is also given an excellent *resumé* of the researches of previous German and French Anatomists into the distribution of the par vagum in the abdomen.

The account of the liver-nerves by Kollmann appears to be more in accordance with what might be expected from analogy, and from pathological observation and inference, than the descriptions of the other authors. But the vagueness and unsatisfactory state of our knowledge on the above subject must now be evident.

Besides, although some anatomists mention anterior and posterior hepatic plexuses, yet only few, as John Reid, Swan, and Valentin, appear to have distinguished plexuses or nerves of the right from plexuses or nerves of the left lobe, and we know little as to the ultimate destination of the nerves in the interior of the liver.

As to this ultimate distribution, the substance of the knowledge we appear to possess is as follows. The combined sympathetic and pneumogastric branches "enter the liver supported by the hepatic artery and its branches, along which they may be traced a considerable way in the portal canals, but their ultimate distribution is not known." "The gall-bladder receives nerves along the hepatic artery from the coeliac plexus." (Quain's *Anatomy*, 7th Edition, 1867, vol. ii, pp. 867 and 868.)

Ellis (*Demonstrations of Anatomy*, 3rd Edition, 1852) says, "the hepatic plexus is continued on the vena portæ, hepatic artery, and bile-duct, to the transverse fissure, where it enters the liver and ramifies on the vessels."

Cruveilhier says that the hepatic plexus of the sympathetic (which comprises the pneumogastric hepatic nerves) "gains the transverse fissure of the liver, divides like the vena portæ and hepatic artery, and may be traced for some distance in the capsule of Glisson." (*Anatomy*, vol. ii, p. 1162; Tweedie's Library of Medicine, 1842.)

THE WAR AND WINTER-STATIONS FOR INVALIDS.

By C. THEODORE WILLIAMS, M.D.,

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THE selection of wintering-places for invalids, always a subject of some difficulty, is this year complicated by the war now raging in France, and by the uncertainty as to the extent of French territory which may become the seat of hostilities. At present, the Mediterranean health-resorts of France—Hyères, Cannes, Nice, and Mentone, are cut off from direct communication *viâ* Paris and Lyons, and can be only reached by circuitous routes through France, likely to be soon obstructed, or by still more circuitous routes through Germany, Switzerland, and Italy. On account of uncertain communication, Pau, Arcachon, and Amelie les Bains will also probably be closed to visitors. Let us, therefore, briefly consider what winter-stations are still accessible to invalids.

In the first place, there are those of our own south coast, which offer the attractions of home comforts, first-rate medical advice, and easy accessibility, and will no doubt be largely resorted to. Their mild climate may be generally ascribed to their shelter from northern and easterly winds, and to the benign influence of the Gulf Stream and of the currents, aerial and aqueous, generated by it. A mild atmosphere, of tolerably equable temperature, devoid of extremes either of cold and certainly of heat, is thus obtained; but we must not forget that it has the drawbacks of more or less humidity, much cloudy weather, and a considerable number of rainy or foggy days.

Of these stations, Torquay stands pre-eminent, on account of its admirable shelter from cold winds, and the large choice of residences which it offers; for so extensive is the sheltered area, and so various the elevations included in it, that a situation may be chosen either near the sea, at some distance from it, or even at heights of several hundred feet above it. On account of its rocky soil, Torquay is perhaps less damp than many parts of Devonshire; but its large number of trees, both deciduous and evergreen, do not add to its dryness, and cause an amount of shade more acceptable in summer than in winter.

The Cove of Cork, Penzance, Falmouth, Dawlish, Teignmouth, and Tenby, enjoy much the same mild, moist ocean-climate as Torquay; only they are less sheltered from winds which, from their coldness or tempestuous violence, are trying to invalids.

Nearer London are Ventnor and Bonchurch, capitably protected from the north by high cliffs several miles in length, but very circumscribed in area; while for those for whom a more open and only moderately sheltered situation is advisable, Bournemouth, with its dry sandy soil

and fragrant pine-woods, may be indicated, as strongly contrasting with those damp localities in which, according to modern research, phthisis is endemic.

