representative of north-west winds; he is robust and bearded, with warm robes and boots, and, though mostly a dry wind, to show that he occasionally brings rain, he is scattering water from a vase.

"Zephyros, the soft and benign western breeze, is a light-clad, bare-legged youth, gliding slowly along with a pleasing countenance, and bearing flowers and blossoms, somewhat significant of ζωὴν φέρω (I bring life), in allusion to his genial influence in gardens.

"Boreas, the impersonification of the fierce and piercing north wind, is a bearded old man, warmly clothed, but without a water vase; and he is so much affected with cold, that he guards his nose and mouth with his mantle—an action which has been mistaken for blowing the flabra, or wreathed conch shell.

"Kaïkias, or the north-east wind, which in winter is the coldest in Attica, is represented as an elderly man spilling olives off a charger, to denote his being unfavourable to the fruits of the earth, and especially to olives, with which the plain of Athens abounds. Stuart, however, insists that instead of fruit he is holding hailstones in a shield.

"Apeliotes, who represents the east wind, is a handsome youth, indicating gentle motion, and bearing various fruits in his mantle, together with a honeycomb and wheat-ears, in token of his being favourable to orchards.

"Eurus, the south-east wind, so often accompanied by tempestuous weather, is represented as a morose old fellow, nearly naked, the agitation of whose drapery implies occasional violence.

"Libs, the south-west wind, and the *traversia* of the Peiræus, a robust, stern-looking man, bearing the aplustre

of a ship, which he seems to push before him. The Romans, who usually copied the Greeks, gave dusky pinions to Libs, in allusion to its changeful energies, being by turns hot, cold, dry, rainy, serene, and stormy, insomuch that it was reckoned unfavourable for ships to sail from the Athenian ports while the weather hung in the south-west.

"Notos, the south wind, has a sickly aspect, and clouded head, significant of unwholesome heat and dampness; and he is emptying a water jar, as the dispenser of heavy showers in sultry weather."

In addition to these winds, I must mention, that very often, when it is very fine, and when the sun shines with force on the Mentonian amphitheatre, there is a very decided sea-breeze during the middle of the day, as in tropical countries. The air, becoming heated and rarefied in the mountain basin, rises, and cooler air from the sea rushes in to supply its place. But for a sea-breeze thus to rise in winter, there must be a strong wind blowing from some of the northern quarters. When this is the case, the north wind, only reaching the sea at some distance from the shore, owing to the mountain protection, leaves the waters in shore calm, or nearly so, in the early part of the day. The sea air that rushes in later, to supply the place of the rarefied land air, pushing angry billows before it, is merely the north wind that has passed overhead and gone out to sea, pulled back by the mid-day heat. When the air is perfectly calm in the upper atmospheric regions, the calm of the early morning continues all day, because there is then no strong wind at sea to be pulled back by the effects of land heat. The latter in winter is not sufficiently powerful to create this little monsoon when the atmosphere is in a state of complete

repose. It was long before the above facts became clear to me, and before I understood why, on two days apparently identical as regards sunshine, the morning calm on the one occasion continues all day, and on another gives place, about eleven o'clock, to a strong sea-breeze and to a rough sea.

In winter, the sea-breeze reigns from about eleven to three. In summer it begins much earlier—before eight. Thus, the sea shore of Mentone is decidedly windy, especially in early spring, and this sea-breeze is often cold and searching, for it is the north wind, which has passed overhead, pulled back. It can, however, be completely avoided by leaving the shore and gaining the numerous valleys. We must recollect, also, that wind is a health-giving agent, a purifier of the earth, and that a place where there is no wind would soon become a mere carbon-loaded well, perfectly pestilential, especially in a southern climate. It is only objectionable to those who are very ill, and they can easily avoid it.

At night there is a land-breeze, which descends from the mountain to the shore and sea. Between the subsiding of the night land-breeze and the rising of the day sea-breeze, and again between the subsiding of the day-breeze and the rising of the night land-breeze—in fine, bright sunshiny weather—there is a period of repose, a lull, during which the air is calm. The present Italian mariners call this period of calm *bonaccia*, as being unaccompanied by danger; their more sturdy Roman predecessors designated it *malaccia*, from its being a cause of detention (Admiral Smyth). This period lasts, in winter, from eight to eleven, A.M., and from three to six or eight, P.M., according to the length of the day and the amount of sunshine. The morning lull is the time for

confirmed invalids to walk on the shore. Those who are doing well, as also the strong and healthy, can receive no harm whatever from a good blow, if well clothed, and not heated by violent exercise.

The land-breeze from the mountains, at night, is usually very gentle, especially in winter. Occasionally, however, owing to sudden change of temperature between land and sea, the land winds descend suddenly and with great impetuosity, as in all parts of the Mediterranean skirted with high mountains. Thence the general use of "lateen or triangular sails, attached to yards that can instantly be let down by the run, for the xebecs, feluccas, and other craft which coast the shores within their influence."

It is only at night that the land-breeze descends from the high mountain ranges. It is quite perceptible, even in winter, as soon as the sun has set, especially in the western bay. The greater warmth of the eastern bay is evidently due to the protection of the secondary range of hills, which, rising immediately from the sea, cuts off, as it were, this cold air current. In the western bay the valley of Gorbio is similarly protected by the sandstone hill of St. Lucia. Consequently the temperature of the valley is also exceptionally warm, as evidenced by its early and luxuriant vegetation. Wherever there is a gully, ravine, or torrent bed, the temperature is generally two or three degrees lower at night than elsewhere, owing to its forming a kind of funnel down which these colder mountain currents descend to the sea.

In summer the cold mountain currents at night powerfully contribute to diminish heat; and, combined with the day sea-breeze, produce a much cooler and more equable temperature than is found inland in the same latitudes.

Thus, the temperature is very seldom above 80° Fah. at any time in the summer, whereas both in Paris and in London a higher temperature is reached every summer. On the other hand, during several months, June, July, and August, there is but one or two degrees difference between the day maximum and the night minimum, which constitutes a climate very difficult to bear, and by no means suited to invalids.

The difficulty of recognising from which direction the wind blows is more especially great when there is a calm in the lower atmosphere, or when northern currents from the north-east or north-west are diverted to the south-east or south-west by the mountains which form the bay. When this is the case, and also under the influence of the sea breeze, all the weathercocks will point to the south, when, in reality, the climate influencing wind comes from the north. All my early observations were invalidated by the non-recognition of these facts, and I do not think that any that have been published can be relied upon, from the same cause. Very often it is only by consulting the wet and dry bulb thermometers that I have solved doubts as to the real direction of the wind; they are of great assistance. North winds are always dry, and south winds moist.

This apparent twisting and turning of a north-east wind to the south-east as it enters the bay, of a north-west to a south-west, and the frequent sea-breeze, give to the wind the appearance of nearly always coming from the south. This error, a most palpable one, has, I think, been made by all observers. There are, in reality, many eddies and local currents in the Mentonian amphitheatre which are insignificant as regards weather and climate. It is the upper currents alone that rule the weather and the climate,

and they can only be ascertained by a careful examination and study of the position and progress of the clouds in connexion with the highest mountain summits. The local weathercocks are all but useless for this purpose.

The climate of the Mentone amphitheatre is a favourable specimen of what botanists call the warmer temperate zone. Plants live nearly everywhere which frost kills; many annuals in a colder region become perennials; and many forms of vegetation new to the more northern flora make their appearance. It is the Mediterranean climate, but that of the more favoured Mediterranean regions. In Italy, for instance, the most protected southern parts must be reached to find the same immunity from frost. Mentone, also, is warmer, and more protected from northern winds than its neighbour, Nice; and much more so than Cannes, although the general features of the climate must be the same, for they are only a short distance apart. It is the question of fruit walls in the same orchard, one higher and more protected than the others, but all turned towards the south. At Nice, there are sheltered situations, such as the Cimiez, the Carabacel, and Villefranche, in which the protection is greater than in the town itself, and which thus assimilate to Mentone, without, however, equalling it.

It is well to recollect that in such a climate in the warmer temperate zone, winter is not by any means avoided. The description of the winter climate of Nice, Cannes, Hyères, and Italy in general, contained in most books of travel, works on climate, and guide books, are mere poetical delusions. The perpetual spring, the eternal summer, the warm southern balmy atmosphere, described to the reader in such glowing terms, only exist in the imagination of the writers. Although there is so much

sunshine, so much fine weather, such immunity from fog and drizzling rain, we are still on the continent of Europe, with ice and snow behind, for more than a thousand miles, to the North Pole; it is still winter. Wind, rain, a chilly atmosphere, and occasional cold weather, with snow on the mountains and flakes of ice in exposed situations, have to be encountered. It is as well, therefore, that the invalid traveller should be prepared to encounter them. Otherwise, anticipating an Eldorado, balmy zephyrs, perpetual sunshine, and an ever-smiling nature, he is disappointed. I believe that continuous warm weather in winter, and the complete absence of any cold days, are not to be met with in the temperate zone,—only in tropical or sub-tropical regions,—and these regions present many drawbacks both to health and comfort. If they are considered requisite, however, the tropics, or at least Madeira, should be selected, not the Mediterranean.

The existence of orange and lemon-trees, of geraniums, heliotropes, verbenas, and roses, flowering throughout the winter, does not necessarily imply the absence of cold weather, merely the absence of absolute frost. This is well known to all who are familiar with the management of conservatories and of winter flower gardens in England. Once the flowers, gathered from every clime, which make an English conservatory such a scene of glory in winter, are fully in blossom, and have been brought in from the forcing-houses, all gardeners know that a rather low temperature is beneficial, and prolongs the bloom and beauty of their floral favourites. The Chinese primulas, the heaths, the epacrises, the camellias, the azaleas, the correas, the chorozemas, the bulbous plants, continue to expand and thrive at a night temperature of from 38° to 44°. It is the frost they fear.

A few miles from Mentone, at Bordighera, groves of

palm-trees grow in great luxuriance, and are looked upon by all travellers as evidences of an eastern climate; as are those that grow on the "Place" at Hyères, and in the gardens at Nice. Such, however, is not the case. Palms will grow as out-door trees in any region of the Riviera, and would be generally cultivated, were it not that their cultivation is unprofitable everywhere, except at Bordighera, which has the monopoly of supplying Rome with palms on Palm Sunday. But they either do not produce fruit, or their fruit is not fit to eat. To ripen the fruit of the date-palm the sultry heat of the deserts of Egypt or of the Sahara is required. This tree may be compared, when growing in southern Europe, to the chestnut-tree in the north of England. As a tree, the latter grows with us in great luxuriance, but its fruit is all but worthless. The centre and the south of Europe alone have sufficient summer warmth to allow the fruit to reach perfection. The presence of magnificent chestnut-trees in our climate does not, therefore, indicate that it is a warm one. I have, indeed, seen such trees in the Highlands of Scotland, as, for instance, at Arrochar, on Loch Long.

The proximity of the sea exercises a considerable influence over the climate of Mentone, as the temperature of the Mediterranean is never very low. When the weather is cold, and especially when the sun is obscured, the sea is a reservoir of heat, and perceptibly warms the air; for it is then warmer on the sea level than on the hills. When, on the contrary, as is usually the case, the sun shines, the evaporation which constantly takes place cools the air at the sea level, and it becomes perceptibly warmer as the hills are ascended. There are sheltered sunny nooks in the vicinity of Castellare, a mountain village 1500 feet above the sea level, where, owing, no

doubt, to the concentration and reverberation of the sun's rays, the climate is exceptionally mild, and where violets and anemones appear at least ten days before they are found at a much lower elevation, or even in sheltered spots at the sea level.

The summer climate of Mentone is said to be cool and pleasant, owing, as we have seen, to the sea-breeze which sets in regularly in the morning, and blows the greater part of the day, and to the cool land-breeze which descends at night from the higher mountains. But then, on the other hand, it remains, night and day, at rather a high temperature for several months. In the tropics, on the sea-coast, there is also this sea-breeze daily, which makes the warm weather bearable, even agreeable to some; but it does not prevent the high temperature producing its usual physiological effects on the human frame. Warmth, when the air is stagnant and loaded with moisture, is very difficult to endure, because the insensible perspiration collects on the skin, and is not carried off. This renders warm weather so unpleasant in England, where the air is generally more or less saturated with moisture. When, on the contrary, there is a light breeze fanning the body, and the air is dry, as on the Mentone coast, the perspiration is constantly carried away, and the body cooled by its vaporization. The most trying feature of the summer climate in the Riviera is evidently the high night temperature, which has to be borne constantly, during a great part of the summer, from May until October.

Such being the case,—although persons in health may find it an agreeable summer residence,—I do not advise invalids to remain at Mentone during the summer season. If they do not wish to return to England, the best summer climate in Europe for health, they had better seek a refuge

from the heat in some of the high mountain sanitaria to which the medical men of Nice, Geneva, and Switzerland send their patients. I may mention, as easily accessible, Dalmas, on the Maritime Alps, about five hours' distance from Nice; the Grand Chartreuse, near Coni, in Piedmont; and further away, the Grand Cormoyeur, a well-sheltered and picturesque mountain valley, with sulphur springs, near Aosta, on the south side of the Mount St. Bernard. I have sought for such a refuge in Corsica, which the weekly steamers from Nice now render very accessible, but without any success. The cool summer climate exists there, but without the accommodation which would make it useful or available, as will be explained hereafter.

In Switzerland there are many retreats of this kind, at variable grades of elevation. Amongst the pleasantest and best, according to my friend Dr. Bezancanet of Aigle, are the baths of Morgins, in the Valais, above 4000 feet high, a charming mountain valley, well known for its strong chalybeate spring. I have not myself been there, but have been told that it is a delightful retreat from the heat of a continental summer, and that the air is bracing, without being chilly. The valley is wide, and the sky generally bright and clear. A respectable hotel has been recently built, which will probably afford travellers and invalids the comforts they require. I may also mention Sepey or Ormonds, about seven leagues from Vevay, 3300 feet high; La Rossinière, a pretty mountain village, with a good hotel. Aigle, Bex, and Clarens may also be recommended. The three latter are only 800 feet above the level of the Lake of Geneva, but the lake itself is 1200 feet above the sea level, so that the elevation is still considerable. In early summer and in the autumn they are better calculated for the invalid than the higher elevations, which are only suited for invalids during the great summer

heats—from the middle of July to the end of August and the middle of September. At all these places there are comfortable *pensions* at very reasonable rates.

In cases of phthisis, more especially, extreme heat should be avoided during the summer, as calculated to accelerate the progress of the disease. The patient should, indeed, be kept in a temperature below 70° Fah. This, in Continental Europe, can only be done by leaving the plains for the mountains, and attaining thereon a considerable elevation—at least three or four thousand feet.

There is, however, some little risk to be encountered by those who thus fly to the mountains to escape the heat of the plains. If the summer is dry and fine, all is well. The mountain air is found pure and bracing, the scenery is enchanting, and health often improves rapidly. But if wet weather sets in, the mountain retreats are at once enveloped in cloud or fog, and may remain so for weeks, to the great detriment of the consumptive patient. Again, the latter is surrounded by healthy, enthusiastic tourists, eager to explore the majestic beauties of the Alpine scenery, which they have come to see and explore. Their example is contagious, and it is very difficult for the most reasonable not to be led away, and induced to do more than is desirable or prudent.

I have known many break down from one or both of these causes, and under the influence of accidental disease, they have lost in a few weeks all the benefit gained by a winter's residence at Mentone. It is the recollection of such cases that makes me now always recommend the invalids whom I have carried safely through the winter to leave touring to better times, and to return for the summer to cool, green, healthy England—in a word, to go "home."

CHAPTER V.

THE MEDITERRANEAN.

TIDES—COLOUR—FISHES—BIRDS—THE ST. LOUIS ROCKS.

Βῆ δ' ἀχέων (μη) παρὰ θῖνα πολυφλοίσβοιο θαλάσσης.
HOMER'S *Iliad.*

THE ordinary notion of the Mediterranean is that of a blue and tranquil ocean lake. At Mentone, during the winter, this poetical view of the great inland sea is often strangely falsified. Sometimes, for weeks together, it is constantly angry, quite realizing the experience of pious Æneas in days gone by. For it then is indeed "troubled and perfidious," ever breaking in angry billows on the shingly beach.

To those who are familiarized with the varying forms of our old ocean, ever advancing, ever retreating, this seething, all but tideless sea, which day and night beats the shore with impotent rage, never advancing, never retreating, is at first tedious in the extreme. Gradually, however, the eye, the ear, the mind, become accustomed to its monotonous anger, and open to its real magnificence. Then, indeed, it is a glorious privilege to live, as nearly all do at Mentone, in front of the boundless liquid Mediterranean plain—at one time heaving restlessly, at another, in a calmer mood, covered with myriads of facets on which the sparkling sunshine dances and glitters. The daily rising of the sun, also, in the east, out of the waters,

colouring the skies and the waves with hues which surpass those of the rainbow, is a magnificent sight, that never palls.

To a reflective mind, the Mediterranean is the most interesting of all seas, of all waters. Its shores are hallowed by association with the entire history of human civilization. It may be said to have been the cradle of the human race and intellect. When the rest of the world was a blank, a mystery, every region of its circumference was known and inhabited by the nations whom we may consider the fathers of history. The Jews, the Phœnicians, the Egyptians, the Greeks, the Carthaginians, the Romans, all lived on its shores, navigated its waters, and developed their life as nations within sight of it. In early, half-fabulous days, it carried the fair Helen from her Grecian home to Troy, and then brought her ill-used husband, and the kings and chieftains of Greece, to the walls of her doomed asylum. Later, it witnessed the rise and progress of Christianity, was the scene of the voyages, the shipwrecks, and the trials of the apostles. It carried the crusaders on its bosom to fight for the Cross, and bore back the remnant of their marvellous armaments to their northern homes. In modern times, too, the Mediterranean has been the road to the East, the battle-field of the world, the connecting link between Europe, Asia, and Africa.

We have authentic records of the climate and meteorology of the Mediterranean in the writings of the ancient Greeks and Romans, such as Pausanias and Vitruvius, extending to above two thousand years. Both climate and meteorology appear to have been then what they are now, and the Mediterranean was navigated, by those who inhabited its coasts, pretty much as it is navigated in our own days, in a cautious land and shelter-loving manner.

Then, as now, the winter was a stormy time, and the danger of navigating with sails a sea in which there is so much uncertainty as to the direction of the wind, and such frequent collisions between north and south, was so impressed on the minds of mariners, that all long voyages were abandoned. Merchant vessels were pulled on shore, and remained "in port," free from the dangers of the deep, from the beginning of October until the beginning of April. Marine insurances were known at Athens even in those times; but navigation in the six forbidden months was considered so dangerous that no insurances were taken, and the interval was specially set apart for deciding litigation in maritime cases, as a time when all the parties concerned were sure to be at home.

Mariners in those days hugged the shore, and at the slightest unfavourable change ran into the nearest port, or took shelter under the nearest headland; and this, notwithstanding all the modern improvements in navigation, they do even now. With a slight breeze, the sea, near land, is studded with vessels, with their white lateen sails extended, like swallows skimming over the waters of the deep; but if a stiff wind and a heavy sea rise, they instantly seek shelter, and disappear. Then, for days together, not a sail is seen, until fine weather returns, and again lures them out of their retreats.

The vessels now employed in the coasting trade are probably much the same, in size and form, as those used by the old Greeks. They are, generally speaking, from about twenty to fifty tons burden, seldom larger. This is no doubt owing to the circumstance that most of the smaller ports are ineffectually protected from the wind and the sea, so that they have to be pulled up on the beach for safety. This is done by means of wind-

lasses, and with the assistance of the entire maritime population. They are thus unloaded and loaded on dry land, when they are again dragged and pushed down the beach into the sea by main force.

In the port at Mentone, at Ventimiglia, and all along the coast, scores of these small vessels may be seen, high and dry on the beach, waiting for cargo or fair weather. So it was that the Greeks pulled up their vessels on the shores of Troy, after landing, and it was when thus drawn up that they were fired and destroyed by their leader.

Although poetically called tideless, the expanse of water that forms the Mediterranean obeys the same laws as the great ocean. Like the ocean, it feels the vicinity of our cold satellite the moon, and rises and falls, at stated hours, under its influence. The body of water, however, is so much smaller than that of the ocean, notwithstanding the depth of the Mediterranean, that the moon's attraction produces a comparatively trifling effect. There are also other and more recondite causes which contribute to make the Mediterranean all but tideless.

The height of the tidal wave varies considerably in different regions of this great inland sea, ranging from a few lines to a foot or more. On one occasion, when at Naples, at the Hôtel des Etrangers, an invalid, I used to amuse myself by watching the sea, as it broke against the sea-wall beneath the windows. During a calm, which lasted more than a week, I observed that a rock crowned with sea-weed, immediately in front, was daily covered and uncovered twice by an evident tide.

Whenever the wind blows on or off the shore, it raises or lowers the sea-level, all over the Mediterranean, several feet. This makes it all the more difficult to recognise the existence of the tidal wave. At Mentone, when the wind

has been blowing several days from the south-east or south-west, the sea reaches nearly to the road in the eastern bay. When, on the contrary, it has been blowing several days from shore, not only the shingle, but a line of sandy beach is often uncovered.

This style of navigation may, and does, render the Mediterranean sailors expert boatmen, but it is said, also, to make them less fit for lengthened navigation than their more adventurous northern brethren. The navigation of an inland sea cannot, certainly, rear such a race of hardy sailors as is produced by the navigation of the wide Atlantic and Pacific Oceans, and by the pursuit of the great fisheries, amidst the storms and icebergs of the Northern seas. No wonder the sailors of Columbus, accustomed to seldom lose sight of land for more than a day or two, should have trembled when they had been many days at sea, and should have thought they were sailing into an unfathomable abyss.

When the sea is breaking furiously on the beach, as it does during a great part of the winter, there is but little marine life visible. The sea-level being ever the same, owing to the absence of perceptible tides, there are no exploring walks on the sands at low tide, as on our coasts, no searching after zoophytes and fuci. On calm days, however, a walk to the extreme end of the Cap Martin introduces the amateur naturalist to pools lying between jagged rocks, where there is much to be observed. There are also other points along the eastern coast where similar pools may be found, containing various kinds of sea weed, sea anemones, hermit crabs, inhabiting pretty shells which they have dragged from deeper water, and other marine treasures; only to be examined, however, on days of perfect calm.

The Mediterranean is a deep sea, and its depth is very great on this coast near the shore. According to Lyell, Saussure found a depth of two thousand feet a few yards from the land at Nice, and from Toulon to Genoa the sea is everywhere very deep quite near the shore. This is always the case in the Mediterranean where mountains terminate abruptly in or near the sea, as they do along the Riviera. The abysses of the sea are probably at least as deep as the mountains in their vicinity are high; and as at Mentone the higher mountain range reaches the sea line, there are no doubt alpine valleys many thousand feet deep within a very short distance of the shore—a grand idea!

Thus is explained the absence of deltas at the mouths of the large torrents which descend from the mountains, and fall into the sea in the Mentonian amphitheatre. For countless ages these torrents have been rolling, during the winter rains, great masses of boulders into the sea, and yet no impression has been produced on the outline of the two bays, which remains perfect. No doubt these boulders, which form in places a shingly beach, are soon rolled into these all but unfathomable depths, just as stones rolled down a house-top would fall into the space below. The same remark applies to the Paillon torrent at Nice. Thus, at the bottom of these marine valleys are now forming, no doubt, beds of conglomerate, similar in character to the one on which the village of Roccabruna is perched.

The Mediterranean may truly be considered a deep sea, for, in a great portion of its extent, its depth varies from five to ten thousand feet, or between one and two miles—a fact which has been ascertained in laying the telegraph cables, which cross it in various directions. Yet, even this depth

is trifling, compared with that of the Atlantic, between Europe and Africa, and America. The latter, in some parts, has been ascertained, by sounding, to be thirty thousand feet, or six miles deep.

Formerly deep-sea sounding was effected by means of a lead or weight fastened to a line, and thrown out from the ship. By this plan, however, it was found difficult, if not impossible, to reach a depth much above six hundred fathoms, or between three and four thousand feet. If the lead was heavy, it could not be hauled back, and the line broke; if it was light, it was floated away by currents. The impossibility of hauling in a heavy weight, once it has reached deep water, will be easily understood, when it is known that at a depth of fourteen thousand four hundred feet the pressure of the water is as three tons on every square inch of surface. To this must be added the weight of the whole line used for deep-sea soundings, which would itself, at that depth, amount to one ton (Ansted). The difficulty has, however, been overcome by an invention which we owe to Captain Brookes, of America. He introduced a weight so contrived, that on touching the bottom it separates from the line, which can then be hauled up —but only by steam power, when the depth is very great. Thanks to this contrivance, and to the use of steam power, the greater part of the Atlantic has been surveyed, and has been found to be a deep valley, lying between Europe, Africa, and America, and dipping deeper below the sea-level than the highest mountain rises above the surface of the globe.

The Mediterranean is a warm sea. At all times of the year it is five or six degrees warmer than the Atlantic Ocean under the same latitude; and in winter it is never cooled down to the same extent that the latter is in

northern and even temperate regions. In the open oceans there are, deep below the surface, cold currents from the north and south pole, which have been revealed by the deep-sea soundings of Lieut. Maury and others. Thus, in the Atlantic Ocean,—at the bottom of the Gulf Stream, a temperature of only 35° Fah. has been found, whilst the surface was above 80°. The Mediterranean, a land-enclosed sea, is not accessible to these polar currents, which is one of the causes, no doubt, of its exceptional warmth. Even in winter, I have never found it lower than 54° on the Mentone coast in deep water.

There seems to have been little if any change in the temperature of the Mediterranean and of its shores, within the memory of man. The same vegetation exists and flourishes on the latter that existed and flourished when the earliest records were penned, those of Sacred Writ and of Homer. The geological features do not, either, appear to have changed within that period, except as regards slight elevations and depressions of some coasts. Thus, the climate has probably been the same during the historic period. It has been characterized in former historic days, as now, by sunshine, by little rain, and by an atmosphere which only contains one-half of the moisture of the English atmosphere. Indeed, its climate has no doubt been what it is now ever since the continents of Asia, Africa, and Europe have assumed their present shape, ever since the existence of the rainless tract, of which the deserts of Sahara, of Arabia, and of Cobi, are the expression.

Owing to the paucity of rain, and to the small number of large rivers that empty into the Mediterranean, the supply of fresh water to that sea is much below the amount taken up by evaporation. To meet this deficiency

a wide stream or current of sea-water, many hundred feet deep, sets in through the Straits of Gibraltar from the Atlantic. This inward current was formerly supposed to be owing to a difference of level, the Mediterranean, in this hypothesis, being lower than the Atlantic. The researches of Admiral Smyth, and of other observers, have proved this view to be fallacious. The Atlantic, the Mediterranean, the Black Sea, the Adriatic, and even the Red Sea, have all the same level.

Admiral Smyth doubts the existence of a deep counter-current from the Mediterranean to the Atlantic, through the Straits of Gibraltar, but Lieut. Maury considers it proved. Were such a counter-current not to exist, he says, the waters of the Mediterranean would not only be slightly salter than those of the Atlantic, as they actually are, but would become intensely salter, like those of the Dead Sea, which has no outlet, and would deposit salt at the bottom from over-saturation. This is not the case, which proves, he states, that there *must* be a deep counter and outer current of water, of a denser gravity—from increased saturation with salt—than the upper and inner Atlantic current. This he shows to be actually the case from other data.

One of the most conclusive of his arguments is drawn from the history of a merchant vessel which went down, heavily laden, in deep water inside the Straits of Gibraltar, and was found some weeks after, outside the Straits, stranded on the Atlantic coast, many miles distant. As there is a strong current always running into the Mediterranean where the vessel went down, it could only have been taken far to the westward and thrown up by a submarine current going in a contrary direction to the permanent superficial one.

Thus is the equilibrium established between the Mediterranean and the outer ocean, and thus is the saltness of the Mediterranean kept within very nearly the ordinary limits, notwithstanding the deficient supply of fresh water from rain and river sources.

The exceptional warmth of the Mediterranean exercises, as we have seen, an influence on the climate, which it modifies favourably. It also exercises a remarkable influence on the finny tribes that inhabit it.

As Lieut. Maury states, the cold oceans and seas are those in which fish, especially good edible fish, thrive the most, and are the most prolific. The cod, the mackerel, the herring, the sole, the salmon, all belong to northern latitudes. Fish are abundant and good on the north coast of America, east and west, and on the north coast of Europe. The shoals of herrings, mackerel, pilchards, cod that visit our seas every year, all come from the north and return to it. Between the Gulf Stream, as it ascends the Atlantic from the Gulf of Florida, along the coast of the United States, there is a band or wedge of water, descending from the north, which is many degrees colder than the ascending waters of the Gulf Stream itself. This band of cold water is full of good edible fish, whereas the warmer waters of the Gulf Stream contain comparatively few fish, and those not good. In the tropics, and in warmer seas also, the fish are neither so good nor so numerous, although more brilliant and fantastic in colour and shape. The Mediterranean is no exception to this rule, as I can testify from personal experience. The fish it contains is in general neither good nor abundant, which accounts for the Roman Catholic inhabitants of its shores consuming so large a quantity of the product of the herring and cod fisheries of Northern Europe.

At Mentone the great depth of the sea at a short distance from the shore is no doubt an additional drawback, as very deep waters are neither favourable to the breeding of fish, nor are they good fishing-grounds. Our best fishing-grounds are all shoal-water banks, as for instance the Dogger Bank, and that of Newfoundland.

On a fine day, when the sea is calm, the Mentone fishermen are on the alert betimes, and the bay is studded with boats. A very close-meshed bag net is thrown out and buoyed, and then dragged in shore by long ropes, with great excitement on the part of those engaged. There are often ten or twelve men, women, and children to each net. When at last, however, it is drawn in, and its contents are scattered on the beach, these efforts recall the fable of the mountain in labour. There is seldom anything in the bag but a few pounds' weight of a minute transparent whitebait kind of fish, a few sardines and small red mullets, some diminutive sword-fish fry, and two or three crabs the size of a five-shilling piece, that have not been able to get out of the way.

When the nets are drawn in, and their living contents are strewn on the shore, the young, and I may say not unfrequently the old, are seized with an ardent desire to save some of the struggling inmates of the deep, or in other words to establish an aquarium. Basins, tubs, all kinds of utensils are enlisted in their behalf, but I am sorry to add with but very little success. The small flat fish, mullets, sword-fish, the shrimps, &c., after darting about furiously for some hours, vainly endeavouring to escape from their prison, turn on their side and die. They really appear to die from nervous exhaustion, for it cannot be for want of aerated water, as the same result is observed when either a large or small vessel is used.

I find that Mr. Philip Gosse, the charming naturalist, also takes this view of the early death of marine animals thus suddenly confined. He strikingly remarks, "It is as if a man, shut up beneath the dome of St. Paul's, should be found dead by daylight for want of air to breathe. Are the gills of an anneloid or a mollusc more exacting than the lungs of a man?"

The small-meshed nets must be very destructive to young fish; and as they are everywhere used on the Mediterranean coast, they must tend to render it even more unproductive than Nature intended it to be.

The French Government, which has paid great attention, during the last few years, to pisciculture, to the replenishment both of its salt and fresh waters with fish, has become alive to this fact. A commission has recently been appointed to inquire into the condition of the fisheries on the northern shore of the Mediterranean, with a view to their improvement; and the probable result of its labours will be a prohibition of the use of these small-meshed nets—a very necessary step. They unquestionably tend to destroy the fisheries wherever used, by annihilating the small fry on the shallows. Unless some such measure is adopted, fish must all but disappear from this part of the Mediterranean shores, stimulated as their destruction is by the presence of wealthy fish-eating strangers. A few years ago the small fry were sold at Mentone for four sous (twopence) a pound; the larger for eight sous (fourpence). Now the small fetch twenty, and the larger thirty sous.

The local fishermen, and many better informed persons, maintain that the small fry, the whitebait, is not the spawn of larger fish, but a peculiar species of fish that does not grow any larger, and that were these nets not

allowed a valuable kind of food would be lost to all classes of society. Even admitting that such is the case, in order to catch them the spawn of the larger fish is and must be destroyed, which is more than an equivalent.

The gentle art is cultivated at Mentone by many zealous native piscatorians, who may be seen day after day fishing from the parapet of the quay at the entrance of the town, from rocks lying in the sea, or from the shore. Some of the visitors also, inspired by their example, occasionally enter the lists. Their patience and skill, however, meet with but a poor reward, as might be anticipated from what has been stated. Their principal recompense appears to be the lazy enjoyment of the harmonies of nature so dear to all who love "the contemplative man's recreation." The melody of the waves breaking at our feet, the surging of the blue waters over the sea-weed covering the submarine rocks, the varied hues that the fuci assume, as they are alternately expanded and buoyed up by the coming wave, and then left high and dry as it retreats; the effects of the ever-varying cloud, shadow, and sunlight on the sea, the rocks, the mountains, and the horizon, are never better observed, or more thoroughly appreciated, than by the unsuccessful angler. Very little piscatorial success satisfies the true lover of nature, and such nearly all enthusiastic piscatorians are. This love of nature is, I believe, the key to their oft-abused pastime. In the educated it is felt and analysed, in the uneducated it exists as an instinct, a sensation, but is not analysed.

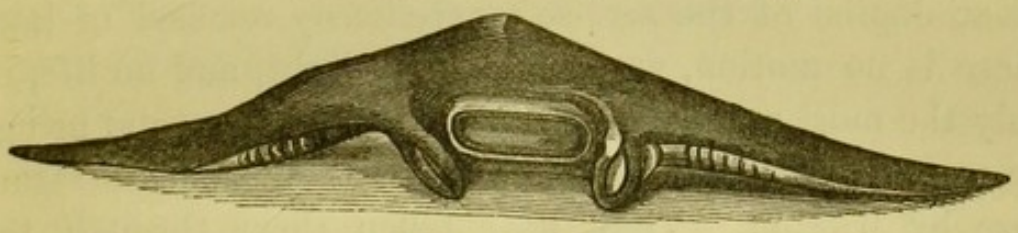
Cuttle-fish are abundant in these waters, and are eaten by the inhabitants as a delicacy. They are occasionally found of enormous size. I have seen a monster, at least

six feet in length, with villanous-looking tentacula several feet long. Such antagonists would be very formidable even to a strong swimmer, if they attacked him. They could easily surround him with their suckers, and perhaps pull him under water; but I have not heard of any such accident. Monstrous cuttle-fish, with shells twelve feet in circumference, characterized the warm seas of the chalk period and of the epoch in which the nummulites of the St. Louis rocks existed. Even now, in tropical seas, there are cuttle-fish of enormous size. Well authenticated tales are told of tentacula as thick as a man's arm, thrown by cuttle-fish like those of yore over the sides of a boat in these regions, and dragging seamen overboard. These "strange fish" have long ago died out in the Mediterranean, but probably those I have seen are their lineal but degenerate descendants. The small and beautiful nautilus is still alive, although it, too, lived in these remote days along with its awful companion.

The fishing for cuttle-fish is quite one of the features of the place. The boat is rowed gently along the shallow parts of the bay, where the rocks are covered with sea-weed. In the prow sits the fisherman, holding a long stick, to which is tied a piece of meat as bait, partially covered with a few green twigs. This perch is poked among the sea-weed, under the rocks and stones, in likely places. If the cuttle-fish is there he makes a clutch at the bait, and clings to it with such extreme tenacity that he is easily hauled into the boat. At night the fishing is often carried on by means of a fire lighted in a kind of metal basket suspended over the prow of the boat. The fisherman uses a lance. He leans over the side of the boat and explores the bottom of the sea, by the glare of the fire, as the boat glides gently along. This

night-fishing has a picturesque effect as seen from the shore.

There is an interesting fact connected with the Mediterranean that is but little known, even by the scientific world. This sea is the favourite habitation, the home, of one of the largest and most singular fish that inhabit the wilderness of waters, the devil-fish. The devil-fish is a species of monstrous hideous ray or flounder, flat, broad, of enormous dimensions, and of extraordinary muscular power, with a huge mouth and stomach, all one, in the front of its misshapen head. It inhabits the tropical seas, the broad Atlantic, as well as the Mediterranean, and is everywhere an object of curiosity and awe, when seen or caught, which it very rarely is. The African traveller, Le Vaillant, caught one twenty-five feet long in the body, and thirty feet wide in the fins, on one of his journeys to Africa. Other travellers have seen them floundering on the surface of the sea, apparently as large as the vessel they were in. Two were caught at Villefranche, near Nice, in 1807, in one of the tunny nets, and have been minutely described by Risso, the learned Nice naturalist, under the name of "Cephaloptera Massena." The one first caught, a female, weighed 1328 pounds; it moaned piteously. The male was seen, for two days, to hover round the nets where she was taken, searching for its mate, and then was taken in the same net! The poor loving devil-fish were thus united in death. The male was smaller, weighing 885 pounds only.



THE DEVIL FISH.

The Mediterranean fishermen are acquainted with the devil-fish traditionally, calling it *vacca*. They believe that its appearance is an omen, and portends disaster. A small species is not uncommon in the West Indies, and is sometimes pursued, but rarely taken, in Kingston harbour, Jamaica, according to the Hon. R. Hill, who has published a very interesting account of this curious fish (*Intellectual Observer*, October, 1862). The drawing given is copied from this article. When one of these fish is observed floating on the water, the mode of attack is to harpoon it. The monster immediately strikes out for the sea, with amazing velocity and power, towing its enemy along with it. Other boats attach themselves to the first, and they are all towed out, generally for several miles, before it again rises. Indeed they are frequently obliged to abandon the chase altogether.

Often, when steeped in the southern winter sunshine, I lie in my favourite leisure haunt, among the St. Louis rocks, gazing at the Mediterranean, in one of its calm, placid moments, I think of these monsters and repeat to myself the harmonious verses of Mrs. Hemans:

> "What hidest thou in thy treasure-caves and cells,
> Thou ever-sounding and mysterious sea."

Perhaps at that very moment some of these monstrous antediluvian fish are disporting themselves in the deep waters at my feet; for it is not in the very deepest regions that even the largest fish can and do live. In the great depths of the sea, so marvellously reached of late, there is no motion, very little if any light, and no life, or only the most rudimentary kind of life. The sound brings up microscopic shells undamaged in their delicate structure by friction. They have fallen there through the

water, and there they remain motionless. The dead sailor, who is thrown over the side of the vessel, with a cannon-shot attached to his feet, descends to these depths, there probably to remain, standing erect, preserved by the pressure of the water, until the Day of Judgment.

As spring advances some of the fish, which then descend in such enormous shoals from the Northern seas into the Atlantic, find their way into the Mediterranean, through the Straits of Gibraltar, and are very welcome. Thus, mackerel and whiting are caught in great numbers, and a large and much valued fish, the tunny, appears.

"The tunny or *thynnus* is a fish which belongs to the genus mackerel, *scomber*, which it resembles in form. It grows to more than seven feet in length, and then often weighs as much as four hundred weight."

After passing the Straits in dense masses, the tunny skirts the coasts of Spain, France, and Italy, to spawn in the Black Sea. It visits the smallest bays and coves, which renders its capture feasible—indeed, easy. Large and strong nets are fastened by cables and anchors, at the entrance of the bay where they are expected, and a sentinel is posted on some eminence to watch for their advent. When they are seen approaching along the coast, the fishermen get ready, and as soon as the fish have entered, they close the nets around or behind them. The poor fish are then slaughtered with lance and knife, the sea being reddened with their blood. They are of a large size, often weighing several hundred weight. As we have stated, their flesh, although not very delicate, is still much appreciated by southerners.

The tunny reach Mentone in early spring, and about the middle of April may be seen in the eastern bay of Cap Martin, the preparations being made for their advent.

These preparations are on rather a small scale, and consist merely of three or four boats, a long net in the water, and the look-out, perched on a kind of platform raised some thirty feet high on the shore.

In some parts of the coast of Italy and Sicily large nets, called madrigues, half a mile or a mile long, are used in fishing for the tunny. These nets, which are divided into chambers by cross nets, are sunk in deep water, at some distance from the shore. The tunnies, which follow the coast in a shoal, pass between it and the net, and on reaching the extremity of the latter are arrested in their progress by a cross net. They then turn, and are drawn into the chambers of the large net by the fishermen, where they are destroyed, as described, by hundreds, in favourable years. The sport is stated to be very exciting; but, unfortunately, it takes place principally in May and June, so that health visitors have mostly taken flight to the north before it is in operation.

The tunny is not only allied to the mackerel, but also to the bonito, a beautiful tropical fish of a lovely blue colour. The bonito, although a tropical fish, is represented in the Mediterranean by a distinct and equally beautiful species, the *Pelamys Sarda*, the length of which is from twenty to thirty inches.

Whales not unfrequently pass into the Mediterranean through the Straits of Gibraltar, for a stately promenade or "swim." On one of my excursions to Corsica, we met one when out of sight of land. The steamer passed very near him, and he indulged us with a splendid spout. The French sailors called the whale "un souffleur" (a blower), and I thought he well deserved the term.

Porpoises are numerous, and as amusing in their gam-

bols, leaps, and unwieldy gyrations, as in the northern seas. They constantly come in shore. On one occasion we met with a shoal out at sea, evidently on frolic intent; they were apparently pursuing each other, like boys at leap-frog. Regardless of our presence, they kept springing out of the water, with a kind of flying leap. Sometimes half a dozen would be in the air at a time, all in a line. They passed our bows, and then were soon out of sight, as our courses diverged.

If, on a calm fine day, a height of some hundred feet or more is attained above the shore, and the surface of the sea is carefully examined, it will be seen to present ribbons, as it were, of water of different colours, lighter and darker. These ribbons describe all kinds of irregular liquid paths and sinuosities in the bay, and for a mile or two from the shore. They are varying marine currents, the cause of which it is difficult to determine. Inequalities of surface at the bottom, differences of temperature, winds, all no doubt contribute to produce them. They illustrate on the surface of a calm sea the deeper and more powerful currents which play so important a part in the history of the great ocean.

These currents are the preserve, the delight of the marine naturalist, a fact but little known. I was introduced to them by Professor Pagenstecher, of Heidelberg, a well-known and enthusiastic naturalist, who came to Mentone one spring purposely to study its marine zoology. It seems that the currents draw into their course all the vegetable or animal detritus floating at the surface of the sea where they pass. The presence of these "elements of nutrition" attracts animalculæ and the smaller inhabitants of the deep. They, in turn, attract the larger molluscs, and thus these currents become a kind of naturalists'

cover, where the inhabitants of marine depths inaccessible to dredging are found in abundance.

The best time for this kind of fishing is early in the morning, at sunrise. The boat should start from the shore just as the sun appears on the horizon, so that the current or fishing ground, previously determined from the land, is gained as the sun's rays illuminate the depths of the sea—

> "And now the purple clouds
> Rise like a mountain; now the sun looks out,
> Filling, o'erflowing with his glorious light
> The noble amphitheatre of hills."—ROGERS.

All animated nature becomes endued with fresh life, an universal desire for food is felt, and the briny paths are soon crowded with voracious customers.

The fishing is carried on by means of two nets, like butterfly nets, only larger, fastened to stout sticks. One is large, and of stout texture, the other is smaller, and of more delicate material. They are held out, four-fifths immersed in the water, from the side of the boat, the concavity turned in the direction the boat is going, and of course catch everything in their way. There should also be several jars of sea-water in the boat, ready for use. Every now and then the smaller and more delicate net should be taken in, the water allowed to escape from the bag end, and then the bag itself should be turned inside out into one of the jars of sea-water. Although the eye may detect nothing on looking at the water from above, if the jar is lifted up and the observer looks "through" it, he will generally see, by transmitted light, many very singular forms of marine life, which the net has caught disporting on the surface of the sea, but which are quite invisible to the eye from above. The same plan may be

followed with the larger net, but it is more especially intended to catch the larger molluscs and zoophytes, which the eye distinctly perceives swimming or floating in the current. I was thus introduced by Professor Pagenstecher to many very singular and beautiful forms of life, and was highly delighted with this new mode of fishing. He was very successful, he told me, during the few weeks he spent with us, and returned to Heidelberg laden with numerous scientific treasures, and a very happy man.

I may remark that I have never known an unhappy, misanthropical naturalist. As a class, I think they are truly the happiest and most contented of men. Constant communion with nature draws their thoughts from the cares, the anxieties, the heartaches, the passions of life, and thereby purifies and elevates their minds. Every advance in knowledge, every discovery made, increases the admiration, the reverence felt for the Divine Author of all things, who has so marvellously organized everything for the best.

All who sail on or live near the Mediterranean notice the peculiar blueness of its waters. This tinge would seem to imply that they contain more salt than the waters of the ocean. The more salt held in solution by water, the bluer it is; the less salt, the greener it is. Hence the light green hue of the Polar seas, which contain much more fresh water than those of the tropics. The latter are generally, from this cause, of a deep indigo, like the Mediterranean. The evaporation from the surface of the Mediterranean abstracts a much greater quantity of water than its rivers supply. Hence the strong current that sets in from the ocean at Gibraltar, and also, no doubt, the blue tinge of its saline waters.

The correctness of the above views has been questioned.

I would, however, refer those who doubt to the first three paragraphs of Lieutenant Maury's very valuable work on "The Physical Geography of the Sea." It is, indeed, to this really fascinating book that I am indebted for the explanation I have given of the peculiar indigo-blue colour of the Mediterranean. It may be considered proved by facts derived from other regions of the world's waters, and by actual experiments.

The Gulf Stream, which comes from the tropics, from the Gulf of Mexico, where the heat is extreme and evaporation very great, is of a deep blue colour, like the Mediterranean. This colour is so different from that of the surrounding ocean that the line of demarcation is seen with ease, and in calm weather half of the ship may be seen in the Gulf Stream and half out. Analysed by Dr. Thomassy, by means of a delicate instrument, the salt has been found to be 4 per cent. in the blue Gulf Stream, opposite Charleston; $4\frac{4}{10}$ per cent. in the blue trade-wind region; whereas it was only $3\frac{1}{2}$ per cent. in the greener waters of the Bay of Biscay. Again, in the salt-works on the shores of the Adriatic and of France, the vats or pools into which the sea-water is received for evaporation exemplify the fact. After standing some time in one pool, for the purpose of evaporation, the concentrated sea-water is passed into another, and so on. As it becomes more and more loaded with salt the colour gradually changes from light to deep blue, to indigo, and finally to a reddish tint when crystallization is about to commence. "The saltmakers judge of the richness of the sea-water in salt by its colour; the greener the hue the fresher the water."

The colour of the waters of glacier streams, of the Swiss lakes, or of the Rhine at Bâle, is quite a different hue to that of the Mediterranean. It is a kind of light

bluish green, and is evidently owing to some other physical cause.

In describing the natural features of the Mentonian amphitheatre, I must not omit to mention, that its olive and pine woods are alive with feathered songsters. The notes of some are very musical, and those of others reproduce sounds familiarly heard in the summer in our own pine forests in England. The same cannot be said of the small green tree-frogs that scramble about on the branches of the olive-trees, or of their larger brothers that live in or near the tanks. In winter they are, fortunately, silent; but as spring arrives, they commence every evening an endless chorus, which lasts until after daylight, much to the dismay and distress of those who live in their neighbourhood. They certainly more than compensate for the nightingale, which arrives, as with us, early in May, and warbles all night long in every tree. The birds are mostly winter emigrants, like ourselves, in search of a southern sun. The olives and pine cones afford them abundant food.

On the sea, near the shore, are constantly seen troops of sea-gulls, attracted by the household refuse which the inhabitants are rather too prone to cast over the sea-wall into the salt water. When wind and storm are looming on the horizon they are more especially numerous, sometimes congregating in flocks of several hundred. They generally swim about on the waves near the shore, and look very picturesque, when present in such numbers. Sea-gulls are interesting birds in more ways than one. When riding on the waters they have more than the usual grace and elegance of aquatic birds, and when soaring aloft, all but motionless, or describing eddying circles, the strength and smoothness of their flight, and

their perfect self-possession, are pleasant to behold. Sea-gulls appear to soon become familiar with man in the pursuit of food, and a truly remarkable feature in their history is the pertinacity with which they follow vessels, especially steamers, for the sake of the offal thrown overboard. In the Mediterranean they lie in wait off the ports, and a chosen band starts with nearly every steamer, and follows it, fair weather or foul, to its destination. They have thus accompanied me on most of my longer Mediterranean excursions, such as from Corsica to Marseilles, from Messina to Marseilles. On the latter voyage a troop of eight joined us as we left the port of Messina, and were flying about us for three nights and two days, apparently ever on the wing. Whenever I was on deck they were there, not merely following the vessel, but leisurely flying in circles half a mile in advance of us, or a mile or two behind. A few bits of bread thrown into the sea brought them all to us in a few seconds. Their wonderfully acute sight soon detected the prize, when they would descend from a great height, like an arrow, and pounce on the smallest morsel floating in the foaming furrow traced by the vessel. The captain said that they knew the track of the Mediterranean steamers as well as the oldest pilots. I have been told that they follow in the same way the steamers from New York to Europe for ten days and more. They probably rest and sleep occasionally on the bosom of the sea, and afterwards overtake the ship by their rapid flight.

The swallows and martins, as I have stated, never abandon the sheltered ravines and sun-heated rocky mountains of the Pont St. Louis throughout the winter. Their presence attracts hawks, and occasionally the majestic eagle, from the adjoining Alpine regions.

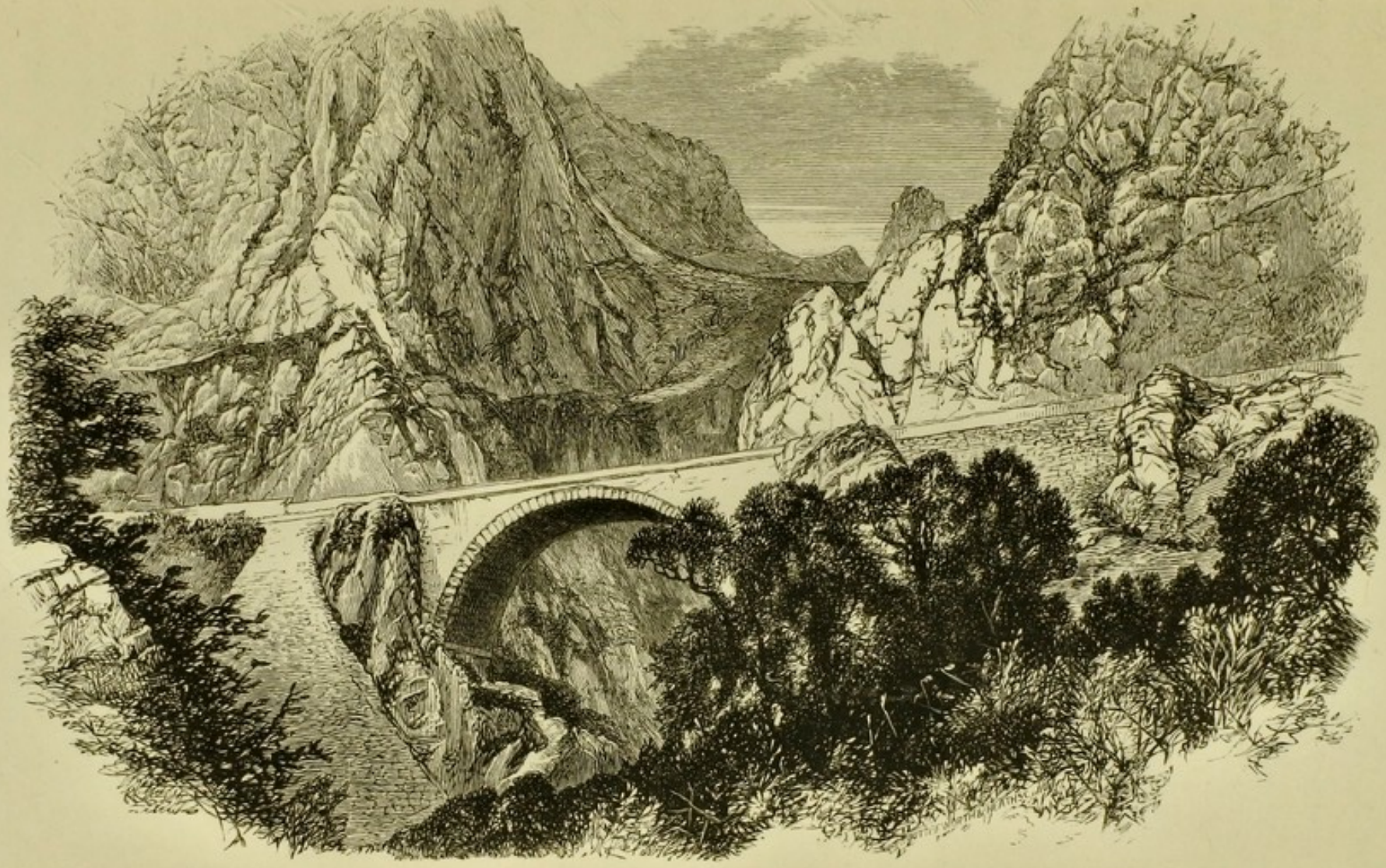
I have often lain, in mid-winter, for hours among the rocks of St. Louis, high above the blue vessel-dotted sea, with the wild thyme, the rosemary, and the cneorum in full flower around me, watching their movements. As they gain confidence the swallows, in great numbers, resume their rapid flight in and out of the rocks, chasing the insects as on a fine English summer evening. Suddenly a noble hawk, occasionally a majestic Alpine eagle, appears, soaring aloft with wide-stretched pinions. The poor swallows, stricken with fear, instantly seek refuge, and in a few seconds disappear from the gaze of their ruthless pursuer. Sweeping from one rock to the other, he seems to enjoy the confusion and solitude he has created, and remains "the monarch of all he surveys."

The St. Louis rocks rise all but perpendicularly from the sea, on the eastern side of the eastern bay, the Genoa road being blasted from their flanks. They present, near the shore, a deep, irregular, and picturesque cleft or ravine, formed by a watercourse which falls as a cascade from a considerable height. The road crosses this ravine by a bold and elegant bridge of one arch, which is now the frontier between France and Italy. Masses of rock, irregularly divided and worn by the convulsions of nature, and by the action of water and weather, form the boundaries of the ravine. They are partly naked, partly clothed with mountain plants, lentiscus bushes, thyme, the cneorum, valerian, and bluebell. These rocks are continuous with the ridge that ascends to the Berceau, one of the highest mountains of the Mentonian amphitheatre (3580 feet). A few hundred feet above and from the sea, the scene becomes very wild and grand. The mountain assumes the form of a fantastic mass of huge rocks and stones. In one region they form a species of stony

torrent, arrested in its rapid descent, in another they are piled one over the other in every conceivable shape. It is the wildness and naked stony confusion of a mountain summit, within a few hundred feet of the level sea.

On the eastern side of the St. Louis ravine, lying on the side of the mountain, some thousand feet above the sea, is a very picturesque, grey-looking village, Grimaldi by name. It is seen from the town and the eastern bay, warming itself in the sun, and is generally rendered conspicuous by patches of white which surround it. This is the linen of the inhabitants, lying on the mountain to dry. On the left side of the Genoa road, which winds above the shore, blasted out of the solid limestone rocks, below the village, is a ruined mediæval castellated tower, formerly inhabited by the Count of Grimaldi, and built, no doubt, to protect the coast and the town from the attacks of the roving Moors and Saracens. It is known by the name of the Grimaldi tower, and it is from a small watch turret near it that is taken the very truthful view of the Mentone amphitheatre contained in the frontispiece. This is one of the most sheltered spots that can be found in the entire district, and the view from it is certainly one of the most complete and most lovely. With a view to winter gardening, and to the tranquil enjoyment of "invalid lazarone life" in hours of leisure, I have become the happy proprietor of the little watch tower, and of the smiling sunny terraces that adjoin it.

At the bottom of the picturesque ravine, which is crossed by the bold St. Louis bridge, there is a copious watercourse, that is made to irrigate and fertilize all the terraces to which it can be diverted. Indeed, as I have stated, the groves of lemon trees which cover these terraces, owe their existence to the water thus obtained.



THE ST. LOUIS BRIDGE AND ROCKS.

In the lower part of the ravine there is an aqueduct on arches, which tradition says was built in the time of the Romans. Several hundred feet higher there is a small water canal, scooped out of the rock, which descends from the village of Grimaldi over the head of the ravine. As it is a short cut from the village to Mentone the villagers constantly make use of it, although there is scarcely footing for one person, and in many places the precipice is immediately at the side. In one part the aqueduct is so much in a hollow of the rock that there is scarcely room to pass upright. A tale is told of a young Grimaldi girl who all her life had blithely and fearlessly traversed this path. She got married, had a baby, and carried the cradle on her head, as is the custom of the peasants in this country. One day she took the familiar road, with the cradle in the usual position, forgot the rock, struck against it, and was dashed over the precipice with her child.

On the western side are the "warm terraces," as I have named them, the warmest region of Mentone. On the rocky mountain slope, the owners have scooped out and built a series of terraces, which have been entirely planted with flourishing lemon-trees. They owe their existence entirely to the little streamlet which has been diverted from the ravine watercourse, and which irrigates the terraces, filling large tanks for summer use. Sheltered on every side except the south and south-west, saturated with sunshine from early morning to evening, the rock and soil never cool, and cold and frost are unknown, even on the exceptional cold days experienced at Mentone. Thus they constitute a kind of natural hot-bed, where vegetation is always in advance, and where winter is really unknown.

The stranger wandering among the rocks above these terraces, may accidentally find a small black metal cross. This cross commemorates a painful catastrophe that occurred a few years ago. A sprightly English girl of ten, whose parents occupied the villa below, escaped with a younger sister from their governess, and, in light-hearted play, scrambled up the rocks. Having reached this wild region, the elder one climbed upon a peak to wave her handkerchief in recognition to a friend below. Unfortunately she lost her footing, fell head-foremost, and was killed on the spot. There was universal mourning for the sad fate of the fair English child on the part of the kind-hearted Mentonians, and even now the fearful accident is never mentioned without deep sympathy for the bereaved parents.

The beach underneath and beyond the St. Louis ravine is singularly beautiful. The red limestone, or "red rocks," as they are generally called, ascends perpendicularly to a great height, and the shore is merely formed of debris and advancing buttresses of the same formation, worked by the waves into the most jagged, irregular, and fantastic shapes. When there is a strong south-westerly gale blowing, the waves are thrown on these rocks with great force, and are broken into foam and spray, that rise, with a noise like thunder, to a great height. On one point there is a subterranean passage or tunnel, into which the sea is engulphed, to escape further on in the shape of a magnificent jet d'eau. The sight, in stormy weather, is truly magnificent. The bone caves are immediately above.

Along and on these rocks used to pass the road to Genoa, a mere mule track, as before stated. Remains of it still exist, and it constitutes one of the most picturesque

and pleasant promenades. The view of Mentone and of its amphitheatre is very fine from this point. About half a mile beyond the torrent that descends from the St. Louis ravine, the path passes over a gully, by a bridge of one arch, so thin and light that it is crossed for the first time with some apprehension. It is said to be of Roman construction, and, small as it is, seems worthy of such an origin.

Some bold rocks which here rise out of the sea near the shore, and give the command of deep water, are the favourite haunt of anglers. I have tried my fortune, piscatorially, like others, but with very little success. Would not some plan of ground-baiting be likely to attract the finny tribe? The refuse which the towns-people throw into the sea, over the quay, at the entrance of the town, seems to have that effect; a fact which accounts for the habitual presence of native anglers in that locality. I leave this question, however, to those who are more learned than myself in the art. On the rocks hereabouts is found the "samphire," which is not confined to the dizzy heights of Dover cliffs. This region is also a favourite habitat for the cinerea argentea, and for the elegant lavatera.

A strong sea wall, and a broad foot causeway have recently been built along the shore of the eastern bay, from the town to the St. Louis rocks. An admirable promenade, sheltered from the north-east wind, has thereby been formed, most valuable to the invalids who inhabit the eastern bay.

CHAPTER VI.

THE CLIMATE OF MENTONE AND OF THE RIVIERA CONSIDERED MEDICALLY.

To appreciate the medical characteristics of the climate of Mentone, and of the Riviera in general, it is only necessary to carefully weigh the meteorological facts enunciated in the preceding chapters.

A cool but sunny atmosphere, so dry that a fog is never seen at any period of the winter, whatever the weather, either on sea or on land, must be bracing, invigorating, stimulating. Such, indeed, are the leading characteristics of the climate of this region—the undercliff of western Europe.

Behind the mountains which skirt the Riviera and the Mentonian amphitheatre, in midwinter, as we have seen, frost and snow extend up to the north pole, more than a thousand miles. On the other hand, the wind blows from the northern quarters during the greater part of the winter season. The air must, therefore, be cool, and would be cold, were it not warmed by an ardent sun, darting its rays through a cloudless sky and a dry atmosphere—were it not, also, for the summer heat stored up in the rocks and mountains, and given out by them. These causes keep Mentone free from frost when it reigns all around, but cannot make it a tropical climate.

Such a winter climate is perfection for all who want bracing, renovating—for the very young, the invalid

middle-aged, and the very old, in whom vitality, defective or flagging, requires rousing and stimulating. It unites, indeed, all the conditions calculated to exercise a beneficial influence in any state of lowered vitality.

The cool, but pleasant temperature, the stimulating influence of the sunshine, the general absence of rain or of continued rain, the dryness of the air, render daily exercise out of doors both possible and agreeable. Indeed, in such a region life may be spent out of doors throughout the winter. Such an existence, in such conditions, has a direct tendency to create and to maintain the appetite, and to improve the tone of the digestive and nutritive functions in general.

The pores of the skin, also, are kept permanently open throughout the winter, and thus the lungs are relieved of the extra burden which is always thrown upon them in northern climates, when the cold damp of winter supervenes. It is, indeed, because the functions of the skin, as an excretory organ and as a purifier of the blood, are all but arrested by the winter cold in our climate, that sore throat, influenza, and bronchitis, are so prevalent, and existing, become so aggravated. The work of blood-purification, accomplished in warm weather by the skin, is thrown on the mucous membranes of the lungs and air passages. They become choked, as it were, and succumb to this extra work, the blood itself becoming poisoned by deficient purification from worn out materials. Hence the colds or local inflammations, and the fever that accompanies them in the winter season of the north, and the comparative immunity from these affections in such a climate as that of the Riviera.

I selected Mentone as my winter residence six years ago, because I was suffering from advanced pulmonary

consumption. Since then, most of those who have followed my example have been persons labouring under the same dire disease. That the choice was, and is, a rational one, will, I think, be generally admitted, on consideration of the facts above stated.

When I first arrived, there were but few strangers, but the foreign population has yearly increased, and numbered last winter, 1864-5, about six hundred. It contains representatives of nearly all the European nations; the English and French, however, have hitherto been by far the most numerous. Since the translation and publication of this work into German two years ago, many Germans have also made it their winter abode.

Phthisis is essentially a disease of debility. It principally attacks those who have received organizations deficient in vitality from their parents, or who have injured the vitality of an originally good constitution by excesses of any kind, or in whom such a constitution has been impaired by over work, or by hardships and privations independent of their own will. In such a disease—one essentially of defective vitality—a bracing, stimulating climate, such as I have described, must be beneficial, and has been most decidedly so, both in my own case and in those of the many whom I have attended.

With the assistance of sunshine, a dry, bracing atmosphere, a mild temperature, and rational sthenic treatment, hygienic, dietetic, and medicinal, I have found pulmonary consumption in this favoured region, especially in its earlier stages, by no means the intractable disease which I formerly found it in London and Paris. After six winters passed at Mentone, I am now surrounded by a little tribe of cured or arrested consumption cases. This curative result has only been attained, in every instance,

by rousing and improving the organic powers, and principally those of nutrition. If a consumptive patient can be improved in health, and thus brought to eat and sleep well, thoroughly digesting and assimilating food, the battle is half won; and helping the physician to attain this end is the principal benefit of the winter climate of the Riviera.

Amongst the consumptive patients I have attended, those who were in the early or even secondary stages of the disease, and had vitality and constitutional stamina left, have mostly done well. I have seen, in many young persons, well-marked, crude tubercular deposits disappear, gradually absorbed. In various cases of accidental phthisis in middle-aged, over-worked men, the amelioration has been still more apparent. I have seen well-marked cavities become partly or entirely cicatrized, and the constitutional symptoms gradually subside; the general health and strength steadily improving.

Those who are in the last stage of the disease, on the contrary, appear to derive but little benefit from the change, although I have met with some exceptions to this rule. The malady generally seems to progress slowly but steadily. They suffer from the cold and the wind, and especially from the occasional outbreaks of wet, chilly weather. Moreover, some feel bitterly the absence of home comforts, and their separation from friends. Some each year drop off in the course of the winter, as they would have done at home, from hæmorrhage, from pleurisy, from bronchitis, or diarrhœa. In their case, it appears to me that little is gained, as far as the disease itself is concerned, by the change of climate. They cannot avail themselves of its bracing capabilities for out-door life and enjoyment, and sometimes feel the variations, against

which they cannot protect themselves as well as at home. Such patients, in the last stage of phthisis, emaciated, unequal to any exertion, evidently arrived at the concluding stage of their earthly pilgrimage, are, in my opinion, better at home, or in a warmer climate than that of Mentone, or of Italy generally—Madeira, for instance, where the temperature is said never to fall below 56°.

I would also include in this category those phthisical sufferers in whom the disease presents itself in the acute form, and in whom it is rapidly passing through its various stages, especially when the disease is of an hereditary character. Change of climate can scarcely be expected to arrest the progress of a malady which, in such cases, is running through its phases with the rapidity of an acute disease.

In some instances, however, of advanced phthisis, in which there is, from the first, but little chance of recovery, or even of prolonging life, the invalids, surrounded by dear friends, are so charmed with the sunshine, with the foreign scenery, and with the vegetation, that it compensates for all their fatigues and trials. Indeed, I have known them rejoice in their presence under the bright sky of the south, even in the midst of great physical trials. To such sufferers—admirers of the picturesque, mentally alive to the beauties of nature, to the glory of the sun daily careering in a blaze of light through the heavens, to the beauty of the "ever-changing" sea, to the shadows on the mountains, the quiet repose out of doors, all but daily enjoyed, amply compensates for the sacrifices of exile. They descend the valley of the shadow of death rejoicing, nor can anyone, in such cases, regret the fatigue encountered in the journey from England.

Even among this class of patients I have repeatedly

seen very severe and extensive disease arrested for a time, and life evidently prolonged; whether saved or not the future alone can tell. I have still oftener seen this occur with persons who, although very seriously ill, were evidently not in so irrevocably hopeless a state as they were supposed to be at home. In framing a prognosis, medical practitioners are often unconsciously influenced by their temperament. Those who see everything *couleur de rose*, are hopeful up to the last, and can scarcely believe that their patients may not get well. Others, of a less sanguine temperament, soon give up all hope, and in some cases too soon. In medicine, as in all other pursuits, the middle course is always the most difficult to steer.

In the midst of all the favourable influences of a southern sky, much depends, as elsewhere, on the antecedents of the patient, as explained by the laws of general pathology. Phthisis developed accidentally, in a healthy constitution, from hard work, exposure, or anxiety, phthisis connected with gouty dyspepsia—an all but unrecognised form of the disease, although not so very rare—is more likely to be arrested, or even eventually to get well, than the strictly tubercular or scrofulous form of the disease.

If I might presume to give an opinion, founded on personal and professional experience, as to the kind of case in which a southern residence is likely to be beneficial, to warrant a great sacrifice, I should say that it is scarcely worth while to send a patient so far from home in the acute stage of the disease, when the lungs are both entirely disorganized, or all but entirely infiltrated with tubercular matter. If one is sound, or if the disease in both is limited, even if there be one large, or several small cavities, *it is* worth while to try what can be done by a

thorough change of climate, by passing the winter in the south. Disease may be arrested, life may be prolonged, and a cure even may be eventually effected.

I certainly have infinitely more confidence in and reliance on the value of a winter residence in the south than I had six years ago, when I first left England for the winter, a confirmed invalid. As a practising physician in London, I had not seen the good results from wintering abroad that I have since experienced and witnessed at Mentone. The explanation, however, to me is obvious. Four out of five of my former patients and friends evidently committed all kinds of mistakes, against which, from want of experience, I could not guard them as I can now, as will hereafter be explained more fully. They travelled about for pleasure, when they ought to have considered themselves delicate invalids, on the brink of the grave, and have remained stationary. They lived in large, dirty, fever-poisoned southern towns, more occupied in sight-seeing than in health-seeking, and constantly exposed to many pernicious influences. Is it extraordinary that they should have often come back as bad, or worse than when they started?

The most satisfactory cases that I have witnessed have been those in which climate has not been alone relied on, in which the patient has been under constant and judicious medical management, in which the routine of daily life has been guided by medical experience, and in which the various therapeutical resources that our improved knowledge of phthisis gives the profession have been steadily persevered in. Patients left to themselves, or to rules laid down for their guidance at home, commit all kinds of errors. They constantly omit to do what they ought to do, and carried away by the example of others, or by

the first dawn of improvement, do much that they ought not to do.

Persons suffering from pulmonary consumption should also be cautioned against trusting to the follies and delusions of homœopathy and of other modern fallacies. They should ever remember that they are labouring under a disease, curable in some cases, but usually fatal; from a disease that is still, with all our improvements in medicine, a verdict of death to a large proportion of those whom it attacks. Is it not, therefore, tempting Providence, throwing life away, abandoning the last chance of recovery, to discard the experience of ages, and to entrust life to the unknown professors of doctrines which every master-mind in Europe engaged in the study and practice of the medical profession pronounces insane delusions, to say the least?

Many persons who have always suffered from bronchitis in England are quite free from it at Mentone, owing probably to the dryness of the atmosphere. This remark applies to other similar climates. I have an old friend at Nice, a London physician, aged fifty-eight, who abandoned London nine years ago, owing to repeated attacks of winter bronchitis, which at last led to very serious complications. He made a winter settlement at Nice, and has there passed the cold season ever since, perfectly free from all bronchial mischief, and in flourishing health. In several instances of this description with which I am acquainted, the attempt to spend the winter in England has been attended with a return of the bronchial affection with its usual severity.

In one case, attended during my first winter's sojourn in the south, a gentleman aged forty-three, with softened tubercles, who had suffered from chronic laryngitis

and bronchitis for nearly three years in England, lost all cough and laryngeal irritation after two winters' residence at Mentone, and has had no serious return of disease during the following years. In this case phthisis followed persevering attempts to get rid of gout in the chronic form, supervening on the first acute attack. Exercise, and a rather low diet, were evidently, in this instance, carried too far, and continued too long, considering the arduous nature of professional pursuits. This patient, who got rid of gout merely to fall into tubercular cachexia, is now quite well, and shows no external evidence of the past disease. He has passed every winter in the south.

It is easy to understand that a dry, bracing, cool, invigorating climate such as I have described, should have a beneficial influence on the respiratory mucous membrane of persons who have still some of the vital power of youth or some constitutional stamina left. When we add to this, all but daily exercise in the open air throughout the winter, in the midst of magnificent scenery, removal from the cares, anxieties, and duties of ordinary life, pleasant social intercourse with fellow-sufferers and their families, all tuned to the same unison of cheerful and hopeful resignation, we certainly have united all the hygienic influences calculated to renovate the general health, and thus to arrest the development of tubercular disease. Indeed, I am firmly convinced that a warmer and milder winter climate, only to be found in a tropical or sub-tropical region, is less favourable to the recovery of health in chronic chest disease;—always provided rigid attention be paid to the precautions necessary in a region where the temperature varies so constantly as it does on the north shore of the Mediterranean. Heat and moisture debilitate and relax the economy; moderate cold and a

dry atmosphere invigorate and strengthen it; and in the treatment of phthisis, the renovation of the constitutional health, as repeatedly stated, is of primary importance.

In his valuable work on Pulmonary Consumption,* my namesake, Professor Bennett of Edinburgh, has forcibly drawn the attention of the medical profession to the fact that persons labouring under tubercular disease of the lungs are generally worse in very warm summer weather than in dry cold winter weather. My own experience, as well as that of various friends who have practised in tropical climates, tends completely to corroborate this view. The army reports during the last thirty years, from the East and West Indies, from Malta and Gibraltar, indeed from all our tropical colonies, also substantiate the correctness of this opinion. It is found that consumptive patients do not get on well in hot weather in warm climates. The tubercular deposits have a tendency to soften under the influence of heat, the debilitating perspiration to increase, and diarrhœa to become permanent. Moreover, the heat destroys the appetite, induces languor, and renders exercise impossible, thus striking at the root of all constitutional improvement. And yet is not such improvement the only real mode of arresting the course of the disease?

The fact has become so self-evident in the French army in Algeria, that the consumptive patients are now sent to the north of France before the hot season commences.

It is of extreme importance that the truth of the above-mentioned views should be generally known and acknowledged. In times still recent, a contrary opinion prevailed generally, and consumptive cases were very erroneously

* On Pulmonary Consumption, by Prof. Bennett. Second Edition. 1860. Edinburgh.

sent to warm climates, as to the region best calculated to arrest the progress of the malady. An old and esteemed friend, Dr. Dundas, who practised for twenty-five years at Bahia, in Brazil, and during that lengthened period enjoyed the confidence of the entire British community, has repeatedly told me that throughout his residence he was constantly receiving from Europe consumptive cases, that merely got worse and died if they remained. So convinced did he become that the climate, although otherwise healthy, was not suited to consumption, that he used invariably to send to Europe the cases of phthisis that occurred among the English residents in his own practice.

Chronic bronchitis does well, under judicious medical management. Generally speaking, it gradually diminishes and dies away; provided, however, the patient is prudent, obeys hygienic and medical rules, and does not make a stove or hothouse of the room where he or she lives, day or night. By falling into this error, as nearly all the Germans and Swiss do, it is quite possible to make a northern climate out of Mentone, and to fall from one cold into another throughout the entire winter.

The form of asthma which is connected with chronic bronchitis, the emphysematous form, also does well. As its gravity depends on the bronchitis, if the latter is improved so is the asthma. I believe, indeed, that many of the pitiable sufferers who present this complication, and who every winter get worse, with the vista before them at home of inevitable aggravation of their disease, might attain all but entire freedom from chest suffering by passing several successive winters on the Riviera. To them, in reality, the health question is as important as it is to the consumptive. This form of asthma gradually leads to death in those who are advancing

in life, and that through a stage of great suffering. The heart, the liver, the kidneys, often become secondarily diseased, and death is the result of the combined influence of these various secondary maladies. In corroboration of this statement, I may mention that I have known several instances of patients arriving at Mentone in all but a dying state from chronic bronchitis and asthma, who have gradually rallied, and eventually attained a very bearable condition.

I cannot say the same of the spasmodic form of asthma, the form that occurs in childhood, in middle age, at any period of life, apparently from nervous causes. I have known such cases do well, but the majority do not. I presume that the climate is too dry, too stimulating for them, and I am inclined to think that a moister climate, such as that of Pau, of Palermo, or of Madeira, would be more likely to suit. I do not say that persons suffering from nervous asthma should not try Mentone, for, as stated above, I have known these cases do well; but I think it would be imprudent for such patients to make a regular six months' winter settlement before trying the place. This remark applies equally to other and different climates. Nervous asthma is so capricious a disease, so much under the influence of hidden, obscure, meteorological conditions, in its manifestation, that it is impossible to tell beforehand whether a locality will agree or not. The best plan, therefore, is to go at first to an hotel, and to be guided by results.

I would mention, that to some asthmatic persons the mere fact of living near the sea, or a few hundred yards from it, will make all the difference between severe suffering or perfect immunity, or conversely. At Mentone, therefore, both situations should be tried in case of need.

I have observed that nearly all persons who in England are ill when living in immediate proximity to the sea, appear also to suffer at Mentone. I should therefore advise no such persons to settle there unless they can obtain one of the houses built away from the sea. To live at Mentone, in a large proportion of the houses, is really like living on shipboard; for most of those first built, and nearly all the hotels, are situated on or near the beach. Within the last few years, however, a number of villas have been erected at some little distance from the shore, within the amphitheatre, as also an hotel, the Hôtel du Louvre. To chest cases in general the proximity of the sea is, I think, decidedly beneficial. Sea voyages are universally recommended in such diseases, and nearly all the sanitaria for the consumptive, such as Torquay, Malaga, and Funchal, in Madeira, are on the sea coast. Indeed, salt is lauded by some modern physicians as a panacea for phthisis. When the sea beats on the shore at Mentone, the spray is thrown inland in the shape of a fine dust-like vapour, which extends fifty or even a hundred feet from the sea; it must be inhaled by those who live in the houses that line the beach. The air coming from the sea is undoubtedly the purest and most wholesome we can possibly breathe.

There is another class of patients that do not appear to me to benefit, as a rule, by the climate at Mentone—those suffering from the more severe forms of spasmodic and intermittent neuralgia. I presume that the dry, keen, cool air of the north Mediterranean coast is in general too stimulating for such cases. In one, that of a lady, a former patient of my own, whom I had sent from England on account of agonizing tic which usually lasted all winter, and who had been free the first year at Palermo

and Naples, the tic returned with its usual violence at Mentone, and lasted several months, as it would have done in England. During subsequent winters, passed at Naples and Malta, this patient has again partially escaped. In other less severe cases I have known the neuralgic attack, apparently roused by the cold days, to long resist treatment.

I must add, however, that in some instances patients liable to neuralgia have completely, or all but completely escaped, during the entire winter, from their usual enemy. It appears to me that these favourable cases occur mostly in persons liable merely to neuralgic pains; the unfavourable ones in persons suffering from neuralgia in its more aggravated form—a very difficult malady to deal with in any climate.

To those who, without having any particular ailment, are weak, ailing, dyspeptic, below par indeed, and who want invigorating and bracing, I have found the climate very valuable for a winter residence.

To weak, sickly children, the sunshine and out-door life appear to be inestimable. Each winter I have seen delicate children rally in a most marvellous and gratifying manner. Instead of suffering constantly from catarrhal affections, as is so often the case, they seem to enjoy a happy immunity from these ailments. Constantly out of doors, in the sunshine, they soon become ravenous for food, sleep well, and get fat and rosy. It is the very climate for the strumous children who constantly lose ground during our long northern winters. Climate alone, however, must not be trusted. Good food, plenty of air day and night, and judicious medical treatment, if required, are essential.

The very aged, like the very young, seem to thrive in

the mild winter climate of Mentone. They can get out constantly, either on foot, in bath or donkey-chairs, or in carriages, instead of being confined to the house for months, as is often the case in England. Moreover, they are never exposed to extreme cold, so fatal to old age. In England, a sharp frost kills the aged as it kills flies in autumn. The blood is driven internally, and fatal congestions of the lungs, brain, and heart occur, or still more fatal inflammatory affections. All these dangers are escaped. Instead of the cold east winds of the spring, which yearly fill the obituary of the *Times*, there is a truly genial, balmy spring, the spring of the poets.

The Riviera climate is equally propitious to those suffering from disease of the kidney, congestion, albuminuria, gravel. The dryness and mildness of the atmosphere, by promoting cutaneous transpiration, relieve the kidneys as well as the lungs — for in our climate the kidneys have also extra work to do in winter. Moreover, the power of living in the open air, and the improvement which follows in the general health, is of as great importance in these diseases as in chest affections. I have met with several very remarkable cases of improvement and cure.

One important reason why the climate of Mentone and the Riviera is beneficial in all these forms of disease is, that it is seldom or ever, at the same time, *cold and wet*. When the weather is cold, it is with north winds, and the air is dry. When the air is moist south winds prevail, and the temperature is mild.

I have long remarked in England, that colds in the head, sore throats, attacks of bronchitis and influenza, only become prevalent when the weather is both cold and wet. Cold dry weather alone does not produce them epidemically, nor does mild damp weather. However wet

and damp it may be in England, or in the midst of the rain and mists of the west coast of Scotland, as long as summer temperature lasts, and the thermometer is at or above 60°, very few colds are met with. Let it, however, fall to 40°, 45°, or even 50°, and then damp or wet weather is immediately followed by the development of catarrhal disease on a large scale.

Indeed, rainy weather, when the thermometer is not below 55° or above 65°, night or day, is not injurious to health. The cool, rainy summers which we sometimes have in England, and which characterize the west coast of Scotland, are healthier than dry, warm, fine summers.

Thus, the summer of 1860, one of the most rainy known for many years, was also one of the healthiest. In 1861, it rained all but incessantly on the west coast of Scotland, from the middle of June until the middle of September. During the summer quarter, the results of observation at 55 stations of the Meteorological Society, showed that the rain-fall was 15·66 inches, instead of 8·80, the average of the previous years; and yet the season was unusually healthy. Thus the mortality was 175 deaths in every 10,000 persons living; whilst in England it was 199. There was the usual difference between the town mortality and that of the country:—in the towns it was, in Scotland, 204 in every 10,000 persons, in England 220; in the country, in Scotland, 142, in England, 178. These data are taken from the quarterly report of the Registrar-General.

I was residing or travelling on the west coast of Scotland during the greater part of this quarter, and found that the temperature kept between 55° and 65°. I scarcely ever found it either above or below. I observed around me, also, as on previous visits, all but general immunity

from catarrhal affections, colds, or coughs. I usually spent the day fishing, often under an umbrella, rowed in a boat on the lochs, and never once caught the slightest cold; although very liable to do so in a lower temperature if there is the slightest damp. In England the summer was much drier and warmer that year. Heavy rain no doubt acts beneficially in clearing the atmosphere, the earth, and the drains, of putrescent matter and of miasmata; especially when it falls in great quantities in a short time, as in warm climates.

On the other hand, continued rain and damp, with a temperature at or above 70°, hyperstimulates the liver and skin, predisposing to liver and intestinal affections, to diarrhœa, and dysentery, and to cutaneous diseases.

At Mentone the winter temperature is generally much below 60°, but the air is usually dry, and this is no doubt the reason catarrhal affections are rare. Whenever the weather is both cold and damp, colds are caught at Mentone as elsewhere, but they generally die away as soon as the dry sunshine returns, even if the thermometer remains low. Those who enjoy the greatest immunity are those who keep their rooms cool and well ventilated day and night. Those who make large fires, who close their windows hermetically, and avoid every breath of air, are precisely those who suffer the most in this respect. I may again instance the Germans and Swiss, who, accustomed at home to shut every crevice, and to treat the external air as an enemy, generally follow the same plan at Mentone, and suffer accordingly.

One of the most convincing proofs of the healthiness of Mentone is the general absence of severe accidental disease. During my six winters' residence I have seen but very little of the diseases usually met with in the

south of Europe—fever, malaria, dysentery, or of any serious malady attributable to external causes. Indeed, I have been principally consulted for the diseases that the invalids brought with them. This is the more remarkable when we consider that in many large continental health towns, such as Naples, Rome, Malaga, a considerable proportion of the foreign physicians' duties consists in attending their countrymen for maladies of the above-mentioned character.

To derive that benefit, however, from the climate of Mentone, and of the south of Europe generally, which it is capable of affording in thoracic disease, and especially in pulmonary consumption, the most rigid adherence should be paid to the hygienic rules peculiar to these regions during the winter season. It should never be forgotten that in winter the heat is sun-heat, and that the air, barring its influence, is usually cold. Warm clothes and woollen outer garments should be used. In dressing for out of doors, a thermometer, placed *outside a north room*, should be consulted.

Those who visit the south for the first time often think that summer clothing only is necessary, and that warm clothes and great-coats may be discarded. I have even known physicians at home, who should have been better informed, tell their patients so. Never was there a greater mistake. Summer clothes are useless from December to April. Those required are the light but warm woollen clothes we wear during our cold spring and autumn, with light over garments. The latter can seldom be safely dispensed with, even on the sunniest and warmest winter days, on account of the great difference between the sunshine and the shade. We may take a lesson from the native gentlemen, who, whenever it is not absolutely

warm, cover themselves up to the chin with heavy cloaks.

If these rules are not observed, if warm woollen clothes are not constantly worn, and even warm flannel or merino vests next the skin, rheumatic pains often attack the strong as well as the weak, and more especially those who are advancing in life. Indeed, I question whether, in the south of Europe, in winter, it is not as difficult to keep free from rheumatic pains as it is in the north. The heat of the sun in the day makes strangers thoughtless about outer garments, whilst the least exposure to the cool dry air which reigns for months may be followed with this penalty. Attendance at church is a fruitful cause of rheumatism and colds. If the church is warm, people catch cold on going out. If it is cool, they nearly all come much too lightly dressed for sitting still a couple of hours "in their Sunday best," and often return home with sharp pains, which they try to account for by imaginary draughts. I myself constantly wear a thick woollen Inverness cape, such as I should wear in Scotland, all through the winter. It is an admirable garment for this climate.

This tendency to rheumatic pains is not peculiar to the Riviera. It exists, in winter, all over the south and the east, in Italy, in Spain, in Egypt, in Algeria, and even in the Desert of Sahara. The Bedouin Arabs, in winter, with the thermometer at 80° or 90° in the daytime, swathe themselves up in woollen garments and woollen cloaks, for rheumatism is their enemy as well as ours.

Although rheumatic pains are common, rheumatic fever is rare. I have seen, it is true, several cases, but it has always been early in the winter, in persons who evidently brought the tendency with them. The free action of the

skin, in this climate, must tend to purify the blood and to render rheumatic fever rare. It is not by any means a common disease among the natives, although muscular rheumatism, on the contrary, is very common, owing, no doubt, to exposure and to insufficient clothing.

As might be anticipated, such a climate is favourable to gout, and I have known many gouty persons enjoy a happy immunity from habitual suffering. Sharp attacks of gout, however, may occur here as elsewhere, in those who are liable to them. The free and constant action of the skin must be favourable to the gouty as well as to the rheumatic.

The hours for out-of-door exercise should be between nine and three or four, and the return should be so arranged as to secure the arrival at home before sunset. The Italian physicians appear to attach a mysterious and noxious influence to the hour of sunset. In such a climate as that of Mentone and Nice, I am persuaded that the danger is in the rapid lowering of the temperature after sunset, which exposes to sudden chills, from the pores of the skin being often open at the time through previous exercise. It is because the same danger exists even in midday, in passing accidentally from the sun to the shade, that it is always necessary to be dressed for the latter.

The invalid should inhabit a south room, and never remain in a north room unless the weather be warm, or unless it be warmed by a fire. The one is summer, the other winter. When the weather is bad, he or she should make a good fire, and scrupulously stay at home until it change. Sunshine and warmth are sure soon to reappear, and thus to bring the confinement to a close. After several days' chilly rain, as we have seen, sore-throats, colds in the head, coughs, and rheumatic pains begin as in Eng-

land, but then the sun again shines, and they usually at once die away. All dinner and evening parties should be strictly forbidden to invalids. They should be in before sunset, and not leave home again until the following morning.

Lastly, exercise and out-door life must not be carried so far as to produce permanent lassitude. Many of the most confirmed invalids fall into this error—one easily committed—owing to the great attractions of out-door life, to the all but constant fine weather, and to the injunction generally made to take daily exercise, if possible.

This last remark applies more especially to consumptive patients. Physical debility is a more ordinary accompaniment of phthisis than is generally supposed, and when it exists much exercise is decidedly pernicious. In some cases, indeed, scarcely any exercise can be taken without impairing the digestion of food, and thus producing sleeplessness and extreme lassitude,—a fact not generally known, and clearly a result of the organic cachexia connected with the disease.

During the six winters I have passed at Mentone, constantly surrounded by consumptive patients labouring under every stage of the disease, I have become more and more convinced of the truth and importance of this fact. Those who do the best are those who accept their position cheerfully, who secede entirely from the valid part of the population, from their amusements and occupations, and are content to lead a quiet, contemplative existence. Happy are they if they can find pleasure in books, music, sketching, and the study of nature; if they can be satisfied to spend their day in the vicinity of the house in which they live, and to sit or lie for hours basking in the

sun, like an "invalided" lizard on his wall, following implicitly the medical rules laid down for their guidance. Nearly all the best cases I have met with have been among such. Those who have no mental resources in themselves, who are miserable unless engaged in active pursuits, fare the worst, both in body and mind. They do not resignedly accept the forced inaction their disease entails upon them, are discontented and restless, constantly commit imprudences for the sake of amusement, and over-tax their strength by participating in the pursuits of the healthy and strong.

A good plan for the invalid is to walk, ride, or drive to one of the many romantic regions in the neighbourhood—to Roccabruna, the Boirie valley, the Cap Martin, the Pont St. Louis, the Nice, or Genoa Road, or to the picturesque rocky beach—to take the cushions out of the carriage, if driving, with a cloak or two, and to remain sitting or lying in the sunshine, in some spot sheltered from wind, for two or three hours. The range of observation is thus increased without fatigue, the glorious scenery of the district is seen and enjoyed in its ever-varying phases, and the mind is refreshed by change.

On fine days, when the sea is calm, boats also can be had for a sail or a row, and air and exercise obtained without fatigue. Those who are equal to a sail and a drive the same day, can, according to the wind, sail east or west along the coast as far as Ventimiglia or Monaco, distant, the one seven, the other five miles. They can then land and return by means of a carriage sent on from Mentone to meet them. The view of the mountains thus obtained from the sea is truly magnificent. Indeed, it is only from the sea, as I have stated, that the grandeur of the mountain and coast scenery can be truly appreciated.

With the above precautions, the climate of Mentone, and of the south of Europe generally, is safe and beneficial; without them, it is unsafe and treacherous. This is evidenced by the great mortality of the natives of the Nice and Mentone districts, and of Italy and Spain generally, by pneumonia and pleurisy, two of the commonest maladies. Being badly clothed, never making fires, and ignorantly braving these atmospheric changes, the lower orders are constantly exposed to chills, and succumb in great numbers to these diseases, treated as they are by bleeding every few hours. Persons in the latter stages of phthisis more especially suffer from the slightest dereliction of the above rules, which they are not always the most careful to follow. Indeed, I have no hesitation in asserting that the improvement of the phthisical invalid depends on close attention to these injunctions, and is the more decided the more faithfully they are observed.

One great advantage of the dryness of the atmosphere, and of the absence of severe cold in the night, is, that bedroom windows may be left open, more or less, without risk of any kind, throughout the winter, and thus perfect night ventilation of the bedroom can be attained. This is a most important point both for the sound and the unsound, but more especially for invalids, and for those who are suffering from pulmonary consumption.

Invalids should invariably choose a south bedroom, as they thereby ensure a mild and equable night temperature throughout the greater part of the winter, even with the window open. The same rule, however, does not apply to those who are sound, or to those who have in a great measure recovered health.

In south rooms, saturated all day by warm sunshine,

the temperature seldom falls at night below from 55° to 60° Fah., owing, no doubt, in part to the radiation of heat from the walls. In north rooms, on the contrary, the temperature approximates much more to that of the external atmosphere, unless raised by fire. With the window slightly open, it will range from 47° to 57°, according to the coldness of the night. This is a much more wholesome state of things for the healthy, as a moderate degree of cold at night braces and invigorates the system. The warm bedroom is a debilitating hothouse to persons in health. Indeed, a lower temperature by night than by day is indicated by nature; it is found necessary for the well-being of plants in all stoves, hot-houses, and conservatories.

In concluding these remarks on the medical characteristics of the Riviera climate, there is one important fact to which I would more particularly draw attention. Continued and careful observation during a series of years has led me to the conclusion that the benefit to be derived from a winter residence in this favoured part of Europe is not always obtained at once; sometimes not even the first winter.

Confirmed invalids bring their constitution with them. As the Latin poet says—

"Cœlum, non animam, mutant qui trans mare currunt."

The illness under which they suffer has probably been the result of pernicious influences, constitutional, social, climatic, which have been in operation for many years. The entire organization is unfavourably, morbidly modified. Even if the locality and climate chosen are the very best that could possibly be found, it is unreasonable to expect an immediate or sudden change. Yet it is what most

invalids do expect; and they often feel disappointed, and express themselves so, when time passes and but little apparent benefit is experienced, owing to their ignorance of this fact.

In reality, in confirmed progressing disease, not to get worse, merely to remain stationary, may be evidence of the success of the means used, of real improvement. If a train is rushing furiously into some danger, and the guard and engine-driver put down the breaks and reverse the engine, the train does not stop all at once. It continues its progress for a time, notwithstanding the most judicious and efficient steps to arrest it. When it yields to control, at first it remains stationary, and later, only, begins to retrace its steps.

So it is in disease; its onward progress has first to be checked. Change of climate, the removal of all disturbing, pernicious influences, may not apparently tell at first, although they may be silently, quietly exercising the desired and anticipated influence. Then comes the stationary period, and only later still—in pulmonary consumption often not until the second or third winter—the real, undoubted improvement.

I have watched many sufferers for successive winters, and have thus had the opportunity of judging comparatively. Unquestionably the most satisfactory cases of arrested and of cured phthisis that I have seen, have been among those who have had the power and the will to return again and again; who have adopted my motto, *vivendum est*, "to be or not to be," and have cheerfully made every possible sacrifice of family ties and of social position and duties, in order to give themselves a fair chance of life.

The health of the native population is very good, according to my friend Dr. Bottini. In his valuable work, entitled "Menton et son Climat," Dr. Bottini, who has

practised above twenty years in the district, says that the average duration of life is forty-five years, an average far above that of the town population of the south of Europe in general. He also says that a large proportion of the inhabitants of the district attain to above seventy years of age. This is the more remarkable, as the houses of the old town are crowded, one above the other, in a most unhygienic manner. But then they are built on a very steep acclivity, so that nearly all enjoy light, air, and sunshine, notwithstanding their extreme proximity to each other. Moreover, the streets, although narrow, are clean, owing to everything that can be turned into manure being carefully preserved, and carried off to the mountain terraces.

The diseases under which they suffer present nothing peculiar beyond a tendency to scrofula and chlorosis in the young, which may be attributed to a low vegetable diet. Gout is all but unknown, and rheumatic fever rare, although muscular rheumatism is common. Until within the last few years intermittent fever was unknown, but during the two last summers there have been many cases. This is a very singular fact, difficult to account for, as there are no marshes or flat plains in the district. It either proves that the mere saturation of the soil by rain in winter and spring, in these latitudes, may occasionally produce intermittent fever, or that in certain electrical or other conditions of the atmosphere these fevers can be generated without marsh miasmata. It has been suggested that the great increase of tanks of stagnant water for irrigation, owing to the increased prosperity of the country during the last few years, may be the cause of this recent manifestation of ague in the summer heats.

The sick poor are attended by Dr. Bottini and Dr. Farina, both men of ability and much esteemed. They

are the medical and surgical attendants of the new hospital, recently erected in the angle of the eastern bay.

Pulmonary consumption is a rare malady among the native population, the deaths from this cause being only one in fifty-five instead of one in five, as in London and Paris, and one in six at Geneva. Those whom it attacks are all but invariably people who follow sedentary pursuits. The disease is nearly unknown among those who work in the open air. It is a well established fact, that although tubercular disease is more common in cold damp climates, like that of England, Holland, and the north of France, it can be and is developed anywhere, by defective ventilation, the want of light, bad food, and overwork of body or mind. All these causes are united in many of the unhealthy towns of the south of Europe, and in all such consumption is more or less rife. To prevent or arrest it, not only do we require a favourable climate, but also every hygienic condition and precaution. Thus, in Naples, a very unhygienic southern town, the deaths from phthisis are one in eight; at Marseilles, where the hygienic conditions are, or used to be, still worse, the mortality from this cause is as great as one in four. This fact will surprise no one who has made a journey of discovery in the old quarters, before the recent improvements. The town of Marseilles, however, is being regenerated.

Notwithstanding the heat of the summer, liver affections are rare, as also is dysenteric disease. The cool weather of autumn arrives sufficiently early in November to check the tendency to abdominal and intestinal disease produced by the warmth of the summer and autumn. Asiatic cholera has never appeared at Mentone, a rather singular fact, as it exercised considerable ravages on most other parts of the Riviera.

CHAPTER VII.

MENTONE IN ITS SOCIAL ASPECT.

AMUSEMENTS — DRIVES — RIDES — PEDESTRIAN EXCURSIONS — MOUNTAIN VILLAGES—CASINO—CHURCHES—SOCIAL LIFE.

"Ah! what a life were this, how sweet, how lovely!
Gives not the hawthorn bush a sweeter shade
To shepherds looking on their silly sheep,
Than doth a rich embroidered canopy
To kings, that fear their subjects' treachery?
O yes, it doth; a thousand-fold it doth."—SHAKSPEARE.

MENTONE has much improved during the last few years, since the first edition of this work was published, in 1861. Its resources for visitors, however, are still all but entirely in picturesque, out-door life. The scenery, as I have stated, is most grand and imposing in the mountain background, and most picturesque and romantic in the nearer hills and coast outline. Every ravine, every valley is a path of great loveliness, ascending gently towards the higher range. The flora is very abundant, and, as we have seen, most of our garden spring flowers grow wild in great luxuriance. The geological aspects of the country are very instructive, and afford constant occupation and amusement to those interested in such pursuits.

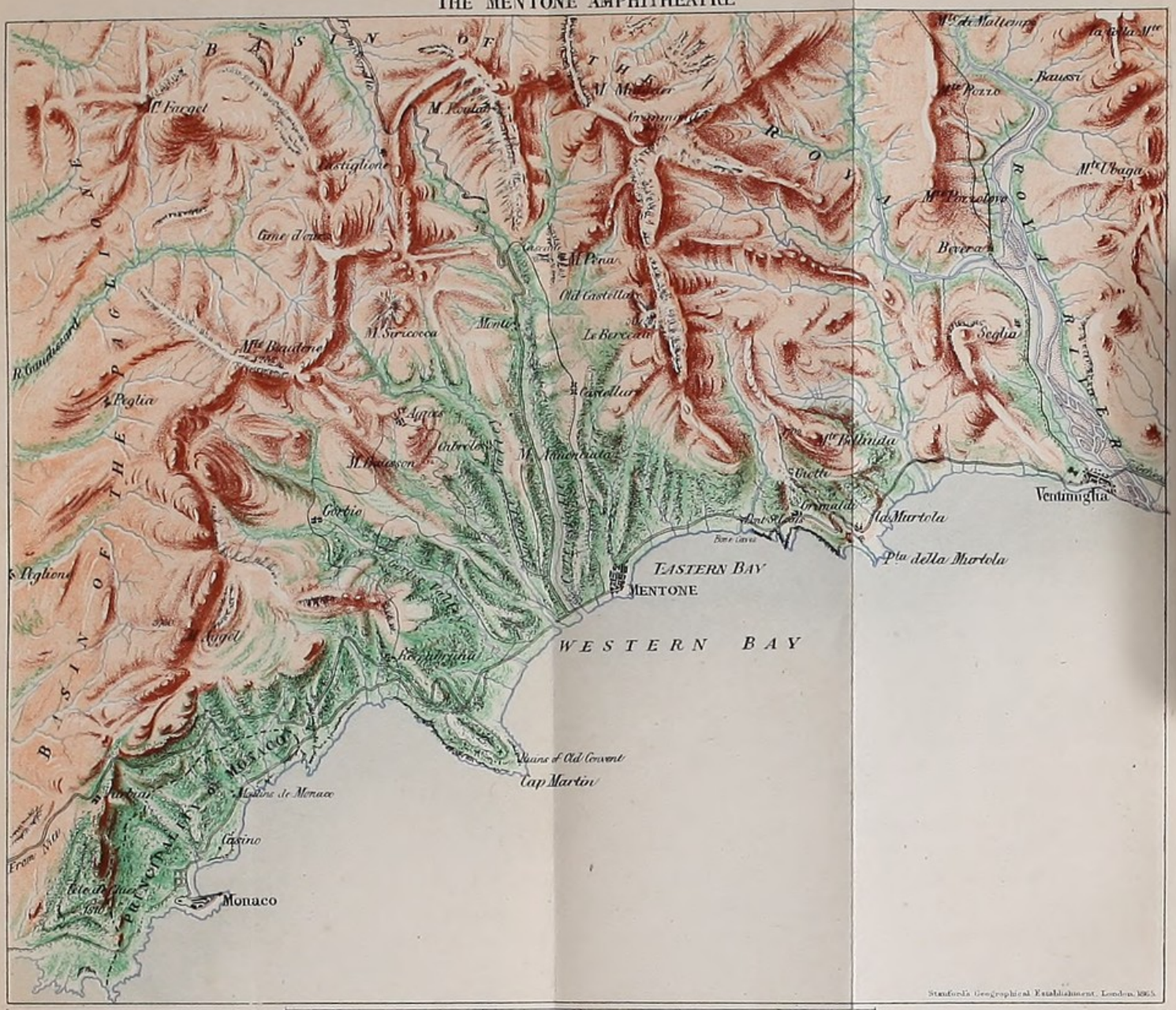
The great invalids, if prudent, mostly keep to the drives along the sea-shore; those who are stronger, mounted on sure-footed donkeys, ascend the mountain paths as far as their strength permits; whilst the robust and valid members

of the community try their pedestrian powers by ascending the higher mountains in various directions. Whenever the sun shines there are protected valleys and sunny mountain nooks, where at all times, in December or January, as well as earlier, warmth, a quiet atmosphere, and flowers are sure to be found. What with these occupations, books and papers interchanged, and the harmonious intercourse of countrymen united by the bond of common origin and suffering, the winter passes pleasantly, merely saddened occasionally by the loss of some hopeless sufferer.

Although the Mentonian amphitheatre is limited, as described, it is sufficiently extensive to offer all but endless excursions to visitors, ill or well, and more especially to pedestrians. The protected valleys and hills are very numerous, and within the reach even of the invalid population. Once, also, the higher barrier of mountains has been passed, a perfect Switzerland opens out to the adventurous and valid tourist.

Within the immediate area of the Mentone district there are other points of interest besides the valleys and hills. The drives are very picturesque and lovely in their entire extent, and are all within the peculiar shelter of the district. They are: the beautiful western or Nice road to Roccabruna and the Turbia; the equally beautiful eastern or Genoa road to Ventimiglia and Bordighera; the charming road along the shore to Monaco; the road to the Cap Martin, to its bold, broken, rocky point, to the ruins of the old convent in the centre, and to the new telegraph tower; the mountain pass road up the Carei valley, which winds over the mountains to Sospello and Turin; and lastly, the road that leads along the Boirie valley to the foot of the St. Lucia and St. Agnese mountains.

THE MENTONE AMPHITHEATRE



The first-mentioned drive, that to Roccabruna, Turbia, and Nice, has already been described in the early part of this work. It is the road the stranger passes along on his arrival at Mentone from Nice, and is so exquisitely beautiful that it generally remains the favourite excursion, even during a residence of many months. Two hours are required to gently ascend the mountain side from Mentone to Turbia, at the summit of the pass. During the entire ascent the road is thoroughly sheltered from the north, and steeped in sunshine until the sun descends behind the mountains on the western horizon. The return only takes one hour, or one and a-half, according to pace. The village of Turbia, which crowns the pass, is a landmark in history. It was the frontier between Gaul and Liguria in the time of the Romans, and there is still to be seen the ruins of a tower built by the Roman emperor, Augustus.

The Genoa road, which skirts the coast, is, as I have stated, equally beautiful. It begins to ascend at once on leaving the eastern bay, passing over the picturesque bridge and ravine of St. Louis. Above this it is positively blasted out of the side of the limestone rock.

In cold weather the invalid should not go beyond the turn or highest point of the road, as there is a cold gorge beyond. But on a fine warm day the drive may be prolonged along the coast to Ventimiglia, a quaint old fortified town, with a large river, the Roya, which descends along a fine and wide valley from the foot of the Col de Tende. Ventimiglia is seven miles from Mentone; and Bordighera, where the palm trees are met with in all their glory, is four miles further. On the return, if "imprudently" made towards sunset, a most glorious view is obtained when the highest part of the road is reached,

near Mentone. The entire amphitheatre is beautifully seen, and the setting sun behind the Estrelle mountains reveals their sharp outlines, the Isle St. Marguerite at Cannes, and the lighthouse at Antibes, as distinctly as if only a few miles distant, instead of forty or fifty. They are clothed, also, in the most magnificent colours, purple, crimson, and red.

> "But, lo! the sun is setting; earth and sky
> One blaze of glory:
> He lingers yet; and, lessening to a point,
> Shines like the eye of heaven—then withdraws;
> And from the zenith to the utmost skirts
> All is celestial red!"—ROGERS.

The drive to Monaco, about five miles along the coast, at the foot of the mountains, is certainly one of the most picturesque in Europe. It winds along the shore following the indentations of the coast; at one moment all but level with the beach, at another rising several hundred feet above it.

On the land side are mountains, ascending rapidly many hundred feet above the sea, hoar with age, rent and torn in every conceivable shape. Sometimes huge rocks that have been riven from the parent mountain by nature's agencies, hang over the road as if about to fall on the traveller; or they have actually fallen, leapt over it, and lie in wild confusion underneath. In one spot, where an avalanche of this kind has descended from on high, there is a rock as large as a small house, arrested in its downward progress by the trunk of an old olive tree. The veteran appears to be bravely endeavouring to stem the descent of its enemy, and so far has succeeded.

On the Mediterranean side are quiet coves and bays, where the waves ripple gently on a sandy beach, at the

foot of jagged, capriciously shaped rocks, covered with pines and brushwood. They appear indescribably lovely from the road, and inspire the wayfarer with an all but irresistible desire to stop his progress, in order to bathe, or to sit leisurely on the shore watching the play of the briny waters.

Both going to Monaco and returning, from early morn to evening, this lovely road is steeped in the glowing sunshine of the south. Being thus sheltered and in the sun all the way, it can be resorted to whenever the wind does not blow from the sea. Monaco, a little town perched on a rocky peninsula all but surrounded by the sea, is itself very interesting. It is a calm and lovely spot on a fine sunny day, with its pretty little port, all but rock-surrounded, clear and blue, enlivened only by two or three fishing-boats.

For a few hours each day it contains the lively "Palmaria," a little steamer of eighteen tons, or a rather larger one, called the "Bulldog," which ply daily between Monaco and Nice at the expense of the managers of the "Cercle." The "Palmaria" used to come on to Mentone three times a week, which was a great boon to the community; but the Mentonian visitors were deaf to the charms of rouge-et-noir, and as it did not pay on other grounds it was discontinued. A direct communication with Nice by steam from Mentone is, however, talked of, as also is a port which the French Government has promised to construct. A jetty thrown out beyond the old Genoese castle, which is built on a rock in the sea, at the point of the promontory on which the town stands, would greatly protect and improve the anchorage. It would also enable passengers to land from steamers without having to use boats, a great desideratum. Its construction has been definitively decided.

Mentone and the village of Roccabruna formed a part of the principality of Monaco from the early Middle Ages. The princes of Monaco held their small principality as feudatories of Piedmont, and although swept away by the torrent of the French Revolution, were recognised in their former rights at the treaty of Vienna. Their authority, however, is said to have been exercised harshly; and in 1848 Mentone and Roccabruna made a small revolution in imitation of France, drove the Prince away, and declared themselves independent. The happy independence thus gained, with Arcadian immunity from taxes or conscription, they enjoyed until 1860, when the Prince of Monaco ceded his rights over his revolted subjects to the Emperor of France for the sum of 600,000*l.* and the dignity of senator. Monaco, his faithful city of six hundred inhabitants, he retained as the capital of his diminished principality, under the jurisdiction of France.

One of the conditions made with the French Emperor is the construction of the road to Nice, which is being actively carried on; another, by no means so laudable, is the retention of the gaming-house at Monaco. This road will be the precursor of the French portion of the coast railroad to Genoa, already contracted for and in progress, and will certainly much enhance the pleasure of a winter residence at Mentone.

The old city of Monaco is built on an elevated promontory, and from its advancing considerably into the sea, beyond the coast line, it is rather too much exposed to the mistral or north-west wind to be an agreeable winter residence. It was well known to the Romans, is often mentioned by classical writers, and has had a little history of its own throughout the dark and Middle Ages. Its princes have been small kings on their sea-girt rock, and

have often waged war, under the wing first of one powerful protector, then of another. The Sardinians, the French, the Genoese, have all in turn been allies or foes.

At last, as we have seen, their Prince has become a French senator, French laws are recognised, and a real annexation has taken place. It is singular, however, that the French Emperor should have allowed the Prince of Monaco to retain his gaming establishment, when none are permitted in France, when even the German Dukes are beginning to blush at this source of revenue, and to talk of abandoning it. But the oranges, the lemons, and the oil, are all but gone with Mentone and Roccabruna, and the Princes of Monaco do not feel disposed, I presume, to abandon the motto of the Monaco of old:

"Son Monaco sopra un scoglio
Non semino e non raccoglio,
E pur mangiare voglio."

The gaming establishment used to be on the Monaco promontory, in the town. But the German company, which has the lease of it, has recently spent a very large sum of money (above forty thousand pounds) in building a beautiful casino on the model of the one at Homburg—a first-class hotel—and several elegant villas, in a much better situation. These buildings have all been erected in a very picturesque and sheltered spot, on one side of the port, about half a mile east of the town. Thus the promontory on which Monaco is perched shelters the new establishment, in a great measure, from the north-west wind, to which the town itself is exposed. Indeed, the company is showing much more taste in its erections, and in the arrangement of the ornamental grounds around the casino, than the Mentonians have as yet exhibited.

The garden is beautifully laid out, and is evidently under the care of a skilful gardener, anxious and able to utilize the resources of so mild a climate. Indeed, I quite expect that it will soon become one of the prettiest, and, horticulturally, one of the most interesting gardens in this part of Europe. The terraces facing the sea are already covered with shrubs and flowers, calculated to flourish and bloom all winter. Innumerable roses have been planted of the kinds that blossom in winter, and already give great promise. Thus the rose amateur will never lose sight of his favourite flower.

The band plays twice a day, from two to four, and from eight to ten. It is composed of twenty-five thoroughly good musicians, selected from Germany and Italy, and discourses really "sweet music" in a noble music-hall or ball-room. It is quite a treat to listen to an admirably led and well-trained orchestra, in this out of the way place, and it is a pleasure we Mentonians can enjoy when we like. The drive from Mentone to Monaco only takes one hour in a private carriage, or a little more in the omnibus, which performs the journey once or twice a day.

On a fine sunny winter's day it is a most charming excursion to drive over to Monaco, to lunch at the comfortable hotel, or *al fresco*, in pic-nic style, to saunter over the pretty gardens, to listen for an hour to the fairy-like music, and then to return leisurely home, before sunset chills the air. It is only a pity that the vice of gambling should be the means of placing these quiet, health-giving pleasures at our disposal. I try myself, when I go there, which I not unfrequently do, for the sake of the flowers and the music, to forget all about it, and with that view seldom or never enter the gaming saloon. I never recommend any one to settle at Monaco, for I cannot but think

that the immediate proximity of a gaming table, in the absence of all active occupation, might be dangerous to many who would never positively seek its excitement and dangers.

The Cap Martin, a semicircular peninsula, covered with an olive grove in the centre, and a protecting pine forest on the coast margin, is another charming drive. It forms one side of the western bay, and is a most picturesque and attractive spot. The road branches off from the one to Nice near the town, passes through an olive grove of fine, curious old trees, and then divides into two. The one, after passing by some fine orange orchards, skirts the shore, fringed with irregular, water-worn rocks, blanched by the waves which the south-west wind drives on them with extreme fury. When there is a storm from this, one of the exposed quarters, the sea, dashing violently on the sharp, jagged masses of limestone, is broken into dense masses of foam and spray, which constitute a very imposing spectacle.

At the extremity of the Cap, just as the sea-shore road begins to turn and to ascend, there is a little sheep track, that winds round the promontory, above the sea, at the foot of the steep myrtle-covered cliffs, and amidst the confused, irregular mass of rocks which line the shore are various little warm and lovely bays. This track, which I have christened "Monaco lane," is, without any doubt, one of the most delightful spots in the district for the quiet contemplation of nature's sterner beauties. The time to spend an hour or two here is in the afternoon, when the sun, passing to the west, pours its warm rays on this, the western side of the Cap. An intelligent survey of the wilderness of rocks will reveal a hundred nooks worthy of an emperor's siesta.

The other branch of the Cap road ascends to the higher

ground of the promontory, and leads, through lovely woods of olive and pine, with a brushwood of myrtle, lentiscus, prickly broom, and thyme, to some old ruins, said by some to be Roman, and by others to be the remains of a convent. Near them is a new telegraph tower.

Both these roads afford at every step magnificent views of the Mentonian amphitheatre, of the grandiose mountains that form it, and of the bold and irregular coast line as far as Bordighera, some twelve miles off. Bordighera, built on a promontory which advances out to sea in a south-eastern direction, is a very prominent object from every part of this coast. It gives at a distance the promise of greater beauty than is realized on a closer inspection.

The Cap Martin roads have hitherto been in such a bad state of repair, owing to contested ownership, as to be all but inaccessible. The contest, however, which was between the Prince of Monaco and the commune of Roccabruna, has been recently decided in favour of the latter. As a result of this decision, the roads are now to be made thoroughly fit for carriages, and the pine woods are to be preserved for the use of visitors as a drive and promenade. Should these intentions be fully carried out, the "Cap Martin" will certainly be the most picturesque park or promenade in Europe, and will be a great boon, a great charm and attraction, to all lovers of the beautiful in nature who spend the winter in Mentone.

The Turin road (see local map) ascends the deepest and longest valley in the amphitheatre—that of Carei, at the entrance of the town. The ascent begins about a mile from the shore. It is for some distance gentle, until about a mile beyond the village of Monti, when it begins to climb the side of the mountain by a terraced, engineered causeway, like one of the great Swiss passes into

Italy. This road, although not as yet completed, extends already between three and four miles from the sea, and has reached the summit of the pass, at an elevation of about 2400 feet. It will very soon be finished, and will join the road from Sospello, the second stage from Nice to Turin by the Col de Tende. When it is opened the Mentonian amphitheatre will be in free communication with the highland regions that surround it, and from which it has hitherto been cut off by its mountain barrier. Supplies of forage, and of mountain produce generally, will then easily reach Mentone, which they now do only on mule back, or round by Nice.

Moreover, a beautiful and interesting highland district will become accessible throughout the winter, not only to hardy pedestrians, as heretofore, but to all strangers and invalids capable of prudently leaving the protected regions and of spending a few hours in a carriage. This part of the Maritime Alps contains many places of interest, many picturesque localities, which can then be visited by all but the more confirmed invalids during a great part of the winter. Even the invalid visitor will be able to penetrate beyond the mountain barrier in the autumn, before severe weather has set in, and in the early spring, in April and May, when the reign of winter has ceased in these southern mountains.

The last named drive is along the Boirie or Cabroles valley. This road, a remarkably good and nearly level one, is about a mile and a half in extent. It skirts a mountain torrent, which occupies the very centre of the Mentone amphitheatre, and which carries to the sea the watershed of a considerable extent of the surrounding mountains. When I first knew Mentone there was no bridge over this torrent, where it throws itself into the sea, near the

entrance of the town, and after heavy rains it was sometimes so swollen as to intercept all communication for many hours. A new bridge has been built, so that here, at least, travellers will no longer have to wait "until the river runs dry," for we could never say with Horace,

"Rusticus exspectat dum defluat amnis; at ille
Labitur, et labetur in omne volubilis ævum."

The view of the mountains from this valley is magnificent, for we are at their base, in the very heart of the amphitheatre. No winds ever penetrate, not even the sea breeze, the valley describing an angle which effectively shuts it out. At the termination of the carriage road there is a picturesque olive mill, and beyond a romantic pathway, which extends for another mile, meandering among olive and pine groves, until it reaches the small village of Cabroles, at the head of the valley.

About the centre of that portion of the valley which is occupied by the carriage road, the torrent receives a tributary from the west, bringing the waters of one of the prettiest ravines of the district. It is called the primrose and hepatica valley, owing to the presence of these flowers in profusion in early spring. Both the Cabroles and the Primrose valleys are invaluable to the invalids of the western bay, offering a safe retreat from every wind, sunshine, and the most wild, beautiful scenery. Being within half a mile of the entrance of the town, they are as accessible to pedestrians as to those who ride or drive.

Strangers have to learn how to enjoy these drives. The plan that I recommend is not merely to drive to a point and then back again, but once the general features of the country have become familiar, to make use of a carriage merely to reach the most sheltered and picturesque part of the region selected. Then it should be abandoned, in

order leisurely to explore on foot the romantic mountain paths and the charming woodland nooks that can only thus be reached. If unequal to such an exertion, the invalid can recline in some chosen spot, lazarone fashion, on the ground, in the sunshine. With the help of rugs and cloaks, or of the carriage cushions, a comfortable encampment may be made, in which an hour or two passes very swiftly in the enjoyment of the felicity so eloquently described by Shakspeare in the verses at the head of this chapter.

Should even this be too great an exertion, the carriage can be stopped in some exceptionally lovely spot, turned so as for the hood to afford protection from the sun or wind, the invalid made comfortable, and then the valid members of the party can depart for a stroll.

This quiet communion with nature is infinitely preferable to long fatiguing drives, and contributes much more to the improvement of health. A carriage used in this way gives an invalid the command of all the most beautiful scenery of the district, and I strongly advise all who can afford it to engage one for the season, the more so as carriages are both difficult to obtain and dear if taken for a day or a drive, just as in small country towns in England. Engaged by the month or season they are not unreasonably expensive. A comfortable open carriage, with two horses, can be had, from either Mentone or Nice, for about 22*l.* or 24*l.* a month, including the driver, and all expenses.

Horses are but little adapted to the mountainous character of the country, and are so little patronized that they are not always provided. They may, however, be obtained from Nice.

Donkeys are the usual means of ascent to the pic-

turesque mountain valleys and ridges; mules are but little used, as they are said to be vicious and bad tempered. The able pedestrian may be said to command the entire Mentonian amphitheatre; but it is not so with the invalid, with ladies, children, and the weak generally. The ascents are often winding and steep, the roads mere broken tracks, and were it not for the donkeys, much of

THE DONKEY WOMAN.

the most wild and picturesque scenery would be all but inaccessible to the invalid population. These animals are numerous, as every peasant, the owner of a few mountain terraces, keeps one as a beast of burden. Donkeys are as peculiarly suited to a rugged mountain district as the camel is to the desert. At Mentone they are mostly fine handsome animals, and more than usually

docile and good-tempered; probably because they are well tended, and treated with affection and kindness, instead of with contempt and brutality. The peasants always guide them by the voice, not by blows. It is interesting to see the self-possession and security of foot with which they descend the most precipitous paths; at one time sliding, as it were, on their haunches, in steep places, at another skipping like kids, although heavily

THE DONKEY BOY.

laden. The donkey women are only the owners of the saddles, hiring the donkeys from the peasants. Hence the necessity of bespeaking the donkeys over night, otherwise they are off to the mountains by early morn.

The views are everywhere magnificent. I have been told by many that the scenery at Mentone is very like that of Madeira; only at Mentone there are several miles of level coast road along the sea-shore, which at

Madeira are wanting. To get a thoroughly good idea of the district, the stranger should take the drives which I have described, and then make an excursion on foot, or on a donkey, to the mountain villages of Roccabruna (one hour), Castellare (one hour and a half), Gorbio (two hours and a half), and St. Agnese (three hours). The first can be reached in a carriage, the others only on foot or on donkeys. St. Agnese, the most remote, is situated at the summit of the first back ridge.

Roccabruna, Castellare, and St. Agnese are mountain villages, founded by their inhabitants, ages ago, on account of the facilities they afforded for defence. Roccabruna is about 800 feet above the sea; Castellare 1200, and St. Agnese some 2400.

Until a recent period, the adjacent shores, and indeed those of the entire Riviera, were exposed to the constant attacks of the Mahommedan pirates of the south Mediterranean. For many centuries it was the Saracens, later the Turks and Moors of Tunis and Algiers, who periodically ravaged these coasts. Their forays were not for wealth, which the poor fishermen and labourers did not possess, but for slaves; for the women were handsome, and the men strong. To withstand these attacks, the inhabitants of the towns chose defensible situations, such as the steep promontories and eminences on which Monaco, Esa, Mentone, Ventimiglia, and St. Remo, are situated; fortifying themselves also with strong walls. The agriculturists sought safety by perching their villages on all but inaccessible heights, whence they could see their enemies approaching, and where they could easier defend themselves if attacked.

There are still men alive at Mentone, I am told, who, in the early part of this century, were seized on the coast

by the Moors, and subsequently lived for years as slaves at Algiers and Tunis. That such should be the case is not surprising, when we reflect that piracy reigned supreme in the Mediterranean until the year 1816, when Lord Exmouth bombarded Algiers, and that it was not finally extinguished until the French took possession of Algiers in 1830. At the time of Lord Exmouth's bombardment there were thousands of European slaves in the galleys. These slaves were mostly natives of the northern Mediterranean shores, taken at sea from the fishing boats and sailing vessels, or from the coast villages and towns by sudden forays.

At St. Agnese and Roccabruna there are the ruins of ancient castles. That of St. Agnese must have been a place of considerable strength. Local traditions say that it was built by the Saracens, in order to keep in subjection the smiling districts which constitute the Mentonian amphitheatre. Probably, then as now it was a garden, rich in olives, in oranges and lemons, and was considered a desirable conquest by the southern invaders.

The castle of Roccabruna is evidently of much more recent date, although it goes back to the middle ages. It recalls the recollection of the stronghold of a "Rhine Baron," intent on levying black-mail on those who travelled along the coast-road from Nice to Genoa. Although a mere mule track, this road must have been much frequented in winter in the days when there was not a single carriage road across the Alps, and when winter rendered their snow-clad summits an all but impassable barrier.

All along the coast to Genoa may be seen at intervals the ruins of watch-towers, erected in former times in positions favourable to defence, or suitable for looking

out. They evidently formed a part of the general system of protection everywhere necessary against the pirates. These towers, the old towns, pressed into the smallest possible space, and surrounded with walls, the villages perched on heights up to which the inhabitants have to toil wearily after the day's labour, all vividly point to times far different to the present. They tell of life passed in constant alarm, of eyes constantly turned with anxiety to the sea, from whence the human hawks were ever ready to pounce on the young, the handsome, and the strong—of hearts torn by the distant groans of relatives in chains in a distant land. Such thoughts have often passed through my mind when gazing from some mountain height on the now peaceful scene below. Truly we, of the present day, have much to be thankful for; our lot has been cast in much happier times.

A waterfall called the Cascade, in the Carei valley, is worth visiting. After rain there is a good fall of water, above a hundred feet high, tumbling over vast masses of broken water-worn rocks, and forming charming pools. The prettiest road is through Castellare and skirting the lower part of the back range, over which the water falls. The return can be made down the Carei valley, by the Turin or Sospello road. It is a favourite place for ferns, and also for picnics. The road from Castellare, a donkey-track, taking the visitor to the centre of the background of the Mentonian amphitheatre, affords many lovely views. The entire distance is about nine or ten miles.

In the immediate vicinity of the cascade there is a hermit's cave high up in the rock. Its very existence was a tradition until an English sailor climbed up a few years ago, and found some bones, utensils, a half-obliterated inscription, and a date, 1598. Since then it has been

repeatedly reached by Scotch deer-stalkers and hardy mountaineers; but not without considerable risk. Indeed, I do not advise any one to attempt it.

The view from the castle of Roccabruna is very beautiful, as also are those from Castellare, Gorbio, and St. Agnese. They are all four mere mountain villages, inhabited by the peasantry who till the upper terraces; a simple, hard-working race, who know but little of the world and of its doings. In these villages the curé, or priest, is the father of the flock, and the great man.

From Gorbio to Roccabruna there is a donkey-track over the hills that leads through a very beautiful mountain district, with magnificent views on every side. From this road is well seen, skirting the mountain side, an aqueduct, which brings water to Roccabruna from a great distance. It was completed about twenty years ago. Before that the inhabitants of Roccabruna were very badly off for water, and depended all but entirely on their rain tanks. Now they have a good supply from a spring that is never exhausted.

The language spoken by the peasantry is a "patois," semi-Italian, semi-French, but inclining to Italian. The proprietors and tradesmen all speak both Italian and French, but with them French appears to predominate. Nearly all the shop-signs are in French. In feeling, the Mentonians appear to occupy about the same midway position, although their Italian sympathies predominate. At the time of the annexation they petitioned unanimously to be "left alone," but their petition was not allowed to see the light. They are rather a handsome race, with Italian features, black hair, and dark eyes. Many very handsome young women are seen.