Hastings and Worthing, the mildest places of the south-east coast, if inferior in temperature to the best stations on the south-west coast, have attractions in point of proximity and accommodation; but they are open to east winds, the common prevalence of which in the later winter and early spring months greatly impairs the suitability of these resorts at that season. The same objection applies still more strongly to Brighton, the most bracing place on the south coast, which up to Christmas is generally warmer and more sunny than most inland places, but in the spring it becomes too bleak to be endurable by pulmonary invalids.

It is, however, obvious that there are invalids who require a warmer and drier climate than can be found in these islands, and to many of them it is a necessity of life: for these we must look abroad.

The Italian Riviera, extending from Ventimiglia to Spezzia, promises for this winter a safer asylum than the places in the South of France; while its health-resorts enjoy a similar and in no way inferior climate. I have long urged the desirability of establishing more health-stations on this part of the coast, where highly favoured sites, such as Diano, Alasio, and others, are not wanting; and in this way the overcrowding of the favourite French resorts might be much relieved. I hope to see the day when this may be accomplished; but, for the present, San Remo, Bordighera, and Nervi are alone fit for the reception of invalids; and, of these, San Remo can be warmly recommended, on account of its extensive hotel-accommodation and the size of its sheltered area. The protecting range, sloping gently back from the shore, is intersected, but not penetrated, by numerous valleys, remarkable for the luxuriance of their vegetation; and the chain, running out on each side to the sea, encloses an amphitheatre four or five miles in width, which it shelters from all cold winds. Here can be found a considerable choice of villa residences; while the olive-clad hills and valleys, abounding in lemon-trees and wild flowers, afford full scope for varied excursions. The climate is one of the finest on the coast, the number of rainy days being very small, and the mean daily range less than in the other health-resorts.

Bordighera, well known to English novel-readers as the scene of *Dr. Antonio*, is a few miles nearer to the French territory, and much resembles San Remo in position and climate, though it is inferior in shelter and in accommodation. The palm-groves, from which each year Rome is supplied during the Holy Week, testify to the warmth of the place; and in the comfortable hotel invalids have wintered safely.

On account of its proximity to Genoa, and its fine view of the beautiful bay, Nervi is sometimes preferred as a wintering-place. It contains a good hotel and boarding-house, and is fairly sheltered; but the rapid rise of the hills behind it limits the extent of the rides and drives. English medical men reside at San Remo and Bordighera; but at Nervi recourse must be had to Genoa for such aid.

How is the Riviera to be reached this winter? The transit by Paris, Lyons, and Marseilles,* so easy and safe for invalids, being obstructed, there is still open to us the road through Germany, *viâ* Ostend, Cologne, Stuttgart, Munich, and thence by the Brenner Pass to Verona and Genoa. The unbroken rail-communication enables the invalid to make this journey easily in about a week; and he can proceed from Genoa by train in two hours to Savona, and thence by carriage in one day to San Remo. This would also be the safest route to pursue for those who preferred trying Mentone, Nice, or Cannes. Those to whom so long a land-journey is likely to prove injurious can go by the steamer which starts every week from Liverpool to Genoa, performing the passage in about ten days.

As regards the Italian cities, Pisa is the only one which can be safely recommended as a winter-station. The climate bears a certain resemblance to that of Pau; but the locality is damper and not so well sheltered, and the drives in the vicinity are exposed to cold blasts from the Apennines. Among the Italians, Pisa is held in high repute.

According to my experience, few places are so unfit for a pulmonary invalid as Rome. If he wanders on the sunny and sheltered slopes of the Pincian, he is tolerably safe; but a drive into the Campagna exposes him to cold winds, and possibly to malaria; a walk in the well-like streets, so narrow and walled-in by lofty palaces that the sun hardly reaches the pavement, is not beneficial; and visits to the icy museums and galleries, to which his inclinations and his friends direct him, are fraught with danger.

In Naples, there is the additional disadvantage of bad drainage; and, although in its neighbourhood there are sheltered retreats, such as

* The British Chaplain at Nice has lately reached that city *viâ* Bâle, Geneva, and Lyons; but, with the prospect of Lyons being soon attacked by Prince Frederick Charles's army, this route can hardly be recommended.