Mentone has made a great step in advance since I first

drew attention to it as a winter sanitarium, some five years ago. There are now many commodious villas and apartments to let furnished, and many more are building. There are also many hotels and several boarding-houses. Chlerici's Hôtel de la Pension Anglaise, where I have hitherto spent the winter, is one of the largest and best modern houses in Mentone, and admirably situated. Most of the hotels take inmates "en pension," that is, boarders, and the terms for board and lodging vary from eight to ten or twelve francs a day.

The proximity of Nice is a great advantage and resource to those who are well and strong, but of little value to the invalids. Although only twenty-three miles distant, Nice appears, and really is, very much further away, owing to the Turbia mountain, between two and three thousand feet high, having to be ascended and descended. The journey, indeed, occupies four hours, too much for an invalid to undertake twice the same day. A visit to Nice, therefore, entails sleeping there, and is not even to be thought of except in very fine weather, as the mountain heights are cold and windy. This drawback, however, will cease to exist when the road about to be constructed along the sea-coast, is finished. This road, which already exists from Mentone to Monaco, and from Nice to Villafranca, will precede the construction of the railroad which is to be made on the same level. When it is completed, the drive from Mentone to Nice will not take more than a couple of hours, and will be one of the grandest and most beautiful in Europe. The magnificent road from Nice to Villafranca, just completed, may be considered a specimen of what the entire road will be when concluded. There are, however, very great engineering difficulties to be overcome, and some time may yet elapse before the

drive to Mentone from Nice can be made by the sea-shore. Mentone will then become a warm and sheltered suburb of Nice.

The Italian government is pushing on the railway from Genoa to the French frontier very rapidly. There are now several thousand labourers at work at various points, and it will certainly be completed before long. On the French side the railway from Marseilles to Nice has been opened for some time. When both lines are completed they will be only separated by the small space between Mentone and Nice; and great as are the difficulties, they will no doubt be speedily overcome. The opening out of uninterrupted railway communication with Italy during the winter months, until the Alps are tunnelled, will be of too great importance for every nerve not to be strained.

The uncertainty which has reigned hitherto as to the course the railway would take at Mentone has much interfered with building operations, and with the extension of the town. No one liked to build when aware that the house, once built, might have to be taken down to make room for the railway. Thus, although the value of land in all eligible situations has quadrupled within the last six years, this increased value has been all but nominal; for few residents or visitors have dared to purchase. The line has, however, been at last definitively fixed, and the works have actually been commenced. The final settlement of the course the railway is to take will most assuredly be the signal for great improvements, and for great extension of the accommodation for strangers. The Mentonians are now quite aroused to their own interests, and are rapidly shaking off the apathy of former days. Nice capitalists, also, are beginning to invest their funds at Mentone.

Nice is a small southern capital, with its Italian opera and French theatre, its daily fashionable promenade and drive, its military band, and its swarm of gaily dressed people. More than half of the northerners who crowd there in the winter are not invalids at all. They are the cured invalids of former days, of all nations, to whom the southern winter sun has become a necessity. They are also specimens of the more restless of our countrymen and women, Anglo-Saxons, who, after wandering all over Europe for years, settle down at last for the winter at Nice, on account of its social attractions, because it is near home, and because letters reach in thirty-six hours.

Hitherto Mentone has been chosen as a residence by none of this tribe of health loungers. The Mentonians have all been real invalids, rather glad to escape from the gaieties of Nice, as well as from its dust and occasionally cold winds. As, however, many are becoming attached to this picturesque Mediterranean nook, no doubt, in the course of time, a foreign population of the same description will also grow up.

The inhabitants of Mentone are exceedingly gracious and cordial to strangers, and are doing their utmost, in a quiet southern way, to render the place agreeable to them. A comfortable little Cercle, or club, has been built, which is well supplied with newspapers, and contains a billiard-room, card and conversation rooms, and a large concert-room, that can also be used as a theatre. The "Cercle" is situated on an esplanade, or sea-terrace, constructed in 1861, and to which the name of "Promenade du Midi" has been given. It is intended to continue this terrace as far as the Cap Martin, when it will make a delightful sea-side promenade and drive.

Each winter a series of balls are given by the members

of the "Cercle," to which the strangers are invited. They are well attended by the French, and also by many of the less serious members of the English community, much to the gratification of the Mentonians. The latter cannot at all understand that there should be any objection to entering into such festivities on religious grounds. Various other plans for the improvement of the place are on the tapis.

A much more extensive and elegant Casino, or club, was opened at the close of the year 1864 in the Mentone palace of the Prince of Monaco. M. Gillot, a very public-spirited individual, purchased it of the Prince, with the grounds around, extending over ten or twelve acres. He has renovated the palace, decorated and furnished it in a very elegant and luxurious style, laid out the grounds with much taste, and opened it to the strangers as a kind of subscription club. There is a drawing-room for ladies, a concert and ball room, a reading-room and a card room for gentlemen, with billiard and refreshment rooms. Indeed, there are few large and old-established watering-places that can boast of anything half as elegant or good. The position is first rate, in the western bay, half a mile from the entrance to the town. Private omnibuses run from the palace to all parts of the inhabited district, and the subscription is very moderate.

It is to be hoped, therefore, that all the strangers who visit Mentone will join this club, and by their support enable M. Gillot to fully carry out his spirited effort to cater for their amusement and benefit. If they do, the Casino and its pretty garden may become a bond of union between all who make Mentone their home during the winter.

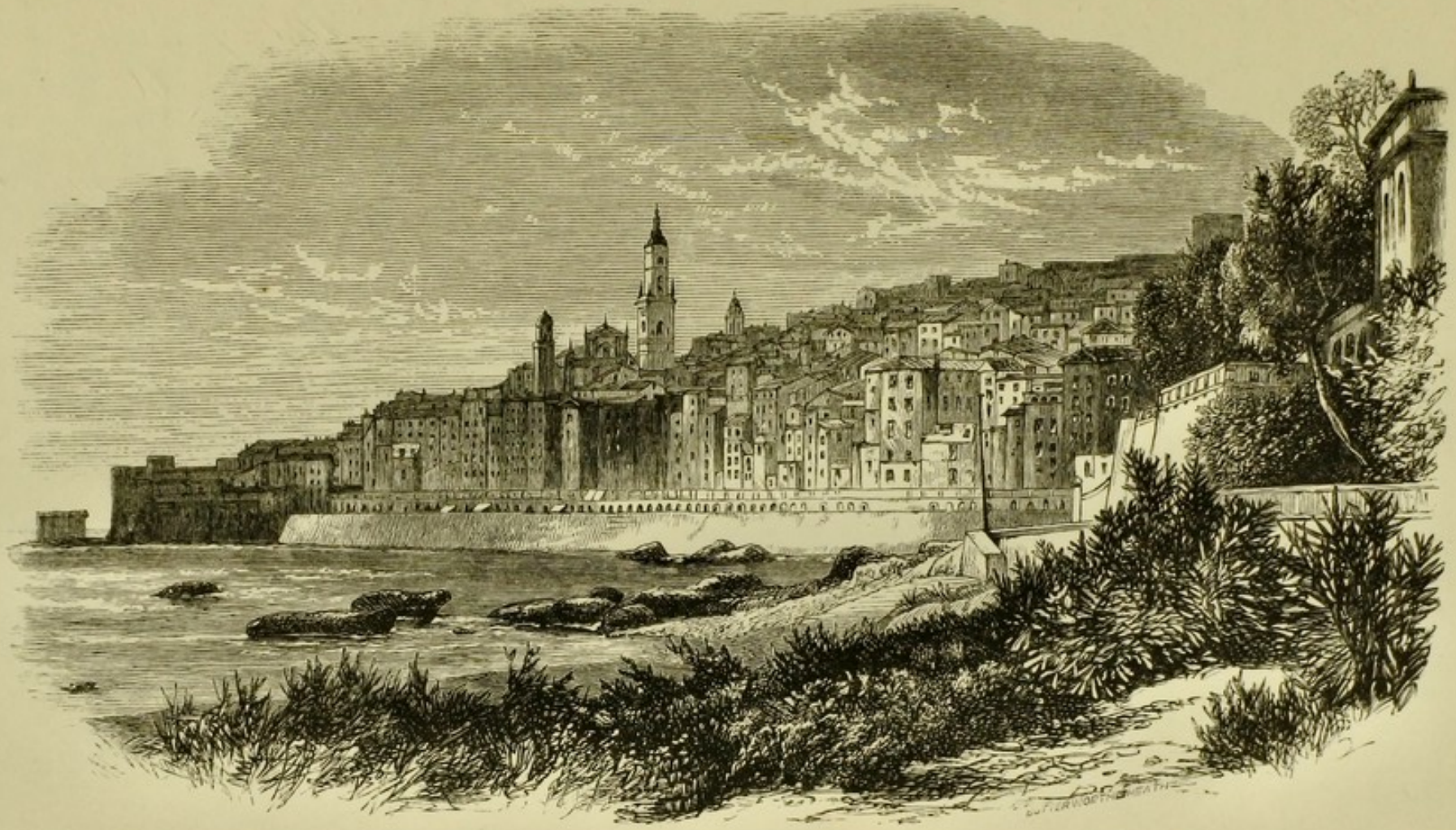
Music is not to be forgotten; there will be a band

this coming season, two days a week at the Casino, and two days a week on the public promenade.

The inhabitants have invested, I am told by the syndic, all their savings in building villas and suburban houses for their visitors, and can now accommodate about six hundred comfortably and hygienically. These houses have been mostly built outside the town, along the sea-shore, so that they unite the climatic advantages which Mentone affords with the hygienic conditions that are equally, indeed more necessary. There are also a few villas built, and more building, at some little distance from the coast, in the Carei or Turin valley, where it expands before reaching the sea. There is room here for a little suburb of villas away from the sea, which are much wanted. Thus Mentone is following in the wake of Nice, Cannes, Hyères, and Pau, where the residences prepared for invalids are principally suburban, that is, in hygienic situations.

In the town some of the best houses of the principal or modern street are let in apartments, or flats, furnished or unfurnished. These apartments are not so desirable for a residence as the suburban ones, but they are much more reasonable in price.

Mentone as an English colony was, I may say, founded by the Rev. Mr. Morgan, an English clergyman, who settled with his family at Mentone some eight or nine years ago, and built a house there. Mr. Morgan may thus be considered the father of the English settlement, as he was the first to make a permanent residence at Mentone. His kind and intelligent sympathy is always enlisted in behalf of his countrymen, and his presence is a boon to all. The Church service was for some years performed in a chapel made by throwing several rooms into one, in an old



MENTONE (THE OLD ITALIAN TOWN).

"palace" on the sea-shore, reached by thoroughly Italian streets—alleys we should call them. One of the residents, Mrs. Usborne, a relative of Mr. Morgan, presented, in 1862, a valuable site in the eastern bay. A considerable sum of money was collected during this and the preceding winter among the English, and the church was at once commenced. It was completed and opened for divine worship in 1863. An attempt was made to obtain a site in town, equidistant from both bays, where the strangers principally reside; but the plan had to be abandoned, owing to the high value of town land. The funds subscribed were inadequate to the purchase of the ground. The church will hold above three hundred.

The fact of this church having been built in the eastern bay, at an inconvenient distance from those who reside on the western side, has led to the nomination by the Bishop of Gibraltar, to the chaplaincy of the western bay, of another clergyman, the Rev. W. Barber, incumbent of St. John's, Leicester, a much esteemed minister of the Anglican Church. Mr. Barber is now doing duty, as Mr. Morgan did at first, in a temporary chapel in the town. A subscription, however, has been commenced for the erection of a second church in the western bay, and before long it will most assuredly be built. The first church is entirely paid for, so that all the energies of the winter residents can now be concentrated on this very desirable object.

The town of Mentone has presented to the Protestant community a plot of ground for a cemetery adjoining their own. It is situated on the eminence that crowns the old town, where a fortified castle reared its head in former times, the ruins of which may still be seen. It is a peaceful, picturesque spot, and is already the last home

of some whose memory is dear to Mentonians. It has been surrounded by a wall at the expense of the Protestant congregations, and it is intended to defray the cost of keeping it in repair, and of beautifying it, by a small fixed payment on each interment.

A few years ago Mentone was merely a small Italian town, like the other towns on the Riviera, with but little power to supply the wants of foreigners, and especially of the English, who, wherever they are, expect to be made comfortable. Being accustomed to the best at home, our countrymen when abroad fall into a state of extreme despondency if called upon to bear with coarse meat, sour bread, and bad butter. Every winter, however, has improved the markets, and now good bread, meat, poultry, eggs, and butter, are to be had, although sometimes only with a little trouble and contrivance. Each winter the supplies have improved in quantity and quality, and this will no doubt continue to be the case. When the new road to Sospello is completed, it will, as already stated, open out Mentone to the Alpine districts, from which it is now separated by its own barrier of mountains. This is the region that partly supplies Nice, and when it becomes easily accessible, a portion of these supplies will no doubt reach Mentone directly.

At present, the principal reliance is on the markets of Nice and of Ventimiglia, a town of six thousand inhabitants, situated, as we have seen, seven miles more to the east. The Mentonian amphitheatre itself produces little if anything beyond olive oil, lemons, oranges, and vegetables. The only good butter comes from Milan. Butter is made in the mountains, but probably not with the care and scrupulous cleanliness that are indispensable to ensure its quality. That produced in the extensive

pasturages which surround Milan, is well known all over the north of Italy, and is really very good. It comes by steamer from Genoa to Nice twice a week, and is supplied to Mentone from thence. Poultry reaches from all parts —from the mountain regions around, from the coast towns, and even from Turin. Many fowls, turkeys, ducks, are brought by the diligence which travels daily between Turin and Nice, passing over the Col de Tende. Game is to be had, but is expensive, with the exception of hares, which are reasonable in price.

Fish was scarce and dear before the railway was opened to Nice. Now it comes in great abundance, by rail, from the Atlantic to Nice, and reaches Mentone in a good state of preservation. Thus soles, turbot, oysters, &c., are all but daily obtainable.

The mutton is furnished by the surrounding mountain regions, and is really good. I have been told by Scotch gentlemen, good judges in such a case, that it is equal to the black-faced mutton of the Highlands. The lamb is killed too young, but is still very tender, and good food for invalids. The veal is also killed young, and is good. The beef is sometimes good, at others indifferent, as it is likely to be in a country where there are no pasturages, and where it must come from a great distance, principally from the plains of Piedmont. As the poor cattle have to walk all the way, along the coast or over the mountains, they are, of course, lean on their arrival, however good the breed, and it would not pay to fatten them. In former days the natives of these regions seem to have been quite satisfied with the flesh of old cows and oxen.

The expense of living at Mentone has all but doubled since I have known it; that is within a period of six years, and is now nearly as high as at Nice. This is,

however, easily explained, and I cannot say that the inhabitants of Mentone are to blame.

House rents have risen very considerably, owing to the demand having been very much greater than the supply, which raises prices all the world over. Many houses are now building, or in contemplation, which will no doubt tend to diminish rents, or at least to prevent further rise. Moreover, the neighbouring town of St. Remo, also a good winter station, is beginning to be alive to the money value of foreign residents, and is making great efforts to please and secure them, opening hotels and building villas, which will create a salutary diversion.

The cost of living has greatly increased, but then the markets are infinitely better supplied, which accounts for the change. As I have been told by Mentonian hotel keepers, the dinners we positively require and exact every day at the hotels and "pensions" are to them festive dinners, which they never dream of unless to welcome friends for a marriage or a baptism. To provide this high standard of food to many hundred strangers, the country has to be ransacked for a hundred and fifty miles around; Genoa, Turin, Milan, Nice, are all put under contribution. In other words, our standard of living is very much higher than that of continental people in general, and especially of the inhabitants of southern Europe. We are so ready, likewise, as a nation, to go to any feasible expense to obtain what we want, that we inevitably double local prices wherever we settle in any number; and that all the world over.

There is an English grocer established at Mentone, Willoughby by name, who keeps a store of groceries and English delicacies, and whose enterprising and obliging disposition much facilitates "life" to his countrymen; for

at Mentone, as elsewhere, they are quite at sea without English appliances. He acts as house agent, and any application for information addressed to him on the subject of houses, apartments, or anything else, would meet with immediate attention. There is also a large bazaar or store kept by an enterprising Mentonian—Amaranthe—in which every imaginable article necessary for comfort or luxury is to be found. M. Amaranthe, who is a very obliging, intelligent person, will procure any conceivable thing for his customers, if he has it not already. I would more expressly draw attention to the beautiful photographs of the Mentonian scenery, taken by M. Davanne, which he has published.

As year by year the number of winter visitors and residents increases, their wants and requirements become better supplied ; the invalid population itself partly providing for them. Thus every winter brings us invalid professors and artists, willing and able to make themselves useful. There is also a French communal college, the professors of which are all well educated, intelligent men, who teach French, Italian, and classics. Two gentlemen receive private pupils—Dr. Muller, a German gentleman, a good English scholar, accustomed to tuition, and married to an English lady, and the Rev. H. Sidebotham, a graduate of Oxford, and a highly qualified man.

Mentone offers great attraction to invalided artists, for they can both attend to their health and study their art in midwinter in the open air. The scenery is glorious, and the play of the sunshine and of light and shadow on the mountains, on the clouds, and on the sea, produces ever-varying effects, which entrance the artist's eye. Sometimes their professional services can be enlisted, and landscape, drawing, and painting classes are formed.

A winter passed at Mentone is a drama, a little epitome of life. The place is so small, so separated by its mountain barriers from the rest of the world, and the number of resident strangers is so limited, that a kind of common tie binds them together. This feeling may not extend to the entire foreign community, but it is very strong among the members of the same nation. It is the same feeling of solidarity, of a common origin and object, that exists among the passengers of a ship on a long sea voyage. It does not, of course, include passing strangers, the visitors from Nice, and those who only remain a few days or weeks in autumn and spring, on their way to or from Italy; they are looked upon as strangers. The true Mentonian family is composed of the winter residents, of those who have made up their minds to spend six months in the happy smiling Mentonian valley.

In October the question is—who is coming? In November nearly all the winter residents have arrived, and have located themselves. Friends find each other; unforeseen points of contact "at home" are brought out, and little groups are formed of intimates, of those who have the same ideas and sympathies. A kind of general notion also begins to get abroad as to who is the invalid in each family, and of the degree of illness.

Owing, partly, to my recommendations having been followed by my medical brethren in England, very few extreme hopeless cases of illness have been sent out these last few winters, and there have been few or no casualties among the English during the first months. But this is not the case with the French.

By most of our countrymen and women the order to winter in the south is considered a boon, an opportunity of indulging the darling wish of seeing the world, and a

real consolation in illness. To the French, on the contrary, it is the last drop of bitterness in the cup of sorrow. The French cling desperately to home, and to their own country, in illness as in health, and can with great difficulty be persuaded to leave, however severe their malady. Perhaps, also, their medical men have not the same faith in change of climate that we have. Hence, each winter, I see French patients arrive in the last stage of phthisis—so ill, indeed, that their bearing the journey is a subject of surprise. A very few weeks after their arrival the last spark of vital power gives way; they fall, like autumn leaves before the first blast of winter. They are gathered to their fathers, and the first wail of lament arises on the southern shore, where they have arrived only to die.

Then comes the close of the year, Christmas, with its home associations, and the new and wondrous sight of summer sunshine and lemon blossoms, of large dragon flies, and of other insects pursuing each other in the sun, instead of the sleet and snow and gloom which we remember, and of which we read, in the fatherland. Sometimes, however, snow tips even our mountains, and reminds us of home. But the contrast is then all the more striking, between the snow-crowned mountains which girt us, and the summer sunshine and summer vegetation by which we are surrounded. Later, comes the new year, welcomed at Mentone as in France, and the festivities of the Romish Church. Lent, the Holy week, the Carnival, are all celebrated according to the traditions of the middle ages, in a very picturesque manner, by the native population, as in the large towns of Italy.

About the month of February the English community in its turn begins to suffer. Some of the invalids have struggled in vain for health and life. Change of climate,

medical treatment, the devoted affection and tender care of friends, have in vain battled with the angel of death. His approaches although slow have been sure, and this life has to be abandoned for a better. These deaths cast a gloom on all the community. The departed have endeared themselves to the survivors; they have lived amongst them, have shared their joys, their sorrows, their exile feelings. The loss is felt to be a common loss; it is that of the passenger who has lived for months in the same ship, sat at the same table, walked the same deck.

At last March and April arrive, the glorious southern spring, the real spring of the old southern poets, of Homer and Anacreon, of Horace, Virgil, and Lucretius. Our own northern poets, unconsciously imitating their Greek and Roman predecessors, describe spring as it is seen in Greece and Rome, not as it occurs in our boreal climate. Hence the feeling of irritation we all experience when every year with us spring arrives, and instead of balmy zephyrs and sunshine, with a profusion of Flora's companions, it only brings cold, biting north-east winds, often with sleet and snow and a frost-bound soil. Here, truly, with the exception of a few days of south wind and rain in March, the poetical spring has arrived. The olive and orange terraces are enamelled by nature with real garden flowers, and day after day troops of visitors, principally English, may be seen returning from mountain excursions, flower laden.

I would, in passing, earnestly request visitors not to pay the children and the donkey-women for seeking and bringing them flowers. Some of our more wealthy residents do so occasionally, without reflecting that by thus acting they are giving a market value to wild flowers. The result has been felt already. Peasants, who

formerly delighted to allow children and strangers to gather the violets and flowers of no value whatever to themselves, begin to guard them jealously, and to drive off all who attempt to pick them. Were this to become general, half the charm of the mountain walks would be destroyed. I would also urge on all not to pull up flowers by the roots, or to allow children to do so; and not to wantonly destroy and deface flowering shrubs, or to pull up rare ferns not wanted for preservation. Otherwise the mountain valleys and terraces will soon become, in all accessible regions, a wilderness, and grow nothing but the vegetables sown in them.

The sorrowing friends of the departed are gone. The survivors, improved both in health and spirits, are more keenly alive than ever to the harmonies and beauties of the sea, the sky, the mountains, and the earth. Plans for the future, which earlier in the winter appeared too uncertain to be contemplated, are once more taken into consideration, and the journey homewards is thought of. Moreover, Nice then sends to Mentone troops of healthy, pleasure-seeking people, strong, gay, and happy. They are merely anxious for novelty and mountain excursions, and desirous to escape the March winds, more trying with them than with us.

Then comes the comparing of routes for the return home, of plans for the summer, and finally the leave-taking and departure. Most are sorry, at last, to leave the little sunny Mediterranean nook where they have spent many happy hours, and it is to be hoped recovered health, or at least arrested the progress of serious disease. In many cases more friendships have been formed than would have been formed in years at home, and the new and valued friends have to be abandoned as well as

smiling Mentone. In some instances, however, as in my own, the separation, both from friends and Mentone, is only a temporary one; there is the hope of again meeting.

Such is Mentone, physically and materially. I was so pleased with my first residence there, that I should have at once decided on returning the following winter, had it not been for the love of change, which impelled me to search for a still better climate. This desire for change is quite a feature in the invalid population met with in the south of Europe. It is in some respects beneficial in its operation, by giving the mind fresh objects of interest to take the thoughts from self, and from the many sacrifices which health exiles from home and their companions have to make. The difference between the smiling sunshine of a Mentone winter, a mere long English September, and our eight months' dismal season is very great, and yet there are few of the cheerful Mentonian exiles who would not gladly return to our cloud-obscured island, were it prudent and possible.

The search after an unimpeachable climate, however, is, in some respects, like that for the philosopher's stone, for the elixir of life, or for the quadrature of the circle —a fruitless one. This will be exemplified by my own experience, as detailed in the following chapters.

CHAPTER VIII.

A TOUR IN SEARCH OF A BETTER CLIMATE.

THE TWO RIVIERAS—ITALY.

Although pleased with my first winter at Mentone, I was anxious, on leaving England the following autumn (1860), to find a still better climate, and, like most invalids, thought I might as well see a little of the world, and thus combine pleasure and profit. Like most invalids, also, I wavered between many places.

Madeira offers a mild, agreeable, uniform climate; but then it is moist and relaxing, and there is the tedious and generally stormy sea voyage. Madeira appears also to be more suited to the latter stages of pulmonary consumption, when there is little or no hope of recovery, and when it is more a question of prolonging life, or of dying easily, than of renovating the constitution and of arresting and curing the tubercular disease. According to the tables of temperature published by the various writers on the climate of this island, it remains warm until Christmas, and becomes warm again in March. Even in January and February the thermometer never goes below 56° at night, and is nearly always above 60° in the shade during the day. Several of my friends and patients have told me that they could never sleep at night without both the door and the window being open. Moreover, the air is always moist, for the wind must come from the sea, whatever the quarter from which it blows.

As long as pulmonary consumption was considered a species of inflammatory disease of the lungs, to be treated as such, it stands to reason that such a winter climate, warm and rather moist, would be considered the very place for consumptive sufferers. But now the profession is better informed, and other and more rational ideas reign. We know that tubercular disease of the lungs is in reality a malady of the blood and of the digestive system, a disease of lowered general vitality, and that the only chance for the sufferer to escape death from its slow but sure progress is in the renovation of the general health—of the constitution.

This result is not so likely to be attained by residence during the winter in a warm moist climate like that of Madeira, as by a prolonged sojourn in a dry, cool climate, like that of the Riviera. The one is apt to impair the appetite, to disturb the functions of the stomach and liver, and to increase languor, whereas the other stimulates, braces, invigorates the digestive system, and through it the economy at large. I have seen many persons who have spent one or more winters at Madeira previous to coming to Mentone, and who have given a decided preference to the climate of the latter locality, notwithstanding its occasional outbursts of wintry weather.

Dr. Mitchell has written a most seductive account of Algiers and of its climate, and at one time I quite decided on going there. Other reports, however, are not so favourable. The winters appear to differ greatly; and I heard, from reliable medical and other friends, of two months' rain, one month of such dust that the sea is all but invisible from the land, and of two or three months of sultry heat, during the six of winter. This view of the Algerian climate is supported by the acknowledged fact

that the annual average fall of rain is 45 inches, whereas at Nice and the Riviera the annual fall is only 25 inches. My thoughts, therefore, turned towards Spain.

But Spain is not without its drawbacks. The winter climate of the eastern shore seems very good, mild, sunny, and dry, but there does not appear to be any really good hygienic situations for invalids. Barcelona is a large town, with a cesspool-filled port in a tideless sea, like Marseilles and Genoa. Valencia has many miles of marshy rice-grounds in its immediate vicinity. Malaga is a town of 90,000 inhabitants, and is decimated by fever, cholera, and dysentery, not only during the summer, but also during the winter—a fact which does not say much for its sanitary state. Moreover, the only hotels are inside the town, and there are no suburban villas that can be inhabited safely. In the winter of 1860–61, there were many deaths among the invalids in one of these hotels from the above causes. I may add that, in the opinion of my friend Dr. Edwin Lee, all the Spanish southern health cities are open to the objection that the heat becomes very great early in spring, so that invalids returning to the north of Europe often suffer from the great change, or have to prolong their stay more than is prudent. On the other hand, Hyères, Cannes, and Nice are only modifications of the northern Mediterranean climate described in the preceding chapters, and certainly inferior to Mentone.

I therefore determined at last to turn my steps to Italy, and to critically examine the Eastern Riviera (R. di Levante), Pisa, Rome, Naples, and the more southern coast of Italy. Guided by previous knowledge of the country, and the information acquired during the preceding winter, I felt sanguine as to finding in Italy the

"Eldorado" combining all the advantages of which I was in search.

In former days, in the days of health and strength, Italy exercised over me, as over all those whose minds are imbued with the history of the past, an indescribable fascination. Several times I escaped from the busy scene of professional life, and rushed to visit its cities and plains. Its classical, historical, and artistic souvenirs and attractions threw over it a charm that never palled. I then purposely threw aside the physician, in order to see nothing but ruins, battle-fields, paintings, and statues. Sickness and human decay appeared a profanation, and I strove to eliminate them from my thoughts, and thus to bring back none but pleasurable reminiscences.

Naples was the southern city, lying on the lovely bay where rises fire-crowned Vesuvius, where the revealed cities of Herculaneum and Pompeii, Baiæ, the islands of Capri and Ischia recall a thousand recollections. Rome was the former queen of the world, the cradle of Christianity, still studded with innumerable vestiges of its former grandeur. Florence was "La Bella Firenze of Dante," the home of the Medici, the abode of countless artistic treasures. Pisa was the birthplace of Galileo, where the lamp that revealed to him the laws of the pendulum is yet to be seen hanging in the glorious cathedral. Whilst Genoa was the proud commercial city of former days, still grandly overhanging the sea it once ruled, still full of monuments and palaces, evidences of its former greatness.

This time the scene had changed. I returned to Italy an invalid in search of health, and the arts sank into insignificance, whilst hygiene, climate, and health questions ruled the day. With views thus altered, very dif-

ferent impressions were produced, and many important medical facts became evident, which, as a tourist, I had not perceived and analysed.

I entered Italy by Mount Cenis, and although it was only the 20th of October, there was a great deal of snow on the mountains, and it was very cold in the higher regions. Indeed, the weather was much too cold for chest invalids, who, if they cross the Alps at all, should do so much earlier in the season.

Genoa is not so much a medical station as a resting-place for travellers and invalids entering or leaving Italy. Its situation is admirable, at the angle of the gulf formed by the eastern and western Rivieras, protected by mountains, and exposed to the south-western sun. Hence it is very warm in summer, but in winter the protection afforded by the Apennines is incomplete, owing to a "defect in the armour." Behind Genoa the Apennines present valleys, through which the railroad from Turin has managed to find its way, and through which also the north-east wind reaches the town when winter has fairly set in on the plains of Lombardy. Still the protection is sufficient to make the climate perfectly different in autumn and spring. On the 22nd of October there was a heavy cold fog when I left Turin, which continued until we reached the mountain passes, completely obscuring the horizon. Winter was everywhere, the trees leafless, and the soil denuded. The fog had left us when we emerged from the first tunnel, and the air had become clear, cool, and bracing. On escaping from the last, a few miles from Genoa, we had gone back to midsummer; the sky was blue, the sun bright, the air warm, the windows and doors were wide open, and the out-door life of Italy was in full operation. It was indeed difficult to believe that half an hour—the pas-

sage of a tunnel through a mountain—could have so entirely changed the climate and the aspect of all around.

Genoa presents two other disadvantages: it is a densely populated city, and, like all Italian towns, badly drained, and unhygienically built. In all large towns in Italy, Turin excepted, the streets are very narrow, generally only a few feet wide. The object was no doubt twofold: firstly, to provide for the exigencies of fortification, and secondly, to exclude the sun, the summer enemy. The towns and villages now found in the south are all historical; there are no cities like the busy thriving Lancashire marts, the product of manufacturers' activity in modern times. The towns and villages are those of the middle ages, and as such circumscribed within walls and fortifications, and perched upon heights for protection, just as they were hundreds of years ago. Such a style of architecture is proverbially unhealthy, especially in the south, amongst a population to whom the cleanliness and the decencies of modern civilization are as yet but little known. To crown the whole, all the principal hotels at Genoa are on the port, the receptacle of what drains there are, and tideless, as are all ports in the Mediterranean.

Owing to the above cause, although to the traveller one of the most picturesque and interesting towns of the Mediterranean, the native city of Columbus is not a healthy abode. The invalid, therefore, had better not prolong his stay, unless he have the command of a garden-surrounded villa in the suburbs. In the hotels it is better to choose the higher stories, as the higher the rooms occupied the purer the air, and the less likely is the occupant to suffer from atmospheric impurity.

I must repeat, that throughout the continent the

traveller, ill or well, should leave the window more or less open at night, the air of the staircases and passages being all but invariably very impure, even in the best hotels. If the window is not opened at night, the bed-chamber is supplied from this vitiated source, foul air is breathed, and typhus fever generated. I firmly believe that the numerous travellers who every year mournfully die all over the continent of "fever," away from home and relations, are all poisoned in this way. If the window is even slightly opened, pure air is admitted, and this great danger is avoided, or at least neutralized; pure air never can do harm, night or day.

Descending the eastern Riviera, the first town or village of any importance is Nervi, a station much esteemed by the physicians of the north of Italy for consumptive patients. Nervi is better protected than Genoa by the mountains, which approach nearer the shore; and being small, principally composed of one long street along the shore, it is free from the hygienic objections to which Genoa is exposed. Nervi did not, however, appear to me to present any peculiar recommendation to strangers. The vegetation is that of the entire Riviera coast, and does not indicate an exceptional climate. The position is not peculiarly picturesque, and I believe the accommodation to be found is essentially Italian, which does not in any respect satisfy the English. There is, however, a boarding and lodging house, under the direction of an English physician of Genoa, principally supported by the English. The proximity of Nervi to Genoa and Turin appears to me its principal recommendation.

Chiavari, the next town, is situated along the sea-shore, in pretty much the same conditions as Nervi, and presents no feature calculated to arrest attention.

Sestri, further on, is an exceedingly picturesque town, on the margin of a small bay, and at the foot of a high spur of the mountain chain, which runs into the sea. But it faces the north-east, and is screened from the south by the spur in question, so that it loses all claim to be a sanitary winter station.

The road, which gradually becomes very bold and picturesque, then crosses the mountain, and descends on Spezzia. I had retained from former travel a very high idea of the beauty of La Spezzia, and was quite prepared to make it my winter residence had I found the climate bear scrutiny; such, however, was not the case. The town is situated at the foot of a magnificent gulf seven miles in depth, bordered on each side by mountains of considerable height. The mountains also extend far inland behind, but they are not sufficiently high to intercept the north-east winds. As a necessary result of this mountain-surrounded situation, at the base of a deep, narrow gulf, there is a great deal of rain throughout the winter, and the weather is often rather cold, as shown by the vegetation. Moreover, there are marshes of considerable extent at the foot of the hills which surround the town, and in the autumn malaria is rife. I therefore determined to pursue my journey.

Between Spezzia and Pisa there is only one spot worth mentioning, and that is Massa Carrara. The town is small and clean, open to the south-west and protected from the north-east by the high mountains in which the marble is worked. The orange-trees appeared larger and healthier than on any part of this coast. I should think it must be an exceptionally good winter station, and there is a good, clean, comfortable hotel. But it is a dull little place, having no view of the sea, although near it. Neither

here nor elsewhere along this coast, either, did I see the luxuriant lemon-groves of Mentone. Indeed, the protection afforded by the mountains which form the background of Mentone is infinitely superior to anything met with along the eastern Riviera between Genoa and Pisa. The vegetation is, consequently, much more southerly at Mentone, and indicates a much higher winter temperature.

This time I examined Pisa attentively under the climatic and hygienic point of view only, and left it with a most unfavourable impression. Pisa is situated in the open plain, some miles from the mountains which protect it. This plain does not show the slightest evidence of southern vegetation; it does not even contain the olive-trees so common along the coast and on the adjoining hills. Nothing is seen but the dry mop-headed deciduous mulberry, with vines, like old ropes, trailing from them. The town is surrounded by a very high wall, which must impede ventilation; the streets are narrow, sunless, damp, and cold.

The far-famed Arno, which passes through the town, forming an arc, is a mere ditch or moat, like the moat of an old fortified town in the north of France, with stones instead of grass, and a sluggish dirty stream meandering at the bottom—a kind of open main-drain. The quarter of the invalids is a quay on the bend of this moat river, about a mile long, and bordered by gloomy fourth-rate houses. Here the invalids are condemned to walk up and down, looking at the stones and dirty water below, occasionally swollen into a yellow torrent by the rains. The sunless streets are so chilly that chest patients are seldom allowed to go into them. The country around is a mere dull, denuded plain, which even a southern sun cannot enliven. Moreover, it is often very cold at Pisa, more so

than at Rome; there are often fogs on the Arno, and it rains constantly in winter.

To crown all, Pisa is an unhealthy town to its inhabitants, like Genoa, Florence, Rome, Naples, and all these ill-built, ill-drained, dirty, wall-cramped southern cities. The average duration of life is twenty-nine years at Pisa and Florence, and twenty-eight only at Rome and Naples; whilst in Paris it is thirty-nine, and in London forty-four. For corroborative evidence on these points I would refer to the chapter devoted to Pisa in Dr. Carrère's highly esteemed work, entitled "Le Climat de l'Italie."

All experienced physicians attach extreme importance to the influence of the mind over the body. A cheerful, happy frame of mind favours the digestive processes, tends to promote sleep, and thus counteracts the influence of disease. The dreary, cheerless monotony of stones and mortar of Pisa, with its ditch river, must exercise a most unfavourable influence on invalids exposed to it for month after month. Once the magnificent cathedral, the far-famed leaning tower, and the Campo Santo, or cemetery, have been explored, there is literally nothing for the invalid to do. There is, it is true, the university, where many learned and celebrated professors hold forth; but its scientific collections and its lectures are only interesting to students, or to men of scientific and literary tastes. Even to them I question whether the university would not be a snare instead of a boon. Work of any kind, mental or bodily, they should avoid, unless it be a lounging botanical or geological ramble in the open air.

Florence is not a winter residence for invalids; it is a mountain town, and much too cold. From Pisa you pass through thirty miles of valleys and mountain land to reach it, and once there, you are surrounded by mountains on

every side, many of which I have seen covered with snow early in November. The north wind, or tramontana, is also very trying to invalids when it blows, which is often the case.

Rome is a winter residence for healthy tourists, not for invalids; malaria reigns there, more or less, all the year. Every winter it makes victims, even among the healthy, and the medical practitioners who have been settled there for years say that malaria fever complicates, more or less, nearly every form of disease, slight or severe, that occurs, even during the winter months. When the north wind—the tramontana—blows, which is not unfrequently the case for several days together, it is very cold. Moreover, invalids should scrupulously avoid churches, galleries, festivities, and parties—and what is Rome without these, the life of the Eternal City?—merely a temptation and a snare. I may add, that all that has been said about the dirt, defective drainage, and general unhealthiness of Genoa and Pisa, equally apply to Florence and Rome.

Thus I had to continue my pilgrimage, and started from Civita Vecchia for Naples. I did not intend to remain there, but to go on to Salerno, the celebrated medical school of former days, which is near, and admirably situated. I also wished to carefully examine the bay of Gaeta, of the smiling and all but tropical luxuriance of which I had retained a very pleasing recollection. These plans, however, were not to be carried out. I again saw the bay of Gaeta, it is true, but under circumstances which made any exploration an impossibility.

Twelve years previous, after making a pleasure tour in Italy, and visiting Naples for the first time, with unclouded delight, I started for Leghorn in an old steamer called the *Virgilio*. It was a beautiful autumnal afternoon, and

the magnificent bay of Naples was perfectly calm; like a mirror. As we steamed gently past old Vesuvius, the classical coast of Baiæ, and the beautiful Island of Ischia, we all remained on deck, entranced with the glorious scene. On passing out of the bay the bell rang for dinner; no one dreamt of being ill, and we all sat down, a merry English party, for nearly all were English tourists returning to fatherland.

But, alas! unconscious victims to Neptune, we knew not that the September equinoctial gales were due, that the barometer had fallen half an inch that afternoon, that the captain and seamen were anxious, and that we were destined to dire torments. When we reached the deck again the scene was already changing. The sea and wind were rising, and before nightfall we were in one of the worst storms that had been known for years. Our steamer was old and slow, not able to accomplish more than six knots an hour in fair weather. With the wind all but dead against us and a raging sea, her performances were anything but satisfactory. In twenty-four hours we only made about a hundred miles, and the storm continuing with unabated fury, and our fuel being all but exhausted, we had to turn about, to retrace our steps, driving before the wind, and to make for the port of Gaeta as a refuge.

Gaeta we eventually reached, to our inexpressible satisfaction, about seven o'clock in the evening of the following day, and fondly hoped that we were at the end of our troubles. But in this we were very much mistaken. The port is a military port, and according to the rules of those days, at 6 P.M. all communication with the shipping ceased. So strictly was this rule enforced, that although thus driven in by stress of weather, with women and invalids

on board very ill, we were not allowed to land. Provisions and coals were even denied us until the opening of the port the next morning, and until orders from the government at Naples, twenty miles distant, had been received. We were thus obliged to spend the night riding with one anchor in a perilous, exposed anchorage, with fires out for want of fuel, and in danger of being blown out to sea and dashed against the rocks. As to provisions, if received, but few could have done honour to them.

By ten o'clock next morning, orders had been received from head-quarters to allow the "very dangerous crew" of the *Virgilio* to land; so boats were sent to the ship, and a file of soldiers were drawn up on the beach. We were then landed between two rows of the soldiers, and marched up on foot, like so many convicts, to the town hall to have our passports overhauled. The storm was over, the sun shining gloriously, and by this time, after a forty-four hours' fast, we had become ravenous, and implored our military escort first to march us to a café, for breakfast. Our entreaties and objurgations were, however, all in vain. We were, I presume, considered dangerous people, vile liberals, revolutionists, not to be allowed to come in contact with the loyal inhabitants of Gaeta. We were therefore dragged ruthlessly before the "authorities," thence taken in the same military, or convict style to the gates of the town, bundled into carriages, and with a soldier on each box driven to Mola di Gaeta, a village at the bottom of the bay. Here we arrived at midday, and, free at last from our escort, were allowed to repair the wants of nature. This repast was, I think, even more mirthful and pleasant than the one we had partaken of some forty-eight hours before, in the bay of Naples. We were all sick of the sea, and separated to find our way homewards as best we could.

I and two of my companions determined, as a compensation for past hardships and dangers, to make a comfortable and leisurely progress. We got a carriage from Naples, and posted all through Italy, merely travelling between breakfast and an early dinner. This most enjoyable journey from Gaeta to Chambery has remained in my memory, marked with a white stone. The weather was lovely, the country glorious, my companions cheerful, witty, and pleasant, and every now and then the sight of our late enemy the sea added a very delightful sense of security to our enjoyment of the journey. I may add, that from that moment I became a most irreconcilable enemy to King Bomba, of whose hospitality to shipwrecked travellers I had had such a charming illustration.

Since this memorable expedition I have often made coasting voyages on the Mediterranean, but I have never again been caught in a storm. Firstly, I avoid the proximity of the equinoctial gales; and secondly, I carry a metallic or aneroid barometer with me, and consult it for two or three days before I embark, with the assistance of Admiral Smyth and Admiral Fitzroy's instructions. If the state of things is at all suspicious—that is, if the barometer is falling gradually—however fine, I remain on shore. I have thus several times avoided severe storms which I should otherwise have encountered.

On the present occasion we had left Civita Vecchia overnight, on one of the French steamers, for Naples. At five o'clock in the morning we were awakened in our berths by the steward, who told us that the steamer had run into Gaeta with despatches for the French fleet, and that it was worth while going on deck. We all dressed rapidly, and when we reached the deck a sight met our eyes which can never be forgotten. We were in the well-remembered

bay, the haven of former days, and I could have fancied that I was still in the *Virgilio*, at anchor, before the large promontory-crowned town. The night was clear and starlight, and so illuminated by a moon nearly full, that every feature of the mountainous coast came out clearly, as it had done during my dreary night-watch in times gone by. But the scene was very different, for one of the great events of modern Italian history was being enacted before us. My former inhospitable host, Ferdinand the First, of inglorious memory, was dead, after suffering in his latter days, through dire disease, some of the agonies he had inflicted on so many innocent political victims. His son and successor, Ferdinand the Second, as a retribution for his father's crimes, was cooped up with the last remnant of his army in the fortress of Gaeta, then before me.

Gaeta crowns a rock several hundred feet high, which terminates a promontory, the northern limit of the bay and port of that name. The walls, the forts, the houses and the churches, built of white stone, shone in the calm moonlight. There were scarcely any lights to be seen, and the town appeared calm and asleep, as it were. But we knew that few of its inhabitants were asleep that night, for great events were taking place. Thousands were lying sick with fever and dysentery within its walls, and it also contained a king at bay, surrounded by a terror-stricken court—a king whose crown was escaping from his feeble hands.

At the foot of Gaeta, on the promontory that connects the town with the mainland, were many bivouac fires. They indicated the encampment of some thousands of royal troops, for whom there was no room in the town, and whose presence also served to protect it. Then a

mile of darkness, and beyond, nearer the curve of the bay, glared in the dark a more extended collection of bivouac fires, covering the shore and hillside to a considerable extent, and indicating the presence of a much larger body of troops. These constituted the Sardinian army besieging Gaeta.

In the bay, a few hundred yards from us, lay a number of French men of war, brilliantly illuminated. All their portholes were open, and from each porthole proceeded a blaze of light; the guns were shotted, and the gunners were beside them ready to fire. A mile or so beyond the French fleet, thus prepared for battle, we could perceive another dark mass, formed of large ships, with but few lights: this was the Sardinian fleet. We were gazing with astonishment and interest at this dramatic scene, when a boat, manned by six sturdy seamen, left the French admiral's ship, and rapidly approached us. Several persons came on board our steamer, and we soon learnt the meaning of what was passing.

The previous day the Sardinian army had left Mola di Gaeta, and had made a vigorous attack on the Neapolitan army in front of Gaeta. The Sardinian fleet had entered the bay, advanced along the coast, and supported the land troops very efficiently by its fire. The army of King Ferdinand, and the fortress of Gaeta itself, were placed in great jeopardy by the combined attack of the Sardinian land and naval forces, when the French admiral intimated to the Sardinian admiral the order to stop, threatening to fire, and sink his vessels, if he advanced. It was to support this threat that the preparations we saw were made; the gunners had been at their guns all night, ready to fire had the Sardinian fleet advanced. This extraordinary and uncalled-for step on the part of the French caused the

greatest astonishment throughout Europe; it arrested the progress of the Sardinians, and was the means of delaying the fall of Ferdinand II. for several months. We carried the news to Naples, where it appeared to excite an all but universal feeling of alarm and indignation.

Naples exhibits the concentration of all the unhygienic conditions previously alluded to. More than 600,000 southerners are living in an extremely confined space, in high houses, in damp, sunless streets, in the midst of every imaginable abomination by which the eye and the smell can be offended. The drains all run into the tideless sea, or on to the shore. In the most fashionable part of the town, in front of the houses occupied by the nobility and by strangers, is a narrow public garden, the fashionable promenade, "the Villa Reale," running for a mile along the shore. On this shore eight public drains empty themselves, not into the sea, but on to the sands; thence to trickle down by slow degrees. The largest of these drains is opposite one of the chief hotels, and is usually so offensive that those who are alive to these questions always feel inclined to take a run in passing.

On the land side of the Villa Reale is the main drive, or street, "the Chiaja," and on each side of the pavement, as in most other streets, there are large slits in the road every few feet, a foot long and about an inch broad, to allow the rain-water to escape into the drains, which thus freely communicate with the exterior. It is between these shore drains on the one side, and the drain-ventilated street on the other, that fashionable Naples daily promenades, and it is by the side of this choice region that our countrymen live, and not unfrequently die.

The picturesqueness of Naples life, closely analysed, is in a great measure that of filth, dirt, and rags. The

picturesque fishermen pass their lives fishing at the mouth of these sewers. The picturesque lower orders eat, drink, and sleep, as it were, in public, windows and doors open, if they have any. They are clothed in rags, which they appear never to take off until they fall from them, and they are infested with vermin, which they scratch off each other at the street-corners. The town, moreover, is surrounded by pestilential marshes, and is built on a tufa rock, or kind of pumice-stone, so porous that it lets the rain soak in twenty feet, to give it out in dry weather by degrees. Thus, in winter, moss grows wherever the sun does not reach.

A few days after my arrival in November, the autumn rains commenced with a warm oppressive sirocco, or south-east wind. The torrents of rain that fell in the first twelve hours washed the streets and drains of their accumulated abominations into the sea. The waves and the surf, on the other hand, drove them back again and again on the shore, whilst the wind, rushing up the open drains, escaped through the rain openings in the streets, and through the open closets in the houses. The smell throughout the entire lower part of the city was awful, and a considerable portion of the population was at once affected with abdominal pains, diarrhœa, and even dysentery. I was one of the first victims, and after nearly three weeks' illness, I abandoned all idea of exploring Salerno and the South of Italy. I had only one wish, that of returning as quickly as possible to pure, healthy Mentone. I therefore embarked on a Genoa steamer as soon as the barometer showed me that it was prudent so to do—through its friendly aid escaping a violent storm,—and reached Mentone safely in a few days. There I remained during the rest of the winter.

To conclude, however, about Naples and its bay. They are most fascinating to mere healthy tourists; for they are hallowed by associations and beauties of the most varied character. But to the invalid, Naples should be absolutely forbidden. Even hardy, healthy tourists may hesitate about a prolonged residence. They should, also, rather choose the more elevated regions of the city than the fashionable Chiaja; or, at least, consult my valued and experienced friend, Dr. Bishop, who has practised many years at Naples, and knows it well. The defective sanitary arrangements are not the only drawbacks. When the wind is in the north-east, the Apennines in that direction are so low that it passes over them, they become covered with snow, and the cold is intense. When it veers to the south-east—the sirocco—on the contrary, the heat becomes intense, and the air, being loaded with moisture from the sea, is very oppressive. These extremes, following each other rapidly, are very trying and unhealthy. The north-west, or mistral, also frequently blows into the bay with great violence, and is a trying, dangerous wind to invalids throughout the Mediterranean.

It was not, however, without regret that I abandoned Naples. Notwithstanding illness and suffering, I was beginning to feel the influence of its usual fascination. During illness, too, I had reperused Andersen's sun-impressed history of "the Improvisatore," and Lamartine's poetical tale of "Graziella, the Maid of Ischia." The wish became strong again to visit Pompeii, again to explore the orange-clad hills of Castellamare and Sorrento, to sail over the lovely blue bay to Capri, to the azure grotto, and to Ischia. Indeed, it required a strong mental effort to drag me from the Circean allurements of Naples

back to quiet Mentone, where no great deeds have been done, where we must be satisfied with the charms of nature, and where the monuments are merely those of the earth's early career, in pre-historical ages.

At that time also the great and glorious political events that characterized the foundation of United Italy were being accomplished, and Naples was a centre of intense interest. The king, Emmanuel, made his first entrance into Naples as I was becoming convalescent, and daily passed under my windows (Nov. 1861); the entire population were wild with joy at their deliverance from the Bourbons, and at the regeneration of their native country. I also saw the Italian hero, Garibaldi, and that under circumstances so creditable to him, that I cannot refrain from mentioning them.

He had come over to Naples to see his friend the king, and insisted on remaining incognito. He felt that the positive adoration the Neapolitans entertained for their deliverer would have led to demonstrations of the most enthusiastic character had he shown himself, and that the king would have become quite a secondary personage. He therefore went to an hotel, like a private individual, and refused during his twenty-four hours' stay to receive any deputations, or indeed to allow his presence in Naples to be made known. Naples, however, heard of his advent, and the entire city was wild to see him and show him honour. I happened to go that very afternoon to the English reading-room, which is kept by two English ladies. I found them in the ante-room, standing and conversing with two gentlemen, one of whom was Garibaldi—a mild, amiable-looking man, of middle height, with nothing of the fire-eater about him. In a few minutes he took his leave, and the ladies then told me

that they had known him intimately for many years, and that that morning he had sent word to them that he would lunch with them in private. True to his word, he came at the time appointed, and remained two hours with them in their little homely parlour, eating fruit and singing songs and ditties to them. This little trait shows the amiable simplicity and warm-hearted faithfulness of the hero. When all Naples was anxious to fall at his feet, and the king of his making was waiting anxiously to load him with honours, he preferred devoting his afternoon to the society of two humble friends of former days.

If the fascination exercised by the bay of Naples is so great that the invalid tourist cannot possibly tear himself away, I should recommend him to make the island of Capri his head-quarters. The island is of limestone—a healthier geological formation than the soft tufa rock of Naples. The population is small, the scenery interesting, and there are several hotels where tolerably comfortable quarters may be obtained. Then there are no marshes, and the air is constantly purified by the sea breeze. Dr. Bishop told me that he has long been in the habit of sending convalescents there, and with the best results. In fine weather there is daily communication with the mainland by boat and steamer. The isolation would, otherwise, be nearly as great as that of Garibaldi at his island home of Caprera.

The island of Capri is a picturesque mass of rocks, nine miles in circumference, and two and a half in width, situated at the outside of the bay of Naples, twenty miles from that city, two miles from the eastern cape of the bay, ten miles from the western cape, or Cape Miseno. It forms a species of amphitheatre facing Naples on the north. It is a very lovely little island, jagged and irregular in

outline, a perfect chaos of rocks, and a charming residence for a month or two in early autumn or in spring, but not for midwinter. The northern exposure of the island and its distance from the protecting Apennines, leave it without defence against the northern winds. Friends and patients who have wintered there, all agree that they had a great deal of rough weather to encounter, much more than on the Riviera, owing, apparently, to the complete absence of protection from the northern quarters. Its southern shore is a precipitous rock many hundred feet high.

Capri is full of recollections of Tiberius the Roman emperor, who passed the last ten years of his life there, indulging in every species of debauchery and crime. Up to his elevation to the empire, at the mature age of fifty-five, Tiberius had been known only as a great warrior and statesman, as a wise, virtuous citizen, as a good husband and father. Then, singularly, at an age when even vicious men usually abdicate their vices, Tiberius, under the influence of a kind of moral insanity, threw himself headlong into every species of cruelty and sensual indulgence, and that in such a shameless manner as to raise the indignation of even this depraved age (A.D. 14). Capri, where he retired, apparently the better to give untrammelled scope to his cruelty and passions, retains to this day the impress of his presence. The ruins of his palace, of his prisons, and of his baths, are still shown. Above all, the memory of his all but unparalleled vices remains as a kind of pall over the beautiful island. It still lives vividly, after nearly two thousand years, in the memory even of the peasants who inhabit it.

Dr. Bishop told me the history of a countryman, which is not only interesting, but points out a danger—a hidden

rock on the path of the convalescent phthisical patient, and therefore deserves to be rescued from oblivion. This gentleman came to Naples some winters ago as a phthisical invalid. Although in an advanced stage of disease he rallied, and apparently regained his health. Unfortunately he became desperately attached to a very handsome young Italian girl, below him in social rank. Unlike the hero of Lamartine's very beautiful tale of Graziella, he married the object of his affections, and retired with her to live at Capri. This unwise tie, however, involved him in many painful and trying ordeals. The storm of human passions had also been roused in an unsound constitution. It was the leaky ship going to sea, and exposed to the tempest and to the hurricane. Disease returned, and made a rapid progress. This time nothing could arrest it, and his existence soon terminated.

Leaky vessels should remain in port, where, like Nelson's old ship, the *Victory*, they may long ride with dignity on the smooth waters that surround them. The battle of life—its storms and tempests—must be left to the young and to the strong. The convalescent phthisical patient should ever recollect that he bears within him the seeds of death, that his disease may return any day, that he lives on sufferance, and he should act accordingly. The truth should be known, and then bravely recognised and accepted.

As I have previously stated, the impression made upon my mind by the sanitary survey of the principal health towns of Italy was unsatisfactory in the extreme. The authors whose works I have read on winter climates have, it appears to me, made an extraordinary but all-important omission. They have studied winds, sunshine, cloud, temperature, protection, and all the various elements which constitute climate, forgetting *hygiene*.

And yet are not the laws of hygiene of more importance to the invalid than all the rest put together? Of what avail is it to place a patient suffering from a constitutional disease, such as phthisis, in the most favourable climatic condition, if every law of hygiene is violated—if he is made to live in the midst of a foul, badly-drained, badly-ventilated town, such as Florence, Rome, Naples, or Malaga? In these unhealthy centres of southern population, where the mortality is habitually very high amongst the healthy natives (much higher, as we have seen, than in our most unwholesome manufacturing localities), what right have we to expect the general health of our patients to rally? In reality, it would be as reasonable to send consumptive patients in the summer months to live in the worst parts of Whitechapel, Liverpool, or Glasgow, as it is to send them in winter to live in the centre of these unhealthy southern towns.

In former days, when the laws of hygiene were ignored by the medical profession as well as by the non-medical public—when fevers and plagues were merely studied and treated as inscrutable dispensations of Divine wrath, it was, perhaps, excusable for writers on climate to devote their undivided attention to meteorological questions. But now that the mist and darkness have been dispelled, that typhus fever, dysentery, and other town diseases have been traced to their causes—filth, defective ventilation and drainage,—we know that attention to hygiene is even more necessary for the recovery of health than for its retention. In choosing a winter residence, therefore, hygienic conditions should be first considered, even before warmth and sunshine.

If we are to be guided by such considerations, however, I must candidly confess that I have not yet seen a large

town in the south of Europe (the health quarters of Nice and Pau excepted), the hygienic state of which is such as to render it a safe winter residence for an invalid. In most of these towns, moreover,—such as Rome, Florence, Pisa, Naples, Malaga,—the positions selected for and devoted to invalids are central, and owe their protection in a great measure to buildings, which secure to them the town atmosphere undiluted. Thus is explained the frequent deaths from "fever" amongst our countrymen, ill or well, residing in them, which we every year see chronicled. On the spot you are told that they have died from the fever of "the country." But this fever of the country, as far as I could gather from minute inquiry, is no other than our own old enemy, typhus, under a continental garb. Its characteristic features may be modified by some malarious or catarrhal element, but the type is the same. The cause, too, is identical in the Italian marble palace and in the St. Giles's hovel—foul air inside and outside the house—everywhere.

Having failed to discover any more sheltered spot than the vicinity of Mentone in the eastern Riviera, I determined, on leaving Genoa, to minutely examine the western Riviera, along which there are many populous towns and villages. Each successive station—Savona, Finale, Oneglia, St. Remo, Ventimiglia—was examined, and abandoned as inferior, until I once more found myself in the well-remembered site of my previous winter's experience. The conviction which this journey produced, that the Mentone amphitheatre affords infinitely superior protection to any to be found between it and Pisa, on either Riviera, is at once explained by reference to the picturesque map of Europe, at the end of this work.

On no part of the coast do the mountains in the im-

mediate vicinity rise in a chain to the same height—namely, from 3500 to 4000 feet. Nowhere do they recede in the same manner from the shore in an unbroken amphitheatre, as it were, so as to completely shelter from the north, east, and west a hilly district such as the one which constitutes the centre of the Mentone amphitheatre. Nowhere also is there such a background of still higher mountains lying due north, so as to protect in its turn the semicircular shore chain. This background of mountain-land extends fifty miles to the north into Savoy, and is limited only in that direction by the Tenda, a chain which rises from 7000 to 9000 feet. These higher mountains extend towards the shore in a south-easterly direction, and reach it at Finale, more than half-way between Nice and Genoa. Thus between Genoa and Finale the mountains which skirt the shore are neither very deep nor very high, whereas between Finale and Nice the depth and height of the mountain-land constantly increase. Consequently, the amount of protection offered towards the north increases in the same ratio, until at Mentone the greatest amount of shelter and the warmest climate of the entire Riviera is reached.

The various towns which skirt the coast are all naturally placed at the mouths of the rivers which form their ports, and the rivers of course empty themselves from valleys which break the mountain-line. These valleys being nearly always directed north and south, or thereabouts, the towns are all placed in the coldest situations on the coast, at the entrance of breaks in the mountain-chain, down which the cold winds blow. A glance at the vegetation shows this: orange-trees retreat, and olives and pines take their place. Here and there, as the road winds along the coast, sheltered nooks and romantic little

bays are seen at one's feet, where the orange and the lemon, the cactus and the pepper-plant, seem to thrive luxuriantly, finding the same warmth and shelter as at Mentone. But in these exceptional corners there is generally no population—scarcely a house; the traveller can only admire and pass on. Again, in the other Riviera towns the inhabitants are thoroughly Italian; they still live on maccaroni, olive-oil, soup, and bread, rarely indulging in meat, and ignore entirely the multitudinous wants and requirements of our "difficult-to-please" countrymen. These towns will have to be raised to a much higher civilization level before they can be adopted as winter residences by invalids. I am persuaded, however, that in the course of time their day will come.

An exception may be made in favour of St. Remo, which participates, although in a minor degree, in the special protection met with at Mentone. St. Remo is a town of some importance, about fifteen miles east of Mentone. It has 11,000 inhabitants, and many houses on the outskirts of the town that might be made agreeable to strangers. Moreover, it is in Italy thoroughly Italian, and the Italian language is spoken, although not with great purity, which is a charm to many.

The example of Mentone, the fact that land in the Mentonian amphitheatre has much more than quadrupled in value within the last six years, is beginning to awaken the proprietors of St. Remo to the money value of the northern invalids. Two new and comfortable hotels have been built, and several villas have also been prepared for strangers. If the inhabitants will prepare for strangers, as the Mentonians have done, I do not doubt but that St. Remo will share in its prosperity, and become also a favourite winter sanitarium. Although much less pic-

turesque than Mentone, and fifteen miles further from Nice, a great drawback, St. Remo deserves the patronage of winter emigrants. The climate is about the same as that of the western bay at Mentone, and no doubt all who do well at the one will do well at the other. I had hoped that it would be less expensive, but I do not find, on inquiry, that there is much difference. Nor do I think there will be at any of the Riviera towns, once they have been galvanized up to the standard required as a minimum by strangers. The expense of building, of furnishing, and of obtaining provisions from a distance, must be pretty nearly the same everywhere.

Competition, however, is wholesome, and those who meet with no accommodation to their taste at Nice and Mentone, or who wish to be actually in Italy, may safely pass on, and try St. Remo. If the English colony should increase, it will surely improve every season, as Mentone has improved, and as is the case with all continental towns which are patronized by our comfort-loving countrymen.

Bordighera, a few miles further on, and about eleven from Mentone, is a source of interest to all travellers, as the scene of the adventures of Doctor Antonio. The promontory, on the summit of which it stands, juts out into the sea, so as to form a very conspicuous and picturesque object all along the western coast, as far as Monaco and even Antibes. It is decidedly less so, however, on a near approach. The little town is merely one of the small cramped-up Italian towns, of which there are a score along the coast, all very much alike. The suburbs present nothing very interesting, with the exception of the far-famed palm groves. In these groves, which surround the town on all sides, hundreds of palms are growing with truly oriental vigour and luxuriance, and give a very eastern character

THE PALM GROVE AT BORDIGHERA.

to the landscape. They are of all sizes, from a few feet to above a hundred, and of all ages, from a few years to a thousand or more. In the garden of the French Consul, more especially, are to be found noble and majestic specimens of this beautiful tree, many of them he told me more than a thousand years old. The spot on which they are situated was the garden of a monastery of Dominicans, in very by-gone days, more than a thousand years ago. It was these monks who introduced and planted the palm-tree in the district. Many of those existing were actually planted in this, the olden time, by these monks, of whom not a trace, not a vestige remains, with the exception of their favourite trees. The accompanying wood-cut will enable the reader to form some little idea of the oriental character of the scene, which is well worth a passing visit. There is a good modern hotel at the entrance to Bordighera, the Hôtel d'Angleterre, which is very well spoken of by all who have resided in it. I may add that the Bordighera palm groves are a favourite pic-nic resort of the Mentonians. Many of us have very pleasant associations of that kind connected with their stately shade.

The little town of Mentone was built, like all other Italian towns, for the purpose of defence. It is no exception, therefore, to the rule. Many of its older streets are sunless lanes, a few feet wide; but the visitors have nothing to do with them, and need never enter them. It is, however, cleaner than most Italian towns, owing to the great value of all refuse. The people—an industrious race—have to cultivate the rock, and have no pasturage, no cattle; only donkeys and mules. They husband their manure, therefore, with jealous care, and let none escape into the sea or elsewhere.

Thus, neither the land nor the sea is poisoned, as in the larger towns of the Mediterranean coast. This is unquestionably one of the greatest health advantages of small localities. It is worth all the ruins and art treasures of Italy to the real invalid, with whom the main point is to save or prolong life, not temporary, artistic, or social pleasure and amusement.

I would here remark that the question of drainage is becoming more difficult at Mentone, as everywhere else, with the influx of strangers. Before their advent, every Mentonian, whatever his rank, having his patch of land, his olive or orange terraces, consumed the refuse of his house on his own property. The large hotels and villa houses, however, have introduced a new and difficult element.

What is to be done with their superabundant supply? To allow it to reach the shore and sea, as some thoughtlessly propose, would soon contaminate the sea, breed a pestilence, and reproduce the sanitary state of Naples. Yet it cannot be taken away without disgust and annoyance to the inhabitants of these houses. In my opinion the best plan really is to collect it in cesspools or in tanks, well closed and well ventilated, and to take it away at intervals. Only, the mode of doing this might be much improved. A manure-pump, penetrating to the bottom of the tank, would render the operation quite easy with one-twentieth part of the annoyance now experienced on the nights devoted to this distressing performance. M. Chlerici, of the Pension Anglaise, has established two of these pumps, bought in London at my request, and they operate extremely well.

In conclusion, I must give one parting caution. The experience gained in the above tour, and from many cases

subsequently witnessed, has convinced me that it is impossible effectually to pursue health and pleasure at the same time. I am persuaded that no greater mistake can be made than to endeavour to combine sight-seeing with wintering abroad for health; or than for an invalid to accompany strong, healthy, sight-seeking friends or relatives. The invalid who winters abroad should be the main consideration. He or she should start neither too early nor too late, about the second week in October, go direct to the destination by easy stages, reaching between the 20th and the 30th of October, and return home quietly when the fine weather is thoroughly established, towards the middle or end of May. And yet nearly all fall into the contrary error, especially on the return journey. As soon as March comes, the wildest travelling plans are formed—often by the greatest sufferers. The object is the restless Anglo-Saxon desire to see the world on the way home; the result is frequently to bring the invalid into every kind of danger.

A very pleasant lounging homeward journey may be made through the south of France, with little or no risk; but such a journey by no means satisfies the majority of our invalid well-read countrymen and countrywomen. Naturally enough it is Italy they sigh for, Italy they want to see: Genoa, Florence, Rome, Milan, Venice, the glorious Italian lakes, and the grand Swiss mountains, with their glaciers, their torrents, and their pine forests. Hence the danger. The unwholesome towns I have described, the burning plains of Lombardy, the snow-covered passes of the Alps, are pregnant with danger, and should be avoided by the diseased, until they have regained health, and can once more defy the elements.

A delightful and perfectly safe journey may, however, be made in April, by those who are sufficiently strong and well

to endure the fatigue of travelling, along both Rivieras to Genoa, Leghorn, and Pisa, and from Leghorn direct by sea to Marseilles, or through Corsica, by Bastia and Ajaccio, to Marseilles.

Corsica alone may be easily visited by way of Nice, and Sicily is also accessible from Genoa by sea direct, in forty-two hours. For the details of the journeys to Corsica and Sicily I must refer to the special chapters on those countries which I have visited in this invalid manner, with very great profit and delight.

The easiest and safest spring journey, however, is the one along the Riviera. Even a confirmed invalid may prudently, towards the middle of April or the beginning of May, travel slowly by carriage to Genoa; either returning the same way, or taking a steamer to Nice or Marseilles. I have travelled many times by this route in spring, and have always greatly enjoyed its exquisite scenery, and that without the least fatigue.

On a calm day in spring the sea journey from Genoa to Nice only takes a few hours, and is very enjoyable, the steamer skirting the base of magnificent mountains all the way. As there are now boats every other day each way, it is always feasible to wait for fine weather.

CORSICA AND THE NORTH OF SARDINIA.

CHAPTER IX.

CORSICA.

ITS PHYSICAL, GEOLOGICAL, AND SOCIAL CHARACTERISTICS — ITS CLIMATE — AJACCIO AND BASTIA AS WINTER STATIONS — OREZZA AND GUAGNO AS SUMMER STATIONS.

Those who pass the winter at Cannes, Nice, and Mentone, have, generally speaking, only the wide expanse of the Mediterranean before them. Occasionally, however, when the sea is calm, and the air is peculiarly clear, a bold mountain land, formed by a series of irregular peaks, is distinctly seen rising bodily out of the sea, on the far south-eastern horizon.

I shall never forget the impression this sight first produced on me. I had been some weeks at Mentone, and had sat day after day for hours looking at the open sea, which I supposed to be a liquid desert for many hundred miles, as far as the sandy coast of Africa. One morning, rising a little after the glorious Mediterranean sun had emerged from the eastern sea, I opened the window and looked out. To my amazement I beheld before me a range of mountain summits, like the Alps seen from the plains of Lombardy. It appeared quite a glimpse of fairyland. As the sun rose higher and higher the distant mountains became indistinct, and finally vanished. This was Corsica. The irregular peaks were the summits of the Monte Cinto, the Monte Rotondo, and the Monte d'Oro, mountains from six to nine thousand feet high. I

have often seen them since, but never with the same vivid distinctness.

The period of the day when the Corsican mountains are most frequently and most vividly seen is just after sunrise, the sun being then behind them. As it leaves them, they rapidly fade and disappear. Sometimes, however, but rarely, they remain apparent throughout the day. Masses of white clouds resting on the higher mountains are often observed for several days together. That they are resting on the Corsican mountains is evident from their complete immobility. The distance from shore to shore being about ninety miles, and at least one hundred and thirty to some of the higher peaks—that of Monte d'Oro, for instance—the first, or lower two or three thousand feet of Corsica, cannot be seen at all, under any condition of atmosphere, owing to the sphericity of the globe. When thus visible from Mentone, the view becomes much more complete, much grander, if the higher levels are reached; from the top of the Berceau the entire range of the Corsican mountains is seen.

These occasional glimpses of a far-distant land impart to Corsica a kind of mysterious charm. We have our beds placed in view of the east windows, that we may awake by times in the morning, and both luxuriously enjoy the magnificent hues of the rising sun reflected on cloud and water, and also scan the horizon for the "fair island." When seen in the day, all communicate to one another the important fact; the more interesting from its portending, according to the weather-wise, a break-up in the weather—rain, or storm.

I may safely assert that nearly the entire English population of Mentone, under the influence of these feelings, is each winter possessed with a strong desire to visit

Corsica. Not only was this desire all but irresistible with me, but I had other reasons for wishing to explore its shores.

During the last few years I have constantly drawn attention to the unhygienic and unhealthy state of the large towns of the south, misnamed health-towns, such as Naples, Rome, Pisa, Malaga, and Valencia. I have constantly pointed out that, owing to the absence of hygienic precautions, all these large centres of population in the south of Europe are unhealthy to the strong and sound who inhabit them, and totally unfit for the diseased, health-seeking community. I have also shown that, as a necessary sequence, the only safe residences for such invalids are small, sparsely-populated places, such as Cannes, Mentone, or the suburbs of towns such as Pau and Nice, in which extra-urban quarters and villas have been built expressly for invalids. These really healthy winter residences, however, are few in number, and are beginning to be much overcrowded; partly no doubt from the self-evidence of the above facts, once clearly brought before the medical and non-medical public. I felt, therefore, that it was in some measure incumbent on me to extend the area of the really eligible winter residences, and believed I might find in Corsica one or more really good winter stations. I also hoped to discover in its highlands a cool mountain station that would do as a summer residence, a want much felt by those who winter in the south, and do not wish to return to England in the summer.

On inquiry as to the means of reaching Corsica, I could gain but little information at Mentone. None of the inhabitants had ever been there, and they seemed to look upon it as a very inaccessible place, in a state bor-

dering on barbarism. I therefore wrote to M. Fabiani, a bookseller at Bastia, the principal town, for a map and a local guide, and to Marseilles and Genoa for information about steamers. In due course I received all I had applied for, and found, as usual, that every difficulty at once vanished. I also met with two very agreeable travelling companions, an English clergyman and his lady, with whom I left Mentone for Genoa April the 15th, 1862, by the beautiful Riviera road. Two English ladies subsequently joined us at Ajaccio.

We entered Genoa on a lovely warm summer afternoon, and found the entire population out of doors in holiday costume. Genoa looked as beautiful and interesting a city as it ever does in fine weather. The night was spent at the Hôtel Royal, which I can recommend, for not only is it comfortable, but it is kept by an Englishwoman, who is very kind and attentive to all travellers, and deserving of support.

The next morning I went to look after the steamer, which starts every Friday afternoon, at six, for Bastia, touching at Leghorn. To my dismay I found that it was my old friend, or enemy, the *Virgilio*. I thought it had, many years ago, been broken up, either by the winds and waves, or by the hand of man. There was, however, no help for it, no other boat went to Corsica; and to the *Virgilio* we had to entrust ourselves.

The weather was beautiful, the sky clear, the sea calm, the barometer at set fair, and this time the old boat slowly but surely performed her allotted task. We steamed quietly along the coast, sitting on deck, and enjoying the beautiful scenery until dark. Then we went down and slept until we reached Leghorn early the next morning, but several hours later than we should have done by one of

the ordinary Leghorn steamers. After unloading cargo at Leghorn, and taking in passengers and goods, we again started at nine, and arrived safely at Bastia at four in the afternoon, the usual passage by a good steamer from Leghorn being four or five hours.

The engineer was a short, stout, good-humoured countryman of ours, and an interesting specimen of the philosophical roving Englishman. He was born and bred, he told me, at Liverpool, and came to the Mediterranean some twelve years previous. He had served in every part of that sea, and had never once been home. He had married an Italian woman, who lived with his children at Genoa. His pay was good, and, as he was quite comfortable and happy, he had no wish whatever to return to England. The *Virgilio* was a good sea boat, and her engines also were good, but both were very old—he presumed at least thirty years. She was, he said, slow but sure, and safe in a storm, as, indeed, I had found her many years previous.

On a fine warm summer's day, such as we were fortunate enough to enjoy on the 18th of April, with an all but calm sea, the passage from Leghorn to Bastia is very enjoyable. As the vessel recedes from the mainland, the fine marble mountains of Massa Carrara are the prominent feature. Then as they become indistinct the island of Elba and the mountains of Corsica come into view. Elba, from the sea, appears merely a mass of rocks and mountains, with but little evidence of vegetation. Still it will ever be interesting to the traveller as the first prison home of Napoleon the Great.

How singular his fate. Born and brought up in Corsica, he finally left it at the age of twenty-three. With the exception of a few hours passed at Ajaccio on his return from the campaign of Egypt (1799), he never saw Corsica

again until, hurled from the height of human power, he was chained to this rocky islet, within view of his native land. Between these two epochs of his life, events unparalleled in history had taken place. He, the humble Corsican soldier, had been a great emperor, a king-maker and a king-destroyer, and had wielded the lives of men as if they had been mere sand on the sea-shore. Elba is the first land that vividly recalls to mind the great Corsican hero. From that moment his memory was scarcely ever absent from my thoughts. It pervades his entire native country, and is indestructibly mixed up with its past and present history. Indeed, it throws a kind of halo, if I may use the term, over the entire island.

Two other islands are also passed, Capraja and Monte Cristo. They are both mere barren rocks, but healthy, and capable of being rendered very fertile by human labour under the life-giving southern sun. Capraja is celebrated in the past history of Corsica from having been for centuries a field of battle between the Genoese and the Corsicans.

Monte Cristo, which has given its name to Dumas' celebrated novel, is a small, uninhabited islet, that has recently attracted attention through the adventures and misfortunes of its owner—one of our countrymen. This gentleman purchased the entire island some ten years ago, and settled upon it, in the regular Robinson Crusoe style, monarch of all he surveyed. He gradually brought a considerable area under cultivation, started a steamer of his own, and succeeded in establishing a flourishing little colony. Misfortune, however, overtook him in the shape of the Italian revolution. Some Garibaldians, on their way to Sicily, landed in the island, and pillaged it. Our countryman's sympathies were with the Duke of Tuscany, those of the six

soldiers and of the sergeant, their commander, who formed the island guard, were with the revolutionary side. They quarrelled, he was insulted, and left the island, and the complete ruin of the colony rapidly followed. Redress was sought in the Italian courts, but without success. The Government refused to recognise the acts of the lawless Garibaldians in this the early stage of their career, and the Elba magistrates, siding with the sergeant and his men, fined our unfortunate countryman for rebellion against the "constituted authorities."

The English Parliament was called upon to take the part of the English proprietor, but, after a long debate, the ministers refused to interfere between the parties. Thus ends, for the present at least, an Englishman's dream of a little monarchy in the Italian seas. We have all of us, in our youthful days, longed for the possession of just such an island as Monte Cristo, and cannot but feel deep commiseration for the misfortunes of one who had thus bravely realized the boy's paradise. But is not the downfall of the little empire explained by the evident want of sympathy of the king of Monte Cristo for the popular Italian cause? If so, he has fallen with the political party he espoused, with his friend the Duke of Tuscany. It is a political, an historical fall, and not a social one.

As Corsica is approached its alpine character becomes evident. It rises from the sea as a chain of mountains extending from north to south. At the basement little hamlets are seen, five hundred or a thousand feet above the sea level, clinging to the wood-clothed mountain sides. The town of Bastia is not discovered until we are but a few miles from the coast. It then appears as a cluster of white houses rising gently above the shore.

We landed in a small and secure harbour, but so nar-

rowed by the jetty that in bad weather the entrance is very difficult. Two years ago the mail steamer was lost through striking against this jetty in a stormy night, and forty souls perished, although within a few feet of the shore. As we rowed quietly in, for our steamer was going on to Porto Vecchio and Sardinia, and had stopped outside, the precise spot where the vessel had struck was pointed out to us. It was all but within the little harbour, so near land that it was difficult to understand the catastrophe. With the calm, smooth sea we then had, the entire crew might have jumped ashore.

Another and larger port is now being constructed, to the north-east, by means of large blocks of artificial stone. These blocks are made on the spot, of immense size, and of any required form, and much facilitate the construction of piers and sea walls. The new port of La Joliette, at Marseilles, has been made in this way. The construction of this harbour will be a great advantage to Bastia, the small port of which is now inconveniently crowded with shipping.

The channel between Italy and Corsica is considered a smooth sea, for Corsica acts as a breakwater to the south-west and north-west; but still at times there is a very heavy swell in it, as I had experienced to my sorrow. This is more especially the case when the south-east or sirocco wind reigns.

Twenty-five years ago, when an official in the Paris hospitals, I had a friend, a young Corsican physician, M. Piccioni, a clever, energetic man, whose professional prospects were even then considered very good. Our friendship shared the fate of many such youthful ties. We parted, he for his native country, I for mine, and never heard of each other again. As soon as we were comfort-

ably settled in the Hôtel de l'Europe, an inn very similar to what we should find in a small French continental town out of the track of tourists, I inquired for the friend of former days. To my delight and surprise I found that he was alive, a flourishing, universally esteemed man, and actually living at Bastia. I had also a letter of introduction to Dr. Manfredi, head surgeon to the Bastia hospital, and the leading operating surgeon of the island. We were most cordially welcomed, I and my companions, both by the old and new friend, and, thanks to them, ever after felt quite at home in the island. They transferred us to other friends and relatives at each successive stage of our progress, and as we were everywhere received with great cordiality, we felt quite at home wherever our steps were directed.

We remained some days at Bastia, exploring the town and its neighbourhood, and then went to St. Fiorenzo. From thence we pursued our journey to Calvi, to Corte, and finally to Ajaccio, whence we embarked for Marseilles, having passed three weeks very enjoyably in the island. The weather was splendid from first to last, the mountains were ever pure in outline and free from clouds, the sky was blue, the sun shone brightly, no rain fell, the country was in the glory of early summer, or of poetical spring.

I shall now endeavour to convey to my readers, as briefly as possible, the results of the experience gained during this tour, as also during a more recent excursion made this spring (1865).

Corsica is the third largest island in the Mediterranean, Sicily and Sardinia being both of greater size. It is situated between the 41° and 43° of north latitude and between the 6° and 7° of east longitude. The distance

from the coast of Italy is 54 miles, from that of France 90; its length is 115 miles, its greatest breadth about 54 miles. Corsica is a mere mass of alpine ridges rising out of the sea like a vessel or the roof of a house. The mountains attain the highest elevation in the centre.

There are two mountain ranges which form the island, running longitudinally through it from north to south. The eastern range commences at Cape Corso, a narrow longitudinal mountain, some 3000 feet high, and more than 20 miles long, the base of which is bathed by the sea both east and west. This range is secondary, calcareous, and descends to the south at a moderate elevation. The second range is primitive, granitic; it commences near the west coast at Isola Rossa, rises rapidly to a height of 8000 and 9000 feet, and runs through the island down to its southern extremity.

The different geological nature of these two mountain ranges has, in the course of countless ages, modified the character of the eastern and western shores.

The eastern range, composed, as stated, of secondary calcareous rocks, is more easily disintegrated and washed away by the action of the elements. Owing to this cause the rivers which descend from its sides, and from the central regions of the island, through clefts which these calcareous mountains present, have deposited at their base alluvial plains of considerable extent. Through these rich alluvial plains several large streams meander to reach the sea. This they accomplish with difficulty owing to the lowness of the shore, and to the prevalence of the sirocco or south-east wind, which constantly throws up large masses of sand at their mouths. Hence the formation, along the eastern shore, of large

salt-water ponds, into which some of the rivers empty themselves.

Under the burning glare of a Mediterranean sun, these terrestrial conditions—large ponds of brackish water, marshes, and rich alluvial plains, liable to periodical overflow—embody all the elements calculated to produce malaria of the most deadly character. By such malaria is this region rendered all but uninhabitable for half the year.

The western, primary, granitic range of mountains, is the real backbone of the island. It must have been thrown up long before the secondary eastern range, is very much higher, and is covered in some regions with eternal snow. This range is jagged and irregular in its outline. It throws out high granitic spurs towards the western sea, which jut into deep water, and form deep bays or gulfs, as is usual with primary rocks.

These spurs divide the western side of the island into deep, wide, picturesque valleys. At the bottom of each valley runs a brawling stream, which carries to the sea the watershed of the high snow-clad mountains, and forms an alluvial plain, of greater or less extent, as it nears the coast.

Disintegration, however, during the geological period has been slow, owing to the granitic character of the mountains, and the rivers have carried less soil to the sea than those of the eastern or calcareous side of the island. The alluvial plains are, consequently, all but confined to the mountain valleys, and the sea is very deep near the shore. On this side of the island are all the natural ports, with the exception of that of Porto Vecchio on the south-east coast. Thus there are no ponds, the marshes are small in extent, limited to the imme-

diate vicinity of the outlet of the rivers, and malaria and intermittent fever are, comparatively, but slightly felt.

The spurs which limit the western valleys being very rugged and of great height, the peasants who inhabited them were all but cut off, in former days, from communication with mankind, on every side but that of the sea. A coast road which ascends and descends the granitic spurs, has been long in construction, and is now completed from Bonifacio to Ajaccio, and to Evisa. Between the latter place and Calvi it is still under construction.

Between the eastern and the western ranges of mountains there is a highland region, an elevated mediterranean area of mountains and valleys, which forms about one-fifth of the entire superficies of the island.

The botanical productions of Corsica assimilate, as might be presumed, to those of the countries that surround it. The north, by its vegetation, approximates to the Riviera, the east to the Italian coast, the west to Provence and Spain, whilst the south shows African affinities. Taking a general view, I should say that the vegetation in the lower regions very much resembles that of the Riviera.

In the plains on the coast, cereals and Indian corn are grown in considerable abundance, and succeed admirably. The mulberry tree, also, is cultivated in great perfection, and as the climate is suited both to its growth and to the rearing of the silk-worm, there is a great opening in this direction for the Corsicans. On the lower hills and mountain valleys the olive-tree thrives and flourishes. The vine is also cultivated with great success, and admirable wine is made, of rather a full-bodied character,

especially on Cape Corso and about Sartene. Higher up, the chestnut-tree grows to a magnificent size, and produces fruit of the very best quality. Entire districts, especially on the eastern side of the island, are covered with splendid chestnut-forests. One of the eastern districts, indeed, having the little town of Piedicroce for its centre, is called the Castagniccia, or chestnut country. It has ever been famous in history for the unconquerable intrepidity and love of freedom of its inhabitants. Throughout centuries of tyranny and oppression in Corsica they have never been entirely subdued, and that principally owing to their chestnut-trees. Formerly, and even now, their main food is the chestnut, with scant assistance from the oil of the olive-trees, the wine of the vines, and the flesh of the wild sheep, or mouflon, a native of the adjacent mountains.

The chestnut-tree wants no cultivation whatever, no watching. Like the bread-fruit tree of the tropics, it produces fruit that only requires gathering when ripe, and in this climate it never fails to produce a crop. Thus the inhabitants of the Castagniccia could fight all the year round and yet live. They might be hemmed in on all sides in their mountain fastnesses, all ingress might be stopped for years, and yet they flourished. These times have passed away; for more than half a century there has been peace in Corsica, but still the inhabitants of the Castagniccia retain their desultory habits. They live, I am told, in sober idleness, play at cards, and talk politics all day, and work as little as they can possibly help. Their artificial modern wants, even, are easily supplied by the sale of the surplus crop, now rendered easy by the increased facility of communication with the Continent.

The cultivation of the olive-tree on a large scale would appear to engender the same apathy and disinclination to work on the part of the peasantry. There is one region called the Balagna, extending from St. Fiorenzo to Calvi, comprising a series of smiling hills and of lovely fertile valleys, which is a very garden of olive trees. It is renowned throughout the island for its richness and for its luxuriant fertility. A leading proprietor informed me that the peasantry, all proprietors, led the same "*far niente*" life of easy enjoyment as their countrymen in the chestnut districts. The olive tree requires a little more trouble, it is true, than the chestnut; it has to be pruned and manured every year or two, the fruit has to be crushed and the oil sold. Still all this, like the labour of the Irish cottier on his potato-ground, takes but little time. Every year or two an abundant, easily-earned harvest of oil pays off debts and leaves a surplus to live on until the next be ready. Why should he work, says the peasant, when his future is thus secure? People cannot live, however, upon oil alone. It must be sold to maintain the grower, and owing to this reason, no doubt, the Balagna has from time immemorial been conquered and held by those who held the adjacent coast.

Above the range of the chestnut tree we meet with the pinus maritima, and above that, along with it in some regions, the pinus larix or larch. This tree is a native of Corsica, and in no part of Europe does it grow to greater luxuriance and perfection. In some of the primitive forests, noble trees, more than one hundred and twenty feet in height, are found. Above the pines come the beech, then the birch, and then the eternal snows.

These details of physical structure explain the history of Corsica. Like most mountain regions of a similar nature, for numberless centuries, from days anterior to those of the Romans, its inhabitants were at war with their neighbours, all of whom in succession tried to conquer them. The shores and shore-towns were successively in the possession of the Greeks, the Romans, the Saracens, the Spaniards, the Tuscans, the Genoese, and, finally, of the French. But the mountaineers were never conquered. Alternately defeated or victorious, they ever maintained their independence. Conquerors, they drove the invaders from their native soil. Conquered, they retreated to their mountain fastnesses, to the primitive forests which still cover a considerable portion of the island, to the neighbourhood of the eternal snow. There, who durst follow them? The attempt only brought destruction upon their pursuers. Such was ever the history of this small community, then not numbering much above a hundred thousand souls; as noble a race of free men as ever trod the earth.

The history of Corsica is full of heroes, of heroic deeds, of romantic achievements. Each successive century bore patriots ever ready to sacrifice their fortunes and their lives for their country, as in the heroic days of early Rome. Nor were the opportunities for so doing wanting. No sooner was one enemy disposed of than another appeared. Peace never lasted more than a few years, seldom as long; and each successive generation had thus to renew the struggles which had tested the courage, the patriotism, and the endurance of its precursor.

Is it surprising that the names of these Corsican heroes should be household words? that Giudice della Rocca, Giampolo, Sampiero, Paoli, and many others, should live

in the affections of the Corsicans even unto the present day? Is it surprising that the Corsican women should have imbibed and shown, in times now gone by, the stern patriotism of the women of Sparta? or that their "voceros," or chants and national songs, should, up to this day, breathe a spirit of defiance and a love of vengeance unknown to the inhabitants of more peaceful regions?

A population which has for so many centuries—indeed until quite recently—lived in a state of constant warfare against foreign tyranny and oppression cannot all at once calm down to the social condition of countries that have for centuries ceased to fight for their existence. Thus is explained the exceptional social condition that until very recently reigned in Corsica.

The Genoese were, during the middle ages and until towards the latter part of the last century, the most persistent and cruel persecutors of Corsica. They established themselves in Corsica towards the end of the thirteenth century, and gradually gained possession of the coast towns and of a considerable portion of the island. War may be said never to have ceased from that time until the Corsicans surrendered themselves to France, in June, 1769, two months only before the birth of Napoleon Bonaparte.

In 1737 the Genoese, finding themselves hard pressed, applied to France for assistance. Cardinal Fleury gladly availed himself of the pretext to establish a footing in Corsica, and sent five regiments to their assistance. From that time the Corsicans had also to fight against France. They defended themselves desperately for thirty years, but at last their great general, Paoli, was defeated, and they had to succumb.

The father of Napoleon I. was a prominent member of the patriotic or anti-French party. He was private secretary to the celebrated chief, Paoli, at the time the capitulation was signed, and Corsica annexed to France. A few months later his wife gave birth to the great warrior and statesman who was to wield with such terrific energy the destinies of the French, whom his countrymen then looked upon as foreigners and conquerors.

The great and patriotic Paoli, who for a quarter of a century had governed the Corsicans with the wisdom of a Solon and the courage of an Epaminondas, abandoned his native country, when it became a mere province of France, and took refuge in London. There he lived for thirty years, a glorious exile from his sea-girt island home. When I gazed on the magnificent mountains, the beautiful clear sky of Corsica, and the glorious azure sea that surrounds it, I often thought of the sad exile of former days. How his heart must have yearned for his own native land in the fog and gloom of a London winter. He could have returned had he submitted to the rule of France; but this his patriotic soul would not stoop to. He preferred to live length of years in exile in a northern land, and there to die, away from the home of his fathers.

He once returned, but only for a few years. When the French became republicans they were ashamed at having extinguished Corsican freedom, publicly apologized, recalled Paoli in 1790, and placed him at the head of his countrymen. The latter soon tired, however, of republican tyranny, appealed to England, expelled the French, and positively annexed Corsica to England (1794). Paoli and his English friends soon became obnoxious in their turn.

The Corsicans rose against them, returning to French allegiance, and the French dominion was again definitively established throughout Corsica in 1796.

The generation of Paoli has long passed away. Mighty events—events that have shaken Europe to its foundations, and that have totally changed the fortunes and future destiny of the nation that annexed his native country—have taken place. These changes may be traced in a great measure to the genius and to the Corsican tenacity of purpose of the son of one of Paoli's companions and friends. The Corsican character, however, remains the same. The love of freedom, the firm resolve not to yield to authority against the dictates of conscience, still characterize the sons of Corsica. There are still Corsican exiles who reproduce the patriotic self-denial of Paoli; one of these exiles, I may be allowed to state, is M. Louis Blanc, so well known for the part he took in the Paris revolution of 1848, and for his literary labours both before and since.

It is a question whether the Corsicans, with their indomitable pride and individuality, would have submitted so completely to France, had it not been for the marvellous rise of Napoleon Bonaparte, their countryman. As I have stated, Napoleon was born a few months only after the annexation, and by the age of twenty-nine he was general of the army of Italy, at that of thirty he was first consul, and at thirty-four emperor. The national feeling is still very strong with the Corsicans, and I have often heard it said, laughingly, "It is Corsica in reality that has annexed France, not France Corsica." Every man, woman, and child in the island is proud of the first emperor, and acquainted with every detail of his life. The advent of the present emperor to the throne of France was

hailed with a shout of delight and patriotic love from one end of Corsica to the other, and nowhere has he more devoted adherents. Yet, to the stranger, the country is more Italian than French. Except in the large towns, Italian, or an Italian dialect, is the principal language, and the features and manners of the inhabitants, like the vegetation, are also decidedly Italian.

They complain rather bitterly that they are neglected by France, and that the very great natural resources of the island are not developed as they might be. This reproach to me appears scarcely just. The first Napoleon, it is true, did but little for his native country, a very singular fact. As we have seen, although born and brought up in the island, which he constantly revisited during the first years of his military career, he never came to it again after his return from Egypt. Perhaps he was so totally absorbed by the herculean duties that filled his career, as to have but little leisure to think of the material welfare of his native country. Perhaps he was disinclined to draw, in too marked a manner, the attention of the country he governed to his Corsican origin. On one occasion a decree was signed for some important public works at Ajaccio, but they were not carried out. This he only learnt years afterwards. When at St. Helena, his thoughts, however, reverted to the mountain island that gave him birth. He often spoke of it, and of what he had intended to have done for its welfare and prosperity had he remained in power.

Subsequent governments appear to have done for Corsica what they have done for other departments of France, perhaps even more. The French centralized system of law, education, and road-making, was everywhere introduced, and every facility given to the inhabitants to mentally im-

prove themselves, and thereby to lay down the foundation of public prosperity. The roads that now connect the principal coast towns, and all but encircle the island, are excellent, as good as our high-roads in England, even in the most wild and uninhabited regions. There is a very good road intersecting the island from Bastia to Ajaccio. It passes over the two mountain chains, and through Corte, the ancient patriotic capital of Corsica. Various forest roads have also been lately made, leading into the heart of the country, into the primeval forests, which occupy the high central regions.

The great impediment to the material progress of Corsica up to a very recent period, has no doubt been the very abnormal social condition of the island. So peculiar and strange was this condition, so foreign to all modern notions, that it may be questioned whether the whole world could afford a parallel. The *vendetta* which characterize it must sap at the root all public enterprise and prosperity.

The vendetta is a system of vengeance to the death which has existed for hundreds of years in Corsica, and which was, until recently, recognised and approved by nearly the entire community, including even the less enlightened ministers of religion. Its origin is obscure, but may probably be traced to the constant feuds and warfare that have existed in the island, dividing the members of families and communities, and ever arming one against the other.

All Corsicans carried firearms. If one man considered himself insulted by another in any way, however trivial the grounds, he shot him. From that moment the family of the man killed was bound in honour to pursue the murderer, or in his default, some member of his family, and to retaliate blood for blood. This obligation de-

scended from one member of the family unto another, until it often ended in the all but entire destruction of both families. Villages, entire communities, would take up the quarrel of their members against other villages, other communities, and thus, in the absence of a public foe, they massacred each other.

I was told by a very intelligent Roman Catholic priest, curé of a remote country village, that the greater part of these feuds were the result of jealousy. The general feeling was that any insult offered to a woman ought to be washed in the blood of the offender, by her male relatives, husband, father, brother. This sentiment, he said, was so strong and general, that were the recent laws relaxed, there would be just as many assassinations as in former times, and, consequently, as many outlaws in the mountains. Indeed, if there was no male relative to avenge them, the Corsican women often revenged themselves.

This latter statement was fully borne out by what I heard at Corte during my recent visit to Corsica. In April, 1865, there were three women in prison for killing their lovers. One, a fine young woman of twenty, of a good peasant family, shot her lover dead in the market-place of Corte, ten days before I arrived. He had deserted her after promising to marry her, and positively refused to ratify his promise. She was in prison, but my informant, one of the leading inhabitants of Corte, stated that her imprisonment was a mere form, and that she would be either acquitted or condemned to prison for a few weeks only. The entire community, himself included, thought her a very noble girl, who had served her base lover quite right.

This girl, in vindicating her honour, only followed the traditions of her country. Some years ago a young girl

of Ota, whose rather poetical name was Fior di Spina, or Hawthorn-flower, killed her lover for the same cause—his refusal to marry her. One of her compagnons improvised a "vocero" or ballad, which I give below, both as illustrating the feelings of the Corsican women on such occasions, and as a good specimen of the language spoken to this day. It will be perceived that it is thoroughly Italian. This vocero is published by M. Jean de la Rocca, in an interesting work entitled "La Corse et son Avenir." 1857.

VOCERO.

"Stamane, in piazza d'Ota,
T'hannu messu la courona
Tissuta in oro ed in argento,
Secondu la to personna,
Dapu stu colpu di pistola
Che in Corsica risona.

"Arrivata da u su babu,
Si vesti da grand' guerriera,
Carca di ferru et di piombu,
Colla carchera e la tarsetta,
Lu stilettu e la pistola,
Dicendo: Oggi e u me sicretu.

"Quest' avia un cuore d'un lione,
D'una tigra allatata.
Ha stesu lu bracciu colla pistola,
Ed in capu la sbarata,
Dicendo: Anima infidele,
La tu morte è preparata.

"Deh! portatemi a Tallavo,
Dove so i banditi più fieri,
Giacomo e Santa Lucia,
Questi cuori bravi e guerrieri,
E con elli in compagnia,
Girero boschi e sentieri."

LITERAL TRANSLATION.

"This morning, in the place of Ota,
they placed on you the crown,
woven in gold and in silver,
according to (worthy of) your person,
after this pistol-shot
which in Corsica resounds.

"Arrived at her Fathers
she dressed herself as a great warrior,
loaded with iron and lead,
with the cartouche-box and the tarsette,
the stylet and the pistol,
saying: To-day it is my secret.

"She had the heart of a lion,
of a tigress suckling.
She extended the arm with the pistol,
and on his head discharged it,
saying: Soul unfaithful,
your death is prepared.

"Now! take me to Tallavo,
where are the banditti the proudest,
Giacomo and Santa Lucia,
those hearts brave and warlike,
and with them in companionship,
I will rove in the woods and paths."

According to a French prefect quoted by Gregorovius, whose Travels in Corsica I can recommend as a most fascinating book, 4300 assassinations occurred in Corsica between the years 1821 and 1852, in a population of two hundred and fifty thousand. In the last two years of this period the number was three hundred and nineteen. The peasant scarcely cultivated his field, for fear of being shot whilst at the plough, and his life was often passed in tracking or avoiding a foe. The women, bred up in a

savage sense of honour, urged their husbands and sons to these deeds of bloodthirsty revenge, sang wild songs of triumph (*voceros*) over them if victorious, and equally wild songs of lamentation if they were killed.

Many Corsicans in those days spent years of their life barricaded in their houses, which they durst not leave for fear of their pursuers. The story is told of one man who remained fifteen years thus barricaded in his house without leaving it. One day he heard that his antagonist was away, and ventured to go out and cross the road, only to fall dead on the other side, shot through the body by an enemy who had waited fifteen years for him. I myself made the acquaintance at Isola Rossa of a gentleman, one of the leading proprietors of the island, who, a long while ago, actually lived for two years barricaded in the upper flat of a house in that town to avoid the "vendetta." An iron door on the staircase, through which he could shoot any one approaching, protected and separated him from his relentless foes.

How could a country prosper under such circumstances? The French Government never would take the chivalrous view of the Corsican vendetta, but declared from the first that a man shot under these circumstances was simply assassinated. If caught, he was tried, and either executed or sent to the galleys for life. This unpleasant mode of viewing the national point of honour in no way restrained the Corsican mind. They shot their enemies as before, and then retired to the mountains, where they could set the law at defiance, becoming banditti. At the commencement of the present century there were 1000 men in the mountains (*à la montagne*). The commandant of the gendarmerie at Ajaccio told me that in 1855 there were still three hundred.

These men were not brigands, such as we used to meet, and still meet, in Italy, in Calabria, and elsewhere. They were "honourable men," who had vindicated their sense of honour, in accordance with the immemorial custom of their race, and with the approbation of the large majority of their countrymen. Once in the mountains, out of reach of the authorities, in the primitive forests of the Monte d'Oro, the Monte Rotondo, the Monte Renoso, or the Monte Inchudine, they merely wished to live. They killed game, their friends and relations sent them supplies, the peasants and shepherds gave them food, and helped them to avoid their enemies, the soldiers and the gendarmes. Thus they led a kind of wild, Robin Hood life; seldom, if ever, attacking travellers, or doing harm to those who left them alone. I have been told that a traveller, not an enemy, might have gone among most of them with his pockets full of gold without fear. They would only have politely asked him for a small pecuniary contribution, if they wanted it. Some few, however, were less honourable, less easily satisfied, even in those days, and could not have been thus trusted.

It was in vain that the French Government kept a regiment or two of soldiers in the island, and a large body of "moveable gendarmerie," accustomed to the mountains, and to mountain warfare. The vendetta was too deeply rooted in the minds of the Corsicans. The mountains were too inaccessible, and the population too favourable to these "honourable bandits," for it to be exterminated from the land. A few years ago (1854), therefore, very extreme measures were adopted; measures which seem very strange in our times as applied to a department of France, to the birthplace of the present imperial family.

Two laws were passed by the French Chambers. By

the one, the entire population was disarmed ; it was made penal to carry firearms, or arms of any description, for any reason whatever, even including the pursuit of game. Since then there has been no regular sporting in Corsica. A landed proprietor cannot take out a gun, and shoot a bird or a hare on his own property, without the permission of the prefect. When this permission is asked, and granted, it is given for one, two, or more days, for a special district, under the name of a *battue*, and police-agents or gendarmes are required to be present. All the higher and well-informed members of the community have cheerfully acquiesced in this law, and have surrendered their pleasure for the good of the community.

By the other law, the *loi du recel*, or law of concealment, all persons harbouring or assisting outlaws are liable to imprisonment. This law has been stretched in practice in a very singular and Draconian but very effectual way. If a man kills an enemy, and goes to the mountain, the authorities instantly seize and imprison his relatives, and keep them in prison until he be caught or have surrendered. A very remarkable application of the law occurred during my first visit at Ajaccio. A bandit who had killed twenty-seven people in his life, principally gendarmes, and had been out in the mountains above thirty years, had for some time disappeared, and was supposed to have gone over to Sardinia. He had recently reappeared, and had been seen in the vicinity of Sartene, in the southern part of the island. As many as sixty of his relations and descendants were immediately seized and imprisoned, and were only released when it became quite evident that the old offender had again withdrawn from the island.

Inhuman as this step may seem, it has been attended with the most beneficial results. These men of bronze,

who killed an enemy as they would a noxious insect, whom no human or divine feeling could restrain from shedding blood, are fond fathers, sons, and brothers. They cannot bear to see their children, their fathers and mothers, brothers and sisters, in prison, permanently, on their account. They either do not assassinate any longer, or they give themselves up to the authorities, and meet their punishment. There are now not more than two or three outlaws "*à la montagne.*" Were such a law passed and rigidly carried out in Italy, the country would soon be cleared of the banditti that now infest it.

The rigid application of the *loi du recel* cut at the root of one of the chief causes that tended to keep up banditism. So far from a peasant family being disgraced by one of their members being "out in the mountain," it was, in some sense, an advantage to them. From that moment the family had allies who protected and assisted them in their feuds and quarrels. They furnished provisions, powder, information, and, on the other hand, they received assistance and protection from their bandit relative and his companions. The imprisonment of the entire family deprived the bandit of the all but indispensable assistance he was receiving, and made the members of his own family very lukewarm sympathizers, if not absolute antagonists.

A singular feature in the history of these outlaws is their attachment to their native land. They could easily get to Sardinia, which is only separated by a strait a few miles across, or they could take refuge in Italy. But the love of their native country is too strong. They prefer to lie out for years in the forests and mountains, to be tracked daily like wild beasts, without hope of pardon or of eventual escape, to taking refuge in another land.

The commandant of the "gendarmerie," whose ac-

quaintance I made at Ajaccio—a brave, open-hearted military man—had been ten years in the island, and they had been years of incessant warfare against the banditti. I heard many interesting details from him of the mountain warfare he had unceasingly waged—for such it is. He had several hundred men under him—all young, of great physical powers, and inured to hardships of every description. His attacks were principally made by night marches of twenty, thirty, or even forty miles, which enabled him to surprise his wary enemy.

I expressed my astonishment that he was still alive, that he had not been assassinated, Corsican fashion, after so often leading his men in such desperate work—for he said he had sent scores to the galleys and the guillotine. He replied that the explanation was in the fact that he had always treated the banditti as fair antagonists. He had waged honourable war against them, and fought them openly, as he would have done a military enemy. He had surprised them, and exterminated them when he could, but never with the assistance of treachery, which he despised and repudiated. So thoroughly convinced, he added, were the bandits of his honour, that were he that evening to write and make an appointment in Ajaccio with the most notorious of the few remaining, they would not for one moment hesitate to leave their retreat, and come to meet him in Ajaccio itself.

One incident of the adventurous life of the worthy commandant is worthy of narration. He had been long pursuing a very desperate bandit, who had killed several persons, and had been in the mountain for several years, eluding all research. At last he heard that he was sleeping every night in a cavern, situated in a very wild and secluded district, high up in the mountains. By a night march he

surrounded the cavern with a hundred and fifty men, and, certain of the outlaw's presence, summoned him to surrender. The only reply was a couple of shots, which killed one of his men. He then determined to smoke him out, and commenced piling a heap of brushwood before the cavern; but before this could be half accomplished, two more of his men lay dead on the ground, shot through the body by his antagonist. Anxious not to sacrifice any more lives, the commandant determined to starve out the bandit, being aware that his stock of provisions and of water was limited. He therefore drew round the cavern, which had only one issue, a double cordon of men in the brushwood, and waited.

For two days and two nights was this tiger-watch continued. On the third night, towards morning, hunger and desperation prevailed, and the bandit made a sudden rush out of the cavern. Twenty guns were instantly levelled at him and fired, and he fell dead; but not before he had had time to single out and deal a death-shot to one more of his enemies. Thus the destruction of this man cost four valuable lives. This dramatic incident occurred only a few years ago.

It was easy to see that the worthy commandant had entered thoroughly into the spirit of his arduous career; indeed that he enjoyed it. His eyes sparkled whilst he told me of the long night marches, of the ambuscades, of the surprises, and of the manœuvring, which form the main features of this mountain warfare. No doubt the excitement and uncertainty of this kind of campaigning has great charms for men fond of adventure.

The difficulty of seizing an outlaw who is supported by the warm sympathy of the entire population, and is assisted by them in every way, has been well illustrated recently in

Ireland. In a quiet, civilized country, where there are no primeval forests, no mountains covered with eternal snow, an elderly assassin eluded the pursuit of the entire police force for two years, and at last died of disease. His whereabouts was constantly discovered, but owing to the connivance and assistance of the peasantry he as constantly eluded his pursuers.

The above facts appear to me sufficiently to account for the backward state of Corsica as regards its material development. It is the history of the Highlands of Scotland two hundred years ago—a people constantly fighting either against strangers or amongst themselves, and learning to look upon actual labour as derogatory. This is especially the case when the material wants of life are few, the population sparse, the climate mild, and the soil so naturally fertile as to develop, all but without trouble, the actual necessaries of life.

At last, however, the very vigorous measures adopted by Government are beginning to tell thoroughly on the social state of the entire community, and security reigns where diffidence and alarm formerly existed. There can be no doubt, therefore, that the natural resources of Corsica will speedily be developed. The forests of Corsica contain timber as valuable as that which is imported into Europe from countries thousands of miles away; its wines are good, abundant, and cheap; its mineral wealth is said to be great—lead, copper, and iron being found, I was told, in abundance, and with little labour. The island is all but encircled and partially penetrated by good roads, and regular and frequent steam communication exists between its principal ports—Bastia, Calvi, and Ajaccio, and the French and Italian mainland. Capital and enterprise are alone wanted, and they are sure to make their appearance.

Were Corsica an English possession, a dozen companies would be at work in a few months; but commercial enterprise is slower in France. The French still look upon Corsica as a semi-barbarous country. The officials who hold appointments there consider themselves banished, and ever aspire after the time when they can return to France, to Paris. Scarcely any travellers, either French or others, visit the island except on business. So much is this the case, that the advent of myself and companions was a matter of surprise and curiosity. What could possibly have led us there, was the question. Indeed, to explain my presence, I was invested with "a mission to examine the climate and productions of Corsica."

This isolation will, however, I am persuaded, soon cease; and I shall be greatly pleased if I am the means, by this brief notice, of directing the attention of my countrymen to this very beautiful island. In no part of Europe can a few weeks be spent more pleasantly in spring or autumn by the healthy tourist than in Corsica. In early autumn malaria is, perhaps, too prevalent for pleasant and safe travelling; but by the beginning of October it becomes quite safe. It may, with the greatest ease, be visited on the way to Italy, or on the return from the north of Italy. Two or three steamers run weekly between Bastia and Leghorn, in four or five hours; a short and generally calm passage. One steamer runs weekly to and from Marseilles, to and from each of the larger ports—Bastia, Calvi, and Ajaccio.

There is also a steamer every week from Nice to Ajaccio and Bastia alternately. This steamer is a good and comfortable one, and the passage, I was told by the captain, is generally a calm and favourable one. It takes about twelve hours.

This steamer, which leaves Nice every Wednesday evening at nine, returning from Ajaccio or Bastia on the Saturday evening following, renders the journey to Corsica a very easy one to all who winter on the Riviera.

To the Italian tourist who wishes to deviate from the beaten route, it offers an opportunity of seeing the glorious scenery of Corsica without loss of time. In one night he is at Ajaccio. From Ajaccio to Bastia there is a diligence daily, and a very good road, which passes over the mountain chains, and through most beautiful scenery. At Bastia the steamer for Leghorn takes the traveller on to Florence. Another diligence also leaves Ajaccio daily for St. Bonifacio; and when the Sardinian railroad, now under construction, is completed, the traveller for Rome and Naples may diminish the sea journey by more than half, besides seeing some of the most beautiful scenery in Europe. Cagliari, in the south of Sardinia, where the railroad terminates, is only a few hours by sea from Civita Vecchia, Naples, and from Palermo, in Sicily.

To the invalid, also, Corsica offers resources still unknown. I believe I may safely assert that the principal object of my journey was successfully carried out, for I actually discovered an admirable and a most charming winter station, Ajaccio. I feel quite proud of this achievement, for I had divined it on geological, meteorological, and geographical grounds, before I started on the journey.

Ajaccio (population 14,000) is unquestionably one of the most lovely spots in Europe. It is one of the cleanest and most smiling little French towns I have ever seen. Not being cramped in by walls, it has spread itself out on the north-west side of a noble and picturesque bay, directed due south. At a distance of some twenty miles from the shores of this bay is seen a hemicircle of the

majestic granite mountains, from six to nine thousand feet high; some of which, as we have seen, are capped with snow even in summer. The bay itself is as blue and as beautiful as that of Naples, although on a smaller scale. The town is well protected from the north-west by a spur descending to the sea from the principal range.

The vegetation of Ajaccio and the neighbourhood indicates a climate at least as warm as that of Nice, perhaps even a shade warmer. The olive, the orange, the prickly pear, thrive with great luxuriance. In the principal street there is a double row of good-sized orange trees planted out in the soil, the effect of which is charming. They were in flower when I was there at the latter end of April, and embalmed the air. I fear, however, that they are in a fair way to be destroyed by an asphalt pavement, which has been foolishly placed over their roots. I did not find them this spring as flourishing as when I first saw them in 1862. The lemon tree grows also, and bears fruit out of doors, but only, as at Nice, in sheltered and protected spots. It is evident that there are no prevailing winds felt, for the trees on the shores of the bay, east, west, and north, and in the neighbourhood of the town, grow perfectly straight. On other points of the coast, at Isola Rossa for instance, the trees near the shore were turned north-east, indicating the prevalence of south-westerly winds. Indeed I have been told by well informed nautical men, that one of the principal features of the bay of Ajaccio is the complete absence of the strong winds that reign everywhere else in the Mediterranean during winter, and the consequent calmness and stillness of the atmosphere.

We must except, however, the land and sea breeze, which appears daily, with the regularity of the tides in the Atlantic, and much facilitates the navigation of the bay.

All the country boats, feluccas, and gondolas from the neighbouring districts go out of the bay at night with the night breeze, and come in in the morning with the sea breeze.

The principal medical practitioner of Ajaccio, Dr. Versini—a well-informed old gentleman of seventy-five, now dead—and his son, who has succeeded to his practice, assured me that the climate was unexceptionally healthy. The only epidemic disease they suffered from was intermittent fever in the latter part of the summer and early autumn, and that not in a severe form. Its attacks occurred principally when the wind blew from the mouth of two rivers that empty themselves into the bay on its eastern shore. They told me that cold was unknown during the winter, and that the weather was all but constantly fine and sunshiny. Their statement was confirmed by General Sebastiani, brother of the late marshal, one of the few surviving companions of Napoleon, a Corsican like him. The general has a residence at Ajaccio, and has spent the winter there for many years. He told me that he had tried nearly every famed winter climate in Europe, but had found none equal to that of Ajaccio, and had consequently adopted it as a winter residence. I found him full of life and vigour, notwithstanding his advanced age, and a very agreeable companion. He showed me over a large well laid-out garden, which climbs the hill-side behind his residence, in the middle of the principal street. The general has had the good sense to plant it principally with the shrubs and plants of the country, which makes it exceedingly interesting. With the care given to them they are all thriving luxuriantly, and a stranger is thereby enabled to compare cultivated with wild nature.

A large portion of the surface of Corsica—I may say

all that is not a primeval forest or under cultivation—is covered with what they call "maquis." I do not like to use the word brushwood or scrub, for such are very common terms to apply to groves of underwood composed of myrtle, arbutus, cystus, rock-roses, and Mediterranean heath, and yet of such is the interminable "maquis" composed. These choice shrubs are the weeds of Corsica, growing wherever nature is left to herself, wherever the soil is not covered with timber, and soon again turning even cultivated lands into brushwood if left uncultivated for a few years. In the northern part of Corsica I found, everywhere flowering luxuriantly, a very lovely purple cyclamen. In the Castagniccia it was quite a weed.

The existence of this maquis, or brushwood, on all open ground, constitutes quite a feature in the social history of Corsica. It contributed much to the security of the outlaws or banditti; growing generally from six to ten feet high, and where the soil is good to fifteen or twenty, it offered an all but impenetrable refuge. On the other hand, its invasion of all uncultivated soil in dense masses, renders it difficult and expensive to redeem land, and to bring it into cultivation, once it has fallen into the wild state.

Until within the last few years all cattle, to whomsoever belonging, had a right to pasture in the maquis. The result was the existence of roving flocks of sheep or goats, entrusted to shepherds or belonging to them, that passed from one part of the country to the other according to the season. These flocks committed great depredations, especially the goats, and rendered husbandry difficult and precarious in the districts which they visited. Goats are so nimble and light-footed that no ordinary fence will keep them out of a field, nothing short of a ten-feet wall.

I found them everywhere in very bad odour. It is in reality the condition of an unsettled country. Many parts of Spain are to this day a desert from this cause.

A law has, however, been passed recently, prohibiting what is called the "libre parcours," or free pasturage. No cattle are now allowed to pasture in grounds that do not belong to their owner, or that are not let to him, or to roam untended. This necessary law has been of great service to agriculture; but, like all progress, it has its painful side; for I was told by peasants that they could now get no meat. It is like enclosing our commons. The peasantry who did not positively own land had flocks which they drove into the maquis, and on the products of which they partly subsisted. Now they are reduced in a great measure to their own labour.

The milk of the sheep, as well as that of the goats, is largely consumed as an article of diet, both in the shape of milk and in that of cheese. It is, I was told, a most important resource, especially in the mountain districts. Would not our own highlanders find in the milk of their sheep a valuable article of diet? It is, and has been, consumed from time immemorial all over Asia in mountain districts, and is everywhere greatly esteemed. The large flocks of North Britain would offer a bountiful supply of this valuable article of food, and the famines which decimate the highlands might thus become unknown.

The Corsicans mix the milk with chestnut-flour. The chestnuts are dried in an oven when they fall, in the autumn, and when wanted ground into flour. With this flour cakes are made, spread on chestnut leaves, which, when baked, constitute their principal food. To strangers the cakes taste sweet and insipid, but the natives are very fond of them.

Through the kindness of my friend Dr. Piccioni, I was

introduced to several families at Ajaccio, and their warm and cordial reception of me and of my companions, rendered our few days' residence there additionally agreeable. I found every one aware of the exceptional character of the winter climate of Corsica, and anxious that it should become known to strangers. Since then the town council of Ajaccio have made several great improvements. A public garden, or park, in a direct line with the principal street, in a most lovely site, has been laid out and opened to the public.

There is a beautiful drive on each side of the bay, extending for some miles, which is also being improved and extended. Several separate villas have been built and furnished in the immediate vicinity of the public garden, for the accommodation of strangers. These villas, four in number, are large, well distributed, and comfortable. They are furnished as luxuriously as they would be in Paris or in Nice, and are quite adapted to the requirements of a good-sized family. The rents are to be 4000 or 5000 francs, £160 or £200 for the winter season, according to the size. There is one, a perfect little palace, built by a late "receiver-general" for his own use, which was to let when I was there.

With the exception of these recently built villas strangers will find as yet but little accommodation in the town. There are two or three hotels, neither very clean nor very good, but where travellers may manage to get on for a short time. Better hotels, however, are promised. The Hôtel de France is the pleasantest from its looking out on a fine square, or place, near the sea. There are always unfurnished apartments, I am told, to be obtained at a reasonable rate. The most economical plan, therefore, for a winter sojourn, would be to take an

unfurnished apartment, and to hire furniture from one of the upholsterers. Fish is abundant, so is beef, veal, fowls, and game, but not mutton. Butter would probably have to be sent for weekly from Marseilles. What we had was far from good.

Between my two visits to Ajaccio I found that evident improvement had taken place in many respects, and I do not question but that were winter emigrants to make their appearance in any number their wants would very soon be as well supplied and attended to as elsewhere. Several friends, one of them a medical man, have spent the winter at Ajaccio at my recommendation, and have given me a very favourable account of the climate. Dr. Pietra Santa, one of the private physicians to the Emperor, was sent to Ajaccio in 1863—the winter that followed the publication of the present account of Corsica—to investigate the winter climate of its western capital. His report, contained in an interesting work, thoroughly substantiates all my previsions.

At Ajaccio there is a nucleus of very good society, both Corsican and French. There are the préfet, the judges and magistrates, the officers of the garrison, the leading engineers, and the resident native families. All appeared to be most amicably and cordially disposed to strangers. To crown the whole, there is a very tolerable Italian opera company throughout the winter season, and the subscription for one of the best boxes, holding six, is only about eight or ten pounds. I was, indeed, so much pleased with Ajaccio, that had I not made a permanent settlement at Mentone, I should have certainly gone there the following winter.

A great and mysterious charm about this delightful little southern town is its having been the birthplace of

Napoleon. It was here also that he spent his childhood and his early youth, until, at the age of fifteen, he entered the Military School of Brienne. As I have stated, he returned yearly to Ajaccio to pass the vacations in the bosom of his family, and was mixed up with all their feuds and Corsican feelings until fairly launched in his great military career. Then leisure ceased for the great man. His mind was ever full of ambitious and grandiose plans, his time and thoughts ever engrossed by their fulfilment. His quiet little native town and his Corsican nationality passed into the background, only to be fully remembered when chained to another island—the ocean rock of St. Helena. His family followed his wonderful fortunes—his brothers to become kings, his sisters to marry princes.

Our first visit the day after we arrived at Ajaccio was to the house of the Napoleon family, in which the hero was born. It is a good-sized, comfortable house, situated in the very centre of the town, looking out on a small court or garden, and so surrounded by taller houses that there is no view of the sea or mountains from any of the windows. Its size and position show what we know to be the case—that Napoleon's family must have been one of the leading families of Ajaccio. The house has been renovated by the present emperor, the old family furniture has been sought out and brought back, and everything has been replaced as much as possible in the same position as when the rooms were occupied by the Bonapartes in former days. Thus every article of furniture and decoration is a souvenir. The bed in which Napoleon was born is seen in a room on the ground-floor, as also the room and bed he occupied during vacation visits to his home when grown up. The house is shown by an old female

servant of the family, who knew and attended Madame Letitia, Napoleon's mother, up to the time of her death.

There is an old and rather handsome church, called the cathedral, very near the family mansion, which no doubt is exactly in the same state as when he was daily taken to it as a child by Madame Letitia. I was at Ajaccio on the 5th of May, the anniversary of Napoleon's death, and attended a mass given to his memory, at which all the notabilities of the place were present. As I sat, listening to the solemn strains of the organ, I could not help fancying I saw the future emperor as a child, kneeling at his mother's side, in the very place where he, no doubt, had really knelt hundreds of times. All was changed, all were gone who then lived, but the old church remained as in former days.

Ajaccio is full of the memory of Napoleon. While sauntering through its quiet, sunny streets, with the beautiful bay and mountains generally in view, I could not help thinking that for years his steps had trodden the same ground, as a wild, impulsive child, and as a restless, ambitious youth. The contemplation of the grand natural beauties that surrounded him, and the constant brooding over the history and misfortunes of his native country, no doubt contributed to build up the rugged, indomitable character that he afterwards showed.

The present emperor, and especially his cousin Louis Napoleon, show strong Corsican sympathies. The latter has an estate near Calvi, which he frequently visits for shooting. Under their auspices, the town of Ajaccio is beginning to show that it really is the birthplace of the present imperial dynasty. A very chaste and beautiful marble chapel has recently been built as the mausoleum of several members of the imperial family. A museum and picture

gallery is also nearly finished, and will be a fine monumental building when completed. In it I saw, finally arranged, a large gallery of paintings left to Ajaccio by Cardinal Fesch, which had long been stowed away in lumber rooms.

The names of the streets and squares are essentially Napoleonic, being mostly derived from some member of the imperial family. In the market-place, behind a handsome stone fountain, is an allegorical statue, said to be meant for Napoleon. One side of this market-place, which looks on the bay or gulf, is bounded by a solid granite quay, that enables small vessels to moor close to land. This market-place is flanked by tall, well-built houses on one side, and by the town-hall on the other—a very respectable structure. On each side is a double row of handsome plane trees. The view of the blue bay, with its hemicircle of grand mountains in the distance, is indescribably beautiful from this point. The magnificent bay is protected from all winds but the south-west, and in its western or upper region there is a mole or jetty which gives the requisite protection even against this wind. More important works, however, are in contemplation, and Ajaccio will, ere long, be made one of the finest and most sheltered ports in the Mediterranean. A jetty is about to be thrown out from a rocky point projecting into the bay, that will protect the anchorage, now exposed to a heavy swell from the south-west.

In the Grande Place, facing the sea, has recently been placed a fine equestrian statue of the first Emperor Napoleon, surrounded by those of "four kings," his brothers. These statues have been erected by a national subscription, and were inaugurated by Prince Napoleon a few days after I left Ajaccio (1865). I much regretted not being able to remain for the ceremony.

Ajaccio is the only town of Corsica that appeared to me thoroughly eligible as a winter residence. Perhaps I may except Bastia, but I do not think Bastia is without objections. The climate is evidently exceptionally warm; for the valleys of Cap Corso, in the immediate vicinity of the town, contain orange and lemon trees, the hill sides are covered with large olive trees, and lycopodium grows in all moist situations. But Bastia must be exposed, from its situation, both to south-east and north-east winds. Even the south-west wind blows with great fury at times during the winter, passing over the mountain ridge that separates Bastia from the Gulf of St. Fiorenzo, fifteen hundred feet high, and falling on the eastern side with such violence as to cut off the heads of cereals, to carry off the roofs of houses, and to confine the inhabitants of the town to their houses. Then there is a small, tideless port, which is so closed in that the water becomes nearly putrid, and no part of the town in its vicinity would be eligible.

There is, however, a row of new, handsome houses on the principal "Place," facing the sea, which would constitute a very eligible residence if accommodation in them could be obtained, which I doubt, as they are all occupied by the leading Bastia families. The view of the sea from these houses is very beautiful, with the three mountain islands of Elba, Capraja, and Monte Cristo rising out of the waters at a distance. Other houses, however, are being built in the same locality. There is a small but clean and tolerably comfortable hotel — the Hôtel de l'Europe—on the Grande Place, which is without question the best in Bastia.

Bastia is the most thriving, populous, and commercial town in Corsica. A considerable amount of shipping

yearly enters and leaves its port, and there is more enterprise and activity shown by its inhabitants than by those of any other part of the island. This is explained by its proximity to Italy, with which Corsica has always been intimately connected, and also by the fact that Bastia is the port for an extensive range of fertile country, for the greater part of the eastern division of the island. Ajaccio has scarcely any commerce, and is only the natural outlet of one or two of the valleys comprised between the spurs of the central and western granite range. Bastia thus must ever be the principal commercial port of Corsica, and Ajaccio, although the government capital and having a magnificent harbour, will always occupy, commercially, a second-rate position.