Capri and Salerno, their climatic attractions can hardly counterbalance the fatigue of the long journey necessary to reach them.

The unsettled state of Sicily renders Palermo an unfit resort; and the climate of Malta is far too changeable to be recommended.

The climate of Cairo and Upper Egypt possesses the qualities of dryness and warmth in a high degree. Cairo is accessible in seven days by the Brenner and Brindisi route, or by the steamer from Liverpool or Southampton. A sanatorium lately established by an English lady promises the accommodation hitherto wanting; but this place is not exempt from the disadvantages of imperfect drainage. Far superior is the climate of Upper Egypt; and voyages up the Nile in a boat have been found highly beneficial; but the recent depopulation of its banks by the Pasha, for the purpose of cultivating his cotton-grounds, renders the difficulty of catering during the voyage so great, that we hear of travellers suffering last year great privation, and returning in great disgust.

The direct route to Algiers *via* Marseilles is for the present impracticable; and, disturbances among the Arabs being apprehended, that fine climate, with its bracing hill-stations, can hardly be considered a safe resort for invalids this winter, and can only be arrived at by way of Gibraltar, Carthage, and Oran.

From Gibraltar, Tangiers also can be reached, where a softer atmosphere, tempered by Atlantic breezes and excellent, although limited, accommodation, gives it strong claims to be recommended as a winter-station for invalids; but the almost barbarous state of the neighbourhood places many restrictions on out-door life there.

Again, a mean winter temperature considerably higher, and a rainfall considerably less than that of any winter-station of southern France, is to be found at Malaga, but counterbalanced by a want of proper house-accommodation, by bad drainage, and by (for this winter) the circuitous approach by sea.

Many patients have this winter gone to Madeira, long the favourite resort of the phthisical, but which has for some time been superseded by the more invigorating and bracing Mediterranean stations; its soft and equable climate being stated to have deteriorated of late years, through the cultivation of the sugar-cane and the consequent irrigation of the country. I understand, however, that this is, to a certain extent, discontinued; and the cultivation of the vine, once so famous, again resumed, the vintage of last year having been unusually abundant; and doubtless this change will exercise some good effect on the climate, which will probably suit, as hitherto, the inflammatory forms of consumption. Those patients, however, are most likely to profit by a residence in Madeira who can take riding exercise on the hills, and not remain confined in Funchal. Steamers leave Southampton about three times a month for Madeira, making the voyage in a week.

In conclusion, I would remark that the closure to invalids of so many Mediterranean stations rather invites a trial of the high altitude resorts of Switzerland; but the advanced state of the season is unfavourable to a fair trial of this plan, for it seems to be the common experience of those who have benefited by a residence at Davos and St. Moritz, that it is necessary to go there in late summer, and undergo a certain amount of acclimatisation to reap whatever benefits may accrue from a winter in these elevated regions.

RECOLLECTIONS OF WORK IN AN AMBULANCE.

By WILLIAM MAC CORMAC, F.R.C.S., Surgeon to the General Hospital, Belfast.

EVERYTHING in war time is *à l'improviste*, and one can never tell beforehand what is about to befall. So it was even with us from our first start from Paris on the 28th of last August. Through a number of accidental circumstances, foreseen by none of us, we joined together, a band of English and American surgeons, anxious to give our aid to the sick and wounded accruing from this bloody war. We were sixteen in all—eight Americans and eight English—with Dr. Sims and myself at the head. Dr. Philip Frank, Dr. Woodham Webb, Mr. Blewitt, Mr. Wyman, Mr. Hewitt, Mr. Ryan, Mr. Scott, formed the rest of the English party; whilst Dr. Pratt, Dr. May, Dr. Tilgman, Dr. Nicholl, Messrs. Hayden, Wallis, and Harry Sims constituted the American section of our corps.