The drive along the road at the foot of the Cap Corso mountain, which extends for some twelve miles from the town, is very lovely. On one side the blue Mediterranean, on the other the mountain, the gentle slopes of which are covered with olive trees. Every few miles a ravine opens out, and in the upper part of this ravine, luxuriantly fertile, is always seen a village, enlivening the sides of the mountain with its church and its white houses grouped around the former. Each of these villages has its marina, or little port, on the shore. About six miles from Bastia, on this road, is one of the most interesting limestone stalactite caverns in existence—that of Brando. It may be recommended to visitors as an agreeable excursion.

The mountain of Cap Corso and its ravines have even a local reputation for their wines. My friends at Bastia repeatedly excited my envy by the choice specimens of these unknown wines that they offered me. Of late years but little has been made, owing to the ravages of the

oïdium, which the Corsicans have not yet learnt to conquer. But new vines are now being extensively planted everywhere throughout Corsica, to replace those that have been destroyed by disease. In a few years large quantities of good wine will be again made, both in the Cap Corso region and others.

In the southern regions of Corsica the oïdium is still unknown, and perhaps the best wine of Corsica is still produced there in considerable quantity, the Vin de Tallano. This wine is made in the vicinity of Sartene, and is really good and choice. It resembles a full-bodied Burgundy, although it has a peculiar rich flavour of its own. This wine has already obtained such a reputation in Corsica that it has become valuable. M. Jiacomini, the mayor of Tallano, the principal grower, tells me that his present prices are 2f. 50c. the litre, or quart, for the wine of 1860, 2f. 25c. for that of 1861, and 2f. for that of 1862, in the wood. His wines gained the prize at the recent exhibition at Ajaccio (May 1865).

On the north-eastern slope of Cap Corso, near the village of Pino, is a solitary tower to which tradition gives the name of Seneca's Tower. This Roman philosopher, subsequently the master of the infamous Nero, was exiled to Corsica by Claudius, and passed eight years in the island. Seneca, although a stoic, did not bear his banishment with fortitude. He has left records of his sojourn in Corsica in the shape of anathemas against the "wild and barbarous land" to which he was exiled, and of fawning supplications to his imperial master to restore him to favour. He seems to have had little power of appreciating the splendid scenery and the beautiful climate in which he passed these years of exile. His thoughts were ever on the blandishments of imperial Rome, to which he even-

tually returned, to become the master of Nero. There the stoic became a court favourite, and amassed a large fortune in a few years. Then he had not only to surrender his newly-acquired riches, but life, to his tiger pupil. He had better have remained an exile even in the lonely tower in abhorred Corsica.

There is at Bastia—a most important fact for travellers—a thoroughly well-informed and experienced medical practitioner, Dr. Manfredi, the surgeon of the civil hospital. He is a skilful operator, and occupies a leading position as such in Corsica. The all but uniform success that, according to my surgical informants, attends surgical practice at Bastia and elsewhere, speaks greatly for the general healthiness of the climate, as well as for their skill.

Dr. Manfredi was educated in Paris, and has now been practising as an operating surgeon in Corsica for more than twenty years. The difference between surgery in Paris and surgery in Corsica was, he told me, perfectly marvellous. Nearly all surgical wounds heal at once by first intention, and purulent absorption is all but unknown. He had had eighteen cases of lithotomy, and had been successful in all. Indeed, he said he had such reliance on surgical cases doing well, that there was no operation in surgery that he should hesitate to attempt. On hearing this statement, I concluded that it is all but worth while going to Corsica expressly to be operated on, in case of dire need.

About thirty miles south of Bastia, in the midst of the Castagniccia, or chestnut country, in the centre of a highland region formed by spurs of the limestone chain of mountains, is a mineral spring called Orezza, the waters of which are renowned all over Europe. It is a strong chalybeate, loaded with carbonic acid. This spring is of inestimable value in a country like Corsica, in which the

principal disease the inhabitants have to contend with is "malaria fever," or intermittent fever, in its more aggravated forms. This spring is leased to the Vichy Company, who are under the obligation to build a regular bath establishment. This they have not yet done, but it is on the tapis. A few hundred feet above the principal spring is another, which combines iron and sulphur, and is very valuable in chronic cutaneous diseases.

Dr. Manfredi kindly took me with him to visit the spring and this part of the island, and our excursion proved most interesting. The village of Orezza, or the greater part of it, is the doctor's patrimonial estate, and he possesses there a manorial fortified house, which I inhabited during our stay, and which I examined with much interest. The outer walls are of great thickness, composed of massive stones simply superposed, and they bear the trace of the strife of past days, bullet marks and smoke. During the hundreds of years that it has been inhabited by the ancestors of Dr. Manfredi, it has many times been attacked and besieged, and repeated but vain attempts have been made to destroy it by fire. The village is situated two thousand feet above the sea, and five hundred above the mineral spring. From the terrace before Dr. Manfredi's house, I counted twenty villages perched on the summit of as many hills, all in situations capable of being defended.

Orezza is one of the regions that was never conquered by Corsica's foreign foes. Surrounded by mountains in every direction, the sides of which are covered with magnificent and very productive chestnut trees, it has always maintained a numerous warlike, patriotic, freedom-loving, and very idle population, delighting in the noble art of war. It is a part of the Terra del Comune of the Corsican historians. It was by the sons of this district, principally,

that the last battles for freedom were fought against the Genoese, and latterly, against their allies, the French.

The priest, or curé, and the mayor of the village dined with us. I was charmed by their simple cordial manner, and surprised by their knowledge of the political history of Europe, and by the great interest they took in everything that was English. This, I found from my host, was to be explained by the incidents that occurred seventy years ago. As I have already stated, during the last struggle of the Corsicans, under their glorious chieftain Paoli, from 1794 to 1796, they had the warm sympathy and partial support of England. Hence, in this region, the last to succumb to French rule, then considered a foreign tyranny, there still lingers a grateful remembrance of England, and of the support she gave in their extremity, although that support was scanty and inefficient. England had then many foes to contend with, and other duties; so that, although the nation enthusiastically responded to the call of the heroic Corsicans, but little active support could be afforded. Several members of my host's family long remained in the English service, in the Corsican Rangers, after the annexation of their country to France.

The mineral spring issues in great abundance from a circular well in the centre of an open building on a small mountain terrace, planted with trees as a promenade. It sparkles like champagne on reaching the surface, and is pleasant to the taste. A number of men and women were bottling it, and packing the bottles in cases for exportation to the continent, where there is a large sale. This chalybeate, Dr. Manfredi told me, combined with the pure mountain air, is a perfect panacea for the anæmic condition which accompanies and follows severe attacks of intermittent fever. Thus, said he, Providence has placed the antidote

near the disease. It is also most valuable in cases of chlorosis, or debility from whatever cause.

Many of the upper classes from Bastia and the north-east of Corsica pass the hot summer months here; partly to take the waters of Orezza on health grounds, and partly to escape the great heat of the shore region. They locate themselves, in a primitive fashion, at the houses of the wealthier peasants in the numerous mountain villages. At an elevation of from two to three thousand feet the nights are always cool, and the days, although warm, are said to pass pleasantly under the cool shade of the chestnut trees. To those of our countrymen who wish to spend the summer in Italy, I think the mountain retreat of Orezza might offer a valuable resource.

In these mountain villages they would find simple but comfortable accommodation. I myself visited several of the houses where "lodgings" are let in the summer, and was surprised to find how neat and clean and comfortable they were. The months of May and June might be thus very profitably spent at the Orezza springs by those who wish to combine mountain air with a course of chalybeate waters before returning to the north. Several of my patients have done so this year, and have been delighted with their "month in the mountains," with the beauty of the scenery, with the cordial simplicity of the mountaineers, and with the results of the mineral water treatment.

Awaking early the morning after my arrival at Dr. Manfredi's hospitable mountain home, and looking out, I saw quite a crowd of peasant men and women, dressed in their Sunday best, perambulating the terrace beneath my window. On inquiring of a member of my host's family the meaning of the assemblage, I was told that they were peasants who had heard of the doctor's arrival, and were

come to consult him. When he came in for breakfast, I found that he had been busy since six o'clock ministering to their wants; "a few words of advice or consolation," he said, "was all they required. Although anxious and delighted to be of use, the extreme confidence of his fellow countrymen was," he said, "a sad hardship. As soon as his arrival at Orezza became known, they always flocked in from the surrounding villages in such numbers as positively to besiege the house, and to drive him back to Bastia in despair." The key, however, to this friendly persecution, was evidently the kind philanthropic spirit and the great local reputation of Dr. Manfredi.

As we returned home we were repeatedly stopped by "patients" waiting for us on the road-side, enamelled with purple cyclamen and white asphodel. They had heard that the doctor had been seen on his way to Orezza, and were waiting his return. One case I well recollect. A poor, thin, pale-faced young man was sitting on a chair, on the road-side, with several relatives around him; signs were made to us to stop, and the case was forthwith investigated. The patient held up to our notice a knee swollen to three or four times its natural size, and bearing the evidence of woful disorganization in the joint. Dr. Manfredi shook his head, and said to him, "My poor friend, all treatment would be unavailing; to save your life the limb must come off. Come to my hospital, and you shall have a bed." The poor fellow's white lips quivered, and he merely answered, "I will come." We then ascended our light carriage, and left him sitting on his chair in the road, and surrounded by his sympathizing relatives. I heard later that he did enter the hospital, had his leg amputated, and is now a healthy young man, although a cripple. Throughout this journey I felt that my friend's

position and mission in remote Corsica was a very glorious one—one that bore with it its own reward, and made up for many of the anxieties and heartaches that are inseparable from our arduous career.

We stopped to breakfast at a roadside inn, where we were very cordially received, more as friends than as paying guests. Here we had more patients to see, both before and after our repast. As we were sitting down, a thin, wild-looking, dark-complexioned man, of about thirty-five, came in, and was introduced to me as a brother practitioner. I afterwards learnt that he was a member of some Italian medical college, and that he practised in the neighbouring villages. His coat was old and threadbare, his shirt had not been changed for many days, and his hands spoke not of daily ablutions; and yet there was something in him that bespoke a refined, cultivated, intellectual nature.

Whilst Dr. Manfredi was seeing his patients, my new acquaintance and I sat down on a log on the roadside, and discoursed of many things. I found his medical ideas often wild and visionary in theory, but practically he appeared to have gained considerable experience of disease. Then he revealed himself to me as a poet, frantically fond of Corsica, his native country, and full of patriotic and poetic fancies about its mountains, its valleys, its climate, and the highlanders, his countrymen. Half an hour passed rapidly, and I was sorry to take leave of the wild, poetic, Corsican village doctor.

I have often thought of him since, so full of mental refinement, of classical and poetical conceits, and yet spending his days and nights for a bare maintenance in ministering to the poor ignorant peasants around him. I have seen some charming little poems written by him, full of sentiment and pathos. Perhaps, however, he is

happier surrounded by the majestic scenery of his native country, which he can so well appreciate, and in possession of the affection and confidence of his simple patients, than many a great city doctor in other countries.

On our route to and from Bastia, we passed along the salt-water pond of Biguglia, through one of the most malarious regions. At that time, the latter end of April, there was no malaria whatever. The country was covered with grass and green crops; it looked, indeed, so smiling and pretty, so much like flat healthy meadow land in England, that it was really difficult to believe that this very region could be one of the pestilential spots from which every one flies in autumn. And yet such is the case; even a passing traveller might all but have guessed that the country was insalubrious, from the complete absence of farms and villages.

On the mountain side, however, to the west, away from the shore, were numerous villages, all at an elevation of one thousand or fifteen hundred feet above the sea-level. They were thus invariably built, I was told, to secure the inhabitants from malaria. The owners of the alluvial shore-plains who reside in them, descend in the morning to cultivate the soil, and then return at night.

The principal agricultural operations in this district, from Bastia to Bonifacio, are carried on by an emigration of Lucchese from the continent. They arrive in November, till the soil during the winter months, when malaria is dormant, and return to their own mountains in April. They reach their native villages with a few pounds in their pocket, the result of the winter's labour, but also often with the seeds of fatal disease. The crops are reaped in June, and then the malarious plains are deserted, left to nature, until the cold weather of autumn has rendered

them safe, or at least partly so. The Corsican summer sun is so fierce, that wherever water stagnates, even when deep in the soil and not perceptible to the eye, it appears to produce those changes in vegetation that are followed by malaria.

More to the south there are plains such as those of Aleria, a Roman colony and town in former days, which are even more deadly than that of Biguglia. The wind passing over these regions is said to carry malaria fever wherever it reaches.

Although Corte is in the middle of the mountains, fifteen hundred feet above the level of the sea, and merely traversed by a brawling mountain torrent, I found that malaria fever was rife there. Dr. Tedeschi, the leading medical practitioner at Corte, told me, however, that he thought the fever was constantly developed at Corte and in Corsica generally, in summer and autumn, by a mere chill, quite independently of any malarious influence. Every year he was called to attend very severe cases, brought on by chills experienced from merely sitting out in the evening under the shade of a row of plane trees, in the centre of the town or elsewhere, away from all water. I found the same opinion prevalent among the medical men both of Bastia and Ajaccio.

The experience of the Corsican medical practitioners thus appears to corroborate the views entertained by my esteemed friend Dr. Robert Dundas, and brought before the profession in his interesting and elaborate work, entitled "Sketches of Brazil" (1852). Dr. Dundas proves to demonstration, by numerous facts derived from his lengthened experience of intermittent fever in the Brazils and in other tropical climates, that the purest and most wholesome sea-breeze will often give rise to severe

intermittent fevers, when those who are exposed to it are debilitated by previous illness, or by bodily and mental exhaustion, or are in a state of perspiration from severe exertion. At Bahia the most malarious houses are not those that are exposed to winds coming from the neighbouring marshes, but those that are the best situated according to English ideas, exposed, without protection, to a pure, but moist sea-breeze.

Again, Dr. Rennie, in a recent work, entitled "The British Arms in North China and Japan," says "that soldiers residing in malarious localities and in low situations, often did not appear to suffer, but when removed to the heights, and freely exposed to the breeze, they were struck down with fevers." These and similar cases occurring again and again, led Dr. Rennie to conclude that the low situations produced a debilitating effect and a predisposition to fever which attacked the weakened men directly they were exposed to currents of air. Thus what would have been found invigorating to persons in health could not be endured by these men owing to their weakened state.

Most of the malarious regions in Corsica are on or near the sea-shore, and as there is in summer a very decided sea-breeze during the day, its chilling influence may be an important cause of fever, as in the south generally.

The Corsican medical practitioners, although thus admitting that a chill will produce ague in their climate, apart from the influence of marsh air, give the latter its full weight as a cause of fever. It would be difficult to do otherwise in a country like Corsica, for the fever is the most severe and the most deadly where the marshes are the most extensive, as on the eastern coast; whereas they all but disappear wherever full and efficient drainage is

carried out. Several regions were pointed out to me, such as St. Fiorenzo and Calvi, formerly decimated by fever, and now comparatively healthy, through the drainage of neighbouring marshes.

In our own country a chill in summer does not produce ague, but bronchitis, pleurisy, rheumatism, or diarrhœa. Our marshy, undrained districts, such as the fens of Lincolnshire, are malarious, like the marshes of Italy and of Corsica, the malaria or intermittent fever appearing in autumn, without the sufferers being necessarily exposed to chills of any kind.

Corte is historically interesting, for, not being exposed to attack, like the shore towns in olden times, it became the patriotic capital of Corsica; it appeared to me, however, the least picturesque town that I saw in the country. The sights are: an old historical castle worth visiting, a college founded by Paoli, and some very picturesque scenery in the environs. In the neighbourhood, at Ponte Leccia, near Corte, are some promising copper mines, for which further capital is required. The proprietors told me that the mines were getting into good working order, and would certainly prove a very valuable speculation. Indeed, Corsica offers a wide field near home to the speculative; its mines, its forests, and its vineyards are all, no doubt, capable of being worked with great advantage.

Isola Rossa, or Ile Rousse, is a small modern town, founded by Paoli in the latter part of last century, with a good port, and weekly steam communication with Marseilles. The coast and country are picturesque, but there is no accommodation for strangers, except the little inn. Moreover, the south-westerly winds must be trying, if we may judge by the inclined trunks of the trees on the

shore. The beans and rye were ripe on the 25th of April, and the planes were in full leaf. There is one handsome modern house, like a quadrangular castle of the olden time, belonging to M. Piccioni, the brother of my friend at Bastia, from whom, too, I received great attention. I found him very busy with a lead mine which he had discovered on his property, and which he clearly thought would eventually prove very valuable.

Calvi is an old town, further south, for centuries occupied by the Genoese, to whom it ever remained faithful. Its motto, "Semper Fidelis," may be still seen on the gate. It occupies a high promontory, which forms one side of a very fine and tolerably safe bay. The upper part of the town is a mass of ruins, and has been so ever since it was bombarded by Nelson in 1794. It is quite singular to walk through the streets among the falling walls of houses, some merely shattered, some partly burnt, as if by a bombardment of yesterday only. Below these shell-and-cannon devastated houses are those occupied by the modern town.

Across the small bay is a semicircular plain, a few miles only in depth, and bounded by a semicircle of glorious snow-capped granite mountains. The view from the ramparts of Calvi is perfectly magnificent. From the sides of these mountains run several torrents or rivers, which have, as usual, converted the alluvial plain into a fever-breeding district. Hence the extreme unhealthiness of Calvi until quite recently. The drainage of some of these marshes has much improved its sanitary condition, as I have already stated. The plain is covered with the ever-present maquis, myrtle, cystus, heath, arbutus, and lentiscus, and looks as innocent as possible. To render it really so, the torrents would have to be em-

banked, and the soil drained and cultivated. Wherever this is done malaria all but disappears, even in Corsica. M. Piccioni, of Isola Rossa, has recently purchased a considerable tract of this land, and is draining and cultivating it, as a lesson to his fellow-countrymen at Calvi. The land thus cleared, drained, and cultivated, is turning out most productive, and this philanthropic lesson will eventually prove a most profitable investment.

One of the objects of my visit to Corsica, as elsewhere stated, was to find a perfectly cool summer station for the English consumptive invalids who wish to pass the summer abroad. I found stations such as Orezza, and the baths of Guagno, near Ajaccio, which would do very well for healthy persons, anxious to escape from the extreme heat of southern Europe during the summer months. But these localities are not, in my opinion, sufficiently high and cool to be chosen as summer retreats by the consumptive. The latter, as previously explained, ought, if possible, to keep in a dry, cool temperature, between 60° and 68° Fah. The Corsicans do not feel the want of such a summer temperature, and have consequently made no effort to find it.

On crossing the granite chain on the way from Corte to Ajaccio, we came to a spot between Vivario and Bocognano, the most elevated that was passed, which would no doubt do admirably for such a summer sanitarium. We were nearly four thousand feet high, and had left the maritime pines and the chestnuts far below us; the trees had become English trees—beech, birch, and larch. The air was cool and pleasant, the sky clear, the mountains very beautiful; but there was only a small, dirty, roadside inn. No doubt the Ajaccians would shudder at the idea of spending their summer in so cool a locality, and yet it is admirably

situated for a cool mountain pension, or sanitarium, such as Switzerland abounds in.

Nothing would be more enjoyable than to pass a month or two in midsummer, in the pure mountain atmosphere of such a spot, in the very midst of the primeval forest. The larches line the sides of the all but perpendicular mountains around, climbing in serried ranks up to the sky, until they reach the snow line. The beeches in the valleys and ravines are growing as luxuriantly as in our own country, and form a glorious shade from the still ardent sun. The moss-covered ground is enamelled with wild flowers, and the entire scene is enlivened by brawling torrents and streamlets of pure crystal water, dashing over the rocks in their impetuous descent to the plains. I have twice crossed this glorious mountain pass, and each time the irrational impulse has been strong upon me to let the carriage go on alone, and to take my chance in the wilds of these Corsican mountains.

The inhabitants of the more southern regions of continental Europe do not seem to possess, in the slightest degree, the roving, adventurous spirit of our countrymen. They do not understand our love for the picturesque, our readiness to undergo any amount of privation and fatigue in the endeavour to find it. I well remember one of the most accomplished, cultivated, and refined Italian noblemen I have met with saying to me "that he could not comprehend the English going up a mountain merely to come down again. It appeared to him all but an act of insanity. He was ready to undergo any amount of fatigue or exertion for a geological or botanical purpose, but as to exhausting himself as we did, merely to look round him from the top of a mountain at naked rocks and

arid stones, he could not do it, and did not understand its being done."

Hence the higher classes in these countries are rarely found away from home, except in cities or in watering places, where they congregate for a tangible purpose, health and society. As a necessary result, in the wildest, most retired, and at the same time the most beautiful regions, there is no kind of accommodation, for none but peasants or roving Englishmen ever visit them.

The *routes forestières*, or forest roads, which have been and are being constructed, in order to open out the hitherto inaccessible primeval forests in the higher mountain regions, might be made the means of a very enjoyable tour. A light carriage, char-à-banc or waggon, could be chartered at Bastia, and equipped with supplies, as for a journey in South Africa, with hammocks and other gipsy equipments. Thus armed the wilderness might be encountered, and what with local resources, and the assistance of the village curés or priests, the Corsican highlands could be explored in every direction. Had I leisure I would certainly carry out this plan; the season should be May or October.

A long way down, on the western slope, we found a favourite hot-weather retreat, Bocognano. It is a chestnut country village, like Orezza, and assuredly a very hot place, for we were half roasted in April, during the time we remained for breakfast. It is true the chestnut trees were not yet in full leaf, and gave no shade.

The baths of Guagno, about twenty miles north-east of Ajaccio, are greatly renowned in Corsica. The waters are sulphurous, and much frequented in summer. It is to the fashionable world of Ajaccio what Orezza is to that of Bastia. Guagno is prettily situated, about three miles from Vico, in a "fold" of the mountain, amidst a forest of

chestnut trees, and is in the immediate vicinity of one of the largest and grandest of the primeval forests of Corsica, that of Aïtone. Evisa, about fifteen miles beyond Vico, is the present termination of the road from Ajaccio to Calvi. The forest is first reached at Evisa by the road.

At Vico, the ladies of our party were most hospitably received by a Corsican gentleman and his family. A picnic excursion to the forest was proposed and accepted, and one of our companions, a young lady from Yorkshire, accustomed to follow the hounds and a perfect equestrian, greatly surprised the escort, composed of some score or two of Corsican gentlemen. Mounted on a strong mountain pony, dressed in a scarlet Garibaldi and an improvised habit, she valiantly took the lead, and kept it throughout a ride of more than thirty miles, there and back, over hill and dale, up and down precipitous roads frightful to look at. Our brave and much admired young countrywoman returned, I am happy to say, in triumph, safe and sound. This is more than can be said of all her followers, for some awkward tumbles took place among them; but, fortunately, they were unattended with any serious consequences.

The road from Ajaccio to Vico is grandly beautiful. On leaving Ajaccio it climbs up the sides of one of the lateral granite spurs, to a height of 2200 feet, and then descends into a most lovely and picturesque valley, Liamone by name. It is shut in by the high forest-covered mountains to the east, by the blue sea to the west, and north and south by the granite buttresses, one of which we were then crossing. The first glimpse of this wide smiling valley was a revelation of the social condition of its inhabitants, and of this part of the island in general. Before

the road on which we were travelling was made, those who dwelt in it must have been quite shut out from the world, even from the little Corsican world. The traditions, customs, and ideas of their ancestors must have been transmitted from one generation to another, with little or no change, and century after century would thus pass without modifying the national characteristics.

In one corner of this smiling valley, on a promontory that juts into the sea from its north-western extremity, there is a little village called Cargese, which strongly illustrates these facts. In the fourteenth century several hundred Greeks, flying from Turkish tyranny, were allowed by the Corsicans to land in this remote spot, and to found a colony. Such as it was then, it is to this day, a Greek colony. The descendants of the first settlers have retained their religion, their language, their dress, their customs, without mixing with the surrounding population. It is a village of Attica, lost in a corner of Corsica.

At the little mountain village of Vico, for such it is, although dignified by the name of town, we were hospitably received at a small and unpretending inn. The servant maid, who served us at supper, a pretty girl of seventeen, had thoroughly Grecian features, and on my asking her whence she came, she answered from Cargese. On inquiring as to whether she meant to marry at Vico, she said no, she must go home for that.

The road that is to encircle the island stops at Evisa, owing to the extreme engineering difficulty of carrying it through this, the wildest, most mountainous, and most inaccessible part of the entire coast. The primeval forest here descends all but to the sea-line on the west, whilst it climbs up the mountain peaks and buttresses on the east, and communicates with nearly all the grandest and most

inaccessible forests of the island. In this forest, that of Aïtone, are innumerable larches one hundred and twenty feet high, with a diameter of nine feet at their base. They push their vigorous roots in the crevices of the hardest rocks, on the most precipitous regions of the mountain, and then rise straight as an arrow, pointing to the clouds. The hardy pedestrian would find in these forest-clad mountains innumerable sites combining "the wild and savage beauty of Swiss scenery with the isolation, the silence, of the primeval forests of America." (Marmocchi).

On our excursion to Vico we had an adventure, which may be worth relating as an illustration of Corsican travel. At the stage which commences at the summit of the mountain ascended on leaving Ajaccio, we took up, as driver, a wild, half-intoxicated young Corsican, whose looks none of us liked. When on the box he found that he had lost his whip, but regardless of the very important fact, started in grand style. We were descending by a road several miles in length, from the summit to the base of the mountain. Gradually the speed of the horses increased, but instead of restraining them he urged them on by wild shouts and gesticulations, until the heavy diligence flew down the steep descent. In vain we tried to make him moderate his speed; both he and his horses seemed too excited to listen to reason, and we continued to plunge madly downwards, turning sharp corners in such a manner as to threaten instant destruction. We saw that he could no longer stop the horses if he wished it, so concluded to leave him alone, and to take our chance.

The horses were three in number, driven abreast; the centre one a powerful stallion. As we neared the valley, maddened by the speed and the voice of his wild

driver, he suddenly jumped on one of the horses by his side, like a wolf on a deer, fastened his teeth into each side of the back, and bit him so savagely that the blood spurted on the road on both sides. The poor horse, thus attacked, reared and plunged, writhing and backing. The diligence, during the struggle, was swayed in every direction, and finally backed to the side, where there was a precipitous descent. We should no doubt have been thrown down it had not the conductor, a brave old man, managed to jump down, and with our assistance to get hold of the horses' heads. The driver, having no whip, was quite powerless. The side horses were so terrified to be near their savage companion that we had great difficulty in reaching the end of the stage.

On the return journey we found our wild driver waiting for us, but I had heard in the meanwhile, at Vico and elsewhere, that he was a brutal, drunken, good-for-nothing youth, the terror of the road, that he daily imperilled the safety of the diligence, but that he was known to be of so violent a character that no one durst complain of him, for fear of the consequences. I and my friends at once refused to let him keep his seat on the box, and insisted on the previous driver taking us through to Ajaccio. With great difficulty we made him dismount, and got to our journey's end safely.

On my arrival I immediately lodged a complaint against this man, and to make sure, also sent it to head-quarters at Bastia. I must confess, however, that I and my friends were not sorry we were leaving Ajaccio the next day, having a vague idea, with Corsican vendetta staring us in the face, that we had made the place rather "too hot" for us. I must add, however, that this is the only instance in which I had reason to complain of the drivers during my

two excursions in Corsica. I believe that it was quite an accidental circumstance, for in every other instance I found them courteous, and although rather daring, prudent and careful.

The southern regions of Corsica, both on the west and east side of the central mountain ranges, are much more wild, more uncultivated, and more sparsely inhabited, than the northern. There is only one town or village of any importance between Ajaccio and Bonifazio—Sartene. Both Sartene and Bonifazio are worth visiting, but I was not able, for want of time, to extend my journey so far.

Sartene is a small inland Corsican town, like Corte, at the foot of the south-western mountains, and in olden times was generally in the hands of the national party. It is still inhabited by some of the oldest Corsican families. Bonifazio, overhanging the straits between Corsica and Sardinia, was one of the fortified ports, like Bastia and Calvi, that the Genoese occupied for centuries, and bears many traces of their past dominion.

In the great primeval forests are to be found wild boars and small game in abundance. In the higher mountains the native race of wild sheep, called mouflons, are met with. Their presence in the mountains is a strong attraction to enthusiastic sportsmen.

In the alluvial plains on the eastern coast game abounds, and in the autumn and winter all kinds of water-fowl are met with in profusion. In the early autumn season, however, these latter districts are so unhealthy that the pursuit of the game would probably be followed by severe fever. Moreover, under the exceptional social condition which reigns in Corsica, sporting is difficult, as it is illegal to carry a gun. A stranger would, no doubt, easily obtain permission from the authorities to shoot in a given district

for a stated time, but he must not be offended if one or more gendarmes are drafted off to accompany him instead of "keepers." Game, large and small, is most abundant, I was told, in the southern and eastern parts of Corsica, because they are the wildest and most thinly inhabited.

The prohibition of firearms, and consequently of legitimate sport, has not tended to increase the stock of game in the neighbourhood of the towns and in the more populous parts of the island, but rather the reverse. Not being able to shoot game as heretofore, the entire agricultural population have devoted their energies to trapping, and, according to report, with such success as to have sensibly diminished its numbers.

Such I found Corsica. To me and to my companions, on each visit it proved a most enjoyable and fascinating country, although our time was limited, and we were obliged to move more rapidly than we could have wished. I trust that the description I have given will lead many to visit its shores. I also hope that by making known the beautiful little town of Ajaccio, I may be the means of adding another easily accessible winter sanitarium to those we already possess.

The details I have given will show there is in Corsica much to study and interest, as well as much to admire. It is new untrodden ground, a country in a state of transition, emerging from the barbarism of the middle ages in this the nineteenth century, as the highlands of Scotland did in the eighteenth. The firm establishment of law and public security will surely regenerate the country here as elsewhere. There are not now three outlaws in the entire island; life and property are as safe as in any department of France, or any county of England, and once the fact is known, capital will begin to flow into Corsica and

will fertilize it as the Nile fertilizes Egypt. The climate of Corsica is magnificent, its soil is fertile, its natural resources great; but, although situated at the very door of Europe, all are still dormant for the want of capital.

The French government has done a deal already for this island; indeed it has already cost France many millions in public works since its first occupation, nearly a hundred years ago. The money, however, is well invested, and it is to be hoped that the authorities will not hesitate to complete what has been commenced. The roads in course of construction and contemplated should be finished, and assistance should be given to the proprietors to restore the valleys to cultivation by drainage, and by securing a proper outlet to the rivers.

Everywhere on the Mediterranean coast the rivers have a tendency to silt up, and to transform the valleys they traverse, near the sea, into pestilential marshes, owing to the absence of tides. In a tidal river there is a descending scour, as the tide falls, which tends to keep the channel open. In the Mediterranean rivers this tidal scour does not exist, and every storm has, on the contrary, a tendency to throw up a bar of shingle and sand across their mouth. The storm over, the river has to work its way through this barrier, and is thus dammed up and obliged to run along the shore behind it, forming marshes. This is well seen on a small scale from the terrace on the ramparts at Ventimiglia, near Mentone, where the Roya empties itself into the sea.

To keep open these rivers, and to preserve the vast plains from inundation, is beyond the resources or knowledge of a peasant proprietary. It should and must be done by the government engineers, as in the Roman and

Grecian states in former days. A channel from the river should be formed and carried into deep water, and its entrance occasionally dredged. Works of this kind have been successfully carried out at the mouth of the river Liamone, near Ajaccio, with great benefit to the adjoining country.

M. le Comte de Grandchamps, an eminent French engineer, has entered at length into this question, and into all others connected with the material prosperity of Corsica, in a very interesting work which I can cordially recommend to those who feel interested in the subject. His work is entitled "La Corse; sa colonisation et son rôle dans la Mediterranée. Second edition. 1859."

Several of the most enlightened and energetic Corsican proprietors whom I met with, told me that however anxious they might be to utilize the natural resources and fertility of their country, they could not do it for want of capital, for there was none in the country. They had land, good land, and plenty of it, but no money; so the land remained covered with maquis, and merely gave them a bare physical maintenance. What was wanted was for continental capitalists to bring money into the island. "For instance," said one gentleman, "if a capitalist were to form an association with me, advancing, say five thousand pounds, I giving land to the same value, according to present value, my time, labour, and local knowledge, the money paid in by instalments would enable me to clear and to cultivate the land with vines, cereals, mulberry trees, or other crops. In a few years the ten thousand pounds would be worth twenty thousand."

I certainly saw in the neighbourhood of Bastia, perhaps the only town in Corsica where there is any capital, marvellous results from its employment. Land purchased

at say four or five pounds an acre, cleared and planted, was said to have become worth five times the money spent on it, in the course of half-a-dozen years.

I would recommend all who feel disposed to make a tour in Corsica to read carefully Gregorovius' "Wanderings in Corsica; its History and its Heroes." As I have stated, it is a most charming book, even for tarry-at-home travellers. They should also procure the Map of Corsica contained in the Atlas départemental de la France, and Marmocchi's "Abrégé de la Géographie de la Corse." Thus prepared, they will be sure to gain both pleasure and information from an excursion in this most picturesque island.

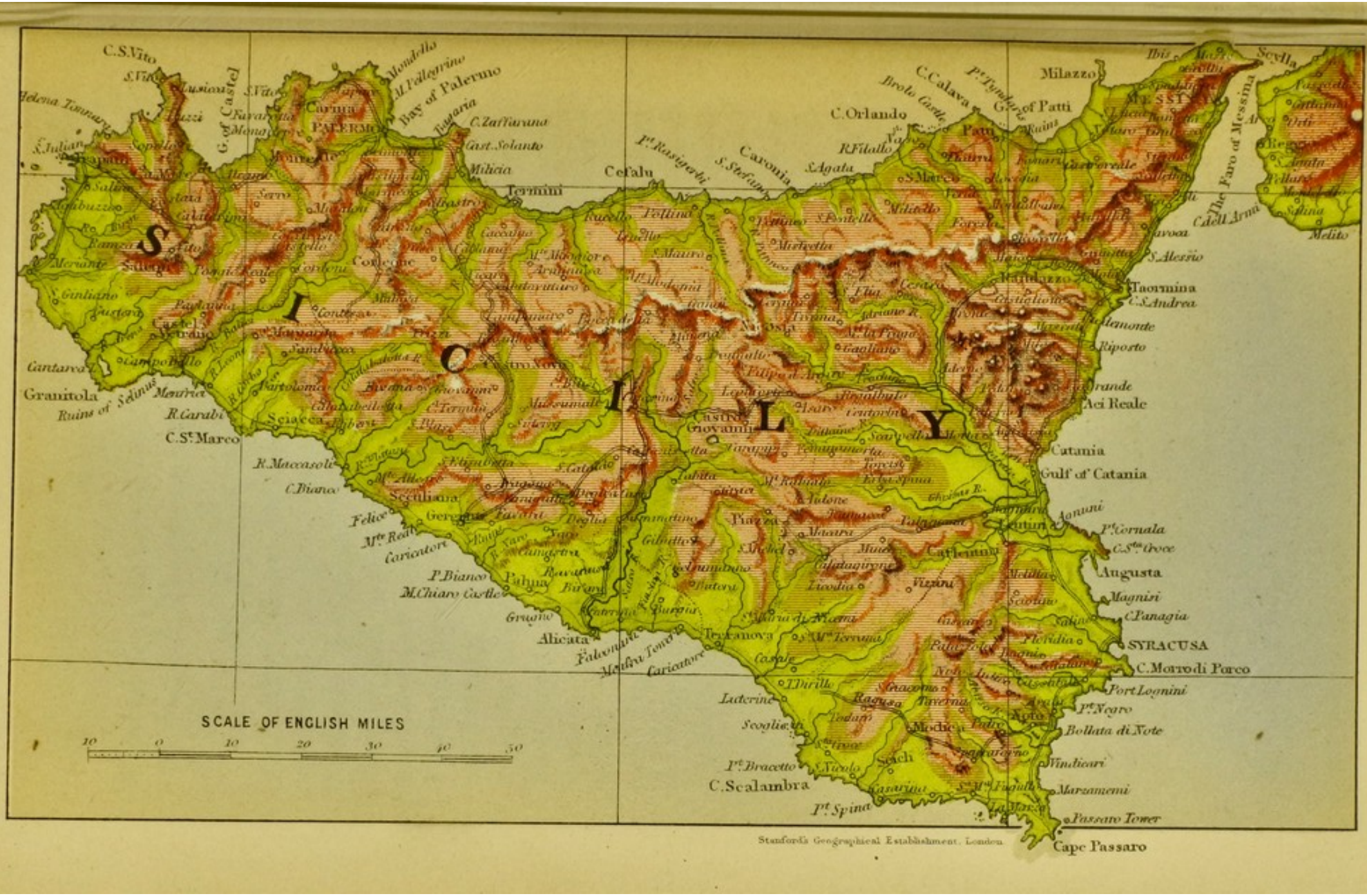
Those who are afraid of the sea can both go and return by Leghorn and Bastia. Corsica and Sardinia act as a western breakwater to the coast of Italy, so that the channel between the islands and Italy is a much calmer sea than the more open space between Ajaccio and Marseilles. In the spring months of April, May, and June, this part of the Mediterranean is often calm for weeks together. I should advise no one to go to Corsica in early autumn, on account of the malaria which then prevails in many parts of the coast which the traveller is desirous to visit.

The steamer from Genoa to Bastia leaves Genoa every Friday at 6 P.M., returns Wednesday at 9 A.M.; the steamer from Marseilles to Ajaccio leaves every Friday at 9 A.M., returns Tuesday at 10; that to Calvi leaves Marseilles every Tuesday at 9 A.M., returns Saturday at 12 A.M.; that from Marseilles to Bastia leaves Marseilles every Sunday at 9 A.M., returns Thursday at 10 A.M.

The Nice steamer leaves Nice every Wednesday, alternately to Bastia and Ajaccio, at 8 P.M. It returns on

Saturday from the port at which it arrives on the Thursday morning. The passage is from ten to twelve hours, in all cases.

It is worthy of remark that all Italian towns, indeed all southern towns, are more healthy, and consequently safer to visit, in spring than in autumn. In spring they have gone through the winter rains and frosts, which have cleansed and purified them. Thus, Rome and Naples may be visited much more safely by pleasure tourists in February, March, and April, than in November, December, and January. Another important point is, that the sea is generally calm at this time of the year. The south of Europe, also, is everywhere much more beautiful in spring than in autumn. In April and May, all that has been written by the poets is really found to be true. We may then without reserve surrender our minds to the enjoyment of the "poetic" beauties of early spring, which we can so seldom do in our own northern country.



Stanford's Geographical Establishment, London.

CHAPTER X.

SICILY.

"Hæc loca vi quondam et vastâ convulsa ruinâ
(Tantum ævi longinqua valet mutare vetustas)
Dissiluisse ferunt: cum protinus utraque tellus
Una foret; venit medio vi pontus, et undis
Hesperium Siculo latus abscidit: arvaque et urbes
Littore diductas angusto interluit æstu.
Dextrum Scylla latus, lævum implacata Charybdis
Obsidet." VIRG. *Æn.* iii.

THE DEPARTURE—CLIMATE AS SHOWN BY VEGETATION—PALERMO—MESSINA—CATANIA—MOUNT ETNA—SYRACUSE—THE RETURN.

IN the course of the winter of 1862–63, the desire to visit Sicily took possession of me. I had been attending some Russian ladies who had passed the previous winter at Catania, and also some of my countrymen who had spent some months at Palermo. All were loud in praise of these cities, and insisted that the climate of Sicily was much superior to that of the Riviera. Thus the uncomfortable idea occurred to me that after all I might *not* have discovered in Mentone the best locality in which to pass the winter, so I determined to spend a few weeks in Sicily at the close of the season, and to judge for myself.

As the time for departure approached I began to look around for one or two companions. Many volunteers offered, but one by one they all drew back, from some cause or other, with the exception of some enthusiastic young ladies, whom I could not possibly take, until at last I had to start alone. I cannot say, however, that I was quite abandoned, for on the morning of my

departure for Genoa, a dear little girl of six, the child of some valued friends, came to me with a small bundle. I had asked her repeatedly to accompany me, but she had always refused, saying, that she could not possibly leave her mamma. "Dear Dr. Bennet," she began, "I cannot bear to see you going to Sicily all alone, with no one to take care of you, so I have made up my mind to leave mamma, and to go with you; I have packed up my things and I am quite ready." It is singular at how early an age children show the characteristics that will stamp them throughout life. It is marvellous, also, what power a tiny child has to please and attach its seniors, or to repel them.

Although I at last departed alone, it was not without having many friends to see me off, and to wish me a prosperous journey. I am, indeed, struck every year by the great contrast that exists between the arrival and the departure of the winter visitors. This is more especially the case at the house that I inhabit, where there are nearly a hundred residents, most of whom are invalids and their friends settled down for "the winter." When the "poor exiles" arrive all is new and strange, and, generally speaking, there is no one to receive them but the host, or one of the waiters. But it is very different on their departure in spring, after a six months' sojourn. The isolation has ceased, for the house has become full of friends, with whom it is a kind of conscientious duty to see the traveller off. Then comes such a shaking of hands, such a waving of handkerchiefs, as makes the departure a complete ovation. Nor is this "well wishing" confined to friends new and old. The host and hostess and dependents seem to consider it a duty to take a part in the ceremony, and express their good wishes with a cordiality and familiarity strange to our cold northern ways.

Six months' confinement within the limits of even picturesque Mentone is an admirable preparation for such a journey as the one I was undertaking. Starting on a beautiful April morning—and April weather is always beautiful in this part of the world—once the regret of leaving friends has subsided, an exhilarating sense of freedom, of liberty, steals over the mind. To the invalid who departs from his winter retreat with restored or improved health, intense thankfulness is mingled with this feeling. Nearly always the air is warm and balmy, yet fresh and pleasant, the sun shines brightly in the clear blue sky, and the vegetation is that of July with us. As the carriage progresses, the eye glances involuntarily from the white clouds on the far off horizon, often hanging over the mountains of Corsica, a hundred miles away, to the sparkling sea, to the now familiar forms of vegetation on the roadside, and the olive-covered mountains which tower above the beach.

The Riviera road winds in and out along the shore, at times ascending many hundred feet, at times descending to the sea level. Ridges of rock, through which it passes, jut out into the waves, like mountain backbones or buttresses, showing at a glance the geological stratifications. Isolated rocks, some large, some small, rise out bodily from the sea, generally at the boundary or entrance of pretty bays, sometimes in their centre. When the road ascends a hundred feet above the shore level, the outline and shape of the pebbles and boulders at the bottom of the sea, near the beach, are seen with singular plainness. The eye, at that height, pierces the water and sees the stones at the bottom of the sea, as in one of Creswick's pictures of still water. Picturesque grey villages and towns are constantly passed, generally consisting only of one large narrow street along the shore. They are composed of old, pri-

mitive, tall, quaint-looking houses, and their inhabitants form very artistic groups under the porches. A source of surprise to us meat-loving northerners is the absence of butchers' shops, for I only counted two between Mentone and Genoa. Nothing is seen exposed for sale in the eatable line, but bread, maccaroni, dried beans, chestnuts, wine and oil, evidently the staples of the country.

Genoa, the Superb, is seen many hours before it is reached, seated, amphitheatre wise, at the base of a mountain in the centre of its wide sea-like bay. As the traveller approaches, life becomes more active, the villages and towns are more numerous, as are the people who inhabit them; great ships are building on the beach, on the very road, as it were, and inspire the passing traveller with wonder as to how they are to be got into the sea. Female figures become more and more numerous, looking very picturesque from their head dress. The Genoese women of the middle class wear on their heads a thin gossamer white or black scarf. It is fastened to the hair and comb, and hangs gracefully down on both sides. The women of the lower class wear, in the same style, gaudy, many-coloured cotton scarfs. Then we reach the busy suburbs of a great city, and in a few minutes more we are in the centre of one of the greatest commercial marts of the Mediterranean.

There is a steamer direct from Genoa to Palermo every Monday morning at eleven, which performs the voyage in forty-two hours; but as the day did not suit I was obliged to go by way of Naples. This, however, I did not regret, as it gave me the opportunity of paying another visit to Pompeii, which is always seen with renewed pleasure. Only one-third of the town of former days has been revealed, and as excavations are constantly going on,

every year there are fresh objects of interest to be seen. On this occasion I was shown a singular group of several figures recently discovered, a woman, a man, and a girl, in the very act of flying from the shower of ashes, when they were overtaken and smothered. The moulds were found in a state of complete preservation, and owing to this circumstance the curators were enabled to make a plaster cast, which vividly brings to mind the actual event. Every muscular contortion, every detail of shape, is distinctly brought out in this vivid and ghastly group. I also saw a recently discovered subterranean water channel, some four feet wide, and two deep, in which a considerable body of cool pellucid water is seen running rapidly to the sea. A few feet only of the roof had been taken off, and I looked down with interest on this stream of pure water, collected from the adjoining mountains more than eighteen centuries ago, for the use of the town, and which during all that period has been running unseen, hidden in the bosom of the earth, buried with the city it was intended to supply.

There is a steamer every other day from Naples to Palermo, and the sea being calm, and the barometer all right, I went on board, the 15th of April, at 6 P.M. I was the only Englishman on deck, so having nothing else to do I amused myself by watching my companions.

There were many Italians among the passengers, and many partings were taking place. I was interested and pleased to see how strong the affection tie evidently was between those departing and those left behind, and how utterly regardless all appeared to be of the rules which restrain the public manifestation of feeling in England. Grown-up people cried and kissed each other again and again, without the smallest effort at concealment.

One group more especially attracted my attention; a young Neapolitan bride, with her husband and younger brother, as I afterwards learnt, were taking leave of the family of the former, on their departure for Palermo, where the bridegroom resided. There was a boat-load of the young lady's family, father and mother, and three or four sisters. Such sobbing and crying I never saw before. The poor mother and sisters were absolutely convulsed with grief, and could scarcely articulate for their sobs. The captain was positively obliged to have them removed from the vessel when we started, for they could not be persuaded to leave, and even then they kept waving their handkerchiefs from the boat, and breaking out into fresh paroxysms of grief as long as we could see them. The father was as weak as the lady members of his family. I found him, accidentally, in the steward's cabin, taking leave of his younger son, a big boy of fourteen, with sobs and tears and passionate embraces. No one on board seemed to think it at all strange; on the contrary, I heard on all sides kind Italian expressions of sympathy and interest. The bride cried as hard as the rest at the parting, but she soon wiped her eyes and smiled through her tears when her relatives were out of sight, seeming to find ample compensation in the loving looks and kind speeches of her young husband. So it is in most departures; those who are left behind are more especially to be pitied. The new scenes and interest that surround those who depart tend, if not to console them, at least to draw their thoughts into other channels.

The next morning I was up early, and on deck soon after six. Our course had been prosperous, and I was informed that we should be at our destination by ten. Already the mountains of Sicily were faintly visible on the horizon.

The morning was lovely, the air pure and clear, and scarcely a wave on the sea, except those we made ourselves, as we steadily ploughed our furrow in the briny deep. There was scarcely any one on deck, with the exception of a fat, burly, florid-faced man in a dirty white vest, sitting, with a look of great composure and self-satisfaction, by the side of the engines. In his hands was half a loaf of bread, with a huge piece of meat, and with a clasp-knife he kept cutting off slice after slice, evidently much to his own gratification. I at once, by his appearance and occupation, recognised a countryman, and lost no time in making his acquaintance.

I found him very affable, and soon learnt his history. Like my friend of the *Virgilio*, he was the engineer of the steamer, and also a fair specimen of the philosophical roving Englishman. His idea of his duty to himself was to obtain as good pay with as easy a berth as he could, and in order to accomplish this he was prepared to go to any part of the habitable globe. Indeed, there were few regions of the world, he said, to which he had not been, and to which he was not perfectly ready to go, if he found it to his advantage. A few months previous, on returning from China, he had been offered this vessel, and at the same time a new steamer going out to run on the Spanish coast. The pay was the same in both cases, but he preferred the present vessel, an old one, because old engines, when good, work easily and give no trouble, whereas new engines, for the first year or two, give a great deal of trouble. If they had offered him more pay he would have taken the new ship; but he was too old a hand to bother himself with new engines when he could get the same money for attending to old ones, that would work of themselves without any trouble. In uttering this senti-

ment he shut one eye, and gave me a knowing wink, as if mentally applauding his own judgment.

I expressed approval of his decision, and inquired if he was comfortable on board, and was satisfied with his situation. "Perfectly," he answered; "the vessel and engines were good, although nothing to look at; and although he did not know much of their 'lingo,' he managed to make his stokers (Italians) understand him. But then," he added, "I don't let the captain interfere with me, my engine-room, or my men. He tried it on at first, but I soon showed him that it would not do. One of my men was lazy, so, on arriving at Naples, I made him pack up his things, called a boat, shoved him overboard, and told him to come back at his peril. I had to go ashore that morning, and on my return to the vessel I found that the captain had engaged another man as stoker. That I could not stand, for I consider that the captain has nothing whatever to do with the engine-room, where I am master, and I always engage my men myself. So I pushed this man off, like the other, and went myself to the owners of the ship to tell them what I had done. I found the captain at the office, and he flew into a towering rage when he heard that I had turned his man out of the ship. My reply was that I was master in the engine-room, and meant to remain so; that I was responsible for the men's work, and that I was consequently the proper one to choose them; that I would have no interference, and that if the power to choose and dismiss the stokers was not left with me, I would not put my foot in the vessel again. They fretted and fumed, but had to give way, for I was serious, and meant what I said; and ever since I have been master, and the captain does not try to interfere. You see, sir, I was right, and they all knew it. I am not going to have a set of lazy Italian

louts about me; they must do their work properly, or go about their business."

I have reproduced this little incident because it illustrates, as does the history of the engineer of the *Virgilio*, mentioned in a former chapter, some of the characteristic features of the Anglo-Saxon race. From the peer to the peasant we are all alike, all ready to go to any part of the habitable globe to better our social position, and we all show the same tendency to prefer the tangible to the ideal. In other words, as a race, we show a singular combination—a love for adventure and romance, and a keen appreciation of material advantage wherever it is to be found. Moreover, wherever we are we make ourselves happy and are contented, supported by an intense conviction of our superiority over all around us, and by a philosophical belief that it is our bounden duty to make ourselves as comfortable as is possible under the circumstances in which we are placed.

My new friend, having completed his breakfast, said he must go and look after his engines, and, descending the engine-room ladder, left me once more alone. By this time my fellow passengers had nearly all made their appearance, and were walking up and down the deck, in twos and threes, enjoying the pleasant fragrance of the early morn at sea. I was determined to bring my solitary condition to a close, so commenced looking around for "a future acquaintance."

Children and dogs are first-rate physiognomists. The former instinctively, as it were, find out who really like them, and do not hesitate to make the first advances. A lost dog will scan the features of those who pass him in the street, and having determined, in his inner mind, that he has found a benevolently inclined human being, will

follow him pertinaciously to his home—an attention which I have always considered to be a great compliment, if paid to myself. When I am travelling alone I imitate both the children and the dogs. I scan the physiognomies of my fellow travellers, and when I have found one that is "sympathetic" I make an advance, which I very seldom find repelled.

On the voyage from Genoa to Naples, I thus made a very agreeable acquaintance, that of an intellectual and refined gentleman, a coffee planter from Ceylon. His history quite corroborates what I have said of the go-ahead energy of the Anglo-Saxon race when speaking of my two engineer friends. Whilst at Oxford, a relation left him several coffee plantations in Ceylon. He at once threw aside his classics, Homer and Horace, and went off to Ceylon to take possession of the newly acquired property. Once there he threw all his energies into his new career, so little consonant with former studies and occupations, and had, consequently, been very successful. He had passed many years in his new home, and merely left six months previous, to spend a winter in England, on health grounds. In a few years more he expected to have acquired a sufficient fortune to return for good to England, but in the meanwhile Ceylon was his home, his field of battle, and to Ceylon he was returning. Most Frenchmen would have sold the estates for what they would have fetched, and would have gone on with their home career, but such is not the Anglo-Saxon impulse.

We became great friends, and passed a few days together very agreeably at Naples. I shall never forget the pleasure with which he looked at a young oak in leaf at Capri. He had not, he said, seen an oak leaf for many years, for the oaks had lost their foliage when he reached England

in the autumn. He left it to me to decide whether he should accompany me to Sicily, or go on to Rome. Having only ten days to spare, he could not do both, and I take great credit to myself for having sacrificed my own wishes to what I considered his advantage, in advising him to prefer the "eternal city." Thus it was that I was "alone" on the voyage to Palermo.

On this occasion four Germans, evidently travelling together, found favour in my eyes, and I at once broke the ice by a few trivial remarks on the weather, and on our favourable progress. I found them very pleasant, amiable people, and we soon became quite friendly. One was professor of history in a German university, and a few words about the Grecian antiquities of Sicily, about the Phœnicians, the predecessors of the Greeks, and their successors the Romans, Saracens, and Normans, were to his ears like the blast of a trumpet to a war horse, rousing all his historical sympathies. Was he not going to Sicily with two of his student friends on purpose to study these very antiquities! The fourth was a young German baron, very high and mighty, with a large carpet-bag quite covered with crowns and recondite armorial bearings. His father was a great man in Germany, the owner of a dozen estates, with innumerable quarterings of nobility, and the son was treated with much respect by his companions. The social state of Sicily, and that of its landed aristocracy, still rich and locally powerful, had as great a charm for him as had history and antiquity for the learned professor. Companions and friends thus secured, for the present at least, I was able to give my undivided attention to the fair island we were now fast approaching.

At a distance Sicily appeared to rise from the sea as a chain of low mountains, extending from west to east, but

on a nearer approach the mountain chain gained in apparent elevation, and a wide bay, that of Palermo, opened out as we approached the land from the north-east. In the background of the bay a magnificent amphitheatre rises majestically. This amphitheatre is twenty-nine miles in circumference, and is limited by a bold range of limestone mountains which encircle it down to the sea, forming, by their last spurs or projections, Mount Pellegrino on the west, and Mount Catalfano on the east, the arms or limits of the bay itself.

The first mountain barrier that forms the amphitheatre is about three thousand feet high, but successive ridges rise above each other towards the south, until a height of six thousand feet is attained. It is to the fertile plain, encircled by this noble amphitheatre of mountains, that has been given, from time immemorial, the name of *Conca d'oro*, or the Golden Shell. The width of the bay itself, from Mount Pellegrino to Mount Catalfano, is eight miles; following the course of the bay it is twelve miles.

The town of Palermo, population 187,000, is situated on the shore of the bay, at the junction of the western third with the eastern two-thirds. It is built on each side of a long and fine street, the Via Toledo, which, beginning at the marina or beach, ascends gently inland towards the mountains, so that the city forms a parallelogram, and is long and narrow as compared with its width. The port, which used to be much larger and deeper in former days, runs quite into the town. As it is too shallow now for large vessels, the latter anchor inside a mole or jetty, built outside the old port.

The view of Palermo as we approached, on a clear, fresh sunny spring morning, was really very beautiful. The

grand range of mountains in the background, reaching the sea on each side of the bay, and all but encircling the vast and fertile plain, the large white city, with its numerous cathedrals and churches, shining in the southern sun, the wide tree-planted esplanade or marina, the deep blue water of the sea, all combined to create a scene of loveliness and grandeur not easily forgotten.

Nor was the favourable impression destroyed or weakened on landing. The shore, which is laid out as a promenade and drive, and planted with fine trees, just coming into leaf when we arrived, is bordered by handsome houses, among which is the famed Trinacria Hotel, one of the best in Italy. Ragusa, the landlord, lived long, in early days, with English noblemen, and knows the wants and requirements of our countrymen, which he does his best to meet and supply. The rooms are clean and well furnished, and nearly all have a fine view of the sea and bay.

Once comfortably installed, my first thought was for the state of the vegetation. The principal motive of my visit to Sicily being to study the winter climate as demonstrated by the vegetable world, I was anxious not to lose a day in commencing the survey. I therefore hired a carriage, and drove at once to the Botanic Gardens. After viewing it carefully I devoted the rest of the day, as also part of each day that I remained, to the study of the meteorological position, and of the vegetable productions of the plain that surrounds Palermo.

My intention being to compare the vegetation of the Riviera with that of Sicily at the same epoch of the year, I had carefully analysed it at Mentone and along the Riviera, when I left the one and passed through the other, on the 11th of April. I had also travelled rapidly in order that only a few days might elapse between the date of my departure

and that of my arrival in Sicily, where I landed on the 17th.

The geological character of the soil is the same, calcareous in both regions. The great difference is that the Riviera is protected from the north by mountains, over which come dry, cold winds, and is open to the southern sun, and to the south winds after they have crossed the Mediterranean—whereas Palermo is exposed, without any protection whatever, to the north, north-east, and north-west winds, which must pass over the Mediterranean to reach it; the barrier of mountains that forms the amphitheatre opening out towards the north.

The result of this investigation was the conviction that the more southern latitude of Palermo, without mountain protection from the north, gives to it as warm a winter climate as the Riviera enjoys with protection from the north, but not a warmer one. The two regions seem to be singularly identical, considering the distance that separates them, as regards the character of their vegetation and its development, but their climates are very different in other respects. The situation of Palermo, in the southern part of the Mediterranean, and on the north shore of Sicily, gives it necessarily a moist winter climate instead of a dry one, like that of the Riviera. I will now explain the data on which these views are founded. Palermo being one of the most renowned health climates of the south of Europe, every feature connected with it offers great interest.

In the open plain, south of the town, with a thoroughly northern exposure, away from any northern protection except that afforded by the city itself, I found (April 17th), as a rule, the same evergreen tree vegetation as in the most sheltered regions of the Riviera—large old lemon,

orange, and carouba trees growing freely and luxuriantly as timber trees. It was quite evident that in descending south I had reached a region where latitude alone gave the immunity from frost that on the Riviera is secured merely by sun exposure and exceptional shelter from the north, an immunity necessary to the well-being of these trees. Still, even here, the lemon and orange groves occupied principally the more sun-exposed and sheltered points of the plain at the foot of the mountains, and were all but invariably surrounded by high walls. These walls were destined, evidently, not only to protect the fruit from spoliation, but also to shield it from the north or sea winds.

The deciduous trees were still behindhand, indeed scarcely as far advanced as I had left them on the Riviera six days previous. The hawthorn had not blossomed, and the fig, mulberry, and plane trees were only just beginning to show their leaves. Many deciduous trees peculiar to the south were totally devoid of leaves.

The Botanical Garden is only a hundred yards from the shore, on the east side of the city, and although it has no other protection from the north and from the sea breeze, than that afforded by a five feet wall, the spring flower vegetation was in exactly the same state of advancement that I had left it in the most sheltered nooks of the Riviera, such as Mentone, Monaco, St. Remo, and Alassio. At the same time these flowers were certainly neither more advanced nor more numerous.

Thus, I found in it, as also in the fine garden of the Princess Butera, and in several others which I visited, the following flowers in full bloom : salvia, iris, rose (white, red, and China), wallflower, anemone, petunia, verbena, mignonette, sunflower, gladiolus, spiræa, nasturtium, poppy,

marigold, geranium, candytuft, hollyhock (three feet high, but not in blossom), stock, carnation, tulip, peony, auricula, cyclamen, Eschscholtzia, Banksian rose, Judas tree, chestnut tree, elder tree, hawthorn (about to blossom), alyssum, shrubby euphorbias, yellow jasmine, nettles, and asphodel. All these flowers, shrubs, and trees I had left equally advanced and flourishing six days previously on the Riviera.

Peaches were set as large as small walnuts, strawberries were served in profusion at every meal at the hotel. Oranges were numerous and first-rate, sweet and juicy. I may here mention that throughout Sicily it is the custom to eat strawberries along with sugar and the juice of an orange or two. The strawberries, a small kind, come to table without their stalks, are crushed with white pounded sugar, and the juice of an orange is squeezed over them. The result is a most fragrant and agreeable compound, much superior, in my opinion, to strawberries and cream. Indeed, I think it is all but worth while to make a journey to Sicily to be initiated into this mode of eating strawberries.

The flowers above named are those that bloom in our climate between April and the early part of July. Some, the early kinds, such as anemones, were going off; others, and principally our June flowers, were in full luxuriance. This advanced condition of spring and early summer flower vegetation, and the rather late or retarded state of the deciduous tree vegetation, indicate the warm days and rather cold nights, without absolute frost, that characterize the most protected regions of the south of Europe. The sun is very ardent, and warms the surface of the soil; but the nights are cool, not to say cold, and the sun-heat does not penetrate deep enough into the earth to reach the roots of the trees until the spring is far advanced.

The Botanical Garden itself, at Palermo, although interesting, is in rather a neglected state, and shows the want of energetic modern direction. The plants are still classified according to the Linnæan system, as at the beginning of this century. All the trees, shrubs, and plants in the ground are unlabelled, and part only of those in pots are so honoured. Many of the labels themselves are illegible from rust and time. Indeed, the garden struck me as being in a great measure left to common gardeners, and wanting the direction of a scientific modern botanist.

On surveying narrowly the shore and the sides of the mountains, I was struck by the absence of the scarred, water-worn ravines which are seen at every mile along the Riviera, and along the sides and at the foot of the Apennines, and which are the graphic evidence of the tropical rains of these regions. Moreover, the sides of the western sun-exposed mountains were clothed with verdure from their base to their summit, more like the basaltic hills of the west coast of Scotland than the sun-burnt, naked summits of the Riviera mountains, the geological formation being in both cases the same, calcareous.

To my now rather experienced eye the verdure of the mountain sides, and the absence of water-worn ravines, indicate a moister climate than that of the Riviera, and betoken rain falling oftener and less abruptly. On inquiry from Dr. Moscuzza, one of the leading physicians of Palermo, and a very enlightened, experienced man, and on consulting Professor Scina's valuable work on the meteorology and climate of Palermo ("La Topografia di Palermo e de' suoi Contorni, 1818") which Dr. Moscuzza gave me, I found that such is really the case, that the winter climate of Palermo is mild, but damp and moist.

At Palermo, according to Professor Scina, there are 131 days in which rain falls, and these rainy days are

principally in the winter. At Malaga there are only 40, at Nice 60, at Mentone 80, and even in London only 145. Yet only 21 inches of rain fall at Palermo, which is about the average of London; that of Nice being 25, that of Algiers 45. These facts prove that the rain must be more continued, more mizzling, more like that of the northern regions of Europe, than is the case on the north shore of the Mediterranean.

The paucity of the rain-fall at Palermo as compared with other regions of the Mediterranean, and the moist character of its winter climate, are explained by its geographical position. The north-east and north-west winds, which principally reign in winter, have had their moisture precipitated before they reach the Mediterranean by the snow-covered mountains of the south of Europe—of Italy, of Corsica, Sardinia, and Spain. The moisture which they contain when they reach Sicily is merely what they have picked up on their subsequent passage over a limited portion of the Mediterranean. The first ridge of the mountains which form the Palermo amphitheatre not being very high, nor their temperature very low, owing to the latitude, a portion only of this moisture is condensed and gently precipitated. As the northern winds, which bring these mild rains, have crossed in winter, as we have seen, the snow-clad summits of the Apennines, Alps, and Pyrenees, and of the mountain ridges of the south of Spain, of Corsica, and of Sardinia, they would be much colder were they not warmed by passing over several hundred miles of a warm sea.

The above facts clearly point out the character of the winter climate of Palermo. It cannot be very cold—indeed it can scarcely ever freeze, as the lemon-tree thrives, becoming a large tree, in the open air, and a few degrees of frost kills it. The nights, however, being cool from

December to April, and the sun-heat being considerable, the daily transition of temperature must be marked, as on the Riviera. But instead of being dry and bracing, as is the climate of the north Mediterranean coast, the climate of Palermo must be rather moist and relaxing. On referring to Professor Scina's work, I find these deductions thoroughly carried out by the data he advances.

The mean winter temperature of Palermo, like that of Naples, is higher by some degrees than that of the Riviera; but I presume that in both localities this fact is partly owing to greater day heat, and partly to the occasional prevalence of the scirocco, or south-east wind from the African desert. It always greatly raises the temperature while it lasts, and is a source of much discomfort and distress to the entire community, to the sound as well as to the unsound. Indeed, the increasing heat and the more pernicious character of this African wind, as we go south, in the western regions of the Mediterranean, to a great extent counterbalance the advantage gained as regards general winter mildness of temperature.

Such a winter climate—temperate, sunny, and rather moist—may be beneficial to a certain class of patients, to highly nervous, excitable, impressionable constitutions, that are too much braced and stimulated by the dry tonic atmosphere of the Riviera, and with whom the bracing, stimulating atmosphere of Cannes, Nice, Mentone, and St. Remo does not agree. At the same time I do not think it possibly can be as beneficial to those who require invigorating and vitalizing, to those who are suffering, like the phthisical, from defective nutrition and lowered vitality. In the earlier and curable stages of phthisis I am persuaded that the dry invigorating climate of the Riviera is far preferable in the great majority of cases.

I should thus be inclined to advise a trial of the climate of Palermo, in preference to that of the north coast of the Mediterranean, in severe cases of spasmodic intermittent neuralgia, in spasmodic idiopathic asthma, and in cases of phthisis accompanied by much nervous irritability, or by a constant tendency to hæmorrhage. These are the forms of disease that do not appear to do well with us on the Riviera; and if the cause is the dry, and to them the exciting, character of the climate, it stands to reason that an equally mild and a more moist atmosphere may prove to be what they require. The winter climate of Palermo appears to hold a medium position between that of Pau and that of Madeira. It is much warmer than Pau, and much colder than Madeira—at least, the nights are much colder.

From what precedes, it is evident that the climate of Palermo cannot take the place of that of the Riviera, and that it is not as suited to the common run of consumptive cases. At the same time it is equally clear that there are some forms of disease in which it is specially indicated and in which it may be of great use, and that more especially when the Riviera fails to afford relief.

Palermo is by far the largest and the most interesting city in Sicily. The beauty of the amphitheatre in which it is situated, and the shelter afforded by its port, larger and better in olden times than now, have always made it an important and favourite city. When the Greeks, the Carthaginians, and the Romans successively occupied Sicily, Palermo, however, did not enjoy the same amount of prosperity that it subsequently attained during the reign of the Saracens, and of the Norman kings, and, later still, under the Spanish and Neapolitan kings and viceroys. It was the capital of Sicily during the sway of these successive dynasties, and is replete with the vestiges of their

dominion. The older churches and palaces—indeed, nearly all the remains of antiquity—date from Saracenic and Norman periods. Many of them are very interesting specimens of the Norman architecture of that day, modified by contact with the Saracenic, Byzantine, and Greek styles, which were in the ascendant when the Normans conquered Sicily. The magnificent cathedral of Monreale is the finest example extant of this blended, or Siculo-Norman style of architecture, as it has been called.

Sicily, the largest and most fertile island in the Mediterranean, has, like Corsica, been the prey, the battle field, of the various powers that have reigned in the Mediterranean during historic times. But unlike Corsica, although mountainous, it had no primeval forests, no inaccessible snow-clad mountains, in which its population could take refuge when sorely pressed, and perhaps not such a warlike population, so that it was always eventually conquered. The Greeks colonized it seven centuries before Christ, and built many splendid towns on its southern and eastern shores, those nearest to Greece. It is on these shores, at Syracuse, Agrigentum, Selinus, Segesta, and elsewhere, that are to be seen to this day remains of Grecian temples as numerous and almost as splendid as those to be found in Greece proper. These prosperous communities excited the envy and cupidity of the Carthaginians, the site of whose empire, on the opposite African coast, was too near for their safety. They were attacked and conquered, but their conquerors soon fell before the Romans in the Punic wars, and Sicily remained long a part of the Roman empire. After the fall of Rome Sicily became subject, successively, to the Vandals, to the Byzantines, and to the Saracens; always falling into the hands of the strongest. The Normans at

the time of the crusades drove the Saracens out of the island and established the Norman dynasty. Then comes an interminable array of kings and viceroys belonging to the imperial house of Germany, to the houses of Anjou, of Aragon, of Savoy, of Austria, of Spain, of Naples, ending in *Italia Unita*, united Italy, under the "Re galantuomo," Victor Emmanuel, with a more glorious prospect for the future than ever.

Poor Sicily! The list of its conquerors and governors is perfectly oppressive to the imagination. It must indeed be a beautiful and fertile country to have been worth so much contention in past times. In the days of imperial Rome it was often called the granary of the empire, and is still one of the most fertile and most favoured spots in the Mediterranean. Under good government it will, no doubt, in the course of time, arrive at a state of prosperity of which its present inhabitants have no conception. It has within itself all the elements of fertility which made it rich and populous in the days of Greece and Rome—a mild, beautiful climate, a fertile soil, a splendid position.

The town of Palermo is very regularly built; the streets are wider, handsomer, and cleaner than those of any town that I have visited in the south of Europe. In addition to the Via Toledo, which passes through the centre from north to south, dividing the city into two parts, there is another street, equally fine, the "Strada-nuova," which passes through it at right angles to the former, from west to east. These two large streets add greatly to the beauty of Palermo, and make it easy to find one's way anywhere. There is a Moorish character about the architecture even of the private houses that gives a great charm to the place; many of the shops are very good.

The Via Toledo is continued by a road which, emerging from the southern extremity of the town, gently ascends the plain for four miles, when it reaches the suburban town of Monreale, celebrated for its beautiful Siculo-Norman cathedral, and often the surburban residence of the Norman kings and of the Spanish viceroys. Monreale being nearly two thousand feet above the level of the sea, is cooler than Palermo in summer. The views too, on all sides, are very beautiful. This road, and those along the shore towards Monte Pellegrino and Monte Catalfano, are the favourite drives of the Palermitans.

The road to Monreale is peculiarly picturesque, owing to the magnificent scenery of the mountain amphitheatre, which becomes more and more beautiful as we recede from the sea, and owing to the extreme luxuriance of the gently rising plain on each side. It is the same vegetation that we see at Mentone, and in the more sheltered parts of the Riviera, but spread out in a wide garden plain, instead of occupying a sea-side ledge under high mountains. Forests of lemon and orange trees, interspersed with large stately caroubas and old olive trees, and groves of aloes and prickly pears, are traversed. The ground, too, when I saw it, was one carpet of wild flowers.

The town of Monreale is of considerable size (population 15,000). It has grouped itself round the grand cathedral, built by one of the early Norman kings in the year 1182. The Normans found Saracenic, Roman, and Greek workmen and architects in Sicily, and the churches and palaces they built exemplify a singular but very beautiful mixture of all these styles of architecture. They borrowed a peculiar form of pointed arch, with profuse ornamentation, from the Saracens and Moors, apses from the Romans, mouldings with ornamented capitals from the

Greeks, and mosaics from the Byzantines. And yet it is from this mixture of so many forms of architecture that issued the very beautiful style, so peculiarly their own, to which the term Siculo-Norman is given. The mosaics are peculiarly rich in the Monreale cathedral; they cover more than 80,000 square feet.

There is a Benedictine monastery adjoining the cathedral, founded at the same epoch, which contains some valuable and interesting pictures, and a mosaic ornamented cloister, well worth visiting. Connected with it is a seminary for the education of young priests. The great Sicilian families still, as in former days, send their younger sons and their daughters to convents, in order to accumulate the property in the hands of the head of the house; it is the easiest and cheapest mode of providing for them. In the garden of the monastery I saw many fine-looking boys, from ten to sixteen, in the priest's gown. They were priests in embryo, not through their own will, or from religious vocation, but by their parents' decree. I could not help pitying the poor boys, thus condemned in childhood to a life which later might possibly prove a bitter penance. There are also many convents for women both at Palermo and Monreale, cages for poor fluttering human birds. If a sincere religious vocation drives a man or a woman in the maturity of their intellect to a cloister, it must be respected; but it is very odious to thus imprison and bind for life mere children.

Although there are roads in the interior of the island, there are so few travellers that it is not thought worth while to prepare for them, so the inns are mere wine-shops for the muleteers, very miserable and dirty, without resources. The plan, therefore, for travellers who wish to visit the antiquities, and the interior and southern coast

of the island, is, to charter a vetturino carriage, and to stock it with eatables, as a yacht would be stocked for a cruise. Being most desirous to see all there was to be seen in Sicily, I and my German friends, who proved very agreeable companions, agreed to travel together, and with the assistance of our host made all the necessary preparations. As a preliminary precaution, I called on the English consul, who is also the banker, to exchange gold for a letter of credit, but from him I received the urgent advice not to venture into the interior. He told me that a few weeks before a numerous band of convicts had escaped from the pontoons at Girgenti, and had taken refuge in the very mountains that were on our path. If we started, we ran a very fair chance of being taken possession of and detained for a ransom.

As I have arrived at an age when, generally speaking, "discretion tempers valour," much to my regret I gave up the intended excursion, as did the German baron. The professor and his companions, however, were much too enthusiastic to be arrested by such trifles, and started alone. As for us, with the mental resolve to return at some more peaceable time, we took our places on board the French Alexandria steamer for Messina. She came in that evening direct from Marseilles and proved a splendid boat. We slept well on board, and the next morning, when we awoke and got on deck, found ourselves steaming into the port of Messina.

The view of Messina, of the straits, and of the adjoining mountains, on entering from the Tyrrhenian sea, is perfectly enchanting, and so different from anything seen before that it rivets all the faculties. On a calm, fine morning, such as we were favoured with, the straits, being only a few miles across, look like an inland lake. On the

right is a large handsome town, occupying a semicircle at the foot of high and tree-clad hills; on the left, or east, rise abruptly from the sea a series of magnificent mountain ridges, which rapidly attain an elevation of seven thousand feet. Their rocky flanks, which present little perceptible vegetation, all but glisten in the brilliant sunshine, whilst their summits are covered with sheets of snow (April 25). Here and there, clinging as it were to the side of the mountain, are numerous villages and towns, with their tall churches and campanili, telling of hidden fertile valleys, and of terrace cultivation, imperceptible at a distance. To the south, above all, towers the snow-covered summit of Mount Etna, although fifty miles distant.

The port of Messina, probably the best in the Mediterranean, is one of the wonders of that sea. It is a vast abyss or chasm, produced by an earthquake, or volcano, four hundred and twenty feet deep at the entrance, filled by the sea, and all but closed towards the straits by a narrow sickle-like promontory. Indeed the port is so sheltered that most of the numerous vessels it contains lie quietly, without anchoring, which they could scarcely do in such deep waters, merely moored to the quays. So thoroughly does the promontory which all but encircles the port towards the sea answer to the form of the reapers' hook, one of the oldest agricultural implements, that the ancient name of Messina was *Zancle*, which means sickle in the primitive Sicilian language.

Messina was one of the earliest of the colonies founded by the Greeks in Sicily, and in successive ages followed the fortunes of the island in all their varied phases. The importance of the situation of Messina at the entrance of the straits which, in all historic times, have been the high

road between the east and the west of the Mediterranean, and the great security offered by its port, have been permanent sources of disaster as well as of prosperity. It has nearly always been the first town attacked and besieged, and often the last retained by the different nations that have conquered Sicily.

In addition to sieges without number, Messina has also had to withstand the assaults of nature's mysterious agencies; for it has been repeatedly all but destroyed by earthquakes. Lying on the line between Vesuvius and Etna, it has ever been, and must remain, liable to these terrestrial convulsions. The two volcanoes are no doubt connected subterraneously, and are the result of the same agencies, a fact long recognised by geologists. The activity of the one has generally coincided with the quiescence of the other, and *vice versâ*. During more than a thousand years after the destruction of Pompeii, Vesuvius remained quiet, and during that Etna was active; now when Vesuvius is active, Etna generally remains all but quiescent, and *vice versâ*. When both are quiescent there is danger, and then woe betide the towns that, like Messina and Catania, are living on or near the volcano. The last serious earthquake that occurred was in 1783; it destroyed the greater part of the town, and many thousands of its inhabitants.

The combined influence of these two causes of devastation, war and earthquakes, has made Messina a modern city. It has been so often all but destroyed, all but razed to the earth by the one or the other, that it has very few antiquities; most of the buildings are modern, or comparatively modern. Along the town, or western side of the port, there is a row of fine stone-built houses, a mile and a half in length, forming a wide crescent,

which adds greatly to the beauty of Messina. These houses, at a distance, look like one long and handsome palace. Eighteen streets pass through wide arcades in the basement of the houses on to the marina or port, without breaking its symmetry, or, rather, its solidarity.

To the north of the town a low neck of land, a kind of sandy promontory, advances into the sea towards the mainland, until it reaches within two miles of the latter, and thus forms the north-eastern or Sicilian entrance to the straits. This is the well-known Cape Pelorus of the ancients. At its point is a village named Faro, from the Greek Pharos, lighthouse, and a tower, the Torre di Faro. This tower long served both as a fort and as a lighthouse, but now is only used in the latter capacity. The ancients believed that Sicily was formerly a part of Italy, and was torn from it by a convulsion of nature, as shown by the verses at the head of this chapter. Modern geologists do not accept this view.

The road from Messina to Faro skirts the shore, and is very fertile and pretty, passing as it does through groves of olive and orange trees, with frequent glimpses of the blue sea, and of the grand Calabrian mountains. The distance from Messina is about eight miles, and this drive is not only the pleasantest, but the most fashionable.

The distance from the Faro tower to the mainland is so short that on a calm night the crowing of the cocks and the barking of the dogs on the Calabrian coast is distinctly heard. It is stated in history that it was the Messinians who first summoned Count Roger de Hauteville, the Norman baron, to defend them against the Saracens, and that he and his followers crossed the straits in boats (1072), swimming their horses by their side. In recent times, Garibaldi crossed from Sicily to the main-

land with the remains of his "one thousand" in boats, and it was on the mountain of Aspromonte opposite that he was wounded and taken by the royal troops.

It is in these straits that are situated the famed whirlpools of Charybdis, so dreaded by the ancients, and the horrible rock of Scylla, with its summit in the clouds, amid eternal tempests, inaccessible to man, and its base deep in the sea among ravenous sea monsters. Admiral Smyth, who surveyed this region, finds very little foundation for those poetical fancies of Homer, and of subsequent classical writers. They certainly were not the greatest dangers poor Ulysses had to encounter in his wanderings.

The rock of Scylla, says the admiral, is merely a water-worn rock, like any other, on the Calabrian coast, opposite Faro, surmounted by an old castle. The whirlpool of Charybdis, by the Sicilians called "garofalo," exists near the entrance of the Messina harbour, but in such a form as to be only dangerous to small craft in the hands of inexperienced mariners. To the undecked vessels of the Rhegians, Zanclians, and Greeks, it may have been formidable, for Admiral Smyth has seen a man-of-war whirled round on its surface. It is, apparently, the result of a conflict between a harbour current with the main or tidal currents which set up and down the straits.

What are much more dangerous to the small vessels that navigate these regions, are the sudden gusts of wind that often come down the *fiumare*, or dry torrent beds of the adjoining mountains, with all but irresistible impetuosity, and capsize vessels unprepared for them. Admiral Smyth says, that he saw thus overtaken and capsized a fine barge, with eighteen first-rate sailors and an experienced officer, who all perished. The barge, which had been on duty with the Sicilian flotilla for

years, had been taking a German princess on board a vessel bound to Palermo. On its return it was seized by so sudden a squall that they could not lower the mainsail, and she instantly overset. The bodies were picked up the next day, thirty miles to the south, near Taormina. In Messina, there has been found a Greek inscription to the memory of thirty-seven youths of Cyprus, who lost their lives in the Faro by a similar disaster. The inscription says, that as many statues, sculptured by Calion, were erected to their memory. Thus were the fine arts honoured and supported by the ancient Greeks, and made subservient to the affections; but in our day, we perhaps do better. We do not raise statues to the memory of youths who are accidentally drowned, but we not unfrequently think of and look after their mothers and wives.

Messina is the great central rendezvous of the steamers that navigate the western waters of the Mediterranean, and a very flourishing city. It is the principal commercial port of Sicily, the great outlet for the north-eastern part of the island, and exports immense quantities of oranges and lemons, and a considerable amount of corn, silk, sulphur, and wine. Although a very beautifully situated commercial emporium, it did not, however, strike me as ever likely to become a winter sanitarium.

The Calabrian mountains rapidly recede to the south-east, so that half-a-dozen miles below Messina the straits are already twelve miles across. Thus Messina receives the south-east sun in full, and is protected by mountains from the north-west. But then, immediately in front, to the east and north-east, there are the high snow-covered Calabrian mountains; in winter the north-east winds must be very cold, and there must constantly be a cold down-draught at night.

The city of Messina, and its northern and western suburbs, show this influence; there is all but a complete absence of the southern vegetation of Palermo. The hills are covered with fir and small olive trees, and the orange and lemon trees disappear, or are only observed in sheltered corners. The fig trees were only just beginning to show their leaves, the vines were only sprouting, and there were very few flowers in bloom to be seen. Indeed, the proximity of the cold Calabrian mountains appeared to have brought the northern suburbs and the city of Messina, which are in the same latitude as Palermo, to the level of Cannes.

The mountains, at the foot of which Messina is situated, are part of a huge sedimentary or Neptunian chain that runs right through the island from east to west, along the north coast. These mountains, of calcareous formation, extend southwards along the east coast for thirty miles, as far as Taormina, just as the Maritime Alps run along the Riviera or Genoa coast, having also a sheltered undercliff, smiling and luxuriant. The coast itself dips to the south-west, as will be seen by looking at the map of Sicily. On the other side of the straits the Calabrian mountains rapidly lose their great altitude, and expire at the end of the Italian mainland, some fifteen miles below Messina.

Owing to the above physical condition, a decided undercliff or Riviera commences at the south suburbs of Messina, protected from the north and north-west by the coast chain, and gradually less and less exposed to the north-east as it descends southwards. Under these influences of protection, and of exposure to the south-east sun, a wonderful change takes place. Nature bursts into extreme southern luxuriance; not so much on the ad-

vanced or more exposed headlands, which still catch the north-east wind, as in the intervening bays or sheltered ravines. Vegetation at once assumes a very advanced southern character. Stately orange trees, sometimes as large as moderate-sized oaks, and lemon trees overtopping two-storied houses become the rule. I saw oleander trees thirty feet high; the white mulberry and the almond trees were in full leaf, and the latter had fruit full size, evidently stoning; fig trees were in leaf, and the fruit large; the vines had made shoots four or five feet long. What is called the black mulberry tree was still all but leafless, as at Palermo, only a few buds and terminal leaves appearing. Few if any cultivated flowers were to be seen, with the exception of carnations in full bloom in pots or vases on the balconies which most houses of any pretensions possess. Wild flowers were numerous in the orchards and fields, and prominent among them the gladiolus, which was growing in great profusion. Barley and oats were in the ear, and wheat was some two feet high; indeed, spring vegetation was certainly more advanced than I had seen it in any other part of Sicily. The name given to a village in the more southern portion of this region, *Giardini* (gardens), implies the recognition in former days, as well as now, of exceptional fertility. The physical conditions are the same as those of the Genoa Riviera, but this undercliff is five degrees further south, and no doubt enjoys a still milder winter and warmer summer climate. Were Messina or Catania situated in this region they would truly be exceptionally favourable winter stations, but unfortunately they are not.

In the midst of this exuberant fertility there is a numerous population, which appeared very poor, squalid,

and badly fed. They live in large, dirty, decayed villages, in which it would be all but impossible to make even a temporary settlement; although everywhere the scenery is glorious—rocks, torrents, beautiful bays and promontories. The men are better looking than the women, who seem to have even the beauty of youth ground out of them by work, insufficient food, and exposure to the sun. They wear no covering on their heads, except occasionally a handkerchief thrown over the back part. To screen the eyes from the ardent sun, therefore, they contract a habit of frowning, which impresses premature wrinkles on the youngest brow. Thus the girl of fifteen appears twenty, the woman of twenty, thirty, the one of thirty, fifty, and the one of fifty, a hundred.

About thirty miles from Messina the mountain chain leaves the coast and takes an inland or westerly direction, skirting for some distance the northern foot of the Etna. Although the undercliff ceases with the town of Taormina and the village of Giardini, its protection, and that of the mountains trending west, are still felt, and a region of exuberant fertility meets the traveller for some miles further on to the south.

The town of Taormina contains numerous antiquities which are well deserving of examination. The most interesting is the remains of a Greco-Roman theatre, the largest in Sicily, and one of the best preserved in Europe. It was made to contain forty thousand persons in the time when Taormina was a great city, four miles in circumference. The ancient Taurominium was founded 358 B.C., by the scattered descendants of the inhabitants of the neighbouring city of Naxos, razed, and totally destroyed by Dionysius of Syracuse, 403 B.C. The Naxians had incurred the animosity of the tyrant of Syracuse by allying

themselves to Athens in her wars with that city, and by giving winter quarters to the Athenian general Nicias previous to his siege of Syracuse 415-414 B.C.

Naxos was the first colony made by the Greeks in Sicily, 735 B.C., and was founded one year before Syracuse. It was built on the promontory called Capo Schiso, a few miles beyond Giardini, on an ancient lava stream. No trace of it now remains.

Beyond Giardini begins the domain of the king of European volcanoes, Mount Etna. No better view of Mount Etna can be obtained than from this part of the road from Messina to Catania. For thirty miles it skirts the eastern or sea base, the entire circumference of the base of Mount Etna being 120 miles. Thus does the traveller become gradually impressed with the real grandeur of this magnificent mountain. At first it is difficult to believe that it is nearly 11,000 feet high. The rise to the plain at the summit, from which issues the final cone, is so gradual, and the plain itself extends over such an extensive area—many miles from north to south—that the great volcano looks more like a snow-covered ridge than a single mountain. The snow at this time of the year covers at least the upper third of the huge mountain—a vast superficies.

From this moment the scene changes. The soil is merely decomposed lava, a mixture of large masses like scoriæ or slag from a manufactory, of smaller pieces like cinders, and of a brownish black earth like ashes. The more ancient currents of lava seem to be gradually resolved into these elements. When cultivation commences, the large masses are dug up and piled for walls, the small ones are used to Macadamize the roads, and the ash-like remains constitute the soil; and very fertile soil it appears

to be, merely requiring water to produce anything that is sown.

The southern character of the vegetation recedes under the cooling influence of the vast snow-covered plains of Mount Etna; the fig trees have only terminal leaves, and the fruit is very small; the white mulberry trees and vines have also only a few leaves; the black mulberry trees are mere sticks, scarcely having their buds formed. Lemon and orange trees still appear, but only in sheltered valleys and depressions, and are often protected by high walls; neither are they as large, as vigorous, as tree-like. The olive tree, however, holds his own, as also do the opuntiæ or Barbary figs. The latter are extensively cultivated throughout Sicily as hedges, and for the sake of their fruit. They grow to the height of some twelve or fifteen feet, in a very singular grotesque manner, and assert their claim to being dicotyledonous plants by becoming regular trees, with a large round trunk and bark. This transformation of the flat, fleshy, leaf-shaped branches is quite remarkable.

The geologically celebrated Val di Bove, with its dykes, is seen at a distance, a wide and long chasm on the flanks of the mountain; also the oak and chestnut forests below the snow line, which appear as mere black patches. As we approach Catania the very peculiar grim, coal-mouth character of the region becomes more and more apparent. The walls on the roadside, and in the fields and the outhouses, are all made of clinkers, the road of cinders, the soil of ashes. Vineyards are numerous; the vines—indeed, nearly all plants in Sicily—are planted in the fields between ridges or pyramids of the loose black soil, some eighteen inches high, in order to retain moisture. Even wheat is planted in this way in tufts at the bottom

of furrows, and between ridges. In flower gardens the same system is followed.

This soil, formed of decomposed lava, appears to contain all the elements of nutrition required for vegetation; everything seeming to flourish and thrive in it, provided there be water. The ground vegetation shows less difference than that of the trees. Beans and peas are ripe, and vetches are in full blossom. Lupines, white and blue, are very abundant, and are extensively cultivated as fodder for cattle. The hellebore is in flower and very common; almond trees are in full leaf, and the fruit natural size; white and red convolvulus and scarlet poppies are common. Occasionally, near water, are poplars in full leaf; in the same situations, bamboos have new shoots, three or four feet long. They grow to twenty feet or more, and are much used for light fencing, as supports to vines, and for a variety of similar purposes. Pomegranate trees are often seen from ten to twenty feet in height.

Giardini is thirty-four miles from Messina, and thirty-two from Catania. The road for these thirty-two miles skirts the base of Mount Etna, and is everywhere cut through lava in different stages of decay and disintegration, according to the time that has elapsed since the eruption to which it owes its origin. Indeed, the soil is entirely volcanic. Generally speaking, the older the lava the greater the disintegration, and the easier it is to bring it into cultivation, but this rule is not without exception. Some comparatively recent streams of lava have long been cultivated, whereas others that have been thrown out before our era are nearly as sterile as at first. Within the last few miles of Catania, where the separation of the clinkers, cinders, and soil, has not been made, rivers of lava are crossed, lying in masses, in mounds, in sheets,

in plains, and producing little else but crassulaceæ. The fertility of the lava is evidently the result of human labour combined with artificial irrigation, brought to bear on it when decayed by atmospheric influences and by time.

This entire coast possesses a kind of strange fascination. On the one side is the blue sea that separates us from Greece, on the other the immense mass of the great volcano, towering into the sky between two and three miles above the sea level. Grim as the landscape appears with its lava-dust soil, only here and there concealed by a sparse vegetation, it is viewed with intense interest. On every side is the evidence of innumerable eruptions, that have given birth to innumerable streams of lava, both in historic and pre-historic times. In some localities these lava rivers have evidently flowed into the sea, filled up its depths, and pushed back its shores for miles. In others, as at Aci Reale, the lava cliff, six hundred feet high, has evidently been partly formed by an uprising of the coast and of lava streams previously deposited in deep waters. In these cliffs are to be found many caves, into some of which the sea dashes with mysterious, unearthly sounds in stormy weather. Basaltic columns are also to be seen, nearly as curious and as perfect as those of the Giant's Causeway in Ireland, or of Fingal's Cave in Scotland.

It is in this region, and in that of Etna in general, that the ancients placed the earliest events of their mythology. Sicily itself was dedicated to Ceres, the goddess of agriculture. Jupiter reigned on Mount Etna, and it was under its mass that he placed the revolted Titan Enceladus. The convulsive movements of the crushed Titan were the cause of its eruptions. It was in the fertile plains of Enna, at the western base of Etna, that Proserpine was

plucking flowers when Pluto carried her off. It was in the same plains that lived Daphnis, the son of Mercury, who invented pastoral poetry to please Diana, the great huntress.

The Cyclop Polyphemus lived in one of the lava caverns on the coast, and there pursued with his love the nymph Galatea, who preferred the shepherd Acis. Polyphemus, in his rage, threw a rock at his unfortunate rival, and thus destroyed him. Acis was changed by the gods into a river, and this river still runs through the town of Aci, named after Galatea's lover.

It was in a port on this coast, choked by a lava stream in the Middle Ages, that Ulysses took refuge, and fell into the hands of the same Polyphemus—

> "Portus ab accessu ventorum immotus, et ingens
> Ipse; sed horrificis juxta tonat Ætna ruinis."—Æn. iii.

In the sea near Aci are seven lava or trap islets, remarkable for the numerous basaltic columns they present. These islets were believed by the ancients to be the very rocks thrown by Polyphemus after Ulysses and his companions, after they had escaped from his cave. They bear to this day the name of *Scogli de' Ciclopi*, rocks of the Cyclops.

Catania is a large and rather handsome town of sixty-four thousand inhabitants, situated at the very foot of Mount Etna, where the sea approaches the nearest to the base of the great volcano. It is all but encircled by arms or rivers of lava. At the memorable eruption of 1669 a stream of lava, a mile wide, reached the walls of the town; then it divided and swept into the sea on both sides of the city, not without destroying part of it. The lava, where it reached the sea more than two centuries ago,

still looks as if it had only been emitted last year. It is piled on the shore in heaps, like thousands of tons of coal, and gives a very grim, coalpit-mouth appearance to the immediate vicinity of the town.

Catania (κατ' Αἴτνης, under Etna) was one of the earliest of the Greek colonies, having been founded probably about 730 B.C. It soon attained great wealth and prosperity, with a numerous population, owing, no doubt, to its proximity to Greece, and to its being the natural port of the rich and populous district of lower Etna and of the surrounding plains. Although many times destroyed by the sword, and even more frequently still by the eruptions of its friend and enemy, Mount Etna, and by the earthquakes that so often precede and follow them, Catania has always been rebuilt, to recommence its career of prosperity. In modern times the most complete destruction was that commenced by the eruption of 1669, which overwhelmed part of the town, and all but completed by the earthquake of 1683. The latter scarcely left any houses standing, and buried fifteen thousand persons under the ruins.

This time the town was rebuilt with architectural method and precision. More peaceful times had arrived; the necessity of cramping the city between narrow walls had ceased, and Catania was rebuilt with, for the south, wide, handsome streets. Hence the modern appearance that it presents. It is said that this open style of architecture, although pleasant in winter, and at all times healthier, makes it insufferably hot in summer, the more so as the streets nearly all run regularly north and south, east and west. From its south-east exposure Catania is much warmer in summer than Palermo, which has the benefit of the north sea winds. The maximum heat at Palermo in summer averages 86° Fah., whereas at Catania

it averages 95°. At Mentone it only reaches 81°, less than in London or Paris.

Catania is the residence of many of the Sicilian aristocracy, some of whom are men of considerable wealth, even according to our ideas. As they travel, and often reside a part of the year abroad, they attain a high degree of intellectual cultivation, which makes their society, I have been told, very agreeable for those who are admitted into the inner circle.

In former times, in the days of the Greeks, Syracusans, and Romans, property was much divided in Sicily, and agriculture flourished more than in any part of Europe. Hieron of Syracuse published an agrarian code, which was considered so perfect by the Romans that they adopted it. During the dominion of the latter, Sicily was so fertile, and so very productive in cereals, that it became the granary of Rome. The Saracens still further promoted agricultural progress by introducing an improved system of irrigation, and various new species of culture. The conquest of Sicily by the Normans had a disastrous result. They introduced the feudal system, all but dividing the island between powerful barons and ecclesiastical corporations, often non-residents. A large amount of land fell out of cultivation, and as subsequent governments have, until the recent fall of the Bourbons, encouraged this social condition, agriculture has never been able to recover itself, or at least to resume its former position. Even now, many of the large proprietors let their estates in the block to middle-men, who let and sublet until the last tenant is ground to the earth.

In such a climate and with such a soil, however, progress is sure to follow enlightenment, and the regeneration of Italy will extend by degrees to Sicily. No doubt

the increased facility of communication which steam affords, and the propagation of the doctrines of free trade, will gradually work great changes in the ideas, both of the territorial aristocracy and of the nation at large.

Mount Etna, called Mongibello, or mountain of mountains, by the modern Sicilians, does not overshadow the town, although the latter lies at its foot. The ascent is so gentle, on this, the south side, that it is twenty-nine miles from Catania to the summit. On the north side, where the slope is much more abrupt, there are points where the ascent is only twelve miles. This slope is divided into three regions: the cultivated region, *piedi montana*, or *colta*, which extends about ten miles, and is the cultivated or fertile region; the woody region, *regione nemorosa*, or *bosco*, which extends some six or eight miles in width; and the desert region, *regione diserta*, which commences, according to Admiral Smyth, at a little above six thousand feet, and extends to 10,874, the height of the centre cone of Etna, according to the measurements of the same authority. In winter the two upper regions are covered with snow, which must exercise a marked influence on the climate of Catania, and of the plains which surround the base of the mountain.

I arrived at Catania at the end of April, and carefully examined the vegetation with reference to climate, as I had done at Palermo. I found two gardens worthy of notice, one on the port, sheltered and protected by the town, with a rivulet running through, which gives an abundant supply of water, the other at the convent of Benedictines. The Benedictine monks have a very handsome church and monastery on the north-western limit of the city, immediately facing Etna. The great lava

current of 1669 submerged the old garden and stopped within ten feet of the church; a miracle the monks thought due to their prayers. The present garden is built on the lava which covers the former one, on a level with the first story of the convent. There is no protection whatever between it and the mountain, and at night a cold down-draught must set in from the snow regions. As a result, this garden, notwithstanding its sunny exposure and low latitude, might almost be in a sheltered spot in England. The flowers were only the earliest spring flowers, anemones, &c., and the geraniums were all in pots. Indeed it was not as advanced as a garden at Cannes would be at the same epoch of the year.

The difference between this garden and the one on the port, protected from the Etna down-draught by the town, and exposed to the south-eastern sun, was very striking; the latter was one mass of flowers, all planted out—geranium, verbena, heliotrope, petunia, antirrhinum, nasturtium, red linum (called Inglese by the gardener). Everything was growing with the wildest luxuriance and beauty. The garden was a regular carpet of flowers, and vegetation was as far advanced as it would be in a well-cultivated garden in England late in July.

The examination of these two gardens was conclusive. From its southern latitude, and from its full exposure to the south-east, Catania would have necessarily a very mild winter climate, were it not for the immediate vicinity of the extensive snow-clad plains of the upper regions of Mount Etna. From their gentle slopes there must be a nightly down-draught, or land-breeze, unintercepted by any ridge, which must make the nights cold from December until May. When I was there at the end of April, in magnificent sunny weather, the nights were colder than

I had felt them for a month before anywhere else in the Mediterranean; I had to get up in the night to close an open window, and to put a cloak on the bed. A careful pilgrimage through the cultivated region of Mount Etna to Nicholosi confirmed this view.

Nicholosi is a well-known village, twelve miles from Catania, in the direction taken for the ascent. There is a good road, and it is usual for those who wish to ascend to drive in a carriage thus far, and then to take mules. As I was not in a state of health to attempt the entire ascent, I limited my excursion to this, the easy stage of the enterprise.

I found evidences everywhere of cold winter nights, as on the Riviera, as at Naples and Palermo, and also of cold down-draughts up to that time from the snow-clad plains of Etna. The deciduous trees, mulberry, fig, or almond, which were the most numerous, were not in leaf, the vine was only sprouting, the flowers and ground vegetation reproduced at every step the contrast between the two gardens at Catania. Wherever there was any little valley, any depression, or any ridge to the northwards, vegetation was luxuriant; it was that of June and July with us. Moreover, in these spots were generally growing orange and lemon trees. Where there was no protection, and on exposed ridges, the ground vegetation was backward, and there were neither lemon nor orange trees to be seen.

This drive is a most singular and interesting one. The most exuberant fertility exists; but in the midst of cinders, scoriæ, and lava-dust. It is perfectly evident that the decomposed lava contains the elements required for vegetation, and that once it is reduced to the state of soil by time, all that is wanted is sunshine and water. The first

is ever present in this favoured climate, the second can be and is obtained even on the flanks of Mount Etna, the melting of the snow that falls and lies on its summit furnishing a never-failing supply.

This, the cultivated region of Mount Etna, is so fertile that from time immemorial it has been dotted with towns and villages, which now number sixty-five and contain three hundred thousand inhabitants, all living comfortably on the bounty of the soil. It produces abundantly oil, wine, lemons, oranges, almonds, cereals, silk, and fruits of every description.

Nicholosi is composed of low, one-storied, solidly-built cabins or houses. They are thus built as a precaution against earthquakes, to which this village is even more exposed than Catania. Nicholosi is more than two thousand feet above the sea, and the view both of the mountain and of the plains below, of Catania, and of the sea, is very beautiful. In the immediate vicinity are two volcanic cones, the Monti-Rossi, which are of recent formation; they were thrown up in the eruption of 1669. One of the peculiarities of Mount Etna is that its eruptions have, from time immemorial, as often, or oftener, taken place from new cones formed on the flanks, as from the principal one at the apex. There are hundreds of these secondary cones of all sizes on the sides of Etna, extending from the upper or deserted region to the cultivated one. Many of the cones are of great size; thus one of the two Monti-Rossi, so named from their red colour, is two miles in circumference at its base, and is by no means one of the largest. These cones are side by side, and protrude from the mountain like two half-spheres. They are quite naked, but many of the secondary ones are clothed with timber, which sometimes extends

down to the bottom of the old crater; the effect is then very picturesque.

Tourists who intend to ascend to the summit of the volcano, here take guides and mules, and begin the more fatiguing part of the ascent, through the woody region of the Bosco. The species of the trees varies in different regions of the mountain, but in the south-east, or Catanian side, they are oaks, firs, beech, cork, and hawthorn. There are many wood-covered cones in this region, and they are said to be very lovely, as are these woods in general.

I was told both at Catania and at Nicholosi that the forest glades, especially in the higher wooded regions, are cool and pleasant in the most scorching heats of the Mediterranean summer. It struck me that nature has provided an admirable sanitarium, the very place I was searching for, as yet quite ignored, in the sylvan retreats of Mount Etna.

In Switzerland the physicians of the large towns, such as Geneva, Lausanne, and Lucerne, are well aware that the great heat of even the Swiss plains is very injurious to the sick, to the weak, and to all convalescents, and that cool mountain air is life in such cases. They have, therefore, by their advice, led to the establishment all over Switzerland of mountain hotels or pensions, at elevations of from two to three or four thousand feet. To these hotels they send multitudes of convalescent and debilitated persons during the summer months, and to them also resort multitudes of the sound and strong, to escape from the extreme heat of July and August.

Why should not our heat-oppressed and fever-stricken countrymen in the South Mediterranean, at Malta, Naples, and elsewhere, establish some such sanitarium or mountain pension on the cool slopes of Mount Etna? Would

it not even be worth while for our government to found such an establishment for the troops at Malta? Invalids have now either to bear the tropical heat of Malta, or to be sent home, a long and expensive journey.

Were such a sanitarium established there would be no real difficulty in obtaining supplies, in the immediate proximity of a large city of sixty-four thousand inhabitants, with a good carriage road as far as Nicholosi. This village, being twelve miles from Catania, there would only remain two, three, or four to ascend on mules, to reach the probable site. Such a sanitarium would, I feel convinced, be a great boon to southern Europe, and I hope yet to see it established.

The deserted region, very aptly so called, comprises the last four thousand five hundred feet of the volcano. In winter it is entirely covered with snow, which descends low down into the Bosco, in summer, it is only partially so covered. It contains no life, vegetable or animal—scarcely a lichen or an insect, and it is a desert of ashes, scoriæ, and cinders. The final cone, now eleven hundred feet high, rises out of a wide and long plain at the summit of the mountain; its height varies from one eruption to another. Sometimes part of it falls into the wide crater, and thus the height of the mountain is lessened; sometimes a new eruption of ashes and lava rebuilds it higher than ever. Mount Etna is truly a magnificent and intensely interesting sight; it is certainly the most wonderful object in nature it has ever been my good fortune to see, and is alone worth the trouble of a journey to Sicily.

In conclusion, I saw no reason to think that the winter climate of Catania was superior or even equal to that of the Riviera, and to that of Mentone in particular. As we have seen, it is exposed to cold winds from the north and

north-west, the direction in which Etna lies; that mountain being covered with extensive plains of snow all winter, down-draughts from these snow plains must reach it. The north-east winds also must be cold, for they come from the Calabrian and Dalmatian mountains, which are high, and also snow-covered during the winter.

The mean winter temperature of Catania, like that of Palermo and of Naples, is higher by some degrees than that of Mentone and of the Riviera; but I believe that in both localities the fact is in a great measure owing to the occasional prevalence of southerly winds, and especially of the scirocco, or south-east wind. The latter comes from the African deserts, the hottest summer climate in the world, like a blast from a furnace, gathers a great amount of moisture from the sea as soon as it touches it, and reaches Sicily as a hot, damp wind, most enervating and relaxing. It is dreaded throughout the island, as at Malta, even more by the natives than by strangers, and is decidedly the weak point in Sicilian climate. It generally lasts three or four days, with the thermometer from 90° to 95°, although it feels much higher, producing excessive dejection and lassitude. While it continues it is a source of the greatest discomfort to the entire community, to the sound as well as to the unsound. As I have already stated, the more trying nature of the scirocco, or south-east wind, as we reach the more southern regions of the west Mediterranean, to a great extent counterbalances the advantages gained as regards general winter mildness of temperature. The scirocco appears to be more oppressive at Palermo, although on the north coast, than at Catania, or in any other part of the south of Sicily generally. This is supposed to be owing to the reverberation of the sun's rays from the rocks in the mountain amphitheatre behind Palermo in-

creasing its heat. During its persistence the streets are deserted and silent, the natives shutting themselves up in their houses with closed windows and doors. This wind was as much detested by the ancients as by the moderns. Admiral Smyth says it was, without doubt, "the evil vapour of Homer (Iliad v.), into which Mars retreated when wounded by Minerva."

Nevertheless I think the climate of Catania in winter would probably suit those who require a sunny, temperate region, rather drier and more bracing than that of Palermo. To some the proximity of the king of European volcanoes, the strangeness of this volcanic soil, the facility with which from it other parts of the Mediterranean can be visited in spring or autumn, may appear a positive advantage, and incline them to choose Catania as their winter abode. The town appears to be exceptionally clean and open for a southern city. As yet, however, there is no special accommodation for invalid strangers, so that all the disadvantages of having to break new ground would have to be encountered. To the adventurous this is a pleasure, but I should not recommend those who have never travelled, those who are very ill, or those who are very dependent on English domestic comforts, to leave the beaten track. They are best in those parts of the continent which the English have long frequented, and which have thus been moulded to English tastes and requirements. There might be some little advantage, in an economical point of view, but it must be remembered that economy, on the continent, is invariably connected with the absence of the comforts to which we, as a nation, are accustomed. The more comfortable, the more English a place becomes, the more expensive it also becomes. Moreover, the further we go from home the greater the expense of reaching it,

and the more difficult it is to get back, once arrived at our destination.

The object of my excursion to Sicily was more especially to study the position and climate of Palermo and Catania. Having brought this investigation to a satisfactory issue, I felt free to depart. Catania is, however, too near to Syracuse, and Syracuse is too intimately connected with the history of the ancient Greeks and Romans, which all but engrosses our youthful thoughts during ten or twelve years of early life, for a strong desire to visit it not to arise. There was a small Sicilian steamer starting the next day, and as it proved calm and fine I went on board at 10 A.M.

This time I was again quite alone. My young German baron had proved a very agreeable companion at Messina, notwithstanding his heraldic carpet-bag. Once we had left his countrymen at Palermo, and he found himself alone with me, all stiffness and hauteur disappeared. He seemed to lean upon and to confide in me, and we spent several days together very harmoniously, then separating, he for Naples, where he intended rejoining his family, I for Catania. Whilst at Catania I found, at the hotel, two French gentlemen, returning from a winter journey up the Nile; the one a leading Paris physician, the other a French count, an enthusiastic sportsman. We soon fraternized, and I derived much information from them.

The physician gave me a minute account of his medical experience on the Nile, which quite confirmed my previous ideas on the subject. The nights are very cold, and on a river, in a frail boat, it is impossible not to feel it. The days are very hot, and as the boat is then always on the move, there is no escaping from the sun's rays. Then, as the boat is progressing from sunrise to sunset, exercise

has to be taken after mooring, in the evening, when a chest invalid ought to be shut up in a well-built house. This is the more disastrous, as no amount of resolution can induce even a confirmed invalid, who has been cooped up all day in a boat, to deny himself the luxury of a stretch when he stops at night, especially if there are all kinds of interesting monuments of past eras within a mile or two of the shore. This gentleman summed up his experience by saying, that a winter journey up the Nile was a most glorious excursion for a sound man, able to bear extremes of heat and cold, and to put up with occasional hardships, or even for those who, without actual disease, are tired, worn out by the struggles and pleasures of town life, but that it was nothing short of insanity for a confirmed consumptive patient to undertake such a journey. He much regretted having sent patients there in the course of his previous career.

From his friend the sportsman I heard many interesting accounts of sport and of wild-fowl shooting on the banks of the mysterious river. These details, however, only served to convince me of another great danger to invalids with a sporting tendency. To have a gun and to be near flocks of birds every evening, is a sad temptation, which few can withstand. Yet what can be more dangerous for a consumptive man than to spend the day in a heat of 75° or 80° Fah., and then to go off shooting on the margin of a river at sunset, with the thermometer at 40°, or even below.

The morning was, as usual, very beautiful, and the motion of the vessel was so easy and steady that there was no excuse for being even uncomfortable. The blue sea danced merrily at the bows of the little steamer, and as we receded from the land, whilst crossing the Gulf of

Catania, the mountain of mountains (Mongibello) rose higher and higher on the north-western horizon. Indeed, the further we receded the grander and more imposing did Mount Etna become, distance merely bringing out in greater relief the colossal proportions of the king of volcanoes. Catania soon became a mere mass of white houses on the sea shore, whilst above was spread out, as in a panorama, the different regions of Etna—the green cultivated district, dotted with numerous white villages and towns—above, a wide belt of forest trees, the Bosco, of a more sombre hue—and then a naked region which extended higher and higher to the abode of eternal snow. From the sea, at the distance of some thirty miles from Catania, not only were all these details distinctly visible, but the large plain at the summit, and the terminal cone rising from its centre, became distinctly visible. This cone, although rising eleven hundred feet from the terminal plain, appeared to be merely a small mound.

There were no foreigners on board except myself; all were Sicilians, so I had to make myself as agreeable as I could, in rather second-rate Italian, to the captain and his lieutenant. The steamer was a small coasting vessel which once a fortnight performed the journey from Palermo to the Lipari Islands, Messina, Catania, and Syracuse, and back. I had been cordially received on arriving on board as *un Inglese*, an Englishman, and by this name, or by that of *il Inglese*, the Englishman, I remained known both during this and the return voyage, as also at Syracuse. I now felt that I had quite got out of the beaten track, and that my own identity had completely merged into that of my nationality. The officers of the ship, although civil and obliging, readily answering any questions, were evidently not classical scholars, or

even historians. They told me they could not well understand what we "Inglesi" went to Syracuse for. It was not a pretty town, and there were only a few old ruins, "delle antichità," of no great interest, to see. The magic of the past was a closed book to them; they could not shut their eyes and see before them, as a thing of to-day, the great city of former times, with its eight hundred thousand inhabitants, its palaces and temples, its wealth, its numerous legions, and its hundreds of triremes or vessels of war.

On the other hand, they were quite alive to all questions pertaining to present times, were enthusiastic in behalf of *Italia Unita*, and told me that all the young men in the island were in favour of the annexation to Italy, of the expulsion of the Bourbons, of free trade with other nations, and of progress in general. We shall never again, they said, put our neck under the yoke of the retrograde party.

While coasting the low shore of this part of Sicily, a number of quails came hovering round the vessel. Just arrived from the continent of Africa, and tired with their long journey, the poor birds of passage wanted to rest on our ship, the first "land" they had reached. The officers armed themselves with guns, and shot at the weary birds as they approached us, an act of cruelty I could hardly forgive. The birds were evidently so tired that, although driven away by this harsh reception, they soon returned to the vessel for rest. Fortunately, my friends were not good shots, and did but little execution. Quails arrive in great numbers in every part of Sicily at this time of the year, but more especially on the south coast.

About four o'clock in the afternoon we rounded the

cape of Panagia, came in sight of the far-famed promontory of Ortygia, on which the town of Syracuse is situated, and were soon safely moored in the spacious port. This port is one of the very best in the Mediterranean, according to modern authorities, although it was believed to be too shallow to admit large vessels; it was Nelson who first showed the fallacy of this view, by sailing in with a large fleet.

Syracuse is, perhaps, the most interesting spot in Sicily, on account of its grandeur and great prosperity in ancient times, of its intimate connexion with the national history of Greece, Carthage, and Rome, and of the numerous remains of antiquity that it still presents. It was founded one year after Naxos (734 B.C.) by a colony of Corinthians, and rapidly attained a degree of wealth and prosperity unrivalled by any other of the colonies of Greece. In the year 485 B.C., under Gelon, it was able to offer thirty thousand men and three hundred vessels of war to Greece when attacked by Persia, and a few years later defeated the Carthaginians at Himera, and crushed their power in Sicily. In the year 415 B.C. began the deadly struggle with the Athenians, which ended by the defeat and capture of the Athenian general Nicias and of his army, after one of the most celebrated sieges in ancient history—a siege vividly described by Thucydides. It is said by this historian, that the power of Athens never recovered from the defeat. The names of the Syracusan kings or tyrants, Hieron, Thrasybulus, Dionysius, Timoleon, Agathocles, are mixed up inextricably with Grecian history. Under them the population of Syracuse reached eight hundred thousand, and their dominion extended over the greater part of the island. The town itself was fourteen miles in circumference.

In the year 214 B.C. Syracuse was besieged by Marcellus, the Roman general, and fell before his legions, notwithstanding the bravery of the inhabitants, and the skill of Archimedes, the greatest mathematician and engineer of Grecian times, after an independent existence of 522 years. Syracuse then became merely a Roman provincial town, and one hundred and fifty years later Cicero resided there as prætor. He has left, in his oration against Verres, a graphic description of its beauty, of its monuments and wealth. Subsequently it followed the fortunes of the rest of Sicily, gradually losing the importance it had acquired in ancient times.

Even now, however, after the lapse of more than two thousand five hundred years, Syracuse is a rather handsome provincial town of more than sixteen thousand inhabitants. The modern town is still situated on the peninsula or island called Ortygia, connected artificially with the mainland in ancient times. It was on this peninsula, about two miles in circumference, which partially forms the greater port, that the town of Syracuse was first founded. As it rose in importance and prosperity it overflowed on to the mainland, until five new towns, there situated, were comprised within its walls. By degrees, these suburbs or towns of former days have decayed and crumbled into dust, until now a few ruins are the only evidence of their presence. The most important and interesting are the Latomiæ or quarries, the catacombs, the remains of the Greek theatre, of the Roman amphitheatre, of the walls that surrounded the city, and fragments of various temples and buildings. All these ruins are deserving of careful study and investigation, as is the town itself. The latter contains much to interest the classical traveller, and more especially a temple

of Minerva, now officiating as the cathedral, and the fountain of Arethusa, still as clear and as abundant as when in olden times the Greeks thought they saw in it the nymph Arethusa hastening to the sea, and mingling her waters with those of her lover Alpheus, the river god, from whom she had tried in vain to fly.

The fountain of Arethusa is an abundant spring of fresh water, which bursts out of a cave on the sea shore of the island of Ortygia, and which was and is still separated from the sea by one of the bastions of the city wall, so as to form a semicircular pool or basin. It was supposed to be part of a neighbouring river, the Alpheus, which had passed under the sea that separates the island from the mainland by a subterranean passage. Thus Virgil describes it in the "Æneid:"

> "Alpheum fama est huc, Elidis amnem,
> Occultas egisse vias subter mare; qui nunc
> Ore, Arethusa, tuo Siculis confunditur undis."

Carried away by classical recollections, I forgot at first meteorological and botanical studies, but soon my thoughts returned to a more practical channel. At Syracuse, and in the plains that surround it, I found that the cooling influence of snow-clad Etna was evidently less. The lemon and orange trees were creeping out of valleys and shelter, and were larger. Still even here, in the extreme south of Sicily, the value of protection is fully illustrated. The two largest orange and lemon trees that I saw in Sicily were growing in one of the Latomiæ; the lemon tree was as large as a good-sized oak. These Latomiæ are enormous excavations or quarries in the solid rock, made in the days of Syracusan prosperity, to furnish stone for its temples, its walls, its buildings. In one of these were long confined Nicias and the seven thousand Athenians

taken with him on the banks of the river Asinarus, when they fled, defeated, from the walls of Syracuse. Another, a vast excavation in the shape of the letter S, is still called Dionysius' ear, from its being supposed that it was excavated in this shape in order that the tyrant Dionysius might hear the conversation of his prisoners, from a private chamber acoustically contrived.

These quarries or excavations, from fifty to one hundred feet deep, have been for centuries converted into gardens, and are the scene of the most luxuriant fertility; many of the lemon and orange trees are regular forest trees. At the bottom of this novel kind of Sicilian conservatory they have sunshine and warmth, and quite escape all cold winds.

The view from Syracuse and from the heights to the north-east called Acradina, where the principal part of old Syracuse was built, extends over a marshy, ill-cultivated, unhealthy plain, through which meanders the river Anapus. This plain, of alluvial soil, contributed to maintain the eight hundred thousand people the city formerly contained. The soil and sun are there, still the same, but the labour of former days, the energetic action of man, is wanting.

The more I see of the south of Europe the more I become convinced that its vaunted fertility is a mere myth, unless labour and capital can be brought to bear. Southern rivers left to themselves carry devastation with them, denude the mountain regions, overflow the plains, and render them pestilential marshes, as we have seen when speaking of Corsica. It requires immense labour, and great capital, to keep them within bounds, to make them fertilize the regions which they would otherwise destroy or render uninhabitable. Withdraw the labour, and leave

them to themselves, and you very soon get marshes like the Pontine, the Tuscan, the Corsican, now all but uninhabitable from malaria, but which formerly nourished hundreds of thousands of inhabitants. On the other hand the mountain sides, the dry plains in the south, left alone, unwatered, are parched, burnt up by the sun. They too require labour and capital for their inherent fertility to be developed.

Syracuse was the most southern region of Sicily that I reached. I was very desirous, as previously stated, to have examined the central and south-western regions of the island, and could easily have done so by returning to Palermo through these parts of the island. The reports of danger to travellers, however, that reached me at Palermo were confirmed at Syracuse, so I thought it best to retrace my steps, and return by Catania and Messina. I should have wished to have gone back by Malta, Tunis, Algiers, and Marseilles, which would have been a very delightful extension of the tour, but I was professionally due in London by the middle of May, and had not time for further wanderings.

Limited as it thus proved, my exploration of Sicily was, however, sufficiently extensive to demonstrate the fact already asserted—viz., that it requires four or five degrees of latitude to compensate for such complete protection from the north winds as is found in the more favoured parts of the Riviera, between Genoa and Nice. That such is the case is evident from the circumstance, that not only are the vegetable productions of Sicily and of that region all but identical, but that the progress of spring is the same in the two regions. We must allow an advantage, however, to Sicily, even on the north and east coast, wherever there is shelter and protection from the

north, or from cold mountain blasts. No doubt on the south-western coast, opposite Africa, this advantage is much greater, but I do not think it would be possible for invalids to pass the winter in any of the small towns of the south-western coast with any degree of comfort. It may at least be surmised that such is the case, from the fact alone that travellers have to take provisions with them, as for a sea voyage. Evidently, away from mountain influences, in Sicily there can be no frosts of any importance, as the lemon tree everywhere appears and flourishes under such circumstances, for a few degrees of frost destroy the tree, whilst even one or two, in damp weather, may destroy its fruit. The nights also must be cold until April or May, as shown by the tree vegetation, and as is the case on the two Rivieras of Genoa, both the east and the west.

On returning to Messina I learnt, to my great satisfaction, that the French Syrian steamer was expected from Alexandria the next day, a Monday, and would sail for Marseilles direct; and that day was spent rather anxiously waiting for it. The sense of isolation had increased upon me, and now that my thoughts were turned homewards, I was anxious to depart even from sunny, smiling Sicily. I shall never forget the satisfaction with which I saw the *Euryanthe* enter the port towards evening, as I was sitting alone at the window of my room. She is a noble screw steamer of more than two thousand tons, and glided silently and majestically into the port, like a large black swan, like a thing of life.

We started that evening, passed the ever-smoking, flaming Stromboli volcano a few hours later, and then were soon out of sight of land in the old Tyrrhenian Sea. The steamer was a splendid ship, with accommodation

for a hundred and thirty cabin passengers. As there were not thirty on board, I had a large cabin to myself, where I slept nearly as well as I should have done in my own house. We were three nights and two days on board, from Monday evening to Thursday morning, when we reached Marseilles, and, as the weather continued fine, I quite enjoyed the voyage, although a bad sailor in bad weather.

My compagnon this time was a middle-aged merchant captain, who had been beating about the world for more than thirty years. He told me many strange tales, but none more interesting than his own. Three years previous he was in command of a merchant ship bound for Buenos Ayres. When nearing the American coast he was overtaken by a terrible storm, and after battling with the elements for three days and nights, the ship became water-logged, utterly unmanageable, and was cast ashore. The breakers and surf were terrific, and, alone of all the crew, he reached the land, he scarcely knew how. On recovering from the first stupor he found that the coast was a low sandy one, with no evidence of habitation. He was overcome with fatigue and drowsiness, never having slept for three nights and days, and finding two empty casks on the beach, knocked the heads out, put them close together, and crept in for shelter, as there was a cold wind blowing. In this impromptu retreat he slept twelve or fifteen hours, but, on awaking, found that he could not move. The two casks had slightly parted, and between the two a small chink or space remained, through which the wind had struck his loins, producing a band of acute rheumatic pain. He was rescued by some of the inhabitants of the country, attracted to the spot by the wreck, but never recovered the effects of the night's

exposure, and had never since then been able to follow his usual seafaring life. He had consequently accepted the office of surveyor to Lloyds.

The duty of the surveyors to this insurance company is to transport themselves, when ordered, to any point where a wreck occurs, to examine into the circumstances of the case, in the interest of the company, and to make certain that the claim made for insurance is perfectly true and real. He had just been sent in this manner to the vicinity of Brindisi, in the Adriatic, to examine into a case of wreck. A vessel laden with corn had gone aground in a gale, and the captain had reported that it was a perfect wreck, and that ship and cargo were lost. On arriving he found the ship stranded, but not broken up, and by a judicious expenditure of above five hundred pounds, he had got it off, thus saving both ship and cargo, and his employers many thousand pounds. He told me that he lived with his wife and family at Bath, and that he was thus liable at an hour's notice to be sent to any part of the globe on similar missions. He was paid by a regular salary, with the addition of travelling expenses. It is a singular position, to be quietly at home with one's family in the morning, in an inland town, liable to be sent at an hour's notice to any part of the habitable world, say to China, to Australia, or to Buenos Ayres.

On the morning of the second day we passed through the straits between ~~Corsica~~ and Bonifacio. These straits are most picturesque, and the steamer glides between rocks and islets, very similar to those that skirt the coast on the way from the Crinan canal to Oban. Caprera is passed at the eastern entrance of the straits, and we looked with interest and affection at Garibaldi's little house, which we saw distinctly. These straits are free from

danger in fine weather, but are said to be very perilous in stormy weather, especially to sailing vessels. There are constant wrecks in winter, and principally at the western entrance, near Bonifacio. Two English steamers were lost this spring, and I was told of a singular and disastrous wreck that occurred at the time of the Crimean war. A French transport, with eight hundred men and many horses on board, on their way from Toulon to the Crimea, was wrecked near Bonifacio, but saved. They managed to land on the Corsican coast, and were taken back to Toulon. From thence they made a fresh start for the Crimea, in a steam frigate. Again at the Straits of Bonifacio they encountered a severe storm, and this time the vessel foundered, and not a soul was saved. There certainly was a fatality over these poor soldiers.

Our progress continued easy and prosperous in the splendid ship. Several times the sea rose, but we did not seem to feel it in the least, so great was the size of the vessel, and so free was it from motion. On the Thursday morning we reached Marseilles, fifty-six hours after leaving Messina, and then all isolation finished, for even thus early I found myself in the midst of valued friends.

Since this very agreeable excursion to Sicily was undertaken, Mr. Murray has published his guide to that interesting island. It is certainly one of his best, full of antiquarian lore, and calculated to make the English traveller feel quite at home in every stage of his journey. I much regret that I did not possess it when there, for I could not discover a reliable guide.

CHAPTER XI.

BIARRITZ.

BIARRITZ AS AN AUTUMN AND WINTER RESIDENCE—SITUATION—CLIMATE—SEA BATHING—THE IMPERIAL RESIDENCE.

I HAVE repeatedly visited Biarritz as a tourist, and in the year 1857 I spent a very pleasant month on its shores, that of September, in order to enjoy its excellent sea-bathing. From that time forward I have often sent patients and friends to Biarritz, that they might benefit in autumn by the sea-bathing, and in winter by the climate, a decidedly mild one as compared with our own.