We received our supplies at the Palais de l'Industrie, in the Champs Elysées, then a vast receptacle for medical supplies of all kinds; and, with two waggon-loads of medical stores, some saddle-horses, and a troop of *infirmiers*, or male nurses, we formed a procession along the Boulevards, on Sunday, August 28th. In due time, we reached the railway station, and started for the purpose of reaching MacMahon's

head quarters, and the field of battle, wherever it then might be. I may here say a word as to the organisation of the French voluntary ambulance corps. The generality of them were monstrously cumbersome. There were too many surgeons, too much material to transport, too many *infirmiers*, too often taken from a class of men who enlisted in this service to escape being called upon to fight in the army. In some of the ambulances, there were as many as forty medical men, and a dozen heavy waggons, with horses in corresponding numbers. Many of these ambulances spent their time in marching and countermarching, without ever reaching, in time to be of use, the actual scene of operation. Their waggons would often stick fast in some country bye-road, or in a field, and then they would have to be abandoned. There were ten such ambulances; and as a system or organisation, the French Society for Aid to the Wounded has to a large extent failed in its mission. No doubt it has done much good, but not proportionate to its resources, which have now been completely used up. In my opinion, a field ambulance should be constituted of not more than four or five surgeons, and as many assistant-surgeons, who would act as competent dressers, and who had been trained to dress severe wounds. Skill as a dresser is at least as much required on the battle-field, as skill as an operative surgeon, and there is ample scope for the employment of carefully educated young surgeons in this capacity. I look upon this point as of the first importance. All the cases, whether they be operated upon or not, require careful dressing, and too often this has been entrusted to inexperienced hands. For a moving ambulance, the smaller the quantity of stores taken the better, and these without exception should be carried on horses or mules. The waggons are a serious impediment, and very often, as I said before, have to be abandoned, with their valuable contents, altogether. What is most needed are a few cases of surgical instruments and appliances, some chloroform and carbolic acid, one moderate-sized tent, half a dozen stretchers of the simplest construction, to carry the wounded and to serve as beds. These, and some tins of preserved food, are all that need be carried about. For whatever else may be required, one must trust to the supplies of the place in which one may happen to be. If the French ambulances had been constructed upon this system, and multiplied in number, they would have been much less costly, and, I venture to add, would have done much more good. Of course these remarks apply only to field ambulances which follow closely, or are supposed to do so, the movements of the troops. For more extensive organisations which go to a certain spot, and then establish a complete hospital, the case is different. But the great difficulty for these is to secure patients. In moving troops, and taking up a positions from which to offer battle to the enemy, I fear that as yet generals are not much actuated in coming to a decision as to where happen to be placed the largest and best hospitals, or any hospitals at all. No doubt if the scene of battle could be foretold, it would be quite right to send thither beforehand the amplest medical provision possible; but as that can never be, the less complete organisation of an *ambulance volante* must be relied upon to furnish that immediate succour so much needed on, or close to, the battle field.

In accordance with our instructions on leaving Paris, we tried, after arriving at Sedan, to reach MacMahon's head quarters and the front. The Vicomte de Chezelles, Courier des Ambulances, acted as our guide. Through a combination of circumstances, we were delayed that evening, the 30th August, at the railway station near Sedan, and we saw the Emperor, MacMahon, and the whole Etat Major, arriving during the night. In place, therefore, of our going to the front, the front came to us. Then were the negotiations completed with Dr. Duplessy, Médecin en Chef des Hôpitaux de Sedan, which placed us in possession of a large hospital of 384 beds on the battle-field of Sedan. This piece of exceptional good fortune, the getting into a first rate position, and into working order, just on the eve of a great battle, has enabled the Anglo-American ambulance to render services such as no other ambulance in either army has been as yet in a position to perform during this war.

Of course, during the first ten days or a fortnight, we were short-handed, and overworked. Such a result is inevitable after all great battles. I find in the diary which I kept, that we have been sometimes working for twenty hours at a time, performing operations, noting cases, and making dressings. I have heard of surgeons working for much longer spells after battles. But it is questionable if work done under like circumstances is of advantage to the wounded. Not only does one suffer from physical fatigue, but one must lose, more or less, that clear intelligence so urgently demanded by the urgency and severity of the cases. The building of which we got possession was an infantry barracks, situated on the ramparts of Sedan, at the place to which the Prussians gave the appropriate name of Kronwerk Asfeld.