Living at Biarritz is less expensive, it would appear, in winter, than in most of the southern sanitaria, a fact which makes it a valuable addition to our health "harbours of refuge." It was this fact that made me devote a chapter to Biarritz in 1862, in the second edition of the present work, drawing the attention of the profession to its capabilities and value. Since then, it has advanced considerably; many new houses have been built, as also an English church, and the winter resources of the town have been improved in many respects. Last winter, 1864–5, there were above two hundred English residents. I am pleased to be able to register these signs of progress, and may add that most of those whom I have sent have been satisfied with their winter's experience.

The latitude of Biarritz is the same as that of Pau, 43°; that is, seven degrees more south than Torquay. This situation necessarily implies a much warmer winter climate. Indeed, although I have but few thermometrical data on the subject, I presume that the winter temperature of Biarritz must be pretty nearly the same as that of Pau, with perhaps a slight difference in its favour owing to the vicinity of the ocean.

As we have seen, the proximity of the sea always renders the temperature of a locality milder and more equable. The existence also of an extensive tract of dry sand, such as constitutes the Landes, extending nearly two hundred miles, from Bordeaux to Bayonne, implies paucity of rain, and the absence of that continued precipitation of moisture during the winter that characterizes the more northern sea-coast of France and England. We may positively deduce this fact from the arid dryness of the sandy plains of the Landes of France, whether it be that this part of France is still within the range of the "rainless tract," or that the mountains of north-western Spain arrest and precipitate the moisture brought by the south-westerly Atlantic winds.

Biarritz has hitherto only been noticed by writers on climate as a favourite summer and autumn watering-place, but I believe, from the above facts, from the testimony of others, and from my own investigations, that it has also claims to being accepted among the eligible winter stations of the south. As stated above, there are social reasons, also, that make it worthy of notice.

The presence of the imperial family in the autumn, and its own merits, are rapidly raising Biarritz to the position of one of the most frequented and most fashionable sea-side watering-places in France; hence a great influx of sea-

bathing visitors in summer and autumn. To provide for their wants, numerous hotels and houses have been built, and an active and extensive system of commissariat has been established.

Once the summer sea-bathing visitors are gone, the hotels and houses are all empty, and the supplies find no market. The result is, that in winter Biarritz is as cheap a place to live in as it is expensive in autumn and summer. This state of things will probably long continue, for the summer development is certain to greatly outstrip the winter requirements, even were it to become a winter colony like Pau, Nice, and Mentone. To persons requiring a southern climate whose means are limited, and who are therefore obliged to consider every expense, this consideration may be one of primary importance.

It is impossible that a town situated on the boisterous Bay of Biscay can be equal in point of climate to Pau or to the towns of the Riviera, or to my newly-discovered favourite, Ajaccio, in cases of severe disease in which the very best climate that can be found is required. But still there must be many cases in which the sunshine, mild temperature, and comparative dryness of the south-western coast of France may be sufficient. Moreover, the question of expense is often, unfortunately, a paramount consideration.

Biarritz is picturesquely situated five miles south-west of Bayonne, at the bottom of the Bay of Biscay, a short distance only from the Spanish frontier. It has long been resorted to by the inhabitants of Bayonne and of the Pyrenean district, in summer, for its excellent sea-bathing. It was, however, all but unknown to fame until the present Empress brought it into notice by making it her marine autumnal residence. Notwithstanding

imperial patronage, the position of Biarritz is so secluded, and the distance from the French capital is so great—523 miles—that both its natural and medical advantages and capabilities are as yet but little known and appreciated.

The climate of Biarritz is modified by its geological as well as by its geographical position. From Bordeaux to Bayonne, a distance from north to south of nearly 200 miles, and penetrating inland to a considerable depth, extend the vast sandy plains to which the French give the name of Landes. This district, which has an area of 3700 square miles, is often called a desert, but in reality it is merely an immense moor, and is covered with pretty nearly the same vegetation as our own moorlands, heather, ferns, gorse, and pines. The climate, however, being very much warmer and drier than our own, the vegetation is much less luxuriant, more stunted and thinly scattered.

Indeed, the Landes of France may be said to occupy a medium position between the heather and fir-clad sandy moors of Surrey, for instance, and the arid sandy plains of Spain or of Africa, where a greater degree of heat and dryness all but entirely destroys even the vegetable tribes that are peculiar to such soils. This sandy tract is of course remarkable for the warmth of its temperature, which in summer is intense. Although it ceases at the Adour, a river which passes through Bayonne, and which throws itself into the sea about two miles to the north of Biarritz, it exercises a considerable influence over the climate of the strip of good land, some fifteen or twenty miles in depth, which extends from the Adour to the foot of the Pyrenees. Thus Biarritz, although out of the district of the Landes, participates to a certain extent in the summer

heat and the winter mildness of that region of the Gascony of former days.

The heat of summer is tempered at Biarritz by a sea-breeze which constantly blows inland during the day, and by its situation on a different geological substratum—viz., sandstone rocks. The Biarritz lighthouse is built on the first sandstone projection which appears south of the Adour, the coast of the Landes being formed by low ridges of sand. The village of Biarritz is situated on two small bays, themselves occupying the centre of the Bay of Biscay, formed on the north-east by the low coast of France, and on the south by the base of the Pyrenees and by the province of Biscay in Spain, into which the Pyrenees extend, rising tier over tier.

As the coast at Biarritz attains a considerable elevation, and the two small bays are strewn with large rocks, worked by the ceaseless action of the powerful Atlantic swell into every conceivable shape, the character of the scenery is highly picturesque. The coast with which I should feel the most inclined to compare it is that of Ilfracombe, in North Devon. It has not, it is true, the stern grandeur which the geological formation there imparts to that beautiful spot, but in some respects it is even more irregular and wild. The friable nature of the sandstone rocks offering less resistance to the action of the Atlantic, they are excavated and fretworked into every conceivable shape.

During my residence in 1857, the weather, until the end of September, was fine; no rain falling except during the night, on two or three occasions. The sky was clear, generally cloudless, the sea blue, and the sun powerful, so much so as to render an umbrella all but indispensable between nine A.M. and five P.M., when walking in the sun.

The wind varied between S.W., S., and S.E. When in the S.W., which was mostly the case, there was always a heavy sea rolling in from the Atlantic or rather from the Bay of Biscay. When in the S.E., which only occurred for a few days, the sea was much calmer. On one occasion, for forty-eight hours the wind was due south. During this time the heat was very oppressive, although the thermometer only rose one or two degrees, from 74° or 75° to 76°. I was told that such was always the case in summer when the *Vent d'Espagne*, or south wind, reigned, and that it was feared like the sirocco on the Mediterranean coast, to which it was compared. The thermometer in a cool, shaded room varied from 70° at night to 72°, 74°, or 76° in the daytime, until the weather broke up on the 26th, when it descended to 70° early in the morning, and to 68° later in the day, at four P.M. The temperature of the sea-water I found generally to coincide with that of the morning atmosphere, in deep water at some little distance from the shore.

The beach, as is usually the case on such coasts, is a firm, smooth sand, peculiarly adapted for bathing. There are three distinct sites for the purpose: the Côte du Moulin, the Côte des Basques, and the Port Vieux. The two former are rather exposed situations, on the sides of the small bays, and at both there is generally a considerable swell. The beach shelves gently, and the bathing is excellent; but waves rolling in rapid succession have to be encountered, which to the weak and delicate is rather fatiguing, especially if the sea is rough.

The Port Vieux is a species of natural amphitheatre in the midst of the rocks, opening to the sea. In front of the open or stage part, at less than a quarter of a mile distant, there are several huge rocks, which form a natural

breakwater. One of them, called the Grand Rocher, is so large that the sea only breaks completely over it in very rough weather. Thanks to the protection thus afforded, at low tide the sea in the Port Vieux is all but calm, and at high tide only agitated, in ordinary weather. The Port Vieux is the favourite resort both of the bathing and non-bathing visitors at Biarritz.

Around the concavity of the amphitheatre, facing the sea as the boxes of a theatre face the stage, are a number of small cabins, built on piles, about four feet from the ground. Those on one side are devoted to the ladies, and those on the other side to the gentlemen. The back entrances of the cabins abut on the cliffs, which rise abruptly to a considerable elevation. On the beach, between the cabins and the sea,—in the pit, as it were,—are placed chairs, which are occupied in the morning by nursery-maids and children, and in the middle and latter part of the day by the more fashionable visitors, who congregate to chat in the continental way, and to look on the aquatic appearance and performances of their friends and acquaintances, and of the public generally.

Both ladies and gentlemen wear a "bathing costume." With the former it consists of loose black woollen drawers, which descend to the ankles, and of a black blouse or tunic, descending below the knees, and fastened at the waist by a leathern girdle. On leaving their cabins, they put on also a wide waterproof cape, which they keep on until they reach the water's-edge, and which is then taken off by the bathing attendant. This costume, like all picturesque costumes, makes the young and the pretty look younger and prettier, but certainly does not set off to the same degree the more matronly of the lady bathers. All, however, young and old, seem totally

indifferent on the subject, and pass smilingly before their friends and the spectators, appearing to enjoy every stage of the performance. Most ladies have an attendant, male or female, and many are, or speedily become, very expert swimmers. They are to be seen daily swimming, with or without assistance, at a considerable distance from the shore

The gentleman's dress is a kind of sailor's costume, and as custom gives them more latitude with respect to colour, material, and make, great varieties are observed. The exquisites of the place seem to take a pride in showing themselves off thus prepared for their marine gymnastics. I have often seen them, cap in hand, feet and ankles naked, talking to their lady friends sitting around, previous to taking their first plunge. Once in the water, all the bathers, male and female, mingle together; the timid remaining near the beach, and the bold and learned in the art of swimming striking out into deep water. The utmost decorum, however, prevails; the husband assists his wife, the father his young daughters, but strangers keep at a respectful distance in the water, as they would on dry land.

At first, this aquatic mingling of the bathers strikes the English beholder as an infringement of the laws of propriety and decorum, but a more close scrutiny brings the conviction that such is really not the case,—indeed, that this mode of bathing is infinitely more decorous and decent than that which is pursued on our own shores. The bathers are, to all intents and purposes, dressed; and there is, in reality, no more impropriety in their witnessing each other's marine sports than there is in the members of a masquerade mingling in the streets during the carnival at Rome or Naples. I may add that, once in

the water, a light woollen or cotton dress is not felt, and in no way interferes with liberty of movements and with the pleasure of bathing. Indeed, when bathing has to be carried on in so public a place, a light costume of this description is a great addition to the bather's comfort.

The natives of southern countries remain much longer in the water than we do, and often make their bathing consist of various stages of going in and out, resting between-times. This they can do with impunity, owing to the temperature of the water. When both the air and the sea are 74° or 76° Fahr., as was the case during the greater part of my stay at Biarritz, bathing is an indescribable luxury, and the inducement to remain in for more than a plunge certainly is very great. I believe that there is no danger in the moderate prolongation of the sea-bath, as long as no sensation of cold or chill is experienced.

The vegetation around Biarritz gives evidence of a southern climate, without, however, being as characteristically southern as that of Nice. Nice is pretty nearly in the same latitude, but is sheltered from the north by the Maritime Alps. At "exposed" Biarritz the principal trees are planes, the principal product, Indian corn. The tamarix grows very luxuriantly, and becomes quite a large tree, some twenty or thirty feet high; but there are no orange trees, gigantic aloes, palms, or caper plants, as at Nice and along the Riviera. Ferns are very abundant in the lanes, of which there are many in the neighbourhood. They are paths, or cart-tracks, sunk a few feet below the level of the adjoining fields, and their banks are covered with ferns, mostly of the same species as those found in England. Heather grows freely also in sandy soils, and I noticed one or two kinds unknown to our moorlands.

On the whole, Biarritz is a very enjoyable sea-side residence, and presents some peculiarities and advantages which will probably render it useful to our countrymen, now it can be easily reached by the railroad from Paris to Bayonne, both as an autumn and winter resort. In summer the heat is, no doubt, greater than is agreeable to the natives of our isles, but in September and October the temperature is moderate, and suitable to the healthy. Those who cannot resort to our own coasts in July and August, and to whom a mild or warm temperature is essential, have thus the opportunity of still enjoying at Biarritz summer sea-bathing, at a time when with us both the sea-water and the external atmosphere are becoming chilly.

The village of Biarritz, like all French sea-side villages and towns, is built away from the sea, behind the cliffs which form the bay. All French maritime populations endeavour to shelter their homes from the sea, which they seem to look upon as an enemy to be kept out of sight as much as possible. It is a straggling village, composed of two streets parallel to the cliffs, and contains no marine parades, no marine crescents, but a heterogeneous collection of houses of all sizes and shapes, with booths in the middle of the streets, which give it the aspect of a fair. This appearance is kept up by the stream of people, many in Basque costumes, who pour in all day by the omnibuses from Bayonne; most of them merely remain a few hours. In other respects, Biarritz is a very quiet place, notwithstanding its being the marine residence of the Emperor.

The presence of the imperial family seems to exercise a great attraction over Spanish visitors, who are numerous. To the Empress, Biarritz is endeared by early associations,

for she used to visit it in childhood; moreover, it is a kind of neutral ground where she can meet, without being hampered with courtly etiquette, her Spanish relatives and friends.

The imperial residence, "the Villa Eugénie," is a small, rather naked French chateau—a miniature of St. Cloud. It is constituted by three sides of a parallelogram, the base being turned towards the sea, and is situated on the beach, on a small terrace, partly artificial. From the drawing-room windows the view is truly marine; nothing is seen but the wide ocean, and some large rocks in the offing, against and over which the surge is constantly breaking. At high tide the sea bathes the foot of the terrace, and in rough weather the waves break over it, and cover the front of the house with their spray; so much so, indeed, that considerable damage is occasionally done, and gratings have been placed at the bottom of the windows to take off the sea-water which dashes against them.

There has been an English clergyman at Biarritz for several winters, and there are several English resident physicians. Indeed Biarritz may now be considered fairly started as an autumn and winter sanitarium. I believe that time will show it to be worthy of the eulogium I have passed upon it. One advantage the residents at Biarritz certainly possess over us of the Mediterranean, they have the rolling surges of the Atlantic, the daily rise and fall of the vast Atlantic swell, and the tempestuous sea of the Bay of Biscay to contemplate.

The Rev. Mr. Crow, the English clergyman in 1862, informed me that in the month of January of that year the average of his daily observations, made at 8 A.M. on a north wall, was about 45° Fah. The highest

temperature during that month at the above hour was 62°, the lowest 30°. In February there was some very cold weather. During seven days the highest temperature was 34° (at 8 A.M.), the lowest 24°. With the exception of that week the weather was glorious, the thermometer after January varying from 48° to 62°.

These data are just what might be expected. Being situated in the south of France, on the margin of a vast tract of land in which, whatever the cause, less rain falls than further north, Biarritz must be mild, sunshiny, and dry in winter; whilst, having no mountain protection whatever to the north, it must also be liable, like Pau, to spells of cold weather when the wind blows from that quarter. It has not behind it the screen of the Maritime Alps, nor has it the night radiation of the sun-warmed Riviera mountains.

These exceptional periods of cold weather at once explain the vegetation of the Biarritz plain. Severe night-frosts with a temperature of 24° once in half of a century would destroy all the southern vegetation of the Riviera, the lemon, the orange, and the olive trees, the palms, the cacti, and the lycopodia.

There are, however, many forms of delicacy and of actual disease in which a few days of clear, cold, bracing weather are by no means objectionable. Much more cold weather has to be encountered in our English sanitaria, Ventnor, Bournemouth, and Torquay, than can be met with at Biarritz during even an exceptional winter.

CHAPTER XII.

THE ITALIAN LAKES.

LAKES ISEO—COMO—LUGANO—MAGGIORE—THE SIMPLON PASS.
THE SCOTCH LOCHS—LOCH AWE—LOCH MAREE.

"I love to sail along the Larian lake
Under the shore—tho' not, where'er he dwelt,
To visit Pliny . . . . So I sit still,
And let the boatman shift his little sail,
His sail so forked and swallow like,
Well pleased with all that comes. The morning air
Plays on my cheek how gently, flinging round
A silvery gleam . . . . ."—ROGERS' *Italy*.

EVERY year, as spring approaches, the little Mentone community begins to form plans for the return home, and I am always implored by friends and patients to sanction their travelling by way of the Italian lakes and Switzerland. The desire is very natural; there is such a poetical halo about these lakes, such sublime grandeur in the great Alpine passes, that it is quite distressing to be so near and not to see them, especially when they can be brought, with ease, into the home journey.

My prudential objections to this route were frequently met by the inquiry whether I had myself passed the Swiss mountains in spring, and as I was obliged to confess I had not, I was often thought to exaggerate the danger. I therefore determined, in April, 1864, being myself quite convalescent, to adopt this route on the return journey to England, and to judge for myself. This time I secured

some agreeable companions, and was thus independent of "travelling acquaintances."

On the 8th of April, when we left Mentone, summer had regularly commenced in the Riviera. The spring flowers were passing away, and those of early summer had made their appearance; the days were warm and cloudless, and the nights cool and pleasant, the thermometer never descending below 50°. The mountain sides were clothed in verdure, and perfumed with wild thyme, rosemary, and mountain lavender; the willows and poplars were in full foliage.

On leaving Genoa and passing the protection of the Apennine chain, April 11th, a great change was observed. Although the sun was bright and the weather fine, winter still reigned in the plains of Lombardy, the trees were leafless, the hedges and ground bare. Indeed, the spring was not more advanced than it usually is in England at the same period owing, evidently, to want of protection from the north winds. The high Swiss mountains, although running due east and west, only protect the regions immediately at their base; the north winds pass over these favoured spots to descend in full force on the plains beyond.

Nothing can be more dreary and more monotonous than the fertile plains between Genoa and Turin, once the railroad emerges from the Apennines, at this time of the year; nor was the region between Turin and Milan more favoured. These plains are perfectly flat, and are merely divided into segments by ditches or small irrigation canals, bordered with pollard willows or poplars, still quite devoid of foliage. Along the railway, from Turin to Milan, they are principally cultivated with rice, and the agricultural labours of spring were in full operation, part of

the country being laid under water by artificial irrigation. The process appears to be, first to plough the fallow land, and then to divide it into fields of from ten to twenty acres by banks of mould, one foot high. Water is afterwards let in, so as to thoroughly saturate the ground; it is then drawn off, the rice sown, and the field again covered to the depth of two or three inches. The water must be raised by artificial means, for the irrigation canals are, in most instances, considerably below the level of the fields.

The country itself appeared very prosperous; there was building going on in every village or town we passed through, and throngs of well-dressed, well-fed people, of all ranks, got in and out of the trains wherever we stopped. A little before we reached Milan we came to the station of Magenta, a name henceforth sacred in Italian history. It was here that was fought, between the French and Italians and the Austrians, the great battle, the gain of which may be said to have established Italian independence. It was difficult to believe that this calm and tranquil little village had been, only a few years before, the scene of one of the greatest battles of the century, that the very station we were in, situated in the thick of the fight, was taken and retaken half a dozen times, and that tens of thousands stained with their blood the verdant fields around. Near the station is seen a monumental pyramid, erected by the Italian government to the memory of those who fell in the battle.

I experienced great pleasure in again seeing Milan in its new position—as one of the chief cities of a free and independent state. I several times visited this city in the epoch of Austrian rule, and always mourned over its dejected, enslaved appearance. In those days large

bodies of fair-haired Austrians, in their white uniforms, seemed to occupy it as a foreign army would occupy a city after a siege. They were everywhere—at the gates, in the streets, in the public squares, in the cafés, in the magnificent cathedral, in the pit of the theatre; they seemed to be lords and masters, and to know it, whilst the poor Italians appeared humbled and dispirited. Often I could observe a scowl of hatred flash over their face as their northern conquerors swaggered past, their swords clanking on the pavement. I cannot understand anyone being twenty-four hours at Milan in those days, or at Venice now, without feeling an ardent sympathy for the oppressed Italians,—an ardent desire to see their northern masters obliged to recross the Alps.

Now the state of things is altogether different; there are no more foreign soldiers to be seen, and the few who are visible wear the national uniform. The streets are thronged with happy, contented faces, and the evidences of individual prosperity, and of active healthy municipal life, are met with on every side. The city is being quite transformed; new streets of fine houses are being built in the suburbs, public buildings are being renovated, and plans are being matured, which, if effectually carried out, as no doubt they will be, must make Milan a truly splendid city. Among these is one for clearing the vicinity of the grand cathedral of a host of inferior dwellings, and for erecting a range of first-class mansions, in unison with this noble structure, one of the finest specimens of Gothic architecture in the world. The cathedral is indeed worthy of every effort being made to bring its proportions into view; it is inexpressibly majestic, both internally and externally, and quite worthy of a special visit to Italy.

The weather was beautiful while we were at Milan, but we were told that the favourable change had been quite recent, and that a few days before there had been a fall of snow. After devoting a day to the city, its cathedral and the improvements, we again took the rail, the line from Milan to Venice, bound for Lake Iseo. At Palazzolo, the second station beyond Bergamo, we alighted, took a local conveyance, and were soon at the "Albergo del Leone," at Iseo, the distance being about eleven miles.

The Italian lakes—Garda, Iseo, Como, Lugano, Maggiore, and Orta—occupy deep basins or depressions at the southern base of the high Alps, as the Swiss lakes occupy similar depressions at the foot of the Alps to the north. The principal difference being that the south side of the Alps is much more precipitous than the north, so that the Italian lakes lie on a line, immediately at their base, whereas the Swiss lakes are at the extremity of valleys, which extend some distance from the great mountains. In both cases these lakes are formed by rivers that descend south and north from the snow and glacier-covered mountains, and from all of them great rivers depart, carrying away their overflow. According to the most recent geological views, these lakes, even where one or two thousand feet deep, may have been scooped out in former geological epochs, by glaciers descending along the valleys, at the termination of which they lie.

The longitudinal valleys, lying due north and south, in which the Italian lakes are situated, are not only protected from the north by the higher Alps, but also from the north-east by descending spurs that occupy their eastern shores, and from the north-west by the Alps of Savoy, which take a south-westerly course.

This peculiar protection from the northern quarters gives

them a totally different climate to that of the plains of Piedmont and Lombardy, which we had just left. It seemed as if we had repassed the Apennines, and had once more reached the Riviera and summer. For some miles before we arrived at Iseo the vegetation was again that of June, and the gardens were full of early summer flowers; the hazel, the willow, the poplar were in full foliage, the fig trees were in leaf, and the vines had made shoots several feet long.

Lake Iseo is a small, picturesque lake, but little frequented as compared with its larger neighbours, Garda and Como. It is about fourteen miles long, and from two to three broad, and lies immediately at the foot of the Alps, to the north-east of the town of Bergamo, and to the west of Garda, the largest of the Italian lakes.

The town of Iseo is a mere large Italian village on the borders of the lake, and the "Albergo del Leone" is a very unpretending establishment. The rooms, however, which are tolerably clean and comfortable, immediately overlook the lake, the scenery of which, as viewed from the inn, or, indeed, from any point, is exquisitely beautiful. From the shores rise, more or less abruptly, mountains several thousand feet high, which, at the northern extremity, rapidly merge into the snow-clad summits of the high Alps. This lake, indeed, struck me as peculiarly lovely, quite as much so as its better-known companions; it is embosomed in lofty mountains, which, in one region rise all but abruptly from the deep waters, whilst in another they slope more gradually, presenting on their sides luxuriant groves, smiling vineyards, verdant pasturages, and numerous villages.

These villages—white, clean, and picturesque at a distance, whatever they may be when seen closely—dot

the hill-side at every mile or half-mile, wherever the slope is not too great to prevent cultivation. Evidently the southern sun enables their inhabitants to extract the elements of life—corn, wine, and oil—from the very rock itself. Thus, the mountains, which in our climate would only support a few sheep and cattle, in this favoured region maintain a teeming population. It is the same at all the Italian lakes; wherever the mountain is not perpendicular, there are villages on the mountain-side, with their white-turreted churches, every half-mile. There they lie, basking in the sun as it were, nearly all the year round, little knowing the privations and hardships that are endured by their fellow-mountaineers, living on the north side of the mountains that limit their horizon, only a few miles distant.

The charm of Lake Iseo, in my eyes, consists in its not being such a sea of waters as the larger lakes, Garda and Maggiore. It resembles one end of Lake Como, and has the same kind of beauty, that of a fine expanse of water, the opposite shores of which are easily discernible, although reaching north and south as far as the eye can penetrate. Then there is a peculiar fascination about these southern but yet Alpine waters; the sky is pure and blue in fine weather, such as we had all but invariably, and the air is fresh and clear, much more so than it is with us on our finest summer days. Thus all objects in nature stand out distinctly on the horizon, and the most distant mountains are seen with the naked eye almost as well as with a telescope.

The scene was truly enchanting as we sat on a small terrace in front of our inn, against which the tiny wavelets broke with a gentle rippling sound. Before us was the clear lake, studded with little fishing-boats and with larger

market and ferry-boats crossing from Pretore, on the opposite side, the high mountain, its flanks dotted with the white villages, whilst at a distance of some two miles, a large island rose boldly a couple of hundred feet above the surface of the waters.

In the afternoon we took a boat, and were gently rowed to this island. On landing at a little pier we found ourselves in the midst of a fishing village, one of the prettiest and most picturesque I ever saw; it was the most charming combination possible of the Alpine, fishing, and Italian village. Quaint gabled cottages, picturesque costumes, nets hanging to dry from every house, black-eyed, black-haired maidens, chubby, rosy, half-naked children, old wrinkled women with their distaffs, like the Fates of the heathen mythology, and fine old men with flowing white locks, the Nestors of the village. We were evidently a source of great curiosity to them, for they all came out of their houses, and stood in a line looking at us; the village had only one row of houses along the shore of the lake. Young maidens smiled and laughed and smiled again, the elders looked demure but inquisitive, whilst the children, as usual, followed in a group. They were clearly desirous to get a good view of the strangers, whose advent produced quite a sensation.

At the end of the village we found rich undulating meadows on the margin of the lake, the northern end of the island. The grass was knee deep, and enamelled with innumerable flowers—primroses, violets, hepaticas, buttercups, and a hundred others. The mulberry trees were in leaf, and the vines trailing from tree to tree were beginning to be covered with foliage, and to assume a grace which they have not when leafless. We were sorry to depart, but the afternoon was on the wane,

and we were obliged to leave the "lonely isle" in the midst of Lake Iseo.

We soon got into the way of lounging on the waters, than which nothing can be more delightful, especially when surrounded by grand and beautiful scenery. It is certainly the height of idle enjoyment to sit or lie comfortably in a boat, gently impelled over the water in midst of a magnificent landscape illuminated by the glory of the southern sun. Nor can anything be devised more conducive to health for an invalid; it is exercise without fatigue, and enjoyment without exertion, combined with pure air and sunshine. Time glides away imperceptibly, especially if the excursion is shared with two or three agreeable companions, home is reached with a good appetite, and a sound night's rest generally follows.

Having explored the part of the lake near Iseo, we determined to make an excursion to Lovere, a town at the head of the lake, some ten miles distant, and started after breakfast in a large boat rowed by two men. Our course was prosperous, and we were entranced with the increasing beauty of the shores of the lake and of the mountains by which they are limited, as we approached the upper extremity. On rounding a promontory, we found ourselves in a kind of secondary circular lake, about eight miles in circumference, at the bottom of which is Lovere. This little town is known in English literature as having been long the residence of Lady Mary Montagu, who gives a very glowing description of it in her correspondence; it is prettily situated and clean, but not otherwise remarkable. We were shown to an inn, the "Canone d'Oro," evidently the country palace of some Milanese nobleman in former days. There was a large interior courtyard, with peristyle and arcades,

and grand frescoes on the walls representing all sorts of people and things. The rooms were vast in size, ornamented with half-effaced carvings and gilding, and the beds were "such beds!" what they call in northern Italy "letti matrimoniali." We might call them family beds, for they are at least twelve feet wide, and are certainly large enough for an entire family, father, mother, and children. They are only met with now in very old inns, in out-of-the-way places such as Lovere.

In my youth I was an enthusiastic fisherman, and a little of the old feeling still remains, so in leaving for the Italian lakes I had put a couple of rods in my portmanteau, intending to depopulate their waters. I had repeatedly tried my hand since our arrival at Iseo, but all my Scotch lore appeared lost on its finny inhabitants, I could not get a rise or a bite. It will, therefore, be easily imagined that I was much gratified to find that there was at our hostel an English gentleman who had been residing there for nearly two years, solely for fishing and shooting. I at once sent in my card, asking for an interview; this was granted, and an invitation to go out fishing the next morning at six was eagerly accepted. I was punctual to the appointment, and we spent several hours together.

My new acquaintance was fishing for a very large kind of bull trout, from ten to twenty pounds in weight, which inhabits the deep waters of the Italian lakes, and gave me much interesting information respecting it and fishing in general.

These monster trout have been known to exist from time immemorial by the local fishermen, but were considered to be all but inattackable until, a few years ago, an English gentleman taught the fishermen of Lake Garda how to catch them. In summer, when they are spawning,

they are occasionally seen in shallow waters, but they then refuse to take any kind of bait, and in winter, when they are disposed to feed, they live in the deepest waters of these lakes, which are from one to two thousand feet deep. The depth of Lake Iseo is nine hundred, that of Garda one thousand nine hundred feet.

My Lovere acquaintance was fishing in the following manner:—The boat, a flat-bottomed one, was rowed by two men; the line, of stout whipcord, was about three hundred yards in length. Four hundred feet were leaded at every ten feet, the terminal lead being heavier than the rest; a few feet from the bottom was a side line, about twenty feet long, and similar side lines were attached at the first, second, and third hundred feet. These were baited with a small fish like a herring, abundant in the Lombard lakes, and called the fresh-water herring. The entire line was cautiously thrown into the lake, until about five hundred feet were immersed, so that the first bait was two hundred feet below the surface, the second three, the third four, and the fourth five hundred feet. The line itself was wound on a large winch or reel, fastened to a small framework, about two feet above the side of the boat. Once the line thrown over, the boatmen rowed us gently about.

This time, also, our efforts, although directed by a skilled hand, proved ineffectual; but I did not regret the early rising, for the morning air was pure and fresh, and the lake was quite calm, as smooth as glass, and inexpressibly lovely, with its frame of grand Alpine mountains. There were other boats out on the same errand as ourselves, gently skimming the surface of the lake. My compagnon told me that if a boat, manned like ours, caught two, three, or four fish in a week's fishing, it

was considered very good sport, and paid the fishermen. The large trout are much sought after in the great cities —Milan, Bergamo, Brescia—for ceremonial dinners, and sell at the rate of two or three francs a pound, the price paid to the fisherman being at least one franc. Thus, three fish, on an average, in the week, weighing from thirty to forty pounds, would make fifteen or twenty francs each for the fishermen, more than they could get in winter by agricultural labour. My companion had been fishing all winter, and had marked on a gaff, as a tally, a notch for each victim; I counted forty-seven. When he did not fish he used to shoot wild fowl at the mouth and on the banks of the neighbouring river. He was the only Englishman within thirty miles round, and his solitary sporting existence was a source of great surprise to the Italian population; he was another type of the roving Englishman.

In winter this deep fishing can be carried on all day, but in the fine, sunny weather of early spring and summer the only time when there is a chance is the first and last few hours of daylight. It is the same with us, there is nothing whatever to be done in the fishing line on a fine, warm, sunny, cloudless summer day. This fact alone renders it quite useless for invalids to visit the Italian lakes in spring or summer for fishing; to have any chance whatever of success, they would have to commence operations by four or five o'clock in the morning, and to stay out until dark in the evening, remaining idle all day, from 8 A.M. to 6 P.M. Such a kind of life is only fit for strong, healthy men.

Although there is an amazing quantity of fish in these lakes, the fishermen told me that there was no success to be expected in angling in April and May, as the fish were

spawning. Later in the season fish are to be taken with rod and line, but even then only between four and seven in the morning and six and eight in the evening; in winter all the large fish take to the deep waters.

For want of legitimate sport, when on Lake Como, we were reduced to a well-known poaching manœuvre. I attached sixty flies to a line one hundred and twenty feet long, and carried it along the surface of the water between two boats. In this way we managed to catch a certain number of fish, averaging from half a pound to a pound and a half in weight, a kind of chub. They rose tolerably well, and I was told that a month later they would take the fly still more eagerly. Although it may be difficult in summer to catch fish by angling in the Italian lakes, owing to the intensity of the light and to the glare of the sun, it is certain that they must be teeming with the finny tribe, from the numerous fishing villages, fishermen, fishing-boats, and fishing-nets that are seen on the shores.

Lake fishing is pursued under much more favourable conditions in Scotland. The cloudy sky and occasional showers which are the rule in "ultima Thule," even in midsummer, are propitious to piscatorial enterprise. Moreover, fishing can generally be undertaken and carried on in the daytime, between breakfast and dinner, without fear of the fish being driven to the bottom of the lochs by the glare of the sun. The plan I generally adopt in Scotland is to breakfast at half-past eight and to start at nine. I hire a good-sized boat, rowed by two men, who prepare the tackle whilst I am at breakfast, so that I can begin fishing without loss of time on starting. The boat is rowed gently, at the rate of about two miles an hour, and at about a quarter of a mile's distance from the shore, usually the best fishing ground. I troll with three rods,

one with a spoon and heavy tackle at the stern of the boat in deep water for large fish, the other two rods at right angles to the boat, right and left, one with flies on the surface, the other with a fresh or artificial bait a few feet below the surface. The reels are placed so as to be clear of all obstruction, in order that the line may run freely at the slightest touch. All thus prepared, I and my companions arrange ourselves comfortably on cloaks and rugs at the bottom of the boat, and what with conversation, the observation of nature, and books, the time passes pleasantly and rapidly.

If a fish strikes one of the lines the reel gives a "whirr," and by the rapidity with which the line runs out the size of the fish may be pretty well judged. Instantly the book is thrown down, the rod is snatched up, and then begins the tug of war, often ending in the capture of a red and silver speckled denizen of the deep, a fine loch or sea trout, not only lovely to look at, but promising an agreeable addition to the day's dinner or to the next morning's breakfast. In a country where mutton—first-rate mountain mutton it must be allowed—is the all but invariable fare, for there is little else to be obtained in out-of-the-way places in Scotland, such an addition is often most acceptable. In some of the larger Scotch lakes, such as Loch Awe, there is a large trout, called the bull trout, or Salmo ferox, very similar to the large trout of the Italian lakes. When caught by the spoon, the bait it takes most readily, it affords splendid sport, running out a hundred yards of line at the first start, and taking one or two hours to kill.

At one, the boat is stopped for lunch at some pretty islet, or on some picturesque point of the shore; by that time about eight miles of the shore have been leisurely

passed. Half an hour or an hour are spent, lying on the sweet heather, eating and chatting, or exploring the rocks and woodland; these wild spots on the Scotch lochs, far away from the haunts of man, are most fascinating in July and August. The grass is enamelled with flowers, ferns grow out of every stony crevice, and thick green velvety moss clothes the north side of the trunks of trees, covers stones near the beach, at the foot of the mountains, and on rocky mountains' sides, wherever water is trickling down. At the margin of the lake, in low places, are hosts of bog plants, and amongst them the pretty grass of Parnassus, with its delicate cream-coloured flowers; here they can be gathered and examined without fear of "malaria." The boatmen sit a little apart, eat their oatcakes and drink the mountain dew dealt out to them—a never-to-be-omitted ceremony on these occasions. Thus refreshed and renovated, the boat is regained, and if the loch is a narrow one, like Loch Awe, it is crossed, the rods and tackle carefully visited, the flies or bait changed if necessary, and the progress homewards commenced in the same way as in the morning.

If the fish "rise," the three rods give plenty of occupation, and there is very little time for reading, or even for conversation, beyond the expression of fear, hope, anxiety, delight, vexation or pleasure, according as the finny prize is secured or lost. If not, the boat glides smoothly on, sufficiently near the shore for every tree, every shrub, every heron standing quietly in the water watching for its prey, to be distinctly seen. The outline of the mountains, purple with heather in full blossom, the mists that gather along their sides, the clouds that form, break, and re-form in the sky—all are the objects of attention, often the subject of remark. Occasionally a "Scotch mist"

descends and breaks overhead as a brisk shower. For this we are quite prepared, and huddle together under cloaks and umbrellas, half-vexed, half-pleased, for the fish rise better after rain. The shower over, we emerge from under cover, like birds from under the foliage of an oak tree, and the wraps are dried in the sun, which generally shines forth after the rain. If a good-sized fish takes the bait whilst it is raining fast, there is a regular commotion. It will not do to lose him, and yet the necessary operations can only be carried on by despising all shelter and disturbing the snugness of the bad-weather arrangements, at which the ladies all but invariably complain.

Things do not always go on smoothly; little accidents and adventures occur, perhaps rather disagreeable at the time, but a source of merriment afterwards. A storm and adverse wind may rise when the boat is miles from home; the waves may run so high, and the wind be so strong, even on these highland lochs, that the vigorous rowers prove all but powerless to urge on the boat. We have then to land, fortunate if we can find a road, a farm house, and a cart with some straw at the bottom, in which to make our way home. Sometimes there is no regular road, no house, and the margin of the lake has to be skirted as best possible. On one occasion, on landing for the midday rest, I fell right into the loch up to the waist, but fortunately there were some charcoal-burners near, with a rude tent. I had to ensconce myself therein, amidst the laughter of my companions, whilst my clothes were dried, receiving no commiseration from any one. Only three or four can manage comfortably in one boat, but two or three boats can join, start at ten minutes' distance, meeting at the same place for the midday rest.

After a day thus passed on the waters it is very seldom

that a good appetite is not brought back, and that a good night's rest is not subsequently obtained. There has been no fatigue, no excitement, and yet the entire day has been passed in the open air, in communion with an ever-beautiful nature. My taste for fishing first led me to try this life when I seriously broke down in health, and no plan that I have ever since adopted for the improvement of health has been half so beneficial. To my surprise, neither I nor those with me ever catch cold, although thus living on the water exposed to frequent showers of rain. It was this circumstance that first opened my eyes to the fact that colds are seldom caught when the thermometer is between 55° and 65° Fah., whether it rains or not, as explained in a previous chapter.

There are very few Scotch lochs where a settlement, such as I have described above, may not be made, for there are comfortable little highland inns on all of them. My favourites, however, are Loch Awe in Argyleshire, and Loch Maree in Ross-shire. Both are long and narrow, which renders it possible to fish both sides the same day, and both are in the midst of the most wild and beautiful scenery. In his way, Ben Cruachan, on the north shore of Loch Awe, three thousand feet high, is all but equal to any of the mountains which embosom the Italian lakes; his beauty, however, is of a different kind—it is stern, severe, Ossianic. Rising as he does, at the head of his loch, he is ever before you, sombre and majestic. There are several little shooting and fishing inns on or near Loch Awe—at Dalmally, Cladich, and Port-Sonachan.

Loch Maree is much further north and more difficult to reach, but it is better stored with fish, and especially with sea trout. Loch Awe is by no means as well supplied with trout as it was some years ago, owing entirely to

the casual and unfortunate introduction of pike into the lake. This tyrant, or shark of fresh waters, was unknown until about twenty years ago, when several were thoughtlessly placed into a small pond or tarn far away in the mountains, the overflow of which runs into Loch Awe. The young pike soon found their way down the tributary, took complete possession of the loch, and have greatly damaged the trout and salmon fishery. Pike are fortunately still unknown in Loch Maree. There is a little inn at the lower or southern extremity of this loch, called Kinloch Ewe, which is comfortable, but a mile and-a-half from the head of the loch—rather a drawback. The scenery, too, is even sterner, wilder, and grander than at Loch Awe, always excepting my favourite Ben Cruachan.

At the head of Loch Awe there are a number of very picturesque islets, celebrated in the highland traditions. On one of these islands called Inishail, or the Beautiful Isle, are still seen the ruins of a nunnery of the Cistercian order. Even in these wild northern regions the monks and nuns of old seem to have shown their usual love of the beautiful in nature. I have often thought, when looking on the ivy-clad ruins of their former abodes, that in the barbarous, savage days over which we so love to cast a species of false romance or glamour, sensitive poetical natures must have often been positively driven to the cloister to escape contact with the rude beings who surrounded them. Certainly, the monks of old have shown that thorough appreciation of the beauties of nature which in our own times is specially the attribute of intellectual, refined, cultivated minds.

Another of these islands was the burial-place of one of the neighbouring highland clans. An English artist recently lived for nearly two years on one of the largest,

in a kind of log cabin or moveable house, which he brought with him. He wished to study nature in her various moods, angry and smiling, to analyse wind, cloud, and storm, sunshine and zephyr, with a view to improvement in his art. He has written a pleasing book of poems on the isles of Loch Awe, and also a very interesting work descriptive of the loch, and of his studies thereat, entitled "A Painter's Camp in the Highlands."

The mention of my favourite pastime has carried me far away from sunny Italy and from its smiling lakes, into the wild and sombre country of Ossian; I must return to beautiful Iseo. After breakfast we started from Lovere for home, but were soon deservedly punished for despising local knowledge. Our boatmen told us the night before that we ought to start at seven o'clock in the morning in order to reach Iseo before the "aura" arose. The *aura*, or slight breeze, is a wind that commences daily in summer about eleven or twelve, in the south of the lake, and blows upwards to the north, that is, from the plains towards the mountains; it is the representative of the daily sea breeze on the coast. The mountains being warmed by the sun's rays heat the air in contact with them; it rises to higher atmospheric regions, a vacuum is formed, and cooler air rushes in from the plains of Lombardy to supply its place. The warmer the weather the more decided the aura or south breeze; at night, on the contrary, there is a down-draught from the mountains. These winds render the navigation of the lakes easy; the boats and barges descend from north to south at night with the north land or mountain breeze, and ascend in the daytime with the aura or south breeze.

We thought that by taking an extra rower we should meet the emergency of the case, but we were mistaken. We proceeded merrily, with all but a calm for the first

hour, until about eleven o'clock, but then, on rounding the promontory, we saw a mile ahead of us a swell rapidly advancing; it was the aura. It soon reached us, progress became laborious, and some of our party soon began to feel uneasy. We therefore landed at a populous village, —there are such villages every few miles along the shore,— obtained a local conveyance, and left the boat to its fate.

A week passed rapidly at our pretty lake-side abode, most of the day being spent on the water, with benefit to mind and body, and then we departed—not without regret—for Bellaggio, on Lake Como. Bellaggio is easily reached by rail to Lecco on one arm of the lake, and by steamer or private carriage from thence. This pretty village thoroughly deserves its Italian name, "beautiful residence." It is situated on a promontory that juts out into the middle of the lake, where the three arms or divisions meet, commands them all, and, in my opinion, is by far the most enjoyable position on Lake Como. There are several good hotels, and the one at which we stayed, the Hôtel d'Angleterre, is a most comfortable and agreeable residence. The terraced garden in front descends down to the lake, and the views are truly splendid in every direction, mountain and sky blending everywhere in glorious harmony, with all the southern characteristics described when speaking of Iseo.

Life at Lake Como is essentially "Lacustrine," if I may venture on so scientific a term, by which is meant that it is spent on the water, as at Venice. All excursions are made, all the palaces and gardens are reached by water; so that the gondola or boat becomes, as it were, a part of one's existence. For my own part, not only did I join my friends in all their promenades and excursions, but when at home, in early morn and until late at eve, I

made it—the lake—my abode. In leisure moments, and all were leisure in these happy days, instead of lying on a cloak on the grass, musing, reading, or looking at the clouds, as at Mentone, I used to take a little skiff, with a pretty fringed, red and blue striped awning, and with or without a companion, I rowed into the lake, a mile or two from the shore. Then I laid down the oars, and, alone in the little world of waters, lying at the bottom of the boat, surrounded by all that is most lovely in nature, fanned by the real zephyr of the old Roman poets, I mused or read until social obligations obliged me to take up the oars and to return to the real but "flowery" life at the hotel.

There are various palaces to see on the shores of the lake, which are principally of value as giving a motive for excursions. Pliny's villa would be very interesting if it could be shown, but although he had several on the shores of the Larian lake, "Hujus in littore plures villæ meæ," Epist. ix., the memory even of their site has not survived.

The gardens of these palaces are much more interesting than the palaces, in my opinion, for they are full of very beautiful flowers, which give positive evidence of a mild climate, of mild winters and of early springs. The principal feature in them was, April 20th, the luxuriance and great size of the camellias, azaleas, and magnolias. The camellias were growing in the open ground as bushes or small trees, from twenty to thirty feet high, covered with tens of thousands of white and yellow flowers; the magnolias were quite forest trees, like middle-sized oaks, and were white with huge blossoms. All our early summer flowers were in bloom and growing luxuriantly. There were lemon trees planted, espalier fashion, in the open, but then they are covered up with mats all winter, and

these mats had only been recently taken off, so that they looked very meagre and straggling.

The recollection of our residence at Bellaggio, although so enjoyable in every respect, was saddened by an event which painfully reproduced my former Naples experience. In the same hotel were an American gentleman and three young daughters. They came from Como on the same steamer as ourselves, one day that we had been there for an excursion, and I noticed on board that one of the young ladies appeared to have a bad headache, and to be so ill as not to be able to enjoy the scenery. The next day I was consulted by her father, and found to my deep regret that she presented all the symptoms of severe typhoid fever in its early stage. The family had spent part of the winter at Naples, and had only left it a few days previously. I did what I could for my young patient, a charming girl of nineteen, whilst I remained, and placed her in the best medical hands I could find when I left. She was very ill, but I thought her youth, medical treatment, and the pure air in which she was, would triumph over the disease. It was not to be, however, her young days were numbered, and I subsequently heard that after our departure she got rapidly worse, and died in a few days. The poor girl was fatally poisoned by the deadly emanations of fair Naples, and only left it to droop and die. Most truly might it be said in her case, and in similar ones, "vedere Napoli, e poi morire."

From Como we went to Lugano, staying there a couple of days. The impressions of former visits were revived, and they are not very favourable to Lugano; it has always struck me that this lake and its town have a cold, sombre, northern look. There is not about it the smiling grace or southern sunniness of Como, Maggiore, Iseo.

From thence we took a carriage to Lake Como, and the steamer across to Baveno, where we again settled down. Lake Maggiore has all the charm of Como, but it is on a larger, vaster, wider scale, and the mountains that surround its southern shores are lower, less Alpine. The Borromeo islands, situated about a mile from the beach, near our abode, are interesting and picturesque, but do not certainly deserve their great reputation. The palace is second-rate, and the gardens are stiff and formal.

From Baveno we made an excursion to Lake Orta, a lovely little lake embosomed in the mountains, rather like the upper extremity of Lake Iseo, with a pretty town, opposite a picturesque house and garden-covered islet, at the southern end of the lake. We made also various excursions in the vicinity, with great joy and delight. Nature was everywhere glowing with extreme luxuriance, all the trees were in full foliage, the meadows were up to the knees in grass, and the early summer flowers were strewn over the fields in wild profusion. Indeed, the earth was enamelled with flowers, and the rocks were fringed with ferns. Groves of the osmunda regalis were growing on the roadside, and we were constantly stopping the carriage in childish delight, to climb up the high banks to gain new floral treasures.

But all delights must have a term, and the day at last arrived when we had also to say adieu to Lake Maggiore, and to prepare for the great undertaking, the passage over the Alps by the Simplon.

We had engaged a commodious vetturino carriage, with four horses, and started on one morning, the 4th of May, for Iselle, a village inn four hours from the summit, on the south or Italian side. The weather was beautiful when we left Baveno, and continued fine until

we reached Iselle, where we found a good dinner and comfortable beds. The road from Baveno is very picturesque all the way, and the little inn of Iselle is placed in a most romantic situation, on one side of an Alpine cleft or valley, between stupendous mountains, with a brawling river in front, on the other side of the road, hurrying its foaming waters over large rocks and boulders, and frantically jumping over every obstacle and impediment; we went to sleep that night to its lullaby.

The next morning we were up and off betimes. It was raining, and from the moment of our departure the weather got worse and worse; in an hour we reached the snow, and the rain changed to sleet. Then came cloud or mist, which only at times allowed us to catch a glimpse of the majestic scenes we were passing through, of the boisterous torrents, the riven rocks, the bleak snow-covered mountains, the fir trees, some laden with snow, bending under their burden, others dead, showing merely bare blasted trunks adhering to the mountain side. When we reached the summit, near the hospital, at midday, we were out of the rain, sleet, snow and fog, and the sky was clear and blue; but we were in Siberia, in midwinter. The ground was hidden in a winding-sheet of snow, and the road had been cut through it to a depth of many feet; in some places the wall of snow on each side reached much above the carriage. On descending, on the north side, we passed through numerous arcades or galleries, built to protect travellers from avalanches. Here we found sheets of ice underneath, above, on every side, gigantic, ridiculous icicles, ten or fifteen feet long, and as thick as the trunk of a good-sized tree; we were indeed in the kingdom of frost. I was delighted with all I saw, for during the winters passed in sunny Mentone, I had all

but forgotten the look of snow and ice; but it was bitterly cold, although we were in the inside of a commodious carriage, well wrapped up in cloaks. Two or three hours' descent, however, brought us out of winterly weather, and we then found the sun shining nearly as brightly, and the weather nearly as fine as on the south side of the Alps. By six o'clock we were comfortably settled at Brigg, in the valley of the Rhone, and our excursion to the Italian lakes was over.

The three weeks so delightfully passed on Lakes Iseo, Como, and Maggiore cleared up all previous doubts as to the spring climate of this part of Italy. Unless the weather whilst I was there was altogether exceptional, and I was told that it was not, invalids may safely make it their residence from the middle of April until the end of May or June, passing from one lake to the other as we did. Lake Garda, which I did not visit on this occasion, the largest of all, is placed in the same geographical conditions, and is equally sheltered and sun-favoured, especially the upper or northern extremity, which is more immediately protected by the high Alps; its shores are equally lovely.

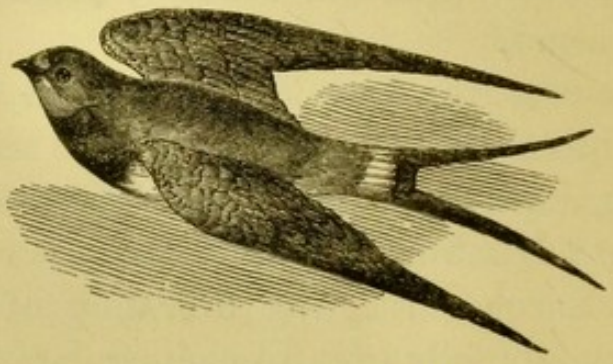
During our four weeks' tour we had rain only once, at Iseo. Then it was heavy, and lasted twenty-four hours, with a southerly wind, but the thermometer, previously always about 64° indoors, only went down to 60°. I was told that very often there is a great deal of rain in April, but that it is never cold rain. I presume it usually comes with south winds, as was the case when we were there, and if so it can do no harm, even to those suffering from chest affections. It is well that travellers who intend spending a few weeks on these lakes in the spring should previously know that in some years rain thus falls, in April and the

early part of May, frequently and continuously. They must, therefore, make up their minds to run the risk. If it does not rain at this time of the year, the weather is really heavenly. The air is pure, fresh, cool, clear, soft, the sky is blue, with fleecy clouds sailing over it, or lying in white masses on the high Alps, and the sun shines brightly but not too fiercely, whilst the higher mountains are still covered with snow, the emblem of departing winter, snow so brilliantly white that it fatigues the eye to look on it for any length of time. In such an atmosphere, among such beautiful scenery, mere existence is an intense pleasure.

The passage over the Simplon at the end of the first week in May in an exceptionally favourable season has, at the same time, entirely dispelled any doubts I may have had as to the advisability of chest sufferers returning to the north of Europe in spring over any of the Alpine passes; it is simply folly even to contemplate it. To pass through such a scene of wintry desolation as I have faintly traced, to remain from six to eight hours in cold rain, sleet, fog, mist, snow, and ice, is an unpardonable imprudence for such persons; it is risking all the benefit gained by the sacrifices and care of the previous six months. Bronchitis, pleurisy, pneumonia, a break up of diseased lung tissue, and a renewal of arrested disease, may be the result. Chest invalids who visit the Italian lakes must either remain there until the middle of June, until the summer has cleared the high mountains from snow, and until fine clear Alpine weather has set in, or they must return to Genoa and Nice, either taking the steamer from Genoa or the Marseilles and Lyons railway from Nice.

The next day we left Brigg, descended the valley of the

Rhone, skirted the Lake of Geneva, and reached the town of that name. Geneva, like Paris and Marseilles, is being all but rebuilt, transformed. We found that spring had also commenced along the verdant shores of the lake, but not the spring we had left on the Italian side of the Alps. It was evidently still rather too early a period of the year, May 6th, to be quite safe as a residence for chest invalids who have spent the winter in the south.



HOMEWARD BOUND.

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METEOROLOGICAL TABLES

OF THE WEATHER AT MENTONE DURING EIGHT MONTHS,

From October 1, 1864, *to June* 1, 1865.

The various Columns represent :—

The Date of the Month	DATE.
The Night Minimum, Fah.	MIN.
The Day Maximum	MAX.
The Daily Difference between the Wet and Dry Bulb Thermometer	D.
The Direction of the Wind	WIND.
The State of the Barometer	BAR.
The State of the Sea	SEA.
The Amount of Sunshine and Cloud, and State of the Weather (the Maximum of Clouds, Sky entirely overcast, is represented by the figure 10) . . .	REMARKS.
The Rainfall	R.

The Observations were made daily at 8·30.
The Table for October was contributed by Mr. Freeman.

TABLE I.

OCTOBER, 1864.

DATE.	MIN.	MAX.	DIF.	OZ.	WIND.	BAR.	SEA.
1	63	73	8	9	S.E.	29·73	
2	61	73	7	6	S.E.	29·83	
3	64	70	5	6	W.	29·82	
4	51	66	9	5	E.	29·85	
5	51	66	8	8	E.	29·85	
6	54	69	9	6	E.	29·85	
7	52	68	8	7	W.	29·93	
8	53	68	10	6	N.	29·97	
9	55	68	9	6	W.	29·89	
10	55	70	8	7	W.	29·79	
11	55	68	7	7	W.	29·87	
12	56	67	8	6	E.	29·87	
13	53	68	8	7	W.	29·88	
14	55	69	6	8	N.W.	29·78	
15	56	68	5	9	W.	29·73	
16	57	69	8	7	W.	29·87	
17	56	69	8	7	N.W.	29·96	
18	58	68	4	9	S.W.	29·97	
19	56	59	0	9	S.W.	29·90	
20	56	63	0	9	S.W.	29·71	
21	55	63	0	10	S.W.	29·56	
22	57	63	2	10	S.W.	29·65	
23	57	68	4	10	S.W.	29·50	
24	55	68	0		W.	29·46	
25	56	63	2	10	E.	29·61	
26	58	71	4	8	S.E.	29·37	
27	55	67	5	10	W.	29·55	
28	56	62	1	10	S.E.	29·48	
29	54	65	3	9	S.W.	29·39	
30	54	67	4	5	W.	29·53	
31	55	66	4	8	W.	29·85	
Media.	55·9	67·3	5·3	7·5		29·738	

TABLE I.

OCTOBER, 1864.

DATE.	REMARKS.	RAIN.
1	Sunshine—strong scirocco all day.	
2	Brill. sunshine.	
3	Sunshine—strong east wind in day.	
4	Sunshine—strong east wind at midday—rain from 3 P.M.	Rain 0·25.
5	Strong east wind.	
6	Strong east wind.	
7	Brill. sunshine.	
8	Brill. sunshine.	
9	Brill. sunshine.	
10	Clouds and sunshine.	
11	Clouds and sunshine—overcast and calm.	
12	Sunshine.	
13	Clouds and sunshine.	
14	Brill. sunshine till 3 P.M.—clouds and showers.	Rain 0·2.
15	Sunshine with few clouds.	
16	Sunshine and clouds.	
17	Sunshine—strong N.W. wind in day.	
18	Sunshine—overcast, and some rain at midday.	Rain.
19	Sunshine—rain all day—thunder and lightning in afternoon—calm.	Rain 0·23.
20	Sunshine—continuous rain—very heavy at night.	Rain 2·72.
21	Rain and sunshine.	Rain 1·59.
22	Sunshine—rain.	Rain 0·26.
23	Brill. sunshine.	
24	Clouds—rain at 9 A.M.	Rain 2·44.
25	Clouds—rain—continuous in evening.	Rain 0·27.
26	Clouds—squall of rain and wind—lightning in evening, and squally.	Rain 1·27.
27	Sunshine—lightning in evening.	Rain 0·75.
28	Clouds—rain all day.	Rain 0·52.
29	Sunshine.	
30	Sunshine all day.	
31	Sunshine and clouds.	
	Twelve rainy days (Freeman).	14·09

TABLE I.—*continued.*

NOVEMBER, 1864.

DATE.	MIN.	MAX.	DIF.	OZ.	WIND.	BAR.	SEA.
1	49	67	3	4	S.W.	30·03	Rough.
2	53	66	3	4	S.W.	29·99	Very rough
3	55	62	2	2	S.W.	29·88	Rough.
4	52	67	5	2	S.E.	29·96	Rough.
5	55	68	3	2	S.W.	30·	Rough.
6	55	68	5	2	N.E.	29·60	Very rough.
7	45	62	7	3	N.E.	29·70	Rough.
8	49	66	6	2	S.E.	29·75	Rough.
9	47	64	7	5	S.E.	29·70	Slight swell.
10	50	65	8	4	N.W.	29·76	Calm.
11	47	57	5	5	S.E.	29·74	Swell.
12	48	57	6	5	N.W.	29·78	Slight swell.
13	48	58	8	5	N.W.	29·78	Calm.
14	47	63	4	6	S.W.	29·56	Swell.
15	48	60	6	5	S.W.	29·20	Very rough.
16	45	60	8	4	S.W.	29·25	Rough.
17	45	58	10	5	S.W.	29·58	Swell.
18	46	62	5	5	S.W.	29·70	Calm.
19	48	57	5	4	S.E.	29·70	Slight swell.
20	46	60	7	4	N.W.	29·80	Slight swell.
21	47	60	8	5	S.E.	29·70	Slight swell.
22	45	58	8	5	S.W.	29·80	Calm.
23	46	62	5	4	S.W.	29·80	Calm.
24	50	58	4	5	S.E.	29·70	Swell.
25	47	55	7	4	S.W.	29·50	Heavy swell.
26	46	55	3	4	S.W.	29·30	Swell.
27	48	55	10	5	N.E.	29·45	Slight swell.
28	44	56	10	2	N.E.	29·85	Slight swell.
29	45	59	7	3	N.E.	29·90	Calm.
30	45	59	8	3	N.W.	29·95	Slight swell.
Media.	48	60·8	6·1	3·9		29·71	

TABLE I.—*continued.*

NOVEMBER, 1864.

DATE.	REMARKS.	RAIN.
1	Sunshine—clouds—fine.	
2	Clouds—sunshine—heavy rain at night.	Rain.
3	Clouds—torrents of rain.	Rain.
4	Brill. sunshine—clouds—fine.	
5	Clouds 8—rain all night—fine day.	Rain.
6	Cloudy—gleams of sunshine, then rain.	Rain.
7	Clouds 8—gleams of sunshine.	Rain.
8	Sunshine—clouds—fine—mild.	
9	Sunshine—clouds 7—fine—mild.	Rain.
10	Sunshine—clouds 6—very fine—mild.	
11	Clouds 9—sunshine horizon—mild—rain at night.	Rain 1·08.
12	Sunshine—clouds 6—very fine—mild.	
13	Brill. sunshine—very fine—warm.	
14	Clouds—overcast—rain all night—mild.	Rain.
15	Brill. sunshine—blue sky—very fine—warm.	
16	Brill. sunshine—blue sky—very fine—warm.	
17	Brill. sunshine—blue sky—very fine—warm.	
18	Sunshine—clouds—fine.	
19	Brill. sunshine—clouds 4—very fine—warm.	
20	Brill. sunshine—clouds 3—very fine—warm.	
21	Brill. sunshine—clouds 1—very fine—warm—rain at night.	
22	Brilliant sunshine—sky quite clear—very fine—warm.	
23	Sunshine—clouds 4—fine—warm.	
24	Clouds 10—rain all night and day.	Rain.
25	Brill. sunshine—clear sky—very fine—warm.	
26	Clouds 10—rain—heavy night—chilly.	Rain 2·42.
27	Brill. sunshine—clear sky—very fine—cool.	
28	Brill. sunshine—clear blue sky—very fine—cool.	
29	Brill. sunshine—clouds 4—very fine.	
30	Brill. sunshine—clouds 1—very fine.	
	Nineteen rainy days (Freeman).	4·33

TABLE I.—*continued.*

DECEMBER, 1864.

DATE.	MIN.	MAX.	DIF.	OZ.	WIND.	BAR.	SEA.
1	43	56	9	3	N.W.	30.	Calm.
2	47	55	6	3	N.E.	29·90	Slight swell.
3	44	56	6	5	N.E.	29·95	Slight swell.
4	44	56	8	5	N.E.	30·1	Slight swell.
5	43	54	6	5	N.W.	30·10	Slight swell.
6	41	52	7	6	E.	30·15	Heavy swell.
7	43	55	7	5	N.W.	30·03	Slight swell.
8	48	59	6	5	E.	29·90	Slight swell.
9	43	52	6	5	N.E.	29·90	Calm.
10	44	56	5	5	S.E.	29·95	Calm.
11	49	60	6	4	S.E.	30·	Slight swell.
12	50	60	4	6	S.E.	29·90	Slight swell.
13	50	58	4	3	S.E.	29·60	Slight swell.
14	47	60	6	6	S.E.	29·55	Slight swell.
15	50	59	4	8	S.E.	29·35	V. heavy surf.
16	46	58	4	4	S.W.	29·40	Heavy swell.
17	45	58	5	4	S.W.	29·60	Slight swell.
18	46	60	5	4	S.W.	29·70	Slight swell
19	45	58	4	6	S.W.	29·75	Slight swell.
20	46	55	4	3	N.W.	30·	Calm.
21	43	58	5	5	N.W.	29·80	Calm.
22	43	50	5	5	N.W.	29·65	Calm.
23	40	52	7	5	N.W.	29·67	Slight swell.
24	39	47	8	5	N.E.	29·90	Slight swell.
25	37	52	8	4	N.E.	29·94	Heavy swell.
26	39	56	8	6	S.E.	29·82	Heavy swell.
27	47	57	7	7	E.	29·68	Slight swell.
28	47	59	8	7	E.	29·70	Slight swell.
29	41	62	8	4	S.E.	29·83	Slight swell.
30	42	58	8	2	N.E.	29·90	Slight swell.
31	38	54	6	4	N.W.	29·75	Calm.
Media.	44·1	56·1	6·1	4·8		29·60	

TABLE I.—*continued.*

DECEMBER, 1864.

DATE.	REMARKS.	RAIN.
1	Brill. sunshine—clear blue sky—very fine—warm—a wind.	
2	Sunshine—clouds 8—fine—cool—heavy sea forenoon.	
3	Brill. sunshine—clouds 2—very fine—cool.	
4	Brill. sunshine—blue sky—very fine—warm in sun.	
5	Brill. sunshine—clear blue sky—very fine.	
6	Brill. sunshine—clear blue sky—very fine—gale at sea.	
7	Clouds 9—sun 1—overcast, but fine.	
8	Brill. sunshine—clouds 2—fine—warm.	
9	Brill. sunshine—clear blue sky—very fine—warm.	
10	Clouds 9—sun 1—horizon overcast—rain drops.	Rain.
11	Clouds 8—sun 2—overcast.	
12	Clouds 10—overcast—mild—rain drops.	Rain.
13	Clouds 10—overcast—rain torrents all night.	Rain 2·96
14	Clouds 9—overcast—mild—sun 1.	Rain.
15	Clouds 10—overcast—mild torrents—rain night.	Rain.
16	Brill. sunshine—clouds—very fine.	
17	Sunshine 3—clouds 7—fine.	
18	Clouds 10—overcast—rain torrents all night.	Rain 1·50
19	Clouds 10—overcast—rain.	Rain.
20	Sunshine—sky rather clouded—fine.	
21	Brill. sunshine—clouds 4—very fine—cool.	
22	Clouds 9—sun horizon—overcast—cool.	
23	Brill. sunshine—very fine—cool.	
24	Brill. sunshine—very fine—cool.	
25	Brill.—sunshine—very fine—cool.	
26	Clouds 8—sun 2—overcast—cool.	
27	Clouds 10—overcast.	Rain.
28	Clouds 7—sun and blue 3—fine.	
29	Sunshine—clouds 3—very fine—warm.	
30	Brill. sunshine—blue sky—very fine—warm—Seine frozen at Rouen—three feet snow in south of France.	
31	Sun—clouds 6—fine—cool.	
	Twelve rainy days (Freeman).	Rain 8·23

TABLE I.—*continued.*

JANUARY, 1865.

DATE.	MIN.	MAX.	DIF	OZ.	WIND.	BAR.	SEA.
1	44	55	6	4	N.W.	29·58	Slight swell.
2	41	50	6	5	N.W.	29·60	Slight swell.
3	44	51	6	3	N.E.	29·50	Slight swell.
4	41	50	7	5	N.E.	29·75	Calm.
5	42	54	7	2	N.W.	29·95	Calm.
6	43	55	5	4	N.E.	29·95	Calm.
7	42	58	8	5	N.W.	29·85	Slight swell.
8	41	53	7	3	N.W.	30·95	Slight swell.
9	42	57	8	5	N.W.	29·95	Slight swell.
10	46	60	6	3	N.W.	29·88	Slight swell.
11	46	60	7	5	S.E.	29·95	Calm.
12	48	58	5	4	S.E.	29·85	Slight swell.
13	46	58	4	4	S.E.	29·65	Slight swell.
14	44	59	6	4	N.W.	29·45	Slight swell.
15	42	52	10	4	N.W.	29·40	Swell.
16	41	52	9	3	N.W.	29·20	Swell.
17	38	53	8	5	N.W.	29·3	Swell.
18	38	48	8	6	N.W.	29·16	Slight swell.
19	36	48	9	2	N.W.	29·45	Slight swell.
20	36	51	9	5	N.W.	29·60	Slight swell.
21	41	54	4	5	S.E.	29·55	Slight swell.
22	48	57	5	6	N.W.	29·50	Slight swell.
23	45	56	10	6	N.E.	29·50	Slight swell.
24	47	54	8	4	N.E.	29·65	Swell.
25	44	59	6	5	N.E.	29·60	Slight swell.
26	48	61	3	4	S.E.	29·55	Slight swell.
27	51	61	5	4	S.E.	29 40	Heavy swell.
28	48	58	6	4	S.E.	29·25	Heavy swell.
29	43	58	10	5	N.E.	29·60	Swell.
30	38	55	10	5	N.E.	29·60	Slight swell.
31	38	50	8	5	N.E.	29·40	Calm.
Media.	43	55	6	4·3		29·62	

TABLE I. — *continued.*

JANUARY, 1865.

DATE.	REMARKS.	RAIN.
1	Clouds—overcast—sun horizon—cool.	
2	Brill. sunshine—blue sky—very fine.	
3	Clouds 8—sun horizon only.	Rain.
4	Brill. sunshine—blue sky—very fine.	
5	Clouds 7—sun 3—fine.	
6	Clouds 6—blue sky 4—fine.	
7	Brill. sunshine—blue sky—very fine.	
8	Brill. sunshine—blue sky—very fine.	
9	Brill. sunshine—blue sky—very fine.	
10	Brill. sunshine—blue sky—very fine.	
11	Clouds 8—sunshine horizon only—mild.	Rain.
12	Clouds 10—overcast—mild—rain.	Rain.
13	Brill. sunshine—clouds 5—mild.	Rain.
14	Sunshine—clouds 2—mild—gale at night.	
15	Brill. sunshine—blue sky—very fine.	
16	Brill. sunshine—blue sky—very fine.	
17	Brill. sunshine—blue sky—very fine—cool.	
18	Brill. sunshine—blue sky—very fine.	
19	Brill. sunshine—blue sky—very fine—cool.	
20	Brill. sunshine—blue sky—very fine—cool.	
21	Clouds 10—overcast.	Rain.
22	Brill. sunshine—clouds thick, driving away before N.W. winds—black on horizon.	
23	Brill. sunshine—blue sky—very fine.	
24	Brill. sunshine—blue sky—very fine.	
25	Brill. sunshine—blue sky—very fine.	
26	Overcast south—blue sky north—warm.	
27	Overcast, lightly—blue sky—warm.	
28	Brill. sunshine—blue sky—very fine—warm—(has been storm southward).	
29	Brill. sunshine—blue sky—very fine.	
30	Sunshine—very fine—slightly overcast.	
31	Brill. sunshine—blue sky—very fine.	
	Nine rainy days (Freeman).	2·01

TABLE I.—*continued.*

FEBRUARY, 1865.

DATE.	MIN.	MAX.	DIF.	OZ.	WIND.	BAR.	SEA.
1	42	53	4	5	N.W.	29·20	Slight swell.
2	42	58	9	7	N.W.	29·45	Swell.
3	46	54	6	6	N.W.	29·35	Heavy swell.
4	45	54	8	7	E.	29·35	Heavy swell.
5	43	59	8	5	E.	29·55	Swell.
6	45	60	8	7	E.	29·55	Swell.
7	42	53	8	4	N.E.	29·72	Slight swell.
8	40	52	10	5	N.E.	29·85	Calm.
9	42	58	9	5	S.E.	29·50	Slight swell.
10	35	51	12	6	N.E.	29·54	Slight swell.
11	43	49	10	2	N.E.	29·54	Slight swell.
12	34	52	10	5	N.E.	29·68	Slight swell.
13	36	55	6	6	N.E.	29·86	Swell.
14	34	47	10	7	N.E.	29·95	Slight swell.
15	40	53	6	5	N.W.	29·90	Slight swell.
16	38	55	5	6	N.W.	29·80	Calm.
17	43	57	5	6	S.W.	29·62	Heavy swell.
18	39	54	11	7	N.W.	29·80	Slight swell.
19	41	53	8	3	N.W.	29·90	Slight swell.
20	44	60	8	5	N.W.	29·65	Slight swell.
21	35	46	12	7	N.E.	29·85	Calm.
22	33	48	11	2	N.E.	29·95	Slight swell.
23	38	52	8	7	N.W.	30·05	Heavy swell.
24	38	54	10	6	N.W.	30·10	Calm.
25	44	54	7	5	N.W.	29·75	Heavy swell.
26	39	52	8	7	N.E.	30·	Slight swell.
27	40	58	9	5	N.E.	30·	Calm.
28	42	61	7	5	N.W.	29·90	Slight swell.
Media.	40·1	54	8·1	5·4		29·72	

TABLE I.—*continued.*

FEBRUARY, 1865.

DATE.	REMARKS.	RAIN.
1	Overcast—gloomy—cool.	
2	Brill. sunshine—blue sky—very fine.	
3	Sunshine—slightly overcast—fine.	
4	Brill. sunshine—blue sky—very fine.	
5	Sunshine—slightly overcast—gusts of east wind.	
6	Sunshine—slightly overcast—fine.	
7	Brill. sunshine—blue sky—very fine.	
8	Brill. sunshine—blue sky—very fine.	
9	Brill. sunshine—blue sky—very fine—few flakes of snow.	Rain.
10	Brill. sunshine—blue sky—very fine—cool.	
11	Brill. sunshine—blue sky—fine—dust—cold wind.	
12	Sunshine—slightly overcast—very cold.	
13	Sunshine—clouds 4—blue sky—cold.	
14	Brill. sunshine—blue sky—very fine.	
15	Overcast—clouds 10—cold.	
16	Sunshine 2—clouds 8—overcast—cool—fine.	
17	Overcast—heavy rain all night—collision of winds at sea.	Rain $2\frac{1}{4}$.
18	Brill. sunshine—blue sky—very fine.	
19	Brill. sunshine—blue sky.	
20	Slightly overcast—fine—pleasant.	
21	Brill. sunshine—blue sky—very fine—cold.	
22	Brill. sunshine—blue sky—very fine—cold.	
23	Brill. sunshine—blue sky—very fine—cold.	
24	Brill. sunshine—blue sky—very fine—cool.	
25	Overcast—clouds 10—cold.	
26	Brill. sunshine—blue sky—very fine.	
27	Brill. sunshine—blue sky—very fine.	
28	Sunshine—blue and white sky—fine.	
	Seven rainy days (Freeman).	2·43

TABLE I.—*continued.*

MARCH, 1865.

DATE.	MIN.	MAX.	DIF.	OZ.	WIND.	BAR.	SEA.
1	43	59	7	3	N.E.	29·65	Slight swell.
2	44	55	10	4	N.E.	29·72	Slight swell.
3	43	57	9	3	N.E.	29·75	Slight swell.
4	42	54	14	2	N.E.	30·	Slight swell.
5	43	60	11	4	N.E.	29·95	Calm.
6	44	58	8	5	S.W.	29·60	Slight swell.
7	39	57	6	7	S.W.	29·53	Swell.
8	40	59	9	5	S.E.	29·22	Slight swell.
9	40	60	7	6	N.E.	29·30	Slight swell.
10	42	57	9	3	N.E.	29·50	Swell.
11	41	58	8	5	N.E.	29·48	Slight swell.
12	40	60	8	7	S.E.	29·36	Slight swell.
13	42	59	10	3	N.E.	29·55	Slight swell.
14	41	60	8	7	S.E.	29·50	Slight swell.
15	43	64	9	7	N.E.	29·60	Swell.
16	44	59	8	4	N.W.	29·50	Slight swell.
17	39	60	9	4	N.W.	29·60	Calm.
18	43	62	10	5		29·78	Slight swell.
19	43	59	6	6	S.E.	29·68	Slight swell.
20	43	60	5	8	S.W.	29·40	Slight swell.
21	44	60	7	8	S.W.	29·90	Swell.
22	43	50	7	9	N.W.	29·50	Heavy swell.
23	43	50	5	6	E.	29·15	Swell.
24	36	53	10	8	N.E.	29·25	Swell.
25	33	52	6	8	N.W.	29·65	Swell.
26	35	54	10	8	N.E.	29·78	Calm.
27	38	56	5	7	S.W.	29·55	Heavy swell.
28	39	52	9	7	N.W.	29·40	Swell.
29	35	52	6	7	S.E.	29·48	Heavy swell.
30	37	54	12	7	N.E.	29·60	Swell.
31	34	65	12	5	N.E.	29·85	Slight swell.
Media.	40·5	57·2	8·3	5.7		29·57	

TABLE I.—*continued.*

MARCH, 1865.

DATE.	REMARKS.	RAIN.
1	Brill. sunshine—blue sky—very fine—mild.	
2	Brill. sunshine—blue sky—very fine—warm.	
3	Brill. sunshine—blue sky—very fine.	
4	Brill. sunshine—blue sky—very fine.	
5	Brill. sunshine—blue sky—very fine.	
6	Overcast—clouds 9—sun 1.	Rain.
7	Overcast—clouds—sun 1—horizon cool.	Rain 1·20.
8	Brill. sunshine—blue sky—very fine.	
9	Overcast—clouds 10—cool.	
10	Brill. sunshine—blue sky—very fine—warm.	
11	Brill. sunshine—blue sky—very fine.	Rain.
12	Overcast—clouds south-east horizon—clear—cold.	
13	Brill. sunshine—blue sky—very fine—warm.	
14	Brill. sunshine—blue sky—very fine—clouds 4.	
15	Overcast—clouds 10—chilly.	
16	Overcast—clouds 10.	
17	Brill. sunshine—blue sky—very fine.	
18	Brill. sunshine—blue sky—very fine.	
19	Overcast—clouds 10—dull.	Rain.
20	Overcast—clouds 10—horizon clearing—cool night.	Rain.
21	Clouds 8—sun 2—fine—heavy.	Rain.
22	Overcast—clouds 10—very heavy.	Rain 2·28.
23	Overcast—clouds 10—heavy snow on mount to olive line—heavy.	Rain.
24	Sunshine—clouds 6 on south-east horizon—cold.	Rain.
25	Brill. sunshine—clouds 6—fine night.	Rain 0·68.
26	Brill. sunshine—blue sky—very fine.	
27	Overcast—clouds 10—night 12 hours' heavy rain.	Rain 1·52.
28	Brill. sunshine—blue sky—very fine—hail.	Rain.
29	Overcast—clouds 10—very cold.	
30	Brill. sunshine—blue sky—very fine.	
31	Brill. sunshine—blue sky—very fine.	
	Thirteen rainy days (Freeman).	5·25

TABLE I.—*continued.*

APRIL, 1865.

DATE.	MIN.	MAX.	DIF.	OZ.	WIND.	BAR.	SEA.
1	38	64	9	5	N.W.	29·85	Slight swell.
2	40	58	12	5	N.E.	29·85	Calm.
3	42	63	11	6	N.W.	29·85	Calm.
4	47	65	7	7	S.E.	29·97	Heavy swell.
5	48	66	9	7	N.E.	30·15	Calm.
6	49	66	10	3	N.E.	30·13	Calm.
7	52	67	9	4	N.E.	30·	Calm.
8	53	70	9	3	S.S.E.	29·95	Swell.
9	52	70	9	4	S.E.	30·1	Swell.
10	49	66	9	3	S.E.	30·15	Slight swell.
11	50	66	6	3	S.E.	30·05	Calm.
12	51	70	5	4	S.W.	30·	Calm.
13	51	68	7	6	S.W.	30·	Calm.
14	51	69	6	6	S.E.	30·	Heavy swell.
15	55	72	6	8	S.E.	30·	Heavy swell.
16	54	70	7	4	S.E.	29·95	Swell.
17	56	69	7	3	S.E.	29·90	Swell.
18	61	68	6	7	S.E.	29·80	Heavy swell.
19	63	68	4	3	S.W.	30·8	Calm.
20	63	69	4	3	S.E.	30·10	Calm.
21	64	68	5	3	S.E.	30·3	Swell.
22	63	69	6	4	S.E.	30·10	Swell.
23	64	69	6	4	S.E.	30·22	Calm.
24	63	66	4	2	S.E.	30·19	Calm.
25	63	65	3	2	S.E.	30·14	Calm.
26	63	66	4	2	S.E.	30·14	Calm.
27	61	65	5	1	S.E.	30·12	Calm.
28	62	65	5	2	S.E.	30·10	Calm.
29	62	65	5	2	S.E.	29·91	Calm.
30	63	65	3	2	S.E.	29.75	Calm.
Media.	34·1	11·7	6·6	3·9		30·05	

TABLE I.—*continued.*

APRIL, 1865.

DATE.	REMARKS.	RAIN.
1	Brill. sunshine—blue sky—very fine.	
2	Brill. sunshine—blue sky—very fine—warm.	
3	Brill. sunshine—blue sky—very fine.	Rain.
4	Overcast—clouds 10.	Rain.
5	Brill. sunshine—blue sky—very fine.	
6	Brill. sunshine—blue sky—very fine.	
7	Brill. sunshine—blue sky—very fine—warm.	
8	Brill. sunshine—blue sky—very fine—warm.	
9	Brill. sunshine—blue sky—very fine—warm.	
10	Brill. sunshine—blue sky—very fine—warm.	
11	Brill. sunshine—blue sky—very fine—warm.	
12	Brill. sunshine—blue sky—very fine—warm.	
13	Brill. sunshine—blue sky—very fine—warm.	
14	Overcast—clouds 10—fine.	Rain.
15	Overcast—sun through clouds—warm.	Rain.
16	Brill. sunshine—blue sky—fine—warm.	
17	Sunshine—clouds—fine—warm.	
18	Overcast—clouds—gale at sea—fine.	
19	Sunshine 5—clouds 5—fine.	
20	Brill. sunshine—blue sky—very fine—warm.	
21	Sunshine 5—clouds 5—fine.	
22	Sunshine 5—clouds 5—fine.	Rain.
23	Brill. sunshine—blue sky—very fine—warm.	
24	Brill. sunshine—blue sky—very fine—warm.	
25	Brill. sunshine—blue sky—very fine—warm.	
26	Brill. sunshine—blue sky—very fine—warm.	
27	Sunshine 5—clouds 5—fine.	
28	Sunshine 5—clouds 5—fine.	
29	Brill. sunshine—blue sky—very fine—warm.	
30	Sunshine 5—clouds 5—fine rain.	Rain.
	Six rainy days (Freeman).	0·44

TABLE I.—*continued.*

MAY, 1865.

DATE.	MIN.	MAX.	DIF.	OZ.	WIND.	BAR.	SEA.
1	63	65	3	3	W.	29·83	Calm.
2	63	66	3	2	N.W.	30·14	Calm.
3	63	67	4	2	W.	30·20	Calm.
4	63	66	3	2	W.	30·18	Calm.
5	64	66	4	1	S.E.	30·15	Heavy swell.
6	65	67	3	3	S.E.	30·18	Swell.
7	65	67	3	2	S.E.	30·11	Swell.
8	65	68	3	1	W.	29·99	Swell.
9	68	68	4	2	W.	29·86	Swell.
10	67	68	3	2	W.	29·76	Swell.
11	66	67	4	3	E.	29·81	Swell.
12	65	67	4	4	W.	30·10	Swell.
13	65	67	4	3	E.	30·0	Calm.
14	66	68	3	2	E.	30·7	Swell.
15	66	68	4	1	S.E.	29·89	Heavy swell.
16	67	69	2	1	S.E.		Calm.
17	66	69	2	4	S.E.		Swell.
18	67	69	5	2	S.E.		Swell.
19	67	69	3	3	S.E.		Swell.
20	67	69	3	3	S.E.		Calm.
21	67	70	3	4	S.E.		Swell.
22	68	69	4	3	S.E.		Swell.
23	68	71	3	2	S.E.		Calm.
24	69	71	3	1	S.E.		Calm.
25	69	71	4	3	S.E.		Calm.
26	69	71	3	2	S.E.		Calm.
27	69	71	3	3	S.E.		Calm.
28	69	73	2	2	S.E.		Calm.
29	70	73	2	3	S.E.		Calm.
30	71	73	2	3	S.E.		Calm.
31	71	73	3	2	S.E.		Calm.
Media.	66·7	68·9	3·1	2·3			

TABLE I.—*continued.*

MAY, 1865.

DATE.	REMARKS.	RAIN.
1	Brill. sunshine—blue sky—very fine—warm.	
2	Brill. sunshine—blue sky—very fine—warm.	
3	Brill. sunshine—blue sky—very fine—warm.	
4	Brill. sunshine—blue sky—very fine—warm.	
5	Brill. sunshine—blue sky—very fine—warm.	
6	Sunshine 5—clouds 5—fine.	Rain.
7	Sunshine 5—clouds 5—fine.	
8	Sunshine 5—clouds 5—fine.	
9	Brill. sunshine—blue sky—very fine—warm.	
10	Brill. sunshine—blue sky—very fine—warm.	
11	Brill. sunshine—blue sky—very fine—warm.	
12	Sunshine 5—clouds 5—fine.	
13	Sunshine 5—clouds 5—fine.	Rain.
14	Brill. sunshine—blue sky—very fine—warm.	
15	Brill. sunshine—blue sky—very fine—warm.	
16	Sunshine 5—clouds 5—fine.	
17	Brill. sunshine—blue sky—very fine—warm.	
18	Sunshine 5—clouds 5—fine.	
19	Sunshine 5—clouds 5—fine.	
20	Brill. sunshine—blue sky—very fine—warm.	
21	Brill. sunshine—blue sky—very fine—warm.	
22	Brill. sunshine—blue sky—very fine—warm.	
23	Brill. sunshine—blue sky—very fine—warm.	
24	Brill. sunshine—blue sky—very fine—warm.	
25	Brill. sunshine—blue sky—very fine—warm.	
26	Brill. sunshine—blue sky—very fine—warm.	
27	Brill. sunshine—blue sky—very fine—warm.	
28	Brill. sunshine—blue sky—very fine—warm.	
29	Brill. sunshine—blue sky—very fine—warm.	
30	Brill. sunshine—blue sky—very fine—warm.	
31	Brill. sunshine—blue sky—very fine—warm.	
	Two rainy days (Freeman).	Rain 0·29

Rainfall in eight months 37·7 inches, in 80 days ; probably much above the Mentone average for the entire year.

TABLE II.

Nile and Mentone compared. 1860.

	January.		February.			January.		February.	
	Minimum.					Maximum.			
	Nile.	Ment.	Nile.	Ment.		Nile.	Ment.	Nile.	Ment.
1	38	46	44	41	1	67	53	73	51
2	39	48	43	43	2	65	57	74	51
3	42	50	47	37	3	65	57	83	45
4	45	52	49	38	4	73	58	85	45
5	44	52	44	36	5	76	60	80	45
6	39	51	42	38	6	75	57	85	49
7	40	47	50	40	7	77	53	67	51
8	39	43	48	40	8	75	51	66	51
9	43	43	50	37	9	82	49	68	51
10	45	43	40	42	10	70	52	64	52
11	44	48	38	43	11	69	53	75	51
12	41	48	43	41	12	75	52	77	50
13	43	43	44	38	13	76	50	80	48
14	43	43	43	39	14	79	51	81	50
15	44	46	42	38	15	66	54	84	52
16	43	43	50	39	16	70	51	86	52
17	51	42	50	42	17	77	53	88	50
18	49	45	55	39	18	73	53	90	50
19	44	45	40	39	19	67	53	66	52
20	45	47	40	38	20	73	50	70	50
21	45	45	50	37	21	73	51	74	49
22	45	45	45	42	22	76	53	77	52
23	51	44	50	40	23	75	48	74	50
24	50	40	40	40	24	75	50	79	52
25	50	43	40	42	25	78	49	80	53
26	51	40	49	42	26	82	50	74	52
27	48	40	48	42	27	75	49	65	50
28	46	42	40	43	28	71	51	65	56
29	45	41	49	44	29	76	51	66	57
30	51	41	—	—	30	75	48	—	—
31	42	42	—	—	31	82	52	—	—
Media	44·6	44·7	45·2	40·0	Media	72·8	52·2	75·7	50·9

TABLE III.

Mean Maximum Temperature in Shade.

	IN JANUARY.		IN FEBRUARY.
Nile	72	...	75
Madeira	66	...	67
Malaga	58	...	58
Mentone	52	...	50 (1861...53)

TABLE IV.

M. de Brea's Monthly and Annual Media for Mentone for Ten Years, from 1851 *to* 1860.

January	48°·2
February	48·5
March	52·
April	57·2
May	63·
June	70·
July	75.
August	75·
September	69·
October	64·
November	54·
December	49·
Annual	60·8

These data were obtained by observations made at 6 A.M., 2, and 10 P.M.

The maximum was 89°·6, the 3rd August, 1859. The minimum 32°, the 22nd January, 1855.

TABLE V.

Showing how the Heat increases and decreases in England through the Year. (*Drew's Meteorology.*)

	January.	Feb.	March.	April.	May.	June.
1	°037	°063	°170	°300	°537	°774
2	·033	·055	·166	·318	·555	·781
3	·033	·066	·162	·333	·570	·788
4	·029	·081	·162	·344	·585	·800
5	·022	·107	·166	·355	·596	·800
6	·018	·130	·170	·366	·613	·803
7	·011	·137	·170	·370	·607	·807
8	·001	·137	·170	·370	·603	·811
9	·000	·130	·174	·366	·596	·814
10	·007	·118	·177	·355	·588	·822
11	·003	·111	·185	·351	·585	·833
12	·003	·103	·188	·348	·585	·844
13	·003	·100	·203	·355	·588	·851
14	·003	·092	·214	370	·603	·862
15	·000	·096	·222	·377	·618	·870
16	·000	·096	·229	·388	·633	·881
17	·014	·100	·233	·396	·640	·885
18	·029	·103	·233	·403	·651	·888
19	·037	·107	·233	·407	·659	·892
20	·048	·111	·237	·414	·670	·900
21	·059	·111	·237	·425	·677	·903
22	·066	·114	·237	·444	·688	·907
23	·074	·126	·240	·448	·696	·914
24	·085	·133	·244	·448	·700	·922
25	·092	·148	·248	·448	·707	·929
26	·103	·155	·251	·448	·711	·937
27	·103	·159	·255	·462	·718	·944
28	·096	·166	·262	·481	·729	·955
29	·088	—	·270	·503	·737	·962
30	·077	—	·277	·518	·748	·962
31	·066	—	·292	—	·762	—
Media	·040	·112	·215	·397	·643	·868

TABLE V.—*continued.*

	July.	August.	Sept.	October.	Nov.	Dec.
1	·962	1·000	·862	·666	·403	·229
2	·959	·992	·855	·662	·396	·233
3	·959	·988	·851	·651	·392	·229
4	·962	·985	·848	·648	·385	·222
5	·966	·981	·840	·640	·377	·218
6	·970	·981	·833	·629	·370	·207
7	·974	·981	·825	·622	·355	·192
8	·970	·981	·822	·614	·344	·188
9	·962	·977	·818	·607	·333	·185
10	·962	·974	·814	·600	·825	·184
11	·966	·970	·811	·588	·314	·174
12	·970	·966	·807	·574	·311	·166
13	·974	·962	·803	·555	·296	·151
14	·970	·962	·796	·540	·288	·155
15	·970	·959	·785	·529	·277	·166
16	·970	·959	·777	·522	·262	·177
17	·970	·955	·770	·514	·255	·170
18	·970	·944	·759	·507	·248	·162
19	·970	·940	·755	·503	·248	·148
20	·966	·937	·744	·503	·248	·129
21	·962	·929	·740	·496	·240	·107
22	·962	·922	·737	·485	·229	·088
23	·962	·918	·733	·474	·218	·070
24	·966	·918	·722	·459	·203	·055
25	·974	·914	·718	·444	·196	·037
26	·985	·903	·711	·440	·200	·033
27	·992	·896	·703	·433	·207	·037
28	1·000	·892	·696	·425	·222	·055
29	1 000	·885	·685	·418	·225	·066
30	1·000	·874	·677	·411	·225	·070
31	1·000	·870	—	·407	—	·077
Media	·972	·945	·776	·534	·286	·141

TABLE VI.—FOREIGN CLIMATES (Sir James Clark).

PLACES.	Mean Annual Temperature.	MEAN TEMPERATURE OF SEASONS.				MEAN TEMPERATURE OF MONTHS.											
		Winter.	Spring.	Summer	Autumn	Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Cairo	72·17	58·52	73·58	85·10	71·48	58·10	56·12	64·58	77·90	78·26	83·66	85·82	85·82	79·16	72·32	62·96	61·34
Santa Cruz (Canaries), 40	70·94	64·65	68·87	76·68	74·17	63·84	64·29	67·17	67·32	72·12	73·89	77·27	78·89	77·43	74·66	70·43	65·82
*Ceylon (Hill District), 44	70·18	69·30	70·78	69·54	71·29	69·15	69·49	70·84	72·70	71·42	69·43	69·83	68·86	70·83	70·88	70·64	69·72
†Malta, 37	67·30	57·46	62·76	78·20	71·03	56·50	56·30	58·10	61·80	67·40	73·80	79·60	81·20	77·80	71·10	64·20	59·60
Corfu, 38	65·55	54·28	59·85	77·09	70·97	52·57	51·85	54·57	58·28	66·71	72·28	77·71	81·28	78·28	70·85	63·78	58·42
‡Madeira, 41	64·96	60·60	62·36	69·56	67·30	59·71	60·28	61·86	62·03	63·44	66·90	70·04	71·88	71·28	66·76	63·96	61·44
Palermo [added]	64·40	53·1	59·3	74·7	66·8												
*Port Jackson (N. S. W.), 45	62·89	54·62	63 45	70·93	64·03	61·67	71·61	69·64	64·05	59·68	54·91	53·86	55·31	59·34	63·51	67·73	69·20
Cadiz, 39	62·88	52·90	59·53	70·43	65·35	51·40	53·73	55·21	59·64	63·75	68·16	70·27	72·86	70·17	67·10	58·80	53·58
St. Michael's (Azores), 42	62·40	57·83	61·17	68·33	62·33	59·00	59·00	59·50	61·00	63·00	67·00	68·00	70·00	68·00	63·00	56·00	55·60
Naples, 30	61·40	48·50	58·50	70·83	64·50	46·50	48·50	52·00	57·00	66·50	71·00	75·00	76·50	72·50	65·00	54·50	50·50
Mentone [added]	60·80	49·5	60·	73·	55·6	48·2	48·5	52·	57·2	63·	70·	75·	75·	69·	64·	54·	49·
Rome, 28	60·70	48·90	57·65	72·16	63·96	47·65	49·45	52·05	56·40	64·50	69·17	73·30	74·02	69·50	63·60	58·80	49·62
Pisa, 31	60·60	46·03	57·20	75·15	62·80	44·00	48·11	51·52	56·30	63·75	70·59	77·50	77·50	73·50	62·62	52·30	47·00
Genoa, 32	60·37	44·57	58·60	75·03	62·94	41·65	47·47	51·07	60·30	64·45	73·50	75·10	76·50	73·20	64·70	51·05	45·60
Toulon, 23	59·90	43·30	53·70	74·30	59·00	40·00	44·00	48·00	55·00	68·00	70·00	74·00	79·00	64·00	62·00	51·00	46·00
Marseilles, 24	59·50	45·50	57·56	72·50	60·08	44·80	45·06	49·07	...	...	...	...	...	...	58·20	50·40	46·60
Nice, 33	59·48	47·82	56·23	72·26	61·63	45·85	49·00	51·45	57·00	63·00	69·00	73·59	74·30	69·35	61·85	53·70	48·60
Florence, 34	59·00	44·30	56·00	74·00	60·70	41·00	45·00	48·00	56·00	64·00	69·00	77·00	76·00	70·00	59·00	53·00	47·00
*Port Philip (N. S. W.), 46	58·98	50·07	58·40	67·50	59·97	67·62	68·94	65·73	58·61	55·59	50·93	49·23	50·06	54·51	58·19	62·51	65·94
*Auckland (N. Z.), 47	58·43	50·68	56·82	66·38	59·82	67·91	67·33	64·24	60·49	54·74	51·41	48·99	51·66	53·99	56·41	60·08	63·91
Avignon, 25	58·20	42·60	57·13	74·66	59·00	42·00	43·50	50·50	55·00	66·00	72·00	76·00	76·00	67·00	60·00	50·00	43·30
Montpelier, 26	57·60	44·20	53·33	71·30	61·30	42·00	45·00	47·00	53·00	60·00	67·00	72·00	75·00	71·00	61·00	52·00	46·00
Pau, 27	56·18	41·86	54·06	70·72	57·39	41·20	43·60	48·80	51·80	61·60	68·20	70·60	73·40	67·40	58·20	46·60	42·80
Sienna, 35	55·60	40·50	54·10	70·80	57·10	39·70	40·22	46·20	53·70	62·40	67·50	72·80	72·30	66·00	58·30	47·10	41·70
Baths of Lucca, 36	55·00	...	...	68·17	...	...	...	...	53·00	60·50	63·00	70·00	71·50	66·00	...	...	...
Paris, 22	51·50	38·43	50·40	64·47	52·30	35·60	40·50	43·50	49·60	58·10	62·50	65·70	65·20	60·40	52·40	44·20	39·20

* Common Thermometer. † Doubtful. ‡ Register Thermometer.

REMARKS

ON THE

THERMOMETRICAL TABLES.

A PERUSAL of the preceding tables will thoroughly explain and substantiate the details I have given respecting the climate and vegetation of Mentone.

The first winter that I spent at Mentone, 1859–60, the lowest night temperature was 35° on the 17th December. The thermometer never descended lower than 37° on any other occasion. In the second winter, 1860–61, the lowest point attained was 32° on two nights in December, the 22nd and 23rd. On no other night did the thermometer mark a lower temperature than 37°, as in the previous winter.

In the winter of 1864–5, of which I have given the circumstantial account, day by day, it will be seen that the first night that the thermometer descended below 40° Fah., was on the 24th of December. During that month, and the four following ones, the thermometer was below 40° thirty-two nights, viz. :—

December	4
January	6
February	11
March	10
April	1
	32

Thus from the first night that the thermometer descended below 40°, December 24th, to the last, April 1st, or during 122 days, it was 31 times below 40°. The two lowest temperatures recorded were February 22nd, 33° Fah.; and March 25th, also 33° Fah. My thermometers never reached the freezing point 32°, although it sometimes froze on these colder nights in exposed situations. Generally, however, the thermometer on the cold nights was between 36° and 40°, and then it did not freeze anywhere.

During the four cold months of the winter, December, January, February, and March, it will also be remarked that the wind was principally from the northerly quarter. It blew from that direction 84 days out of the 121—leaving 37 for southerly winds.

December	15	North winds.
January	25	
February	24	
March	20	
	84	

It will be observed also that these days are all but invariably the days marked "brilliant sunshine, blue sky, very fine." They are the fine-weather days of the winter climate of this part of Europe. On the days when the south winds blew, there was nearly always cloud, and often rain.

Thus, during the 121 days of the four winter months, there were 29 days of rain, and 92 days of fine fair weather. Of these rainy days, 20 occurred with south winds, and 9 with north winds:—

RAINY DAYS.

December	10	South W.	8
		North	2
January	5	South	3
		North	2
February	2	South	2
March	12	South	7
		North	5
	29		29

In all the winters that I have passed at Mentone a great fall in temperature has coincided with northerly winds and with extreme and unusual cold in the north of Europe. In 1859–60 the frost was very severe and prolonged throughout the north, when the temperature was low with us, and in 1860–61 the thermometer descended 40° below the freezing point in England, at the time we had cold weather. The cold was more severe this winter than had been known for thirty years throughout Europe. During the winter of 1864–65 there were also spells of exceedingly cold weather all over Europe. Rivers were frozen over, and snow lay many feet deep on the ground, reaching the most southern parts of France. On one occasion, at the end of December, the railroad between Narbonne and Toulouse was buried in the snow, and many people lost their lives.

Indeed I have always remarked at Mentone that exceptionally cold or stormy weather has coincided with intense frosts or violent storms in the north and centre of Western Europe. We are clearly not out of the influence of extreme meteorological disturbances occurring in the northern regions of Europe, although we feel them but

faintly. At those times we have generally a north-westerly or north-easterly wind, the sun is obscured by clouds, the higher mountains may be covered with snow down to the level of the olive-groves, and cold rain may fall on shore. These are our worst days, but fortunately such weather, as stated, never lasts more than a day or two. When on these occasions we receive newspapers and letters from home a few days later, we invariably hear of fearfully cold weather on land, and of storms at sea.

It will be perceived that although the night minimum seldom descends below 40° during December, January, February, and March, it also seldom ascends above 50°, and is generally between 40° and 50°. The day maximum in the shade varies from 50° to 58°, although occasionally below 50°. This latter temperature always coincides with a low night temperature and an obscured sky, and nearly always with snow on the mountains and rain on the shore, with north winds.

A careful scrutiny of the tables of Mentone temperature brings out a peculiar and important feature every year reproduced—viz., the regularity with which the temperature descends in the autumn, and ascends in the spring. Often for several nights and days together, the night minimum and the day maximum reach exactly the same figures; they fall and rise gradually and uniformly. We must except the spells of bad weather just described coinciding with extreme cold all over Europe, the result of north or polar hurricanes. The range of temperature, that is, the daily difference between the minimum and maximum, is slight, seldom reaching more than 10°, an important point for invalids. Such a state of things constitutes an equable climate.

The climate of England is very different. Few persons are aware how very uncertain it is, and how often, even in the summer months, the thermometer goes down nearly to the freezing point. The following is a reliable statement extracted from the "Gardener's Chronicle," of September 3rd, 1864.

"From October 1st, 1863, to June 6th, 1864, at Worksop, Nottinghamshire, there were 164 frosty nights, and on 46 more the register was under 40°. Thus for eight months and six days the register was not above 39° as many nights :—

"October	12	Frosty nights.
November	15	
December	24	
January	28	
February	26	
March	28	
April	16	
May	9	
June	6	
	164	

"In August cold nights again set in, and on the 19th, the thermometer fell to 27°; on the 20th to 35°; on the 21st to 31°; on the 22nd to 26°; on the 23rd to 33°."

It is worthy of notice that in April and May at Mentone the wind was generally in a southern quarter, and yet there was no rain. The wind was, however, only a gentle "aura," or zephyr, and the mountains were warmed by the sun until they were warmer than the sea. Under such conditions the sea remains calm, and there is no precipitation of rain.

The above data may be depended upon, as they were taken from self-registering thermometers made by Negretti for scientific observation. It is the minimum and maximum temperature of any given region that principally regulates vegetation, and also to a great extent climate; and I believe, consequently, that on such data only can we form an accurate idea of the real climate of any locality. If a thermometer is fairly placed according to the rules adopted by scientific meteorologists, and the instruments used are good, there can be no possible deception by adopting this mode of observation. Thermometrical observations are very liable to error in sunny climates, unless extreme precaution be taken to avoid undue solar influences, reflected heat, exceptionally sheltered situations, &c. Many observations in health localities also are made with a mental bias which invalidates them. Thus, had I made my observations at ten o'clock, A.M., seventy feet from the ground, and within the influence of reflected heat from the sun, I might have obtained a day temperature of 60° throughout the winter.

Dr. Dalrymple, in his interesting work on the Climate of Egypt,* gives the minima and maxima for the months of January and February accurately observed in his Nile boat. The night minimum was a fraction lower than at Mentone during the month of January, 1860 (from latitude 27° 13′ to 22° 10′). During the month of February the mean was 5° higher, as will be seen by the comparative Table No. II. (from latitude 25° 55′ to 31° 46′), showing the more rapid advance of spring. The day maximum, on the contrary, was much higher during both months, being all but constantly between 70° and

* "Meteorological and Medical Observations on the Climate of Egypt." 1861.

80°, and sometimes above 80°. The mean of January was as high as 72°·8, that of February 75°·7. Such a range must be very trying, especially to chest cases—from 40° or 45° at night to 70° or 80° in the day. At Mentone the mean maximum of January in the same year was 52°·2, that of February only 50°·9, but in 1861 53°·8.

Although the climate is dry at Mentone, whenever in the autumn or in the spring the thermometer is at or above 70°, most of the chest invalids feel oppressed, although less so than in England. They appeared to get on best with a dry, sunshiny, cool atmosphere, such as generally prevailed, with the thermometer at 54° in the shade north, and from 60° to 64° in the shade south.

Moreover, I should think that a low night temperature, which has clearly to be encountered on the Upper Nile as well as on the Mediterranean coast, is better met by a confirmed invalid in a comfortable, well-built house on land than in a boat on a river, even if that river be the Nile. Not to speak of the discomforts of the long journey, of the proverbial unhealthiness of Alexandria and Cairo, where some time has to be spent both going and returning, and of the actual fatigue of constant change and motion.

At Malaga and Madeira the day maximum is also higher than at Mentone, according to Dr. Edwin Lee,* Dr. Francis,† and Mr. White,‡ as seen in Table III. The night minimum of Malaga is not given by these

* "Spain and its Climates, with a Special Account of Malaga." By Dr. Edwin Lee. pp. 64. 1855.

† "Change of Climate, with an Account of the most eligible Places of Residence for Invalids in Spain and Portugal." By Dr. D. S. T. Francis. 1853.

‡ "Madeira: its Climate and Scenery." By Messrs. White and Johnson. 1865.

authors. Mr. White says that at Madeira the lowest point attained by a self-registering thermometer in 1841 was, in January, 51°; in February, 53°. The mean minimum was 55° for both months—much higher, as we have seen, than either the Nile or Mentone medium.

In Table III. I have given the comparative mean maximum heat of the Nile, Madeira, Malaga, and Mentone during January and February. I have also added M. de Brea's media for Mentone temperature for each month, founded on ten years' observations. These observations prove that the summer temperature at Mentone is moderated by the proximity of the sea, and of the mountains, as well as that of the winter. The summer maximum in ten years was only 89°.

The Table No. IV. is taken from Drew's "Meteorology," and will be useful to invalids leaving England and returning, as it shows the days of autumn and spring that correspond in temperature. The coldest day in the year is marked by ·000, the warmest by 1·000.

Thus, an invalid leaving England October 10th, will find that the mean temperature of that day is °·600. The corresponding day of spring is the 14th May—viz., °·603. One use of this table is the warning it gives against a too early return home, which all are anxious to reach after the winter's long absence.

THE JOURNEY TO AND FROM MENTONE.

First, I would advise no invalid to endeavour to reach Mentone before the last week in October. September and the early part of October are still warm, indeed sometimes oppressively hot and moist, as will be seen by referring to the table of the October temperature for 1864, page 388. Moreover, the probability is, that in October will occur the two or three weeks of continued rain which constitute the rainy season. The heat and moisture are not only unpleasant but unwholesome, and apt both to weaken the constitution and to give rise to liver and intestinal congestion and irritation, and to severe diarrhœa, sometimes bordering on dysentery.

I myself never try to reach Mentone before the 20th of October, out of regard for my own personal welfare; I would rather remain anywhere on the road than do so. The very conditions of shelter and protection that make Mentone so desirable a residence when once cold weather has commenced in the south of Europe render it close and oppressive in the autumn.

It is the same in England with Ventnor and the Undercliff of the Isle of Wight. The worst months of the year for this and similarly situated localities are the autumn months, August and September, according to my friend Dr. Martin, of Ventnor, a first-rate authority, and that from the very circumstance of their being peculiarly sheltered and protected.

Every year, when I reach Mentone, I find these facts exemplified. Within a few hours of my arrival I am called in to patients and friends suffering from severe

diarrhœa, and the longer they have been in the place the more severe is the attack and the more difficult it is to subdue. If from fortuitous circumstances the south is reached too early, it would be better to spend a week or two at Avignon, Toulon, Cannes, or even Nice, which are more open, and, at this time of the year, cooler and pleasanter.

The month of September is generally fine, pleasant, and safe in England, even for confirmed invalids, if they take care to avoid the sometimes chilly evening and morning air. By the end of the first or second week in October, the equinoctial gales are over, and it is time to depart, as the English climate sometimes rapidly deteriorates both at night and day; a cloudy sky and dense morning fogs may then become the rule.

The invalid should go down to Folkestone or Dover in the morning or afternoon, and sleep there; the next morning, if the weather is tolerably fine, he can cross. If the sea is very rough, it is absolute folly so to do; the depth of the water in this part of the British Channel is not great, and the sea soon rises and soon falls; it may be rough in the morning and smooth at night, or *vice versâ*. Moreover the hotel accommodation is very good,—the Lord Warden at Dover, and the Pavilion at Folkestone, are both comfortable hotels.

The last ten days of September and the first week of October, the sea, in the straits between Dover and Calais, is nearly always rough. Then generally comes a lull, a period of calm, as I learnt many years ago. When actively engaged in London practice, I always took a holiday in September, and generally spent it on the Continent—returning for the opening of the London medical session, on the 1st of October. I usually had frightful passages,

until I remembered that I was crossing just at the middle of the autumnal equinox; I then remained a week longer abroad, and became as fortunate in the sea passage as I had previously been the reverse.

If the passage is effected without much suffering and in the morning, even an invalid may often continue the journey to Paris the same day; by express train, it takes about four hours. In Paris there are innumerable good hotels; the Louvre, the new Grand Hotel, the Bedford, may be mentioned.

If France has been reached early in October, it may be well to remain in the north for a week or ten days before proceeding south, to avoid heat and rain. The more open parts of Paris constitute a healthy autumnal residence if the weather is fine, and there is always a charm about it, even for invalids.

Fontainebleau, which is thirty miles south of Paris, on the railroad to Lyons, is better still. The town is small and clean, the hotels airy and comfortable, and the forest scenery around extensive and very beautiful. The "Château," also, is full of interesting historical recollections. Indeed, I do not know of a more healthy or more pleasing resting-place for an invalid, either on his way from the north to the south in autumn, or on his return from the south in spring. Fontainebleau has certainly, in both seasons, a fortnight's advantage over Middlesex or Surrey; the autumnal fine weather continues a fortnight longer, and the spring begins a fortnight sooner.

Towards the 15th or 20th of October, according to the season, the journey should be continued to Lyons. The morning express from Paris to Lyons, Marseilles, and Nice, leaves Paris at 11 A.M., reaching Montereau at 12.40, where passengers from Fontainebleau are taken up.

This train reaches Dijon at 5.32, and Lyons at 9.49 P.M.; Marseilles, 6.15 A.M. the next morning, and Nice at 3 P.M. that day.

If the journey to Dijon is felt to be sufficient, good accommodation can be obtained there for the night, but the hours for the express trains the next day are awkward. As half an hour is given for a very comfortable table-d'hôte dinner, most travellers prefer to go on and to sleep at Lyons, where there is a first-rate hotel, the Grand Hôtel de Lyon. This hotel is one of the large and comfortable hotels that have recently been built in Paris and in other large towns of France; it has, however, the great disadvantage of being at least two miles from the railroad in the centre of the town. To those who can put up with less luxurious accommodation I would recommend the Hôtel de l'Univers, which is within a stone's throw of the station; it is clean and kept by very civil people.

The day express from Lyons to Marseilles, the night one from Paris, leaves at too early an hour in the morning for invalids—7.30. I therefore advise them to make the night one of complete rest, not to get up until between eight and nine, to breakfast quietly, and to take the 10.30 A.M. omnibus train to Valence, which is reached at 2.15, or to Avignon, 6.49.

The inn at Valence (Hôtel de la Poste) is second-rate, but still will do for a night. Valence is a pleasing little place, with a tree-planted promenade, looking over the broad and rapid Rhone. In one of the streets is shown a very unpretending house in which Napoleon Bonaparte lived for above a year, when lieutenant in a regiment quartered in the town. I always go to see it; the idea is strange of the great Emperor lounging about this little

provincial town as lieutenant in a marching regiment. What were his thoughts, his views of the future, the limits, then, of his ambition?

The Marseilles express starts from Valence in the morning at 9.57 A.M., a much better hour, and, refreshed by two good nights' sleep, the traveller is better prepared for another long journey.

The arrival at Avignon by the slow train is rather too late (6.49). Montelimart (3.45) might be chosen, but the inn is even inferior to that at Valence. It is clean, but thoroughly French, such as is found in third-rate French towns not frequented by foreigners.

The express from Lyons leaves Montelimart at 10.53; Avignon, at 1; reaches Marseilles at 3.40 P.M.; and Toulon, at 6.51. At Toulon there are several new hotels, situated near to the railway terminus, and just out of the town; the Hôtel de l'Amirauté I can recommend. Toulon is a good point at which to remain a few days, either to recruit or to wait. It is so far south, and so sheltered, that at the end of October it is still summer. There are the dockyards and port to visit, and the convict establishment, a terribly interesting sight; Hyères, also, is within a drive and deserves a visit.

Most travellers who take the day express through from Lyons sleep at Marseilles, where there are several splendid hotels—such as the Grand Hôtel de Marseilles and the Grand Hôtel de Louvre. Marseilles is quite a different town to what it was ten years ago; the French Emperor has transformed it as he has transformed Paris. Formerly it was a dirty, close, unhealthy city, to be avoided rather than courted; now, handsome streets and boulevards have been opened out in every direction, light and air have been let in, and a magnificent port, La

Joliette, has been constructed. Marseilles has thus become a first-class and elegant city, where a few days may be passed safely and agreeably. The quick night express from Paris passes Avignon at 9.41, and reaches Nice at 7 P.M., so that travellers who have slept at Avignon can go through in a day.

The Marseilles train for Nice leaves (the same one) at 1, and reaches its destination at 7 P.M.; as it stops nowhere for refreshments, they should be provided for the journey. At Nice there are many good hotels; among the best may be named the Hôtel des Anglais, and the Hôtel de la Mediterranée.

I have cautioned invalids against going south too soon, and I must now caution them against going too late. It is desirable to get to the south side of the Estrelle mountains, between Toulon and Nice, before the end of October —if possible by or before the 25th—otherwise there is a risk of having to encounter cold weather; even in the south of France cold rain may occur by the end of that month. Those who delay their journey until November often suffer from this cause throughout their entire progress.

I am persuaded that for ordinary invalids, the quiet, cautious mode of travelling above sketched out is the best. If good nights are secured, and a quiet breakfast is taken at the usual hour, travelling during the day is very easily borne, and the invalid arrives at the journey's end without feeling wearied; there is no lost ground caused by broken nights and extra fatigue to make up. There are, however, cases in which it may be desirable to travel more rapidly. With young children, who can lie down, and who sleep nearly as well in a train as in their beds, it is better to push on—to go direct from Paris to Nice for instance. Again, with invalids who feel every change

from the train to an inn and back as a dreadful fatigue and trial, it may also be as well to pack up comfortably in an invalid carriage, and not to stay on the way.

On the French lines of railway they have carriages which they call coupé lits; they are coupés without divisions, so that an invalid can lie at full length throughout the journey. There are three seats in these carriages, and the charge is for four; they are to be had, by application the day before, at all the principal stations.

When the journey is made by stages, the plan is to leave the luggage at the station, *au depôt*, merely taking a carpet-bag with necessaries. The French railroad company will not allow passengers the convenience of through tickets, with power to stop on the way, for what motive I cannot imagine.

The fare from London to Paris, by Folkestone tidal steamer, is: first class, 2*l*. 8*s*. 2*d*.; second class, 1*l*. 16*s*. 2*d*. From Paris to Marseilles by express, first class only, 96 frs. 65 c. (not quite 4*l*.); to Nice, 25 frs. 20 c. (1*l*. 1*s*. 2*d*.) The steamer from Marseilles to Nice is 32 frs. (1*l*. 5*s*.)

Bradshaw in his Continental Guide, to which I must refer my readers for further details, gives the entire expense of the journey from London to Nice, first class, as 8*l*. 9*s*. 6*d*.; second class, 6*l*. 6*s*. 3*d*.

Sleeping at Nice, the traveller going to Mentone can either take the ordinary diligence, which leaves three times a day, and does the journey under four hours, or a private carriage. In the latter case he should start at twelve, so as to get in at four. This is by far the best plan for a family, as the drive is a very lovely one. The cost of a carriage is about thirty-five francs, with five francs to the driver.

Mentone may be easily reached by Lyons, Chambery, Mont Cenis, Turin, Genoa, and the Riviera; but I do not

recommend this route to invalids. In October the pass of Mont Cenis is too cold; in September, Italy beyond the mountains is too warm. Nor can invalids choose this route on their return in May, as that is the month when the snow on the higher Swiss mountains usually melts, and when the passes are at their very worst.

Those, however, who are merely wintering in the south for pleasure, or who merely wish to recruit from overwork and over-fatigue, may easily make a very enjoyable progress on their way to their winter quarters. They can start early in September, pass through Switzerland, and over the Alps by the pass the least known to them, the Splugen, St. Gothard, the Simplon, or Mont Cenis; and once out of the line of the railroads, take a *vetturino* carriage and make a pleasure tour. For instance, from Milan or Padua to Bologna, from Bologna to Florence and Pisa, from Pisa along the eastern Riviera to Genoa, and along the western to Mentone.

This is a very delightful excursion, which I made in years gone by, and which I never think of without pleasure. The best plan is to engage a comfortable *vetturino* carriage, charioteered by some good-natured man, and drawn by three or four good strong horses. The carriage may be chartered for a given journey or for an indefinite period.

This style of travelling—*vetturino*—is very common in the south of Europe, and is certainly the most comfortable, pleasant, and hygienic of any for tourists not particularly pressed for time. Once the traveller has secured a roomy and easy carriage, with an intelligent, civil driver, both of which are to be had if sought for,—and once the agreement fixing the payment at so much the distance or so much a day has been duly signed and delivered, he may bid adieu to care. He becomes master of his movements,

he can both eat when he likes and walk when he likes, and thus two of the greatest drawbacks to continued travelling are removed from his path.

It should be remembered, that in *vetturino* travelling, the driver for the time being is your servant, and must do your bidding, and everything should be arranged in conformity with previous habits and the laws of hygiene. Thus the journey becomes a pleasure, and a source of health instead of a trial of strength, as often occurs.

The plan which I generally adopted was to rise at six or seven, to take a cup of tea or coffee, and to start at seven or eight, the carriage being closed at the top as a protection against the sun, open at the sides, and prepared for the day's campaign by a comfortable arrangement of umbrellas, books, maps, and provisions; the latter usually consisted of a basket of bread, biscuits, and fruit, provided before starting as a resource in case of difficulty. At nine or ten we stopped for breakfast, which can be obtained anywhere, if the traveller is contented with coffee, tea, chocolate, bread, butter, eggs, and honey. Then the journey is resumed, and at twelve or one the principal stoppage of the day takes place for the dinner of the driver and of his horses.

If the traveller wishes to make a solid lunch he can do so, if he is satisfied with his own more frugal supplies, the midday rest is a period of liberty, during which he can survey all around, analyse the habits and customs of the peasantry, study the architecture of their houses, farms, out-buildings, their agricultural operations, and the local botany. Finally, if agreeable, and weather permits, he can take a good hygienic walk in advance of three, four, or more miles. When tired he has only to sit down by the roadside in some picturesque nook until the carriage

overtakes him. If the driver, as is usually the case, rests for a couple of hours, and four or five miles have been got over, it is nearly three before the carriage is again resumed. To me these midday strolls in advance were the pleasantest part of the day's journey. After that, progress is steadily made until six, when the final stoppage takes place. Then comes dinner, a walk, or a chat with your companions or some new acquaintance, a cup of tea, and an early retirement for the night.

The day's programme can be varied according to the wishes of the traveller, to health requirements, and time. For instance, the first start may only be made after an early breakfast, and the final stoppage may be made earlier or later. As already stated the traveller must remember that the driver is his servant, and bound to accept and submit to any reasonable demand, although most *vetturino* men will, if allowed, try to make their will and convenience the rule.

When the south of Europe is reached in the autumn, two great plagues have to be encountered—fleas and mosquitoes. For the former there is an admirable remedy in France with which I should advise all travellers to provide themselves from a chemist—viz., "*La Poudre Insecticide.*" A teaspoonful, more or less, according to the number of one's foes, sprinkled over the sheets, if good not too old, has an admirable effect. In the morning they are found lying on their backs, either dead or faintly struggling, and utterly powerless; a very pleasing sight.

This powder is composed of the flowers of a pyrethrum, extensively cultivated in Persia, Armenia, and the Caucasus. Several species of the pyrethrum are used, but that of the Caucasus is the best; it was introduced into France about the year 1850. Since then M. Wil-

lemot has procured the seed from the Caucasus, and has raised the plant, which proves quite hardy, and able to stand our winters. The species thus raised appearing to differ from that previously known, it has been named Pyrethrum Willemoti. The flowers, which resemble those of the ox-eye daisy, are cut off, powdered in a mortar, and preserved in well-corked bottles. The best way to use it is by means of a small pair of bellows, which are usually sold with it. It is said to be efficacious against all kinds of insects offensive to man, but is perfectly innocuous to him.

Mosquitoes are more difficult to deal with, and much more venomous antagonists. The higher we are the less numerous we find them, so we are recompensed, in one sense, for climbing up to a third or fourth storey. It is well to remember, also, that light attracts them, and not to open the window at dark whilst there is a light in the room.

Where there are net or tulle mosquito-curtains, it is easy to keep them at bay, but these are seldom met with; the curtains are mostly open, and so heavy that if closed the inmate is soon half-suffocated. Although mosquitoes are numerous both at Nice and Mentone, the bed-curtains are as defective there as elsewhere. It is quite worth while therefore for those who suffer from these insects, and especially for invalids, to have at once, on arriving, bed-curtains made of net, closed all round. They admit of the free passage of air, and as they are lifted up bodily at the side, they can be thoroughly closed again, and these vile pests can be kept at bay; then their war-song on the outside is heard with pleasure instead of pain. It is truly a painful position to lie defenceless in the dark, whilst these enemies of our race are remorselessly dancing around

our face, and announcing by their ferocious trumpeting the intended attack.

Mosquitoes continue venomous in the south as long as the nights are warm; the advent of cold nights in November seems gradually to take away their power of inflicting injury. I have observed the same thing in England; for insects exactly like the southern mosquitoes abound in wooded districts in the south of England. In cool summers, however numerous, they seldom or never bite, but in hot summers their venom is elaborated, and they become nearly as formidable as those of the Mediterranean shores. The warmer the autumn is in the south the longer they remain in the ascendant; nothing but really cold nights chills their ardour. Those who keep their bedroom very warm may have them as companions nearly all winter, for they both feed them at their own expense, and protect them from cold.

Whether the invalid is leaving the north of Europe for the south in autumn, or the south of Europe for the north in spring, I firmly believe that it is essential for his welfare, that the journey should not be too hurried, too precipitate. The difference of climate, between the north and south of Europe, is so great, that there is absolute danger in too sudden a transition.

I see this fact exemplified every year, both in autumn and spring. Railways have all but annihilated space, and the facilities they afford to rapid travelling are so great that a traveller may leave the London Bridge station at 8.30 on Monday morning, by mail train for Paris, and be at Mentone for supper at 10 P.M. the following day, Tuesday. Unfortunately, invalids are not unfrequently tempted to adopt this "cannon-ball style of travelling," as I call it, and often pay a severe penalty for so doing.

The transition from the cool, moist climate of England or Paris in autumn, to the dry, sunny, stimulating atmosphere of the north shores of the Mediterranean, is too sudden, and developes various forms of liver, intestinal, skin, and head disease. The same results follow in spring, on the return journey. Every spring the Paris physicians have to attend many patients, who, after spending the winter in the south, break down with bronchitis, pleurisy, rheumatism, after a rapid return journey to Paris, and from the same cause, a too sudden change of climate.

Thus, a leisurely progress, both in descending south and ascending north, is the most prudent course to follow, not only for invalids but also for the sound. On the one hand they avoid needless fatigue, on the other they also avoid a too sudden transition from one decided climate to another.

I cannot better conclude than by an extract from the treatise of my esteemed friend, Sir James Clark, on "The Sanative Influence of Climate." This work, although it first appeared many years ago, still retains its position as the most valuable and comprehensive one we have on climate, and any advice it contains deserves to be weighed and pondered by all whom it may concern.

"Too much is generally expected from the simple change of climate. It often happens that from the moment the invalid has decided upon making such a change, his hopes are fixed solely upon it; while other circumstances, not less essential to his recovery, are considered of secondary importance, and sometimes totally neglected. This is an error not always confined to the patient; his medical adviser frequently participates in it: nor is this difficult to be accounted for. The cases hitherto sent abroad have been, for the most part, consumptive, or other diseases of

long standing, in which the ordinary resources of our art have failed; therefore, when change of climate has at last been determined upon, the physician, as well as the patient, is disposed to look upon it as the sole remedy.

"But as I have witnessed on a pretty extensive scale the injury arising from this over-confidence in the unaided effects of climate, and the consequent neglect of other matters of no less consequence, I particularly request the attention of invalids to the following remarks.

"In the first place, I would strongly advise every person who goes abroad for the recovery of his health, whatever may be his disease or to what climate soever he may go, to consider the change as placing him merely in a more favourable situation for the removal of his disease; in fact, to bear constantly in mind, that the beneficial influence of travelling, of sailing, and of climate, requires to be aided by such a dietetic regimen and general mode of living, and by such remedial measures, as would have been requisite in his case had he remained in his own country. All the circumstances requiring attention from the invalid at home should be equally attended to abroad. If in some things greater latitude may be permitted, others will demand even a more rigid attention. It is, in truth, only by a due regard to all these circumstances, that the powers of the constitution can be enabled to throw off, or even materially mitigate, in the best climate, a disease of long standing.

"It may appear strange that I should think it requisite to insist so strongly on the necessity of attention to these directions; but I have witnessed the injurious effects of a neglect of them too often, not to deem such remarks called for in this place. It was, indeed, matter of surprise to

me, during my residence abroad, to observe the manner in which many invalids seemed to lose sight of the object for which they left their own country,—the recovery of their health. This appeared to arise chiefly from too much being expected from climate.

"The more common and more injurious deviations from that system of living which an invalid ought to adopt, consist in errors of diet; exposure to cold; over-fatigue, and excitement in what is called "sight-seeing;" frequenting crowded and over-heated rooms; keeping late hours, &c. Many cases fell under my observation, in which climate promised the greatest advantage, but where its beneficial influence was counteracted by the injurious operation of these causes."

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